



April 30, 2018

Ms. Alexandra Servis
New York State Department of Environmental Conservation
Division of Environmental Remediation
Remedial Bureau C
625 Broadway
Albany, NY 12233-7013

Re: National Grid Kingsley Avenue Site Rome, New York
2018 1st Quarter OM&M Report

Dear Ms. Servis:

Enclosed for your review is the 2018 1st Quarter Operation, Maintenance, and Monitoring (OM&M) Report for the National Grid Rome (Kingsley Avenue) Site. OM&M is being conducted in accordance with the Site Management Plan (SMP) and OM&M Plan issued May 31, 2013. National Grid filed the updated Declaration of Covenants and Restrictions with Oneida County on December 15, 2017. National Grid also submitted the final Site Management Plan to the NYSDEC on January 24, 2018.

The completed quarterly OM&M activities included:

- A quarterly site inspection;
- Collection of quarterly static water level measurements of site wells;
- Collection and laboratory analysis of quarterly groundwater samples from OU-1 groundwater wells;
- Collection and laboratory analysis of quarterly groundwater extraction system samples; and
- Monitoring and/or collection of light non-aqueous phase liquid and dense nonaqueous phase liquid at site wells.

The groundwater extraction system is operating continuously and discharging to the sanitary sewer under the existing City of Rome Water Pollution Control Authority discharge permit. A chemical treatment system to minimize iron fouling within the groundwater extraction manhole, submersible pump, and piping also operates continuously.

Ms. Alexandra Servis April 30, 2018 Page 2 of 2

If you have any questions regarding the report or the scheduled activities, feel free to contact me at (315) 428-5652.

Very truly yours,

for SPS

Steven P. Stucker, C.P.G. Lead Environmental Engineer National Grid

Enclosures

Cc: Devin Shay - Groundwater & Environmental Services, Inc.

National Grid

2018 1st Quarter Operations, Maintenance, and Monitoring Report



National Grid Rome Former MGP Site 233 Kingsley Avenue Rome, NY 13440

April 2018

Version 1





2018 1st Quarter OM&M Report

National Grid Rome Former MGP Site 233 Kingsley Avenue Rome, NY 13440

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Date: April 30, 2018

Devin T. Shay, PG Program Manager / Principal Hydrogeologist



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Acronyms

AWQS	Ambient Water Quality Standards	OM&M	Operation, Maintenance, and Monitoring
BTEX	Benzene, Toluene, Ethylbenzene, and Total Xylenes	OU	Operable Unit
DNAPL	Dense Non-Aqueous Phase Liquid	Pace	Pace Analytical Services, LLC
DUSR	Data Usability Summary Report	PAH	Polycyclic Aromatic Hydrocarbons
GES	Groundwater & Environmental Services,	POTW	Publically Owned Treatment Works
	Inc.	QA/QC	Quality Assurance / Quality Control
gpm	Gallons per Minute	ROD	Record of Decision
IRM	Interim Remedial Measures	SMP	Site Management Plan
LNAPL	Light Non-Aqueous Phase Liquid	USEPA	United States Environmental Protection
MGP	Manufactured Gas Plant		Agency
NYSDEC	New York State Department of Environmental Conservation	WPCF	Water Pollution Control Facility



1 Introduction

1.1 Overview

Groundwater & Environmental Services, Inc. (GES) has prepared this 2018 1st Quarter Operation, Maintenance, and Monitoring Report (OM&M) on behalf of National Grid. This report compiles the OM&M activities completed in the 1st quarter of 2018 at the Former Kingsley Avenue Manufactured Gas Plant (MGP) Site (the Site), located in Rome, New York. The Site has been classified as a Class 2 inactive hazardous waste disposal site by the New York State Department of Environmental Conservation (NYSDEC) and is identified as Site No. 633043.

In accordance with the Record of Decision (March 2002) and following successful completion of the selected remedy, long-term OM&M is required at the Site. The Site Management Plan (SMP) and OM&M Plan were submitted to NYSDEC on May 31, 2013.

The following long-term OM&M activities are conducted in accordance with the SMP to monitor the effectiveness of the remediation previously conducted:

- Quarterly inspection of the Site (March, June, September, December);
- Collection of quarterly static water level measurements at the 34 site wells (16 Operable Unit [OU]-1 shallow and deep groundwater wells, eight dense non-aqueous phase liquid (DNAPL) wells, five OU-2 groundwater wells, and five extraction trench monitoring wells);
- Collection of quarterly groundwater samples from the 16 OU-1 shallow and deep groundwater wells and laboratory analysis of samples;
- Monitoring and/or collection of light non-aqueous phase liquid (LNAPL) and DNAPL monitoring at the 34 site wells, as needed. Offsite disposal of collected DNAPL at least once every 12 months;
- Removal of vegetation and snow, as necessary, to allow for access to the Site; and
- Submittal of quarterly OM&M reports to NYSDEC.

The groundwater extraction system is fully operational and discharges to the nearby sanitary sewer under an existing City of Rome Water Pollution Control Facility (WPCF) discharge permit. Discharge water samples are collected and analyzed quarterly for comparison to the permit limits as part of OM&M.

This OM&M Quarterly Report covers OM&M activities conducted during January, February, and March 2018.

1.2 Site Description

The Site is located within the City of Rome, Oneida County, New York. Refer to **Figure 1** for the Site location map. The Site consists of an approximately 22 acre parcel owned by National Grid. MGP operations formerly covered the northern half of the Site. National Grid presently operates and maintains a natural gas valving station located adjacent to the terminus of Kingsley Ave.



The Site is located south of East Dominick Street, bordering a historic commercial and residential district, approximately 2,000 feet north of the confluence of the Mohawk River with the New York State Barge Canal. It is bounded by the Genesee and Mohawk Valley Railroad to the north, and the Mohawk River forms the western boundary of the Site. Whitesboro Street terminates near the southern boundary of the Site. The City of Rome Department of Public Works facility is located to the east and southeast of the Site. The Site is bounded on the south by a National Grid electric substation. Residential properties are located near the Site entrance on Kingsley Avenue.

The Site is relatively flat, with existing grades ranging from 430 to 442 feet above mean sea level. The primary surface water feature in the area is the Mohawk River, which discharges into the Barge Canal approximately 2,000 feet downstream toward the south. The groundwater flow direction in both the water table aquifer (near surface) and deep aquifer (within the overburden above the clay) is toward the south-southwest. Depth to groundwater generally ranges from 2 to 15 feet below ground surface at the Site.

1.3 Site History

The Kingsley Avenue MGP was constructed in 1917. Gas production began at the Site in 1917 and peaked in 1927. Manufactured gas was produced at the Site using the coal gas and water gas processes. Coal carbonization produced coal gas by heating coal in retorts or beehive ovens. The water gas process involved the passage of steam through burning coal. This formed a gaseous mixture that was passed through a super heater into which an oil feed stock was sprayed. In each process, the gas produced was condensed and purified prior to distribution. The production of manufactured gas created many by-products, some of which remain onsite. A dense, oily liquid known as coal tar condensed out of the gas at various stages during its production, purification, and distribution. Although much of the coal tar produced was reused, recovery of the coal tar waste was incomplete. Substantial amounts of coal tar leaked from storage and processing facilities, contaminating surface and subsurface soils, as well as groundwater. Another by-product includes the discarded lime and/or wood chips treated with iron oxides to remove cyanide and sulfur from the gas (known as purifier waste).

By 1930, production of gas at the Kingsley Avenue MGP was limited to emergency capacity, as the supply of gas for the City of Rome came from other facilities. Between 1938 and 1941, the retort house and relief holder were decommissioned. By 1949, gas manufacturing equipment had been removed from the central building. In 1959, the main gas holder was dismantled.

Environmental concerns at the Site caused NYSDEC and the United States Environmental Protection Agency (USEPA) to evaluate the need for investigation and remedial action. Regulators typically define a single site into a number of Operable Units (OU). An OU, for technical or administrative reasons, can be addressed separately to eliminate or mitigate a release, threat of release, or exposure pathway resulting from the Site contamination. The lead agency, NYSDEC, defined OUs: OU-1 and OU-2. NYSDEC continues to administer the Site under a Consent Order with National Grid. OU-1 includes the former Kingsley Avenue MGP property, the surface soils of a small contiguous area of undeveloped New York State-owned land along the Mohawk River, and sediments in a backwater area west of the Site. OU-2 includes an approximate 2-acre area between the National Grid property and the eastern shore of the Mohawk



River. Additionally, OU-2 includes the area beneath the Mohawk River and property west of the Mohawk River to East Westboro Street. OU-2 encompasses approximately 20 acres of land. Refer to **Figure 2** for a depiction of OU-1 and OU-2.

This report is focused on OU-1. The following provides a general chronology of key events related to OU-1.

- 1987 USEPA Preliminary Assessment
- 1992 Preliminary Site Assessment/Interim Remedial Measures (IRM) Work Plan
- May 1994 Concentrator House IRM
- July 1994 Start of Remedial Investigation
- January 1995 Purifier Disposal Area IRM
- July 1998 Light non-aqueous phase liquid (LNAPL) Removal IRM initiated
- March 1999 Remedial Investigation Report
- December 2001 Offsite Remedial Investigation Report complete
- January 2002 OU-1 Feasibility Study complete
- March 2002 OU-1 Record of Decision (ROD) issued by NYSDEC
- August 2006 Remedial Design approved
- August 2007 Remedial Action started
- December 2010 Remedial Action completed
- January 2011 long-term groundwater and LNAPL and DNAPL monitoring commenced
- December 2011 long-term groundwater extraction system OM&M commenced
- November 2012 chemical treatment system for the extraction manhole completed

The remedial elements for OU-1 that have been completed include:

- Utility relocation.
- DNAPL and LNAPL source area soil removal and offsite thermal treatment/disposal.
- Purifier waste material removal and offsite disposal.
- River bank soil removal and offsite disposal.
- Demolition and offsite disposal of the MGP tar well and holder foundations.
- Installation of a sheet pile cutoff wall to contain and minimize offsite migration of DNAPL.
- Installation of a groundwater extraction trench with passive recovery pipe along the upgradient side of the wall. The trench includes a series of collection manholes/sumps. Submersible pumps deliver untreated groundwater to a sanitary manhole under an existing City of Rome WPCF.



- Installation of a 14-acre soil cover in the northern portion of the Site.
- The two foot thick vegetative cover (clean soil above geotextile layer).
- Installation of eight DNAPL collection wells within known source areas.
- Installation of five groundwater monitoring wells along the extraction trench.
- Installation of 16 groundwater monitoring wells to monitor shallow and deep aguifers.
- Installation of five groundwater monitoring wells within the OU-2 area.
- An Environmental Easement has been placed on the property and is included with the latest Site Management Plan, currently under review by the NYSDEC.

Figure 3 presents the monitoring well locations for the western portion of the Site. **Figure 4** presents monitoring well locations for the eastern portion of the Site.

Following start-up of the groundwater extraction system, it became apparent that iron fouling would be an operational issue. Therefore, National Grid installed a chemical treatment system to help protect the groundwater wells, piping, and submersible pump associated with the groundwater extraction system. As part of the chemical treatment system, a weather-proof structure was installed adjacent to the groundwater pumping manhole and houses a chemical tote and chemical feed pump. An environmental friendly iron inhibitor (REDUX 340) is injected into the pumping manhole to protect the submersible pump, piping, and metering instruments. This chemical is used at similar National Grid sites across central and eastern New York State in order to minimize iron fouling and reduce operation and maintenance costs and has been approved by the City of Rome publicly owned treatment works (POTW). The chemical treatment system became operational in November 2012.



2 Operation, Maintenance, and Monitoring Activities

2.1 Quarterly Site Inspection

GES conducted the 2018 1st quarter site inspection on March 22, 2018. Inspections are generally conducted in March, June, September, and December of each year. The Site inspection included the Site wells, security perimeter fence/gates, drainage system, vegetation, and the Site access road. In general, the Site was noted to be in good condition during the inspection. Refer to **Appendix A** for the Site Inspection Form.

There are 34 total site wells that were inspected as part of this event. **Figures 3** and **4** show the well locations. **Table 2** details each well in terms of horizontal location, vertical elevation, diameter, material, and screen elevation.

2.2 Quarterly Static Water Level Measurements

Quarterly static water level measurements were collected from the 34 wells on March 21, 2018. **Table 3** presents historical and recent static water level measurements. Refer to **Appendix B** for the field log sheet with water level measurements.

Prior to the construction of the barrier wall and groundwater extraction trench/system remedy, groundwater generally flowed northwesterly toward the Mohawk River. The remedy was designed and constructed to intercept that groundwater flow pattern and minimize migration of site-related DNAPL from the upgradient side of the barrier wall to the river. To ensure that the barrier wall meets the intent of the remedial action, it was agreed by NYSDEC and National Grid that the long-term compliance mechanism would be to compare the top of steel sheeting barrier wall (generally 435 to 437 feet above sea level) with the groundwater levels immediately upgradient of the barrier wall.

Eight manholes (MH-2, MH-3, MH-4, MH-5, MH-6, MH-6A, MH-7, and MH-8) and ten groundwater monitoring wells (DNAPL-2, DNAPL-3, DNAPL-4, DNAPL-5, DNAPL-6, VTW-1, VTW-2, VTW-3, VTW-4, and VTW-5) were constructed immediately upgradient of the barrier wall within the gravel extraction trench. The static water levels in each of the upgradient groundwater monitoring wells were measured and found to be between 425 and 430 (Table 3) feet above sea level since start-up of the groundwater extraction system. Groundwater does not overtop the barrier wall. Figure 5 presents the groundwater levels compared to the barrier wall profile. Gauging data for all 34 wells and containment data for the 10 upgradient groundwater monitoring wells are presented in Appendix B.

2.3 Quarterly Groundwater Monitoring Event

The 2018 1st quarter groundwater monitoring event was conducted on March 21, 2018. Sixteen groundwater monitoring wells were sampled (LTMW-D01, LTMW-S01, LTMW-D02, LTMW-S02, LTMW-D03, LTMW-S03, LTMW-D04, LTMW-S04, LTMW-D05, LTMW-S05, LTMW-D06, LTMW-S06, LTMW-S07, LTMW-S08, LTMW-S09, LTMW-S10).



The wells were sampled in accordance with USEPA Low-Flow Groundwater Sampling Procedures [1996]. Purge water was contained and subsequently discharged to the onsite groundwater extraction system which discharges water to the City of Rome WPCF. Field measurements (temperature, pH, oxidation-reduction potential, conductivity, turbidity, dissolved oxygen, and total dissolved solids) were recorded at each well during the sampling using a water quality meter and are presented in **Appendix C**.

In addition to the 16 water samples collected, four quality assurance/quality control (QA/QC) samples were collected, including one Matrix Spike sample, one Matrix Spike Duplicate sample, one field duplicate sample, and one trip blank sample. Twenty total samples were shipped on ice to the Pace Analytical Services, LLC (Pace) of Greensburg, Pennsylvania, for laboratory analysis. Analyses included: polycyclic aromatic hydrocarbons (PAHs) via USEPA Method 8270D; benzene, toluene, ethylbenzene, and total xylenes (BTEX) via USEPA Method 8260C; heavy metals via USEPA Method 200.7; and total cyanide via USEPA Method 335.4.

The analytical results included detections of BTEX, acenaphthene, benzo(a)anthracene, chrysene, cyanide, fluorene, and naphthalene above the New York State regulatory maximum allowable limits. Additionally, analytical results at LTMW-S03 indicated zinc levels above the guidance value provided in NYSDEC's Technical and Operational Guidance Series section 1.1.1. A summary of laboratory analytical results is provided in **Table 4**. Of the 16 wells sampled, LTMW-D01 and LTMW-D03 had BTEX concentrations above the New York State Groundwater Ambient Water Quality Standards (AWQS). Results indicated no detections of any compound for LTMW-D04, LTMW-D05, LTMW-S07, and LTMW-S09.

The analytical data report was validated by GES. The primary objective of the data validation is to identify any questionable or invalid laboratory processes or data. The data validator reviewed the summary form information, the raw sample data, and a limited review of associated raw QC data. In summary, sample results are usable as reported, with a potential low bias in the PAH analyses due to low surrogate recoveries. Qualifications are detailed in Table 1 of Appendix D, which presents the Data Usability Summary Report (DUSR) including the validated laboratory data.

2.4 Quarterly Light Non-Aqueous Phase Liquid and Dense Non-Aqueous Phase Liquid Monitoring/Collection Event

Each of the 34 wells was monitored for LNAPL and DNAPL in March for this quarter. The gauging data for these events are presented in **Appendix B**. This activity is conducted in conjunction with the collection of static water level measurements. A probe is lowered to the water level in the well and inspected for LNAPL. The probe is then lowered to the bottom of the well and inspected for DNAPL. If LNAPL or DNAPL is discovered in measurable quantities, product is removed from the well using a submersible pump. The removed product/water mixture is subsequently containerized in a properly labeled NYSDOT-approved 55-gallon drum for future offsite disposal.



DNAPL in measurable quantities was noted in two site wells: MW-OU2-1 and MW-OU2-4. Additionally, a trace amount of DNAPL was detected in well DNAPL-03.

As part of the NAPL monitoring/collection event, a total of 10.0 gallons of DNAPL were collected (5.0 gallons from MW-OU2-1 and 5.0 gallons from MW-OU2-4) during this quarter.

Since the start of the NAPL monitoring/collection program, a total of 483 gallons of DNAPL have been removed for offsite disposal. Zero gallons of LNAPL have been detected/recovered.

2.5 Quarterly Groundwater Extraction System Discharge Sampling Event

Under an existing City of Rome WPCF discharge permit, quarterly sampling, analysis, and reporting of the groundwater extraction system discharge to the local sewer system is required. A water sample was collected on March 27, 2018, and analyzed by Pace for the permit-specified parameters. No detections above permit limits were noted. **Table 5** provides the analytical results compared to the permit limits.

The analytical data report was validated by GES. The primary objective of the data validation is to identify any questionable or invalid laboratory processes or data. The validator reviewed the summary form information, the raw sample data, and a limited review of associated raw QC data. The review stated that field sample analyte values/reporting limits were usable as reported. The DUSR including the validated laboratory data is presented in **Appendix D**.

2.6 Groundwater Extraction System Discharge Flow and Operation, Maintenance, and Monitoring

The groundwater extraction system consists of a gravel trench, a pumping manhole, dual submersible pumps, and below ground piping. The piping enters the onsite groundwater treatment building where flow measurements, discharge sampling, pressure measurements, and other OM&M activities can be conducted. The piping then continues below ground from the nearby sanitary sewer manhole to the City of Rome WPCF.

A mechanical flow meter is located within the Site building and serves as the recording device for the City of Rome WPCF discharge fees. During the 2018 1st quarter, approximately 3,520,189 gallons (average flow ~ 27.8 gpm) were discharged. Since the groundwater extraction system was installed, approximately 130 million gallons have been discharged. Below is a summary table for the groundwater extraction system discharge flow:



Table 1 – Groundwater Extraction System Discharge Flow

Time Period	Discharge Flow (gallons)
2010	11,600,000
2011	14,400,000
2012	19,900,000
2013	19,500,000
2014	16,500,000
2015	16,686,700
2016	13,695,010
2017	13,874,930
2018 1st Quarter	3,520,189
TOTAL	129,676,829

The previous consultant conducted an evaluation of the groundwater extraction system, including inspections of the extraction manhole, submersible pumps, valving/controls, and clean-outs. Iron fouling throughout the system, particularly scaling on the submersible pumps, piping, and metering instruments, had been observed. As such, a chemical scale inhibitor (Redux 340) system, which applies the Redux 340 at the groundwater extraction manhole/submersible pumps, was installed and became operational in November 2012. A heating element located at the pumping manhole was installed in June 2012. Electrical power and building lighting/heating was installed in August/September 2012. Information regarding the environmentally-friendly, iron scale inhibitor was previously provided to the City of Rome POTW. The groundwater treatment system (including pumping station, conveyance piping, and flow meters) was cleaned (water lancing) during September 2012 in order to remove iron scale build-up in advance of the chemical treatment system installation.

2.7 Vegetation Management and Snow Removal

Snow removal activities were conducted during the first quarter 2018 as needed. Vegetation management activities will begin in May 2018.



3 Conclusions, Recommendations, and Certifications

3.1 Conclusions

Based on data collected from the 2018 1st quarter OM&M activities, the following conclusions were made:

- The overall condition of the Site is good. Snow removal was conducted as needed during 1st quarter 2018. Routine mowing and weed spraying activities will be scheduled to begin in 2nd quarter 2018.
- Quarterly static water level measurements were collected at ten groundwater monitoring wells
 upgradient of the steel sheeting barrier within the gravel extraction trench. The static water
 levels of the upgradient wells (ranging between 425 to 430 feet above sea level) did not
 overtop the barrier wall (top of wall ranges between 435 to 437 feet above sea level).
- Site groundwater contained detectable concentrations of BTEX, acenaphthene, benzo(a)anthracene, chrysene, cyanide, fluorene, and naphthalene above the New York State regulatory maximum allowable limits. Additionally, analytical results for well LTMW-S03 indicated zinc concentrations above the NYSDEC AWQS guidance value. Six of the 16 wells (LTMW-D01, LTMW-S01, LTMW-D03, LTMW-S04, LTMW-S05, and LTMW-S10) sampled had at least one detection of a site-related constituent above the New York State limits.
- The total quarterly volume of DNAPL collected (10.0 gallons) was removed from two wells (MW-OU2-1 and MW-OU2-4). 483 gallons of DNAPL have been removed from these wells since the inception of the program. LNAPL has not been observed in any site wells to date.
- The groundwater extraction system operated continuously at an average flow rate of approximately 27.8 gpm, and a quarterly total of 3,520,189 gallons were discharged to the local sanitary sewer in accordance with the City of Rome WPCF discharge permit. A quarterly effluent water sample was collected and analyzed. There were no permit limit exceedances. Since December 2011, approximately 130 million gallons of water have been discharged without any permit limit exceedances.

3.2 Recommendations

It is recommended that all OM&M activities continue.



3.3 Certifications

I certify the following:

- The inspection of the Site to confirm the effectiveness of the institutional and engineering controls required by the remedial program was performed under my direction;
- The institutional controls and engineering controls employed at this site are unchanged from the date the controls were put in place, or last approved by the Department;
- Nothing has occurred that would impair the ability of the controls to protect the public health and environment:
- Nothing has occurred that would constitute a violation or failure to comply with any SMP for this control;
- Access to the Site will continue to be provided to the Department to evaluate the remedy, including access to evaluate the continued maintenance of the controls;
- Use of the Site is compliant with the Declarations of Covenants and Restrictions;
- The engineering control systems are performing as designed and are effective;
- To the best of my knowledge and belief, the work and conclusions described in this
 certification are in accordance with the requirements of the Site remedial program; and

The information presented in this report is accurate and complete.

Signature

Name: Gerald H. Cresap, P.E. Title: Director of Engineering

Company: Groundwater & Environmental Services, Inc.

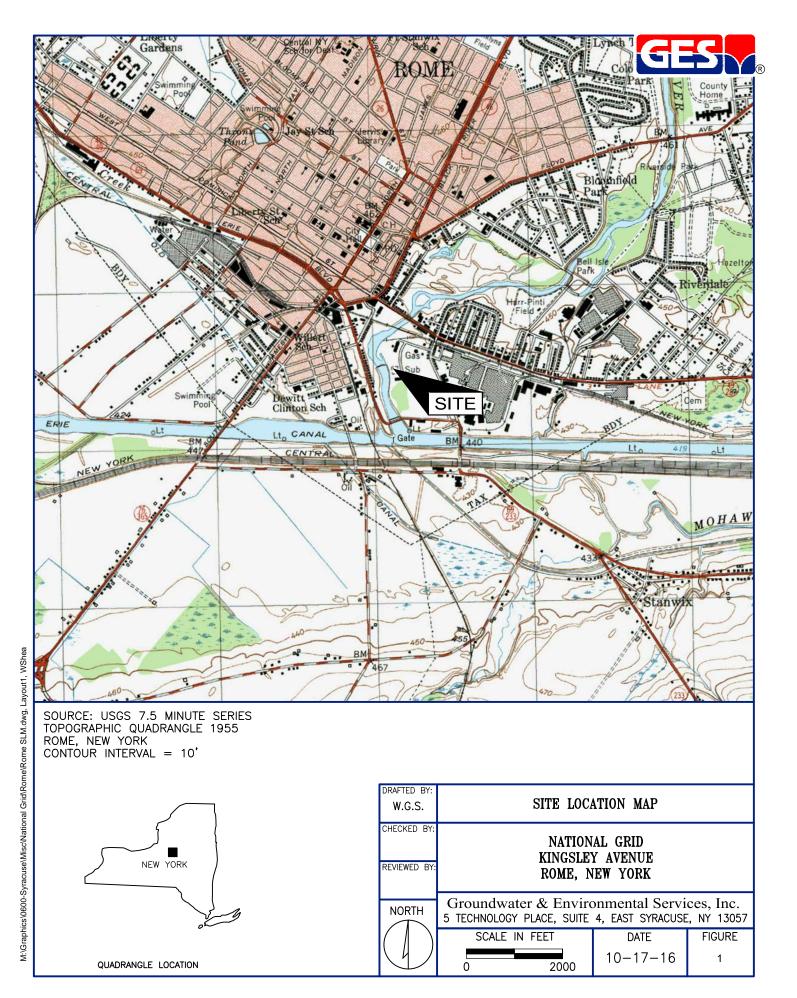
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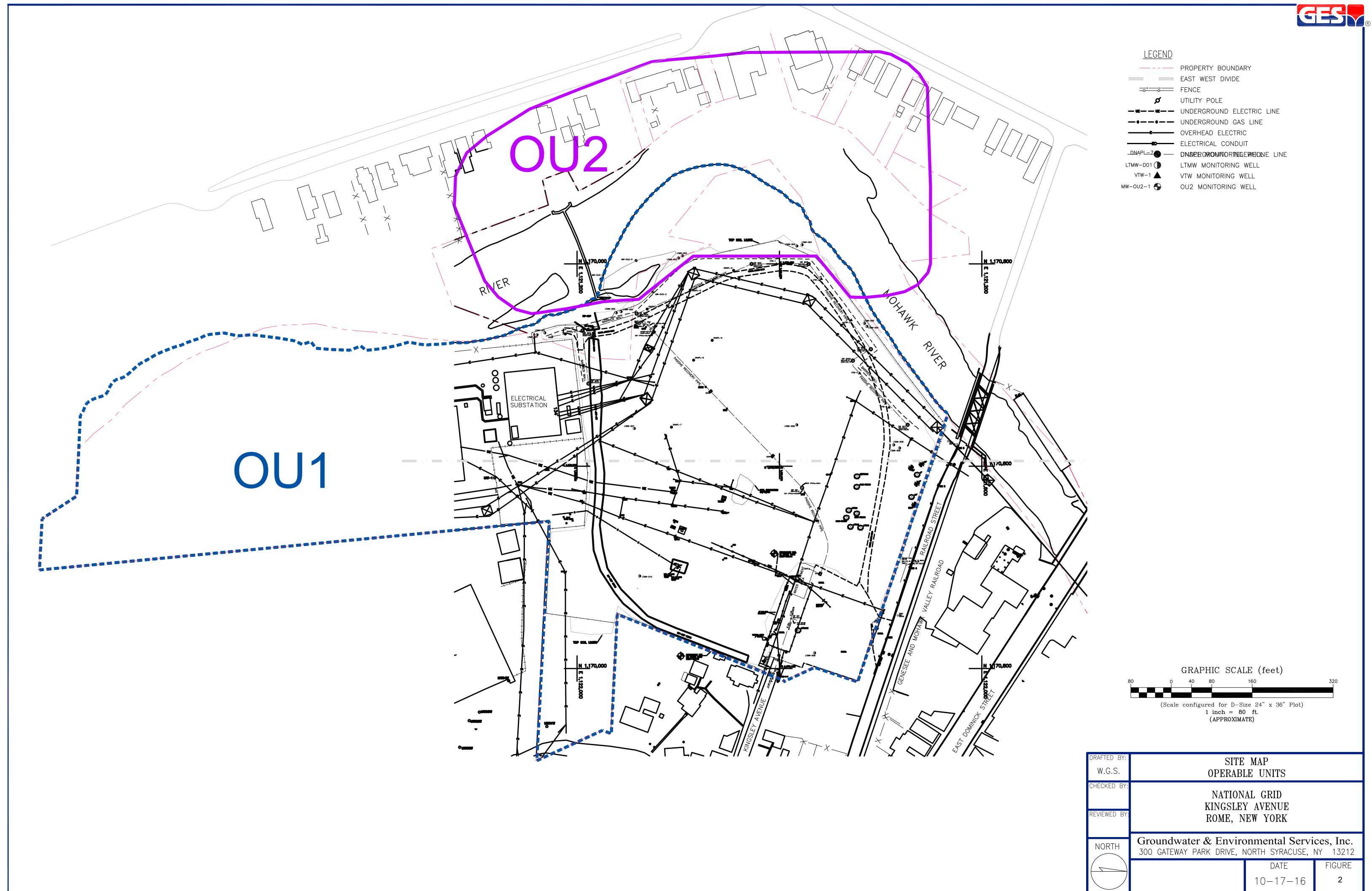


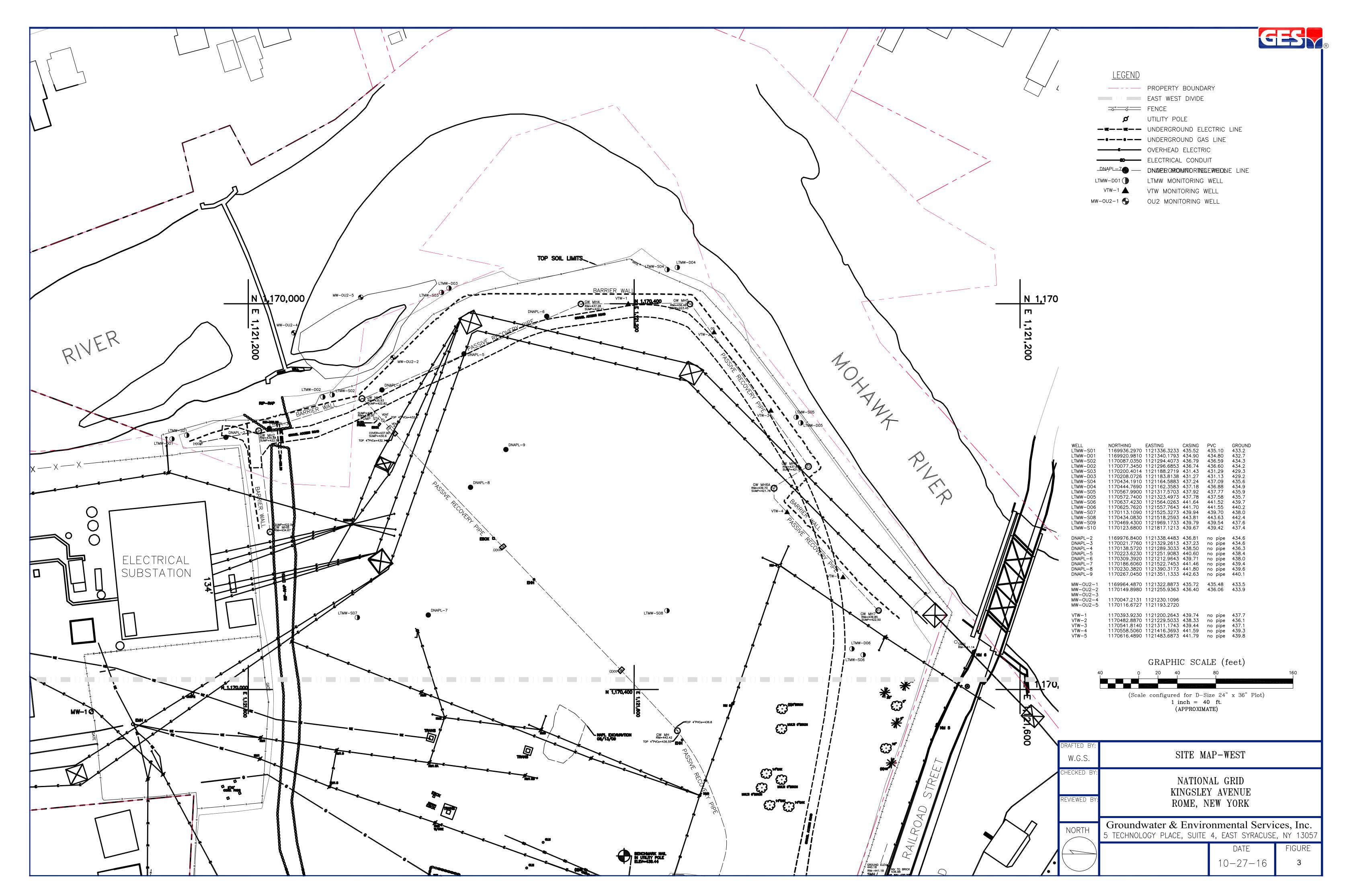
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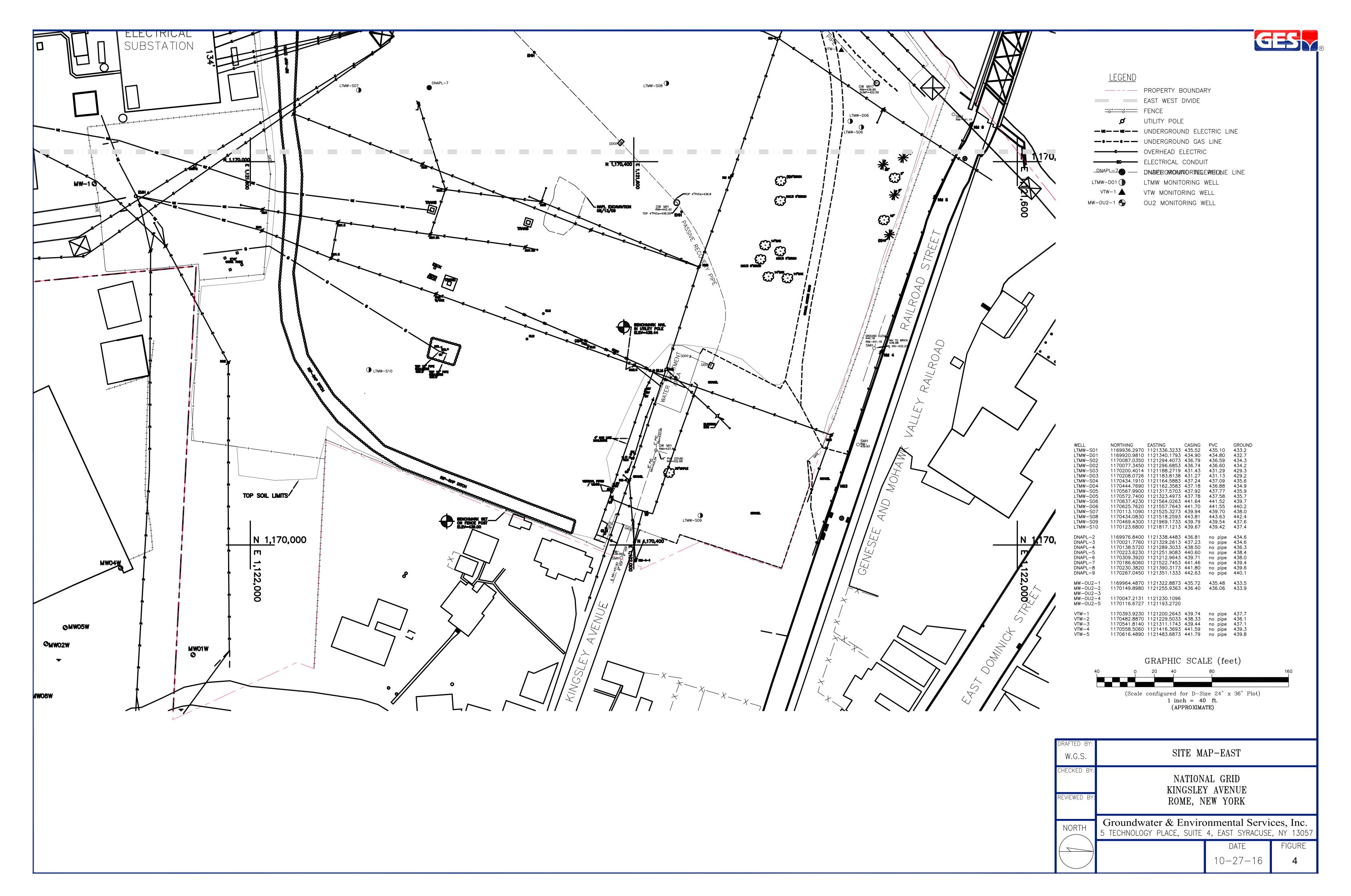
Figures





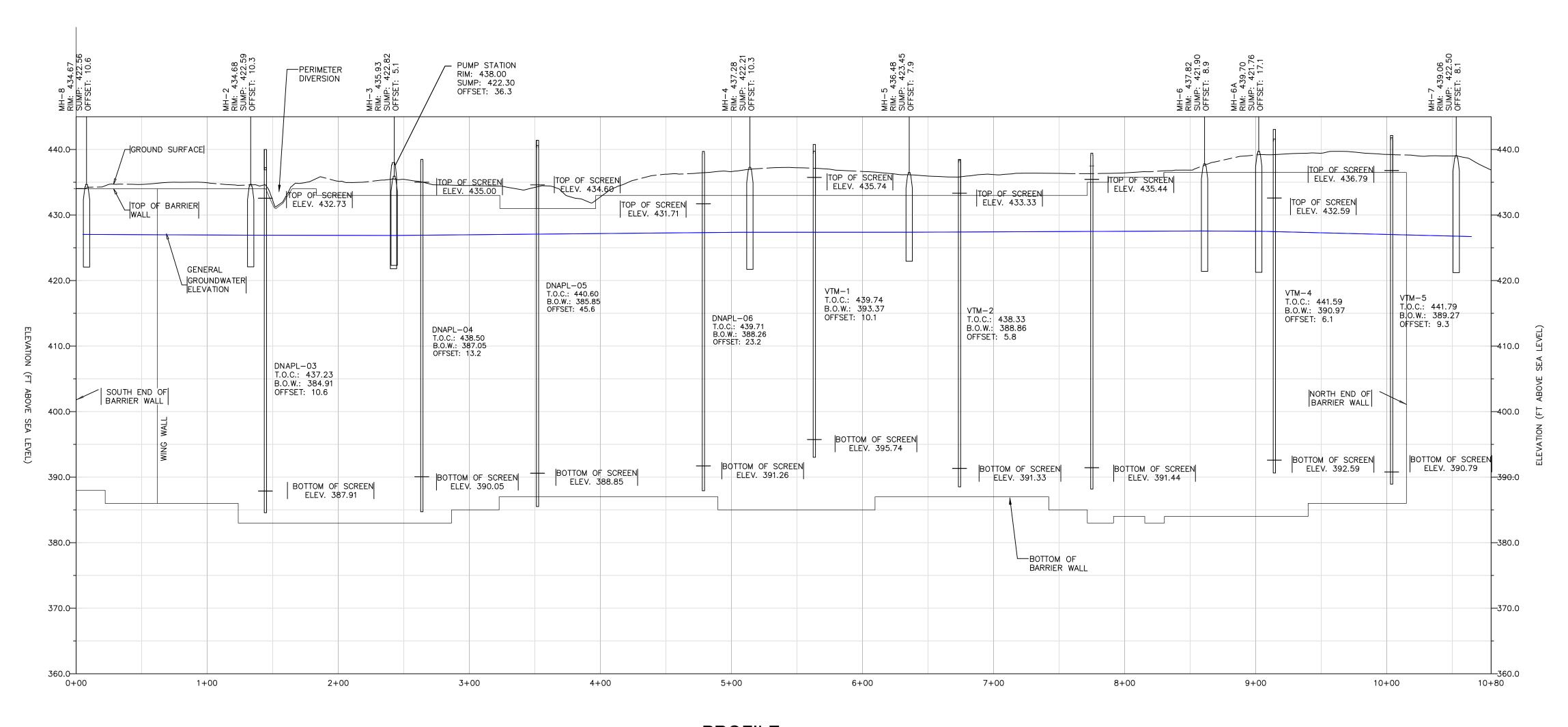


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PROFILE

HORIZONTAL: 1" = 50'

VERTICAL: 1" = 10'

LEGEND

T.O.C. TOP OF CASING

B.O.W. BOTTOM OF WELL

TOP OF WALL

GROUNDWATER ELEVATION (JUNE 2012)

NOTES

1. THE DEPTH OF THE BARRIER WALL IS APPROXIMATELY 50 FEET.

2. GROUNDWATER ELEVATION MEASUREMENTS TAKEN JUNE 2012.

DRAFTED BY: W.G.S.	BARRIER WA	ALL PROFILE	
CHECKED BY: REVIEWED BY:	KINGSLE	AL GRID Y AVENUE IEW YORK	
NORTH	Groundwater & Environment 500 GATEWAY PARK DRIVE, N		,
		DATE 10-17-16	FIGURE 5

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2018 1st Quarter OM&M Report National Grid Rome Former MGP Site 233 Kingsley Avenue, Rome, NY 13440



Tables



Table 2 Site Monitoring Wells

Well ID	Northing	Easting	Elevation of Ground	Elevation Top of Outer Casing	Elevation Top of Inner Casing	Nominal Well Diameter (inches)	Well Material	Well Sump Depth (ft)	Depth to Bottom of Well (ft)	Elevation Bottom of Well	Depth to Top Screen (ft)	Elevation Top Screen	Depth to Bottom Screen (ft)	Elevation Bottom Screen	Action
MW-OU2-1	1169964.4870	1121322.8873	433.5	435.72	435.48	4	ss	3.0	46.12	389.36	33.0	402.48	43.0	392.48	Quarterly Inspection; Quarterly Static Water Level Measurement
															Quarterly Inspection; Quarterly Static Water Level
MW-OU2-2	1170149.8980	1121255.9363	433.9	436.40	436.06	4	SS	3.0	49.60	386.46	39.0	397.06	49.0	387.06	Measurement Quarterly Inspection; Quarterly Static Water Level
MW-OU2-3	1170101.2208	1121177.4485	430.63	433.25	432.96	4	SS	3.0	35.15	397.81	31.0	401.96	41.0	391.96	Measurement (Surveyed in January 2014) Quarterly Inspection; Quarterly Static Water Level
MW-OU2-4	1170149.6326	1121136.1811	430.63	433.05	432.88	4	SS	3.0	38.85	394.03	31.0	401.88	41.0	391.88	Measurement (Surveyed in January 2014) Quarterly Inspection; Quarterly Static Water Level
MW-OU2-5	1170167.9650	1121091.2658	431.23	433.77	433.46	4	SS	3.0	36.34	397.12	31.0	402.46	41.0	392.46	Measurement (Surveyed in January 2014)
DNAPL-02	1169976.8400	1121338.4483	434.6	436.81	NA	6	SS	3.0	50.40	386.41	4.0	432.81	46.0	389.41	Quarterly Inspection; Quarterly Static Water Level Measurement; DNAPL Monitoring/Collection
															Quarterly Inspection; Quarterly Static Water Level
DNAPL-03	1170021.7760	1121329.2613	434.6	437.23	NA	6	SS	3.0	52.32	384.91	4.5	432.73	46.5	387.91	Measurement; DNAPL Monitoring/Collection
DNAPL-04	1170138.5720	1121289.3033	436.3	438.50	NA	6	SS	3.0	51.45	387.05	3.5	435.00	47.5	390.05	Quarterly Inspection; Quarterly Static Water Level Measurement; DNAPL Monitoring/Collection
DNAPL-05	1170223.6230	1121251.9083	438.4	440.60	NA	6	SS	3.0	54.75	385.85	6.0	434.60	50.0	388.85	Quarterly Inspection; Quarterly Static Water Level Measurement; DNAPL Monitoring/Collection
DNAPL-06	1170309.3920	1121212.9643	438	439.71	NA	6	SS	3.0	51.45	388.26	8.0	431.71	48.0	391.26	Quarterly Inspection; Quarterly Static Water Level Measurement; DNAPL Monitoring/Collection
DNAPL-07	1170186.6060	1121522.7453	439.4	441.46	NA	6	SS	3.0	53.60	387.86	5.0	436.46	55.5	390.86	Quarterly Inspection; Quarterly Static Water Level Measurement; DNAPL Monitoring/Collection
DIVALE-07	1170100.0000	1121322.7400	455.4	441.40	NA.			5.0	33.00	307.00	5.0	430.40	55.5	330.00	
DNAPL-08	1170230.3820	1121390.3173	439.6	441.80	NA	6	SS	3.0	58.01	383.79	7.0	434.80	53.0	386.79	Quarterly Inspection; Quarterly Static Water Level Measurement; DNAPL Monitoring/Collection
DNAPL-09	1170267.0450	1121351.1333	440.1	442.63	NA	6	SS	3.0	57.58	385.05	5.0	437.63	53.2	388.05	Quarterly Inspection; Quarterly Static Water Level Measurement; DNAPL Monitoring/Collection
VTM-1	1170393.9230	1121200.2643	437.7	439.74	NA	6	SS	NA	46.37	393.37	4.0	435.74	44.0	395.74	Quarterly Inspection; Quarterly Static Water Level Measurement
VTM-2	1170482.8870	1121229.5033	436.1	438.33	NA	6	SS	NA	49.47	388.86	5.0	433.33	47.0	391.33	Quarterly Inspection; Quarterly Static Water Level Measurement
VTM-3	1170541.8140	1121311.1743	437.1	439.44	NA	6	SS	NA	50.91	388.53	4.0	435.44	48.0	391.44	Quarterly Inspection; Quarterly Static Water Level Measurement
VTM-4	1170558.5060	1121416.3693	439.3	441.59	NA	6	SS	NA	50.62	390.97	9.0	432.59	49.0	392.59	Quarterly Inspection; Quarterly Static Water Level Measurement
VTM-5	1170616.4890	1121483.6873	439.8	441.79	NA	6	SS	NA	52.52	389.27	5.0	436.79	51.0	390.79	Quarterly Inspection; Quarterly Static Water Level Measurement
LTMW-D01	1169920.9810	1121340.1793	432.7	434.90	434.80	2	PVC	NA	46.84	387.96	34.0	400.80	44.0	390.80	Quarterly Inspection; Quarterly Static Water Level Measurement; Quarterly Sampling
LTMW-S01	1169936.2970	1121336.3233	433.2	435.52	435.10	2	PVC	NA	16.92	418.18	5.0	430.10	15.0	420.10	Quarterly Inspection; Quarterly Static Water Level Measurement; Quarterly Sampling
LTMW-D02	1170077.3450	1121296.6853	434.2	436.74	436.60	2	PVC	NA	40.29	396.31	30.0	406.60	40.0	396.60	Quarterly Inspection; Quarterly Static Water Level Measurement; Quarterly Sampling
						-									Quarterly Inspection; Quarterly Static Water Level
LTMW-S02	1170087.0350	1121294.4073	434.3	436.79	436.59	2	PVC	NA	17.98	418.61	5.0	431.59	15.0	421.59	Measurement; Quarterly Sampling Quarterly Inspection; Quarterly Static Water Level
LTMW-D03	1170208.0726	1121183.8138	429.2	431.27	431.13	2	PVC	NA	40.73	390.40	29.0	402.13	39.0	392.13	Measurement; Quarterly Sampling Quarterly Inspection; Quarterly Static Water Level
LTMW-S03	1170200.4014	1121188.2719	429.3	431.43	431.29	2	PVC	NA	13.70	417.59	2.0	429.29	12.0	419.29	Measurement; Quarterly Sampling Quarterly Inspection; Quarterly Static Water Level
LTMW-D04	1170444.7690	1121162.3583	434.9	437.18	436.88	2	PVC	NA	46.36	390.52	34.0	402.88	44.0	392.88	Measurement; Quarterly Sampling Quarterly Inspection; Quarterly Static Water Level
LTMW-S04	1170434.1910	1121164.5883	435.6	437.24	437.09	2	PVC	NA	17.26	419.83	5.0	432.09	15.0	422.09	Measurement; Quarterly Sampling
LTMW-D05	1170572.7400	1121323.4973	435.7	437.78	437.58	2	PVC	NA	46.53	391.05	35.0	402.58	45.0	392.58	Quarterly Inspection; Quarterly Static Water Level Measurement; Quarterly Sampling
LTMW-S05	1170567.9900	1121317.5703	435.9	437.92	437.77	2	PVC	NA	16.83	420.94	5.0	432.77	15.0	422.77	Quarterly Inspection; Quarterly Static Water Level Measurement; Quarterly Sampling
LTMW-D06	1170625.7620	1121557.7643	440.2	441.70	441.55	2	PVC	NA	52.22	389.33	40.0	401.55	50.0	391.55	Quarterly Inspection; Quarterly Static Water Level Measurement; Quarterly Sampling
LTMW-S06	1170637.4230	1121564.0263	439.7	441.64	441.52	2	PVC	NA NA	17.60	423.92	5.0	436.52	15.0	426.52	Quarterly Inspection; Quarterly Static Water Level Measurement; Quarterly Sampling
						2									Quarterly Inspection; Quarterly Static Water Level
LTMW-S07	1170113.1090	1121525.3273	438	439.94	439.70		PVC	NA	17.82	421.88	5.0	434.70	15.0	424.70	Measurement; Quarterly Sampling Quarterly Inspection; Quarterly Static Water Level
LTMW-S08	1170434.0830	1121518.2593	442.4	443.81	443.63	2	PVC	NA	17.39	426.24	5.0	438.63	15.0	428.63	Measurement; Quarterly Sampling Quarterly Inspection; Quarterly Static Water Level
LTMW-S09	1170469.4300	1121969.1733	437.6	439.79	439.54	2	PVC	NA	16.92	422.62	5.0	434.54	15.0	424.54	Measurement; Quarterly Sampling Quarterly Inspection; Quarterly Static Water Level
LTMW-S10	1170123.6800	1121817.1213	437.4	439.67	439.42	2	PVC	NA	17.18	422.24	5.0	434.42	15.0	424.42	Measurement; Quarterly Sampling

- Notes:

 1) Shallow monitoring wells were sampled with a low flow peristaltic pump with battery pack.

 2) Deep monitoring wells were sampled with a low flow submersible pump with generator.

 3) Static water level measurements were taken from top of inner casing. If the well has no inner casing, the measurement will be taken from the top of outer casing.



Table 3

Historical Groundwater Data
Operable Unit 2 Wells

Well	MW-	OU2-1	Well	MW-	OU2-2	Well	MW-	OU2-3	Well	MW-	OU2-4	Well	MW-	OU2-5
	TOC =	435.72		TOC =	436.40		TOC =	432.96		TOC =	432.88		TOC =	433.46
Date	DTW	Water El.												
03/22/18	9.15	426.57	03/22/18	9.85	426.55	03/22/18	6.60	426.36	03/22/18	6.55	426.33	03/22/18	7.20	426.26
12/06/17	9.37	426.35	12/06/17	9.96	426.44	12/06/17	6.60	426.36	12/06/17	6.50	426.38	12/06/17	7.20	426.26
09/01/17	9.53	426.19	09/01/17	10.35	426.05	09/01/17	NM	-	09/01/17	6.98	425.90	09/01/17	7.73	425.73
06/23/17	9.35	426.37	06/23/17	10.02	426.38	06/23/17	7.10	425.86	06/23/17	6.70	426.18	06/23/17	7.15	426.31
03/08/17	8.68	427.04	03/08/17	5.94	430.46	03/08/17	5.93	427.03	03/08/17	5.94	426.94	03/08/17	6.62	426.84
12/15/16	8.91	426.81	12/15/16	9.80	426.60	12/15/16	6.42	426.54	12/15/16	6.35	426.53	12/15/16	7.02	426.44
09/19/16	9.58	426.14	09/19/16	10.52	425.88	09/19/16	7.29	425.67	09/19/16	7.15	425.73	09/19/16	7.84	425.62
06/07/16	9.45	426.27	06/07/16	10.28	426.12	06/07/16	6.95	426.01	06/07/16	6.87	426.01	06/07/16	7.57	425.89
03/07/16	8.45	427.27	03/07/16	9.28	427.12	03/07/16	5.91	427.05	03/07/16	5.82	427.06	03/07/16	6.49	426.97
12/02/15	9.30	426.42	12/02/15	10.19	426.21	12/02/15	6.85	426.11	12/02/15	6.77	426.11	12/02/15	7.44	426.02
09/16/15	9.66	426.06	09/16/15	10.47	425.93	09/16/15	7.15	425.81	09/16/15	7.05	425.83	09/16/15	7.74	425.72
06/03/15	9.34	426.38	06/03/15	9.73	426.67	06/03/15	6.41	426.55	06/03/15	6.34	426.54	06/03/15	6.95	426.51
04/08/15	8.63	427.09	04/08/15	9.29	427.11	04/08/15	6.14	426.82	04/08/15	5.96	426.92	04/08/15	6.98	426.48
12/01/14	9.32	426.40	12/01/14	9.84	426.56	12/01/14	6.49	426.47	12/01/14	6.41	426.47	12/01/14	7.08	426.38
09/10/14	9.49	426.23	09/10/14	9.89	426.51	09/10/14	7.02	425.94	09/10/14	6.95	425.93	09/10/14	7.63	425.83
06/12/14	9.58	426.14	06/12/14	10.33	426.07	06/12/14	6.99	425.97	06/12/14	6.94	425.94	06/12/14	7.63	425.83
03/25/14	9.12	426.60	03/25/14	10.22	426.18	03/25/14	6.75	426.21	03/25/14	6.85	426.03	03/25/14	7.24	426.22
12/12/13	8.47	427.25	12/12/13	9.35	427.05	12/12/13	5.92	427.04	12/12/13	5.84	427.04	12/12/13	6.51	426.95
09/23/13	9.52	426.20	09/23/13	10.32	426.08	09/23/13	7.08	425.88	09/23/13	6.98	425.90	09/23/13	7.63	425.83
06/10/13	8.46	427.26	06/10/13	9.32	427.08	06/10/13	5.78	427.18	06/10/13	5.68	427.20	06/10/13	5.35	428.11
03/27/13	9.30	426.42	03/27/13	10.11	426.29	03/27/13	6.78	426.18	03/27/13	6.95	425.93	03/27/13	7.42	426.04
12/03/12	9.49	426.23	12/03/12	10.33	426.07	12/03/12	7.02	425.94	12/03/12	6.93	425.95	12/03/12	7.70	425.76
09/12/12	9.75	425.97	09/12/12	10.63	425.77	09/12/12	7.32	425.64	09/12/12	7.25	425.63	09/12/12	8.02	425.44
06/18/12	9.51	426.21	06/18/12	10.36	426.04	06/18/12	7.05	425.91	06/18/12	6.95	425.93	06/18/12	7.69	425.77
03/19/12	8.88	426.84	03/19/12	9.79	426.61	03/19/12	6.46	426.50	03/19/12	6.32	426.56	03/19/12	7.13	426.33
12/05/11	9.10	426.62	12/05/11	9.84	426.56	12/05/11	6.72	426.24	12/05/11	6.73	426.15	12/05/11	7.50	425.96
09/26/11	9.31	426.41	09/26/11	10.11	426.29	09/26/11	6.64	426.32	09/26/11	6.68	426.20	09/26/11	7.35	426.11
06/13/11	9.29	426.43	06/13/11	10.07	426.33	06/13/11	6.71	426.25	06/13/11	7.87	425.01	06/13/11	7.33	426.13
03/29/11	8.64	427.08	03/29/11	9.43	426.97	03/29/11	6.04	426.92	03/29/11	5.93	426.95	03/29/11	6.68	426.78

TOC = Top of Inner Well Casing Elevation in Feet
DTW = Depth to Water from Top of Casing in Feet



Table 3

Historical Groundwater Data

DNAPL Wells

Well	DNA	PL-02	Well	DNA	PL-03	Well	DNA	PL-04	Well	DNA	PL-05
	TOC =	436.81		TOC =	437.23		TOC =	438.50		TOC =	440.60
Date	DTW	Water El.									
03/22/18	9.35	427.46	03/22/18	9.60	427.63	03/22/18	10.90	427.60	03/22/18	12.99	427.61
12/06/17	9.00	427.81	12/06/17	9.31	427.92	12/06/17	10.59	427.91	12/06/17	12.65	427.95
09/01/17	9.75	427.06	09/01/17	10.00	427.23	09/01/17	11.36	427.14	09/01/17	13.44	427.16
06/23/17	9.30	427.51	06/23/17	9.56	427.67	06/23/17	10.90	427.60	06/23/17	13.00	427.60
03/08/17	8.92	427.89	03/08/17	9.19	428.04	03/08/17	10.51	427.99	03/08/17	12.57	428.03
12/15/16	8.33	428.48	12/15/16	8.60	428.63	12/15/16	9.89	428.61	12/15/16	11.98	428.62
09/19/16	9.56	427.25	09/19/16	9.88	427.35	09/19/16	11.20	427.30	09/19/16	13.27	427.33
06/07/16	9.41	427.40	06/07/16	9.73	427.50	06/07/16	11.05	427.45	06/07/16	13.12	427.48
03/07/16	8.45	428.36	03/07/16	8.73	428.50	03/07/16	10.05	428.45	03/07/16	12.10	428.50
12/02/15	9.41	427.40	12/02/15	9.71	427.52	12/02/15	11.01	427.49	12/02/15	13.09	427.51
09/16/15	9.91	426.90	09/16/15	10.21	427.02	09/16/15	11.51	426.99	09/16/15	13.58	427.02
06/03/15	8.33	428.48	06/03/15	8.84	428.39	06/03/15	10.15	428.35	06/03/15	12.24	428.36
04/08/15	8.39	428.42	04/08/15	8.68	428.55	04/08/15	9.96	428.54	04/08/15	12.07	428.53
12/01/14	9.16	427.65	12/01/14	9.45	427.78	12/01/14	10.75	427.75	12/01/14	12.81	427.79
09/10/14	9.25	427.56	09/10/14	9.55	427.68	09/10/14	10.62	427.88	09/10/14	12.70	427.90
06/12/14	9.90	426.91	06/12/14	10.20	427.03	06/12/14	11.41	427.09	06/12/14	13.56	427.04
03/25/14	9.52	427.29	03/25/14	9.81	427.42	03/25/14	11.15	427.35	03/25/14	13.21	427.39
12/12/13	8.71	428.10	12/12/13	9.03	428.20	12/12/13	10.35	428.15	12/12/13	12.41	428.19
09/23/13	9.92	426.89	09/23/13	10.25	426.98	09/23/13	11.56	426.94	09/23/13	13.61	426.99
06/10/13	8.27	428.54	06/10/13	8.62	428.61	06/10/13	9.91	428.59	06/10/13	11.98	428.62
03/27/13	9.51	427.30	03/27/13	9.81	427.42	03/27/13	11.15	427.35	03/27/13	13.21	427.39
12/03/12	9.19	427.62	12/03/12	10.10	427.13	12/03/12	11.45	427.05	12/03/12	13.48	427.12
09/12/12	10.14	426.67	09/12/12	10.48	426.75	09/12/12	11.81	426.69	09/12/12	13.84	426.76
06/18/12	9.46	427.35	06/18/12	9.80	427.43	06/18/12	11.15	427.35	06/18/12	13.24	427.36
03/19/12	9.02	427.79	03/19/12	9.35	427.88	03/19/12	10.69	427.81	03/19/12	12.74	427.86
12/05/11	9.46	427.35	12/05/11	9.79	427.44	12/05/11	11.13	427.37	12/05/11	13.30	427.30
09/26/11	9.36	427.45	09/26/11	9.70	427.53	09/26/11	11.09	427.41	09/26/11	13.08	427.52
06/13/11	9.18	427.63	06/13/11	9.54	427.69	06/13/11	10.84	427.66	06/13/11	12.89	427.71
03/29/11	8.41	428.40	03/29/11	8.72	428.51	03/29/11	10.05	428.45	03/29/11	12.11	428.49

TOC = Top of Inner Well Casing Elevation in Feet
DTW = Depth to Water from Top of Casing in Feet



Table 3

Historical Groundwater Data

DNAPL Wells

Well	DNA	PL-06	Well	DNA	PL-07	Well	DNA	PL-08	Well	DNA	PL-09
	TOC =	439.71		TOC =	441.46		TOC =	441.80		TOC =	442.63
Date	DTW	Water El.									
03/22/18	12.00	427.71	03/22/18	12.67	428.79	03/22/18	13.16	428.64	03/22/18	14.06	428.57
12/06/17	11.74	427.97	12/06/17	12.55	428.91	12/06/17	13.00	428.80	12/06/17	13.91	428.72
09/01/17	12.40	427.31	09/01/17	13.40	428.06	09/01/17	13.80	428.00	09/01/17	14.69	427.94
06/23/17	11.97	427.74	06/23/17	12.70	428.76	06/23/17	13.15	428.65	06/23/17	14.07	428.56
03/08/17	11.57	428.14	03/08/17	12.37	429.09	03/08/17	12.75	429.05	03/08/17	13.65	428.98
12/15/16	11.05	428.66	12/15/16	10.80	430.66	12/15/16	12.24	429.56	12/15/16	13.15	429.48
09/19/16	12.31	427.40	09/19/16	13.22	428.24	09/19/16	13.64	428.16	09/19/16	14.55	428.08
06/07/16	12.15	427.56	06/07/16	12.98	428.48	06/07/16	13.44	428.36	06/07/16	14.32	428.31
03/07/16	11.17	428.54	03/07/16	11.91	429.55	03/07/16	12.36	429.44	03/07/16	13.25	429.38
12/02/15	12.21	427.50	12/02/15	13.03	428.43	12/02/15	13.49	428.31	12/02/15	14.39	428.24
09/16/15	12.69	427.02	09/16/15	13.32	428.14	09/16/15	13.78	428.02	09/16/15	14.67	427.96
06/03/15	11.36	428.35	06/03/15	11.88	429.58	06/03/15	12.37	429.43	06/03/15	13.29	429.34
04/08/15	11.19	428.52	04/08/15	11.71	429.75	04/08/15	12.19	429.61	04/08/15	13.12	429.51
12/01/14	11.92	427.79	12/01/14	12.55	428.91	12/01/14	12.98	428.82	12/01/14	13.88	428.75
09/10/14	11.76	427.95	09/10/14	12.91	428.55	09/10/14	13.35	428.45	09/10/14	14.29	428.34
06/12/14	12.61	427.10	06/12/14	13.12	428.34	06/12/14	13.60	428.20	06/12/14	14.57	428.06
03/25/14	12.25	427.46	03/25/14	13.01	428.45	03/25/14	13.44	428.36	03/25/14	14.21	428.42
12/12/13	11.51	428.20	12/12/13	12.19	429.27	12/12/13	12.63	429.17	12/12/13	13.51	429.12
09/23/13	12.71	427.00	09/23/13	13.26	428.20	09/23/13	13.75	428.05	09/23/13	13.91	428.72
06/10/13	11.07	428.64	06/10/13	11.85	429.61	06/10/13	12.28	429.52	06/10/13	13.16	429.47
03/27/13	12.31	427.40	03/27/13	12.80	428.66	03/27/13	13.26	428.54	03/27/13	14.20	428.43
12/03/12	12.61	427.10	12/03/12	13.75	427.71	12/03/12	13.71	428.09	12/03/12	14.65	427.98
09/12/12	12.91	426.80	09/12/12	13.76	427.70	09/12/12	14.21	427.59	09/12/12	15.11	427.52
06/18/12	12.28	427.43	06/18/12	13.11	428.35	06/18/12	13.56	428.24	06/18/12	14.47	428.16
03/19/12	11.84	427.87	03/19/12	12.61	428.85	03/19/12	13.95	427.85	03/19/12	13.05	429.58
12/05/11	12.28	427.43	12/05/11	12.88	428.58	12/05/11	13.36	428.44	12/05/11	14.28	428.35
09/26/11	10.18	429.53	09/26/11	12.86	428.60	09/26/11	13.35	428.45	09/26/11	14.25	428.38
06/13/11	11.94	427.77	06/13/11	12.84	428.62	06/13/11	13.27	428.53	06/13/11	14.14	428.49
03/29/11	11.12	428.59	03/29/11	12.25	429.21	03/29/11	12.66	429.14	03/29/11	13.75	428.88

TOC = Top of Inner Well Casing Elevation in Feet
DTW = Depth to Water from Top of Casing in Feet



Table 3

Historical Groundwater Data

Trench Wells

Well	VT	M-1	Well	VT	M-2	Well	VT	M-3	Well	VT	M-4	Well	VT	M-5
	TOC =	439.74		TOC =	438.33		TOC =	439.44		TOC =	441.59		TOC =	441.79
Date	DTW	Water El.												
03/22/18	11.86	427.88	03/22/18	10.41	427.92	03/22/18	11.36	428.08	03/22/18	13.31	428.28	03/22/18	13.45	428.34
12/06/17	11.65	428.09	12/06/17	10.07	428.26	12/06/17	11.22	428.22	12/06/17	13.17	428.42	12/06/17	13.32	428.47
09/01/17	12.10	427.64	09/01/17	10.40	427.93	09/01/17	10.55	428.89	09/01/17	13.60	427.99	09/01/17	13.77	428.02
06/23/17	11.80	427.94	06/23/17	10.10	428.23	06/23/17	11.21	428.23	06/23/17	13.15	428.44	06/23/17	13.29	428.50
03/08/17	11.24	428.50	03/08/17	9.52	428.81	03/08/17	10.65	428.79	03/08/17	12.58	429.01	03/08/17	12.76	429.03
12/15/16	10.99	428.75	12/15/16	9.33	429.00	12/15/16	10.49	428.95	12/15/16	12.49	429.10	12/15/16	12.54	429.25
09/19/16	12.23	427.51	09/19/16	10.56	427.77	09/19/16	11.71	427.73	09/19/16	13.65	427.94	09/19/16	13.82	427.97
06/07/16	11.98	427.76	06/07/16	10.29	428.04	06/07/16	11.43	428.01	06/07/16	13.44	428.15	06/07/16	13.61	428.18
03/07/16	10.98	428.76	03/07/16	9.25	429.08	03/07/16	10.36	429.08	03/07/16	12.32	429.27	03/07/16	12.49	429.30
12/02/15	12.12	427.62	12/02/15	10.53	427.80	12/02/15	11.68	427.76	12/02/15	13.58	428.01	12/02/15	13.74	428.05
09/16/15	12.55	427.19	09/16/15	10.75	427.58	09/16/15	11.85	427.59	09/16/15	13.73	427.86	09/16/15	14.67	427.12
06/03/15	11.21	428.53	06/03/15	9.55	428.78	06/03/15	10.72	428.72	06/03/15	12.68	428.91	06/03/15	12.86	428.93
04/08/15	11.06	428.68	04/08/15	9.49	428.84	04/08/15	11.65	427.79	04/08/15	12.65	428.94	04/08/15	12.81	428.98
12/01/14	11.55	428.19	12/01/14	9.79	428.54	12/01/14	10.92	428.52	12/01/14	12.91	428.68	12/01/14	13.09	428.70
09/10/14	11.62	428.12	09/10/14	9.91	428.42	09/10/14	11.10	428.34	09/10/14	13.14	428.45	09/10/14	13.31	428.48
06/12/14	11.94	427.80	06/12/14	10.28	428.05	06/12/14	11.45	427.99	06/12/14	13.48	428.11	06/12/14	13.63	428.16
03/25/14	11.69	428.05	03/25/14	10.01	428.32	03/25/14	11.17	428.27	03/25/14	13.32	428.27	03/25/14	13.35	428.44
12/12/13	10.91	428.83	12/12/13	9.31	429.02	12/12/13	10.46	428.98	12/12/13	12.51	429.08	12/12/13	12.56	429.23
09/23/13	12.19	427.55	09/23/13	10.63	427.70	09/23/13	11.79	427.65	09/23/13	15.75	425.84	09/23/13	13.91	427.88
06/10/13	10.45	429.29	06/10/13	8.75	429.58	06/10/13	9.98	429.46	06/10/13	12.08	429.51	06/10/13	13.16	428.63
03/27/13	11.83	427.91	03/27/13	10.82	427.51	03/27/13	11.48	427.96	03/27/13	13.51	428.08	03/27/13	13.69	428.10
12/03/12	12.31	427.43	12/03/12	10.82	427.51	12/03/12	11.98	427.46	12/03/12	13.84	427.75	12/03/12	14.06	427.73
06/18/12	12.01	427.73	06/18/12	10.46	427.87	06/18/12	11.66	427.78	06/18/12	13.70	427.89	06/18/12	13.89	427.90
03/19/12	11.49	428.25	03/19/12	9.91	428.42	03/19/12	11.11	428.33	03/19/12	13.16	428.43	03/19/12	13.33	428.46
12/05/11	12.01	427.73	12/05/11	10.48	427.85	12/05/11	11.62	427.82	12/05/11	13.61	427.98	12/05/11	13.81	427.98
09/26/11	11.95	427.79	09/26/11	10.41	427.92	09/26/11	11.61	427.83	09/26/11	13.66	427.93	09/26/11	13.82	427.97
06/13/11	11.74	428.00	06/13/11	10.15	428.18	06/13/11	11.32	428.12	06/13/11	13.39	428.20	06/13/11	13.59	428.20
03/29/11	11.02	428.72	03/29/11	9.48	428.85	03/29/11	10.65	428.79	03/29/11	12.81	428.78	03/29/11	12.97	428.82

TOC = Top of Inner Well Casing Elevation in Feet
DTW = Depth to Water from Top of Casing in Feet



Table 3

Historical Groundwater Data
Operable Unit 1 Wells

Well	LTM	W-D01	LTM\	W-S01	LTM\	N-D02	LTM\	N-S02	LTM\	W-D03	LTM	W-S03	LTM	W-D04	LTM	W-S04
	TOC =	434.90	TOC =	435.52	TOC =	436.74	TOC =	436.79	TOC =	431.27	TOC =	431.43	TOC =	437.18	TOC =	437.24
Date	DTW	Water El.	DTW	Water El.	DTW	Water El.	DTW	Water El.	DTW	Water El.	DTW	Water El.	DTW	Water El.	DTW	Water El.
	Ì					i		i		i		i		i		
03/22/18	8.22	426.68	9.41	426.11	10.21	426.53	9.98	426.81	5.65	425.62	3.60	427.83	9.35	427.83	9.05	428.19
				427.36		426.67								427.83	8.35	
12/06/17	8.17	426.73	8.16		10.07		9.61	427.18	4.76	426.51	3.30	428.13	9.35			428.89
09/01/17	8.75	426.15	8.74	426.78	10.64	426.10	10.31	426.48	5.23	426.04	4.15	427.28	9.99	427.19	9.50	427.74
06/23/17	8.30	426.60	8.53	426.99	10.45	426.29	10.27	426.52	4.91	426.36	4.05	427.38	9.58	427.60	9.45	427.79
03/08/17	8.13	426.77	8.27	427.25	10.11	426.63	9.79	427.00	4.48	426.79	3.53	427.90	9.00	428.18	8.79	428.45
12/15/16	8.11	426.79	8.02	427.50	10.03	426.71	9.73	427.06	4.55	426.72	3.28	428.15	9.32	427.86	8.41	428.83
09/19/16	8.78	426.12	8.73	426.79	10.70	426.04	10.41	426.38	5.26	426.01	4.25	427.18	10.03	427.15	9.61	427.63
06/07/16	8.56	426.34	7.85	427.67	10.16	426.58	10.21	426.58	4.75	426.52	4.07	427.36	9.47	427.71	9.38	427.86
03/07/16	7.75	427.15	7.18	428.34	9.05	427.69	9.15	427.64	3.69	427.58	2.45	428.98	8.55	428.63	7.85	429.39
12/03/15	7.71	427.19	8.29	427.23	9.85	426.89	9.74	427.05	4.38	426.89	3.51	427.92	9.63	427.55	8.65	428.59
09/16/15	8.30	426.60	8.76	426.76	10.29	426.45	10.32	426.47	4.91	426.36	4.15	427.28	9.69	427.49	9.52	427.72
06/03/15	8.07	426.83	8.03	427.49	10.02	426.72	10.13	426.66	4.45	426.82	3.92	427.51	9.35	427.83	9.27	427.97
04/08/15	7.34	427.56	7.99	427.53	9.58	427.16	9.71	427.08	4.01	427.26	3.54	427.89	8.85	428.33	8.75	428.49
12/01/14	7.94	426.96	8.15	427.37	9.75	426.99	9.64	427.15	4.11	427.16	3.13	428.30	9.09	428.09	8.57	428.67
09/10/14	8.14	426.76	8.12	427.40	9.99	426.75	9.64	427.15	4.58	426.69	3.19	428.24	9.30	427.88	8.70	428.54
06/12/14	8.68	426.22	8.24	427.28	10.57	426.17	10.26	426.53	4.71	426.56	4.11	427.32	9.60	427.58	9.42	427.82
03/25/14	8.22	426.68	8.50	427.02	10.11	426.63	10.19	426.60	4.71	426.56	4.09	427.34	9.56	427.62	9.43	427.81
12/12/13	7.61	427.29	7.64	427.88	9.19	427.55	8.75	428.04	3.97	427.30	1.99	429.44	8.57	428.61	7.45	429.79
09/23/13	8.36	426.54	8.75	426.77	10.28	426.46	10.28	426.51	5.11	426.16	4.05	427.38	9.84	427.34	9.52	427.72
06/10/13	7.17	427.73	7.52	428.00	9.09	427.65	8.73	428.06	3.52	427.75	2.18	429.25	7.99	429.19	6.99	430.25
03/27/13	8.27	426.63	8.64	426.88	10.28	426.46	9.98	426.81	4.84	426.43	3.87	427.56	9.61	427.57	9.36	427.88
12/03/12	8.65	426.25	8.60	426.92	10.42	426.32	9.90	426.89	5.08	426.19	3.80	427.63	9.85	427.33	9.91	427.33
09/12/12	8.84	426.06	8.91	426.61	10.76	425.98	10.35	426.44	5.39	425.88	4.17	427.26	10.20	426.98	9.62	427.62
06/18/12	8.35	426.55	8.61	426.91	10.35	426.39	10.26	426.53	5.10	426.17	4.08	427.35	8.76	428.42	9.48	427.76
03/19/12	8.01	426.89	8.11	427.41	9.92	426.82	9.46	427.33	4.50	426.77	3.04	428.39	9.24	427.94	8.29	428.95
12/05/11	8.16	426.74	8.31	427.21	10.12	426.62	9.61	427.18	4.63	426.64	3.35	428.08	9.39	427.79	8.81	428.43
09/26/11	8.38	426.52	8.45	427.07	10.45	426.29	10.18	426.61	4.71	426.56	3.93	427.50	9.45	427.73	9.44	427.80
06/13/11 03/28/11	7.61 7.83	427.29	8.36	427.16 427.67	10.27 9.68	426.47 427.06	9.95 9.43	426.84	4.78 4.41	426.49	3.75 3.34	427.68	9.42 9.07	427.76 428.11	9.17 8.91	428.07
03/28/11	7.83	427.07	7.85	421.01	9.08	427.00	9.43	427.36	4.41	426.86	3.34	428.09	9.07	428.11	8.91	428.33

TOC = Top of Inner Well Casing Elevation in Feet
DTW = Depth to Water from Top of Casing in Feet



Table 3

Historical Groundwater Data
Operable Unit 1 Wells

Well	LTM	W-D05	LTM	W-S05	LTM\	N-D06	LTM\	N-S06	LTM	N-S07	LTM	W-S08	LTM	W-S09	LTM	W-S10
	TOC =	437.78	TOC =	437.92	TOC =	441.70	TOC =	441.64	TOC =	439.70	TOC =	443.81	TOC =	439.79	TOC =	439.67
Date	DTW	Water El.														
03/22/18	8.95	428.83	8.80	429.12	12.10	429.60	12.92	428.72	10.40	429.30	15.30	428.51	9.50	430.29	10.15	429.52
12/06/17	9.02	428.76	9.16	428.76	12.00	429.70	12.25	429.39	10.67	429.03	15.10	428.71	9.58	430.21	10.10	429.57
					12.62											
09/01/17	9.51	428.27	9.60	428.32		429.08	13.50	428.14	12.60	427.10	15.78	428.03	10.38	429.41	10.96	428.71
06/23/17	9.14	428.64	9.60	428.32	12.07	429.63	12.88	428.76	10.73	428.97	15.22	428.59	12.88	426.91	10.18	429.49
03/08/17	8.26	429.52	7.54	430.38	11.52	430.18	11.78	429.86	10.39	429.31	14.69	429.12	9.21	430.58	9.98	429.69
12/15/16	8.80	428.98	9.00	428.92	12.28	429.42	11.70	429.94	9.89	429.81	14.50	429.31	8.60	431.19	9.30	430.37
09/19/16	9.63	428.15	9.65	428.27	12.61	429.09	13.24	428.40	11.44	428.26	15.59	428.22	9.82	429.97	10.68	428.99
06/07/16	8.82	428.96	9.53	428.39	11.98	429.72	13.03	428.61	11.01	428.69	15.36	428.45	9.81	429.98	10.41	429.26
03/07/16	7.85	429.93	8.27	429.65	11.16	430.54	12.13	429.51	9.94	429.76	14.48	429.33	9.05	430.74	9.65	430.02
12/02/15	8.77	429.01	9.21	428.71	12.31	429.39	13.20	428.44	11.55	428.15	15.67	428.14	10.40	429.39	10.95	428.72
09/16/15	8.97	428.81	9.51	428.41	12.58	429.12	13.25	428.39	11.54	428.16	15.65	428.16	9.89	429.90	10.65	429.02
06/03/15	9.25	428.53	9.41	428.51	12.15	429.55	12.93	428.71	10.81	428.89	15.21	428.60	9.15	430.64	9.93	429.74
04/08/15	8.74	429.04	9.36	428.56	11.67	430.03	12.55	429.09	10.06	429.64	14.85	428.96	8.89	430.90	9.54	430.13
12/01/14	8.28	429.50	8.91	429.01	11.77	429.93	12.49	429.15	10.97	428.73	14.78	429.03	9.31	430.48	9.93	429.74
09/10/14	8.85	428.93	8.97	428.95	11.91	429.79	12.68	428.96	10.96	428.74	15.34	428.47	9.35	430.44	10.29	429.38
06/12/14	9.02	428.76	9.52	428.40	12.28	429.42	13.08	428.56	11.14	428.56	15.34	428.47	9.63	430.16	10.46	429.21
03/25/14	9.03	428.75	8.50	429.42	11.95	429.75	12.81	428.83	10.85	428.85	15.03	428.78	9.11	430.68	9.93	429.74
12/12/13	7.96	429.82	7.85	430.07	11.20	430.50	11.87	429.77	10.16	429.54	14.11	429.70	8.95	430.84	9.63	430.04
09/23/13	8.94	428.84	9.52	428.40	12.36	429.34	13.21	428.43	11.39	428.31	15.46	428.35	9.86	429.93	10.64	429.03
06/10/13	7.55	430.23	7.48	430.44	11.15	430.55	11.78	429.86	10.27	429.43	14.12	429.69	9.43	430.36	10.17	429.50
03/27/13	9.13	428.65	9.45	428.47	12.16	429.54	13.10	428.54	10.92	428.78	15.27	428.54	9.55	430.24	10.31	429.36
12/03/12	9.51	428.27	9.48	428.44	13.43	428.27	12.78	428.86	11.59	428.11	15.72	428.09	10.25	429.54	10.91	428.76
09/12/12	9.76	428.02	9.64	428.28	12.81	428.89	13.69	427.95	11.97	427.73	15.95	427.86	10.58	429.21	11.27	428.40
06/18/12	9.26	428.52	9.51	428.41	12.41	429.29	13.23	428.41	11.31	428.39	15.40	428.41	9.81	429.98	10.56	429.11
03/19/12	8.79	428.99	9.04	428.88	12.12	429.58	12.99	428.65	11.05	428.65	15.19	428.62	9.73	430.06	10.43	429.24
12/05/11	9.02	428.76	9.08	428.84	12.22	429.48	13.04	428.60	10.97	428.73	15.19	428.62	9.58	430.21	10.34	429.33
09/26/11	9.32	428.46	9.53	428.39	12.40	429.30	13.20	428.44	11.01	428.69	15.21	428.60	9.55	430.24	10.31	429.36
06/13/11	8.91	428.87	9.34	428.58	11.99	429.71	12.88	428.76	10.79	428.91	15.03	428.78	9.49	430.30	10.29	429.38
03/28/11	8.08	429.70	9.12	428.80	11.62	430.08	12.41	429.23	10.08	429.62	14.46	429.35	10.14	429.65	9.75	429.92

TOC = Top of Inner Well Casing Elevation in Feet
DTW = Depth to Water from Top of Casing in Feet



Table 4 **Groundwater Analytical Data** LTMW-D01

Parameter	EPA - Maximum Allowable (ug/L)	NYSDEC AWQS (µg/L)	Reporting Level (µg/L)	03/25/14	06/11/14	09/09/14	12/04/14	04/08/15	06/03/15	09/16/15	12/03/15	03/04/16	06/09/16	09/21/16	12/07/16	03/08/17	06/07/17	09/21/17	12/06/17	03/21/18
Benzene	5	1	1	4,700	5,700	2,800	1,100	540	5,100	1,700	1,500	4,800	1,700	5,310	8,990	5,800	5,290	2,470	4,250	5,460
Toluene	1,000	5	1	1,000	1,500	580	240	300	1,300	430	340	1,100	340	1,090	2,080	1,320	1,470	809	1,230	1,140
Ethylbenzene	700	5	1	53	110	ND	7.8	26	84	53	54	82	ND	167	241	145	137	179	177	95.0
Xylene (total)	10,000	5	2	ND	170	ND	46	68	160	ND	ND	170	ND	176	254	206	201	157	187	135
Acenaphthene	N/A	20	4.9	ND	0.59	0.43	0.19	0.10	0.19	0.35	0.18									
Acenaphthylene	N/A	NA	4.9	ND	5.0	6.2	0.31	0.11	0.36	7.1	3.1									
Anthracene	N/A	NA	4.9	ND																
Benzo(a)anthracene	N/A	0.002	4.9	ND																
Benzo(a)pyrene	N/A	ND	4.9	ND																
Benzo(b)fluoranthene	N/A	0.002	4.9	ND																
Benzo(g,h,i)perylene	0.2	NA	4.9	ND																
Benzo(k)fluoranthene	N/A	0.002	4.9	ND																
Chrysene	N/A	0.002	4.9	ND																
Cyanide	N/A	200	10	ND	13	ND	ND	14	11	ND	ND	ND	10							
Dibenzo(a,h)anthracene	N/A	50	4.9	ND																
Fluoranthene	N/A	50	4.9	ND																
Fluorene	N/A	0.002	4.9	ND	0.51	0.35	0.15	ND	ND	0.41	0.17									
Indeno(1,2,3-cd)pyrene	N/A	50	4.9	ND																
Naphthalene	N/A	10	4.9	ND	97.1	229	ND	ND	ND	7.2	94.6									
Phenanthrene	N/A	50	4.9	ND	107	ND														
Pyrene	N/A	50	4.9	ND																
Arsenic	N/A	25	10	ND	6.9	ND														
Lead	N/A	25	5	ND																
Zinc	N/A	2,000	10	ND																

EPA = Environmental Protection Agency

NYSDEC = New York State Department of Environmental Conservation

AWQS = Ambient Water Quality Standards

= Micrograms per Liter μg/L ND H

Not detected above laboratory reporting limits
 Quantitated using peak height rather than peak area
 Estimated Concentration Value
 values indicate exceedance of the NYSDEC AWQS

Bolded



Table 4 **Groundwater Analytical Data** LTMW-S01

Parameter	EPA - Maximum Allowable (ug/L)	NYSDEC AWQS (µg/L)	Reporting Level (µg/L)	03/25/14	06/11/14	09/09/14	12/04/14	04/08/15	06/03/15	09/16/15	12/03/15	03/04/16	06/09/16	09/21/16	12/07/16	03/08/17	06/07/17	09/21/17	12/06/17	03/21/18
Benzene	5	1	1	ND	ND	ND	3,600	ND												
Toluene	1,000	5	1	ND	ND	ND	470	ND												
Ethylbenzene	700	5	1	ND	1.2	ND	ND	ND	ND	ND										
Xylene (total)	10,000	5	2	ND																
Acenaphthene	N/A	20	4.9	99	83	56 H J	94	70	68	72	79 E	76	120	125	91.2	69.4	56.4	105	75.1	56.5
Acenaphthylene	N/A	NA	4.9	ND	5.1	ND	ND	ND	4.7	ND	ND	ND	ND	4.1	3	3.2	2.5	3.6	2.7	2.2
Anthracene	N/A	NA	4.9	ND	0.44	0.38	0.52	0.28	0.40	0.34	0.27									
Benzo(a)anthracene	N/A	0.002	4.9	ND																
Benzo(a)pyrene	N/A	ND	4.9	ND																
Benzo(b)fluoranthene	N/A	0.002	4.9	ND																
Benzo(g,h,i)perylene	0.2	NA	4.9	ND																
Benzo(k)fluoranthene	N/A	0.002	4.9	ND																
Chrysene	N/A	0.002	4.9	ND																
Cyanide	N/A	200	10	19	28	22	ND	23	16	23	20	20	21	ND	13	55	18	12	15	11
Dibenzo(a,h)anthracene	N/A	50	4.9	ND																
Fluoranthene	N/A	50	4.9	ND	5.4	ND	4.9	4	3.6	2.8	4.8	3.5	2.4							
Fluorene	N/A	0.002	4.9	ND	27	20 H J	28	18	26	25	23	21	28	34.1	27.6	19.9	12.6	28.5	19.2	15.4
Indeno(1,2,3-cd)pyrene	N/A	50	4.9	ND																
Naphthalene	N/A	10	4.9	ND	0.2	0.38	0.4	0.15	0.24	0.31	ND									
Phenanthrene	N/A	50	4.9	ND	25	7.7 H J	10	ND	9.4	ND	ND	ND	ND	0.25	0.74	1.7	ND	0.14	0.20	0.26
Pyrene	N/A	50	4.9	ND	5.3	ND	5.0	4.2	3.6	2.7	4.9	3.7	2.5							
Arsenic	N/A	25	10	ND																
Lead	N/A	25	5	ND	ND	ND	ND	ND	8.9	ND										
Zinc	N/A	2,000	10	ND	ND	ND	ND	ND	28	ND										

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μg/L ND H

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= Quantitated using peak height rather than peak area

= Estimated Concentration Value



Table 4 **Groundwater Analytical Data** LTMW-D02

Parameter	EPA - Maximum Allowable (ug/L)	NYSDEC AWQS (µg/L)	Reporting Level (µg/L)	03/25/14	06/11/14	09/09/14	12/04/14	04/08/15	06/03/15	09/16/15	12/03/15	03/04/16	06/09/16	09/20/16	12/07/16	03/08/17	06/07/17	09/21/17	12/06/17	03/21/18
Benzene	5	1	1	ND																
Toluene	1,000	5	1	ND																
Ethylbenzene	700	5	1	ND																
Xylene (total)	10,000	5	2	ND																
Acenaphthene	N/A	20	4.9	7	7.4	3.8 H J	7.4	5.8	ND	ND	ND	ND	ND	3.3	2.2	1.6	ND	2.0	0.97	1.2
Acenaphthylene	N/A	NA	4.9	ND	0.8	0.43	0.39	ND	0.48	0.22	0.29									
Anthracene	N/A	NA	4.9	ND																
Benzo(a)anthracene	N/A	0.002	4.9	ND																
Benzo(a)pyrene	N/A	ND	4.9	ND																
Benzo(b)fluoranthene	N/A	0.002	4.9	ND																
Benzo(g,h,i)perylene	0.2	NA	4.9	ND																
Benzo(k)fluoranthene	N/A	0.002	4.9	ND																
Chrysene	N/A	0.002	4.9	ND																
Cyanide	N/A	200	10	ND	100	110	ND	130	110	16	ND	93	85	ND	150	200	ND	160	160	160
Dibenzo(a,h)anthracene	N/A	50	4.9	ND																
Fluoranthene	N/A	50	4.9	ND																
Fluorene	N/A	0.002	4.9	ND																
Indeno(1,2,3-cd)pyrene	N/A	50	4.9	ND																
Naphthalene	N/A	10	4.9	ND	0.16	ND	ND	ND	ND	ND	ND									
Phenanthrene	N/A	50	4.9	ND																
Pyrene	N/A	50	4.9	ND																
Arsenic	N/A	25	10	ND																
Lead	N/A	25	5	11	ND	ND	ND	ND	6	ND										
Zinc	N/A	2,000	10	83	ND	ND	0.021	ND	22	110	11	13	61	ND						

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AWQS = Ambient Water Quality Standards

μg/L ND H

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= Quantitated using peak height rather than peak area

= Estimated Concentration Value



Table 4 **Groundwater Analytical Data**

LTMW-S02

Parameter	EPA - Maximum Allowable (ug/L)	NYSDEC AWQS (µg/L)	Reporting Level (µg/L)	03/25/14	06/11/14	09/09/14	12/04/14	04/08/15	06/03/15	09/16/15	12/03/15	03/04/16	06/09/16	09/20/16	12/07/16	03/08/17	06/07/17	09/21/17	12/06/17	03/21/18
Benzene	5	1	1	ND																
Toluene	1,000	5	1	ND																
Ethylbenzene	700	5	1	ND																
Xylene (total)	10,000	5	2	ND																
Acenaphthene	N/A	20	4.9	ND																
Acenaphthylene	N/A	NA	4.9	ND																
Anthracene	N/A	NA	4.9	ND																
Benzo(a)anthracene	N/A	0.002	4.9	ND																
Benzo(a)pyrene	N/A	ND	4.9	ND																
Benzo(b)fluoranthene	N/A	0.002	4.9	ND																
Benzo(g,h,i)perylene	0.2	NA	4.9	ND																
Benzo(k)fluoranthene	N/A	0.002	4.9	ND																
Chrysene	N/A	0.002	4.9	ND																
Cyanide	N/A	200	10	130	140	160	ND	81	35	190	120	130	150	ND	130	75	73	110	90	60
Dibenzo(a,h)anthracene	N/A	50	4.9	ND																
Fluoranthene	N/A	50	4.9	ND																
Fluorene	N/A	0.002	4.9	ND																
Indeno(1,2,3-cd)pyrene	N/A	50	4.9	ND																
Naphthalene	N/A	10	4.9	ND	0.15	ND	ND	ND	ND	ND	ND									
Phenanthrene	N/A	50	4.9	ND																
Pyrene	N/A	50	4.9	ND																
Arsenic	N/A	25	10	ND	15	15	5.1	ND	7.7	ND	ND	7.6	ND							
Lead	N/A	25	5	ND																
Zinc	N/A	2,000	10	ND																

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μg/L ND H

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= Estimated Concentration Value



Table 4 **Groundwater Analytical Data** LTMW-D03

Parameter	EPA - Maximum Allowable (ug/L)	NYSDEC AWQS (μg/L)	Reporting Level (µg/L)	03/25/14	06/11/14	09/10/14	12/04/14	04/08/15	06/03/15	09/16/15	12/03/15	03/04/16	06/09/16	09/20/16	12/07/16	03/08/17	06/07/17	09/21/17	12/06/17	03/21/18
Benzene	5	1	1	16	15	11	12	6.7	9.3	9.3	10	8.9	20	15.9	27.1	10.2	8.5	8.9	9.5	4.7
Toluene	1,000	5	1	4.4	5.3	ND	4.2	2	3.4	2.2	ND	ND	20	13.9	55	5.9	1.9	1.9	5.4	ND
Ethylbenzene	700	5	1	120	170	150	190	73	100	87	76	86	58	69.6	23.9	63.7	44	49.0	40.2	26.0
Xylene (total)	10,000	5	2	25	42	28	41	15	22	16	16	14	42	30.1	25.7	13.5	5.6	7.5	8.4	4.0
Acenaphthene	N/A	20	4.9	ND	11	4.9 H J	14	10	14	16	12	11	ND	411.9	ND	10.7	3.70	10.2	5.9	5.8
Acenaphthylene	N/A	NA	4.9	ND	7.3	ND	5.9	ND	ND	ND	ND	ND	ND	34.7	10.6	3.1	2.5	2.2	1.5	1.3
Anthracene	N/A	NA	4.9	ND	ND	ND	5.7	ND	5.6	5.4	ND	ND	ND	5.2	ND	5.6	0.3	3.7	2.4	2.2
Benzo(a)anthracene	N/A	0.002	4.9	ND	0.43	ND	0.42	ND	0.40	0.26	0.30									
Benzo(a)pyrene	N/A	ND	4.9	ND																
Benzo(b)fluoranthene	N/A	0.002	4.9	ND																
Benzo(g,h,i)perylene	0.2	NA	4.9	ND																
Benzo(k)fluoranthene	N/A	0.002	4.9	ND																
Chrysene	N/A	0.002	4.9	ND	0.21	ND	0.25	ND	0.24	0.18	0.17									
Cyanide	N/A	200	10	76	76	ND	44	64	67	78	71	75	93	77	79	84	76	66	78	64
Dibenzo(a,h)anthracene	N/A	50	4.9	ND																
Fluoranthene	N/A	50	4.9	ND	5.7	ND	7.1	ND	6.7	6.6	5.6	6.2	ND	6.2	ND	6.1	2.9	5.9	3.7	4.1
Fluorene	N/A	0.002	4.9	ND	11	4.3 H J	12	6.8	11	10	9.3	7.8	ND	11.5	ND	7.1	13.2	6.2	3.7	3.6
Indeno(1,2,3-cd)pyrene	N/A	50	4.9	ND	9.4	ND	ND	ND	ND	ND										
Naphthalene	N/A	10	4.9	230	100	74 H J	150	14	47	29	24	13	81	556	284	32.2	0.15	10.0	16.5	3.9
Phenanthrene	N/A	50	4.9	ND	27	9.6 H J	31	17	28	30	25	27	25	29.5	1.5	30.3	0.11	24.1	15.2	16.3
Pyrene	N/A	50	4.9	ND	ND	ND	9.8	6	8.9	8.6	7.2	8.3	8.3	8.3	1.2	7.6	2.8	7.6	4.8	5.5
Arsenic	N/A	25	10	ND																
Lead	N/A	25	5	ND																
Zinc	N/A	2,000	10	ND	ND	ND	0.01	ND												

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= Estimated Concentration Value



LTMW-S03

Parameter	EPA - Maximum Allowable (ug/L)	NYSDEC AWQS (µg/L)	Reporting Level (µg/L)	03/25/14	06/11/14	09/10/14	12/04/14	04/08/15	06/03/15	09/16/15	12/03/15	03/04/16	06/09/16	09/20/16	12/07/16	03/08/17	06/07/17	09/21/17	12/06/17	03/21/18
Benzene	5	1	1	ND																
Toluene	1,000	5	1	ND																
Ethylbenzene	700	5	1	ND	ND	ND	1.3	ND												
Xylene (total)	10,000	5	2	ND																
Acenaphthene	N/A	20	4.9	ND																
Acenaphthylene	N/A	NA	4.9	ND																
Anthracene	N/A	NA	4.9	ND																
Benzo(a)anthracene	N/A	0.002	4.9	ND																
Benzo(a)pyrene	N/A	ND	4.9	ND																
Benzo(b)fluoranthene	N/A	0.002	4.9	ND																
Benzo(g,h,i)perylene	0.2	NA	4.9	ND																
Benzo(k)fluoranthene	N/A	0.002	4.9	ND																
Chrysene	N/A	0.002	4.9	ND																
Cyanide	N/A	200	10	ND	ND	72 J	ND	ND	ND	ND	ND	ND	11	ND						
Dibenzo(a,h)anthracene	N/A	50	4.9	ND																
Fluoranthene	N/A	50	4.9	ND																
Fluorene	N/A	0.002	4.9	ND	0.15	ND	ND	ND	ND											
Indeno(1,2,3-cd)pyrene	N/A	50	4.9	ND																
Naphthalene	N/A	10	4.9	ND	0.16	0.17	ND	ND	ND	ND	ND									
Phenanthrene	N/A	50	4.9	ND	0.11	ND	ND	ND	ND											
Pyrene	N/A	50	4.9	ND																
Arsenic	N/A	25	10	ND																
Lead	N/A	25	5	10	7.9	11	ND	15	30	5.9	5.9	ND								
Zinc	N/A	2,000	10	7,500	5,800	5,600	4,600	5,600	7,300	5,500	4,400	4,600	4,300	4,300	4,600	5,330	4,250	3,740	3,620	4,070

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Parameter	EPA - Maximum Allowable (ug/L)	NYSDEC AWQS (µg/L)	Reporting Level (µg/L)	03/25/14	06/11/14	09/10/14	12/04/14	04/08/15	06/03/15	09/16/15	12/03/15	03/04/16	06/09/16	09/20/16	12/07/16	03/08/17	06/07/17	09/21/17	12/06/17	03/21/18
Benzene	5	1	1	ND																
Toluene	1,000	5	1	ND																
Ethylbenzene	700	5	1	ND																
Xylene (total)	10,000	5	2	ND																
Acenaphthene	N/A	20	4.9	ND																
Acenaphthylene	N/A	NA	4.9	ND																
Anthracene	N/A	NA	4.9	ND																
Benzo(a)anthracene	N/A	0.002	4.9	ND																
Benzo(a)pyrene	N/A	ND	4.9	ND																
Benzo(b)fluoranthene	N/A	0.002	4.9	ND																
Benzo(g,h,i)perylene	0.2	NA	4.9	ND																
Benzo(k)fluoranthene	N/A	0.002	4.9	ND																
Chrysene	N/A	0.002	4.9	ND																
Cyanide	N/A	200	10	ND	15	12	ND	13	15	14	11.5	10	ND	10	ND	ND	ND	ND	ND	ND
Dibenzo(a,h)anthracene	N/A	50	4.9	ND																
Fluoranthene	N/A	50	4.9	ND																
Fluorene	N/A	0.002	4.9	ND																
Indeno(1,2,3-cd)pyrene	N/A	50	4.9	ND																
Naphthalene	N/A	10	4.9	ND																
Phenanthrene	N/A	50	4.9	ND																
Pyrene	N/A	50	4.9	ND																
Arsenic	N/A	25	10	ND	35.3	ND	ND	ND												
Lead	N/A	25	5	ND																
Zinc	N/A	2,000	10	ND	ND	ND	0.013	ND	ND	ND	490	490	ND							

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Parameter	EPA - Maximum Allowable (ug/L)	NYSDEC AWQS (µg/L)	Reporting Level (µg/L)	03/25/14	06/11/14	09/10/14	12/04/14	04/08/15	06/03/15	09/16/15	12/03/15	03/04/16	06/09/16	09/20/16	12/07/16	03/08/17	06/07/17	09/21/17	12/06/17	03/21/18
Benzene	5	1	1	ND																
Toluene	1,000	5	1	ND																
Ethylbenzene	700	5	1	ND																
Xylene (total)	10,000	5	2	ND																
Acenaphthene	N/A	20	4.9	ND																
Acenaphthylene	N/A	NA	4.9	ND																
Anthracene	N/A	NA	4.9	ND																
Benzo(a)anthracene	N/A	0.002	4.9	ND																
Benzo(a)pyrene	N/A	ND	4.9	ND																
Benzo(b)fluoranthene	N/A	0.002	4.9	ND																
Benzo(g,h,i)perylene	0.2	NA	4.9	ND																
Benzo(k)fluoranthene	N/A	0.002	4.9	ND																
Chrysene	N/A	0.002	4.9	ND																
Cyanide	N/A	200	10	300	350	580	680	870	400	800	170	450	600	59	2,000	900	1,200	200	1,300	400
Dibenzo(a,h)anthracene	N/A	50	4.9	ND																
Fluoranthene	N/A	50	4.9	ND																
Fluorene	N/A	0.002	4.9	ND																
Indeno(1,2,3-cd)pyrene	N/A	50	4.9	ND																
Naphthalene	N/A	10	4.9	ND																
Phenanthrene	N/A	50	4.9	ND																
Pyrene	N/A	50	4.9	ND																
Arsenic	N/A	25	10	ND																
Lead	N/A	25	5	ND																
Zinc	N/A	2,000	10	560	310	330	120	180	610	140	ND	510	340	23	618	358	108	128	472	472

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= Estimated Concentration Value



Parameter	EPA - Maximum Allowable (ug/L)	NYSDEC AWQS (µg/L)	Reporting Level (µg/L)	03/25/14	06/11/14	09/10/14	12/04/14	04/08/15	06/03/15	09/16/15	12/03/15	03/04/16	06/09/16	09/19/16	12/07/16	03/08/17	06/07/17	09/21/17	12/06/17	03/21/18
Benzene	5	1	1	ND																
Toluene	1,000	5	1	ND																
Ethylbenzene	700	5	1	ND																
Xylene (total)	10,000	5	2	ND																
Acenaphthene	N/A	20	4.9	ND																
Acenaphthylene	N/A	NA	4.9	ND		ND	ND	ND	ND	ND	ND									
Anthracene	N/A	NA	4.9	ND																
Benzo(a)anthracene	N/A	0.002	4.9	ND																
Benzo(a)pyrene	N/A	ND	4.9	ND																
Benzo(b)fluoranthene	N/A	0.002	4.9	ND																
Benzo(g,h,i)perylene	0.2	NA	4.9	ND																
Benzo(k)fluoranthene	N/A	0.002	4.9	ND																
Chrysene	N/A	0.002	4.9	ND																
Cyanide	N/A	200	10	140	ND	13	ND													
Dibenzo(a,h)anthracene	N/A	50	4.9	ND																
Fluoranthene	N/A	50	4.9	ND																
Fluorene	N/A	0.002	4.9	ND																
Indeno(1,2,3-cd)pyrene	N/A	50	4.9	ND																
Naphthalene	N/A	10	4.9	ND																
Phenanthrene	N/A	50	4.9	ND																
Pyrene	N/A	50	4.9	ND																
Arsenic	N/A	25	10	ND																
Lead	N/A	25	5	ND																
Zinc	N/A	2,000	10	39	ND	ND	0.013	ND												

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μg/L ND H

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= Quantitated using peak height rather than peak area

= Estimated Concentration Value



LTMW-S05

Parameter	EPA - Maximum Allowable (ug/L)	NYSDEC AWQS (µg/L)	Reporting Level (µg/L)	03/25/14	06/11/14	09/10/14	12/04/14	04/08/15	06/03/15	09/16/15	12/03/15	03/04/16	06/09/16	09/19/16	12/07/16	03/08/17	06/07/17	09/21/17	12/06/17	03/21/18
Benzene	5	1	1	ND	5,800	ND	ND	ND	ND											
Toluene	1,000	5	1	ND	1,320	ND	ND	ND	ND											
Ethylbenzene	700	5	1	ND	145	ND	ND	ND	ND											
Xylene (total)	10,000	5	2	ND	206	ND	ND	ND	ND											
Acenaphthene	N/A	20	4.9	ND	0.19	ND	ND	ND	ND											
Acenaphthylene	N/A	NA	4.9	ND	0.31	ND	ND	ND	ND											
Anthracene	N/A	NA	4.9	ND																
Benzo(a)anthracene	N/A	0.002	4.9	ND																
Benzo(a)pyrene	N/A	ND	4.9	ND																
Benzo(b)fluoranthene	N/A	0.002	4.9	ND																
Benzo(g,h,i)perylene	0.2	NA	4.9	ND																
Benzo(k)fluoranthene	N/A	0.002	4.9	ND																
Chrysene	N/A	0.002	4.9	ND																
Cyanide	N/A	200	10	ND	260	150	94	140	190	220	160	450	250	16	830	510	570	270	380	430
Dibenzo(a,h)anthracene	N/A	50	4.9	ND																
Fluoranthene	N/A	50	4.9	ND																
Fluorene	N/A	0.002	4.9	ND	0.15	ND	ND	ND	ND											
Indeno(1,2,3-cd)pyrene	N/A	50	4.9	ND																
Naphthalene	N/A	10	4.9	ND																
Phenanthrene	N/A	50	4.9	ND																
Pyrene	N/A	50	4.9	ND																
Arsenic	N/A	25	10	ND																
Lead	N/A	25	5	ND	ND	ND	ND	11	ND	5.4	ND	ND	ND	ND						
Zinc	N/A	2,000	10	ND	ND	11	13	75	ND	27	ND	ND	19	23	ND	27.5	ND	ND	ND	ND

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μg/L ND H

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= Quantitated using peak height rather than peak area

= Estimated Concentration Value



Parameter	EPA - Maximum Allowable (ug/L)	NYSDEC AWQS (µg/L)	Reporting Level (µg/L)	03/25/14	06/11/14	09/08/14	12/04/14	04/08/15	06/03/15	09/16/15	12/03/15	03/04/16	06/09/16	09/19/16	12/07/16	03/08/17	06/07/17	09/21/17	12/06/17	03/21/18
Benzene	5	1	1	ND																
Toluene	1,000	5	1	ND																
Ethylbenzene	700	5	1	ND																
Xylene (total)	10,000	5	2	ND																
Acenaphthene	N/A	20	4.9	ND																
Acenaphthylene	N/A	NA	4.9	ND																
Anthracene	N/A	NA	4.9	ND																
Benzo(a)anthracene	N/A	0.002	4.9	ND																
Benzo(a)pyrene	N/A	ND	4.9	ND																
Benzo(b)fluoranthene	N/A	0.002	4.9	ND																
Benzo(g,h,i)perylene	0.2	NA	4.9	ND																
Benzo(k)fluoranthene	N/A	0.002	4.9	ND																
Chrysene	N/A	0.002	4.9	ND																
Cyanide	N/A	200	10	ND	92	ND	ND	ND	ND	ND										
Dibenzo(a,h)anthracene	N/A	50	4.9	ND																
Fluoranthene	N/A	50	4.9	ND																
Fluorene	N/A	0.002	4.9	ND																
Indeno(1,2,3-cd)pyrene	N/A	50	4.9	ND																
Naphthalene	N/A	10	4.9	ND																
Phenanthrene	N/A	50	4.9	ND																
Pyrene	N/A	50	4.9	ND	8.1	ND	ND	ND	ND											
Arsenic	N/A	25	10	ND	0.64	ND	ND	8.1	8.5	8.0	6.0									
Lead	N/A	25	5	ND																
Zinc	N/A	2,000	10	ND	ND	ND	0.015	ND												

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= Estimated Concentration Value



Parameter	EPA - Maximum Allowable (ug/L)	NYSDEC AWQS (µg/L)	Reporting Level (µg/L)	03/25/14	06/11/14	09/08/14	12/04/14	04/08/15	06/03/15	09/16/15	12/03/15	03/04/16	06/09/16	09/19/16	12/07/16	03/08/17	06/07/17	09/21/17	12/06/17	03/21/18
Benzene	5	1	1	ND																
Toluene	1,000	5	1	ND																
Ethylbenzene	700	5	1	ND																
Xylene (total)	10,000	5	2	ND																
Acenaphthene	N/A	20	4.9	ND																
Acenaphthylene	N/A	NA	4.9	ND																
Anthracene	N/A	NA	4.9	ND																
Benzo(a)anthracene	N/A	0.002	4.9	ND																
Benzo(a)pyrene	N/A	ND	4.9	ND																
Benzo(b)fluoranthene	N/A	0.002	4.9	ND																
Benzo(g,h,i)perylene	0.2	NA	4.9	ND																
Benzo(k)fluoranthene	N/A	0.002	4.9	ND																
Chrysene	N/A	0.002	4.9	ND																
Cyanide	N/A	200	10	71	110	66	17	100	ND	32	19	32	66	31	ND	190	79	14	18	64
Dibenzo(a,h)anthracene	N/A	50	4.9	ND																
Fluoranthene	N/A	50	4.9	ND																
Fluorene	N/A	0.002	4.9	ND																
Indeno(1,2,3-cd)pyrene	N/A	50	4.9	ND																
Naphthalene	N/A	10	4.9	ND																
Phenanthrene	N/A	50	4.9	ND																
Pyrene	N/A	50	4.9	ND																
Arsenic	N/A	25	10	ND	9	ND	ND	ND	ND	ND										
Lead	N/A	25	5	ND																
Zinc	N/A	2,000	10	ND	ND	ND	0.01	0.01	ND	ND	ND	18	ND							

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LTMW-S07

Parameter	EPA - Maximum Allowable (ug/L)	NYSDEC AWQS (µg/L)	Reporting Level (µg/L)	03/25/14	06/11/14	09/08/14	12/04/14	04/08/15	06/03/15	09/16/15	12/03/15	03/04/16	06/09/16	09/21/16	12/07/16	03/08/17	06/07/17	09/21/17	12/06/17	03/21/18
Benzene	5	1	1	ND																
Toluene	1,000	5	1	ND																
Ethylbenzene	700	5	1	ND																
Xylene (total)	10,000	5	2	ND																
Acenaphthene	N/A	20	4.9	ND																
Acenaphthylene	N/A	NA	4.9	ND																
Anthracene	N/A	NA	4.9	ND																
Benzo(a)anthracene	N/A	0.002	4.9	ND																
Benzo(a)pyrene	N/A	ND	4.9	ND																
Benzo(b)fluoranthene	N/A	0.002	4.9	ND																
Benzo(g,h,i)perylene	0.2	NA	4.9	ND																
Benzo(k)fluoranthene	N/A	0.002	4.9	ND																
Chrysene	N/A	0.002	4.9	ND																
Cyanide	N/A	200	10	ND																
Dibenzo(a,h)anthracene	N/A	50	4.9	ND																
Fluoranthene	N/A	50	4.9	ND																
Fluorene	N/A	0.002	4.9	ND																
Indeno(1,2,3-cd)pyrene	N/A	50	4.9	ND																
Naphthalene	N/A	10	4.9	ND																
Phenanthrene	N/A	50	4.9	ND																
Pyrene	N/A	50	4.9	ND																
Arsenic	N/A	25	10	ND																
Lead	N/A	25	5	ND																
Zinc	N/A	2,000	10	ND																

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LTMW-S08

Parameter	EPA - Maximum Allowable (ug/L)	NYSDEC AWQS (µg/L)	Reporting Level (μg/L)	03/25/14	06/11/14	09/08/14	12/04/14	04/08/15	06/03/15	09/16/15	12/03/15	03/04/16	06/09/16	09/19/16	12/07/16	03/08/17	06/07/17	09/21/17	12/06/17	03/21/18
Benzene	5	1	1	ND	ND	ND	ND	2.4	ND											
Toluene	1,000	5	1	ND																
Ethylbenzene	700	5	1	ND																
Xylene (total)	10,000	5	2	ND																
Acenaphthene	N/A	20	4.9	ND																
Acenaphthylene	N/A	NA	4.9	ND																
Anthracene	N/A	NA	4.9	ND																
Benzo(a)anthracene	N/A	0.002	4.9	ND																
Benzo(a)pyrene	N/A	ND	4.9	ND																
Benzo(b)fluoranthene	N/A	0.002	4.9	ND																
Benzo(g,h,i)perylene	0.2	NA	4.9	ND																
Benzo(k)fluoranthene	N/A	0.002	4.9	ND																
Chrysene	N/A	0.002	4.9	ND																
Cyanide	N/A	200	10	ND	130	110	170	560	120	100	100	280	120	120	140	240	16	140	16	200
Dibenzo(a,h)anthracene	N/A	50	4.9	ND																
Fluoranthene	N/A	50	4.9	ND																
Fluorene	N/A	0.002	4.9	ND																
Indeno(1,2,3-cd)pyrene	N/A	50	4.9	ND																
Naphthalene	N/A	10	4.9	ND	0.12	ND	ND	ND	ND	ND										
Phenanthrene	N/A	50	4.9	ND																
Pyrene	N/A	50	4.9	ND																
Arsenic	N/A	25	10	ND																
Lead	N/A	25	5	ND																
Zinc	N/A	2,000	10	ND																

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= Estimated Concentration Value



LTMW-S09

Parameter	EPA - Maximum Allowable (ug/L)	NYSDEC AWQS (µg/L)	Reporting Level (µg/L)	03/25/14	06/11/14	09/08/14	12/04/14	04/08/15	06/03/15	09/16/15	12/03/15	03/04/16	06/09/16	09/19/16	12/07/16	03/08/17	06/07/17	09/21/17	12/06/17	03/21/18
Benzene	5	1	1	ND																
Toluene	1,000	5	1	ND																
Ethylbenzene	700	5	1	ND																
Xylene (total)	10,000	5	2	ND																
Acenaphthene	N/A	20	4.9	ND																
Acenaphthylene	N/A	NA	4.9	ND																
Anthracene	N/A	NA	4.9	ND																
Benzo(a)anthracene	N/A	0.002	4.9	ND																
Benzo(a)pyrene	N/A	ND	4.9	ND																
Benzo(b)fluoranthene	N/A	0.002	4.9	ND																
Benzo(g,h,i)perylene	0.2	NA	4.9	ND																
Benzo(k)fluoranthene	N/A	0.002	4.9	ND																
Chrysene	N/A	0.002	4.9	ND																
Cyanide	N/A	200	10	ND																
Dibenzo(a,h)anthracene	N/A	50	4.9	ND																
Fluoranthene	N/A	50	4.9	ND																
Fluorene	N/A	0.002	4.9	ND																
Indeno(1,2,3-cd)pyrene	N/A	50	4.9	ND																
Naphthalene	N/A	10	4.9	ND																
Phenanthrene	N/A	50	4.9	ND																
Pyrene	N/A	50	4.9	ND																
Arsenic	N/A	25	10	ND																
Lead	N/A	25	5	ND	ND	ND	11	ND	ND	5.4	ND									
Zinc	N/A	2,000	10	ND	ND	ND	66	22	17	45	ND	ND	10	13	23.2	97.6	24.4	ND	15.3	ND

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Parameter	EPA - Maximum Allowable (ug/L)	NYSDEC AWQS (µg/L)	Reporting Level (µg/L)	03/25/14	06/11/14	09/08/14	12/04/14	04/08/15	06/03/15	09/16/15	12/03/15	03/04/16	06/09/16	09/21/16	12/07/16	03/08/17	06/07/17	09/21/17	12/06/17	03/21/18
Benzene	5	1	1	ND																
Toluene	1,000	5	1	ND																
Ethylbenzene	700	5	1	ND	1.6	ND														
Xylene (total)	10,000	5	2	ND																
Acenaphthene	N/A	20	4.9	30	43	15 H	26	21	17	36	29	6.3	6.3	23	17.4	3.1	4.30	11.0	6.8	2.3
Acenaphthylene	N/A	NA	4.9	ND	0.9	0.96	0.2	0.23	0.73	0.54	0.20									
Anthracene	N/A	NA	4.9	ND	0.17	0.12	0.12	ND	0.11	ND	ND									
Benzo(a)anthracene	N/A	0.002	4.9	ND																
Benzo(a)pyrene	N/A	ND	4.9	ND																
Benzo(b)fluoranthene	N/A	0.002	4.9	ND																
Benzo(g,h,i)perylene	0.2	NA	4.9	ND																
Benzo(k)fluoranthene	N/A	0.002	4.9	ND																
Chrysene	N/A	0.002	4.9	ND																
Cyanide	N/A	200	10	ND																
Dibenzo(a,h)anthracene	N/A	50	4.9	ND																
Fluoranthene	N/A	50	4.9	ND	2.1	1.5	0.5	0.62	2.0	1.4	0.71									
Fluorene	N/A	0.002	4.9	ND	1.5	1.1	0.17	0.35	1.1	0.73	0.25									
Indeno(1,2,3-cd)pyrene	N/A	50	4.9	ND																
Naphthalene	N/A	10	4.9	5.1	60	ND	0.2	0.17	ND	ND	0.20									
Phenanthrene	N/A	50	4.9	ND	1.4	0.94	ND	0.22	0.73	0.43	0.12									
Pyrene	N/A	50	4.9	ND	2.6	1.9	0.45	0.71	2.4	1.7	0.90									
Arsenic	N/A	25	10	ND																
Lead	N/A	25	5	ND																
Zinc	N/A	2,000	10	ND	ND	ND	0.011	0.011	ND											

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Table 5

Discharge Analytical Data

Groundwater Extraction System Effluent Concentrations

Parameter	City of Rome WPCF Permit Max Daily Limit (mg/L)	03/30/15	06/03/15	09/14/15	12/03/15	03/07/16	06/06/16	09/12/16	01/05/17	03/09/17	06/07/17	09/21/17	12/06/17	03/27/18
Benzene	0.13	0.045	0.053	0.04	0.044	0.037	0.063	0.043	0.0393	0.0536	0.0611	0.0360	0.0200	0.0274
Ethylbenzene	1.59	0.0021	0.0049	0.0042	0.003	0.0021	0.0049	0.0042	0.0025	0.0045	0.0050	0.0052	0.0019	0.0024
Toluene	1.35	0.010	0.0085	0.0013	0.0011	0.0038	0.0087	0.0021	0.0019	0.0028	0.0095	ND (<0.001)	0.0017	0.0025
Xylene	1.35	ND (<0.001)	0.0034	ND (<0.001)	ND (<0.001)	ND (<0.001)	0.0011	ND (<0.001)	ND (<0.001)	ND (<0.0030)	0.0034	ND (<0.0030)	ND (<0.0030)	ND (<0.0030)
Total BTEX	2.87	0.057	0.070	0.05	0.048	0.043	0.078	0.049	0.0437	0.0609	0.0790	0.0412	0.0236	0.0323
Arsenic	0.1	ND (<0.010)	ND (<0.0050)	ND (<0.010)	ND (<0.0050)									
Cadmium	0.11	ND (<0.001)	ND (<0.001)	0.0017	ND (<0.001)	ND (<0.001)	ND (<0.001)	ND (<0.0030)	ND (<0.0025)	ND (<0.0030)				
Chromium	2.77	ND (<0.0040)	ND (<0.0050)	ND (<0.010)	ND (<0.0050)									
Copper	1.3	ND (<0.010)	ND (<0.0050)	ND (<0.025)	ND (<0.0050)									
Cyanide	1.2	0.081	0.074	0.075	0.075	0.11	0.11	0.062	ND (<0.010)	0.09	0.084	0.056	0.074	0.069
Lead	1.1	ND (<0.0050)												
Mercury	0.2	ND (<0.00020)												
Nickel	1.9	ND (<0.010)	ND (<0.04)	ND (<0.010)										
Silver	0.43	ND (<0.0030)	ND (<0.0060)	ND (<0.010)	ND (<0.0060)									
Zinc	2.6	ND (<0.010)	ND (<0.010)	ND (<0.010)	0.018	0.018	0.018	ND (<0.010)	0.0241	ND (<0.010)				
Oil & Grease	100	ND (<5.0)	NS											
CBOD5	250	ND (<2.0)	NS											
pH	5.5 - 11.5 su	7.01	7.08	6.88	6.98	7.06	6.91	6.8	6.8	6.7	6.9	6.8	6.8	6.8

Results in mg/L.

mg/L = Milligrams per Liter
WPCF = Water Pollution Control Facility

NS = Not Sampled NA = Not Analyzed



Appendix A – Field Inspection Report

FIELD INSPECTION REPORT

Former MGP Site Kingsley Avenue Rome, New York

Date:	3/22/2018	Time:	7:30
Technician:	KL	Weather:	Sunny 28°

Site Controls					
Fence Condition	GOOD FAIR DAMAGED		DAMAGED	COMMENTS	
Kingsley Ave Gate	GOOD	FAIR		DAMAGED	COMMENTS:
Padlock-NG/CDMSmith	OPERATIONAL NON-C		PERATIONAL	COMMENTS:	
Railroad Ave Gate	GOOD	GOOD FAIR		DAMAGED	COMMENTS:
Padlock-NG/CDMSmith			PERATIONAL	COMMENTS:	

Vegetation (Surface Cover System)					
Condition of Grass	GOOD	FAIR	POOR	COMMENTS:	
Site Trees	NONE	MINOR	SIGNIFICANT	COMMENTS:	
Surface Erosion	NONE	MINOR	SIGNIFICANT	COMMENTS:	

		Stoned Ar	eas	
Condition of Main Access Road	GOOD	FAIR	POOR	COMMENTS:
Condition of Main Staging Area	GOOD	FAIR	POOR	COMMENTS:
Condition of Rear Turn Around Area	GOOD	FAIR	POOR	COMMENTS:

		ı	Draina	ge Sys	stems	
Rip Rap Area	Culvert	UNOBSTRUC	CTED	OB:	STRUCTED	
	Flow	NONE	LIT	TLE	SIGNIFICANT	COMMENTS:
	Outlet Channel	OPERATION	NAL	NON-C	PERATIONAL	COMMENTS:

Miscellaneous					
Evidence of Trespassing	NO		YES		COMMENTS:
Litter	NONE MINO		IOR	SIGNIFICANT	COMMENTS:

General Comments:

2018 1st Quarter OM&M Report National Grid Rome Former MGP Site 233 Kingsley Avenue, Rome, NY 13440



Appendix B – Quarterly Gauging and Containment Data

Quarterly Well Data Kingsley Avenue, Former MGP Site Utica, New York

	Г			1
WELL ID.	DTW	DTP	DTB	Comments
MW-OU2-1	9.15	41.50	45.81	Removed 5 gallons of DNAPL
MW-OU2-2	9.85	47.20	47.53	
MW-OU2-3	6.60	NP	34.18	
MW-OU2-4	6.55	34.90	39.55	Removed 5 gallons of DNAPL
MW-OU2-5	7.20	NP	36.01	
DNAPL-02	9.35	NP	50.40	
DNAPL-03	9.60	NP	52.32	Trace
DNAPL-04	10.90	NP	51.45	
DNAPL-05	12.99	NP	54.75	
DNAPL-06	12.00	NP	51.45	
DNAPL-07	12.67	NP	53.60	
DNAPL-08	13.16	NP	58.01	
DNAPL-09	14.06	NP	57.58	
VTM-1	11.86	NP	46.37	
VTM-2	10.41	NP	49.47	
VTM-3	11.36	NP	50.91	
VTM-4	13.31	NP	50.62	
VTM-5	13.45	NP	52.52	
LTMW-D01	8.22	NP	46.84	
LTMW-S01	9.41	NP	16.92	
LTMW-D02	10.21	NP	40.29	
LTMW-S02	9.98	NP	17.98	
LTMW-D03	5.65	NP	40.73	
LTMW-S03	3.60	NP	13.70	
LTMW-D04	9.35	NP	46.36	
LTMW-S04	9.05	NP	17.26	
LTMW-D05	8.95	NP	46.53	
LTMW-S05	8.80	NP	16.83	
LTMW-D06	12.10	NP	52.22	
LTMW-S06	12.92	NP	17.60	
LTMW-S07	10.40	NP	17.82	
LTMW-S08	15.30	NP	17.39	
LTMW-S09	9.50	NP	16.92	
LTMW-S10	10.15	NP	17.18	

Containment

Well Id.	Elevation	DTW	Water Elevation	Positive Delta	
DNAPL-02	436.81	9.35	427.46	6.38	
Top Steel Sheet Wall	433.84			0.38	
DNAPL-03	437.23	9.60	427.63	3.58	
Top Steel Sheet Wall	431.21			5.56	
DNAPL-04	438.50	10.90	427.60	5.22	
Top Steel Sheet Wall	432.82			5.22	
DNAPL-05	440.60	12.99	427.61	2.59	
Top Steel Sheet Wall	430.20			2.59	
DNAPL-06	439.71	12.00	427.71	5.84	
Top Steel Sheet Wall	433.55			5.84	
VTM-1	439.74	11.86	427.88	3.94	
Top Steel Sheet Wall	431.82			5.94	
VTM-2	438.33	10.41	427.92	4.78	
Top Steel Sheet Wall	432.70			4.76	
VTM-3	439.44	11.36	428.08	8.84	
Top Steel Sheet Wall	436.92			0.04	
VTM-4	441.59	13.31	428.28	5.26	
Top Steel Sheet Wall	433.54			3.20	
VTM-5	441.79	13.45	428.34	7.66	
Top Steel Sheet Wall	436.00			7.00	



Appendix C – Well Sampling Field Data

Sampling Personnel: PO					3/21		
Job Number: 06-03000				Weather:	250.0	IVERCAST	
Well Id. LTMW-D01				Time In:	1150	Time Out:	1240
Well Information							
		TOC	Other	Well Type:			Stick-Up
Depth to Water:		46.84		Well Locked Measuring Po		Yes Yes	No No
Depth to Bottom: Depth to Product:	<u> </u>	NP		Well Materia		Ss Oth	· · · ·
Length of Water Column:		38.62		Well Diame	ř	2" Oth	
Volume of Water in Well:	(gal)	6,178		Comments:	:	_	
Three Well Volumes:	(gal) //	8,539					
Purging Information						Conversion F	actors
Purging Method:	Bailer	Peristaltic	Grundfr	os Pump	gal/ft.	1" ID 2" ID	4" ID 6" ID
Tubing/Bailer Material:	Teflon	Stainless St.	Poly	vethylene	of		
Sampling Method:	Bailer		Grundfo	os Pump	water	0.04 0.16	
Average Pumping Rate:		<u>~130</u> 30			1 дано	on=3.785L=3785m	nL=1337cu. teet
Duration of Pumping: Total Volume Removed:	(min) (gal)		Did well go dry?	Yes No	u		
			s No	٠ ٠٠٠			
Horiba U-52 Water Quality Me	ter Useur	100					
Time DTW	Temp	pН	ORP	Conductivity	Turbidity	DO	TDS
(feet)	(°C)	·	(mV)	(mS/cm)	(NTU)	(mg/L)	(g/L)
1155 1045	845	7.26	-184	0.444		3.02	0,288
1200 12.95	9.20	7.41	-173 -170	0.434	<i>D</i>	2.12	0.283
1210 14.30	9,35	7.49	-145	0.425	0	1.87	0,200
25 4.80	9.42	7.44	-159	0,428	0	1.84	0,278
1220 15.55	9,50	7.46	- i58°	0,425	0	1.80	0.276
1225 16.00	9.48	7.46	-157	0.420	0	1.82_	0.274
		 		1			
			 	-		-	
+			+				
Sampling Information:							
EPA SW-846 Method 8270	SVOC P				2 - 1 liter ambe		S No H
EPA SW-846 Method 8260	VOC's E				3 - 40 ml vial		₩
EPA Method 335.4	Cyanic				1 - 250 ml plas 1 - 250 ml plas		
EPA Method 200.7	Metal	iS			1 - 200 mi piae	illC roa	No[_]
Sample ID: LTMW-D01-0	. 318 Dυ	plicate?	Yes No X	.l Sh	ipped: Pa	ace Courier Pick	kup 🔀
Sample Time: 230		S/MSD?	Yes No No			ff Albany Service	
1							

Sampling Personnel: ₽ ₽ ₽ ₽ ₽ ₽ ₽ ₽ ₽ ₽ ₽ ₽ ₽ ₽ ₽ ₽ ₽ ₽ ₽	
Well Id. LTMW-S01 Time In: [] OO Well Information	ı
Well Id. LTMW-S01 Time In: [] OO Well Information	reconst
Well Information	Time Out: //55
	shmount Stick-Up
Depth to Water: (feet) 4.41 Well Locked:	Yes No
Depth to Bottom: (feet) 16.92 Measuring Point Marked: Depth to Product: (feet) ▷ ▷ Well Material: PVC	Yes No No Other:
Depth to Product:(feet)NPWell Material:PVCLength of Water Column:(feet)7.51Well Diameter:1"	SS Other:
Volume of Water in Well: (gal) 1,2.9 Comments:	
Three Well Volumes: (gal) 3.60	

Purging Information	
	Conversion Factors
Purging Method: Bailer Peristaltic Grundfos Pump gal/ft. Tubing/Bailer Material: Teflon Stainless St. Polyethylene of	1" ID 2" ID 4" ID 6" ID
Tubing/Bailer Material: Teflon Stainless St. Polyethylene of Sampling Method: Peristaltic Grundfos Pump water	0.04 0.16 0.66 1.47
	on=3.785L=3785mL=1337cu. feet
Duration of Pumping: (min) 30	
Total Volume Removed: (gal) -1,59 Did well go dry? Yes No	
Horiba U-52 Water Quality Meter Used? Yes No	
	DO TDS
Time DTW Temp pH ORP Conductivity Turbidity	
(feet) (°C) (mV) (mS/cm) (NTU)	(mg/L) (g/L)
(feet) (°C) (mV) (mS/cm) (NTU) 105 845 662 595 -91 0,796 89	(mg/L) (g/L) 4,35 0.51
(feet) (°C) (mV) (mS/cm) (NTU) 1105 845 6.62 595 -91 0.796 89 110 845 6.75 599 -93 0.793 58	(mg/L) (g/L) 9,35 0.51/ 7.29 0.505
(feet) (°C) (mV) (mS/cm) (NTU) 1105 845 662 595 -91 0.796 89 110 845 675 599 -93 0.793 58 115 845 636 598 -93 0.781 25	(mg/L) (g/L) 9,33 0.511 7.29 0.505 ヤ8,0と 0,504
(feet) (°C) (mV) (mS/cm) (NTU) 1105 845 662 595 -91 0,796 89 110 845 675 599 -93 0,793 58 115 845 6,36 598 -93 0,781 25 1120 845 694 600 96 0,785 0	(mg/L) (g/L) 9.33 0.51 7.29 0.505 78.02 0.504 8.27 0.504
(feet) (°C) (mV) (mS/cm) (NTU) 1105 845 6.62 595 -91 0.796 89 1110 845 6.75 599 -93 0.793 58 1115 845 6.66 598 -93 0.721 2.5 1120 845 6.94 6.00 -96 0.728 0 1125 845 7.83 6.00 -96 0.727 0	(mg/L) (g/L) 9.35 0.51 7.29 0.505 78.08 0.504 8.21 0.504 8.60 0.491
(feet) (°C) (mV) (mS/cm) (NTU) 1105 845 662 595 -91 0.796 89 1110 845 667 599 -93 0.793 58 115 845 636 598 -93 0.781 25 1120 845 694 600 -96 0.737 0 1125 845 7.03 600 -96 0.737 0	(mg/L) (g/L) 9.35 0.51 7.29 0.505 78.02 0.504 8.27 0.504 8.60 0.497
(feet) (°C) (mV) (mS/cm) (NTU) 1105 845 662 595 -91 0.796 89 1110 845 662 599 -93 0.793 58 1115 845 636 598 -93 0.781 25 1120 845 694 600 96 0.788 0 1125 845 7.03 600 -96 0.717 0 1130 845 7.15 600 -95 0.784 0	(mg/L) (g/L) 9,33 0.511 7.29 0.505 78,02 0.504 8,21 0.504 8,60 0.491 8,69 0.503
(feet) (°C) (mV) (mS/cm) (NTU) 1105 845 662 545 -91 0.796 89 1110 845 6.75 599 -93 0.793 58 1115 845 6.36 598 -93 0.781 2.5 1120 845 6.94 6.00 96 0.788 0 1125 845 7.03 6.00 -96 0.717 0 1130 845 7.15 6.00 -95 0.784 0	(mg/L) (g/L) 9,33 0.511 7.29 0.505 78,02 0.504 8,21 0.504 8,60 0.491 8,69 0.503
(feet) (°C) (mV) (mS/cm) (NTU) 1105 845 662 545 -91 0.796 89 1110 845 6.75 599 -93 0.793 58 1115 845 6.36 598 -93 0.781 2.5 1120 845 6.94 6.00 96 0.788 0 1125 845 7.03 6.00 -96 0.717 0 1130 845 7.15 6.00 -95 0.784 0	(mg/L) (g/L) 9,33 0.511 7.29 0.505 78,02 0.504 8,21 0.504 8,60 0.491 8,69 0.503
(feet) (°C) (mV) (mS/cm) (NTU) 1105 845 662 545 -91 0.796 89 1110 845 6.75 599 -93 0.793 58 1115 845 6.36 598 -93 0.781 2.5 1120 845 6.94 6.00 96 0.788 0 1125 845 7.03 6.00 -96 0.717 0 1130 845 7.15 6.00 -95 0.784 0	(mg/L) (g/L) 9,33 0.511 7.29 0.505 78,02 0.504 8,21 0.504 8,60 0.491 8,69 0.503
(feet) (°C) (mV) (mS/cm) (NTU) 110 845 662 595 -91 0.796 89 110 845 675 599 -93 0.793 58 115 845 636 598 -93 0.781 2.5 1120 845 600 96 0.788 0 0 1125 845 7.15 600 -96 0.747 0 1130 845 7.15 600 -95 0.787 0 1135 845 7.14 599 -94 0.787 0	(mg/L) (g/L) 9,33 0.511 7.29 0.505 78,02 0.504 8,21 0.504 8,60 0.491 8,69 0.503
(feet) (°C) (mV) (mS/cm) (NTU) 1105 845 6.62 595 -91 0.796 89 1110 845 6.75 599 -93 0.793 58 1115 845 6.36 598 -93 0.781 2.5 1120 845 6.94 6.00 96 0.732 0 1125 845 7.03 6.00 -96 0.717 0 1130 845 7.15 6.00 -95 0.784 0	(mg/L) (g/L) 9,33 0.511 7.29 0.505 78,02 0.504 8,21 0.504 8,60 0.491 8,69 0.503
(feet) (°C) (mV) (mS/cm) (NTU) 110 845 662 595 -91 0.796 89 110 845 675 599 -93 0.793 58 115 845 636 598 -93 0.781 2.5 1120 845 600 96 0.788 0 0 1125 845 7.15 600 -96 0.747 0 1130 845 7.15 600 -95 0.787 0 1135 845 7.14 599 -94 0.787 0	(mg/L) (g/L) 9,35 0.511 7.29 0.505 78,02 0.504 8,21 0.504 8 60 0.497 8 69 0.503 8 60 0.502
(feet) (°C) (mV) (mS/cm) (NTU) 1105 845 662 595 -91 0.796 89 110 845 675 599 -93 0.793 58 1115 845 636 598 -93 0.781 2.5 1120 845 694 600 96 0.788 0 1125 845 7.03 600 -96 0.717 0 1130 845 7.15 600 -95 0.784 0 1135 845 7.15 600 -94 0.787 0 1135 845 7.15 600 -94 0.787 0 1135 845 7.14 599 -94 0.787 0	(mg/L) (g/L) 9.33 0.51 7.29 0.505 78.02 0.504 8.21 0.504 8.60 0.491 8.69 0.503 8.60 0.502
(feet) (°C)	(mg/L) (g/L) 9,35 0.51 7.29 0.505 78,02 0,504 8,21 0,504 8 60 0,491 8 69 0.503 8 60 0,502
(feet) (*C) (mV) (mS/cm) (NTU)	(mg/L) (g/L) 9,35 0.51/ 7.29 0.505 78,02 0.504 8,21 0.504 8,00 0.491 8,00 0.503 8,00 0.502
(feet) (°C) (mV) (mS/cm) (NTU) 110	(mg/L) (g/L) 9,33 0.51 7.29 0.505 78,02 0,504 8,24 0,504 8,60 0,494 8,69 0.503 8,60 0,502
(feet) (°C) (mV) (mS/cm) (NTU)	(mg/L) (g/L) 9,35 0.51/ 7.29 0.505 78,02 0.504 8,21 0.504 8,00 0.491 8,00 0.503 8,00 0.502

Kingsley Avenue, Ro	me, rew ronk				
Sampling Personnel:	K		Date: 3	12116	
	-03000		Weather:	Cucuai	240
Well Id.		mP 02	Time In:		Time Out: 11:00
Well Information	ON (feet)	TOC Other	Well Type: Well Locke	ed:	mount Stick-Up No
Depth to Bottom: Depth to Product: Length of Water Colo Volume of Water in N		47.08- 40.29 30.08 4.81	Measuring F Well Mater Well Diame Comments	eter: 1"	Yes Other: Other:
Three Well Volumes		14.43	Comments	i:	
Purging Informat Purging Method: Tubing/Bailer Materia Sampling Method: Average Pumping Ra Duration of Pumping Total Volume Remove	Bailer al: Teflon Bailer ate: (ml/min) ; (min)	Stainless St.	Grundfos Pump Polyethylene Grundfos Pump dry? Yes No	gal/ft of water	Conversion Factors 1" ID 2" ID 4" ID 6" ID 0.04 0.16 0.66 1.47 n=3.785L=3785mL=1337cu. feet
Horiba U-52 Water C	Quality Meter Used?	Yes No		Turbidity	DO TDS
/0:10 (fe	eet) (°C) (60 3.15 30 4.19	(mV 8.34 - 91 92.12 - 56	(mS/cm) (mS/cm)	(NTU) 51.2 50.4	(mg/L) (g/L) 575 6-188 4.76 0190
10:20 12:8 10:25 13:4 10:30 13:	34 4.81	7.65 -10 7.28 4 7.41 -11 7.44 -17	0.271	43.4 32.9 24.9	7.30 0.204 0.93 0.34 1 0.29 0.379 0.08 0.414
	52 5.8	7.40 -2	6.64	165	000 6.125
EPA SW-846 Meth EPA SW-846 Meth EPA Method 3 EPA Method 2	od 8270 SVOC F od 8260 VOC's E 35.4 Cyani	BTEX ide		2 - 1 liter amber 3 - 40 ml vials 1 - 250 ml plasti 1 - 250 ml plasti	Yes No No No
Sample ID: LTM Sample Time:		···-	lo Sh	• •	ce Courier Pickup Albany Service Center
Comments/Notes:				Laboratory:	Pace Analytical

Sampling Personnel:		Date: 3/21/16
Job Number: 06-03000		Weather: Clarpy 240
Well Id. LINN-DS2 CT MW	-502	Time In: 09:20 Time Out: 10:10
Well Information	TOC Other	Well Type: Flushmount Stick-Up
	9.96	Well Locked: Yes No
Depth to Bottom: (feet)	40.29— 17.98	Measuring Point Marked: Yes No No Other:
Depth to Product: (feet) Length of Water Column: (feet)	G , 00	Well Diameter: 1" 2" Other:
Volume of Water in Well: (gal)	1.28	Comments:
Three Well Volumes: (gal)	3.84	
Purging Information		Conversion Factors
Purging Method: Bailer	Peristaltic Grundfo	os Pump gal/ft. 1" ID 2" ID 4" ID 6" ID
Tubing/Bailer Material: Teflon		ethylene of
Sampling Method: Bailer	Peristaltic Grundfo	water 0.04 0.16 0.66 1.47
Average Pumping Rate: (ml/min)	200	1 gallon=3.785L=3785mL=1337cu. feet
Duration of Pumping: (min) Total Volume Removed: (gal)	Did well go dry?	Yes No No
Total Volume Removed: (gal) Horiba U-52 Water Quality Meter Used?	Yes No	Yes No.
Time DTW Temp	pH ORP	Conductivity Turbidity DO TDS
(feet) (°C)	(mV)	(mS/cm) (NTU) (mg/L) (g/L) © (617 355 3.30 0.388
0225 1012 3.34	8 30 -116	0.617 355 3.30 6.388
17 3: 10.17 3.39	8,39 -98	0.546 132 1.60 0.350
00) 38 10.1 - 3.54	6.36 -97	0.544 /34 1.45 0.349
09:48 10.17 3.58	8.36 -96	0.544 104 1.34 6.347
10975 10-17 3.41	8.40 -94	0.527 65 1.00 6.337
0430 10.17 3.40	8 39 -94	0.525 60.3 0.98 0.333
II		
Sampling Information:		
57.000000000000000000000000000000000000	5 A 1 1/1.	2. 4 Stay ambaya Vos Vila
EPA SW-846 Method 8270 SVOC F EPA SW-846 Method 8260 VOC's E		2 - 1 liter ambers Yes No No No No
EPA Svv-846 Metriod 8260 VOCS E		1 - 250 ml plastic Yes No
EPA Method 200.7 Meta		1 - 250 ml plastic Yes No
502-0316		
I Camanda ID. LERBIN DAGASAGE Dis		·
' 	iplicate? Yes No No No Yes No	Shipped: Pace Courier Pickup Drop-off Albany Service Center

Sampling Perso	onnel: PC)			Date:	3/21		
Job Number:	06-03000				Weather:	300. 0	vercas	
Well Id. L1	TMW- SOS- D	<u>~~</u>			Time In:	1330	Time Out:	1415
Well Infor	rmation							***************************************
			TOC	Other	Well Type:			Stick-Up
Depth to Water		(feet)	12 79-110-70	7	Well Locke		Yes	No
Depth to Botton Depth to Produc		(feet)	43.70 40.7°	5	Measuring F Well Mater	Point Marked: rial: PVC	Yes X Ss Oth	Noi ner:
Length of Wate			55.08		Well Diame		2" Oth	
Volume of Wate			5.61		Comments			
Three Well Volu	umes:	(gal)	6.83					
								
Director lot	مرو المساد							
Purging Info	ormation						Conversion F	Factors
Purging Method	<u> </u>	Bailer	Peristaltic	Grundf	os Pump	gal/ft.	1" ID 2" ID	4" ID 6" ID
Tubing/Bailer M		Teflon	 	<u>r</u>	yethylene	of		
Sampling Metho		Bailer		Grundf	os Pump	water		
Average Pumpi			<u>~(80</u>			1 gall	on=3.785L=3785n	nL=1337cu. feet
Duration of Pun Total Volume R		(min)	30 151.60 C	id well go dry?	Yes No	<u>.</u> /		
-			- 0		resno_	<u>•</u>		
Horiba U-52 Wa	ater Quality M	leter Used?	Yes	No				
T 4.	5-11			ORP	I G I I	T 1:10	T 00	I TOO I
··· tima	131101 1	iama	· ^H			' ' ' ICO (CHITY		1110
Time	DTW (feet)	Temp (°C)	pН	1	Conductivity (mS/cm)	Turbidity (NTU)	DO (ma/L)	TDS (a/L)
	(feet)	(°C) 8.90	6.90	(mV) -220	(mS/cm)	(NTU)	(mg/L) 2.96	(g/L)
1336 1340	(feet) 6.55 6.66	(°C) 8.90 9.48	6.90	(mV) -220 -182	(mS/cm) 0.33(0.480	(NTU)	(mg/L) 2.96 2.61	(g/L) 0.209 0.321
1836 1340 1345	(feet) 6.55 6.66 7.48	(°C) 8.90 9.48 9.67	6.90 8.11 6.90	(mV) -220 -182 -153	(mS/cm) 0.33(0.480 0.681	(NTU) 3.1 0.9 0	(mg/L) 2.96 2.61 2.10	(g/L) 0.209 0.321 0.438
1336 1340 1345 1350	(feet) 6.55 6.66 7.48 7.41	(°C) 8.90 9.43 9.67 9.69	6.90 8.11 6.90 6.74	(mV) -220 -182 -153 -140	(mS/cm) 0.33(0.430 0.68(0.720	(NTU) 3.1 0.9 0	(mg/L) 2.96 2.61 2.10 1.96	(g/L) 0.209 0.321 0.438 0.461
1336 1340 1345 1350 1355	(feet) 6.55 6.66 7.48 7.41 7.95	(°C) 8.90 9.48 9.67 9.69 9.90	6.90 8.11 6.90 6.74	(mV) -220 -182 -153 -140 -131	(mS/cm) 0.33(0.480 0.681 0.720 0.758	(NTU) 3.1 0.9 0 0	(mg/L) 2.96 2.61 2.10 1.96 1.79	(g/L) 0.209 0.321 0.438 0.461 0.485
1336 1340 1345 1350 1355 1400	(feet) 6.55 6.66 7.42 7.41 7.95 8.10	(°C) 8.90 9.48 9.67 9.69 9.90 10.00	6.90 8.1 6.90 6.74 6.60 6.55	(mV) -220 -182 -153 -140 -131 -127	(mS/cm) 0.33(0.480 0.681 0.720 0.758 0.778	(NTU) 3.1 0.9 0 0 0	(mg/L) 2.96 2.61 2.10 1.96 1.79	(g/L) 0.209 0.321 0.438 0.461 0.465 0.489
1336 1340 1345 1350 1355	(feet) 6.55 6.66 7.48 7.41 7.95	(°C) 8.90 9.48 9.67 9.69 9.90	6.90 8.11 6.90 6.74	(mV) -220 -182 -153 -140 -131	(mS/cm) 0.33(0.480 0.681 0.720 0.758	(NTU) 3.1 0.9 0 0	(mg/L) 2.96 2.61 2.10 1.96 1.79	(g/L) 0.209 0.321 0.438 0.461 0.485
1336 1340 1345 1350 1355 1400	(feet) 6.55 6.66 7.42 7.41 7.95 8.10	(°C) 8.90 9.48 9.67 9.69 9.90 10.00	6.90 8.1 6.90 6.74 6.60 6.55	(mV) -220 -182 -153 -140 -131 -127	(mS/cm) 0.33(0.480 0.681 0.720 0.758 0.778	(NTU) 3.1 0.9 0 0 0	(mg/L) 2.96 2.61 2.10 1.96 1.79	(g/L) 0.209 0.321 0.438 0.461 0.465 0.489
1336 1340 1345 1350 1355 1400	(feet) 6.55 6.66 7.42 7.41 7.95 8.10	(°C) 8.90 9.48 9.67 9.69 9.90 10.00	6.90 8.1 6.90 6.74 6.60 6.55	(mV) -220 -182 -153 -140 -131 -127	(mS/cm) 0.33(0.480 0.681 0.720 0.758 0.778	(NTU) 3.1 0.9 0 0 0	(mg/L) 2.96 2.61 2.10 1.96 1.79	(g/L) 0.209 0.321 0.438 0.461 0.465 0.489
1336 1340 1345 1350 1355 1400	(feet) 6.55 6.66 7.42 7.41 7.95 8.10	(°C) 8.90 9.48 9.67 9.69 9.90 10.00	6.90 8.1 6.90 6.74 6.60 6.55	(mV) -220 -182 -153 -140 -131 -127	(mS/cm) 0.33(0.480 0.681 0.720 0.758 0.778	(NTU) 3.1 0.9 0 0 0	(mg/L) 2.96 2.61 2.10 1.96 1.79	(g/L) 0.209 0.321 0.438 0.461 0.465 0.489
1336 1340 1345 1350 1355 1400 1405	(feet) 6.55 6.66 7.42 7.41 7.41 7.95 8.10 8.20	(°C) 8.90 9.48 9.67 9.69 9.90 10.00	6.90 8.1 6.90 6.74 6.60 6.55	(mV) -220 -182 -153 -140 -131 -127	(mS/cm) 0.33(0.480 0.681 0.720 0.758 0.778	(NTU) 3.1 0.9 0 0 0	(mg/L) 2.96 2.61 2.10 1.96 1.79	(g/L) 0.209 0.321 0.438 0.461 0.465 0.489
1336 1340 1345 1350 1355 1400	(feet) 6.55 6.66 7.42 7.41 7.41 7.95 8.10 8.20	(°C) 8.90 9.48 9.67 9.69 9.90 10.00	6.90 8.1 6.90 6.74 6.60 6.55	(mV) -220 -182 -153 -140 -131 -127	(mS/cm) 0.33(0.480 0.681 0.720 0.758 0.778	(NTU) 3.1 0.9 0 0	(mg/L) 2.96 2.61 2.10 1.96 1.79	(g/L) 0.209 0.321 0.438 0.461 0.465 0.489
336 340 345 1350 1355 1400 1405	(feet) 6.55 6.66 7.42 7.41 7.95 8.10 8.20	(°C) 8.90 9.48 9.67 9.69 9.90 10.00	6.90 8.11 6.90 6.74 6.60 6.55 6.53	(mV) -220 -182 -153 -140 -131 -127	(mS/cm) 0.33(0.480 0.681 0.720 0.758 0.778	(NTU) 3.1 0.9 0 0 0	(mg/L) 2.96 2.61 2.10 1.96 1.70 1.66	(g/L) 0.209 0.321 0.438 0.461 0.485 0.489 0.492
336 340 345 350 355 400 405 Sampling Info	(feet) 6.55 6.66 7.42 7.41 7.41 7.95 8.10 8.20	(°C) 8.90 9.48 9.67 9.69 9.90 10.00	6.90 6.90 6.74 6.60 6.55 6.53	(mV) -220 -182 -153 -140 -131 -127	(mS/cm) 0.33(0.480 0.681 0.720 0.758 0.778	(NTU) 3.1 0.9 0 0	(mg/L) 2.96 2.61 2.10 1.96 1.19 1.40	(g/L) 0.209 0.321 0.438 0.461 0.485 0.489 0.492
1340 1345 1350 1355 1400 1405 EPA SW-846 EPA SW-846	(feet) 6.55 6.66 7.48 7.41 7.95 8.10 8.20	(°C) 8.90 9.43 9.67 9.69 10.00 10.00	6.90 6.74 6.55 6.53	(mV) -220 -182 -153 -140 -131 -127	(mS/cm) 0.33(0.480 0.681 0.720 0.758 0.778	(NTU) 3.1 0.9 0 0 0 0 0	(mg/L) 2.96 2.61 2.10 1.96 1.70 1.66	(g/L) 0.209 0.321 0.438 0.461 0.485 0.489 0.492
1346 1346 1345 1350 1355 1400 1405 1405 EPA SW-846 EPA SW-846 EPA Met	(feet) 6.55 6.66 7.42 7.41 7.95 8.10 8.20 mation: 6 Method 8270 6 Method 8260 thod 335.4 thod 200.7	(°C) 8.90 9.43 9.67 9.69 9.90 10.00 10.00 VO.01 SVOC 8 VOC's Cyan Meta	(e.90 8.11 6.90 6.74 6.60 6.55 6.53 PAH's BTEX side	(mV) -220 -182 -153 -140 -131 -127	(mS/cm) 0.33(0.480 0.681 0.720 0.758 0.778	(NTU) 3. (0. 9 0 0 0 0 0 0 2 - 1 liter amb 3 - 40 ml via	(mg/L) 2.96 2.61 2.10 1.96 1.70 1.66 ers Yes stic Yes	(g/L) 0.209 0.321 0.438 0.461 0.485 0.489 0.491
1340 1345 1350 1355 1400 1405 EPA SW-846 EPA Met EPA Met	(feet) 6.55 6.66 7.42 7.41 7.95 8.10 8.20 mation: 6 Method 8270 6 Method 8260 thod 335.4 thod 200.7	(°C) 8.90 9.43 9.67 9.69 9.90 10.00 10.00 VO.01 SVOC 8 VOC's Cyan Meta	(e.90 (e.90 (e.74) (e.60 (e.55) (e.53)	(mV) -220 -182 -153 -140 -131 -127 -126	(mS/cm) 0.33(0.480 0.681 0.720 0.758 0.778	(NTU) 3. (0. 9 0 0 0 0 0 0 0 1 2 - 1 liter amb 3 - 40 ml via 1 - 250 ml plas 1 - 250 ml plas	(mg/L) 2.96 2.61 2.10 1.96 1.79 1.40 1.40 1.50 1.66 ers Yes stic Yes stic Yes	(g/L) 0.209 0.321 0.438 0.461 0.485 0.489 0.492
1340 1345 1350 1355 1400 1405 1405 EPA SW-846 EPA Met EPA Met Sample ID:	(feet) 6.55 6.66 7.42 7.41 7.95 8.10 8.20 8.20 6 Method 8270 6 Method 8260 thod 335.4 thod 200.7 7.3 LTMW-803-0	(°C) 8.90 9.43 9.67 9.69 9.00 10.00 10.00 VO.01 SVOC 8 VOC's I	PAH's BTEX side als	(mV) -220 -182 -153 -140 -131 -127 -126	(mS/cm) 0.33(0.480 0.681 0.720 0.758 0.778	(NTU) 3-1 0-9 0 0 0 0 0 0 0 1-250 ml plastipped: P	ers Yes stic Yes ace Courier Pick	(g/L) 0.209 0.321 0.438 0.461 0.485 0.489 0.492
1340 1345 1350 1355 1400 1405 EPA SW-846 EPA Met EPA Met	(feet) 6.55 6.66 7.42 7.41 7.95 8.10 8.20 8.20 6 Method 8270 6 Method 8260 thod 335.4 thod 200.7 0.3 LTMW-803-6 1405	(°C) 8.90 9.43 9.67 9.69 9.00 10.00 10.00 VO.01 SVOC 8 VOC's I	(e.90 8.11 (e.90 (e.74) (e.60) (e.55) (e.55) (e.55) (e.55)	(mV) -220 -182 -153 -140 -131 -127 -126	(mS/cm) 0.33(0.480 0.481 0.720 0.758 0.758 0.780	(NTU) 3-1 0-9 0 0 0 0 0 0 0 1-250 ml plastipped: P	(mg/L) 2.96 2.61 2.10 1.96 1.79 1.40 1.40 1.50 1.66 ers Yes stic Yes stic Yes	(g/L) 0.209 0.32-L 0.438 0.461 0.485 0.489 0.492

Sampling Personnel:	<u> </u>			Date:	3121		
Job Number: 06-03000				Weather:	300 - 0	sercost	
Well ld. LTMW-Do3	D 503		• • • • • • • • • • • • • • • • • • • •	Time In:	245	Time Out:	
Well Information		тос	Other	Well Type:	Flus	hmount :	Stick-Up
Depth to Water:	(feet)	3.60	Other	Well Locke		Yes	No No
Depth to Bottom:	· · ·	40.73 -> [3.70		Point Marked:	Yes	No
Depth to Product:	(feet)	MP		Well Mater			ner:
Length of Water Column:		(2 -1 -	0.10	Well Diame		2" X Otl	ner:
Volume of Water in Well: Three Well Volumes:	(gal)	2-8t-> "	4.85	Comments	:		
Tillee yyeli volumes.	(gai) }•	4-0 L-7	T-03				
Purging Information							
	- 					Conversion F	
Purging Method:	Bailer	Peristaltic		fos Pump	gal/ft.	1" ID 2" ID	4" ID 6" ID
Tubing/Bailer Material: Sampling Method:	Teflon Bailer	Stainless St. Peristaltic	k d	yethylene X	of water	0.04 0.16	0.66 1.47
Average Pumping Rate:			Gruno	ios Fump		on=3.785L=3785n	
Duration of Pumping:	(min)	30			<u> </u>	•··	
Total Volume Removed:	(gal)		id well go dry?	Yes No			
Horiba U-52 Water Quality	Meter Used?	() Yes	N∘√				
Time DTW	Temp	рН	ORP	Conductivity	Turbidity	DO	TDS
(feet)	(°C)		(mV)	(mS/cm)	(NTU)	(mg/L)	(g/L)
(feet) (250 3.60	(°C) 7,12	6.57	(mV) -43	(mS/cm) のご知る	(NTU)	(mg/L) i-j. 7-9	(g/L) 0,231
(feet) 1250 3.60 1255 3.60	(°C) 7,12 3,6,74	6.57	(mV) -43 -61	(mS/cm) 0.353 0.381	(NTU) 100 294	(mg/L) 4.79 2.51	(g/L) 0,231 0,247
(feet) 1250 3.60 1255 3.60 1300 3.60	(°C) 7,12 \$6,74	6.57 5.81 5.78	(mV) -43 -61 -62	(mS/cm) 0.353 0.381 0.386	(NTU) 100 29.4 8.3	(mg/L) 4.79 2.51 2.11	(g/L) 0,231 0,247 0,251
(feet) 1250 3.60 1255 3.60 1300 3.60 1305 3.60	(°C) 7.12 3.6.74 6.77 6.67	6.54 5.81 5.78 5.74	(mV) -43 -61 -62 -66	(mS/cm) 0.383 0.381 0.386 0.385	(NTU) 100 294	(mg/L) 4.79 2.51	(g/L) 0,231 0,247
(feet) 1250 3.60 1255 3.60 1300 3.60	(°C) 7,12 \$6,74	6.54 5.81 5.78 5.74 5.73 5.72	(mV) -43 -61 -62 -66	(mS/cm) 0.353 0.381 0.386	(NTU) 100 29.4 8.3 5.0 3.0	(mg/L) 4.79 2.51 2.11	(g/L) 0,231 0,247 0,251 0,250
(feet) 1250 3.60 1255 3.60 1300 3.60 1310 3.60	(°C) 7.12 \$ 6.74 6.77 6.67	6.54 5.81 5.78 5.74 5.73 5.72	(mV) -43 -61 -62 -66 -68	(mS/cm) 0.381 0.386 0.385 0.391	(NTU) 100 29.4 8.3 5.0	(mg/L) 4.79 2.51 2.11 1.92 2.05	(g/L) 0,231 0,247 0,251 0,250 0,250
(feet) 1250 3.60 1255 3.60 1300 3.60 1310 3.60 1315 3.60	(°C) 7,12 5,674 6,77 6,67 6,67 6,63	6.54 5.81 5.78 5.74 5.73 5.72	(mV) -43 -61 -62 -66 -68	(mS/cm) 0.353 0.381 0.385 0.391 0.391	(NTU) 100 29.4 8.3 5.0 3.0	(mg/L) 4.79 2.51 2.11 1.92 2.05	(g/L) 0,231 0,247 0,251 0,250 0,254 0,254
(feet) 1250 3.60 1255 3.60 1300 3.60 1310 3.60 1315 3.60	(°C) 7,12 5,674 6,77 6,67 6,67 6,63	6.54 5.81 5.78 5.74 5.73 5.72	(mV) -43 -61 -62 -66 -68	(mS/cm) 0.353 0.381 0.385 0.391 0.391	(NTU) 100 29.4 8.3 5.0 3.0	(mg/L) 4.79 2.51 2.11 1.92 2.05	(g/L) 0,231 0,247 0,251 0,250 0,254 0,254
(feet) 1250 3.60 1255 3.60 1300 3.60 1310 3.60 1315 3.60	(°C) 7,12 5,674 6,77 6,67 6,67 6,63	6.54 5.81 5.78 5.74 5.73 5.72	(mV) -43 -61 -62 -66 -68	(mS/cm) 0.353 0.381 0.385 0.391 0.391	(NTU) 100 29.4 8.3 5.0 3.0	(mg/L) 4.79 2.51 2.11 1.92 2.05	(g/L) 0,231 0,247 0,251 0,250 0,254 0,254
(feet) 1250 3.60 1255 3.60 1300 3.60 1310 3.60 1315 3.60	(°C) 7,12 5,674 6,77 6,67 6,67 6,63	6.54 5.81 5.78 5.74 5.73 5.72	(mV) -43 -61 -62 -66 -68	(mS/cm) 0.353 0.381 0.385 0.391 0.391	(NTU) 100 29.4 8.3 5.0 3.0	(mg/L) 4.79 2.51 2.11 1.92 2.05	(g/L) 0,231 0,247 0,251 0,250 0,254 0,254
(feet) 1250 3.60 1255 3.60 1300 3.60 1310 3.60 1315 3.60	(°C) 7,12 5,674 6,77 6,67 6,67 6,63	6.54 5.81 5.78 5.74 5.73 5.72	(mV) -43 -61 -62 -66 -68	(mS/cm) 0.353 0.381 0.385 0.391 0.391	(NTU) 100 29.4 8.3 5.0 3.0	(mg/L) 4.79 2.51 2.11 1.92 2.05	(g/L) 0,231 0,247 0,251 0,250 0,254 0,254
(feet) (750 3.60 1255 3.60 1300 3.60 1305 3.60 1315 3.60 1320 3.60 1320 3.60	(°C) 7.12 \$ 6.74 6.77 6.67 6.63 \$ 6.63	6.54 5.81 5.78 5.74 5.72 5.72	(mV) -43 -61 -62 -66 -68	(mS/cm) 0.353 0.381 0.385 0.391 0.391	(NTU) 100 29.4 8.3 5.0 2.5 1.8	(mg/L) 4.79 2.51 2.11 1.92 2.05 1.84 1.78	(g/L) 0,231 0,247 0,251 0,250 0,250 0,254 0,254
(feet) 1250 3.60 1255 3.60 1300 3.60 1310 3.60 1315 3.60 1320 3.60 1320 3.60 Sampling Information:	(°C) 7.12 3.6.74 6.67 6.67 6.63 5.6.63	6.57 5.78 5.74 5.72 5.72 5.72	(mV) -43 -61 -62 -66 -68	(mS/cm) 0.353 0.381 0.385 0.391 0.391	(NTU) 100 29.4 8.3 5.0 2.5 1.8	(mg/L) 4.79 2.51 2.11 1.92 1.84 1.78	(g/L) 0,231 0,247 0,251 0,250 0,254 0,254 0,255
(feet) 1250	(°C) 7.12 3.6.74 6.77 6.67 6.67 6.63 5.6.63 SVOC P VOC'S B	6.57 5.78 5.74 5.72 5.72 5.72	(mV) -43 -61 -62 -66 -68	(mS/cm) 0.353 0.381 0.385 0.391 0.391	(NTU) (OO) 29.4 8.3 5.0 2.5 1.8 2-1 liter amb 3-40 ml via	(mg/L) 4.79 2.51 2.11 1.92 1.84 1.78 ers Yes	(g/L) 0,231 0,247 0,251 0,250 0,254 0,254 0,255
(feet) 1250 3.60 1255 3.60 1300 3.60 1310 3.60 1315 3.60 1320 3.60 1320 3.60 Sampling Information:	(°C) 7.12 3.6.74 6.67 6.67 6.63 5.6.63	6.54 5.70 5.74 5.72 5.72 5.72 PAH's	(mV) -43 -61 -62 -66 -68	(mS/cm) 0.353 0.381 0.385 0.391 0.391	(NTU) 100 29.4 8.3 5.0 2.5 1.8	(mg/L) 4,79 2,51 2,11 1,97 7,05 1,84 1,78 1,78 stic Yes	(g/L) 0,231 0,247 0,251 0,250 0,254 0,254 0,255
(feet) (250 3.60 (255 3.60 (300 3.60 (300 3.60 (315 3.60 (315 3.60 (320 3.60 (320 3.60 (320 3.60 (320 3.60 (320 3.60 (320 3.60 (420 3.60 (420 4.60	(°C) 7.12 3.6.74 6.77 6.67 6.63 5.6.63 SVOC P VOC'S E Cyanic Metal	6.57 5.78 5.74 5.72 5.72 5.72 SAH's BTEX de	(mV) -43 -61 -62 -62 -66 -69 -70	(mS/cm) 0.383 0.381 0.385 0.391 0.391	(NTU) (O C) 29.4 8.3 5.0 2.5 1.8 2-1 liter ambout and and a complete and a	(mg/L)	(g/L) 0,231 0,247 0,251 0,250 0,254 0,254 0,255
(feet) (250 3.60 1255 3.60 1300 3.60 1305 3.60 1315 3.60 1320 3.60 1320 3.60 1320 3.60 EPA SW-846 Method 8270 EPA SW-846 Method 8260 EPA Method 335.4	(°C) 7.12 3.6.74 6.77 6.67 6.67 6.63 5.6.63 SVOC P VOC's E Cyanic Metal	6.57 5.70 5.74 5.72 5.72 5.72 SAH's BTEX de is	(mV) -43 -61 -62 -66 -68	(mS/cm) 0.383 0.381 0.385 0.391 0.391	(NTU) (O C) 29.4 8.3 5.0 2.5 1.8 1.9 2-1 liter ambinated and the second of the	(mg/L) 4,79 2,51 2,11 1,97 7,05 1,84 1,78 1,78 stic Yes	(g/L) 0,231 0,247 0,251 0,250 0,254 0,254 0,254 0,255 No No No No

Sampling Personnel:	L			Date:	3/21/18	
Job Number: 06-03000				Weather:	CLOVAY	31
Well ld. LTMW-D04		* ·		Time In:	11:55	Time Out: 12-45
Well Information		TOC	Othor	Mall Trans		harran and Control Un V
Depth to Water:	(feet)	TOC	Other	Well Type Well Lock		hmount Stick-Up
Depth to Bottom:	(feet)	46.36			Point Marked:	Yes No
Depth to Product:	(feet)	,		Well Mate		SS Other:
Length of Water Column:	(feet)	37-01		Well Diam	neter: 1"	2" X Other:
Volume of Water in Well:	(gal)	5.92		Comments	S:	
Three Well Volumes:	(gal)	17.74				
Purging Information						
- M. II.			N		<u>-</u>	Conversion Factors
Purging Method: Tubing/Bailer Material:	Bailer Teflor		~	lfos Pump lyethylene	gal/ft.	1" ID 2" ID 4" ID 6" ID
Sampling Method:	Baile	—	K-7	fos Pump	of water	0.04 0.16 0.66 1.47
Average Pumping Rate:	(ml/min)		(<u>C</u> 3	100 1 01		on=3.785L=3785mL=1337cu. feet
Duration of Pumping:	(min)	3 3				
Total Volume Removed:	(gal)	2_ 0	oid well go dry?	Yes No	X	
Horiba U-52 Water Quality N	Meter Used?	Yes	No No			
Time DTW	Temp	рН	ORP	Conductivity	Turbidity	DO TDS
(feet)	(°C)		(mV)	(mS/cm)	(NTU)	(mg/L) (g/L)
12 00 9.73	5.26	675	302	0.511	13.5	0.00 0.32
12:05 10.68	6.60	7.39	256	0.500	11.9	0.00 0.320
12:10 10.72	10.75	763	150	0.519	3.8	6 00 0-307 6 00 0-332
12.20 10.75	191	7.72	7	0.524	5.3	0.00 0.335
12:25 10.75	5.09	7.93	-27	0.527	5.0	0-40 0-337
12.30 10.75	7.13	7.87	-33	0.525	5.0	0.00 0.335
						,
		<u>- </u>	<u> </u>	 		
		<u> </u>			<u></u>	
<u> </u>						
Sampling Information:						
EDA 0141 040 Martin al 0070	67400	DALU-			0.484	ers Yes No
EPA SW-846 Method 8270 EPA SW-846 Method 8260	SVOC VOC's				2 - 1 liter ambe 3 - 40 ml vial	
EPA Method 335.4	Cyan				1 - 250 ml plas	\mapsto
EPA Method 200.7	Meta				1 - 250 ml plas	
Sample ID: LTMW-D04-		uplicate?	Yes No] St	nipped: Pa	ace Courier Pickup
Sample Time: 12/3		S/MSD?	Yes No X	<u> </u>	Drop-o	ff Albany Service Center
Comments/Notes:					Laboratory:	Pace Analytical

Sampling Personnel:	Date: 3/21/11/8
Job Number: 06-03000	Weather: Coupy 290
Well Id. LTMW-S04	Time In: //:05 Time Out://35
Well Information	
TOC Other	Well Type: Flushmount Stick-Up
Depth to Water: (feet) 7,05	Well Locked: Yes No
Depth to Bottom: (feet) 17.26 Depth to Product: (feet)	Measuring Point Marked: Yes No No Other:
Length of Water Column: (feet) 751 9.2(Well Diameter: 1" 2" Other:
Volume of Water in Well: (gal) 120 131	Comments:
Three Well Volumes: (gal) 3-65 3-99	
Purging Information	Conversion Factors
Purging Method: Bailer Peristaltic Grundi	gal/ft. 1" ID 2" ID 4" ID 6" ID
Tubing/Bailer Material: Teflon Stainless St. Pol	lyethylene of
	water 0.04 0.16 0.66 1.47
Average Pumping Rate: (ml/min) 30	1 gallon=3.785L=3785mL=1337cu. feet
Total Volume Removed: (gal) 2 Did well go dry?	Yes No A
Horiba U-52 Water Quality Meter Used?	
TIOIDA O-02 Frator Granty motor 5000.	
Time DTW Temp pH ORP	Conductivity Turbidity DO TDS
(feet) (°C) (mV)	(mS/cm) (NTU) (mg/L) (g/L)
(feet) (°C) (mV) 11:10 9.47 4.66 6.77 225	(mS/cm) (NTU) (mg/L) (g/L) (g/L) (9.318 9.2 6.57 0.206
(feet) (°C) (mV) 11:10 9.47 4.66 6.77 225 11:15 9.58 4.67 6.24 299 11:20 9.70 4:65 6.24 319	(mS/cm) (NTU) (mg/L) (g/L) (g/L) (9/L) (9/L)
(feet) (°C) (mV) 11:10 9.47 4.66 6.77 225 11:15 9.58 4.67 6.24 299	(mS/cm) (NTU) (mg/L) (g/L) 0.318 9.2 8.57 0.206 0.320 7.4 9.31 0.361 0.315 4.1 10.24 0.265 0.315 40 7.85 0.205
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	(mS/cm) (NTU) (mg/L) (g/L) 0.318 9.2 8.57 0.206 0.320 7.4 9.31 0.26 0.315 4.0 7.95 6.205 0.317 4.3 7.17 0.206
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	(mS/cm) (NTU) (mg/L) (g/L) 0.318 9.2 8.57 0.206 0.320 7.4 9.31 0.206 0.315 40 7.85 0.205 0.317 4.3 7.17 0.206 0.313 4.3 7.13 0.204
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	(mS/cm) (NTU) (mg/L) (g/L) 0.318 9.2 8.57 0.206 0.320 7.4 9.31 0.26 0.315 4.0 7.95 6.205 0.317 4.3 7.17 0.206
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	(mS/cm) (NTU) (mg/L) (g/L) 0.318 9.2 8.57 0.206 0.320 7.4 9.31 0.206 0.315 40 7.85 0.205 0.317 4.3 7.17 0.206 0.313 4.3 7.13 0.204
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	(mS/cm) (NTU) (mg/L) (g/L) 0.318 9.2 8.57 0.206 0.320 7.4 9.31 0.26 0.315 40 7.85 0.205 0.317 4.3 7.17 0.206 0.313 4.3 7.13 0.204
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	(mS/cm) (NTU) (mg/L) (g/L) 0.318 9.2 8.57 0.206 0.320 7.4 9.31 0.206 0.315 40 7.85 0.205 0.317 4.3 7.17 0.206 0.313 4.3 7.13 0.204
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	(mS/cm) (NTU) (mg/L) (g/L) 0.318 9.2 8.57 0.206 0.320 7.4 9.31 0.26 0.315 40 7.85 0.205 0.317 4.3 7.17 0.206 0.313 4.3 7.13 0.204
(feet) (°C) (mV) 1/1/C 9.47 4.66 6.77 22.5 1/15 7.58 4.67 6.24 299 1/120 9.70 4.65 6.24 319 1/125 9.70 4.71 6.13 33.3 1/130 9.71 4.76 6.29 3.37 1/135 9.71 4.71 6.07 3.42 1/140 9.71 4.80 6.13 3.44	(mS/cm) (NTU) (mg/L) (g/L) 0.318 9.2 8.57 0.206 0.320 7.4 9.31 0.366 0.315 40 7.85 0.205 0.317 4.3 7.17 0.206 0.313 4.3 7.13 0.204 0.319 4.0 8.43 6.206
(feet) (°C) (mV) 1/1/C 9.47 4.66 6.77 225 1/15 7.58 4.67 6.24 299 1/12 9.70 4.65 6.24 319 1/125 9.70 4.71 6.13 333 1/130 9.71 4.76 6.09 3.37 1/135 9.71 4.71 6.07 342 1/140 9.71 4.80 6.07 344 1/140 9.71 4.80 6.03 3.44 1/140 9.71 4.80 6.03 3.44 1/140 9.71 4.80 6.03 3.44 1/140 9.71 4.80 6.03 3.44 1/140 9.71 9.80 6.03 3.44 1/140 9.71 9.80 6.03 9.71 9.80 6.03 9.71 9.80 6.03 9.71 9.80 6.03 9.71 9.80 6.03 9.71 9.80 6.03 9.71 9.80 6.03 9.71 9.80 6.03 9.71 9.80 9.71 9.80 9.71 9.80 9.71 9.80 9.71 9.80 9.71 9.80 9.71 9.80 9.71 9.80 9.71 9.80 9.71 9.80 9.71 9.80 9	(mS/cm) (NTU) (mg/L) (g/L) 0.318 9.2 8.57 0.206 0.320 7.4 9.31 0.36 0.315 4.0 7.95 0.305 0.317 4.3 7.17 0.306 0.313 4.3 7.13 0.204 0.319 4.0 8.43 6.206
(feet) (°C) (mV) 1/1/C 9.47 4.66 6.77 22.5 1/15 7.58 4.67 6.24 299 1/120 9.70 4.65 6.24 319 1/125 9.70 4.71 6.13 33.3 1/130 9.71 4.76 6.29 3.37 1/135 9.71 4.71 6.07 3.42 1/140 9.71 4.80 6.13 3.44	(mS/cm) (NTU) (mg/L) (g/L) 0.318 9.2 8.57 0.206 0.320 7.4 9.31 0.366 0.315 40 7.85 0.205 0.317 4.3 7.17 0.206 0.313 4.3 7.13 0.204 0.319 4.0 8.43 6.206
(feet) (°C) (mV)	(mS/cm) (NTU) (mg/L) (g/L) 0.318 9.2 8.57 0.200 0.320 7.4 9.31 0.200 0.315 40 7.95 0.205 0.317 9.3 7.17 0.206 0.313 9.3 7.13 0.204 0.319 4.0 8.43 6.206
(feet) (°C) (mV) 1/1/C 9.41 4.66 6.77 225 1/1/C 9.41 4.64 6.77 225 1/1/C 9.58 4.67 6.24 299 1/1/2 9.70 4.65 6.24 319 1/1/2 9.71 4.76 6.29 3.37 1/1/3 9.71 4.76 6.29 3.37 1/1/3 9.71 4.71 6.07 342 1/1/4 1/1/2 1/	(mS/cm) (NTU) (mg/L) (g/L) 0.318 9.2 8.57 0.200 0.320 7.4 9.3 0.36 0.315 40 7.13 0.204 0.313 4.2 8.43 6.206 2-1 liter ambers Yes No 3-40 ml vials Yes No 1-250 ml plastic Yes No
(feet) (°C) (mV)	(mS/cm) (NTU) (mg/L) (g/L) 0.318 9.2 6.57 0.200 0.320 7.4 9.3 0.36 0.315 40 7.95 0.205 0.317 9.3 7.17 0.206 0.313 9.3 7.13 0.204 0.319 4.0 8.43 6.206 2-1 liter ambers Yes No No 1-250 ml plastic Yes No 1-250 ml plastic Yes No 1-250 ml plastic Yes No No 1-250 ml pl

Sampling Pers	sonnel:	PD			Date:	3/21		-
Job Number:	06-03000				Weather:	300 - 01	GAR	
Well Id.	_TMW-D05				Time In:	(505	Time Out:	1550
Well Info	ormation							5 7
		1	TOC	Other	Well Type:			Stick-Up
Depth to Water Depth to Botto		(feet)	8 95 46.53		Well Locke Measuring P		Yes Yes	No No
Depth to Prod		(feet)	NP		Well Materi		Ss Oth	
Length of Wat		(feet)	37.58		Well Diame	1	2" O th	
Volume of Wa		(gal)	6013		Comments	:		
Three Well Vo	olumes:	(gal)	18,039					
Purging In	formation	•					Canadana I	
Purging Metho		Bailer	Peristaltic	Grundf	os Pump	gal/ft.	Conversion F	4" ID 6" ID
Tubing/Bailer		Teflon			vethylene	gai/it.	1 10 2 10	1 0 0 10
Sampling Met		Bailer			os Pump	water	0.04 0.16	0.66 1.47
Average Pum		(ml/min)	~180			1 gallo	on=3.785L=3785n	nL=1337cu. feet
Duration of Pu		(min)	30		,, [l		
Total Volume		(gal)	- 1 .	id well go dry?	Yes No	4		
Horiba U-52 V	Vater Quality I	Meter Used?	Yes	⊠ _{No} ∐				
Time	DTW	Temp	pH	ORP	Conductivity	Turbidity	DO	TDS
	(feet)	(°C)		(mV)	(mS/cm)	(NTU)	(mg/L)	(g/L)
510	10,75	9.63	6.18	33	0 325	D	6.80	0.211
1515	12-00	9.56	663	27	0 322	<u> </u>	6.78	0.209
1525	12.85	9.64	6.78	36 47	0.321	<u> </u>	667	0,209
1727	11100		$\mathbf{I} = \boldsymbol{\omega} \cdot \boldsymbol{\nu} \cdot \boldsymbol{\nu}$	·	1 1 23 24 1		1 W 1 7 7 .	
1530	14.00		,		1			
1530	14.35	9.65	689	53 56	0.322	Ö	6.72	0,209
			,	53	1			
1535	14.35	9.65	689	53 56	0.322	0	6.72	0,209
1535	14.35	9.65	689	53 56	0.322	0	6.72	0,209
1535	14.35	9.65	689	53 56	0.322	0	6.72	0,209
1535	14.35	9.65	689	53 56	0.322	0	6.72	0,209
1535	14.35 14.65 14.85	9.65	689	53 56	0.322	0	6.72	0,209
1535 1540 Sampling Inf	14.35 14.65 14.85	9.65 9.60 9.63	6 89	53 56	0.322	<i>O</i>	6.72	0,209
Sampling Inf	14.35 14.85 14.85 ormation:	9.65 9.60 9.63	6 89 6 91 6 93 PAH's	53 56	0.322	© © O	6.72 6.73 6.72	0,209 0,209 0.209
Sampling Inf EPA SW-84 EPA SW-84	14.35 14.65 14.85 ormation:	9.65 9.60 9.63 svoc voc's	6 89 6 93 6 93 PAH's BTEX	53 56	0.322	2 - 1 liter ambo 3 - 40 ml vial	6.72 6.73 6.72 ers Yes s Yes	0,209 0,209 0.209
Sampling Inf EPA SW-84 EPA SW-84 EPA M	iormation: 46 Method 8270 46 Method 8260 ethod 335.4	9.60 9.60 9.63 SVOC 1 VOC's Cyan	6 89 6 91 6 93 PAH's BTEX	53 56	0.322	2 - 1 liter ambo 3 - 40 ml vial 1 - 250 ml plas	ers Yes stic Yes	0,209 0,209 0,209
Sampling Inf EPA SW-84 EPA SW-84 EPA M	14.35 14.65 14.85 ormation:	9.65 9.60 9.63 svoc voc's	6 89 6 91 6 93 PAH's BTEX	53 56	0.322	2 - 1 liter ambo 3 - 40 ml vial	ers Yes stic Yes	0,209 0,209 0.209
Sampling Inf EPA SW-84 EPA SW-84 EPA M	id. 35 id. 65 id. 85 id. 85 id. 8270 46 Method 8270 46 Method 8260 ethod 335.4 ethod 200.7	SVOC S VOC'S Cyan Meta	PAH's BTEX ide als	53 56	0.322 0.322 0.321	2 - 1 liter ambo 3 - 40 ml vial 1 - 250 ml plas 1 - 250 ml plas	ers Yes stic Yes ace Courier Pick	0,209 0,209 0,209 0,209 0,209 No No No
Sampling Inf EPA SW-84 EPA M EPA M	igh . 35 igh . 25 igh .	SVOC S VOC'S Cyan Meta	PAH's BTEX iide als	53 56 59	0.322 0.322 0.321	2 - 1 liter ambo 3 - 40 ml vial 1 - 250 ml plas 1 - 250 ml plas	ers Yes stic Yes stic Yes	0,209 0,209 0,209 0,209 0,209 No No No

Sampling Pers	sonnel: PC)			Date:	3/21		
Job Number:	06-03000				Weather:	300- DAG	rrast	
Well ld. L	TMW-S05				Time In:	420	Time Out:	1500
Well Info	ormation		 					
			TOC	Other	Well Type:			Stick-Up
Depth to Wate Depth to Botto		(feet)	8.80 16.83		Well Locke	ed: Point Marked:	Yes Yes	No No
Depth to Produ		(feet)	NP		Well Mater		SS Oth	
Length of Wat		(feet)	8.03		Well Diam		2" X Oth	
Volume of Wa		(gal)	1128		Comments	:		
Three Well Vo	lumes:	(gal)	3.85					
D	f!'							
Purging In	rormation						Conversion F	actors
Purging Metho		Baile	r Peristalt	ic Grund	fos Pump	gal/ft.	1" ID 2" ID	4" ID 6" ID
Tubing/Bailer l		Teflor			yethylene	of		
Sampling Meth		Baile		ic Grund	fos Pump	water		
Average Pump			0812			1 gall	on=3.785L=3785m	L=1337cu. feet
Duration of Pu Total Volume I		(min) (gal)	30 ~1.5a 1	Did well go dry?	Yes No	<u>.</u>		
Horiba U-52 W				s No	100[110[3
Floriba 0-32 V	valer Quality is	neter Oseu:	16	2 NO L				*
Time	DTW	Temp	рН	ORP	Conductivity	Turbidity	DO	TDS
	(feet)	(°C)		(mV)	(mS/cm)	(NTU)	(mg/L)	(g/L)
1425	9.45	9.50	6.14	171	0.417	11.9	7.07	0.274
1430	9.51	7.97	5.83	24 <u>1</u> 218	0.429	11.0	12.21 6.34	0.236
1440	9.50	7.74	5.75	151	0.434	0	6.06	0.284
1445	9.55	8.14	5.73	101	0.432	0	7.09	0.282
1450	9.55	8.04	5.74	75	0.428	0	7.51	0.279
1455	9.55	8.15	5.72	69	0.432	0	7.70	0.281
								j
Sampling Info	ormation:							
EPA SW-84	6 Method 8270	SVOC I	-			2 - 1 liter ambe		No [
EPA SW-84 EPA SW-84	6 Method 8270 6 Method 8260	VOC's	BTEX			3 - 40 ml vial	s Yes	No□
EPA SW-844 EPA SW-84 EPA Me	6 Method 8270		BTEX ide				s Yes itic Yes	No No
EPA SW-84 EPA SW-84 EPA Me	6 Method 8270 6 Method 8260 ethod 335.4 ethod 200.7	VOC's Cyan Meta	BTEX ide als			3 - 40 ml vial 1 - 250 ml plas 1 - 250 ml plas	s Yes etic Yes etic Yes	No No No
EPA SW-844 EPA SW-84 EPA Me	6 Method 8270 6 Method 8260 ethod 335.4 ethod 200.7	VOC's Cyan Meta	BTEX ide	Yes No Yes No	Sh	3 - 40 ml vial 1 - 250 ml plas 1 - 250 ml plas pped: Pa	s Yes itic Yes	No No No
EPA SW-844 EPA SW-84 EPA Me EPA Me	6 Method 8270 6 Method 8260 ethod 335.4 ethod 200.7 LTMW-S05-	VOC's Cyan Meta	BTEX ide als uplicate?			3 - 40 ml vial 1 - 250 ml plas 1 - 250 ml plas pped: Pa	s Yes itic Yes itic Yes ace Courier Picki	No No No Center

Sampling Personnel:		Date: 3(21)18
Job Number: 06-03000		Weather: PC 36
Well Id. LTMW-D06		Time In: 12:50 Time Out: 13:30
Well Information		
	TOC Other	Well Type: Flushmount Stick-Up
Depth to Water: (feet)	<u>/2.10</u> 52.22	Well Locked: Yes No
Depth to Bottom: (feet) Depth to Product: (feet)	52.22	Measuring Point Marked: Yes No No Well Material: PVC SS Other:
Length of Water Column: (feet)	40-12	Well Diameter: 1" 2" Other:
Volume of Water in Well: (gal)	6041	Comments:
Three Well Volumes: (gal)	19.25	
Purging Information		Conversion Factors
Purging Method:	Bailer Peristaltic Grundfo	
		gal/ft. 1" ID 2" ID 4" ID 6" ID ethylene
	Bailer Peristaltic Grundfo	· · · · · · · · · · · · · · · · · · ·
Average Pumping Rate: (ml/min)	200	1 gallon=3.785L=3785mL=1337cu. feet
Duration of Pumping: (min)		/
Total Volume Removed: (gal)		Yes Me
Horiba U-52 Water Quality Meter Used	d? Yes∑No	
Time DTW Temp	1 ' 1	Conductivity Turbidity DO TDS
(feet) (°C)	9 3-95 91	(mS/cm) (NTU) (mg/L) (g/L)
12:55 12:75 9:00	7 7.95 91	0.368 5.9 2.39 6.239
13:05 13:17 9.09	7.76 99	0.369 4-5 1.13 0.25
13:10 13:20 9:09	7.83 30	0.369 4.1 0.48 0.290
13:15 13.21 9:08	7.85 2	0.379 3.70070.247
13 2 /3 .22 9.23		0.408 3.2 0.00 0.266
13:25 13.22 9.13	3.04 -42	0 425 29 000 0276
<u> </u>		
 		
Sampling Information:		
	OC PAH's	2 - 1 liter ambers Yes No
11	C's BTEX	3 - 40 ml vials Yes No
H	Dyanide Motolo	1 - 250 ml plastic Yes No
EPA Method 200.7	Metals	1 - 250 ml plastic Yes No No No
G 1 15 1 TIME BOOK 6040	Butterion W M	Shipped: Pace Courier Pickup
II Samole II):	Dunicate? Yesi Nolal	
Sample ID: LTMW-D06-0318 Sample Time: 13.25	Duplicate? Yes No X No X	Drop-off Albany Service Center
Sample ID: L1MW-D06-0318 Sample Time: 13.25 Comments/Notes:		

Sampling Personnel:				Date:	3/21/18		
Job Number: 06-03000				Weather:	Pc 3	7 ^d	
Well Id. LTMW-S06				Time In:	/3/3 _U	Time Out:	1 (2)
Well Information							
Depth to Water:	/foot)	TOC 12-92	Other	Well Type: Well Locke		hmount	Stick-Up
Depth to Water: Depth to Bottom:	(feet)	17.60			eu: Point Marked:	Yes Yes	No
Depth to Product:	(feet)			Well Mater			her:
Length of Water Column:	(feet)			Well Diame		2" 🔀 Ott	
Volume of Water in Well:	(gal)			Comments	: :		
Three Well Volumes:	(gal)				<u> </u>		
Purging Information							
	• — <u>—</u>					Conversion I	Factors
Purging Method:	Baile			lfos Pump	gal/ft.	1" ID 2" ID	4" ID 6" ID
Tubing/Bailer Material:	Teflo	\vdash		lyethylene	of		
Sampling Method:	Baile		ic Grund	ifos Pump	water	0.04 0.16	
Average Pumping Rate: Duration of Pumping:	(ml/min) (min)	<u>Doc</u> 30			1 gain	on=3.785L=3785r	nL=1337cu. reet
Total Volume Removed:	(gal)		Did well go dry?	? Yes No	abla		
Horiba U-52 Water Quality I			es No	· ''''''''''''''''''''''''''''''''''''	₹ I		
1101100 C C Traisi Guarry.					· · · · · · · · · · · · · · · · · · ·		
Time DTW	Temp	рН	ORP	Conductivity	Turbidity	DO	TD\$
		1 1		1 Conductivity	rurbialty		, , , ,
(feet)	(°C)		(mV)	(mS/cm)	(NTU)	(mg/L)	(g/L)
	· ·	209	(mV)	(mS/cm)	-		(g/L) 0-943
(feet) 13:40 13.05 13:45 13.02	(°C)	7.05	(mV) 7 .5	(mS/cm) / 46 / 5²/	(NTU) 94. G 31. 1	(mg/L) 0 - 00 0 · 07)	(g/L) 0.943 0.964
(feet) 3:40 3.0G 3:45 3.02 3:50 3.01	(°C)	2.09 7.05 7.04	(mV)	(mS/cm) 1.46 1.51 1.51	(NTU) 94.6 31.1 21.5	(mg/L) 0 - 00 0 - 00 0 - 00	(g/L) 0-943
(feet) 3:40 3.05 3:45 3.02 3:50 3.03 3:55 3.03	(°C) 6 84 6 63	2.09 7.05 7.04 7.09	(mV) 7 .5	(mS/cm) 1.46 1.51 1.61 1.50	(NTU) 99.6 31.1 21.5 10.0	(mg/L) 0 - 00 0 · 07)	(g/L) 0.943 0.964 0.964 0.962
(feet) 3:40 3.05 3:45 3.02 3:50 3.03 3:55 3.02 4:0 3:02	(°C) G 94 G 49 G 49 G 59	2.09 2.05 7.04 7.04 7.00	(mV) 7 .5	(mS/cm) 1.46 1.31 1.51 1.50	(NTU) 94.6 31.1 21.5 10.0 6.4	(mg/L) 0 · 00 0 · 00 0 · 00 0 · 00	(g/L) 0.943 0.964 0.964 0.962 0.962
(feet) 3:40 3.05 3:45 3.02 3:50 3.05 3:55 3.02 4:05 3:02	(°C) 6 64 6 49 6 49 6 49 6 41	2.09 7.05 7.04 7.04 7.06 7.68	(mV) 7 .5	(mS/cm) 1.46 1.51 1.61 1.50	(NTU) 94.6 31.1 21.5 10.0 04 37	(mg/L) 0 - 00 0 - 00 0 - 00 0 - 00 0 - 00 0 - 00 0 - 00	(g/L) 0.943 0.964 0.964 0.962 0.962 0.956
(feet) 3:40 3.05 3:45 3.02 3:50 3.03 3:55 3.02 4:0 3:02	(°C) G 94 G 49 G 49 G 59	2.09 2.05 7.04 7.04 7.00	(mV) 7 5 5 7 7	(mS/cm) 1.46 1.31 1.51 1.50	(NTU) 94.6 31.1 21.5 10.0 6.4	(mg/L) 0 · 00 0 · 00 0 · 00 0 · 00	(g/L) 0.943 0.964 0.964 0.962 0.962
(feet) 3:40 3.05 3:45 3.02 3:50 3.05 3:55 3.02 4:05 3:02	(°C) 6 64 6 49 6 49 6 49 6 41	2.09 7.05 7.04 7.04 7.06 7.68	(mV) 7 5 5 7 7	(mS/cm) 1.46 1.31 1.51 1.50	(NTU) 94.6 31.1 21.5 10.0 04 37	(mg/L) 0 - 00 0 - 00 0 - 00 0 - 00 0 - 00 0 - 00 0 - 00	(g/L) 0.943 0.964 0.964 0.962 0.962 0.956
(feet) 3:40 3.05 3:45 3.02 3:50 3.05 3:55 3.02 4:05 3:02	(°C) 6 64 6 49 6 49 6 49 6 41	2.09 7.05 7.04 7.04 7.06 7.68	(mV) 7 5 5 7 7	(mS/cm) 1.46 1.31 1.51 1.50	(NTU) 94.6 31.1 21.5 10.0 04 37	(mg/L) 0 - 00 0 - 00 0 - 00 0 - 00 0 - 00 0 - 00 0 - 00	(g/L) 0.943 0.964 0.964 0.962 0.962 0.956
(feet) 3:40 3.05 3:45 3.02 3:50 3.05 3:55 3.02 4:05 3:02	(°C) 6 64 6 49 6 49 6 49 6 41	2.09 7.05 7.04 7.04 7.06 7.68	(mV) 7 5 5 7 7	(mS/cm) 1.46 1.31 1.51 1.50	(NTU) 94.6 31.1 21.5 10.0 04 37	(mg/L) 0 - 00 0 - 00 0 - 00 0 - 00 0 - 00 0 - 00 0 - 00	(g/L) 0.943 0.964 0.964 0.962 0.962 0.956
(feet) 3:40 3.05 3:45 3.02 3:50 3.02 3:55 3.02 4:05 3.02 4:05 3.02	(°C) 6 64 6 49 6 49 6 49 6 41	2.09 7.05 7.04 7.04 7.06 7.68	(mV) 7 5 5 7 7	(mS/cm) 1.46 1.31 1.51 1.50	(NTU) 94.6 31.1 21.5 10.0 04 37	(mg/L) 0 - 00 0 - 00 0 - 00 0 - 00 0 - 00 0 - 00 0 - 00	(g/L) 0.943 0.964 0.964 0.962 0.962 0.956
(feet) 3:40 3.05 3:45 3.02 3:50 3.05 3:55 3.02 4:05 3:02	(°C) 6 94 6 49 6 49 6 49 6 41	2.09 7.05 7.04 7.04 7.06 7.68	(mV) 7 5 5 7 7	(mS/cm) 1.46 1.31 1.51 1.50	(NTU) 94.6 31.1 21.5 10.0 04 37	(mg/L) 0 - 00 0 - 00 0 - 00 0 - 00 0 - 00 0 - 00 0 - 00	(g/L) 0.943 0.964 0.964 0.962 0.962 0.956
(feet) 3:40 3.05 3:45 3.02 3:50 3.02 3:55 3.02 4:05 3.02 4:05 3.02	(°C) 6 84 6 49 6 49 6 41 6 41 6 39	7.09 7.04 7.04 7.06 7.06 7.09	(mV) 7 5 5 7 7	(mS/cm) 1.46 1.31 1.51 1.50	(NTU) 94.6 31.1 21.5 10.0 04 37	(mg/L) 0 · 00 0 · 00 0 · 00 0 · 00 0 · 00 0 · 00 0 · 00	(g/L) 0.943 0.964 0.964 0.962 0.962 0.956
(feet) 3 : 40 3 . 0\(\)	(°C) 6.94 6.49 6.49 6.41 6.41 6.39	2.09 7.05 7.09 7.06 7.06 7.09	(mV) 7 5 5 7 7	(mS/cm) 1.46 1.31 1.51 1.50	(NTU) 94.6 31.1 21.5 10.0 6.4 3.7 3.2	(mg/L)	(g/L) 0.943 0.964 0.964 0.962 0.962 0.956 0.955
(feet) 3	(°C) 6 84 6 49 6 49 6 49 6 41 6 39 8 500 VOC's Cyal	7.09 7.09 7.09 7.09 7.09 7.09 7.09 PAH's BTEX nide	(mV) 7 5 5 7 7	(mS/cm) 1.46 1.31 1.51 1.50	(NTU) 94. 6 31. 1 21. 5 10. 0 3- 7 3. 2 2-1 liter amborated and vial 1-250 ml plas	(mg/L)	(g/L) 0.943 0.964 0.962 0.962 0.956 0.955
(feet) 3 . 40 5 . 65 3 . 45 73 . 02 3 . 50 13 . 02 13 . 55 13 . 02 14 . 05 73 . 02 14 . 10 73 . 02 Sampling Information: EPA SW-846 Method 8270 EPA SW-846 Method 8260	(°C) 6 84 6 49 6 49 6 49 6 41 6 39 8 500 VOC's Cyal	2.09 2.05 7.04 7.06 7.06 7.07 PAH's BTEX	(mV) 7 5 5 7 7	(mS/cm) 1.46 1.31 1.51 1.50	(NTU) 94.6 31.1 21.5 10.0 0.4 3.7 3.2 2-1 liter ambours 3-40 ml vial	(mg/L)	(g/L) 0.943 0.964 0.964 0.962 0.962 0.956 0.955
(feet) 3 40 3 65 3 45 13 02 13 50 13 02 13 50 13 02 14 05 13 02 14 10 13 02 Sampling Information: EPA SW-846 Method 8270 EPA SW-846 Method 8260 EPA Method 335.4	(°C)	7.09 7.09 7.09 7.09 7.09 7.09 7.09 PAH's BTEX nide	(mV) 7 5 5 7 7	(mS/cm) 1.46 1.51 1.60 1.50 1.49 1.49	(NTU) 94.6 31.1 21.5 10.0 0.4 3.7 3.2 2-1 liter amber 3-40 ml vial 1-250 ml plas 1-250 ml plas	(mg/L)	(g/L) 0.943 0.964 0.964 0.962 0.956 0.955
(feet)	(°C) 6 84 6 49 6 49 6 49 6 49 6 7 6 7 6 7 6 7 6 7 6 7 6 7 6 7	2.09 2.05 7.04 7.06 7.06 7.09 PAH's BTEX nide tals	(mV) 75555777799	(mS/cm) 1.46 1.51 1.60 1.50 1.49 1.49	(NTU) 94. 6 31. 1 3. 1 3. 7 3. 2 2 - 1 liter ambo 3 - 40 ml vial 1 - 250 ml plas 1 - 250 ml plas ipped: Pa	ers Yes stic Yes stic Yes	(g/L) 0.943 0.964 0.962 0.962 0.956 0.955

	<u></u>							
Sampling Person	onnel: PD				Date:	3/21/18		
Job Number:	06-03000				Weather	: 220-0	vereast	
Well Id. L	TMW-S07				Time In:	1005	Time Out:	1055
<u></u>								
Depth to Water Depth to Bottor Depth to Produ Length of Water Volume of Water Three Well Vol	r: m: uct: er Column: ter in Well:	(gal)	TOC 10.40 17.82 NP 7.42 1.180 3.560	Other	Well Typ Well Loo Measurin Well Ma Well Dia Commer	ked: g Point Marked: terial: PVC meter: 1'	Yes Yes Ss Oth	· —
Purging Inf	formation	····						
Purging Methor Tubing/Bailer M Sampling Methor Average Pump Duration of Puration of Pur	Material: nod: ping Rate: mping: Removed:	(min) (gal)	Stainless St. Peristaltic (80 35	Paily	os Pump yethylene os Pump Yes		Conversion F 1" ID 2" ID 0.04 0.16 lon=3.785L=3785m	4" ID 6" ID 0.66 1.47
Horiba U-52 W	ater Quality N	Meter Used?	Yes					
Time 1010 1015 1020 1025 1035 1040	DTW (feet) .65 .85 .82 .87 .92 .96 2.00	Temp (°C) 6.50 6.45 6.47 6.49 6.56	pH 6.34 6.09 6.02 6.00 5.93 5.92 5.91	ORP (mV) [32 119 56 32 [4	Conductivit (mS/cm) 0.582 0.572 0.588 0.591 0.592	(NTU) - 0.3 - 1.6 - 116 - 0	DO (mg/L) 10.30 71.76 6.55 5.40 4.63 4.44 4.44	TDS (g/L) 0.372 0.373 0.372 0.376 0.380 0.378 0.377
Time 1010 1015 1020 1025 1035	DTW (feet) 11.65 11.88 11.82 11.87 11.92	Temp (°C) 6.50 6.45 6.38 6.42 6.49	6.34 6.09 6.02 6.00 5.93 5.92	ORP (mV) [32 119 56 32 [4	(mS/cm) 0.587 0.578 0.588 0.591 0.592	(NTU) - 0.3 - 1.6 - 116 - 0	(mg/L) 10.30 7.76 6.55 5.40 4.63 4.44	(g/L) 0.372 0.373 0.372 0.376 0.380 0.378
Time 1010 1015 1020 1025 1035	DTW (feet) 11.65 11.88 11.82 11.87 11.92	Temp (°C) 6.50 6.45 6.38 6.42 6.49	6.34 6.09 6.02 6.00 5.93 5.92	ORP (mV) [32 119 56 32 [4	(mS/cm) 0.587 0.578 0.588 0.591 0.592	(NTU) - 0.3 - 1.6 - 116 - 0	(mg/L) 10.30 7.76 6.55 5.40 4.63 4.44	(g/L) 0.372 0.373 0.372 0.376 0.380 0.378
Time 1010 1015 1020 1025 1030 1035 1040 Sampling Info EPA SW-846 EPA SW-846 EPA Me	DTW (feet) .65 .82 .82 .87 .92 .96 .2.00 .96 .96 .96 .96 .97 .96 .96 .97 .96 .96 .97 .97 .96 .97	Temp (°C) 4.50 6.45 6.38 6.47 6.56 6.58 SVOC F VOC's E Cyani Meta	pH 6.34 6.09 6.00 5.93 5.92 5.91	ORP (mV) [32 119 56 32 [4	(mS/cm) 0.587 0.572 0.591 0.592 0.590	2 - 1 liter amb 3 - 40 ml via 1 - 250 ml pla Shipped:	(mg/L) 10.30 1.74 6.55 5.40 4.63 4.44 4.44 4.44 4.44 4.44 4.44 4.44	(g/L) 0.372 0.372 0.376 0.376 0.380 0.378 0.377

Sampling Personnel:		Date: 3/21/10	
Job Number: 06-03000		Weather: Sun 40	
Well Id. LTMW-S08		Time In: 14:20 Time Out: (5:10	5
Well Information			
	TOC Other	Well Type: Flushmount Stick-Up	
Depth to Water: (feet)	15-30	Well Locked: Yes No	4
Depth to Bottom: (feet)	17.39	Measuring Point Marked: Yes No No Well Material: PVC SS Other:	ا ل
Depth to Product: (feet) Length of Water Column: (feet)	2.09	Well Material: PVC SS Other: Well Diameter: 1" 2" Other:	 1
Volume of Water in Well: (gal)	3.01	Comments:	
Three Well Volumes: (gal)	1.63		
			
Purging Information			
		Conversion Factors	
Purging Method: Ba Tubing/Bailer Material: Tef		96,16	5" ID
Tubing/Bailer Material: Tef Sampling Method: Ba			1.47
Average Pumping Rate: (ml/min)	200_	1 gallon=3.785L=3785mL=1337cu. fi	
Duration of Pumping: (min)	<u>30</u>		
Total Volume Removed: (gal)	Did well go	dry? Yes No	
Horiba U-52 Water Quality Meter Used?	Yes No]	
Time DTW Temp	pH ORP	Conductivity Turbidity DO TDS	;
(feet) (°C)	(mV)	(mS/cm) (NTU) (mg/L) (g/L)	. 1
)
M:30 15.38 7.40	7.89 56	0.365 28.8 1.80 0-23	31
14:30 15:38 7.40 14:35 15:41 7.32	679 102	0.365 26.8 1.80 0-23	4
14:30 15:38 7.40 14:38 15:41 7.32 14:40 15:43 7-47	7.89 56 6.79 102 6.57 161	0.365 29.8 1.80 0-23 - 0.331 13.2 0.09 0.21 0.445 4.8 0.00 0.29	31 60 2
14.30 15.38 7.40 14.35 15.41 7.32 14.40 15.43 7.47 14.45 15.43 7.66	7.49 56 6.79 102 6.51 161 6.55 191	0.365 29.8 1.90 0-23 0.331 13.2 0.09 0.21 0.445 4.9 0.00 0.29 0.491 3.9 0.00 0.39	4
14:30 15:38 7.40 14:38 15:41 7.32 14:40 15:43 7-47	7.49 56 6.79 102 6.51 161 6.55 191 6.53 315	0.365	31 42 73 Xx
14.30 15.38 7.40 14.30 15.41 7.32 14.40 15.43 7.47 14.45 15.43 7.66 14.50 15.43 7.66	7.69 56 6.79 102 6.51 161 6.55 191 6.53 215 6.52 225	0.365 26.8 1.80 0.23 0.331 13.2 0.09 0.21 0.445 4.8 0.00 0.29 0.491 3.9 0.00 0.39 0.501 3.9 0.00 0.32 0.526 5.1 0.0 0.33	21 0 2 0 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
14.30 15.38 7.40 14.30 15.38 7.40 14.40 15.43 7.47 14.45 15.43 7.66 14.50 15.43 7.66 14.55 15.43 7.66	7.99 56 6.79 102 6.55 191 6.55 191 6.53 215	0.365	21 0 2 0 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
14.30 15.38 7.40 14.30 15.38 7.40 14.40 15.43 7.47 14.45 15.43 7.66 14.50 15.43 7.66 14.55 15.43 7.66	7.99 56 6.79 102 6.55 191 6.55 191 6.53 215	0.365	21 0 2 0 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
14.30 15.38 7.40 14.30 15.38 7.40 14.40 15.43 7.47 14.45 15.43 7.66 14.50 15.43 7.66 14.55 15.43 7.66	7.99 56 6.79 102 6.55 191 6.55 191 6.53 215	0.365	2 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
14.30 15.38 7.40 14.30 15.38 7.40 14.40 15.43 7.47 14.45 15.43 7.66 14.50 15.43 7.66 14.55 15.43 7.66	7.89 56 6.79 102 6.55 191 6.55 191 6.53 215	0.365	2 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
14:30 15:38 7.40 14:30 15:41 7.32 14:40 15:43 7.47 14:50 15:43 7.46 14:50 15:43 7.66 14:50 15:43 7.66 15:60 18.43 7.66	7.89 56 6.79 102 6.55 191 6.55 191 6.53 215	0.365	2 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
14.30 15.38 7.40 14.30 15.41 7.32 14.40 15.43 7.47 14.45 15.43 7.66 14.50 15.43 7.66 14.55 15.43 7.66	7.89 56 6.79 102 6.55 191 6.55 191 6.53 215	0.365	31 42 32 37
14.30 15.38 7.40 14.30 15.38 7.40 14.30 15.43 7.47 14.45 15.43 7.46 14.55 15.43 7.66 15.60 18.43 7.66 15.60 18.43 7.66	7.89 56 6.79 102 6.55 191 6.55 191 6.53 215	0.365	31 42 32 37
14.30 15.38 7.40 19.32 15.41 7.32 15.43 7.47 15.43 7.47 19.50 15.43 7.46 19.50 15.43 7.66 15.60 18.43 7.66 15.60 18.43 7.66 15.60 18.43 7.66 15.60 18.43 7.66 15.60 18.43 7.66 15.60 18.43 7.66 15.60 18.43 7.66 15.60 18.43 7.66 15.60 18.43 7.66 15.60 18.43 7.66 15.60 18.43 7.66 15.60 18.43 7.66 15.60 18.43 7.66 15.60 18.43 7.66 15.60 18.43 7.66 15.60 1	7.49 56 6.79 102 6.55 191 6.55 2915 6.52 225 3 6.52 23	0.365	31 42 32 37
15.38 7.40 15.38 7.40 15.38 7.47 15.43 7.47 15.43 7.47 15.43 7.46 15.43 7.46 15.43 7.46 15.43 7.46 15.60 18.43 7.4	7.49 56 6.79 102 6.55 191 6.55 191 6.52 225 3 6.52 235	2-1 liter ambers Yes No No 1-250 ml plastic Yes No No	21 23 23 23 23 23 23 23 23 23 23 23 23 23
15.38 7.40 7.32 7.47	7.49 56 679 102 6.57 191 6.53 215 6.52 225 3 6.52 235 3 6.52 235 3 8 PAH's	2-1 liter ambers 3-40 ml vials 0.365	31 42 32 37
Sampling Information: Samp	7.49 50 6.79 102 6.55 191 6.55 191 6.52 225 3.652 235 3.652 33	2-1 liter ambers Yes No No 1-250 ml plastic Yes No No No No Plastic Yes No Pla	21 23 23 23 23 23 23 23 23 23 23 23 23 23
15 38 7 (0) 19 30 15 41 7 32 15 41 7 32 15 43 7 47 15 43 7 47 15 43 7 47 15 43 7 47 15 43 7 47 15 43 7 43 7 45 15 43 7 43 7 45 15 43 7 43 7 45 15 43 7 45 15 43 7 45 15 43 7 45 15 43 7 45 15 43 7 45 15 43 7 45 15 43 7 45 15 43 7 45 15 43 7 45 15 43 7 45 15 43 7 45 15 43 7 45 15 43 7 45 15 43 7 45 15 43 7 45 15 43 7 45 15 43 15	7.49 50 6.79 102 6.55 191 6.53 215 6.52 225 3. 6.52 23 3. 6.52 33 C. 52 33 C. 52 33 C. 52 33	2-1 liter ambers Yes No No 1-250 ml plastic Yes No No Shipped: Pace Courier Pickup	31 42 32 37
15 38 7 (0) 19 30 15 38 7 (0) 19 30 15 43 7 47 19 30 15 43 7 47 19 30 15 43 7 46 19 50 15 43 7 64 15 60 18	7.49 50 6.79 102 6.55 191 6.53 215 6.52 225 3. 6.52 23 3. 6.52 33 C. 52 33 C. 52 33 C. 52 33	2-1 liter ambers Yes No O-33 Yes No No 1-250 ml plastic Yes No No Shipped: Pace Courier Pickup	2 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2

	w•.						
Sampling Personnel:	PD			Date:	3 21 18	1	
Job Number: 06-0	3000			Weather:	20°-0	neroust	-
Well Id. LTMW-S	609			Time In: (2900	Time Out:	0955
Depth to Water: Depth to Bottom: Depth to Product: Length of Water Column Volume of Water in Water Well Volumes:	(feet) (feet) (feet) (feet) (feet) (feet) (feet) (feet) (gal)	TOC 4.50 16.92 NP 7.42 1.189 3.569	Other	Well Type: Well Locke Measuring F Well Mater Well Diam Comments	ed: Point Marked: rial: PVC eter: 1"	shmount Yes Yes SS Oth 2" Oth	
Purging Information Purging Method: Tubing/Bailer Material Sampling Method: Average Pumping Rate Duration of Pumping: Total Volume Remove Horiba U-52 Water Queen	Bailer Teflon Bailer te: (ml/min) (min) ed: (gal)	Peristaltic	Poly	os Pump ethylene os Pump Yes No		Conversion F 1" ID 2" ID 0.04 0.16 on=3.785L=3785m	4" ID 6" ID 0.66 1.47
Time DT	, , , , , , , , , , , , , , , , , , ,	рН	ORP () ()	Conductivity	Turbidity	DO (mark)	TDS (cells)
(fee	et) (°C)	<u></u>	(mV)	(mS/cm)	(NTU)	(mg/L)	(g/L)
0905 9.5	et) (°C) 1 6.40	pH 6.68 5.93		•	(NTU) 13.9		(g/L) 0:375
0905 9.5 0910 9.5 0915 9.5	et) (°C) 1 6.40 0 6.34 0 6.90	6.68 5.93 5.92	(mV)	(mS/cm) 0,585 0.594 0.598	(NTU) 13.9 (D	(mg/L) 15.78 14.36 13.06	0.380 0.384
0905 9.5 0910 9.5 0915 9.5	et) (°C) 1 (0.40) 0 (0.74) 0 (0.90) 50 7.03	6.68 5.93 5.92 5.86	(mV) 105 135 134 135	(mS/cm) 0,5% 0.594 0.598 0.602	(NTU) 13.9 10 11.8	(mg/L) 15.78 14.36 13.06 12.20	0.384 0.385
0905 9.5 0910 9.5 0915 9.5 0920 09.5	et) (°C) [6.68 5.93 5.92 5.86 5.91	(mV) 105 135 134 135	(mS/cm) 0.585 0.594 0.598 0.602 0.603	(NTU) 13.9 10 11.8 10 5.5	(mg/L) 15.78 14.36 13.06 12.20 7.06	0.384 0.385 0.385 0.388
0905 9.5 0910 9.5 0915 9.5 0920 9.5 0925 9.5 0930 9.5	et) (°C) 1 (0.40) 0 (0.74) 0 (0.90) 50 7.03 0 (96) 0 7.01	5.93 5.92 5.86 5.91 5.93	(mV) 105 135 134 135 13(130	(mS/cm) 0,595 0.594 0.598 0.602 0.607 0.601	(NTU) 13.9 10 11.8 10 5.5 3.7	(mg/L) 15.78 14.36 13.06 12.20 7.06 6.65	0.780 0.780 0.384 0.385 0.388 0.391
0905 9.5 0910 9.5 0915 9.5 0915 9.5 0925 9.5 0925 9.5	et) (°C) [6.68 5.93 5.92 5.86 5.91	(mV) 105 135 134 135	(mS/cm) 0.585 0.594 0.598 0.602 0.603	(NTU) 13.9 10 11.8 10 5.5	(mg/L) 15.78 14.36 13.06 12.20 7.06	0.384 0.385 0.385 0.388
0905 9.5 0910 9.5 0915 9.5 0920 9.5 0925 9.5 0930 9.5	et) (°C) 1 (0.40) 0 (0.74) 0 (0.90) 50 7.03 0 (96) 0 7.01	5.93 5.92 5.86 5.91 5.93	(mV) 105 135 134 135 13(130	(mS/cm) 0,595 0.594 0.598 0.602 0.607 0.601	(NTU) 13.9 10 11.8 10 5.5 3.7	(mg/L) 15.78 14.36 13.06 12.20 7.06 6.65	0.780 0.780 0.384 0.385 0.388 0.391
0905 9.5 0910 9.5 0915 9.5 0920 9.5 0925 9.5 0930 9.5	et) (°C) 1 (0.40) 0 (0.74) 0 (0.90) 50 7.03 0 (96) 0 7.01	5.93 5.92 5.86 5.91 5.93	(mV) 105 135 134 135 13(130	(mS/cm) 0,595 0.594 0.598 0.602 0.607 0.601	(NTU) 13.9 10 11.8 10 5.5 3.7	(mg/L) 15.78 14.36 13.06 12.20 7.06 6.65	0.780 0.780 0.384 0.385 0.388 0.391
0905 9.5 0910 9.5 0915 9.5 0920 9.5 0925 9.5 0930 9.5	et) (°C) 1 (0.40) 0 (0.74) 0 (0.90) 50 7.03 0 (96) 0 7.01	5.93 5.92 5.86 5.91 5.93	(mV) 105 135 134 135 13(130	(mS/cm) 0,595 0.594 0.598 0.602 0.607 0.601	(NTU) 13.9 10 11.8 10 5.5 3.7	(mg/L) 15.78 14.36 13.06 12.20 7.06 6.65	0.780 0.780 0.384 0.385 0.388 0.391
0905 9.5 0910 9.5 0915 9.5 0915 9.5 0925 9.5 0925 9.5	et) (°C) 1 6.40 0 6.40 0 6.90 50 7.03 0 6.96 0 7.01 0 6.97	5.93 5.92 5.86 5.91 5.93	(mV) 105 135 134 135 13(130	(mS/cm) 0,595 0.594 0.598 0.602 0.607 0.601	(NTU) 13.9 10 11.8 10 5.5 3.7	(mg/L) 15.78 14.36 13.06 12.20 7.06 6.65	0.780 0.780 0.384 0.385 0.388 0.391
0905 9.5 1910 9.5 1915 9.5 0915 9.5 0925 9.5 0930 9.5	et) (°C) (.40) (.	6.68 5.93 5.92 5.86 5.93 5.95	(mV) 105 135 134 135 13(130	(mS/cm) 0,595 0.594 0.598 0.602 0.607 0.601	(NTU) 13.9 10 11.8 10 5.5 3.7 4.0	(mg/L) 15.78 14.36 13.06 12.20 1.06 6.65 6.78	0.785 0.389 0.385 0.385 0.389 0.391 0.398
(fee 0905 9.5 1910 9.5 0915 9.5 0920 9.5 0925 9.5 0935 9.	1: (°C) (°C) (.40)	6.68 5.93 5.92 5.86 5.91 5.95 5.95	(mV) 105 135 134 135 13(130	(mS/cm) 0,595 0.594 0.598 0.602 0.607 0.601	(NTU) 13.7 10 11.8 10 5.5 3.7 4.0	(mg/L) 15.78 14.36 13.06 12.20 7.06 6.65 6.78 ers Yes Is Yes	0.384 0.385 0.385 0.385 0.389 0.391 0.391
(fee 0905 9.5 0910 9.5 0915 9.5 0925 9.5 0925 9.5 0935 9.	1: (°C) (°C) (-40)	5.43 5.43 5.86 5.91 5.93 5.95 PAH's	(mV) 105 135 134 135 13(130	(mS/cm) 0,595 0.594 0.598 0.602 0.607 0.601	(NTU) /3.7 lto 11.8 10 5.5 3.7 4.0 2 - 1 liter amb 3 - 40 ml via 1 - 250 ml pla	(mg/L) 15.78 14.36 13.06 12.20 1.06 6.65 6.78 ers Yes stic Yes	(g/L) 0.375 0.380 0.384 0.385 0.388 0.391 0.398
(fee 0905 9.5 0910 9.5 0915 9.5 0925 9.5 0935 9.	1: (°C) (°C) (0.40) (0.40) (0.44) (0.	5.43 5.43 5.86 5.91 5.93 5.95 PAH's	(mV) 105 135 134 135 13(130	(mS/cm) 0,595 0.594 0.598 0.602 0.607 0.601	(NTU) 13.7 10 11.8 10 5.5 3.7 4.0	(mg/L) 15.78 14.36 13.06 12.20 1.06 6.65 6.78 ers Yes stic Yes	(g/L) 0.375 0.380 0.384 0.385 0.388 0.391 0.398
(fee 0905 9.5 1910 9.5 0915 9.5 0925 9.5 0925 9.5 0935 9.	et) (°C) (-40) (-	5.93 5.92 5.86 5.91 5.93 5.95 SAH's	(mV) 105 135 134 135 13(130	(mS/cm) 0.594 0.594 0.598 0.602 0.607 0.611 0.609	(NTU) 13.7 10 11.8 10 5.5 3.7 4.0 2 - 1 liter amb 3 - 40 ml via 1 - 250 ml pla 1 - 250 ml pla	(mg/L) 15.78 14.36 13.06 12.20 1.06 6.65 6.78 ers Yes stic Yes	0.3814 0.385 0.385 0.385 0.391 0.391 0.391
(fee 0905 9.5 1910 9.5 0915 9.5 0925 9.5 0930 9.5 0935 9.	et) (°C) (-40) (-	5.93 5.92 5.86 5.91 5.95 5.95 5.95 PAH's BTEX de	(mV) 105 135 134 135 131 130 132	(mS/cm) 0.594 0.594 0.598 0.602 0.607 0.611 0.609	(NTU) 13.7 10 11.8 10 5.5 3.7 4.0 2-1 liter amb 3-40 ml via 1-250 ml pla 1-250 ml pla ipped: P	(mg/L) 15.78 14.36 13.06 12.20 1.06 6.65 6.78 ers Yes stic Yes stic Yes	(g/L) 0.375 0.380 0.384 0.385 0.385 0.391 0.391 0.391
Sampling Information EPA SW-846 Method EPA Method 200 Sample ID: LTMV	et) (°C) (-40) (-	5.93 5.92 5.86 5.91 5.95 5.95 5.95 PAH's BTEX de	(mV) 05 35 34 35 36 30 32	(mS/cm) 0.594 0.594 0.598 0.602 0.607 0.611 0.609	(NTU) 13.7 10 11.8 10 5.5 3.7 4.0 2-1 liter amb 3-40 ml via 1-250 ml pla 1-250 ml pla ipped: P	(mg/L) 15.78 14.36 13.06 12.20 1.06 6.65 6.78 ers Yes stic Yes ace Courier Pick	(g/L) 0.375 0.380 0.384 0.385 0.389 0.391 0.391 0.391 0.390

Sampling Personnel:				Date: 3	12,118	•	
Job Number: 06-03000				Weather:	JUNNY	423	
Well Id. LTMW-S10				Time In:	15:10	Time Out:	
Well Information		T00	O(b	\A/=II **	 ,		
Depth to Water:		TOC 0 · /5 -	Other	Well Type: Well Locke		hmount Yes	Stick-Up No
Depth to Bottom:		17.18			oint Marked:	Yes	No
Depth to Product:	(feet)			Well Mater		⊠ss⊡ot⊦	ner:
Length of Water Column:	(feet)	7.03		Well Diame		2" ∑ Oth	ner:
Volume of Water in Well:	(gal)	12		Comments	:		
Three Well Volumes:	(gal)	331				• • • •	
	· · · · · · · · · · · · · · · · · · ·						
Purging Information							
		_				Conversion F	actors
Purging Method:	Bailer	Peristaltic		os Pump	gal/ft.	1" ID 2" ID	4" ID 6" ID
Tubing/Bailer Material:	Teflon	Stainless St.	(yethylene	of		0.00 4.47
Sampling Method:	Bailer	Peristaltic	Grundi	os Pump	water	0.04 0.16 on=3.785L=3785n	· · · · · · · · · · · · · · · · · · ·
Average Pumping Rate: Duration of Pumping:	(ml/min) , ^	200 20			i ir gaii	011-3.760L-3760H	IIL-1337Cu. leet
Total Volume Removed:	(gal)		id well go dry?	Yes No	À		
Horiba U-52 Water Quality Met			No □	<			
Tionba o of Trator daying in					· · · · · · · · · · · · · · · · · · ·		
Time DTW	Temp	рН	ORP	Conductivity	Turbidity	DO	TDS
(feet)	(°C)	рН	(mV)	(mS/cm)	(NTU)	(mg/L)	(g/L)
(feet) 15.20 /0.40	(°C) & '4	6.75		(mS/cm) (983	(NTU) ~≎3	(mg/L)	(g/L) 0.629
(feet) 15.20 /0.40 15.25 /0.45	(°C) 5 '4 8 22	6.75 6.74	(mV)	(mS/cm) 6.993 0.987	(NTU) ~03 139	(mg/L) (mg/L)	(g/L) ().629 ().632
(feet) 15.20 0.40 15.25 10.45 15.30 10.52	(°C) E 14 E 22 G 36	6.75 6.79 6.63	(mV) 8 (70 5/	(mS/cm) 6.983 0.987 6.998	(NTU) ~03 139 751	(mg/L) (mg/L) (mg/L) (mg/L)	(g/L) () • 629 () • 632 () • 639
(feet) 15.20	(°C) & '4 & 22 & 36 & 36 & 16	6.75 6.74	(mV)	(mS/cm) 6.993 0.987	(NTU) ~03 139 45.1 38.0	(mg/L) (mg/L) (mg/L) (mg/L) (mg/L)	(g/L) ().629 ().632
(feet) 15.20	(°C) & '4 & 22 Ø 36 Ø 16 & 19 & 12	6.75 6.79 6.63	(mV) 81 70 51 35	(mS/cm) 0.983 0.987 0.987 1.01	(NTU) ~0.3 13.6 YS.1 39.0 21.9 ~1.3	(mg/L) 0.00 0.00 0.00 2.00 6.00	(g/L) ().629 ().632 ().638 ().647
(feet) 15.20	(°C) E '4 E 22 E 36 G 16 G 19	6.75 6.63 6.54 6.52	(mV) 81 70 35 34	(mS/cm) 0.983 0.987 0.998 /-01	(NTU) ~0.3 13.5 45.1 38.0 21.9	(mg/L) 0.00 0.00 0.00 0.00	(g/L) ().629 ().632 ().638 ().647 ().647
(feet) 15.20	(°C) & '4 & 22 Ø 36 Ø 16 & 19 & 12	6.75 6.63 6.54 6.54 6.53	(mV) 81 70 81 35 35 32 23	(mS/cm) 6.983 0.987 6.998 /.01 1.01	(NTU) ~0.3 13.6 YS.1 38.0 21.9 ~1.3	(mg/L) 0.00 0.00 0.00 2.00 6.00	(g/L) ().629 ().632 ().638 ().647 ().647
(feet) 15.20	(°C) & '4 & 22 Ø 36 Ø 16 & 19 & 12	6.75 6.63 6.54 6.54 6.53	(mV) 81 70 81 35 35 32 23	(mS/cm) 6.983 0.987 6.998 /.01 1.01	(NTU) ~0.3 13.6 YS.1 38.0 21.9 ~1.3	(mg/L) 0.00 0.00 0.00 2.00 6.00	(g/L) ().629 ().632 ().638 ().647 ().647
(feet) 15.20	(°C) & '4 & 22 Ø 36 Ø 16 & 19 & 12	6.75 6.63 6.54 6.54 6.53	(mV) 81 70 81 35 35 32 23	(mS/cm) 6.983 0.987 6.998 /.01 1.01	(NTU) ~0.3 13.6 YS.1 38.0 21.9 ~1.3	(mg/L) 0.00 0.00 0.00 2.00 6.00	(g/L) ().629 ().632 ().638 ().647 ().647
(feet) 15.20	(°C) & '4 & 22 Ø 36 Ø 16 & 19 & 12	6.75 6.63 6.54 6.54 6.53	(mV) 81 70 81 35 35 32 23	(mS/cm) 6.983 0.987 6.998 /.01 1.01	(NTU) ~0.3 13.6 YS.1 38.0 21.9 ~1.3	(mg/L) 0.00 0.00 0.00 2.00 6.00	(g/L) ().629 ().632 ().638 ().647 ().647
(feet) 15.20	(°C) & '4 & 22 Ø 36 Ø 16 & 19 & 12	6.75 6.63 6.54 6.54 6.53	(mV) 81 70 81 35 35 32 23	(mS/cm) 6.983 0.987 6.998 /.01 1.01	(NTU) ~0.3 13.6 YS.1 38.0 21.9 ~1.3	(mg/L) 0.00 0.00 0.00 2.00 6.00	(g/L) ().629 ().632 ().638 ().647 ().647
(feet) 15.20	(°C) & '4 & 22 Ø 36 Ø 16 & 19 & 12	6.75 6.63 6.54 6.54 6.53	(mV) 81 70 81 35 35 32 23	(mS/cm) 6.983 0.987 6.998 /.01 1.01	(NTU) ~0.3 13.6 75.1 39.0 21.9 ~1.3 19.3	(mg/L) (mg/L)	(g/L) ().629 ().632 ().638 ().647 ().649 ().649
(feet) /5.20 /0.40 /5.25 /0.45 /5.30 /0.52 /5.35 /0.55 /5.40 /0.58 /5.46 /0.55 Sampling Information: EPA SW-846 Method 8270	(°C) & '4 & 22 & 36 & 16 & 14 & 12 & 14 & 12 & 14	6.75 6.63 6.54 6.53 6.55	(mV) 81 70 81 35 35 32 23	(mS/cm) 6.983 0.987 6.998 /.01 1.01	(NTU) ~0.3 13.6 75.1 39.0 21.9 ~1.3 18.3	(mg/L) (m	(g/L) ().629 ().632 ().638 ().647 ().649 ().649 ().649
(feet) /5.20 /0.40 /5.25 /0.45 /5.35 /0.55 /5.40 /0.58 /5.46 /0.58 Sampling Information: EPA SW-846 Method 8270 EPA SW-846 Method 8260	(°C) & '4' & 22 & '6' & '9' & 12' & 12' & 14' SVOC PA VOC'S B	4.75 6.63 6.54 6.53 6.53 6.55	(mV) 81 70 81 35 35 32 23	(mS/cm) 6.983 0.987 6.998 /.01 1.01	(NTU) ~203 139 75.1 39.0 21.9 ~21.3 18.3 2-1 liter amb 3-40 ml via	(mg/L) (m	(g/L) ().629 ().632 ().638 ().647 ().647 ().647 ().647
(feet) /5.20 /0.40 /5.25 /0.45 /5.35 /0.55 /5.40 /0.58 /5.46 /0.55 Sampling Information: EPA SW-846 Method 8270 EPA SW-846 Method 8260 EPA Method 335.4	(°C) 6 14 6 16 6 19 6 19 6 19 6 19 8 12 8 14 SVOC PA VOC'S B Cyanid	4.75 6.63 6.54 6.53 6.53 6.55	(mV) 81 70 81 35 35 32 23	(mS/cm) 6.983 0.987 6.998 /.01 1.01	(NTU) ~2.3 13.0 21.9 ~21.3 12.3 12.3 2-1 liter amb 3-40 ml via 1-250 ml pla	ers Yes	(g/L) ().629 ().632 ().638 ().647 ().649 ().649 ().649 ().649 ().649
(feet) /5.20 /0.40 /5.25 /0.45 /5.35 /0.55 /5.40 /0.58 /5.46 /0.55 /5.46 /0.58 Sampling Information: EPA SW-846 Method 8270 EPA SW-846 Method 8260 EPA Method 335.4 EPA Method 200.7	(°C) 6 '4 6 22 6 '4 6 '4 6 '4 6 '4 6 '4 6 '4 7 '4 VOC's B Cyanid Metals	4.75 6.63 6.54 6.53 6.53 6.55	(mV) 81 70 51 35 35 19	(mS/cm) 6.983 0.987 6.998 /.01 1.01	(NTU) ~203 139 75.1 39.0 21.9 ~21.3 18.3 2-1 liter amb 3-40 ml via	ers Yes	(g/L) ().629 ().632 ().638 ().642 ().649 ().649 ().649 ().649
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CHAIN-OF-CUSTODY / Analytical Request Document

Pace Analytical

The Chain-of-Custody is a LEGAL DOCUMENT, All relevant fields must be completed accurately.

Pace Project Number N/A N/Z Ļ 1 of 2 SAMPLE CONDITIONS 쌹 N/A N/A N/A N/A T RINKING WATER REGULATORY AGENCY N/A N/A N/A N/A 퓼 o L **,**≴ L ĭ T*ROUND WATER 1 3CRA -2 3 7 SITE N LCCATION Mered (Y/N) T' NPDES T UST equested malysis: 184X EO582BI MOLMITUR / AB CE HOst IOF EON *OS2 Ŋ Devie sergni Attention: Accounts Payable via email at ges-involces@gesonline.com NOF CONTRINERS Address: 5 Technology Place, Suite 4, East Syracuse, NY 13057 Company Name: Groundwater & Environmental Services, Inc. 17.2 SAMPLE TEMP AT COLLECTION 3/2/16 SAMPLER NAME AND SIGNATURE 14:05 7.55 7 10:10 3 11:40 13.30 0,7 S. 58 14:10 DATE Pace Project Manager: Rachel Christner 3121.19 DATE COLLECTED AFL VOUSHED BY ALL IL ALON Pace Quote Reference: TIME Invoice Information: ace Profile #: OMPOSI*E START Section C DATE O O O Ö Project Name: National Grid - Rome Kingsley Ave. Site, Rome, NY O **O**! Ø SAMPLE TYPE C+CEVB C=COMb WT ž WT × ₹ ₹ ₹ ₹ ž ₹ MATRIX CODE Report To: Tim Beaumont (GES Report To: Devin Shay (GES) Required Project Information: Project Number: 06-03000-134400-221-1106 /aid Marhi Codes beaumont@gesonline.com Please send reports to: dshay@gesonline.com, tbeaumont@gesonline.com COOLERS dshay@gesonline.com urchase Order No. Section B MATERIA PRESIDENTES WATER WASTE WATER PRODUCT SOUGOUD WITE ARR Syracuselabs@gesonline.com, ges@equisonline.com LTMW-S01-0318 LTMW-D02-0318 LTMW-S02-0318 LTMW-D03-0318 LTMW-S03-0318 LTMW-D04-0318 LTMW-S04-0318 LTMW-D05-0318 LTMW-S05-0318 LTMW-D06-0318 LTMW-S06-0318 LTMW-D01-0318 Samples Required Client Information (A-Z, 0-97,-) IDs MUST BE UNIQUE One Character per box. SAMPLE ID Requested Due Date/TAT: Standard Address: 5 Technology Place, Suite 4 SAMPLES WILL ARRIVE IN Fax: None Email To: dshay@gesonline.com East Syracuse, New York 13057 Required Client Information: Company: GES - Syracuse Additional Comments: Section D hone: 800.220.3069 # M:3TI

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Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

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Phone: x4051	Phone: 800.220.3069 Fax: None x4051	Project Name: National Grid - Rome Kingsley Ave. Site, Rome, NY	Kingsle	y Pace Project Manager: Rachel Christner	Aanager: Rac	rel Christner							Τ	LOCATION	NO.		Ë	L	L	F		
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2018 1st Quarter OM&M Report National Grid Rome Former MGP Site 233 Kingsley Avenue, Rome, NY 13440



Appendix D – Data Usability Summary Report and Analytical Data



Groundwater & Environmental Services, Inc.

708 North Main Street, Suite 201 Blacksburg, VA 24060

T. 800.662.5067

April 30, 2018

Devin Shay Groundwater & Environmental Services, Syracuse 5 Technology Place, Suite 4 East Syracuse, NY 13057

RE: Data Usability Summary Report for National Grid- Rome Kingsley Avenue Site Data Packages Pace Analytical Job Nos. 30247678, 30247135

Groundwater & Environmental Services, Inc. (GES) reviewed two data packages (Laboratory Project Number 30247678, 30247135) from Pace Analytical Services, Inc., for the analysis of an effluent sample and trip blank collected March 27, 2018 as well as groundwater samples collected on March 21, 2018 from monitoring wells located at the National Grid: Rome Kingsley Avenue Site. Sixteen aqueous samples and a field duplicate are analyzed for BTEX, PAHs, arsenic, lead, zinc, and total cyanide. The effluent system sample was processed for TCL volatiles, nine metals, mercury and total cyanide. Methodologies utilized are those of the USEPA 200.7, the USEPA SW846 methods 7470/8260B/8270C/9012, with additional QC requirements of the NYSDEC ASP.

The data are reported as part of a complete full deliverable type B data validation. This usability report is generated from review of the following:

- Laboratory Narrative Discussion
- Custody Documentation
- Holding Times
- Surrogate and Internal Standard Recoveries
- Matrix Spike Recoveries/Duplicate (MS/MSD) Correlations
- Field Duplicate Correlations
- Laboratory Control Sample (LCS)
- Preparation/Calibration Blanks
- Calibration/Low Level Standard Responses
- Instrumental Tunes
- Instrument MDLs
- Sample Quantitation and Identification

The items listed above which show deficiencies are discussed within the text of this narrative.

All of the other items are determined to be acceptable for the DUSR level review.



Table 1 – Data Qualifications

Sample ID	Qualifier	Analyte	Reason for qualification
Effluent System 0318	J-	Acenaphthene, Fluorene, Phenanthrene	MS/MSD recoveries low, RPD exceeds specification
LTMW-S01-0318, LTMW-D02-0318, LTMW-S02-0318, LTMW-D03-0318, LTMW-S03-0318, LTMW-D04-0318, LTMW-S04-0318, LTMW-S05-0318, LTMW-S06-0318, LTMW-S07-0318, LTMW-S08-0318, LTMW-S08-0318,	J-/UJ-	acenaphthene, acenaphthylene, anthracene, benzo(a)anthracene, benzo(b)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, chrysene, dibenz(a,h)anthracene, fluoranthene, fluorene, indeno(1,2,3-cd)pyrene, 2-methylnaphthalene, naphthalene, phenanthrene, pyrene	Low surrogate recoveries

In summary, sample results are usable as reported, with possible low bias in the PAH analyses exemplified by low surrogate recoveries, and the result for pH due to the short hold time of 15 minutes. Qualifications are detailed in Table 1.

The laboratory case narratives and sample identification summary forms are attached to this text, and should be reviewed in conjunction with this report.

BTEX and TCL Volatiles by EPA 8260C/NYSDEC ASP

Sample holding times for groundwater and effluent samples and instrumental tune fragmentations are within acceptance ranges. Surrogate and internal standard recoveries are within required limits. Calibrations standards show acceptable responses within analytical protocol and validation action limits. The blind field duplicate correlations of LTMW-S09-0318 fall within guidance limits.

PAHs by EPA8270D/NYSDEC ASP

Holding times are met. Instrumental tune fragmentations are within acceptance ranges. Surrogate recoveries are within analytical and validation guidelines, with the exception of terphenyl-d14 in a majority of the samples. Qualifications are noted in **Table 1**. Blanks show no contamination. Calibration standards, both initial and continuing, show acceptable responses within analytical method protocols and validation guidelines. The laboratory control spike recoveries and precision indicate the method is within laboratory control. The MS/MSD pair for dibenz(a,h)anthracene prepared from LTMW-S10-0318 reported a slightly high RPD, 1% over criteria, which does not negatively affect the data. The MS/MSD pair associated with the effluent had low recoveries in three analytes, Acenaphthene, Fluorene, and Phenanthrene. These compounds are qualified as estimates with a possible low bias. See **Table 1**. The blind field duplicate correlations of LTMW-S09-0318 had no detections, so no precision correlations were calculated.



No other qualifications are necessary.

Arsenic, Lead, and Zinc, and Nine Metals by EPA 200.7/EPA 245.3/NYSDEC ASP

The matrix spikes show acceptable accuracy and precision. The blind field duplicate correlations of LTMW-S09-0318 had no detections, so no precision correlations were calculated. Instrument performance is compliant, and blanks show no contamination above the reporting limit.

Wet Chemistry-Total Cyanide by 9012B and pH

Review was conducted for method compliance, holding times, transcription, calculations, standard and blank acceptability, accuracy and precision, etc., as applicable to each procedure. All are acceptable for the validated samples. Calibration standard responses are compliant. Blanks show no detections above the reporting limits.

The pH for Effluent 0318 is qualified as estimated due to outlying holding time, as noted in the laboratory case narrative.

A matrix spike (MS) analysis was performed on the following sample(s): LTMW-D01-0318 and LTMW-S10-0318. The recoveries were within acceptance criteria and cyanide is qualified as estimated for the sample. All other matrix spikes and/or laboratory duplicates of total cyanide show acceptable recoveries and/or correlations.

1 Data Package Completeness

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Complete NYSDEC Category B deliverables were included in the laboratory data package, all information required for validation of the data is present.

Please do not hesitate to contact me if you have comments or questions regarding this report.

Sincerely,

Bonnie Janowiak, Ph.D.

Project Chemist

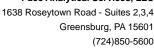


SAMPLE SUMMARY

Project: National Grid - Rome Kingsley

Pace Project No.: 30247135

_ab ID	Sample ID	Matrix	Date Collected	Date Received
30247135001	LTMW-D01-0318	Water	03/21/18 12:30	03/23/18 10:20
30247135002	LTMW-S01-0318	Water	03/21/18 11:40	03/23/18 10:20
30247135003	LTMW-D02-0318	Water	03/21/18 10:40	03/23/18 10:20
30247135004	LTMW-S02-0318	Water	03/21/18 09:50	03/23/18 10:20
30247135005	LTMW-D03-0318	Water	03/21/18 14:05	03/23/18 10:20
30247135006	LTMW-S03-0318	Water	03/21/18 13:20	03/23/18 10:20
30247135007	LTMW-D04-0318	Water	03/21/18 12:30	03/23/18 10:20
30247135008	LTMW-S04-0318	Water	03/21/18 11:40	03/23/18 10:20
30247135009	LTMW-D05-0318	Water	03/21/18 15:45	03/23/18 10:20
30247135010	LTMW-S05-0318	Water	03/21/18 14:55	03/23/18 10:20
0247135011	LTMW-D06-0318	Water	03/21/18 13:25	03/23/18 10:20
0247135012	LTMW-S06-0318	Water	03/21/18 14:10	03/23/18 10:20
30247135013	LTMW-S07-0318	Water	03/21/18 10:40	03/23/18 10:20
30247135014	LTMW-S08-0318	Water	03/21/18 15:00	03/23/18 10:20
30247135015	LTMW-S09-0318	Water	03/21/18 09:40	03/23/18 10:20
30247135016	LTMW-S10-0318	Water	03/21/18 15:50	03/23/18 10:20
30247135017	LTMW-S10-MS-0318	Water	03/21/18 15:50	03/23/18 10:20
30247135018	LTMW-S10-MSD-0318	Water	03/21/18 15:50	03/23/18 10:20
80247135019	Field Duplicate-0318	Water	03/21/18 00:01	03/23/18 10:20
0247135020	Trip Blank	Water	03/21/18 00:01	03/23/18 10:20





Project: National Grid - Rome Kingsley

Pace Project No.: 30247135

Method: EPA 200.7

Description: 200.7 Metals, Total

Client: Groundwater & Environmental Services, Inc. (Syracuse)

Date: April 04, 2018

General Information:

19 samples were analyzed for EPA 200.7. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:

The samples were prepared in accordance with EPA 200.7 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

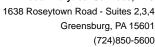
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:

All duplicate sample results were within method acceptance criteria with any exceptions noted below.





Project: National Grid - Rome Kingsley

Pace Project No.: 30247135

Method: EPA 8270D by SIM

Description: 8270D MSSV PAH by SIM

Client: Groundwater & Environmental Services, Inc. (Syracuse)

Date: April 04, 2018

General Information:

19 samples were analyzed for EPA 8270D by SIM. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:

The samples were prepared in accordance with EPA 3510C with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Internal Standards:

All internal standards were within QC limits with any exceptions noted below.

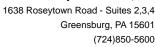
Surrogates:

All surrogates were within QC limits with any exceptions noted below.

QC Batch: 292699

SR: Surrogate recovery was below laboratory control limits. Results may be biased low.

- LTMW-D02-0318 (Lab ID: 30247135003)
 - Terphenyl-d14 (S)
- LTMW-D03-0318 (Lab ID: 30247135005)
 - Terphenyl-d14 (S)
- LTMW-D04-0318 (Lab ID: 30247135007)
 - Terphenyl-d14 (S)
- LTMW-S01-0318 (Lab ID: 30247135002)
 - Terphenyl-d14 (S)
- LTMW-S02-0318 (Lab ID: 30247135004)
 Terphenyl-d14 (S)
- LTMW-S03-0318 (Lab ID: 30247135006)
- Terphenyl-d14 (S)
- LTMW-S04-0318 (Lab ID: 30247135008)
- Terphenyl-d14 (S) • LTMW-S05-0318 (Lab ID: 30247135010)
 - Terphenyl-d14 (S)
- LTMW-S06-0318 (Lab ID: 30247135012)
 - Terphenyl-d14 (S)
- LTMW-S07-0318 (Lab ID: 30247135013)
 - Terphenyl-d14 (S)
- LTMW-S08-0318 (Lab ID: 30247135014)





Project: National Grid - Rome Kingsley

Pace Project No.: 30247135

Method: EPA 8270D by SIM

Description: 8270D MSSV PAH by SIM

Client: Groundwater & Environmental Services, Inc. (Syracuse)

Date: April 04, 2018

QC Batch: 292699

SR: Surrogate recovery was below laboratory control limits. Results may be biased low.

Terphenyl-d14 (S)

• LTMW-S10-0318 (Lab ID: 30247135016)

• Terphenyl-d14 (S)

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 292699

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 30247135016

R1: RPD value was outside control limits.

- MSD (Lab ID: 1432512)
 - Dibenz(a,h)anthracene

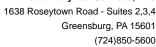
Additional Comments:

Analyte Comments:

QC Batch: 292699

1c: The sample was reextracted beyond the Method recommended holding time. Surrogate recoveries were within limits in the reextracted sample. Target analyte results in the reextract are similar to those in the original in hold sample extract. Results are reported from the original in hold sample extract analysis.

- LTMW-D02-0318 (Lab ID: 30247135003)
 - Terphenyl-d14 (S)
- LTMW-D03-0318 (Lab ID: 30247135005)
 - Terphenyl-d14 (S)
- LTMW-D04-0318 (Lab ID: 30247135007)
 - Terphenyl-d14 (S)
- LTMW-S01-0318 (Lab ID: 30247135002)
 - Terphenyl-d14 (S)
- LTMW-S02-0318 (Lab ID: 30247135004)
 - Terphenyl-d14 (S)
- LTMW-S03-0318 (Lab ID: 30247135006)
 - Terphenyl-d14 (S)
- LTMW-S04-0318 (Lab ID: 30247135008)
 - Terphenyl-d14 (S)
- LTMW-S05-0318 (Lab ID: 30247135010)
 - Terphenyl-d14 (S)





Project: National Grid - Rome Kingsley

Pace Project No.: 30247135

Method: EPA 8270D by SIM

Description: 8270D MSSV PAH by SIM

Client: Groundwater & Environmental Services, Inc. (Syracuse)

Date: April 04, 2018

Analyte Comments: QC Batch: 292699

1c: The sample was reextracted beyond the Method recommended holding time. Surrogate recoveries were within limits in the reextarcted sample. Target analyte results in the reextract are similar to those in the original in hold sample extract. Results are reported from the original in hold sample extract analysis.

• LTMW-S06-0318 (Lab ID: 30247135012)

• Terphenyl-d14 (S)

• LTMW-S07-0318 (Lab ID: 30247135013)

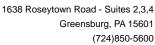
• Terphenyl-d14 (S)

• LTMW-S08-0318 (Lab ID: 30247135014)

• Terphenyl-d14 (S)

• LTMW-S10-0318 (Lab ID: 30247135016)

• Terphenyl-d14 (S)





Project: National Grid - Rome Kingsley

Pace Project No.: 30247135

Method: EPA 8260C Description: 8260C MSV

Client: Groundwater & Environmental Services, Inc. (Syracuse)

Date: April 04, 2018

General Information:

20 samples were analyzed for EPA 8260C. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Internal Standards:

All internal standards were within QC limits with any exceptions noted below.

Surrogates

All surrogates were within QC limits with any exceptions noted below.

Method Blank:

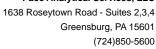
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.





Project: National Grid - Rome Kingsley

Pace Project No.: 30247135

Method: EPA 335.4

Description: 335.4 Cyanide, Total

Client: Groundwater & Environmental Services, Inc. (Syracuse)

Date: April 04, 2018

General Information:

19 samples were analyzed for EPA 335.4. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:

The samples were prepared in accordance with EPA 335.4 with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

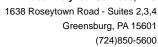
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.



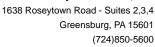


SAMPLE SUMMARY

Project: National Grid - Rome Kingsley

Pace Project No.: 30247678

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30247678001	Effluent System 0318	Water	03/27/18 15:30	03/29/18 10:15
30247678002	Trip Blank	Water	03/27/18 00:01	03/29/18 10:15





Project: National Grid - Rome Kingsley

Pace Project No.: 30247678

Method: EPA 200.7

Description: 200.7 Metals, Total

Client: Groundwater & Environmental Services, Inc. (Syracuse)

Date: April 06, 2018

General Information:

1 sample was analyzed for EPA 200.7. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:

The samples were prepared in accordance with EPA 200.7 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

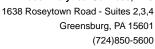
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:

All duplicate sample results were within method acceptance criteria with any exceptions noted below.





Project: National Grid - Rome Kingsley

Pace Project No.: 30247678

Method: EPA 245.1 Description: 245.1 Mercury

Client: Groundwater & Environmental Services, Inc. (Syracuse)

Date: April 06, 2018

General Information:

1 sample was analyzed for EPA 245.1. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:

The samples were prepared in accordance with EPA 245.1 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

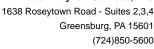
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:

All duplicate sample results were within method acceptance criteria with any exceptions noted below.





Project: National Grid - Rome Kingsley

Pace Project No.: 30247678

Method: EPA 8270D by SIM

Description: 8270D MSSV PAH by SIM

Client: Groundwater & Environmental Services, Inc. (Syracuse)

Date: April 06, 2018

General Information:

1 sample was analyzed for EPA 8270D by SIM. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:

The samples were prepared in accordance with EPA 3510C with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Internal Standards:

All internal standards were within QC limits with any exceptions noted below.

Surrogates:

All surrogates were within QC limits with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 293377

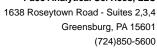
A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 30247678001

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1436126)
 - Acenaphthene
 - Fluorene
 - Phenanthrene

ML: Matrix spike recovery and/or matrix spike duplicate recovery was below laboratory control limits. Result may be biased low.

- MS (Lab ID: 1436126)
 - Fluorene
 - Phenanthrene





Project: National Grid - Rome Kingsley

Pace Project No.: 30247678

Method: EPA 8270D by SIM

Description: 8270D MSSV PAH by SIM

Client: Groundwater & Environmental Services, Inc. (Syracuse)

Date: April 06, 2018

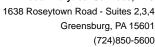
QC Batch: 293377

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 30247678001

R1: RPD value was outside control limits.

• MSD (Lab ID: 1436127)

- Acenaphthene
- Acenaphthylene
- Anthracene
- Fluorene





Project: National Grid - Rome Kingsley

Pace Project No.: 30247678

Method: EPA 8260C Description: 8260C MSV

Client: Groundwater & Environmental Services, Inc. (Syracuse)

Date: April 06, 2018

General Information:

2 samples were analyzed for EPA 8260C. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

QC Batch: 293412

CL: The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased low.

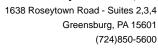
- BLANK (Lab ID: 1436222)
 - 2-Butanone (MEK)
 - 2-Hexanone
 - 4-Methyl-2-pentanone (MIBK)
- Effluent System 0318 (Lab ID: 30247678001)
 - 2-Butanone (MEK)
 - 2-Hexanone
 - 4-Methyl-2-pentanone (MIBK)
- LCS (Lab ID: 1436223)
 - 2-Butanone (MEK)
 - 2-Hexanone
 - 4-Methyl-2-pentanone (MIBK)
- MS (Lab ID: 1436373)
 - 2-Butanone (MEK)
 - 2-Hexanone
 - 4-Methyl-2-pentanone (MIBK)
- MSD (Lab ID: 1436374)
 - 2-Butanone (MEK)
 - 2-Hexanone
 - 4-Methyl-2-pentanone (MIBK)
- Trip Blank (Lab ID: 30247678002)
 - 2-Butanone (MEK)
 - 2-Hexanone
 - 4-Methyl-2-pentanone (MIBK)

Internal Standards:

All internal standards were within QC limits with any exceptions noted below.

Surrogates:

All surrogates were within QC limits with any exceptions noted below.





Project: National Grid - Rome Kingsley

Pace Project No.: 30247678

Method: EPA 8260C Description: 8260C MSV

Client: Groundwater & Environmental Services, Inc. (Syracuse)

Date: April 06, 2018

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 293412

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 30247416001

ML: Matrix spike recovery and/or matrix spike duplicate recovery was below laboratory control limits. Result may be biased low.

MS (Lab ID: 1436373)1,1,1-Trichloroethane

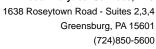
Additional Comments:

Analyte Comments:

QC Batch: 293412

1c: The analyte did not meet the method recommended minimum RF.

- BLANK (Lab ID: 1436222)
 - Acetone
 - Bromomethane
- Effluent System 0318 (Lab ID: 30247678001)
 - Acetone
 - Bromomethane
- LCS (Lab ID: 1436223)
 - Acetone
 - Bromomethane
- MS (Lab ID: 1436373)
 - Acetone
 - Bromomethane
- MSD (Lab ID: 1436374)
 - Acetone
 - Bromomethane
- Trip Blank (Lab ID: 30247678002)
 - Acetone
 - Bromomethane





Project: National Grid - Rome Kingsley

Pace Project No.: 30247678

Method: SM4500H+B-00

Description: 4500H+ pH, Electrometric

Client: Groundwater & Environmental Services, Inc. (Syracuse)

Date: April 06, 2018

General Information:

1 sample was analyzed for SM4500H+B-00. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

H3: Sample was received or analysis requested beyond the recognized method holding time.

• Effluent System 0318 (Lab ID: 30247678001)

H6: Analysis initiated outside of the 15 minute EPA required holding time.

• Effluent System 0318 (Lab ID: 30247678001)

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

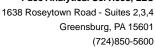
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:

All duplicate sample results were within method acceptance criteria with any exceptions noted below.





Project: National Grid - Rome Kingsley

Pace Project No.: 30247678

Method: EPA 335.4

Description: 335.4 Cyanide, Total

Client: Groundwater & Environmental Services, Inc. (Syracuse)

Date: April 06, 2018

General Information:

1 sample was analyzed for EPA 335.4. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:

The samples were prepared in accordance with EPA 335.4 with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.