Eighth Annual Report for NAPL Recovery

August 2021 Through July 2022
K- Equity Works (Former MGP Site), Brooklyn, New York
NYSDEC Site No.: 224050
Order on Consent Index #: A2-0552-0606
EPA ID number for the Site: NYR 000 225 615

National Grid

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	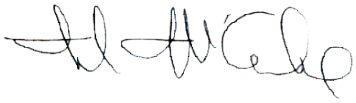
Peter S. Cox, PG Project Manager	Mark M. McCabe, Program Manager

Prepared for:

National Grid
One MetroTech Center
Brooklyn, NY 11201

Prepared by:

AECOM
250 Apollo Drive
Chelmsford
MA, 01824
USA
aecom.com

Table of Contents

Figures

Tables

Appendices

Acronyms

BUG	Brooklyn Union Gas Company
CCR	Construction Completion Report
DNAPL	dense non-aqueous phase liquid
IRM	Interim Remedial Measure
MGP	Manufactured Gas Plant
NAPL	non-aqueous phase liquid
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
O&M	Operation & Maintenance
PDI	Pre-design Investigation
PLC	Programmable Logic Controller
PVC	polyvinyl chloride
Site	222-254 Maspeth Avenue
TOC	top of casing

Executive Summary

On behalf of National Grid, AECOM, has prepared this non-aqueous phase liquid (NAPL) Recovery Annual Report to document the eighth year of operation of the NAPL recovery system within the footprint of the former K-Equity Works site (the Site), a former Manufactured Gas Plant (MGP) site, located at 222-254 Maspeth Avenue in Brooklyn, New York, during the period of August 2021 through July 2022. The NAPL Recovery is being conducted pursuant to a Multi-site Order on Consent and Administrative Settlement, Index # A2-0552-0606, between The Brooklyn Union Gas Company (BUG) d/b/a National Grid NY, and the New York State Department of Environmental Conservation (NYSDEC).

The Site is located in a historically industrialized area and operated as a MGP from approximately 1893 to 1929. BUG acquired the MGP in approximately 1903 and transferred ownership of the Site in 1951. The Site currently consists of three adjoining properties – 222 Maspeth Avenue, 252 Maspeth Avenue, and 254 Maspeth Avenue. The 222 Maspeth Avenue property was previously used by Cooper Tank as a solid waste recycling facility and more recently used for waste container (roll-off) fabrication and rehabilitation. The 252 Maspeth Avenue property is leased to a tenant who parks and maintains buses on it, and the 254 Maspeth Avenue parcel is leased to a construction contractor as a lay-down space to support their construction operations.

The NAPL Recovery Interim Remedial Measure (IRM) activities included the following:

- Installation of 5 recovery wells at appropriate locations within the central areas of the Site to reduce the quantity of NAPL, and at 18 selected perimeter locations to control the potential for off-site migration.
- Installation of pumps, controls, and a NAPL recovery collection tank/system.
- Installation of two recovery wells within the former No.1 Relief Holder in 2018.
- Installation of seven pilot recovery wells screened at varying depths below the former gas holder foundation at 222 Maspeth Avenue between September and December 2021 to recover NAPL beneath this suspected source area structure.

On-going Operation Maintenance and Monitoring activities following completion of the IRM include the following:

  - Gauging of NAPL, and
  - Recovery of NAPL that collects in the recovery wells, including weekly recovery at the pilot recovery wells at 222 Maspeth Avenue.

Details regarding the construction of the NAPL recovery wells are included in the Interim Remedial Measure for NAPL Recovery Construction Completion Report (CCR), submitted to the NYSDEC in May 2015 (AECOM, 2015). Details regarding the pilot recovery wells have been transmitted to NYSDEC via email.

Data collected to date indicate that NAPL collection rates at 12 of the initial 23 recovery well locations (2 on-site and 10 perimeter locations) warrant the continued operation of pumps to support automated recovery. The well pumps are controlled with timers that are adjusted, as required, with a goal of containing the NAPL within the sump of each well, but at a level above the inlet to the pump to minimize the collection of groundwater. The remaining 13 wells, including those located in the No. 1 Relief Holder, are managed using manual recovery techniques on a quarterly basis. Data collected to date at the pilot recovery wells at 222 Maspeth Avenue indicates that manual recovery is warranted on a weekly basis.

Since system startup through July 31, 2022, the system has operated with an average on-line factor of 98%, without incidents or unplanned releases from the system. Based on system measurements, approximately 30,000 gallons of mixed fluids have been collected from the recovery system and managed as an alternative fuel, initially at the Tradebe Facility in Cohoes, New York until March of 2017 and more recently at Veolia Technical Solutions Facility in Middlesex, New Jersey. An estimate of the NAPL/water

ratios over the monitoring period indicates that the mixed fluids collected are typically 60 to 70% NAPL, resulting in over 18,00 gallons of NAPL having been removed from the Site to date. In addition, approximately 1,115 gallons of mixed fluids have been collected from the seven pilot recovery wells since December 2021 with an estimated 80% NAPL/water ratio.

1. Introduction

On behalf of National Grid, AECOM, has prepared this 8th Annual Report outlining NAPL Recovery progress during its eighth year of operation, covering the period of August 2021 through July 2022. The NAPL recovery system is located within the footprint of the former Equity Works Manufactured Gas Plant (MGP) site (the Site). The Site consists of three adjoining properties – 222 Maspeth Avenue, 252 Maspeth Avenue, and 254 Maspeth Avenue located in Brooklyn, New York. Details regarding the construction of the NAPL recovery system are included in the Interim Remedial Measure for NAPL Recovery Construction Completion Report (CCR), submitted to the NYSDEC in May 2015 (AECOM, 2015). The location of the Site and the orientation of the individual properties are illustrated in Figures 1-1 and 1-2, respectively.

The IRM was implemented pursuant to a Multi-site Order on Consent and Administrative Settlement, Index # A2-0552-0606, between The Brooklyn Union Gas Company (BUG) d/b/a National Grid NY (hereinafter, National Grid), and the New York State Department of Environmental Conservation (NYSDEC), in accordance with applicable guidelines of the NYSDEC and the New York State Department of Health (NYSDOH).

This document is organized in the following manner: a summary of activities associated with the installation and operation of the recovery system is presented in Section 2; the results from the eighth year's monitoring activities are documented in Section 3 and proposed revisions to the system's operation and monitoring program are discussed in Section 4.

2. Recovery Well Installation and Operation

National Grid is collecting recoverable NAPL while site-wide remedial design activities are completed. The design of the NAPL recovery system included the installation of 23 recovery wells at locations that were determined to have the potential to collect mobile NAPL and be compatible with Cooper Tank's construction and long-term operational activities. Consistent with the NYSDEC approved work-plan (AECOM, 2013), recovery wells were installed in the following areas of the Site:

- On-Site – 5 recovery wells (RW-1 through 5) were installed at locations within the 252 Maspeth Avenue property.
- Site Perimeter –18 recovery wells (RW-6 through 23) were installed along the perimeter of the Site on the 222, 252 and 254 Maspeth Avenue properties.
- Two additional recovery wells (RW-24 and RW-25) were installed in 2018 inside the former No. 1 Relief Holder and added to the NAPL recovery Operation & Maintenance (O&M) program.
- Seven recovery wells (referred to as pilot recovery wells) were installed in late 2021 below the foundation of the former No.1 Relief Holder for a pilot program to explore the recoverability of dense non-aqueous phase liguid (DNAPL) below the intermediate clay and above the deep clay (a confining unit). These recovery wells terminated at various depths and were designated as follows: shallow (RW-28S and RW-29S), intermediate (RW-27I), and deep (RW-26, RW-27DR, RW-28D, and RW-29D). One of the Pilot wells (RW-27D) was abandoned due to broken casing and was replaced (RW-27DR).

Recovery well locations are shown on Figure 2-1. The perimeter locations are spaced at approximately 18 ft on center, with the exception of the area along the driveway of 254 Maspeth Avenue where the presence of a subsurface structure required spacing of approximately 30 feet between the three recovery wells (RW-6, -7 and -8). The On-Site and Site Perimeter locations were equipped with the infrastructure, i.e., conduits for electrical service and tubing, for the subsequent automation of NAPL recovery activities.

2.1 Recovery Well Designs

Recovery wells were designed to accommodate the uncertainty of long-term NAPL recovery rates. All well risers were constructed of 6-inch diameter schedule 40 polyvinyl chloride (PVC). Recovery well screens were constructed of 6-inch diameter 0.020-inch slot wire wrap stainless steel. Five (5) and ten (10) foot lengths of screen were used, as required, to address soil intervals where NAPL (i.e., saturated thickness greater than 1-inch) has been observed. Centralizers were installed at the top and bottom of each screen. The screen size was selected based on the grain-size information obtained during the Pre-Design Investigation (PDI). Each well was equipped with a 5-foot long, 6-inch diameter, stainless steel sump to collect NAPL, with the exception of new wells RW-24 and RW-25 which were screened to the former No. 1 Relief Holder foundation to avoid penetrating the holder bottom. The annular space above the filter pack was filled with a bentonite seal (minimum of 3 to 4 feet thick). Note that additional bentonite seals were used at locations where multiple screen intervals were installed. The annular space above the bentonite seal was filled with a grout mixture from the bentonite seal to approximately one to two feet below the top of casing (TOC). Recovery wells at the On-Site and Site Perimeter locations were completed in a 4-foot by 4-foot traffic rated well vault. Illustrations of an in-place recovery well and completed well location are provided in Figure 2-2. The pilot wells were constructed in a similar fashion with four different screen lengths: 5-foot (RW-29D), 10 feet (RW-26, RW-28S, RW-29S and RS-28D), 15 feet (RW-27I), and 20 feet (RW-27DR). All pilot wells have 10-foot-long sumps.

2.2 Initial Monitoring and NAPL Recovery

The NAPL recovery system is intended to operate in a manner that contains the NAPL levels at the locations within the well sumps (5 ft. in length) to the extent practicable. As part of the installation of the system, initial monitoring activities were conducted to provide a preliminary estimate of potential collection rates. The results were used to determine which locations would require automation for the cost-effective recovery of NAPL. The monitoring activities provided the ability to group the locations into three

categories based on the observed recharge rates. They were grouped as follows: Primary Recovery Wells (greater than 0.5 gallons per day [gpd] of NAPL recovered); Secondary Recovery Wells (approximately 0.1 to 0.5 gpd of NAPL recovered) and Gauging Wells (< 0.1 gpd of NAPL recovered). The distribution of wells within these categories is provided on Table 2-1.

2.2.1 Primary Recovery Wells

The majority of NAPL (approximately 85 percent of total) was collected from the eight primary locations. The manual management of NAPL at these locations would require that recovery activities be conducted on a weekly basis to ensure that the storage capacity of the well sumps (approximately 7.5 gallons) not be exceeded. This frequency of manual monitoring/collection is not cost-effective or practical given site access issues and the level of activity at the Site. As a result, the wells at these eight locations were automated by setting NAPL recovery pumps in the wells.

2.2.2 Secondary Recovery Wells

Approximately fifteen percent of the NAPL was collected from the seven secondary wells. The manual management of NAPL at these locations would require that recovery activities be conducted on a monthly basis to ensure that the storage capacity of the well sumps is not exceeded. Long-term manual monitoring/recovery at this frequency is not cost effective, and these locations were also automated by setting NAPL recovery pumps in the wells.

2.2.3 Gauging Wells

NAPL levels at the 13 remaining wells were consistently observed to be within the well's sumps at each location or within the former No. 1 Relief Holder foundation. It was determined that NAPL at these locations could be effectively managed on a quarterly basis using manual recovery techniques. Note that one of the secondary wells (RW-11) was converted to a gauging well during the first year of operation, bringing the total to 13 wells.

The measurements of the quantity of NAPL collected from locations within the former No. 1 Relief Holder indicate that RW-24 and RW-25 can also be effectively managed using manual recovery techniques on a quarterly basis.

2.2.4 Pilot Wells

Seven pilot recovery wells were installed in the fall of 2021 to evaluate the potential for NAPL recovery at depth below the intermediate clay unit beneath the former gas holder foundation at 222 Maspeth Avenue. RW-26 and RW-28S were installed initially. The second group included RW-27I, RW-27D, and RW-29S. One of the wells, RW-27D, was later abandoned and replaced by RW-27DR. The third group of wells installed were RW-28D and RW-29D. These well groups were installed sequentially and based on the DNAPL accumulation documented in the previous group. After installation, significant DNAPL accumulation was not observed in either the first or second group of wells, prompting the installation of the third and final group. By the third month since RW-26 and RW-28S were installed, measurable DNAPL accumulation began to be observed in all pilot wells except RW-27I. The pilot recovery wells were installed in accordance with the NYSDEC-approved IRM Work Plan Addendum (AECOM, 2021).

The DNAPL recharge rates vary among these pilot wells. Currently, the wells are gauged and pumped as needed on a weekly basis to determine the long-term NAPL recoverability potential to determine if certain pilot recovery wells can be abandoned or whether NAPL accumulation can be performed quarterly under the current O&M program, or if well(s) would benefit from automation similar to other existing primary recovery wells.

2.3 System Operation

Discussions of the recovery/collection methods for the automated and gauging wells are provided below.

2.3.1 Automated Wells

The Primary and Secondary recovery well locations (Figure 2-3) are equipped with fixed speed pumps manufactured by Pump Works and/or Linear Pumps. Note that the equipment designed by Linear Pumps has been determined to be better suited to site conditions and will be used to replace the Pump Works equipment over time. The well pumps are controlled with timers that are adjusted, as required, with a goal of containing the NAPL within the sump of each well, but at a level above the inlet to the pump to minimize the collection of groundwater.

Collected NAPL is accumulated in a 500-gallon capacity double-walled polyethylene tank located above ground in the system's control trailer on the 254 Maspeth Avenue parcel (Figure 2-4). The accumulation tank is equipped with a high liquid level detector to prevent over-filling, as well as secondary containment. The system is equipped with additional alarms and communication equipment to ensure its safe operation.

The contents of the tank are periodically gauged by field staff using the following method:

- The tank is accessed through the topmost access port.
- An interface probe is lowered to the bottom of the tank.
- The probe is left in place for a period of 5 minutes to allow the separate layers of NAPL and water to resolve.
- The probe is slowly raised until the water level is encountered.

The thicknesses of the NAPL and water levels are used to estimate the relative NAPL/water composition of the mixed fluids.

2.3.2 Gauging Wells

The Gauging Wells are monitored during quarterly inspection activities and accumulated NAPL is recovered using an air lift system that consists of an air compressor and sample line (1 inch outside diameter black iron pipe) that runs from the bottom of the well sump to a closed 55-gallon drum and is operated in the following manner:

- A small stream of compressed air is introduced into the bottom of the sample line through a "T' connection.
- The upward movement of the air "bubble" creates a vacuum that draws NAPL upward from the sump and into the drum.
- The consistency of the stream is determined by an oil/water interface probe that is inserted into the sample line. Air flow is discontinued when the probe detects water is being pumped through the tubing instead of DNAPL. Then the volume of collected NAPL is measured and recorded.

The collected NAPL is stored in sealed drums and collected with the NAPL from the accumulation tank at regular intervals by a certified waste hauler.

2.3.3 Pilot Wells

All seven pilot wells are currently accessed, gauged, and pumped (if DNAPL is present in sumps for more than one foot of thickness) on a weekly basis. The expected duration of the pilot recovery well monitoring program is approximately 12 months. DNAPL recovered from these wells is stored in 55-gallon steel drums and picked up by National Grid's approved waste hauler on a bi-weekly basis. The quantity of the DNAPL generated from these wells is recorded separately from the other wells on-site.

DNAPL is recovered using the air lift pumping system currently in use to remove NAPL from the "gauging" recovery wells as defined above.

3. System Performance

The following discussion provides summaries of NAPL recovery and waste management observations during the eighth year of system operation (August 2021 through July 2022), as well as a discussion of the associated maintenance and response activities.

3.1 NAPL Recovery

The results from the monitoring of the automated and gauging wells are discussed below.

3.1.1 Automated Wells

The results from the gauging activities during the system's operation are summarized in Table 3-1. Adjustments to the pumping rates were generally appropriate to contain NAPL within the sumps of the wells. However, experience during the first eight years of operation demonstrate that although general trends of the flow of NAPL to a well can be established, there are short-term variabilities in flow and/or minor mechanical issues (e.g., pump screen clogging, tripped fuses, pump failures) that can challenge the ability to continually maintain a matching pumping rate. In addition, because the system is automated with pumping times and durations controlled by a timer, periodically there are times where the NAPL thickness is identified above the sump interval, e.g., if wells are gauged just before pumping. These are temporary conditions, as accumulated NAPL is removed from the sumps on a continuous basis over time. Pump duration adjustments are also made on an on-going basis when data indicate NAPL thickness is near or above the sump level in the recovery wells.

Approximately 2,334 gallons of mixed fluids were collected from the system during the eighth year of operation (August 1, 2021, through July 31, 2022). An illustration of the cumulative volume of mixed fluids collected over time is provided in Figure 3-1. From startup through July 2022, approximately 30,000 gallons of mixed fluids have been removed by the system based on readings from the level sensor in the recovery tank. Note that the estimates of total recovered volume presented in Table 3-1 (based on in-truck volumes listed on the manifests) can vary slightly from the "tank" level sensor estimate due to the variability over time between the level sensor readings and the "in-truck" volumes recorded by the waste hauling company.

In the past, observation of the relative proportions of NAPL/water have been highly variable; however, the use of the standardized protocol presented in the Year 2 Report including lowering the probe to the bottom of the recovery tank and letting it equilibrate for approximately five minutes prior to recording the NAPL and water thicknesses has provided more consistent results. In addition, a change in pumping frequency from daily to weekly in July 2020 indicated an approximate 10% reduction in water content of the recovered NAPL following this change to weekly pumping. During Year 8 operations, the observed NAPL to water ratio of collected mixed fluids was approximately 60% to 70% NAPL. A conservative estimate of the NAPL/water ratios since system startup indicates that the collected material likely contained over 18,000 gallons of NAPL. Another change that occurred in the eighth year is the conversion of RW-8, which has become a gauging well based on the NAPL thickness and calculated recharge rates in this well.

3.1.2 Gauging Wells

Monitoring and recovery activities were conducted on an approximate quarterly basis throughout the year. The 2016-2022 data from the gauging wells is presented in Tables 3-2a and 3-2b. As indicated, manual recovery on a quarterly basis is appropriate to maintain DNAPL levels within the sumps. During Year 8 operations, approximately 83 gallons of mixed fluids were recovered from the 14 gauging wells. Note RW-08 was converted from an automated well to a gauging well in July 2022.

Figure 3-2 presents a graphical illustration of the trend in DNAPL thickness in the gauging wells during the first eight years of operation. As illustrated, thicknesses have generally decreased over time with typical variation. This suggests that the collection system is having a potentially significant effect on reducing the quantity of recoverable DNAPL in the areas where the gauging wells are located.

3.1.3 Pilot Wells

The DNAPL thickness and recovered volume from the pilot wells are presented in Tables 3-3a and 3-3b. From September 2021 to July 2022, approximately 1,115 gallons of mixed fluids were recovered from the seven pilot wells.

Figure 3-3 shows the cumulative volume of DNAPL recovered from all pilot wells during Year 8. During Year 8 operations, the observed NAPL to water ratio of collected mixed fluid was approximately 80% or more NAPL.

3.2 Waste Management

The collected NAPL was managed as an alternative fuel at the Veolia Technical Solutions Facility in Middlesex, New Jersey for fuels blending. A summary of the waste shipments and associated quantities according to manifests from both the automated and gauging wells is presented in Table 3-4.

The initial shipments of mixed fluids during Years 1 and 2 were managed as a non-hazardous waste in accordance with NYSDEC Guidance DER-4, “Management of Coal Tar Waste and Coal Tar Contaminated Soils and Sediment”. From time to time the results from the analysis of the mixed fluids in the tank have indicated a flash point that we greater than 140° F. Although the results were believed to be the result of inconsistencies in sampling and analysis, shipments after February 5, 2016, during Year 2 operations, have been conservatively managed as a D001 Ignitable Waste using the RCRA ID number for the Site: NYR 000 225 615. Documentation of the shipments for Year 8 operations are provided in Appendix A.

3.3 System Maintenance

There were no significant maintenance issues with the system during the monitoring period; however, in early 2022, Sensaphone discontinued remote monitoring support for the systems Programable Logic Controller (PLC), the SCADA 3000. As this unit operates as the system PLC and monitoring system, it was determined that both needed to be upgraded to have system monitoring going forward. A contractor has been selected to procure new equipment and update the program for this upgrade. This work is planned to commence in the fall of 2022.

The following maintenance activities were accomplished during the eighth year of operation:

- Periodic cleaning of the system trailer to remove dust generated by site operations.
- Quarterly cleaning of recovery well pump intake screens as needed and replacement of vault lid hardware (latches, hinges, etc.) that get damaged by site operations.
- Since the pilot wells are examined weekly, maintenance is done on an as-needed basis.

During the current reporting period, the system was on-line 365 days out of a total of 365 planned operating days, as outlined below. This reflects an on-line factor of 100%, which is consistent or higher than prior years of operation.

3.4 Incidents/Unplanned Releases

There were no incidents or unplanned releases during the reporting period.

4. Recommendations

National Grid continues to conduct additional evaluations of recharge rates and the composition of mixed fluids to determine if it will be practical to refine the operation of the system, e.g., transition automated wells to gauging wells, over time.

4.1 Past Recommendations

Starting in June 2014, and continuing forward during various quarterly gauging events, a pilot program was initiated to evaluate the recharge rates for selected wells. During the evaluation, NAPL was removed from the selected wells, and NAPL thickness was monitored periodically over the next 24 hours or longer, with results reported in gallons/day. The results for four wells (RW-10, RW-18, RW-19, and RW-20) are summarized in Figure 4-1. As illustrated on Figure 4-1, NAPL recharge rates generally indicate a decreasing trend, with expected variability. The evaluation will be continued at these wells and possibly additional wells during Year 9 operations.

During Year 3 operations, National Grid also conducted a recharge evaluation to evaluate the possibility that the decreasing recharge rates could be associated with “fouling” of the well screens. The results from the evaluation were presented in the Year 3 Annual Report (AECOM, 2017) and demonstrated that significant NAPL recharge was noted in all wells, confirming that recovery well screen fouling is not an issue or the cause of the gradually decreasing recharge rates.

The NAPL recovery system was switched from daily to weekly pumping on July 27, 2020 in an attempt to improve NAPL to water collection ratios. Results from recorded NAPL to water ratios in the recovery tank during Year 7 and Year 8 indicate an approximate 10% reduction in water content of the recovered NAPL following this change to weekly pumping. The results of the above actions will be reviewed as part of the next annual report to determine if there is a trend in the rate of NAPL collection and if any future modifications to the operation of the system are required.

4.2 Future Recommendations

The automated collection of NAPL will continue for the Primary and Secondary wells as described in Section 2.3.1. The gauging wells will be monitored and pumped during the quarterly inspections as descried in Section 2.3.2. The pilot wells will be accessed, gauged, and pumped for the remainder of the 12-months pilot program as described in Section 2.3.3.

With the upcoming upgrades to the remote monitoring system, real-time monitoring and remote-control capability will be enhanced with an internet-based communication instead of the existing cellular-based connection. With the new connection, the pump run time can be adjusted and recorded remotely, thus allowing adjustments for optimizing the recovery system performance.

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Tables

Table 2-1
Categories of Recovery Wells
Former Equity Works MGP Site, Brooklyn, New York

Primary Recovery Wells (collection rate > 0.5 gpd)

Well	Location	
RW-2	252 Parcel	on-site
RW-3	252 Parcel	on-site
RW-10	254 Parcel	perimeter
RW-12	254 Parcel	perimeter
RW-13	254 Parcel	perimeter
RW-18	254 Parcel	perimeter
RW-19	254 Parcel	perimeter
RW-20	254 Parcel	perimeter

Secondary Recovery Wells (collection rates 0.1 to 0.5 gpd)

Well	Location	
RW-9	254 Parcel	perimeter
RW-11	254 Parcel	perimeter
RW-21	254 Parcel	perimeter
RW-22	222 Parcel	perimeter

Gauging Wells (collection rate < 0.1 gpd)

Well	Location	
RW-1	252 Parcel	on-site
RW-4	252 Parcel	on-site
RW-5	252 Parcel	on-site
RW-6	254 Parcel	perimeter
RW-7	254 Parcel	perimeter
RW-8	254 Parcel	perimeter
RW-11	254 Parcel	perimeter
RW-14	254 Parcel	perimeter
RW-15	254 Parcel	perimeter
RW-16	254 Parcel	perimeter
RW-17	254 Parcel	perimeter
RW-23	222 Parcel	perimeter
RW-24	222 Parcel	on-site
RW-25	222 Parcel	on-site

222 Maspeth Pilot Recovery Wells

Well	Location	
RW-26	222 Parcel	on-site
RW-28S	222 Parcel	on-site
RW-29S	222 Parcel	on-site
RW-27I	222 Parcel	on-site
RW-28D	222 Parcel	on-site
RW-29D	222 Parcel	on-site
RW-27D	222 Parcel	on-site

Note:

[1] Based on data from initial gauging events - May 2013 through February 2014

Table 3-1
NAPL Monitoring and Recovery - Automated Wells
Former Equity Works MGP Site, Brooklyn, New York

Location			Depth of Well (ft.)		Typical Pre-Recovery NAPL Thickness (ft.)	NAPL Thickness (ft)																												
	Parcel	Well ID	Design	Measured		7/29/2015	10/15/2015	1/15/2016	4/28/2016	7/28/2016	10/17/2016	1/19/2017	4/6/2017	7/26/2017	10/26/2017	1/19/2018	4/5/2018	7/25/2018	11/5/2018	1/30/2019	4/3/2019	8/13/2019	11/7/2019	1/28/2020	4/30/2020	7/27/2020	10/19/2020	1/25/2021	4/26/2021	7/13/2021	10/18/2021	1/24/2022	4/25/2022	7/20/2022
On-Site	252	**RW- 2**	51.00	49.70	12	0.06	5.43	8.98	0.55	3.42	0.20	3.33	0.01	6.05	3.62	8.82	1.38	1.52	0.14	6.10	9.55	0.00	1.21	6.05	6.80	0.01	5.75	---	8.85	1.79	2.35	2.05	1.50	1.83
		RW- 3	51.00	50.40	14	0.63	4.72	11.74	1.25	3.06	0.50	9.20	6.02	12.04	11.02	13.42	1.11	13.95	10.21	11.33	11.15	0.30	3.43	9.88	---	2.44	12.10	---	12.90	5.25	1.10	6.80	12.10	4.42
Perimeter	254	RW- 8	48.00	46.72	3	0.06	0.15	1.89	0.98	0.10	2.41	3.63	2.05	0.01	0.01	0.01	0.00	2.71	5.10	5.83	5.42	6.35	2.05	4.25	0.00	3.20	4.55	2.50	2.30	2.95	4.20	3.28	3.00	4.40
		RW- 9	50.00	48.87	6	0.06	1.73	7.32	13.50	7.78	0.10	4.92	6.30	12.30	0.01	0.01	0.00	0.00	0.00	1.70	5.25	7.55	3.80	6.95	5.00	3.20	0.10	0.50	4.85	4.20	4.50	---	0.15	0.00
		RW- 10	46.00	45.30	11	0.06	6.25	11.44	3.03	0.20	0.05	6.32	6.60	0.95	0.01	0.01	0.00	0.02	0.02	2.72	6.42	7.99	4.06	6.99	5.30	1.25	2.96	6.98	5.91	11.89	9.68	0.90	0.30	0.00
		RW- 11	46.00	45.73	8	---	---	---	---	---	---	---	---	---	---	---	---	0.91	1.41	1.30	0.82	1.05	1.00	1.00	1.00	1.15	0.92	1.20	0.85	0.70	1.50	1.85	2.00	3.11
		RW- 12	46.00	45.48	13	4.01	2.65	10.45	10.60	2.25	10.11	1.20	0.01	2.85	2.65	0.75	4.30	5.60	0.10	0.01	2.55	0.85	0.03	0.00	0.20	0.01	2.08	5.20	5.96	7.50	1.10	0.98	2.50	1.65
		RW- 13	46.00	45.53	12	0.06	0.35	10.51	6.01	0.1	8.08	5.53	6.2	0.01	0.01	0.01	6.95	10.81	0.00	0.00	1.52	0.15	0.01	0.00	0.00	0.01	0.10	0.30	0.20	0.02	0.01	---	0.00	0.00
	252	**RW- 18**	50.00	47.50	10	8.80	0.10	trace	0.10	0.10	0.05	0.01	0.01	0.01	0.01	0.01	0.01	3.65	0.10	0.01	7.71	0.02	0.00	0.00	0.00	0.01	1.40	1.50	2.25	0.95	0.10	1.21	1.20	1.70
		RW- 19	52.00	50.18	12	0.06	0.1	7.71	0.15	2.72	0.05	5.56	0.01	6.2	0.01	0.01	0.01	0.00	0.00	0.00	9.68	0.23	6.95	9.23	9.50	9.55	3.63	2.00	2.25	2.02	0.60	2.62	2.00	2.40
		RW- 20	52.00	50.75	11	9.01	1.8	2.0	1.4	2.2	1.9	2.0	0.0	2.1	2.0	1.2	0.0	1.31	1.45	2.00	10.02	5.55	6.02	1.87	2.30	1.93	4.22	---	0.62	4.10	2.90	4.70	1.20	7.65
		RW- 21	50.00	49.80	5	0.06	0.1	trace	8.65	0.1	5.97	0.01	0	0	0.01	2.12	1.82	3.70	---	2.60	4.01	3.00	6.67	4.98	3.90	0.01	0.10	---	0.33	0.22	0.80	0.42	---	---
	222	RW- 22	46.00	42.95	8	1.88	8.34	0.57	0	0.1	0.1	0.01	1.51	0.01	---	0.01	0.01	0.02	---	---	2.02	0.00	0.02	0.00	---	0.00	0.10	0.00	0.32	0.00	0.00	0.92	0.21	0.55
Recovered Gallons (cumulative from system startup)						4215	5539	7156	9277	11477	12531	14071	15277	16263	16750	17730	18792	19316	19877	21035	21629	23127	23801	24216	24988	25473	26429	26989	27397	28861	29346	30384	30761	31195
Average Gallons per Day						11.1	12.1	13.1	14.3	15.5	15.3	15.4	15.4	14.8	14.0	13.9	13.9	13.2	12.7	12.7	12.6	12.5	12.0	11.7	11.7	11.5	11.5	11.7	11.1	11.4	11.1	11.1	10.9	10.7

Notes:

Bold Primary Recovery Wells

--- Not available. At RW-11, pump transferred to RW-22 during 10/3/14 event

RW-11 converted to a Gauging Well

Recovered Gallons (cumulative) is total amount pumped (based on disposal manifests) and does not include correction factor for NAPL to water ratio

Gallons per Day does not include correction factor for NAPL to water ratio

AECOM

Table 3-2a
NAPL Monitoring and Recovery - Gauging Wells
Former Equity Works MGP Site, Brooklyn, New York

Location			Depth of Well (ft.)		Typical Pre-Recovery NAPL Thickness (ft.)	NAPL Thickness (feet)																								
	Parcel	Well ID	Design	Measured		7/28/2016	10/17/2016	1/19/2017	4/6/2017	7/26/2017	10/26/2017	1/19/2018	4/5/2018	7/25/2018	11/5/2018	1/30/2019	4/3/2019	8/13/2019	11/7/2019	1/28/2020	4/30/2020	7/27/2020	10/19/2020	1/25/2021	4/26/2021	7/13/2021	10/18/2021	1/24/2022	4/25/2022	7/20/2022
On-Site	252	RW- 1	45.00	43.35	3	1.50	0.98	1.55	0.01	1.66	1.02	0.95	1.00	1.52	1.52	0.73	1.11	1.72	1.00	1.00	---	3.11	0.70	---	---	---	---	---	---	---
		RW- 4	51.00	49.91	trace	trace	0.05	0.01	0.01	0.06	0.00	0.01	0.01	0.02	---	0.54	1.15	0.02	0.01	0.0	0.0	0.01	0.10	---	0.75	0.0	0.01	0.10	---	---
		RW- 5	47.00	44.45	2	1.23	0.05	0.01	0.01	0.00	0.01	0.01	0.01	0.02	---	0.55	0.73	0.0	0.02	0.0	0.10	0.01	0.10	---	0.45	0.30	0.45	0.10	---	---
Perimeter	254	RW- 6	47.00	45.72	3	2.91	2.67	3.75	2.55	2.95	3.23	2.85	2.00	2.33	2.71	1.80	1.65	2.55	2.11	1.88	2.40	2.54	1.35	2.50	1.80	1.32	2.20	2.47	2.00	1.65
		RW- 7	48.00	46.05	1	---	---	---	1.46	0.75	0.01	0.54	1.30	0.60	0.70	0.73	0.72	0.82	0.75	0.59	---	1.22	0.75	1.00	0.90	0.78	0.80	1.80	0.70	0.70
		RW- 8	48.00	46.72	3	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	4.40
		RW- 11	46.00	45.73	4	2.25	1.33	2.20	1.22	2.85	1.30	0.80	0.80	0.91	1.41	1.30	0.82	1.05	1.00	1.00	1.00	1.15	0.92	1.20	0.85	0.70	1.50	1.85	2.00	3.11
		RW- 14	45.00	45.13	trace	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.01	0.01	0.00	0.00
		RW- 15	45.00	43.72	trace	trace	0.0	0.0	0.0	0.0	0.0	0.01	0.0	0.0	0.0	0.0	0.0	---	---	---	0.0	0.0	---	---	---	---	---	---	---	---	---
		RW- 16	50.00	49.72	1	---	---	0.56	0.0	0.0	0.0	1.7	1.81	0.02	---	---	0.0	---	---	---	---	---	---	---	---	---	---	---	---	---
		RW- 17	48.00	49.60	6	4.42	3.55	3.72	3.20	4.67	4.03	3.14	2.90	4.65	4.83	2.93	2.27	4.22	3.33	3.35	3.90	2.23	3.40	4.00	3.45	2.81	4.40	3.51	3.00	2.45
	222	RW- 23	44.00	41.69	2	---	---	---	0.01	0.01	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		RW- 24	26.50	25.95	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	0.12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.10	0.01	0.01	0.01	0.00	0.00
		RW- 25	26.25	24.93	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	1.75	0.01	0.11	0.80	0.55	0.10	0.20	0.25	0.12	1.00	0.10	0.23	0.01	---	---	---

Notes:
RW-11 converted to a Gauging Well during 10/3/14 event
No manual gauging and removal during June 2015 due to time/access limitation
--- = Unable to access due to ongoing Cooper Tank/bus company site operations or equipment blocking recovery well that could nc
t installed
RW-8 converted to a Gauging Well during 7/20/22 event

AECOM

Table 3-2b
NAPL Monitoring and Recovery - Gauging Wells
Former Equity Works MGP Site, Brooklyn, New York

Location			Depth of Well (ft.)		Typical Pre-Recovery NAPL Thickness (ft.)	Mixed Fluids Quantity Recovered (gal.)																								
	Parcel	Well ID	Design	Measured		7/28/2016	10/17/2016	1/19/2017	4/6/2017	7/26/2017	10/26/2017	1/19/2018	4/5/2018	7/25/2018	11/5/2018	1/30/2019	4/3/2019	8/13/2019	11/7/2019	1/28/2020	4/30/2020	7/27/2020	10/19/2020	1/25/2021	4/26/2021	7/13/2021	10/18/2021	1/24/2022	4/25/2022	7/20/2022
On-Site	252	RW- 1	45.00	43.35	3	5.0	5.0	5.0	0.0	5.0	3.0	3.0	2.0	4.0	4.0	3.0	4.0	3.0	3.0	3.0	---	10.0	3.0	---	---	0.0	0.0	0.0	---	---
		RW- 4	51.00	49.91	trace	0.0	0.0	0.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0	---	4.0	0.0	0.0	0.0	0.0	0.0	0.0	---	5.0	0.0	0.0	0.0	---	---
		RW- 5	47.00	44.45	2	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	---	3.0	0.0	0.0	0.0	0.0	0.0	0.0	---	---	0.0	0.0	0.0	---	---
Perimeter	254	RW- 6	47.00	45.72	3	7.0	7.0	7.0	7.0	7.0	5.0	5.0	6.0	4.5	6.0	5.0	3.0	4.5	5.0	5.0	0.0	7.0	4.0	5.5	10.0	5.5	3.0	4.0	15.0	5.0
		RW- 7	48.00	46.05	1	---	---	---	0.0	3.0	0.0	2.0	3.0	2.0	3.0	2.0	2.0	3.0	2.0	2.0	---	5.0	3.0	4.0	5.0	4.0	7.0	3.0	0.0	0.0
		RW- 8	48.00	46.72	3	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	10.0
		RW- 11	46.00	45.73	4	6.0	3.5	5.0	3.5	4.0	3.0	3.0	3.0	4.0	3.5	3.0	4.0	5.0	3.0	4.0	0.0	0.0	5.0	5.0	5.0	5.0	0.0	3.0	0.0	6.0
		RW- 14	45.00	45.13	trace	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		RW- 15	45.00	43.72	trace	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	---	---	---	---	---	---	---	---
		RW- 16	50.00	49.72	1	---	---	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		RW- 17	48.00	49.60	6	10.0	6.0	12.0	7.0	9.0	7.0	7.0	6.0	8.0	10.0	5.0	8.0	8.0	5.0	7.0	5.0	5.0	8.0	7.5	14.0	7.5	7.0	5.0	15.0	0.0
	222	RW- 23	44.00	41.69	2	---	---	---	0.0	0.0	---	0.0	0.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		RW- 24	26.50	25.95	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	---
		RW- 25	26.25	24.93	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	3.5	1.0	1.0	5.0	1.0	0.0	0.0	2.0	5.0	4.0	0.0	0.0	0.0	0.0	---	---
		Total				33.0	21.5	29.0	17.5	32.0	18.0	20.0	25.0	22.5	30.0	19.0	29.0	28.5	19.0	21.0	5.0	29.0	28.0	26.0	39.0	22.0	17.0	15.0	30.0	21.0
		Cumulative from System Startup				283.0	304.5	333.5	351.0	383.0	401.0	421.0	446.0	468.5	498.5	517.5	546.5	575.0	594.0	615.0	620.0	649.0	677.0	703.0	742.0	764.0	781.0	796.0	826.0	847.0

Notes:
RW-11 converted to a Gauging Well during 10/3/14 event
No manual gauging and removal during June 2015 due to time/access limitation
--- = Unable to access due to ongoing Cooper Tank/bus company site operations or equipment blocking recovery well that could not be moved
NI - Not installed
RW-8 converted to a Gauging Well during 7/20/22 event

Table 3-3a
NAPL Monitoring - Pilot Wells
Former Equity Works MGP Site, Brooklyn, New York

Location		Well ID	Depth of Well (ft.)		Typical Pre-Recovery NAPL Thickness (ft.)	NAPL Thickness (ft)													
	Parcel	Well ID	Design	Measured		9/23/2021	9/30/2021	10/12/2021	11/2/2021	11/24/2021	12/8/2021	12/23/2021	12/30/2021	1/24/2022	1/26/2022	1/27/2022	2/9/2022	2/16/2022	2/24/2022
On-Site	222	RW-26	93.0	92.6	2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NA	11.98	0.07	NM	3.00	2.40	2.50
		RW-28S	47.5	46.5	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NA	3.99	4.01	0.50	3.50	0.14	5.90
		RW-29S	48.0	46.3	1					0.00	1.00	NA	3.00	2.67	2.57	0.50	NA	2.87	1.40
		RW-27I	74.0	73.1	0					0.00	0.00	0.00	NA	0.00	0.00	NM	NM	0.00	0.00
		RW-28D	100.0	100.4	6									19.40	1.00	1.00	20.00	19.30	19.50
		RW-29D	95.0	94.3	15									14.60	1.30	1.20	16.00	14.92	15.90
		RW-27D	94.0	93.2	5									11.57	0.01	NM	8.50	12.57	12.00

Well ID	3/2/2022	3/9/2022	3/16/2022	3/23/2022	3/30/2022	4/6/2022	4/13/2022	4/20/2022	4/27/2022	5/4/2022	5/11/2022	5/18/2022	5/25/2022	6/1/2022	6/8/2022	6/15/2022	6/22/2022	6/29/2022	7/6/2022	7/13/2022	7/20/2022
RW-26	1.40	0.00	2.00	1.40	0.70	2.00	0.00	2.00	1.70	0.90	1.30	0.70	NM	2.40	0.90	1.60	0.90	1.80	0.65	0.45	1.60
RW-28S	0.50	0.50	0.60	0.70	0.70	0.80	0.80	0.90	1.30	0.30	0.80	0.80	2.05	0.70	1.40	0.95	1.10	0.10	0.70	1.50	0.70
RW-29S	0.50	1.00	0.50	0.70	0.80	0.90	1.20	1.30	0.30	0.80	0.90	1.10	1.50	0.80	2.00	0.65	0.90	1.20	0.70	0.80	0.70
RW-27I	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RW-28D	14.20	15.00	18.10	18.40	11.70	6.90	0.50	3.00	6.80	9.20	5.80	2.80	0.81	0.00	1.00	0.80	0.90	0.90	0.90	0.90	0.94
RW-29D	15.80	15.00	1.00	14.60	14.40	14.80	14.50	14.80	14.50	13.80	14.50	14.10	14.15	14.40	13.80	14.20	14.70	13.90	15.40	14.45	14.50
RW-27D	8.30	6.00	5.50	6.00	4.50	4.50	5.50	3.00	3.50	4.00	3.90	4.50	6.40	3.20	3.70	2.30	3.60	3.50	3.00	3.90	4.20

Note:

NA: No access

NM: Not measured

Table 3-3b
NAPL Recovery - Pilot Wells
Former Equity Works MGP Site, Brooklyn, New York

Location			Depth of Well (ft.)		Typical Pre-Recovery NAPL Thickness (ft.)	Mixed Fluids Quantity Recovered (gal.)										
	Parcel	Well ID	Design	Measured		9/23/2021	9/30/2021	10/12/2021	11/2/2021	11/24/2021	12/8/2021	12/23/2021	12/30/2021	1/24/2022	1/26/2022	1/27/2022
On-Site	222	RW-26	93.0	92.6	2	NR	NR	NR	NR	NR	NR	NR	NR	17.60	NR	NR
		RW-28S	47.5	46.5	1	NR	NR	NR	NR	NR	NR	NR	NR	5.86	5.89	NR
		RW-29S	48.0	46.3	1					NR	NR	NR	4.41	3.92	3.78	NR
		RW-27I	74.0	73.1	0					NR	NR	NR	NR	NR	NR	NR
		RW-28D	100.0	100.4	6									28.50	NR	NR
		RW-29D	95.0	94.3	15									21.45	NR	NR
		RW-27D	94.0	93.2	5									17.00	NR	NR
					Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.41	94.32	9.67	0.00
					Cumulative from Installation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.41	98.73	108.40	108.40

Well ID	2/9/2022	2/16/2022	2/24/2022	3/2/2022	3/9/2022	3/16/2022	3/23/2022	3/30/2022	4/6/2022	4/13/2022	4/20/2022	4/27/2022
RW-26	4.41	3.53	3.67	2.06	NR	2.94	2.06	NR	2.94	NR	2.94	2.50
RW-28S	5.14	NR	8.67	NR	NR	NR	NR	NR	NR	NR	NR	1.91
RW-29S	NR	4.22	2.06	NR	1.47	NR	NR	NR	NR	NR	1.91	NR
RW-27I	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
RW-28D	29.38	28.35	28.65	20.86	22.04	26.59	27.03	17.19	10.14	NR	4.41	9.99
RW-29D	23.50	21.92	23.36	23.21	22.04	1.47	21.45	21.15	21.74	21.30	21.74	21.30
RW-27D	12.49	18.47	17.63	12.19	8.81	8.08	8.81	6.61	6.61	8.08	4.41	5.14
Total	74.92	76.48	84.03	58.32	54.35	39.08	59.35	44.95	41.43	29.38	35.40	40.84
Cumulative from Installation	183.32	259.79	343.82	402.14	456.49	495.57	554.91	599.87	641.29	670.67	706.07	746.91

Well ID	5/4/2022	5/11/2022	5/18/2022	5/25/2022	6/1/2022	6/8/2022	6/15/2022	6/22/2022	6/29/2022	7/6/2022	7/13/2022	7/20/2022
RW-26	NR	1.91	NR	NR	3.53	NR	2.35	NR	2.64	NR	NR	2.35
RW-28S	NR	NR	NR	3.01	NR	2.06	NR	1.62	NR	NR	2.20	NR
RW-29S	NR	NR	NR	2.20	NR	2.94	NR	NR	1.76	NR	NR	NR
RW-27I	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
RW-28D	13.51	8.52	4.11	NR	NR	NR	NR	NR	NR	NR	NR	NR
RW-29D	20.27	21.30	20.71	20.79	21.15	20.27	20.86	21.59	20.42	22.62	21.23	21.30
RW-27D	5.88	5.73	NR	9.40	4.70	5.44	3.38	5.29	5.14	4.41	5.73	6.17
Total	39.66	37.46	24.83	35.40	29.38	30.70	26.59	28.50	29.97	27.03	29.16	29.82
Cumulative from Installation	786.58	824.04	848.86	884.26	913.64	944.35	970.94	999.43	1029.40	1056.43	1085.59	1115.41

Note:
NR: Not recovered

Table 3-4
Summary of Waste Management
Former Equity Works MGP Site, Brooklyn, New York

Date	Quantity Shipped (gallons)
6/8/2015	466
6/24/2015	490
7/9/2015	550
7/24/2015	437
8/17/2015	493
9/10/2015	335
9/29/2015	496
10/22/2015	617
11/18/2015	550
12/22/2015	450
2/5/2016	581
2/19/2016	545
3/11/2016	462
4/5/2016	533
5/2/2016	540
5/31/2016	625
6/27/2016	495
7/25/2016	540
9/1/2016	540
10/6/2016	514
11/10/2016	550
12/14/2016	500
1/12/2017	490
3/10/2017	553
4/6/2017	653
5/22/2017	520
7/28/2017	466
9/29/2017	487
11/17/2017	495
12/22/2017	485
2/15/2018	571
4/6/2018	491
6/29/2018	524
8/15/2018	561
11/7/2018	567
12/20/2018	591
2/7/2019	594
5/6/2019	530
6/10/2019	483
7/17/2019	485
10/7/2019	533
12/4/2019	415
2/6/2020	421
4/23/2020	472
6/24/2020	485
8/20/2020	501
10/7/2020	455
12/18/2020	560
3/10/2021	408
5/12/2021	474
7/12/2021	455
7/27/2021	535
9/15/2021	485
10/26/2021	545
1/10/2022	493
3/30/2022	377
6/1/2022	434

Note: Shipments prior to June 2015 not included on table.

Figures

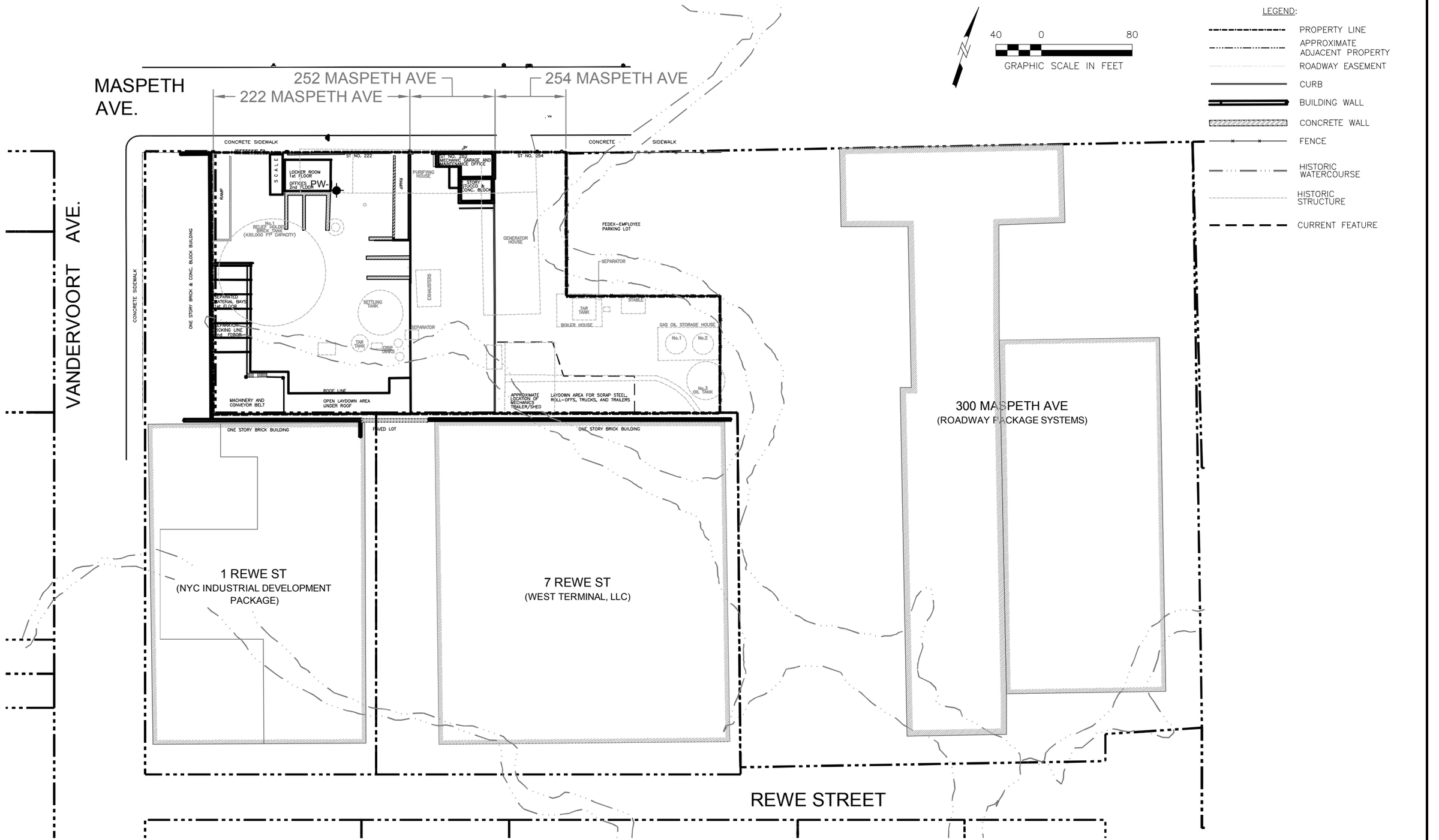
AECOM

NATIONAL GRID
FORMER EQUITY WORKS MGP SITE,
BROOKLYN NY

SITE LOCATION

DATE: 12/2012	DRWN: BcV/C-MA			**FIGURE 1-1**

File: J:\Rem_Eng\Project Files\National Grid\1765-076 Equity Former MGP\7.2 CADD & GIS\2012-IRM_PRODUCT-RECOVERY\WorkPlan_figures\60137362-660-A1.dwg Layout: Site LocUSGSphoto User: vershonb Plotte



AECOM

NATIONAL GRID FORMER EQUITY WORKS MGP SITE, BROOKLYN NY 60137362-400			SITE PROPERTIES
DATE: 12/2012	DRWN: BcV/C-MA		FIGURE 1-2

File: J:\Rem_Eng\Project Files\National Grid\1765-076 Equity Former MGP\7.2 CADD & GIS\2012-IRM_PRODUCT-RECOVERY\WorkPlan_figures\60137362-660-A1.dwg Layout: Site Limits User: vershonb Plotted: Dec 1

252 MASPETH AVE

254 MASPETH AVE

222 MASPETH AVE

SB-30
NP

SB-100*
-20.7

SB-110
NP

SB-40
NP

HOLDER
BOTTOM
-12.71

RW-26

SB101-RW24

RW-27 (I/DR)

RW-28 (S/D)

RW-29 (S/D)

SB102-RW25

SB-109
NP

SB-19
NP

SB-108*
-20.0

SB-41
-21.16

SB-104
-26.5

SB-9*
-26.96

SB-10
-28.76

SB-107
-27.5

SB-105*
-23.5

SB-106
-29.2

SB-20J*
-24.2

SB-20/MW-8A,B,C
-32.69

SB-2B/MW-2B
-29.59

SB-15
-30.09

RW-1
-29.6

RW-2
-35.2

SB-29/MW-15B
-34.61

RW-3
-34.3

SB-14B/GW-1
-31.12

RW-4
-33.6

RW-5*
-29.4

SB-21/MW-14B*
-28.47

PDI-8
-32.51

RW-23
-26

RW-22
-28

RW-21
-31.8

RW-20
-24

RW-19
-34.2

RW-18
-32.4

PDI-6*
-29.7

SB-11
-31.39

PDI-1
-35.37

RW-7
-32.7

RW-8
-32.7

PDI-2*
-30.55

RW-6*
-31.7

SB-3B/MW-3B
-35.88

RW-9
-34.3

RW-10*
-30.7

PDI-3
-33.05

RW-11*
-29.7

RW-12
-30.2

SB-16B
-30.75

RW-13
-30.3

PDI-4*
-26.08

RW-14
-29

SB-16C
-31.06

RW-15
-28.7

PDI-5
-30.35

RW-16
-33.3

SB-26/MW-12B,C
-29.06

SB-4C/MW-4C
-39.06

SB-17/MW-7B
-33.18

SB-18
-31.05

SB-22
-24.76

RW-17
-30.6

SB-44
-30.43

-22
-24
-26
-28
-30
-32
-34
-36
-38

LEGEND:

- PROPERTY LINE
- APPROXIMATE ADJACENT PROPERTY
- ROADWAY EASEMENT
- CURB
- BUILDING WALL
- CONCRETE WALL
- FENCE
- HISTORIC WATERCOURSE
- HISTORIC STRUCTURE
- CURRENT FEATURE
- SB-4 — RI SOIL BORING
- MW-1 — RI MONITORING WELL
- PDI-1 — PDI SOIL BORING
- RW-1 — **PILOT RECOVERY WELLS (BELOW HOLDER FOUNDATIONS)**
- RW-1 — SITE INTERIOR RECOVERY WELL
- RW-1 — SITE PERIMETER RECOVERY WELLS
- CLAY SURFACE ELEVATION CONTOUR (FT NAVD 88) DASHED WHERE INFERRED
- INTERPRETED LIMITS OF INTERMEDIATE CLAY UNIT
- -39.05 — OBSERVED CLAY ELEVATION (FT NAVD 88)
- * — ELEVATION NOT USED FOR CONTOURING
- SR — SHALLOW REFUSAL
- NP — INTERMEDIATE CLAY NOT PRESENT
- WALL FOOTER

20 0 40

GRAPHIC SCALE IN FEET

AECOM

NATIONAL GRID
FORMER EQUITY WORKS MGP SITE, BROOKLYN NY

60137362-350

DATE: 07/25/22 | DRWN: PT

LOCATIONS OF ON-SITE AND PERIMETER RECOVERY WELLS

FIGURE 2-1

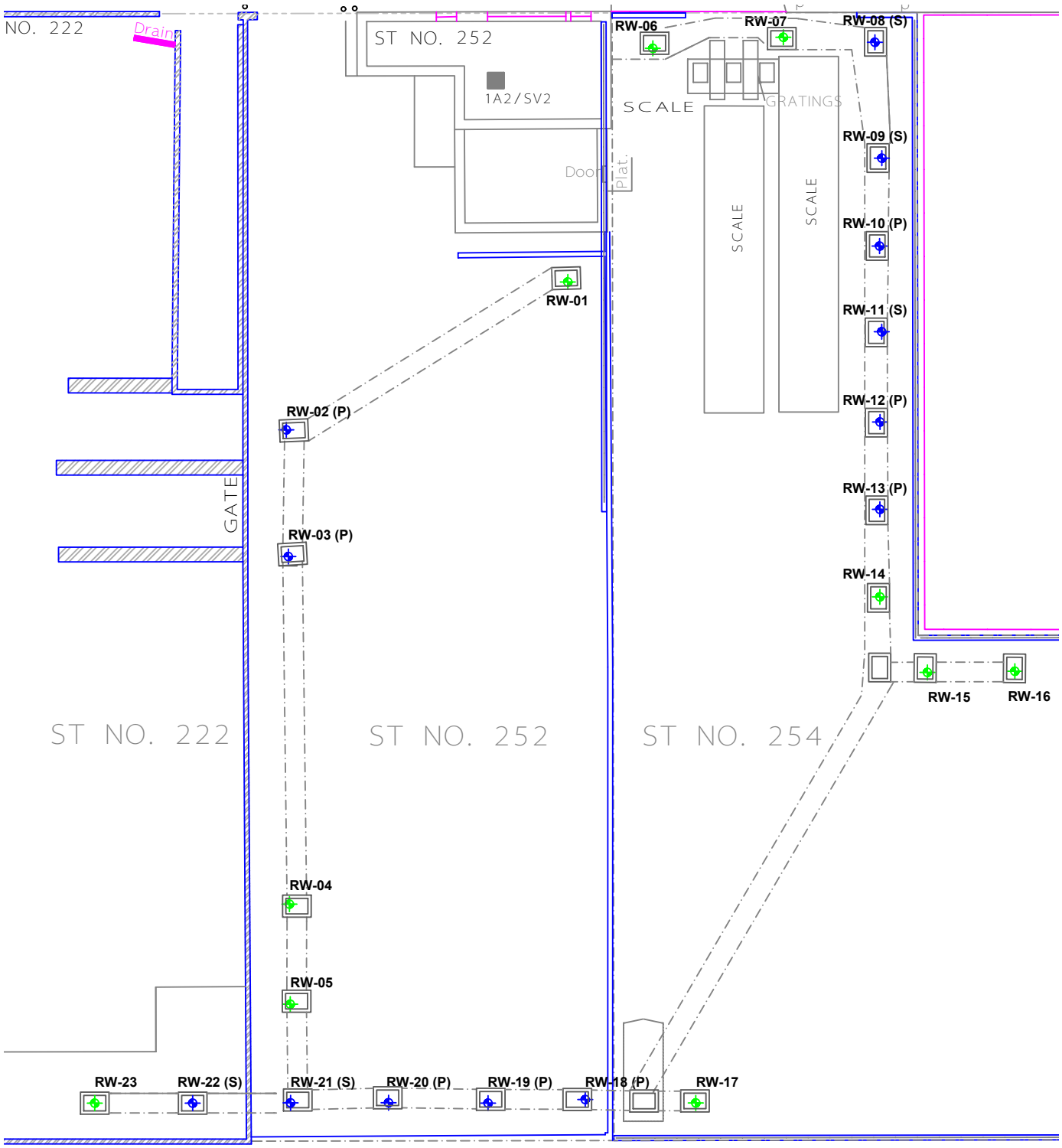
File: P:\Jobs\Rem_Eng\Project Files\National Grid\1765-076 Equity Former MGP\7.2 CADD & GIS\2019\60137362-660_A5.dwg Layout: Layout1 User: Bourdeau Plotted: Sep 19, 2019 - 2:57pm

AECOM

NATIONAL GRID
FORMER EQUITY WORKS MGP SITE,
BROOKLYN, NY
60137362.660

COMPLETED WELL LOCATION

Figure 2-2



LEGEND

RW-02 (P) AUTOMATED WELLS - PRIMARY (APPROX. COLLECTION RATE > 1 GPD)

RW-08 (S) AUTOMATED WELLS - SECONDARY (APPROX. COLLECTION RATE 0.5-0.1 GPD)

RW-01 GAUGING WELLS (APPROX. COLLECTION RATE < 0.1GPD)

15 0 30

GRAPHIC SCALE IN FEET

AECOM

NATIONAL GRID
FORMER EQUITY WORKS MGP SITE,
BROOKLYN NY
60137362.660

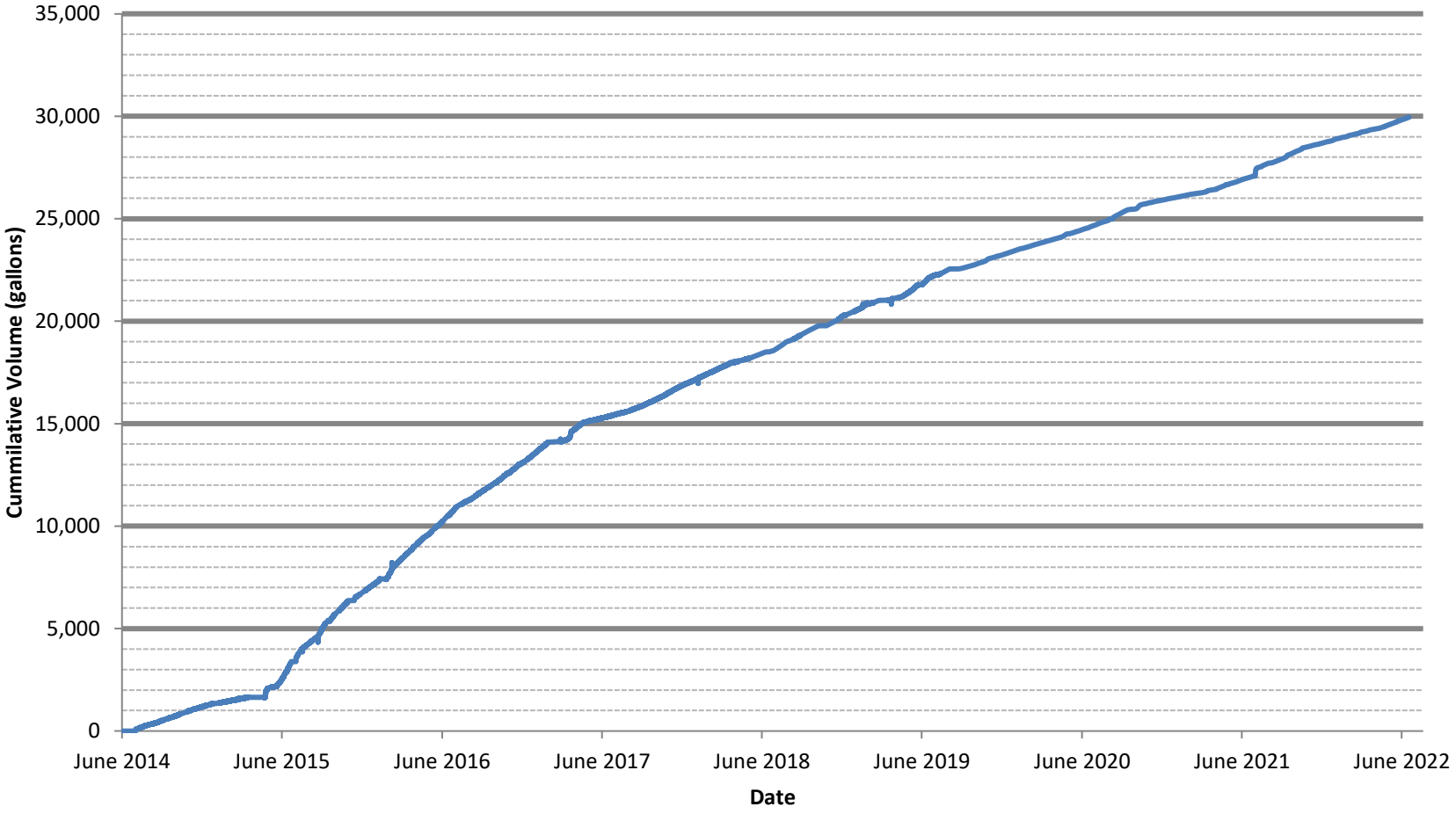
LOCATION OF AUTOMATED WELLS

DATE: 10/30/2013 | DRWN: BcV/C-MA

FIGURE 2-3

AECOM	**NATIONAL GRID** **FORMER EQUITY WORKS MGP SITE, BROOKLYN, NY** **60137362.660**	CONTROL TRAILER **Figure 2-4**

Figure 3-1
Cumulative Volume of Mixed Fluids Collected
IRM for NAPL Recovery
Former Equity Works MGP Site



Note: Mixed Fluids are estimated to contain 60% NAPL

Figure 3-2
NAPL Thickness Versus Time - Gauging Wells
Former Equity Works MGP Site, Brooklyn, New York

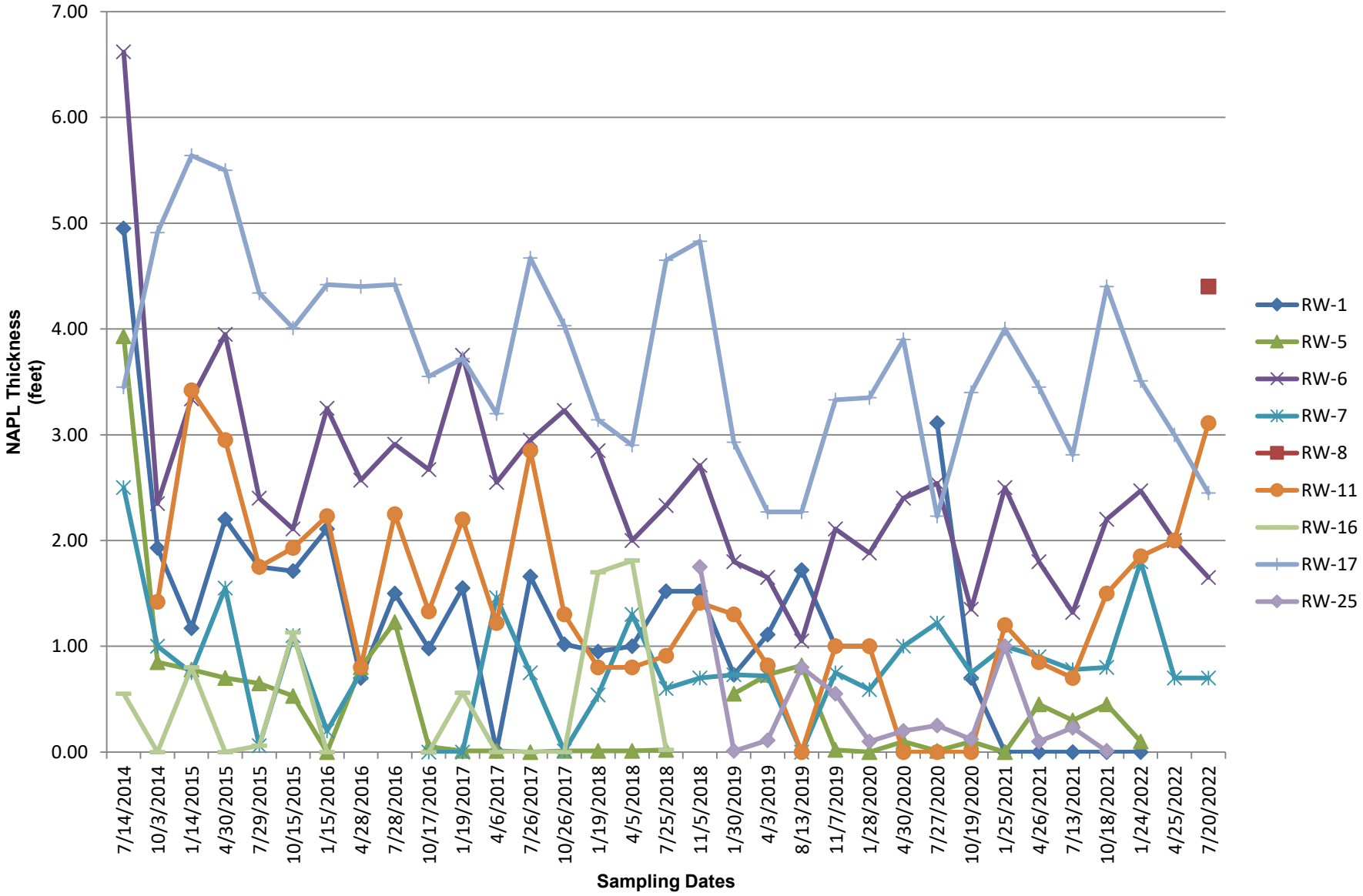


Figure 3-3
Cumulative Volume of Mixed Fluids Collected in Pilot Wells
Former Equity Works MGP Site

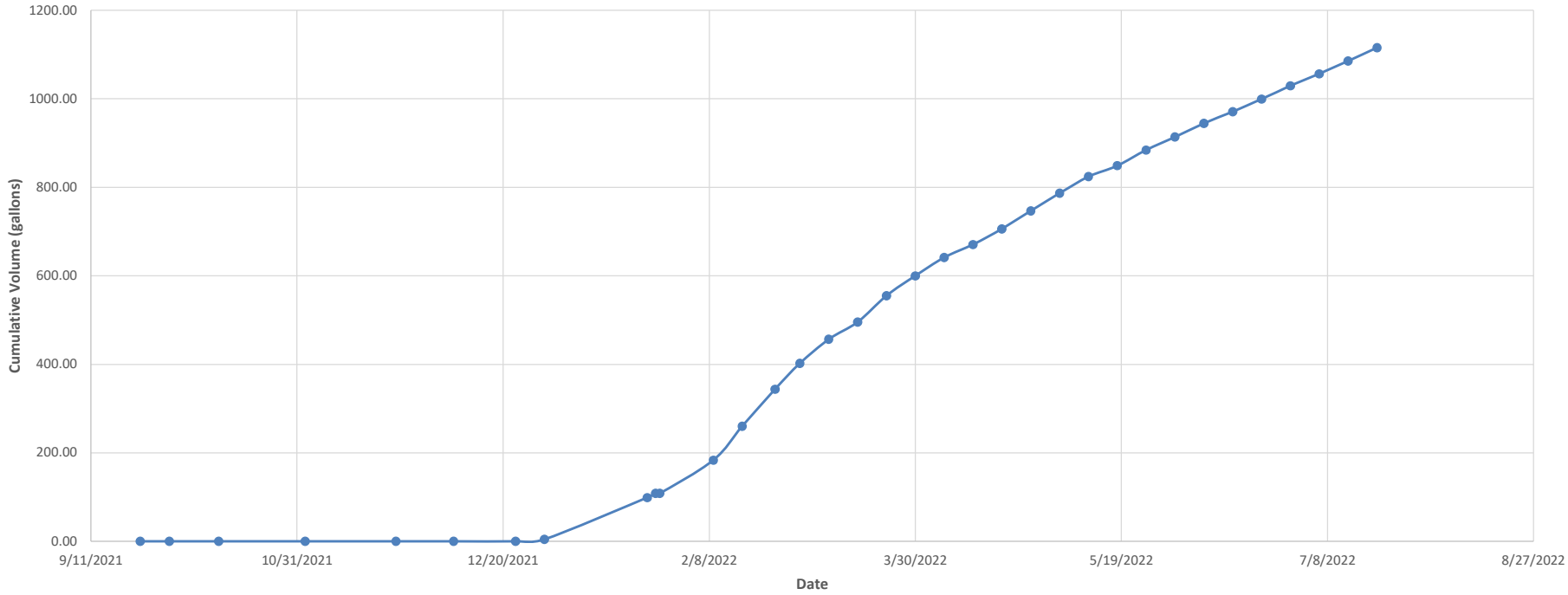
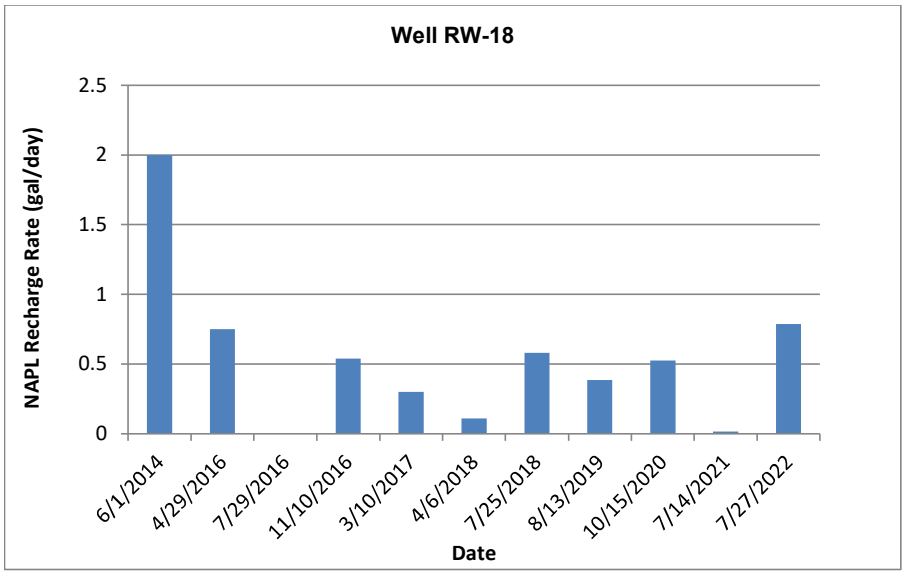
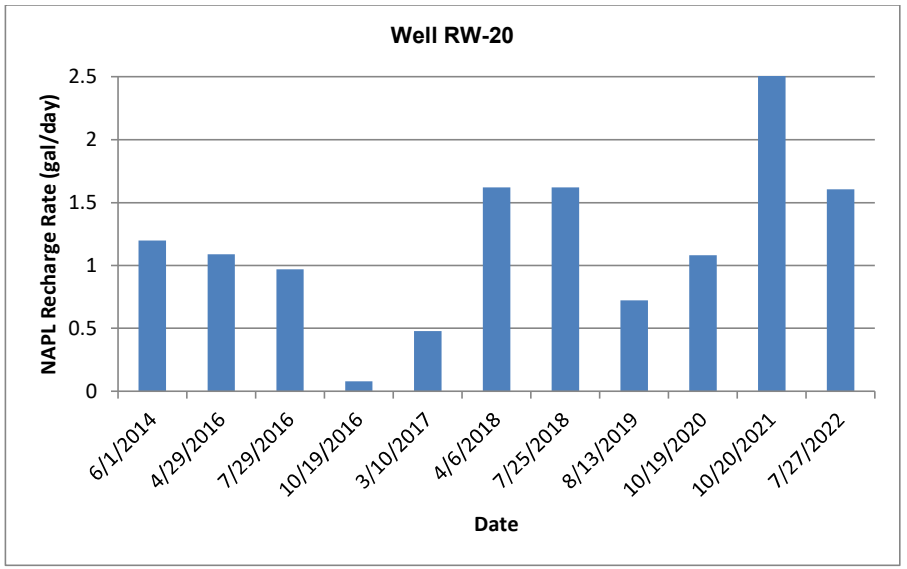
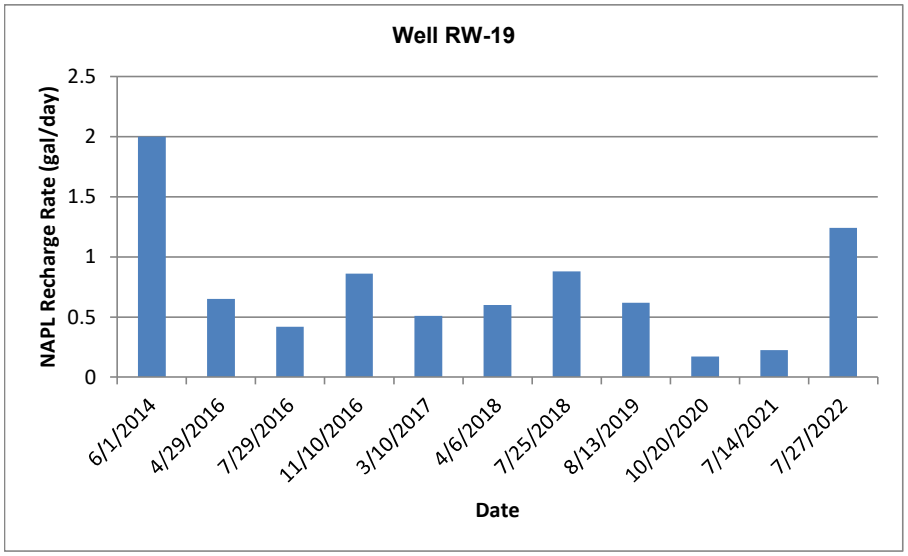


Figure 4-1
NAPL Recharge Rates Versus Time - Automated Wells
Former Equity Works MGP Site, Brooklyn, New York







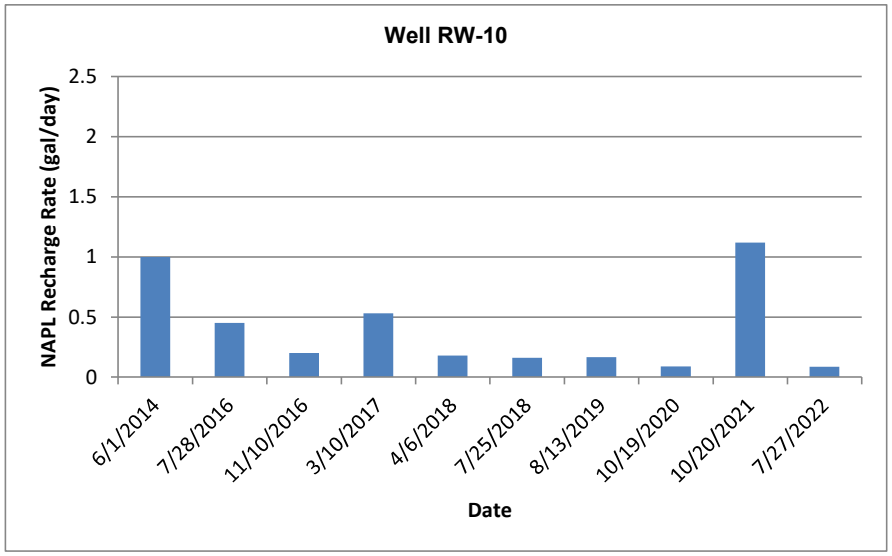
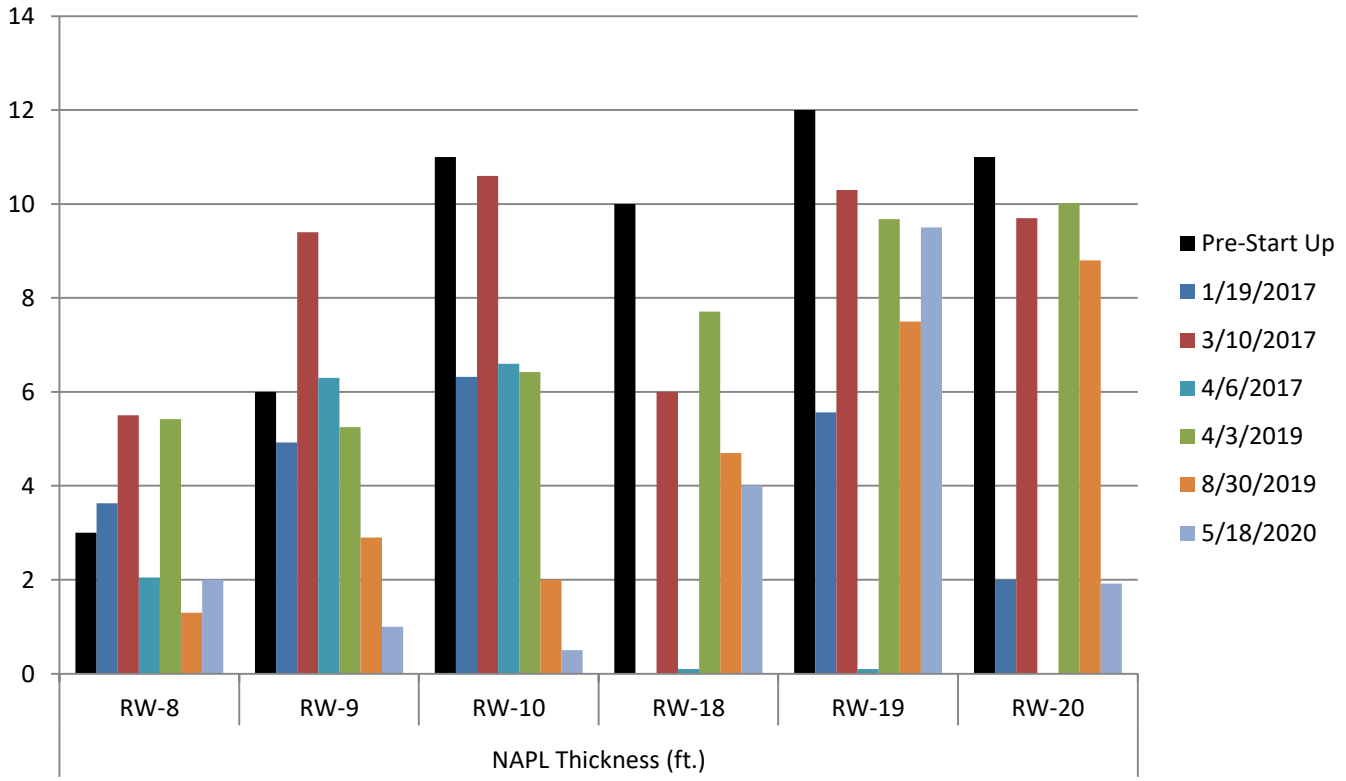


Figure 4-2
NAPL Recharge During Temporary System Shutdown



Notes:

Data from 1/19/2017 collected during system operation before temporary system shutdown from 2/12/17 to 3/10/17

Data From 3/10/2017 collected just prior to system startup after temporary shutdown

Data from 4/6/2017 collected during normal system operation

Data from 4/3/19 collected just prior to system startup after temporary shutdown for 28 days due to SCADA system repairs

Data from 8/13/19 and 5/18/20 collected ~ 2 weeks after planned pump down and recharge events

Appendix A Waste Disposal Documentation

Veolia, LLC
125 Factory Lane Middlesex, NJ 08846
(732) 469-5100

Weigh Ticket

Date Scheduled: 09/15/2021 16:00:00
Customer Name: EQUITY WORKS MGP SITE
Transporter: ENVIRONMENTAL TRANSPORT GROUP,INC.
Trailer #: 172

Weigh Ticket #: 210363
Order Number: 257432
OrderType: WR
Weighing Tractor: YT7

General Notes

Type	Weight	U of M	Date	Capture Type	Specific Weighing Notes
Gross	36,640	Lb	9/15/21 4:14 pm	Electronic	
Tare	32,600	Lb	9/15/21 5:08 pm	Electronic	
Net:	**4,040.00**	Lb			

257432

Please print or type. Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
NYR000225615	1	(877) 818-0087	002060051 VES

GENERATOR

5. Generator's Name and Mailing Address
REBECCA STEFFENS
EQUITY WORKS MGP SITE
175 E. OLD COUNTRY ROAD
HICKSVILLE, NY 11801
Generator's Phone: 516 545-2586

Generator's Site Address (if different than mailing address)
254 MASPETH AVE
BROOKLYN, NY 11211

6. Transporter 1 Company Name
ENVIRON TRANSPORT GROUP INC
U.S. EPA ID Number: NJD000692061

7. Transporter 2 Company Name
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
VEOLIA ES TECHNICAL SOLUTIONS
125 FACTORY LANE
MIDDLESEX, NJ 08846
Facility's Phone: 732 469-5100
U.S. EPA ID Number: NJD002454544

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. UN1993, WASTE FLAMMABLE LIQUIDS, n.o.s., (BENZENE, PETROLEUM DISTILLATES), 3, II, RQ (D001,D018)	1	T T	450	G R	D001 D018	B	
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information
ER Service Contracted by VESTS + Contract retained by generator
confers agency authority on initial transporter to add or substitute additional transporters on generator's behalf + 1) W:
101578 A:MARBULKS MIXED NAPL IMPACTED GROUND WATER
TT/r 172

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Teresa Magnesberg on behalf of Nick Gard
Signature: Teresa Magnesberg
Month: 09 Day: 15 Year: 21

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Rich Sulian
Signature:
Month: 09 Day: 15 Year: 21
Transporter 2 Printed/Typed Name:
Signature:
Month: Day: Year:

DESIGNATED FACILITY

18. Discrepancy
18a. Discrepancy Indication Space ☒ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Actual qty Received By weight 485 gallons
Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number:
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month: Day: Year:

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H061			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Kristal Tilbox
Signature:
Month: 09 Day: 15 Year: 21

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete. **DESIGNATED FACILITY TO EPA's e-MANIFEST SYSTEM**

Veolia, LLC
125 Factory Lane Middlesex, NJ 08846
(732) 469-5100

Weigh Ticket

Date Scheduled: 10/26/2021 13:30:00
Customer Name: EQUITY WORKS MGP SITE
Transporter: ENVIRONMENTAL TRANSPORT GROUP,INC.
Trailer #: TW-171

Weigh Ticket #: 210555
Order Number: 258215
OrderType: WR
Weighing Tractor: YT7

General Notes

Type	Weight	U of M	Date		Capture Type	Specific Weighing Notes
Gross	37,520	Lb	10/26/21	3:48 pm	Electronic	
Tare	32,980	Lb	10/26/21	4:07 pm	Electronic	
Net:	**4,540.00**	Lb				

258215

Please print or type.

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
	NYR000225615	1	(877) 818-0087	002060158 VES

GENERATOR

5. Generator's Name and Mailing Address: REBECCA STEFFENS
EQUITY WORKS MGP SITE
175 E. OLD COUNTRY ROAD
HICKSVILLE, NY 11801
Generator's Phone: 516-545-3586

Generator's Site Address (if different than mailing address):
254 MASPETH AVE
BROOKLYN, NY 11211

6. Transporter 1 Company Name: ENVIRON TRANSPORT GROUP INC.
U.S. EPA ID Number: NJD000692061

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address:
VEOLIA ES TECHNICAL SOLUTIONS
125 FACTORY LANE
MIDDLESEX, NJ 08846
Facility's Phone: 732-469-5100
U.S. EPA ID Number: NJD002454544

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. UN1993, WASTE FLAMMABLE LIQUIDS, n.o.s., (BENZENE, PETROLEUM DISTILLATES), 3, II, RQ (D001, D018)	1	T T	540	G	D001 D018	B	
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information
ER Service Contracted by VESTS + Contract retained by generator confers agency authority on initial transporter to add or substitute additional transporters on generator's behalf -|- 1) W: 181578 A MARBULKS MIXED NAPL IMPACTED GROUND WATER
Actual qty Received By weight 454000 lbs 171

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Teresa Mannerberg (Sign on behalf Not God)
Signature: Teresa Mannerberg
Month 10 Day 25 Year 21

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Rick Sufian
Signature: RS
Month 10 Day 25 Year 21
Transporter 2 Printed/Typed Name:
Signature:
Month Day Year

DESIGNATED FACILITY

18. Discrepancy
18a. Discrepancy Indication Space ☒ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Actual qty Recv'd By weight 545 gallons
Manifest Reference Number:
18b. Alternate Facility (or Generator)
U.S. EPA ID Number:
Facility's Phone:
18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H061 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: David Scheer
Signature:
Month 10 Day 26 Year 21

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete.

DESIGNATED FACILITY TO EPA's e-MANIFEST SYSTEM

Veolia, LLC
125 Factory Lane Middlesex, NJ 08846
(732) 469-5100

Weigh Ticket

Date Scheduled: 01/10/2022 16:00:00
Customer Name: EQUITY WORKS MGP SITE
Transporter: ENVIRONMENTAL TRANSPORT GROUP,INC.
Trailer #: 171

Weigh Ticket #: 210841
Order Number: 261679
OrderType: WR
Weighing Tractor: YT6

General Notes

Type	Weight	U of M	Date	Capture Type	Specific Weighing Notes
Gross	37,520	Lb	1/10/22 4:24 pm	Electronic	
Tare	33,180	Lb	1/10/22 5:17 pm	Electronic	
Net:	**4,340.00**	Lb			

Please print or type.

2616 75

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
	NYR000225615	1	(877) 818-0087	002060282 VES

GENERATOR

5. Generator's Name and Mailing Address
REBECCA STEFFENS
EQUITY WORKS MGP SITE
175 E. OLD COUNTRY ROAD
HICKSVILLE, NY 11801
Generator's Phone: 516 545 2586

Generator's Site Address (if different than mailing address)
254 MASPETH AVE
BROOKLYN, NY 11211

6. Transporter 1 Company Name
ENVIRON. TRANSPORT GROUP INC.
U.S. EPA ID Number: NJD000692061

7. Transporter 2 Company Name
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
VEOLIA ES TECHNICAL SOLUTIONS
125 FACTORY LANE
MIDDLESEX, NJ 08846
Facility's Phone: 732 469-5100
U.S. EPA ID Number: NJD002454544

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. UN1993, WASTE FLAMMABLE LIQUIDS, n.o.s. (BENZENE, PETROLEUM DISTILLATES), 3, II, RQ (D001,D018)	1	T T	475	G	D001 D018	B	
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information
ER Service Contracted by VESTS -|- Contract retained by generator confers agency authority on initial transporter to add or substitute additional transporters on generator's behalf -|- 1) W: 101578 A-MARBULKS MIXED NAPL IMPACTED GROUND WATER

Trlr 171

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Teresa Mannesberg (Sign on behalf of Plat Grid.) | Signature: Teresa Mannesberg | Month: 01 | Day: 10 | Year: 22

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Rick Sutton | Signature: | Month: 01 | Day: 10 | Year: 22
Transporter 2 Printed/Typed Name: | Signature: | Month: | Day: | Year:

DESIGNATED FACILITY

18. Discrepancy
18a. Discrepancy Indication Space ☒ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Actual qty Received By weight 493 gallons Manifest Reference Number:
18b. Alternate Facility (or Generator) U.S. EPA ID Number:
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) Month: Day: Year:

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H061 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: | Signature: | Month: 1 | Day: 10 | Year: 22

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete.

DESIGNATED FACILITY TO EPA's e-MANIFEST SYSTEM

Veolia, LLC
125 Factory Lane Middlesex, NJ 08846
(732) 469-5100

Weigh Ticket

Date Scheduled: 03/30/2022 16:00:00
Customer Name: EQUITY WORKS MGP SITE
Transporter: ENVIRONMENTAL TRANSPORT GROUP,INC.
Trailer #: 195

Weigh Ticket #: 211143
Order Number: 262596
OrderType: WR
Weighing Tractor: YT7

General Notes

Type	Weight	U of M	Date		Capture Type	Specific Weighing Notes
Gross	36,320	Lb	3/30/22	3:44 pm	Electronic	
Tare	33,000	Lb	3/30/22	4:02 pm	Electronic	
Net:	**3,320.00**	Lb				

262596

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UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: NYR000225615
2. Page 1 of: 1
3. Emergency Response Phone: (877) 818-0087
4. Manifest Tracking Number: 002060444 VES

GENERATOR

5. Generator's Name and Mailing Address: REBECCA STEFFENS
EQUITY WORKS MGP SITE
175 E. OLD COUNTRY ROAD
HICKSVILLE, NY 11801
Generator's Phone: 516 545-2586

Generator's Site Address (if different than mailing address):
254 MASPETH AVE
BROOKLYN, NY 11211-0000

6. Transporter 1 Company Name: ENVIRON. TRANSPORT GROUP INC.
U.S. EPA ID Number: NJD000069061

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address:
VEOLIA ES TECHNICAL SOLUTIONS
125 FACTORY LANE
MIDDLESEX, NJ 08846
U.S. EPA ID Number: NJD002454544
Facility's Phone: 732 469-5100

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. UN1993, WASTE FLAMMABLE LIQUIDS, n.o.s. (BENZENE, PETROLEUM DISTILLATES), 3, II, RQ (D001,D018)	1	TT	450	G R	D001 D018	B	
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information
ER Service Contracted by VESTS -|- Contract retained by generator confers agency authority on initial transporter to add or substitute additional transporters on generator's behalf -|- 1) W: 101578 A:MARBULK5 MIXED NAPL IMPACTED GROUND WATER
T-b 195

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Teresa Mannerberg Sign on behalf Rick Grill
Signature: Teresa Mannerberg
Month: 03 Day: 30 Year: 22

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Rick Sullivan
Signature:
Month: 03 Day: 30 Year: 22
Transporter 2 Printed/Typed Name:
Signature:
Month: Day: Year:

DESIGNATED FACILITY

18. Discrepancy
18a. Discrepancy Indication Space ☒ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Actual Qty Received By weight 377 gal Manifest Reference Number:
18b. Alternate Facility (or Generator) U.S. EPA ID Number:
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) Month: Day: Year:

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H061 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: April WATKINS
Signature:
Month: 3 Day: 30 Year: 22

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete. DESIGNATED FACILITY TO EPA's e-MANIFEST SYSTEM

Veolia, LLC
125 Factory Lane Middlesex, NJ 08846
(732) 469-5100

Weigh Ticket

Date Scheduled: 06/01/2022 18:30:00
Customer Name: EQUITY WORKS MGP SITE
Transporter: ENVIRONMENTAL TRANSPORT GROUP,INC.
Trailer #: 195

Weigh Ticket #: 211457
Order Number: 263487
OrderType: WR
Weighing Tractor: YT7

General Notes

Type	Weight	U of M	Date	Capture Type	Specific Weighing Notes
Gross	36,180	Lb	6/1/22 4:02 pm	Electronic	
Tare	32,560	Lb	6/1/22 4:34 pm	Electronic	
Net:	**3,620.00**	Lb			

263487

Please print or type. Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
NYR000225615	1	(877) 818-0087	002088334 VES

GENERATOR

5. Generator's Name and Mailing Address
REBECCA STEFFENS
EQUITY WORKS MGP SITE
175 E. OLD COUNTRY ROAD
HICKSVILLE NY 11801
Generator's Phone: 516 545-2586

Generator's Site Address (if different than mailing address)
254 MASPETH AVE
BROOKLYN, NY 11211

6. Transporter 1 Company Name
ENVIRON TRANSPORT GROUP INC
U.S. EPA ID Number: NJD000069061

7. Transporter 2 Company Name
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
VEOLIA ES TECHNICAL SOLUTIONS
125 FACTORY LANE
MIDDLESEX, NJ 08846
Facility's Phone: 732 469-5100
U.S. EPA ID Number: NJD002454544

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol	13. Waste Codes		
X	1. UN1993, WASTE FLAMMABLE LIQUIDS, n.o.s., (BENZENE, PETROLEUM DISTILLATES), 3, II, RQ (D001,D018)	1	T T	450	G M	D001 D018	B	
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information
ER Service Contracted by VESTS -|- Contract retained by generator confers agency authority on initial transporter to add or substitute additional transporters on generator's behalf -|- 1) W: 101578 A:MARBULK5 MIXED NAPL IMPACTED GROUND WATER
tr lr 195

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Teresa Manneberg Sign on behalf Not Grid
Signature: Teresa Manneberg
Month 06 Day 01 Year 22

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name	Signature	Month	Day	Year
R. Christian		06	01	22
Transporter 2 Printed/Typed Name	Signature	Month	Day	Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☒ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Actual Qty Received By weight 434 gal Manifest Reference Number.

18b. Alternate Facility (or Generator) U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator) Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3	4
H061			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name	Signature	Month	Day	Year
April WATKINS		6	1	2022

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete. **DESIGNATED FACILITY TO EPA's e-MANIFEST SYSTEM**