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2021 Periodic Review Report

Nyack Manufactured Gas Plant Site Village of Nyack, Rockland County, New York

NYSDEC Site Number: 344046 Index # D3-001-98-08

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Engineer's Certification

I, <u>Wendy Moore, P.E.</u>, certify that I am currently a NYS registered professional engineer as defined in 6 NYCRR Part 375, and that this Periodic Review Report was prepared in accordance with the Site Management Plan (SMP) for the Nyack Former Manufactured Gas Plant (MGP) site, and all applicable statutes and regulations, and in substantial conformance with the New York State Department of Environmental Conservation (NYSDEC) Division of Environmental Remediation (DER) Technical Guidance for Site Investigation and Remediation (DER-10).



Engineer's Seal GEI Consultants, Inc., P.C.

December 15, 2021 Date

It is a violation of Article 145 of New York State Education Law for any person to alter this document in any way without the express written verification of adoption by any New York State licensed engineer in accordance with Section 7209(2), Article 145, New York State Education Law.

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1. Introduction

This Periodic Review Report (PRR) for monitoring and inspection is required as an element of the post-remedial program at the Nyack Former Manufactured Gas Plant (MGP) site under the New York State Inactive Hazardous Waste Disposal Site Remedial Program administered by the New York State Department of Environmental Conservation (NYSDEC). The site was remediated in accordance with Order on Consent Index # D3-0001-98-08, Site #344046, which was executed on March 11, 1999.

1.1 General

Orange and Rockland Utilities, Inc. (O&R) entered into the above-referenced Order on Consent with the NYSDEC in 1999 to remediate the former Nyack MGP site located along Gedney Street in the Village of Nyack, Rockland County, New York. The Order on Consent required the Remedial Party (O&R) to investigate and remediate impacted media at the site.

The remediation of the site was performed over the course of several years and was completed in April 2015. The remediation activities are documented in the NYSDEC-approved Final Engineering Report (FER) (GEI, 2016a). A Site Management Plan (SMP) was also prepared by GEI in April 2016 (GEI, 2016b) and subsequently approved by NYSDEC, which describes the long-term monitoring and maintenance activities necessary to comply with environmental and institutional controls placed on the site as part of the approved remedy. Specifically, the SMP identifies the required post-remedial tasks, including:

- non-aqueous phase liquid (NAPL) gauging (and removal if present in measurable quantities),
- annual groundwater sampling, and
- annual inspection of post-remedial engineering controls.

In 2017, the ownership of the site changed to TZ Vista LLC (TZ Vista). TZ Vista is redeveloping the former MGP site together with the "Hudson Vista parcel" (located immediately to the south of the site). From discussions with the Site Owner, it is O&R's understanding that construction of the new residential and commercial facility is awaiting local approvals and will likely take place over a two-year period following these approvals. Phase 1 construction includes construction activities predominately on the Hudson Vista parcel; however, while limited site work has been performed over the past several years (see Section 2.2), construction has not begun as of the October 18, 2021 site inspection. Further, discussions with a representative of the Site Owner indicate that the construction start date is unknown at this time. Phase 2 construction is planned for the MGP site following completion of the Phase 1 activities.

It is O&R's understanding that the Site Owner (TZ Vista) is corresponding directly with the NYSDEC Division of Environmental Remediation (DER) regarding the elements identified in the SMP that are not the responsibility of the Remedial Party (O&R). Several of these elements are discussed in subsequent sections of this report.

1.2 Site Location and Description

The location of the site is shown on Figure 1. The current site plan is shown on Figure 2. As depicted on Figure 2, the site was divided into two operable units (OUs) by the NYSDEC for the purpose of implementing the remedy described in the Record of Decision (ROD) for each OU (NYSDEC, 2004 and 2011). The operable units include:

- <u>OU1</u> The portion of the site above the 100-year flood line, including Upper Terrace, the upland portion of the Lower Terrace, and a portion of the Hudson Vista Associates Parcel parking lot.
- <u>OU2</u> Portion of the Lower Terrace located below the 100-year flood line and above the mean high water mark of the Hudson River, and also the Hudson River sediment that was impacted by MGP site-related residuals.

Eastern Parcel

The street address of the area of the former MGP operations is 55 Gedney Street, Nyack, New York (the "Eastern Parcel"). The Tax ID for the Eastern Parcel is 66.39-01-01.

The Eastern Parcel occupies an approximately 4-acre area in total, which includes about 2.17 acres of land, and 1.8 acres of submerged land in the Hudson River. The upland consists of an upper area along Gedney Street (the "Upper Terrace") separated by a steep slope from a lower area along the Hudson River (the "Lower Terrace"). The parcel is bounded by the Nyack Boat Club to the north, the Hudson Vista Parcel to the south, the Hudson River to the east, and Gedney Street to the west.

Impacted soil and former MGP subsurface foundations in the Upper Terrace were addressed during remediation through excavation to the top of bedrock and disposal off site (outlined in gold on Figure 2). In situ chemical oxidation was used to treat impacts remaining within bedrock to the extent possible (outlined in orange dashed line on Figure 2); however, MGP-related constituents of concern (COC) remain in groundwater within the bedrock unit present approximately 20 feet below the ground surface of the Upper Terrace area. A soil cover system was installed during implementation of the remedy in the Upper Terrace (diagonal grey hatching on Figure 2).

Impacted soil in the Lower Terrace and the Shoreline Area along the Hudson River were addressed by in-situ solidification (ISS) (within areas outlined in blue and purple on Figure 2). MGP-related COC remain in these areas; however, the ISS process has created a low

permeability mass which has encapsulated the COC, which eliminates the potential for further NAPL mobility and continued contaminant migration to groundwater or the river. A soil cover system was also installed during implementation of the remedy in the Lower Terrace (diagonal grey hatching on Figure 2). Riprap was installed to protect the shoreline from erosion for the Shoreline Area.

The Eastern Parcel is fenced to prevent trespassing. The Eastern Parcel, including the shoreline and off-shore portions, is subject to control under this SMP, as shown on Figure 2. As discussed above, it is O&R's understanding that the Eastern Parcel will be redeveloped as a residential / commercial facility by the Site Owner.

Hudson Vista

Impacted soil in a portion of the lower parking lot area of the Hudson Vista Parcel, located immediately south of the Lower Terrace of the Eastern Parcel, was remediated through ISS of soils as a part of the OU1 remedial action (outlined in green on Figure 2). MGP-related COC remain in the subsurface of this area; however, the ISS process has encapsulated the COC within a low permeability mass. The ISS process eliminates the treated area as a source for future groundwater impact. The cover system in the Hudson Vista remedial area consists of the parking lot pavement, which was restored following the remedial action (diagonal grey hatching on Figure 2). The Hudson Vista Parcel's lower parking lot area is considered an off-site area, but is subject to the requirements of the SMP because MGP-related COC remain within the solidified subsurface soils in the parking lot area.

Western Parcel

A single gas holder was formerly located on the parking lot parcel to the west of the Eastern Parcel (across Gedney Street). The Western Parcel has a Tax ID of 66.38-02-14, and a street address of 26 Lydecker Street, Nyack, New York. The absence of MGP-related impact at the Western Parcel was demonstrated during the Remedial Investigation (RI), and remedial activities were not required for this parcel. The Western Parcel is not subject to the SMP, and SMP activities have not been performed in the Western Parcel.

2. SMP Field Activities and Results

As specified in the SMP, field activities include:

- The assessment of the presence or absence of light phase non-aqueous phase liquid (LNAPL), and dense phase non-aqueous phase liquid (DNAPL) at identified well locations.
- Groundwater monitoring at identified well locations.

NAPL gauging and groundwater sampling were performed consistent with the SMP (GEI, 2016b) to the extent possible. Certain unavoidable deviations, resulting from owner activities, are identified below.

2.1 Reconnaissance and Observed Well Conditions

Monitoring well details are summarized in Table 1 and the well locations are shown on Figure 3. A reconnaissance was performed at the site on October 18, 2021 to confirm the location and condition of each of the monitoring wells identified in the SMP prior to implementing SMP activities. The conditions observed at each well, and the activities performed at each location in 2021 are summarized as follows:

- MW33D Well and surrounding conditions have not changed since 2018, when the Site Owner performed excavation work in the area immediately to the south of (within 10 feet of) MW33D, as part of the Hudson Vista Phase 1 Redevelopment (subsurface parking garage) construction. Due to presence of the adjacent open excavation, it is not safe to access the well and sampling was again not performed at this location in 2021.
- MW41 As described in the 2017 and 2018 Annual Reports, this well was destroyed. Specifically, it appears that the uppermost 2 feet of fill was removed as the result of grading activities that the Site Owner performed in the area sometime prior to the 2017 inspection. Based on a survey performed in December 2017, the ground surface is approximately 2 feet lower than it was at the time of the well installation. As a result, NAPL gauging and groundwater sampling was not performed at this location.
- MW43 The well was located and gauged in October 2021 and sampled in November 2021. NAPL was not observed in this well.
- MW44 The well was located and gauged in October 2021. Measurable thicknesses of LNAPL (0.04 feet) and DNAPL (0.24 feet) were identified at this location. The NAPL was removed, and a groundwater sample was collected in November 2021, after the well had stabilized for two weeks.

- MW45 In December 2017, the well was found to be covered by a pile of soil estimated to be 7-10 feet in height, which remains in place at present. Therefore, NAPL gauging and groundwater sampling was again not performed at this well location.
- MW46 The well was located and gauged in October 2021 and sampled in November 2021. A trace amount of DNAPL (in the form of blebs) was observed on the down-hole monitoring equipment.
- MW47 The well was not found during the 2021 SMP fieldwork, despite significant attempts to locate. At some point following the 2020 groundwater monitoring event, a pile of debris (including rolls of used chain link fencing) was placed atop or plowed into the area where MW47 is located. The well may have been destroyed or simply covered by the debris. Therefore, NAPL gauging and groundwater sampling was not performed at this well location in 2021.

The SMP states that, if redevelopment occurs, the owner must either protect monitoring wells for continued use, or abandon and replace them with new wells at locations which allow for continued groundwater monitoring at locations approved by the NYSDEC. O&R anticipates that the Site Owner will properly abandon and replace the damaged wells as site redevelopment progresses. O&R will work with the Site Owner in an attempt to recover or replace monitoring wells that have been damaged or destroyed in recent years.

2.2 NAPL Monitoring and Removal

Table 2 details the NAPL monitoring performed in 2021, as well as the prior post-remedial monitoring events. A summary is provided below.

- MW43 NAPL was not observed in 2021; further, NAPL has not been observed in this well during any monitoring event conducted to date.
- MW44 LNAPL continues to be identified at this well location. The thickness measured in 2021 is similar to historical observations, but much less than that which was observed in 2020. A measurable amount of DNAPL was also present in this well in 2021. Trace amounts of DNAPL (blebs) were intermittently observed in this well during prior monitoring events.
- MW46 In 2021, trace amounts of DNAPL (blebs) were observed on the down-hole sampling equipment, but no measurable NAPL was present. Little to no NAPL has been observed during post-remedial sampling events performed at this location.

As shown on Table 2, NAPL was removed from MW44 on October 18, 2021 and groundwater samples were subsequently collected on November 2, 2021 (Section 2.4).

2.3 Groundwater Elevation Monitoring

The results of the elevation monitoring performed on October 18, 2021 are provided in Table 1 and Figure 3. A summary of the 2021 findings is provided below.

The elevation of groundwater was highest in bedrock well MW44 (8.36 feet NAVD88), which is located in the Upper Terrace, within the western portion of the site. The elevation of groundwater was found to be lowest in overburden well MW43 (3.04 feet NAVD88). The difference in elevation across the site was 5.32 feet. The results indicate that, consistent with the results of the RI, groundwater flow is from the west to the east across the site, towards the Hudson River. The inferred direction of groundwater flow is shown on Figure 3.

2.4 Groundwater Sampling

Three wells (MW43, MW44, and MW46) were purged and sampled on November 2, 2021 according to the methods described in the SMP.

2.4.1 Groundwater Analyses and Results

Groundwater samples were analyzed by Test America (TA) Laboratory for benzene, toluene, ethyl benzene and xylenes (BTEX) by EPA Method 8260C, and polycyclic aromatic hydrocarbons (PAHs) by EPA Method 8270D. The results of the analyses are presented in Table 3, and on chemical summary boxes included on Figure 4. The figure also summarizes post-remedial data collected from 2015 (i.e., pre-remediation baseline) to 2021 to provide a comparison and show potential trends within each well. The laboratory chain-of-custody record and the Form I laboratory report sheets for the 2021 analyses are included in Appendix A. A summary of observed trends is provided below.

- MW43 Similar concentrations of COC have been detected for the post-remedial sampling events performed at this location.
- MW44 Concentrations of COC have generally decreased relative to 2015 with some variability in the results (Figure 4).
- MW46 While variability exists among the data collected to date, the 2021 COC concentrations are within the range of concentrations that have been observed during post-remedial sampling events performed at this location.¹

¹ Note that a sample could not be collected from MW46 during the prior annual event in 2020 due to an obstruction in the well approximately 4 feet below the surface that prevented the sampling equipment from being lowered to the well screen. The field sampler was unable to clear the obstruction despite significant attempts during the 2020 gauging and sampling events. GEI returned with additional tools in early 2021 and was successful in removing the obstruction (i.e., sample tubing that had become unsecured and fallen into the well) so that monitoring would not continue to be obstructed for future events.

Variability in data from year to year is to be expected as groundwater equilibrates following completion of the remedy in 2015. The annual monitoring required at these well locations will continue to evaluate increasing or decreasing trends for COC and NAPL in groundwater at the site.

2.5 Soil Vapor Intrusion

Post-remedial soil vapor intrusion (SVI) monitoring has not been performed at the site. It is O&R's understanding that the site is being redeveloped by the Site Owner, and the Site Owner will provide the NYSDEC with a Soil Vapor Intrusion Monitoring Plan (SVI MP) and will collect any samples required in the SMP and SVI MP. It is O&R's understanding that the building to be constructed at the site by the Site Owner includes controls to address the potential for vapor intrusion of MGP-related COC to indoor air.

3. Environmental Controls / Institutional Controls and Site Inspection

3.1 General

Because COCs in soil, bedrock, groundwater, and sediment remain in the subsurface of the site, Engineering Controls and Institutional Controls (EC/ICs) have been implemented to protect human health and the environment, as further discussed below.

3.2 Engineering Controls

The ECs identified in the SMP and the results of the inspection performed by GEI in 2021 are discussed below. The 2021 SMP Annual Inspection Form is included in Appendix B.

3.2.1 Cover System Monitoring

An annual site inspection was performed on October 18, 2021 to observe the condition of the cover systems at:

- Upper Terrace,
- ISS area in the Lower Terrace, and
- ISS area on the Hudson Vista Associates Parcel.

The locations of each of these remedial areas are shown on Figure 2. Photographs taken during the site inspection are included in the Photographic Record in Appendix B.

As indicated in the site inspection form (Appendix B), the cover system in each of the identified remedial areas remains in place, does not appear to have been disturbed during the current monitoring period, and continues to be effective at preventing direct exposure to COC present in the subsurface.

3.2.2 Storm Sewer and Water Service

Two site utilities were previously discussed in the SMP:

- Underground Village of Nyack storm sewer line is present near the southern property line of the Eastern Parcel, terminating at an outfall on the Hudson Vista Associates Parcel; and
- Village of Nyack water line present at the fire hydrant located at the western side of the Eastern Parcel.

These features were observed to be present, and not disturbed at the time of the October 18, 2021 site inspection. While some minor erosion exists at the storm sewer outlet, it is localized and has not changed from that which was observed during prior events. A photograph of the storm sewer outlet is included in the Photographic Record in Appendix B.

3.2.3 Shoreline Area

Along the Lower Terrace shoreline, the ISS materials are protected from contact by site uses and erosion by the installation of riprap during the remedial action, and by the placement of additional riprap at the shoreline by the Site Owner. All riprap areas were observed by GEI to be in good condition. Evidence of movement or undermining was not observed. Photographs of the shoreline are included in the Photographic Record in Appendix B.

It is O&R's understanding that the Site Owner plans to install additional shore protection features during redevelopment, and that the Site Owner has proposed the methods and materials to be utilized to the NYSDEC DER.

3.2.4 Off-shore Area

The area off-shore (east) from the Lower Terrace protected shoreline is a mix of sandy and silty native sediments. The sediment was dredged to elevation -6 to -10 feet in accordance with the ROD for OU2 (NYSDEC, 2011). As specified in the SMP, to prevent these materials from being exposed at the sediment-water interface, the sediment surface should not be dredged, excavated, or deeply disturbed.

Evidence of dredging, the excavation of sediment, or other activities that may result in the disruption of the sediment remedial area was not observed during the site inspection performed by GEI on October 18, 2021.

3.3 Institutional Controls

The Eastern Parcel has a series of ICs in the form of site restrictions. Adherence to these ICs is required by the Environmental Easement. Site restrictions that apply to the Eastern Parcel, as defined in the SMP, are:

- The property may only be used for restricted residential use, commercial use and/or industrial use provided that the long-term Engineering and Institutional Controls included in the SMP are employed.
- The property may not be used for a higher level of use, such as unrestricted residential use without additional remediation and amendment of the Environmental Easement, as approved by the NYSDEC.
- All future activities on the property that will disturb remaining contaminated material must be conducted in accordance with the SMP.

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- The use of the groundwater underlying the property is prohibited without treatment rendering it safe for intended use.
- The potential for vapor intrusion must be evaluated for any buildings developed in the area of the site, and potential impacts that are identified must be monitored or mitigated.
- Vegetable gardens and farming on the property are prohibited.

Based on the inspection of the site performed by GEI and correspondence with O&R, the Site Owner and the NYSDEC, the ICs identified in the SMP adhere to the requirements of the Environmental Easement, remain in place, and are effective for OU1 and OU2 of the site. The site remedy continues to be protective of public health and the environment as described in the FER.

4. Conclusions

4.1 2021 SMP Annual Report Conclusions

Conclusions for this Annual Report are:

- **Site Ownership**: The ownership of the site continues to be TZ Vista LLC. Significant change in site conditions relative to the prior inspection were not observed. Construction for parcel redevelopment continues to be delayed at the time of the annual inspection.
- **Media Monitoring**: Media monitoring tasks identified in the SMP were performed at three wells in 2021, including: NAPL gauging and removal, and groundwater sampling.
 - Over the past several years, activities undertaken by the Site Owner have resulted in damaging or destroying four of the wells originally included in the SMP monitoring program. Based on SMP requirements, O&R anticipated that the Site Owner would recover/repair or replace these wells following completion of their construction activities consistent with SMP requirements. However, given that the Site Owner's construction has been significantly delayed and the timeline for construction approval is still unknown, O&R will work with the Site Owner to place these monitoring locations back into service in 2022 to the extent that is technically feasible. Work will be conducted consistent with the SMP and will be summarized in the next SMP annual report.
- Engineering Controls: The inspection of the site was performed in 2021, as specified in the SMP.
 - The inspection documented the effectiveness of the engineering controls.
 - The engineering controls employed at the Nyack MGP site are unchanged from the date the control was put in place, or last approved by the NYSDEC. As reported in 2017, the site has been graded in some areas² and additional materials have been added by the Site Owner in other areas. However, no additional grading or materials appear to have been added since the November 2018 inspection.
- Institutional Controls: Based on the site inspection performed by GEI and on correspondence with O&R, the Site Owner and the NYSDEC, conclusions related to the ICs include:

² Specifically, as discussed in Section 2.1, it appears that the Site Owner conducted grading in the Upper Terrace in the vicinity of MW41, resulting in a ground surface approximately 2 feet lower now than it was at the time of the well installation in 2008. Approximately 10 feet of imported general fill had been placed in that area during remediation in 2006; as such, approximately 8 feet of fill remains.

- The institutional controls employed at the Nyack MGP site are unchanged from the date the control was put in place, or last approved by the NYSDEC.
- Nothing has occurred that would impair the ability of the control to protect the public health and environment.
- Nothing has occurred that would constitute a violation or failure to comply with any site management plan for this control.
- Access to the site will continue to be provided to the NYSDEC to evaluate the remedy, including access to evaluate the continued maintenance of this control.
- Use of the site is compliant with the environmental easement.

4.2 2022 SMP Implementation

The field activities and annual inspection for the implementation of the SMP that are the responsibility of O&R as the Remedial Party will be next implemented in 2022 with prior notice to the NYSDEC DER.

5. References

GEI, 2016a. Final Engineering Report, Nyack Manufactured Gas Plant Site, Rockland County, New York, NYSDEC Site Number 344046, May 2016.

GEI, 2016b. Site Management Plan, Nyack Former Manufactured Gas Plant Site, Rockland County, New York, NYSDEC Site Number 344046, April 2016.

NYSDEC, 2004. Record of Decision, Nyack Gas Plant Site Operable Unit No. 1 Former Plant Site, Nyack, Rockland County, New York, Site Number 344046, March 2004.

NYSDEC, 2011. Record of Decision, OR – Nyack, MGP, Operable Unit Number: 02. Nyack, Rockland County, Site No. 344046, March 2011.

Tables

Table i Acronym and NYSDEC Reference Key for Analytical Summary Tables

Groundwater Notes:

NYSDEC References:

GW STD - New York Groundwater Guidance or Standard Values - NYSDEC, Division of Water, TOGS (1.1.1) [NYSDEC, 1998], with Addendums.

s = Standard Value

g = Guidance Value

62 Bold value - analyte estimated or detected at a concentration greater than the method detection limit.

Gray Shaded value - analyte estimated or detected at concentration greater than the NYSDEC Groundwater Standard or Guidance Values.

Units for groundwater samples:

ug/L = micrograms/Liter = parts per billion

mg/L = milligrams/Liter = parts per million

Laboratory or Validation Qualifiers:

B = For organics analysis - compound was found in the associated blank sample. For metals analysis - the result is an estimated quantity.

B = For inorganic analysis - analyte detected in the associated method blank.

E = Analyte concentration exceeded the calibration range of the instrument.

F = MS and/or MSD Recovery is outside acceptance limits.

F1 = MS and/or MSD Recovery is outside acceptance limits.

F2 = MS/MSD RPD exceeds control limits.

J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

J- = The result is an estimated quantity, likely to be biased low. The associated numerical value is the approximate concentration of the analyte in the sample.

J+ = The result is an estimated quantity, likely to be biased high. The associated numerical value is the approximate concentration of the analyte in the sample.

N = Tentative identification. Consider present. Special methods may be needed to confirm its presence or absence in future sampling events.

R = The data are unusable. The sample results are rejected due to serious deficiencies in the ability to meet quality control criteria.

U = The analyte was analyzed for, but was not detected above the level reported.

UJ = The analyte was analyzed for, but was not detected. The reported quantitation limit is approximated and may be inaccurate or imprecise.

BW - Analyte detected in the associated method blank and post-digest spike recovery furnace analysis was out of 85-115 percent control limit, while sample absorbance was less than 50 percent of spike absorbance.

BWN - Analyte detected in the associated method blank and post-digest spike recovery furnace analysis was out of 85-115 percent control limit,

while sample absorbance was less than 50 percent of spike absorbance. Analyte is presumptively present.

UW - Not detected at or above the reporting limit shown and post-digest spike recovery furnace analysis was out of 85-115 percent control limit, while sample absorbance was less than 50 percent of spike absorbance.

JB - Estimated value and the analyte was detected in the associated method blank.

* = LCS or LCSD is outside acceptance limits.

Other Notes:

NA = Not analyzed for, Not applicable

ND = Not detected. Total concentration is listed as ND because no compounds were detected in the group (such as for Total BTEX).

NE = Not established

NL = Not Listed

PAHs - polycyclic aromatic hydrocarbons

SVOCs - semi-volatile organic compounds

TAL - Target Analyte List

TCL - Target Compound List

BTEX and Total PAHs are calculated using detects only.

Total VOCs includes all BTEX compounds.

Total SVOCs includes all PAH compounds.

Table 1 Groundwater Monitoring and Sample Summary Nyack MGP Site 2021 SMP Annual Report

				Well Cor	nstruction S	ummary				2021 Wa	ter Level Gau	iging Summary	2021 Sampling SOW	
Designation	Installation Date	Ground Surface Elevation (ft AMSL)	Top of PVC Riser Elevation (ft AMSL)	Screened Interval (ft AMSL)	Northing (NAD83)	Easting (NAD83)	Well Location	Purpose	Depth to Water 10/18/2021 (ft BTOC)	Water Elevation 10/18/2021 (ft AMSL)	NAPL Presence (Table 2)	Well Condition Comments	втех	PAHs
MW33D	8/31/2004	25.33	25.16	-0.16 to 15.16	822865.99	653222.97	Southern site boundary, cross- gradient location	Monitor groundwater flow around ISS mass to the south	NM	NM	NM	Not accessible due to unsafe condition; immediately adjacent to open excavation		
MW41	5/19/2008	34.07	33.79	-0.71 to 14.29	823022.67	653236.45	Within Upper Terrace	Monitor on-site groundwater and residual NAPL conditions in bedrock	NM	NM	NM	Not accessible; destroyed or buried following grading		
MW43	5/22/2008	8.60	9.04	-19.22 to -14.22	823061.51	653448.31	Downgradient	Monitor groundwater in overburden between bedrock and the hanging ISS mass	6.00	3.04	None	Well in good condition	Х	х
MW44	5/20/2008	33.84	33.55	1.55 to 16.55	823072.61	653244.4	Within Upper Terrace	Monitor on-site groundwater and residual NAPL conditions in bedrock	25.19	8.36	LNAPL DNAPL	Well in fair condition (surface completion has broken bolt connectors)	Х	Х
MW45	5/23/2008	14.15	13.84	-13.66 to 1.34	822983.34	653307.75	Within Lower Terrace; downgradient location	Monitor potential on-site groundwater mounding at upgradient side of ISS mass	NM	NM	NM	Not accessible; covered by soil pile		
MW46	12/5/2017	27.00	26.73	16.0 to 8.0	823178.96	653260.92	Northern site boundary, cross-gradient location	Monitor groundwater flow around ISS mass	21.54	5.19	DNAPL	Well in good condition	Х	Х
MW47	12/6/2017	34.20	33.87	19.7 to -2.3	823089.60	653160.11	Western site boundary (at Gedney Street)	Monitor upgradient groundwater conditions	NM	NM	NM	Not accessible; covered by debris		

Notes:

ft BTOC = feet below top of casing (measuring point)

ft AMSL = feet above mean sea level (negative values are below mean seal level)

NM = Not measured; well is inaccessible as the result of activities by others

-- = Not applicable; well is inaccessible as the result of activities by others

Horizontal Coordinates are New York State Plane, Central Zone, NAD83 North American Datum 1983 (NAD83)

Vertical Coordinates are North American Datum 1988 (NAVD88)

Table 2 SMP Post-Remedial NAPL Gauging and Removal Summary Nyack MGP Site 2021 SMP Annual Report

Well ID:						MW41	l (Note 1)					
Date:	2/27/2015	3/13/	3/13/2015		3/20/2015		3/27/2015		2015	5/22/2015		7/17/2015	
	Before Purging	Before Pur	Purging		After ging	Before Pur	After ging	Before Pur	After ging	Before After Purging		Before Purç	After jing
Depth to LNAPL	21.27	NP	NP	NP	NP	NP	NP	20.46	NP	20.70	NP	20.94	NP
Depth to Water	21.29	20.80	20.92	20.31	20.39	20.36	20.54	20.46	20.63	20.71	21.25	20.95	22.42
Depth to DNAPL	*	33.66	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP
Depth to Bottom of Well	34.25	34.25	34.25	34.25	34.25	34.25	34.25	34.25	34.25	34.24	34.24	34.25	34.25
LNAPL thickness	0.02	NP	NP	NP	NP	NP	NP	<0.01	NP	~0.01	NP	~0.01	NP
DNAPL thickness	*	0.59	NP	**	NP	**	NP	Blebs	NP	Blebs	NP	Blebs	NP

Well ID:		MW44											
Date:	2/27/2015	3/13/	2015	3/20/	3/20/2015 3/27/2015			4/10/	2015	5/22/2	2015	7/17/2015	
	Before Purging	Before Pur		Before Pur	Before After E Purging		After ging	Before After Purging		Before After Purging		Before Purg	
Depth to LNAPL	26.12	25.13	25.41	24.43	NP	24.53	NP	24.59	NP	25.25	NP	25.52	NP
Depth to Water	27.35	25.23	25.42	24.57	25.21	24.65	25.38	24.69	25.03	25.35	26.05	25.62	28.06
Depth to DNAPL	*	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP
Depth to Bottom of Well	32.33	32.33	32.33	32.33	32.33	32.33	32.33	32.33	32.33	32.30	32.30	32.30	32.30
LNAPL thickness	1.23	0.10	0.01	0.14	NP	0.12	NP	0.10	NP	~0.10	NP	~0.10	NP
DNAPL thickness	*	Blebs	Blebs	Blebs	NP	Blebs	NP	Blebs	NP	NP	NP	NP	NP

Well ID:		MW44 (continued)										
Date:	9/20/2	017	11/12	/2018	6/14/	2019	10/6/	2020	10/18/2021			
	Before Purg	After ing	Before Pur	After ging	Before Pur	After ging	Before Pur	After ging	Before Pur			
Depth to LNAPL	24.44	NP	24.42	24.42	23.96	NP	23.84	NP	25.15	NP		
Depth to Water	25.94	25.94	24.43	24.43	24.05	24.00	28.71	27.51	25.19	31.00		
Depth to DNAPL	NP	NP	NP	NP	NP	NP	NP	NP	32.33	NP		
Depth to Bottom of Well	32.30	32.30	32.30	32.30	32.25	32.25	33.24	33.24	32.57	32.57		
LNAPL thickness	1.50	NP	0.01	NP	0.09	NP	4.87	NP	0.04	NP		
DNAPL thickness	NP	NP	Blebs	Blebs	Blebs	Blebs	NP	NP	0.24	NP		

Well ID:			MW	46			
Date:	11/12/2	2018	10/6/	2020	10/18/2021		
	Before Purgi	After ing	Before Pur	After ging	Before Pur	After ging	
Depth to LNAPL	NP	NA	22.75	NP	NP	NA	
Depth to Water	21.15	NA	22.84	22.85	21.54	NA	
Depth to DNAPL	NP	NA	NP	NP	NP	NA	
Depth to Bottom of Well	39.45	NA	39.73	39.73	32.57	NA	
LNAPL thickness	NP	NA	0.09	NP	NP	NA	
DNAPL thickness	NP	NA	NP	NP	Blebs	NA	

Well ID:			MW4	47			
Date:	11/12/2	2018	6/14/	2019	10/6/2020		
	Before Purgi	After ing	Before Pur		Before Pur	After ging	
Depth to LNAPL	NP	NA	NP	NA	NP	NA	
Depth to Water	17.1	NA	16.95	NA	22.34	NA	
Depth to DNAPL	NP	NA	NP	NA	NP	NA	
Depth to Bottom of Well	38.0	NA	37.98	NA	38.71	NA	
LNAPL thickness	NP	NA	NP	NA	NP	NA	
DNAPL thickness	Blebs	NA	Blebs	NA	Blebs	NA	

Notes:

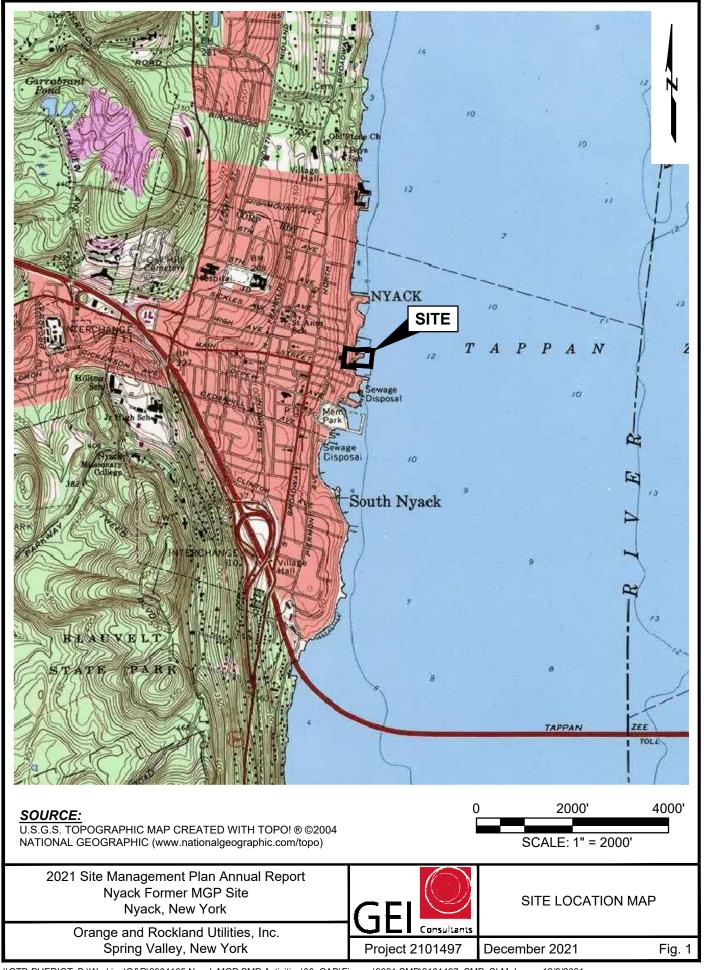
- Wells MW41 and MW45 could not be located 2017 through present due to construction activities by owner; presumed destroyed. MW47 could not be located in 2021; area plowed over and covered by debris (used chain link fencing). MW33D is inaccessible due to construction activities by owner. (See report for details.)
- 2. Only those wells in which NAPL has been observed at least once are included in this table.
- 3. Depth and thickness measurements are in feet.
- 4. Includes data collected post-remediation, 2015 through present.
- 5. * indicates that accurate DNAPL measurement could not be determined in the field due to freezing conditions.
- 6. ** indicates that DNAPL was not detected with oil/water interface probe, but small quantity (~50 to 100 mL) observed during subsequent purging.

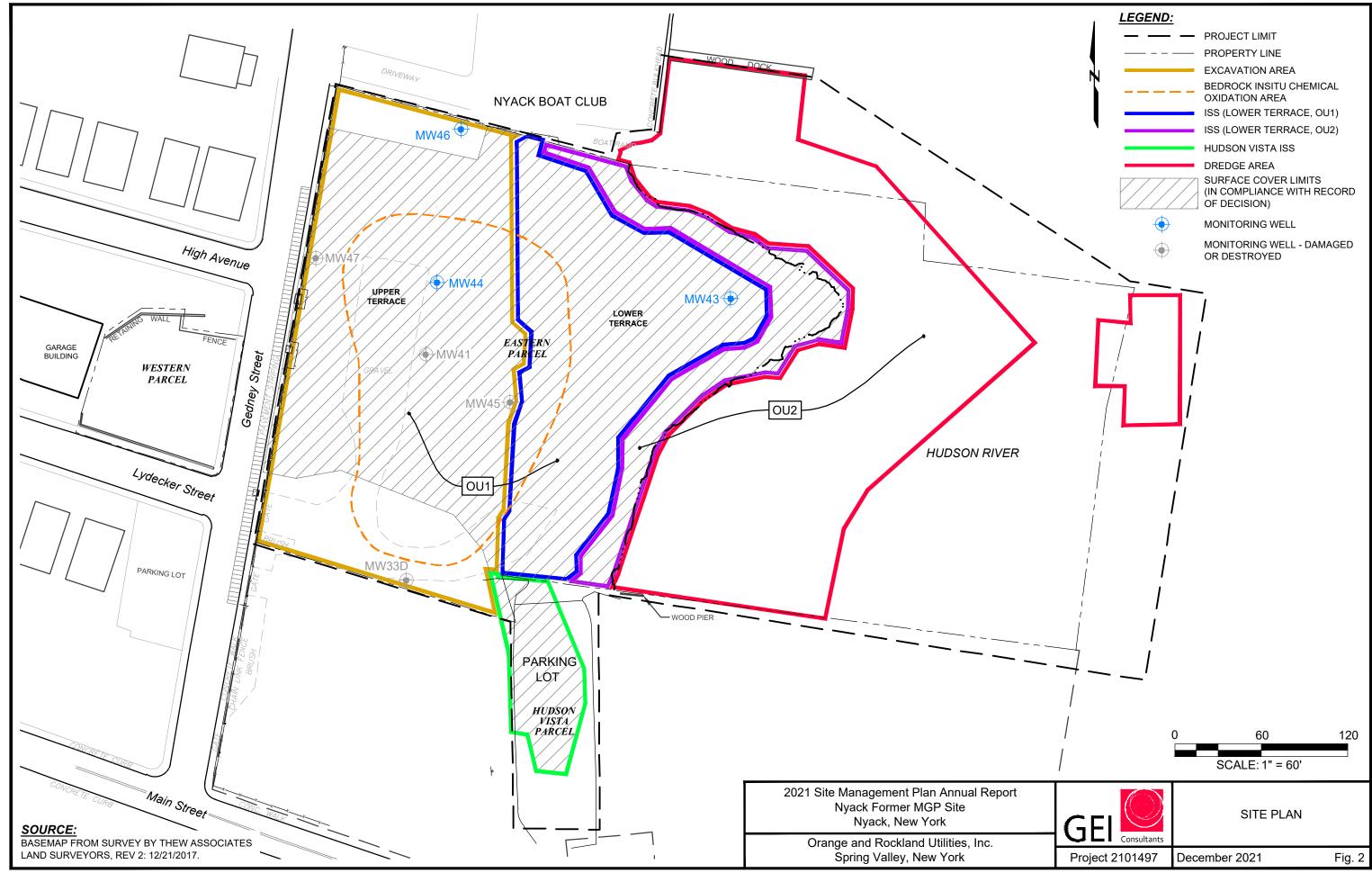
NA = Not applicable (not purged because measurable NAPL not present)
NAPL = Non-aqueous phase liquid (prefix L = light; D = dense)

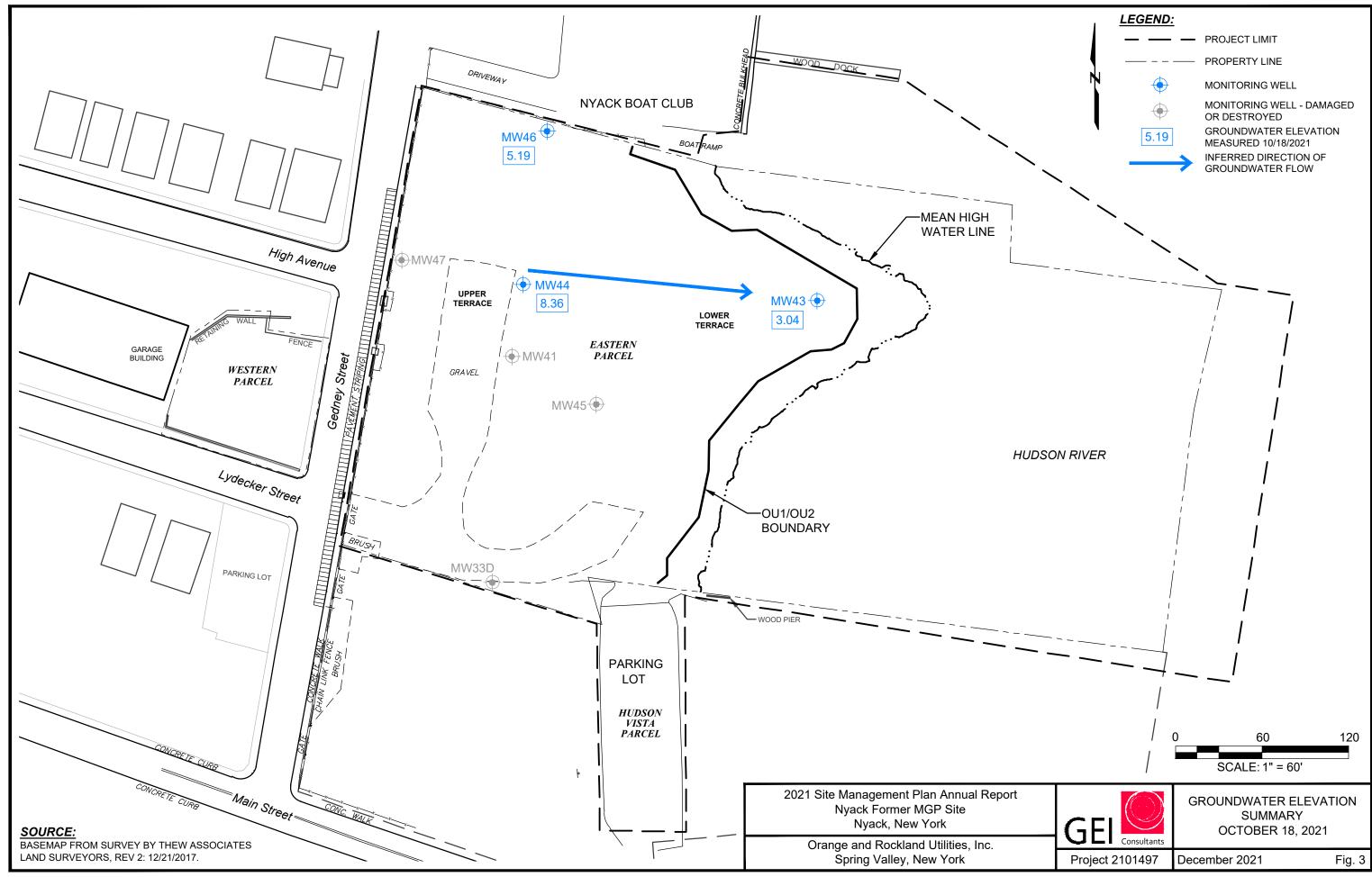
Table 3
Groundwater Analytical Data Summary
Nyack MGP Site 2021 SMP Annual Report

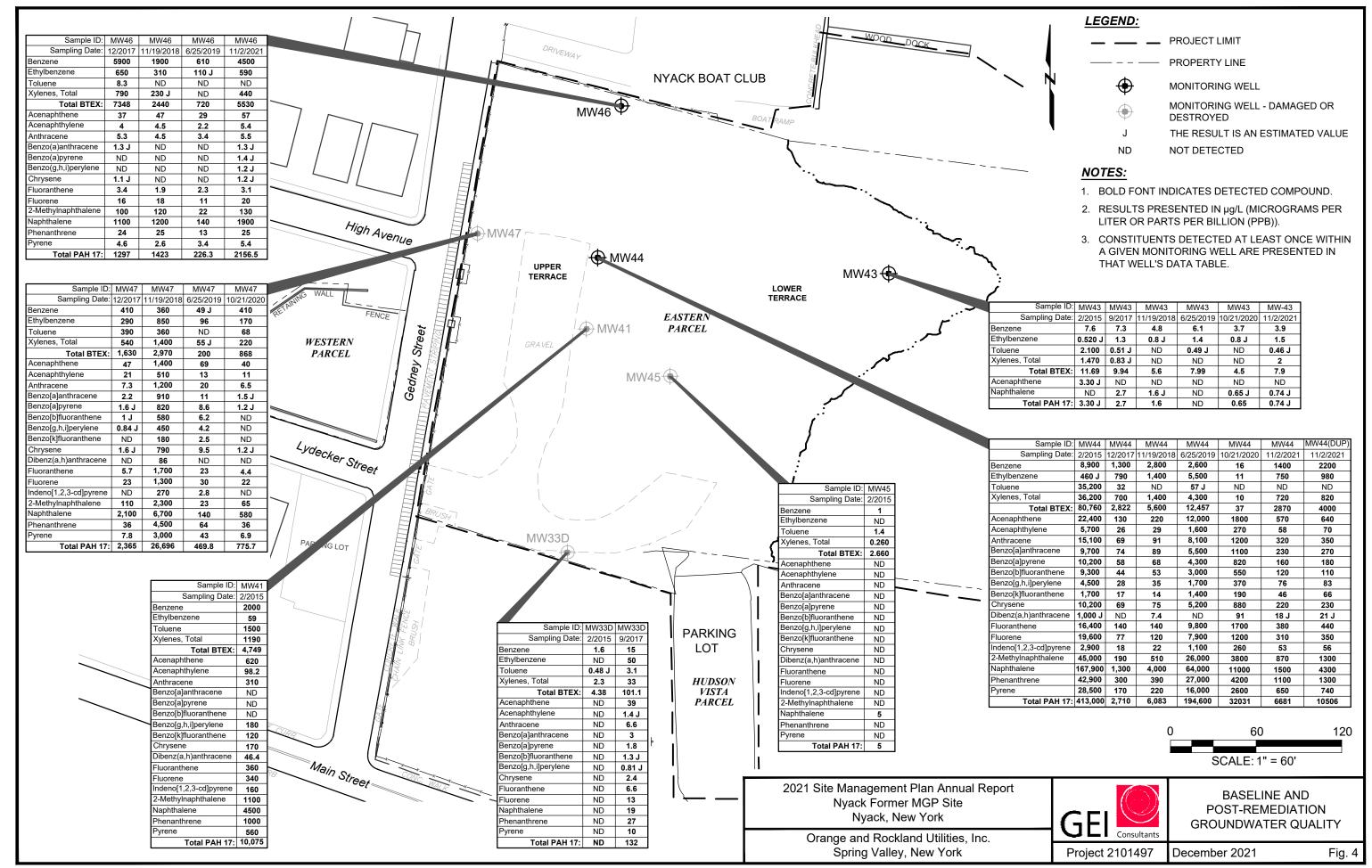
		Мо	MW43 MW43 11/2/2021	MW44 MW44 11/2/2021	MW44 DUP 11-2-21 11/2/2021	MW46 MW46 11/2/2021	
Analyte	Units	CAS No.	NYS AWQS				
BTEX	ug/L						
Benzene		71-43-2	1	3.9	1400	2200	4500
Ethylbenzene		100-41-4	5	1.5	750	980	590
Toluene		108-88-3	5	0.46 J	200 U	200 U	200 U
Total Xylene		1330-20-7	5	2	720	820	440
Total BTEX		N/A	NE	7.86	2870	4000	5530
Polycyclic Aromatic Hydrocabons (PAHs)	ug/L						
Acenaphthene		83-32-9	20*	1.9 U	570	640	57
Acenaphthylene		208-96-8	NE	1.9 U	58	70	5.4
Anthracene		120-12-7	50*	1.9 U	320	350	5.5
Benzo(a)anthracene		56-55-3	0.002*	1.9 U	230	270	1.3 J
Benzo(a)pyrene		50-32-8	ND	1.9 U	160	180	1.4 J
Benzo(b)fluoranthene		205-99-2	0.002*	1.9 U	120	110	1.9 U
Benzo(g,h,i)perylene		191-24-2	NE	1.9 U	76	83	1.2 J
Benzo(k)fluoranthene		207-08-9	0.002*	1.9 U	46	66	1.9 U
Chrysene		218-01-9	0.002*	1.9 U	220	230	1.2 J
Dibenz(a,h)anthracene		53-70-3	NE	1.9 U	18 J	21 J	1.9 U
Fluoranthene		206-44-0	50*	1.9 U	380	440	3.1
Fluorene		86-73-7	50*	1.9 U	310	350	20
Indeno(1,2,3-cd)pyrene		193-39-5	0.002*	1.9 U	53	56	1.9 U
2-Methylnaphthalene		91-57-6	NE	1.9 U	870	1300	130
Naphthalene		91-20-3	10*	0.74 J	1500	4300	1900
Phenanthrene		85-01-8	50*	1.9 U	1100	1300	25
Pyrene		129-00-0	50*	1.9 U	650	740	5.4
Total PAHs		N/A	NE	0.74	6681	10506	2156.5

Figures









Appendix A

Laboratory Chain-of-Custody Record and Form I Reports

Eurofins TestAmerica, Pittsburgh

301 Alpha Drive RIDC Park Pittsburgh, PA 15238 Phone (412) 963-7058 Fax (412) 963-2468

Chain of Custody Record

🕸 eurofins

Environment Testing America

Client Information	Sampler:	Christ	<u> </u>	Lab F Dun	м: lap, D:	avid A				Carrier T	racking N	No(s):		COC No: 180-51854-10	107.1
Client Contact: Ms. Wendy Moore	Phone:			E-Ma Dav		lap@	Eurofins	set.com						Page: Page 1 of 1	
Company: GEI Consultants, Inc.									ysis Re	equeste	d			Job #:	
Address: 1301 Trumansburg Road Suite N	Due Date Reques	ted:												Preservation Co	
City: Ithaca	TAT Requested (c		1									-		A - HCL B - NaOH C - Zn Acetate	M - Hexane N - None O - AsNaO2
State, Zip: NY, 14850	Standa	sg.					H							D - Nitric Acid E - NaHSO4 F - MeOH	P - Na2O4S Q - Na2SO3 R - Na2S2O3
Phone: 607-216-8966(Tel)	PO#: Purchase Orde	r not require	ed		<u> </u>		9							G - Amchlor H - Ascorbic Acid	S - H2SO4
Email: wmoore@geiconsultants.com	WO #:				or N		hthale							I - Ice J - DI Water	U - Acetone V - MCAA
Project Name: 2004165.1.1, Nyack	Project #: 18016296				(Ye		ylnap						container	K - EDTA L - EDA	W - pH 4-5 Z - other (specify)
Site: NYaerL	SSOW#:				Sample (Yes or No) SD (Yes or en	×	& 2-methylnaphthalene						of con		
Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil,	Field Filtered	8260C_LL - BTEX	8270D - PAHS 8						Total Number	Special	nstructions/Note:
Sumple Identification	Sample Date	>	Preservat		XX	1	N							Special	iisti uctions/Note.
MW43	11-2-21	49100		Water		X	カ								
MW44	11-2-2	2814	11.45	Water		1	*								
MW46	11-2-21	10.00		Water		X	X								
WW47				Water											
DIP 1/221	1221			Water		X	X				(199199)		11 11 11 11 11 11 11	 -	u muu
TRIP BLANK (11-7-21)	11-2-21			Water		X	Z								
)		1								111111	111111			
											180-1	29426		of Custody	
										1	1 1			1	
Possible Hazard Identification Non-Hazard Flammable Skin Irritant Po	ison B Unkn		Radiological		Sa							F	\neg	ned longer than	
Deliverable Requested: I, II, III, IV, Other (specify)	SON B UNKN	own F	Kadiological		Sp		e <i>turn To</i> Instructi	ions/QC F	Requirem	<i>Disposal</i> i ents:	ву сав		Arci	nive For	Months
Empty Kit Relinquished by:		Date:	1		Time:					Met	thod of S	hipment:			
Relinquished by: FIM C. 1683/4	Date/Time:			Company		Rece	ived by:	1	Nus	to		Date/Time	1-3	-21	Company
Relinquished by:	Date/Time:		d	ombany	Ħ	Rece	ived by:					Date/Time	:	10:15	Company
Relinquished by:	Date/Time:			Company		Rece	ived by:				C	Date/Time	:	<i>(</i>) <i>(</i> ()	Company
Custody Seals Intact: Custody Seal No.: Δ Yes Δ No			1.	g e 1113		1	er Temper	rature(s) °C	and Other	Remarks:					

Client: GEI Consultants, Inc.

Job ID: 180-129426-1

Project/Site: 2101497.1.1, Nyack

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

Client Sample ID: MW43							Lab Sam	ple ID: 180-12	
Date Collected: 11/02/21 09								Matrix	: Water
Date Received: 11/03/21 10	:15								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	3.9		1.0	0.60	ug/L			11/12/21 12:25	1
Ethylbenzene	1.5		1.0	0.51	ug/L			11/12/21 12:25	1
Toluene	0.46	J	1.0	0.46	ug/L			11/12/21 12:25	1
Xylenes, Total	2.0		2.0	0.89	ug/L			11/12/21 12:25	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	114		36 - 124			-		11/12/21 12:25	1
Dibromofluoromethane (Surr)	86		46 - 149					11/12/21 12:25	1
1,2-Dichloroethane-d4 (Surr)	101		26 - 156					11/12/21 12:25	1
Toluene-d8 (Surr)	103		40 - 146					11/12/21 12:25	1

Client: GEI Consultants, Inc.

Job ID: 180-129426-1

Project/Site: 2101497.1.1, Nyack

Method: EPA 8270D - Semivolatile Organic Compounds (GC/MS)

73

68

Nitrobenzene-d5 (Surr)

Terphenyl-d14 (Surr)

Client Sample ID: MW43 Lab Sample ID: 180-129426-1 Date Collected: 11/02/21 09:00 **Matrix: Water** Date Received: 11/03/21 10:15 Result Qualifier RL **MDL** Unit D Prepared Dil Fac **Analyte** Analyzed 1.9 11/09/21 12:53 11/12/21 17:53 Acenaphthene ND 0.65 ug/L 1 ND 0.65 ug/L Acenaphthylene 1.9 11/09/21 12:53 11/12/21 17:53 1 Anthracene ND 1.9 0.49 ug/L 11/09/21 12:53 11/12/21 17:53 1 Benzo[a]anthracene ND 1.9 0.75 ug/L 11/09/21 12:53 11/12/21 17:53 1 Benzo[a]pyrene ND 1.9 0.53 ug/L 11/09/21 12:53 11/12/21 17:53 1 Benzo[b]fluoranthene ND 1.9 0.97 ug/L 11/09/21 12:53 11/12/21 17:53 1 ND 1.9 0.69 ug/L 11/09/21 12:53 11/12/21 17:53 1 Benzo[g,h,i]perylene ND 0.88 ug/L 11/09/21 12:53 11/12/21 17:53 Benzo[k]fluoranthene 1.9 1 Chrysene ND 1.9 0.81 ug/L 11/09/21 12:53 11/12/21 17:53 1 ND 11/09/21 12:53 11/12/21 17:53 Dibenz(a,h)anthracene 1.9 0.72 ug/L 1 Fluoranthene ND 11/09/21 12:53 11/12/21 17:53 1.9 0.60 ug/L 1 Fluorene ND 1.9 0.69 ug/L 11/09/21 12:53 11/12/21 17:53 1 ND Indeno[1,2,3-cd]pyrene 1.9 0.85 ug/L 11/09/21 12:53 11/12/21 17:53 1 11/09/21 12:53 11/12/21 17:53 2-Methylnaphthalene ND 1.9 0.62 ug/L 1 **Naphthalene** 0.74 J 1.9 0.59 ug/L 11/09/21 12:53 11/12/21 17:53 Phenanthrene ND 1.9 0.55 ug/L 11/09/21 12:53 11/12/21 17:53 1 Pyrene ND 1.9 0.54 ug/L 11/09/21 12:53 11/12/21 17:53 1 Surrogate %Recovery Qualifier Limits Prepared Analyzed Dil Fac 73 45 - 105 11/09/21 12:53 11/12/21 17:53 2-Fluorobiphenyl

45 - 106

28 - 125

11/09/21 12:53 11/12/21 17:53

11/09/21 12:53 11/12/21 17:53

1

Client: GEI Consultants, Inc.

Job ID: 180-129426-1

Project/Site: 2101497.1.1, Nyack

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

Client Sample ID: MW44							Lab Sam	iple ID: 180-12	<u> 19426-2</u>
Date Collected: 11/02/21 11	:45							Matrix	: Water
Date Received: 11/03/21 10	:15								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1400		200	120	ug/L			11/12/21 12:51	200
Ethylbenzene	750		200	100	ug/L			11/12/21 12:51	200
Toluene	ND		200	91	ug/L			11/12/21 12:51	200
Xylenes, Total	720		400	180	ug/L			11/12/21 12:51	200
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)			36 - 124					11/12/21 12:51	200
Dibromofluoromethane (Surr)	89		46 - 149					11/12/21 12:51	200
1,2-Dichloroethane-d4 (Surr)	102		26 - 156					11/12/21 12:51	200
Toluene-d8 (Surr)	105		40 - 146					11/12/21 12:51	200

Client: GEI Consultants, Inc.

Job ID: 180-129426-1

Project/Site: 2101497.1.1, Nyack

Method: EPA 8270D - Semivolatile Organic Compounds (GC/MS)

80

Terphenyl-d14 (Surr)

Client Sample ID: MW44 Date Collected: 11/02/21 12 Date Received: 11/03/21 10						Lab Sam _l	ple ID: 180-12 Matrix:	
Analyte	Result Qu	alifier RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	570	29	9.8	ug/L		11/09/21 12:53	11/12/21 18:37	15
Acenaphthylene	5 8	29	9.8	ug/L		11/09/21 12:53	11/12/21 18:37	15
Anthracene	320	29	7.4	ug/L		11/09/21 12:53	11/12/21 18:37	15
Benzo[a]anthracene	230	29	11	ug/L		11/09/21 12:53	11/12/21 18:37	15
Benzo[a]pyrene	160	29	8.0	ug/L		11/09/21 12:53	11/12/21 18:37	15
Benzo[b]fluoranthene	120	29	15	ug/L		11/09/21 12:53	11/12/21 18:37	15
Benzo[g,h,i]perylene	76	29	10	ug/L		11/09/21 12:53	11/12/21 18:37	15
Benzo[k]fluoranthene	46	29	13	ug/L		11/09/21 12:53	11/12/21 18:37	15
Chrysene	220	29	12	ug/L		11/09/21 12:53	11/12/21 18:37	15
Dibenz(a,h)anthracene	18 J	29	11	ug/L		11/09/21 12:53	11/12/21 18:37	15
Fluoranthene	380	29	9.0	ug/L		11/09/21 12:53	11/12/21 18:37	15
Fluorene	310	29	10	ug/L		11/09/21 12:53	11/12/21 18:37	15
Indeno[1,2,3-cd]pyrene	53	29	13	ug/L		11/09/21 12:53	11/12/21 18:37	15
2-Methylnaphthalene	870	29	9.3	ug/L		11/09/21 12:53	11/12/21 18:37	15
Naphthalene	1500	29	8.9	ug/L		11/09/21 12:53	11/12/21 18:37	15
Phenanthrene	1100	29	8.3	ug/L		11/09/21 12:53	11/12/21 18:37	15
Pyrene	650	29	8.1	ug/L		11/09/21 12:53	11/12/21 18:37	15
Surrogate	%Recovery Qu	alifier Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	71	45 - 105				11/09/21 12:53	11/12/21 18:37	15
Nitrobenzene-d5 (Surr)	68	45 - 106				11/09/21 12:53	11/12/21 18:37	15

28 - 125

11/09/21 12:53 11/12/21 18:37

Client: GEI Consultants, Inc. Job ID: 180-129426-1 Project/Site: 2101497.1.1, Nyack

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

_ Client Sample ID: DUP 11-2	2-21						Lab Sam	nple ID: 180-12	9426-4	
Date Collected: 11/02/21 00:00								Matrix: Water		
Date Received: 11/03/21 10	:15									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	2200		200	120	ug/L			11/12/21 13:43	200	
Ethylbenzene	980		200	100	ug/L			11/12/21 13:43	200	
Toluene	ND		200	91	ug/L			11/12/21 13:43	200	
Xylenes, Total	820		400	180	ug/L			11/12/21 13:43	200	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	113		36 - 124					11/12/21 13:43	200	
Dibromofluoromethane (Surr)	84		46 - 149					11/12/21 13:43	200	
1,2-Dichloroethane-d4 (Surr)	104		26 - 156					11/12/21 13:43	200	
Toluene-d8 (Surr)	104		40 - 146					11/12/21 13:43	200	

Client: GEI Consultants, Inc.

Job ID: 180-129426-1

Project/Site: 2101497.1.1, Nyack

Method: EPA 8270D - Semivolatile Organic Compounds (GC/MS)

85

Terphenyl-d14 (Surr)

Client Sample ID: DUP 11-2-21 Date Collected: 11/02/21 00:00					Lab Sample ID: 180-129426-4 Matrix: Water				
Date Received: 11/03/21 10:15 Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	640		27	9.4	ug/L		11/09/21 12:53	11/12/21 19:20	15
Acenaphthylene	70		27	9.4	ug/L		11/09/21 12:53	11/12/21 19:20	15
Anthracene	350		27	7.1	ug/L		11/09/21 12:53	11/12/21 19:20	15
Benzo[a]anthracene	270		27	11	ug/L		11/09/21 12:53	11/12/21 19:20	15
Benzo[a]pyrene	180		27	7.6	ug/L		11/09/21 12:53	11/12/21 19:20	15
Benzo[b]fluoranthene	110		27	14	ug/L		11/09/21 12:53	11/12/21 19:20	15
Benzo[g,h,i]perylene	83		27	10	ug/L		11/09/21 12:53	11/12/21 19:20	15
Benzo[k]fluoranthene	66		27	13	ug/L		11/09/21 12:53	11/12/21 19:20	15
Chrysene	230		27	12	ug/L		11/09/21 12:53	11/12/21 19:20	15
Dibenz(a,h)anthracene	21	J	27	10	ug/L		11/09/21 12:53	11/12/21 19:20	15
Fluoranthene	440		27	8.7	ug/L		11/09/21 12:53	11/12/21 19:20	15
Fluorene	350		27	10	ug/L		11/09/21 12:53	11/12/21 19:20	15
Indeno[1,2,3-cd]pyrene	56		27	12	ug/L		11/09/21 12:53	11/12/21 19:20	15
2-Methylnaphthalene	1300		27	8.9	ug/L		11/09/21 12:53	11/12/21 19:20	15
Naphthalene	4300		27	8.5	ug/L		11/09/21 12:53	11/12/21 19:20	15
Phenanthrene	1300		27	7.9	ug/L		11/09/21 12:53	11/12/21 19:20	15
Pyrene	740		27	7.8	ug/L		11/09/21 12:53	11/12/21 19:20	15
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	72		45 - 105				11/09/21 12:53	11/12/21 19:20	15
Nitrobenzene-d5 (Surr)	75		45 - 106				11/09/21 12:53	11/12/21 19:20	15

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11/09/21 12:53 11/12/21 19:20

Client: GEI Consultants, Inc.

Job ID: 180-129426-1

Project/Site: 2101497.1.1, Nyack

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

Client Sample ID: MW46 Date Collected: 11/02/21 10:00							Lab Sample ID: 180-129426- Matrix: Wate					
Date Received: 11/03/21 10:15												
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac			
Benzene	4500		200	120	ug/L		-	11/12/21 13:17	200			
Ethylbenzene	590		200	100	ug/L			11/12/21 13:17	200			
Toluene	ND		200	91	ug/L			11/12/21 13:17	200			
Xylenes, Total	440		400	180	ug/L			11/12/21 13:17	200			
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac			
4-Bromofluorobenzene (Surr)			36 - 124					11/12/21 13:17	200			
Dibromofluoromethane (Surr)	86		46 - 149					11/12/21 13:17	200			
1,2-Dichloroethane-d4 (Surr)	103		26 - 156					11/12/21 13:17	200			
Toluene-d8 (Surr)	101		40 - 146					11/12/21 13:17	200			

Client Sample Results

Client: GEI Consultants, Inc.

Job ID: 180-129426-1

Project/Site: 2101497.1.1, Nyack

Method: EPA 8270D - Semivolatile Organic Compounds (GC/MS)

Client Sample ID: MW46 Date Collected: 11/02/21 10:	00						Lab Sam	ple ID: 180-12	9426-3 : Water
Date Received: 11/03/21 10:								Watrix	. water
Analyte	Result Q	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	57		1.9	0.65	ug/L		11/09/21 12:53	11/12/21 18:58	1
Acenaphthylene	5.4		1.9	0.65	ug/L		11/09/21 12:53	11/12/21 18:58	1
Anthracene	5.5		1.9	0.49	ug/L		11/09/21 12:53	11/12/21 18:58	1
Benzo[a]anthracene	1.3 J]	1.9	0.75	ug/L		11/09/21 12:53	11/12/21 18:58	1
Benzo[a]pyrene	1.4 J	l	1.9	0.53	ug/L		11/09/21 12:53	11/12/21 18:58	1
Benzo[b]fluoranthene	ND		1.9	0.97	ug/L		11/09/21 12:53	11/12/21 18:58	1
Benzo[g,h,i]perylene	1.2 J]	1.9	0.69	ug/L		11/09/21 12:53	11/12/21 18:58	1
Benzo[k]fluoranthene	ND		1.9	0.88	ug/L		11/09/21 12:53	11/12/21 18:58	1
Chrysene	1.2 J	l	1.9	0.81	ug/L		11/09/21 12:53	11/12/21 18:58	1
Dibenz(a,h)anthracene	ND		1.9	0.72	ug/L		11/09/21 12:53	11/12/21 18:58	1
Fluoranthene	3.1		1.9	0.60	ug/L		11/09/21 12:53	11/12/21 18:58	1
Fluorene	20		1.9	0.69	ug/L		11/09/21 12:53	11/12/21 18:58	1
Indeno[1,2,3-cd]pyrene	ND		1.9	0.85	ug/L		11/09/21 12:53	11/12/21 18:58	1
2-Methylnaphthalene	130		1.9	0.62	ug/L		11/09/21 12:53	11/12/21 18:58	1
Naphthalene	1100 E		1.9	0.59	ug/L		11/09/21 12:53	11/12/21 18:58	1
Phenanthrene	25		1.9	0.55	ug/L		11/09/21 12:53	11/12/21 18:58	1
Pyrene	5.4		1.9	0.54	ug/L		11/09/21 12:53	11/12/21 18:58	1
Surrogate	%Recovery Q	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	72		45 - 105				11/09/21 12:53	11/12/21 18:58	1
Nitrobenzene-d5 (Surr)	72		45 - 106				11/09/21 12:53	11/12/21 18:58	1
Terphenyl-d14 (Surr)	68		28 - 125				11/09/21 12:53	11/12/21 18:58	1

Client Sample Results

Client: GEI Consultants, Inc.

Job ID: 180-129426-1

Project/Site: 2101497.1.1, Nyack

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

Client Sample ID: TRIP BLADate Collected: 11/02/21 00							Lab Sam	ple ID: 180-12 Matrix	
Date Received: 11/03/21 10	:15								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.60	ug/L			11/12/21 12:00	1
Ethylbenzene	ND		1.0	0.51	ug/L			11/12/21 12:00	1
Toluene	ND		1.0	0.46	ug/L			11/12/21 12:00	1
Xylenes, Total	ND		2.0	0.89	ug/L			11/12/21 12:00	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	112		36 - 124			-		11/12/21 12:00	1
Dibromofluoromethane (Surr)	84		46 - 149					11/12/21 12:00	1
1,2-Dichloroethane-d4 (Surr)	111		26 - 156					11/12/21 12:00	1
Toluene-d8 (Surr)	103		40 - 146					11/12/21 12:00	1

Appendix B

Site Inspection Form (including Photographic Record)

SITE INSPECTION FORM

Nyack Former Manufactured Gas Plant Site

SITE INSPECTIO	N DATE:	10/18/2021	TIME OF ARRIVAL:	12:52 p.m.
			DEPARTURE:	2:35 p.m.
WEATHER:	Mostly cl	oudy with occasior	nal drizzle, mid 40s °F.	
Orange and Ro	ckland			
Representative	(s):	Non	e	
INSPECTION TYP	E:	Annual	Inspection or Emergency I	nspection
	ndicate ev	ent that required a		
inspection):			Annual SM	P Inspection for 2021
Engineering con	trols – co	ver and site utilitie	S.	
Are the Institution	onal Conti	rols in place nerfo	rming properly, and remai	n effective?
Are the montain	onai Conti	ois iii piace, perio	inning property, and remai	Yes
				163
Doos the Site of	mply with	NVSDEC approve	d Site Management Plan?	Yes
Does the site co	niipiy witi	TNT3DLC-approved	a Site Management Flan:	163
Has ownership	of the pro	norty changed sinc	e the last inspection?	No
•	•	nd Survey Departm	•	INO
(verify with Kea	II LState a			
Owner continue	es to be TZ	ː Vista.		
	_		Restricted Residential, Con rinstitutional controls?	nmercial Yes
<u> </u>				
will be for comr	nercial an	d residential use. 1	sta. It is GEI's understandir The project has not been ar he schedule for developme	proved by local
Is site used for a	agricultura	al purpose or veget	able gardens?	Yes (No

SITE INSPECTION FORM Nyack Former Manufactured Gas Plant Site

Is groundwater used as source of potable or process water onsite					
If yes to the above – does water go the	rough the necessary water quality treatme	ent? N/A			
Is solidified material visible, or is there	e any evidence of damage to solidified soil	from frost			
and wave action?		Yes No			
Not visible during ebb tide towards lo	w tide at 3:38 p.m. (Tarrytown NOAA stati	on)			
Are the Engineering Controls in place,	performing properly, and remain effectiv	e?			
Surface Cover Intact (i.e. no evidence sidewalk and paved street west of the	of erosion, excavations), including concret site?	e Yes// No			
GENERAL SITE OBSERVATIONS:					
	roperty since the last inspection? (i.e. nev	v equipment,			
residential buildings or facilities, change		(Yes) No			
However, equipment remains onsite (has been removed from the site. Min- southeast corner of the site at the nor included in attached photo log; no cha between the Hudson Vista Associates	ny construction activities since last inspect as shown in the attached photos). The site or erosion was observed at the drain outfat th end of the Hudson Vista parking lot (phange from 2020 inspection). Additionally, Parcel lower parking lot and the upper lot this fence to prevent trespassing, but the	e office trailer all pipe at the oto is the fence appears to be			
NOTE:					
as a natural disaster or an unforeseer	um once a year and within 5 days of an er n failure or damage to the building occurs lison (or their agent) and results reported	. Inspections			
		~ .			
COMPLETED BY: Sean DiBartolo	, P.E. SIGNATURE: Scan DiBan	to			
GEI Consultants, Inc., P.C.					



Company: Orange and Rockland Utilities, Inc.

Project: 2021 SMP Inspection, Nyack Former MGP Site



Photo No.: 1

Photographer: S. DiBartolo **Date:** 10/18/2021 **Direction:** North

Comments:
Upper Terrace



Photo No.: 2

Photographer: S. DiBartolo **Date:** 10/18/2021 **Direction:** Northwest

Comments: Upper Terrace



Company: Orange and Rockland Utilities, Inc.

Project: 2021 SMP Inspection, Nyack Former MGP Site



Photo No.: 3

Photographer: S. DiBartolo **Date:** 10/18/2021

Direction: East

Comments:
Upper Terrace



Photo No.: 4

Photographer: S. DiBartolo **Date:** 10/18/2021 **Direction:** East

Comments:

Lower Terrace and Hudson

River Area



Company: Orange and Rockland Utilities, Inc.

Project: 2021 SMP Inspection, Nyack Former MGP Site



Photo No.: 5

Photographer: S. DiBartolo **Date:** 10/18/2021

Direction: North

Comments: Lower Terrace



Photo No.: 6

Photographer: S. DiBartolo

Date: 10/18/2021 **Direction:** Southwest

Comments: Lower Terrace



Company: Orange and Rockland Utilities, Inc.

Project: 2021 SMP Inspection, Nyack Former MGP Site



Photo No.:

Photographer: S. DiBartolo 10/18/2021 Date: **Direction:** South

Comments:

Lower Terrace towards Hudson Vista Parking Lot

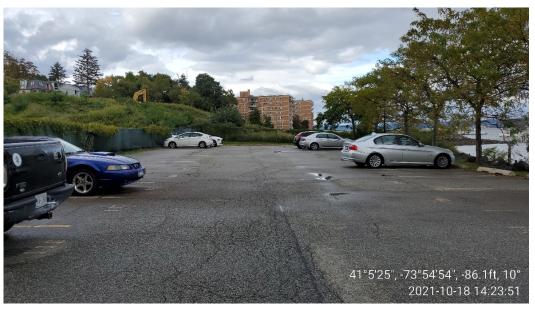


Photo No.:

Photographer: S. DiBartolo Date: 10/18/2021

Direction: North

Comments:

Hudson Vista Associates Parcel lower parking lot portion of surface cover



Company: Orange and Rockland Utilities, Inc.

Project: 2021 SMP Inspection, Nyack Former MGP Site



Photo No.: 9

Photographer: S. DiBartolo **Date:** 10/18/2021

Northeast

Direction:

Comments:

Lower Terrace and Riprap

Slope



Photo No.: 10

Photographer: S. DiBartolo **Date:** 10/18/2021 **Direction:** Southeast

Comments:

Riprap Slope at Hudson River

at Low Tide



Company: Orange and Rockland Utilities, Inc.

Project: 2021 SMP Inspection, Nyack Former MGP Site



Photo No.: 11

Photographer: S. DiBartolo **Date:** 10/18/2021 **Direction:** Southwest

Comments:

Riprap Slope at Hudson River

at Low Tide



Photo No.: 12

Photographer: S. DiBartolo **Date:** 10/18/2021 **Direction:** Northeast

Comments:

Riprap Slope at Hudson River

at Low Tide



Company: Orange and Rockland Utilities, Inc.
Project: 2021 SMP Inspection, Nyack Former MGP Site



Photo No.: 13

Photographer: S. DiBartolo

10/18/2021 Date:

Direction: Northwest

Comments:

Stormwater CMP Outfall at North end of Hudson Vista

Parking Lot



Photo No.: 14

Photographer: S. DiBartolo 10/18/2021 Date:

Direction: South

Comments:

Perimeter fence at Gedney

Street



Company: Orange and Rockland Utilities, Inc.

Project: 2021 SMP Inspection, Nyack Former MGP Site



Photo No.: 15

Photographer: S. DiBartolo **Date:** 10/18/2021 **Direction:** Northeast

Comments:

Perimeter fence at Gedney

Street



Photo No.: 16

Photographer: S. DiBartolo **Date:** 10/18/2021 **Direction:** Southwest

Comments:

Perimeter fence at Main Street (upper left side of photo) and Gedney Street (upper right side of photo)



Company: Orange and Rockland Utilities, Inc.

Project: 2021 SMP Inspection, Nyack Former MGP Site



Photo No.: 17

Photographer: S. DiBartolo

Date: 10/18/2021 **Direction:** Southwest

Comments:

Perimeter fence at Hudson Vista Associates Parcel lower parking lot. Fence in disrepair



Photo No.: 18

Photographer: S. DiBartolo **Date:** 10/18/2021 **Direction:** North

Comments:

Perimeter fence at Hudson Vista Associates Parcel lower parking lot. Fence in disrepair