Site Characterization Work Plan

NYSDEC Spill No. 0707419
NYSDEC Spill No. 2400354

Location:

38-20/37-98 Railroad Avenue
Queens Block 312, Lot 279, Lot 280
Long Island City, New York 11101

Prepared for:

MM Newtown Capital, LLC
54-08 Vernon Boulevard
Long Island City, New York 11101

LaBella Project No. 2233115

September 2025

LaBella
Powered by partnership.

45 Main Street, Suite 1018 | Brooklyn, NY 11201 | p 917-280-6364

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CERTIFICATION

I, Richard T. Kampf, PG, certify that I am currently a Qualified Environmental Professional as defined in 6 NYCRR Part 375 and that this Site Characterization Work Plan was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10).

Richard T. Kampf, PG, LEP	9/9/25	
Qualified Environmental Professional	Date	Signature

1.0 INTRODUCTION

1.1 Background

LaBella Associates, D.P.C. ("LaBella") was retained by MM Newtown Capital, LLC (Owner) to prepare a Site Characterization Work Plan (SCWP) for the property located at 37-98 and 38-20 Railroad Avenue, Long Island City, Queens County, New York, hereinafter referred to as "the Site". The Site is an approximately 3.8-acre parcel identified by tax parcel identification numbers Queens County, Block 312, Lots 279 and 280 (see **Figure 1**).

The Site is currently operated by Green Asphalt Co., which presently produces recycled asphalt. The Site is located directly upland from Newtown Creek, Superfund Site 241117. Since the Owner purchased the Site in the early 1970's, the bulkhead has been in disrepair, and due to the deteriorated nature of the bulkhead, the upland area has experienced significant erosion and potential to release contaminants into the water. A new Joint Permit Application (JPA) has been submitted; all other prior applications have been rescinded. NYSDEC has issued application # 2-6304-01496/00011. The JPA contains the Sediment Sampling Plan prepared with TMS Waterfront for the downland sampling (from Mean High Water (MHW) outboard into the creek). The permit application reflects a revised bulkhead alignment to account for the existing subsurface timber cribbing, an expanded green space buffer, dredging for barge access, elimination of the previously proposed floating mooring, and engineering controls for the bulkhead to seal the upland site off from tidal seepage. The work detailed in this SCWP requires approval and execution prior to the approval of the bulkhead permit.

The New York State Department of Environmental Conservation (NYSDEC) has issued two letters, dated May 4, 2023, and April 15, 2024, identifying the Site as a potential upland source of contamination to Newtown Creek based upon recent investigations performed by NYSDEC on neighboring properties (2023 HRP Upland Site Characterization and June 2005 Golder Associates Remedial Investigation Report, Section 2.8). The NYSDEC letter dated May 4, 2023, cited the "former Capasso conveyance piping" containing non-aqueous phase liquid (NAPL) as a potential source of the presence of NAPL on-Site. Greenberg Traurig, LLP, on behalf of the Owner, performed a title review dated April 4, 2024, which determined the responsibility of the "former Capasso conveyance piping," referenced as Easement 5: Quanta Resources – Permanent Sewer Easement in this report, is not with the Owner, rather with Triplex Oil, one of its successors/assigns or the Current Lot 69 Owner. Following the review of the title review memorandum, the NYSDEC issued a letter dated April 15, 2024, indicating that Spill No. 2400354 was opened on Queens Block 312, Lots 278 and 280.

As per NYSDEC's letter, the Site was identified as a potential upland source of contamination to Newtown Creek based on the former use of the properties and the presence of "grossly impacted material" previously encountered at well locations GAL-27 and GAL-28 documented in the 2005 Golder Associates Remedial Investigation Report. The identified impacts are in the vicinity of historical oil refining and fuel storage on the northeastern portion of the Site. However, the source of the petroleum impacts is unclear, as fingerprinting analysis indicated that no light non-aqueous phase liquid (LNAPL) was detected at the well locations GAL-27 and GAL-28. The regulatory history for the Site is further detailed in **Section 2.5.** The NYSDEC correspondence is included in **Appendix A.**

This SCWP has been developed in accordance with NYSDEC Division of Environmental Remediation (DER)-10 *Technical Guidance for Site Investigation and Remediation* Issued May 3, 2010. The objective of this Site Characterization (SC) is to assess general subsurface conditions across the Site for potential petroleum hydrocarbon impacts due to historical and adjacent site uses.

2.0 SITE DESCRIPTION AND HISTORY

2.1 Site Description

The Site is located at 37-98 and 38-20 Railroad Avenue in the Long Island City section of Queens, New York. The legal Site address is Block 312, Lots 279 and 280, and the Site is situated on a 165,875-square-foot plot. A Site Location Map is included as **Figure 1.**

The Site currently consists of a 1-story warehouse building, 1-story machine building, two (2) office trailers and a steel structure used for the storage of equipment. There are no basements or subbasements at the Site. All utilities are located on the ground floor and outside the buildings. The 37-98 Railroad Avenue building was constructed in 1987 and the 38-20 Railroad Avenue building was constructed in 1965. The Site is occupied by Green Asphalt Co., which presently produces recycled asphalt. Operations include crushing, screening, sorting and drying aggregate, applying liquid petroleum additives to the dried materials, conveying these materials to storage silos and discharging finished materials to dump trucks.

2.2 Adjacent Properties

The Site is located within a highly industrialized area of Queens, New York. The entire property and surrounding properties have been used for a variety of industrial purposes since the late 19th century. Adjacent properties include various industrial properties, such as metal processing, electronic recycling, a waste depot, and vehicle and crane storage facilities. The north-adjacent Quanta Resources Property (Review Avenue Development II [RAD II]) consist of a 1.8-acre parcel of land (formerly used for oil refining, zinc alloy and metal manufacturing, fertilizer manufacturing, animal rendering, coal storage, construction and demolition, and asphalt waste transfer stations, and vehicle fueling and maintenance The Site is bounded to the east by a Waste Management Transfer facility, which was the Former Pratt Oil Works (FPOW) property with a long history of oil refining. Historical uses of the Site and adjacent properties are further detailed in **Section 2.7.** Historic easements located on the Site and adjacent properties are detailed in **Section 2.6.**

The Site location and adjacent properties are summarized in the table below.

Site Address	Tax Parcel	Site Name	Location
37-98 and 38-20 Railroad Ave	Block 312, Lot 279-280	Green Asphalt Co./South Capasso (Site)	Site
38-50 Review Ave	Block 312, Lot 300	Waste Management/Former Pratt Oil Works (FPOW)	East Adjacent
37-80 Review Avenue	Block 312, Lot 69	Former Quanta Resources/Review Avenue Development II (Quanta Resources Property)	North Adjacent

2.3 Geology & Hydrogeology

Based on previous investigations at the Quanta Resources Property, detailed in **Section 2.7**, topography and surficial geology in the vicinity of the Site is largely man-made urban fill consisting of ash, wood, brick, and coal ranging in thickness to a depth of 5 to 20 feet below ground surface (ft bgs).

Based on previous investigations performed by Golder Associates and Applemon Corporation on the Site (**Section 2.7**), fill material in the vicinity of the Site exists from 0.5 to 15 ft bgs including dark brown to black sand, gravel, and coal with fragmented brick, rock, and timber. Black-stained soil with a petroleum odor was observed from 8 to 11 ft bgs (GAL-27 & GAL-28 on Figure 2) and from a depth of 5 to 9 ft bgs (SB-1 on Figure 2). The fill material is underlain by unconsolidated glacial deposits consisting of fine to coarse sand and gravel from approximately 15 to 75 ft bgs. Intermittent discrete and laterally discontinuous layers of silt and clay are located throughout the subsurface in the vicinity of the Site.

Groundwater flow in the Site vicinity flows south-southwest towards Newtown Creek. Groundwater was encountered at approximately 8 to 13 ft bgs at the Site during previous investigations.

Public drinking water and industrial water supply are provided by the New York City water system. There is an area of Queens County that relies on groundwater as its potable water source approximately six miles southeast of the Site.

2.4 Site History

2.4.1 Sanborn Mapping

A review of available Sanborn Fire Insurance Maps for the Site indicated the following:

- In 1898, ruins of an abandoned former oil refinery were in the center of the Site.
- From 1915 to 1928, the western portion of the Site was occupied by American Agricultural Chemical Co. The eastern portion of the Site was occupied by the Van Iderstine Facility, including an oil storage building, solvent plant, paint shop, boiler house, and auto repair.
- In 1936, the eastern portion of the Site appears to be vacant. From 1947 through 1950, the eastern portion of the Site appears to be occupied by Pocahontas Coal Corporation, however structures associated with the coal piles do not appear on the Sanborn Map.
- In 1977, the Van Iderstine Facility operations appear to have expanded into the eastern portion of the Site, including seven tallow tanks on the southern portion of Lot 280 and center of Lot 279, and three fuel oil aboveground storage tanks (ASTs) on the northeastern portion of the Site.

Based on the Sanborn Maps, the Site was bounded to the north by Triplex Oil Refining Co. from at least 1936 through 2006, to the west by a metal manufacturing facility from at least 1977 through 2006, and to the east by oil refineries from at least 1898 through 1989.

Sanborn maps for the Site are included in **Appendix B**.

2.4.2 Bulkhead

The Newtown Creek shoreline has been bulkheaded since the early 1890's, first with a timber cribbing gravity wall, and later with a combination timber cribbing and a pile-supported concrete seawall (relieving platform).

The current Site bulkhead consists of a timber crib bulkhead and partially collapsed concrete retaining wall which has significant deterioration. The current conditions of the bulkhead have allowed for erosion of the upland material behind the bulkhead. The bulkhead replacement is addressed along with the Sediment Sampling Plan prepared by TMS Waterfront for the downland sampling for the Joint Permit Application (JPA) for bulkhead replacement and dredging.

2.5 Regulatory History

NYSDEC Spill 1406465, Spill Date 9/17/14, Spill Close Date 9/24/14
A spill of less than 5 gallons of mixed automotive waste fluids associated with heavy machinery. Staining was noted on the asphalt/concrete however gross contamination was cleaned, and NYSDEC indicated that no further action was required at the time and the Spill was closed.

NYSDEC Spill 0707419, Spill Date 10/5/07
The spill report remarks indicate "petroleum in old pipe," though the spill report does not indicate that there was a petroleum release to the environment.

NYSDEC Spill 2400354, Spill Date 4/11/24

In response to requests from the NYSDEC for the Client to investigate Spill 0707419, a title review was performed in April 2024 to establish ownership of the pipes and associated easements as detailed below in Section 2.6 and shown on Figure 2. In response, NYSDEC opened Spill 2400354 on April 11, 2024, and issued a letter dated April 15, 2024. In the letter dated April 15, 2024, NYSDEC identified the Site as a potential upland source of contamination to Newtown Creek based on the former use of the properties and the "presence of grossly impacted material" previously encountered at well locations GAL-27 and GAL-28 (**Appendix A**), in the vicinity of historical oil refining and fuel storage on the northeast portion of the Site. However, the source of the petroleum impacts is unclear, as the 2005 Quanta Remedial Investigation Report indicated that no LNAPL was detected at the well locations GAL-27 and GAL-28.

2.6 Summary of Historic Easements

Several easements are located on the Site or in the vicinity of the Site, detailed below. Historic easements are shown on **Figure 2.**

Easement 1: Capasso/Waste Management – Parcel A Easement

Easement 1 is located on the east-adjacent Waste Management Property, allowing MM Newtown Capital, LLC access for parking of trucks, automobiles and commercial vehicles, and the storage of non-hazardous materials.

Easement 2: Capasso/Waste Management – Parcel B Easement

Easement 2 is a perpetual easement located on the north portion of the Site allowing Waste Management of New York, LLC access for the ingress and egress of trucks, automobiles commercial vehicles, and pedestrian traffic to and from the Grantee Property (Waste Management of New York, LLC) and lands now or formerly owned by the Long Island Railroad.

Easement 3: Capasso/Waste Management – Parcel C Easement

Easement 3 is located on the north adjacent Quanta Resources Property and maintains a roadway for ingress and egress used by both MM Newtown Capital, LLC and Waste Management of New York, LLC.

Easement 4: Railroad Easement

Easement 4 is located on the north portion of the Site and the west-adjacent property directly south of the railroad tracks for ingress and egress of trucks, automobiles, commercial vehicles, and pedestrian traffic to and from the Waste Management and the LIRR property.

Easement 5: Quanta Resources – Permanent Sewer Easement

Easement 5 is located on the eastern boundary of the Site. A title review was performed in April 2024 by Greenberg Traurig, LLP to determine the ownership of the easement containing the piping along the eastern Site boundary. The earliest available title record for the Site in 1930 indicates that the original owner of the property was the American Agricultural Chemical Company. In 1931, the American Agricultural Chemical Company deeded Lot 69 to Triplex Oil Refining Company and reserved for itself the right to build and maintain pipes via an easement over Lot 280. In 1938, American Agricultural Chemical Company deeded the Pipe Easement to Triplex Oil Refining Company. The review determined that the responsibility of the pipes is not with MM Newtown.

The deeds, chain of title, and findings show that the Easement 5 holder and corresponding responsibility of the pipes is with Triplex Oil, one of its successors/assigns or the Current Lot 69 Owner. Lot 69 is located on the former Quanta Resources Property (RAD II) indicated on **Figure 1**. A memorandum summarizing the pipe ownership under Easement on the Site is included in **Appendix C**. Based on the 2005 Haley & Aldrich Supplemental Remedial Site Inspection Update Report, the pipes associated with the sewer easement are suspected to be decommissioned barge loading lines containing NAPL associated with the former Quanta Resources operation.

2.7 Summary of Relevant Previous Environmental Studies

The Newtown Creek upland sites have been investigated extensively in the past two decades. LaBella has reviewed previous environmental studies for the Site and adjacent properties. The following investigation reports were selected to assist in the evaluation of subsurface Site conditions and due to their relevance to the project objectives:

Report Title	Report Date	Report Author	Investigation Location(s)
Remedial Investigation Feasibility Study Work Plan	September 1, 2002	Golder Associates	• Quanta Resources Property – Review Avenue Development I (North Adjacent Property)
Supplemental Remedial Site Inspection Update	January 31, 2005	Haley & Aldrich	• South Capasso (Site) • Waste Management/Former Pratt Oil Works (East Adjacent Property)
Remedial Investigation Report – Newtown Creek RI/FS	June 2005	Golder Associates	• Quanta Resources Property – Review Avenue Development II (North Adjacent Property)
Supplemental Remedial Investigation Report	November 2005	Golder Associates	• Quanta Resources Property – Review Avenue Development II (North Adjacent Property)
Interim Site Characterization Report	August 2009	Kleinfelder	• Waste Management/Former Pratt Oil Works (East Adjacent Property)
Draft Upland Site Summary Report	May 2012	Anchor QEA	• South Capasso (Site) • Quanta Resources Property – Review Avenue Development I (North Adjacent Property)
Draft Upland Site Summary Report – Newtown Creek RI/FS	May 2012	Anchor QEA	• Quanta Resources Property – Review Avenue Development II (North Adjacent Property)
Phase II Preliminary Environmental Site Investigation Report	December 2013	Applemon Corporation	• Green Asphalt Co (Site)
Upland Site Characterization Report	April 2023	HRP	• Newtown Creek Site (Superfund Site #241117)

The investigation reports are summarized below. Prior investigation reports can be provided upon request.

Remedial Investigation Feasibility Study Work Plan (RI/FS WP)– September 2002 by Golder Associates

The 2002 Golder Associates RI-FS WP for Quanta Resources Property indicated that the following wells were previously installed on the Site, summarized below. The former well locations are indicated on **Figure 2.**

- MW-3: Installed by ERM in 1993.
- MW-3R: Replacement well installed by Haley and Aldrich in 2000.

- MW-7: Installed by Haley and Aldrich in 2000.
- MW-7R: Replacement well installed by Haley and Aldrich in 2002.*

LNAPL reportedly had not been detected in MW-3, MW-3R, and MW-7 based on the 2002 RI/FS WP.

*Information regarding MW-7R was obtained from the June 2005 Golder Associates Remedial Investigation Report.

Supplemental Remedial Site Inspection Update – January 2005 by Haley & Aldrich

Haley & Aldrich performed a supplemental remedial site inspection limited to the eastern portion of the Site and the east adjacent property (FPOW), which has a long history of oil refining.

South Capasso (Site)

Haley & Aldrich personnel removed a manhole in the eastern corner of the Site revealing a concrete vault. The manhole vault is located within Easement 5, indicated on Figure 2. Within the vault were several pipes that were submerged in water, with non-aqueous phase liquid (NAPL) on the top of the water. The report states that the liquid was removed and disposed of, revealing two 6-inch parallel pipes (among other pipes) that were suspected to be decommissioned barge loading lines associated with the former Quanta Resources operation. Field personnel breached pipes for sampling and identified NAPL and water in the pipe which was sampled and removed. The holes in the pipes were subsequently repaired by applying a sealant and clamping rubber sleeves over the holes and the entire vault was steam-cleaned. The report also indicates that two six-inch parallel pipes located on the bank of Newtown Creek were suspected to be the same pipes previously mentioned. The pipe covers were removed, and NAPL was sampled and removed, and pipe covers subsequently replaced.

Three test pits (TP-01, TP-02, and TP-03) were advanced on the eastern side of the Site. TP-01 was located on the northeastern corner of the Site. Petroleum odors and staining were observed in TP-01, from approximately 3 feet below ground surface (ft bgs) to the bottom of the excavation at 4.5 ft bgs. At the bottom of the excavation, two six-inch parallel pipes entering the concrete vault were observed; these pipes were presumed to be the same pipes found inside the vault containing NAPL. TP-02 was located on the southeastern corner of the Site. Within TP-02, multiple pipes were observed appearing to coincide with the piping arrangements that exited the concrete vault in the manhole near TP-01. TP-03, located southwest of TP-01, was abandoned after concrete slabs and rebar were encountered.

Waste Management/FPOW (East Adjacent)

Several test pits were advanced on the WM/FPOW property (TP-04, TP-05, TP-06, and TP-07); NAPL was present at the bottom of TP-05 and TP-07, both along the waterfront closer to Newtown Creek. Two pipes were observed at 4 and 4.5 ft bgs in TP-05, running perpendicular and parallel to Newtown Creek. One of the pipes entered an elbow which turned approximately 90 degrees towards the Quanta Resources Property. At 7 ft bgs, NAPL was observed at the bottom of TP-05. NAPL was also observed entering the test pit through an opening in the sidewall of TP-07 at 3.5 ft bgs, as well as NAPL covering the bottom of the test pit at 5.5 ft bgs. Piping was observed at the location of TP-07 towards Newtown Creek. Test pit TP-06 also contained one of the pipes from TP-05, along with additional piping. At TP-06, a pipe was located 8.4 ft bgs and the excavation continued to water/NAPL at 11.75 ft bgs where another pipe was observed.

Based on test pit investigations on the eastern portion of the Site and the east adjacent site (FPOW), it appears that several pipes associated with off-site parties, including Quanta Resources, were observed along with NAPL contamination along the piping adjacent to the creek. The extensive

underground piping network was further investigated by Kleinfelder and documented in the August 2009 Interim Site Characterization Report, below.

Based on the 2005 Haley & Aldrich Supplemental Remedial Site Inspection Update Report, there has been a long history of oil operations in the vicinity of the Site with a complicated history of ownership and easements associated with several pipes located on the Waste Management property associated with off-site parties, and several pipes located on the Site suspected to be decommissioned barge loading lines containing NAPL associated with the former Quanta Resources operation.

Kleinfelder Interim Site Characterization Report – August 2009

The report characterizes the waterfront parcels of the FPOW site that is directly east-adjacent to the Site and includes discussion of the underground piping network that is also present at the Site. The waterfront parcels of the FPOW site were developed and used for industrial activities including petroleum, chemical, gravel, warehousing/storage, and waste transfer operations from the early 1850s to present. Petroleum and chemical operations were conducted on the FPOW site from approximately 1953 to 1984.

NAPL was detected in several monitoring wells across the FPOW site, including at MW-4, the closest well to the Site, containing NAPL from 4 to 9 ft bgs. LNAPL was observed in soils at several boring/monitoring well locations across the FPOW site, including at SB-1, the closest boring to the northwest portion of the Site, where black NAPL was observed from approximately 7 to 13 ft bgs. The 2009 Kleinfelder Interim Site Characterization Report characterized its spatial distribution as sporadic on the southern portion of FPOW and more widely distributed in the northern portion of the FPOW site. NAPL was identified in multiple vertical horizons including the zone above the water table in the capillary fringe, and below semi-confining stratigraphic layers. NAPL characterized as broad-cut distillates, attributable to a wide variety of petroleum-related activities, was identified across the western portion of the waterfront FPOW parcels.

A subsurface geophysical investigation identified several underground utilities, and several pipes included in the extensive underground piping network were identified running in various directions across the waterfront FPOW parcels (Figure 2).

Remedial Investigation Report – Quanta Resources Property (Review Avenue Development II) - June 2005 by Golder Associates

The June 2005 Golder Associates Remedial Investigation Report (RIR) documents the delineation of LNAPL at the Quanta Resources Property, located north of the Site. The RIR states that the primary source of the LNAPL at Quanta Resources is a former tank farm in the northeastern portion of the Quanta Resources Property and the material may have potentially migrated to the southeast and northwest, extending to off-site adjacent properties.

During this RIR, two NAPL monitoring wells, GAL-27 and GAL-28, were installed and sampled, in the vicinity of the former storage tanks on the eastern side of the Site (downgradient of the Quanta Resources Property). No NAPL was identified at wells GAL-27 and GAL-28. Total Petroleum Hydrocarbon (TPH) analytical results from the soil samples collected from the borings at GAL-27 and GAL-28 are summarized below.

TPH Concentration (mg/kg) vs Depth (ft bgs)

Soil Sample	10	12	14	16	18	20	23	24	25
GAL-27	13,400	NS	717	63	117	32	NS	76	NS
GAL-28	39,300	35,600	3,620	4,350	4,890	469	367	NS	849

NS = Not sampled.

Well MW-7R, located on the South Capasso property (Site) was also located during the RIR. No LNAPL was found in this well. The RIR states that MW-7R was installed by Haley and Aldrich in September 2002. The RIR indicates the former monitoring wells MW-3, MW-3R, MW-7, and MW-7R were screened in shallow groundwater.

The RIR concluded that the LNAPL gradient was generally low and toward Newtown Creek (towards the southwest). The RIR also states that the removal of the contamination sources, the measured viscosity of the LNAPL, and the predicted gradient and low viscosities at the LNAPL fringes indicate that further migration the delineation of LNAPL laterally or downgradient is expected to be minimal or non-existent. The RIR indicates the majority of the LNAPL is non-recoverable, stable, and naturally contained.

Supplemental Remedial Investigation Report – Quanta Resources Property (Review Avenue Development II) - November 2005 by Golder Associates

The Supplemental Remedial Investigation Report (SRIR) documents the installation of two groundwater monitoring wells, GAGW-09S and GAGW-09D on the eastern portion of the Site to monitor conditions downgradient of the Quanta Resources Property. GAGW-09S/D were sampled and analyzed for Volatile Organic Compounds (VOCs), Semi-volatile Organic Compounds (SVOCs), polychlorinated biphenyls (PCBs), metals, and Natural Attenuation Parameters (NAPs). At GAGW-09S, benzene was detected at 7.8 µg/L, chloroethane at 20 µg/L, and methyl tertiary-butyl ether (MTBE) at 14 µg/L. At GAGW-09D, MTBE was detected at 250 µg/L and trichloroethene (TCE) at 16 µg/L. The report maintains the conclusion of the June 2005 RI Report, that groundwater at the Quanta Resources Property does not pose a threat to the designated use of Newtown Creek.

Draft Upland Site Summary Report – South Capasso (Site) and Quanta Resources Property (Review Avenue Development I) - May 2012 by Anchor QEA

It is important to note that this report incorrectly refers to the Site as Review Avenue Development I (RAD I); however, the Brownfield Cleanup Agreement for RAD I indicates that only Block 312 Lot 41 is included as part of RAD I. The Site, Block 312 Lots 279 and 280 (South Capasso) are not part of RAD I. See **Figure 1** for the correct location of RAD I and RAD II.

The Report identifies several pathways for the transport of contaminants from the Quanta Resources Property to Newtown Creek. Overland transport is a potential complete historic pathway, due to the site sloping gently from the northeast boundary to Newtown Creek, as well as the Quanta Resources Property's (RAD II) history of uses (oil refining, zinc alloy and metal manufacturing, fertilizer manufacturing, animal rendering, coal storage, construction and demolition and asphalt waste transfer stations, and vehicle fueling and maintenance). Direct discharge of wastewater and stormwater into the Creek is a complete historic pathway and a potential complete current pathway. Bank erosion is another potential historic pathway, however the Report notes that the South Capasso (Site) had not been characterized to date.

Draft Upland Site Summary Report – Quanta Resources Property (Review Avenue Development II) - May 2012 by Anchor QEA

The Quanta Resources Property, 37-80 Review Avenue, is north adjacent and upland to the subject site (37-98 and 38-20 Railroad Avenue. The 2012 Anchor QEA Draft Upland Site Summary indicates that overland transport is a potentially complete historical pathway, and that there is insufficient evidence to make a current pathway determination. The 2012 Draft Upland Site Summary indicates that the Quanta Resources Property occupants had a 5-foot-wide easement extending from the southwestern corner of the property southwest to Newtown Creek since at least 1931, and pipelines conveyed oil and waste oil between the Quanta Resources Property and the creek via the easement. The report also notes that by 1982, approximately 80,000 gallons of LNAPL "were floating on shallow, unconfined groundwater" at the property; and the primary on-site source of LNAPL was a tank farm located on the northeast corner of the Quanta

Resources Property. Groundwater flows southwest from the Quanta site directly underneath the Site to Newtown Creek. The groundwater has a significant history of petroleum plumes, as well as VOC, SVOC, metal, and PAH contamination. The 2012 Draft Upland Site Summary also notes that groundwater is a potentially complete current and historical pathway.

The 2012 Draft Upland Site Summary Report for the Quanta Resources Property (RAD II) indicates that RAD II discharged untreated stormwater, wastewater, and LNAPL from at least the 1930s through the early 1970s via an 8-inch discharge pipe extending from the southwest corner of RAD II to the Newtown Creek. This was evidenced by the 2005 Haley & Aldrich Supplemental Remedial Site Inspection Update Report.

Phase II Preliminary Environmental Site Investigation Report – December 2013 by Applemon Corporation

Applemon Corporation performed a Phase II Preliminary Environmental Site Investigation in 2013 at Green Asphalt Co (Site) in December 2013 for excavation associated with construction of a transformer pad on-Site. The Phase II was performed for classification of the material proposed for excavation including evaluation of waste disposal options. The Phase II consisted of the advancement of one soil boring to a depth of 30 ft bgs in the vicinity of the transformer pad. Field observations revealed that the Site consists of possible fill material, consisting of silt and sand to a depth of 15 ft bgs, overlying native silty clay, sand, and peat layers. Groundwater was encountered in the boring on the south portion of the Site at approximately 13 ft bgs. Petroleum odors were encountered from approximately 5 to 9 ft bgs (PID readings ranging from 0 to 18 ppm in the depth interval where petroleum odors were encountered). The soil sample was analyzed for VOCs, SVOCs, Priority Pollutant Metals, PCBs, Toxicity Characteristic Leaching Procedure (TCLP), and TPH.

VOCs detected in the soil sample were below Unrestricted Use Soil Cleanup Objectives (UUSCOs). Several polycyclic aromatic hydrocarbons (PAHs) were detected in the soil sample in exceedance of UUSCOs though most were below Industrial Use SCOs. The rest of the analyzed parameters did not exceed UUSCOs. Based on laboratory analytical results, the soil samples did not exhibit characteristics of hazardous waste, and the excavated soils were to be disposed of as regulated material.

Upland Site Characterization Report - April 2023 by HRP Associates, Inc

HRP Associates, Inc (HRP) performed the HRP Upland Site Characterization in April 2023 for the NYSDEC to evaluate whether upland properties are a potential source of contamination to Newtown Creek. HRP reviewed, surveyed, and sampled all properties that are upland of Newtown Creek and may be potential sources of contamination for the Creek. Per the HRP report, due to the industrial nature of the area surrounding the Creek, nearly all properties adjacent to the Creek are considered to represent potential sources of contamination to Newtown Creek, a federal Superfund Site.

HRP identified 154 properties that had at least some evidence of being a source of contamination, with 41 of these being categorized as priority properties with potential to adversely impact the Creek. HRP recommended that these 41 properties be reviewed further to assess their potential impacts. The Site, 37-98 and 38-20 Railroad Avenue, as well as nearly all adjacent properties were identified as one of the 41 priority properties (Appendix B of the 2023 HRP Upland Site Characterization Report). Based on Table 3 of the 2023 HRP Upland Site Characterization report, the Site is ranked with the lowest score of the 41 properties identified in the scoring matrix table, indicating the lowest potential of impacting Newtown Creek of the priority properties identified by HRP.

HRP evaluated multiple lines of evidence to determine if upland properties surrounding Newtown Creek are an ongoing source of contamination to Newtown Creek. Criteria considered for the evaluation included history of industrial use; if the bank next to a property is prone to erosion; presence of visible groundwater seeps flowing from the shorelines to the creek; if NAPL was observed in seeps or surface water; if the property has documented releases or NYSDEC spills, notices of violation, or consent orders; and if the property is located in an area has a high groundwater infiltration rate. Based on the historic records and observations

during the characterization, an objective scoring matrix was utilized in prioritizing properties for further review, based on a "0" for no incidence, and a "1" otherwise.

The HRP scoring table indicated that 9 points were assigned to the Site based on Sanborn mapping; 1 point was assigned for one petroleum bulk storage permit associated with the site; 8 points were assigned for the number of current or former chemical bulk storage tanks on-Site; 1 point was assigned for one NYSDEC spill associated with the Site and 1 point for property impacts due to the spill; 1 point was assigned due to the presence of an erodible bank/bulkhead; 1 point was assigned due to regulatory program history in the petroleum bulk storage and NYSDEC spill databases; and 2 point were assigned due to a NAPL observation adjacent to the Site above background creek levels. However, based on historical site information and Sanborn mapping, there appear to be only three former fuel oil tanks located on the northeast portion of the Site. Based on HRP observations, the NAPL observation in 2021 associated with the Site is located in the creek on the westernmost boundary of the Site, directly adjacent to the bulkhead of the western adjacent site, which was noted to be potentially erodible based on HRP shoreline observations.

2.8 Site Visit

LaBella personnel performed a site reconnaissance in May 2024. Safety considerations and limited access were noted due to active Site operations including active heavy machinery across the Site. Work conducted along Newtown Creek adjacent to the bulkhead requires the use of a personal flotation device. Site safety is further detailed in **Section 7.**

3.0 STANDARDS, CRITERIA, AND GUIDANCE

Based on previous investigations at the Site, the primary chemicals of potential concern (COPC) likely to be encountered at the Site are petroleum hydrocarbons. The applicable Standards, Criteria, and Guidance (SCGs) for soil and groundwater characterization for this Site include:

- DER-10,
- Commissioner Policy – Soil Cleanup Guidance (CP-51)
- New York State Groundwater Quality Standards and Guidance Values (GQS/GVs) – 6 NYCRR Part 703,
- Technical and Operational Guidance Series (TOGS) 1.1.1 Ambient Water Quality Standards (AWQS) and subsequent addendums,
- NYSDOH Generic Community Air Monitoring Plan (CAMP), and 29 Code of Federal Regulations (CFR) 1910.120(h).
- DER Guidelines on Installation of Overburden Wells (Monitoring Wells) for Environmental Investigations (January 2022)

4.0 CONCEPTUAL SITE MODEL

A conceptual site model (CSM) has been prepared to develop a general understanding of the Site and evaluate potential human exposure pathways and impacts to the environment. This CSM considers Site history and context, including factors that influence distribution, and fate and transport of remedy-relevant constitutions, as well as potential receptors and pathways for exposure. These factors include potential sources and release mechanisms, the physical-chemical mechanisms that control constituent fate and transport, and the likely exposure pathways that govern for adverse effects to human and ecological receptors. The CSM will be used to identify remedy relevant data gaps that will be addressed as part of the SC.

The CSM will be updated with Site-specific data after this Site Characterization is performed.

4.1 Potential Sources

Petroleum hydrocarbon-related constituents of potential concern (COPCs) may include the fuel oil and gasoline-related constituents listed in Tables 2 and 3 of the October 2010 NYSDEC Commissioner Policy on Soil Cleanup Guidance (CP-51).

4.1.1 Site

Potential sources of petroleum hydrocarbons on-Site include former tank storage on the northeast portion of the Site as well as the potential for LNAPL to have migrated into the Site from adjacent properties, based upon petroleum impacts observed at GAL-28, GAL-29, and SB-01 on-Site, and /or through leakage from piping potentially owned and / or operated by third parties on the Site. Based on data collected from 1993 through 2005 from the NAPL monitoring wells on-site (MW-3/3R, MW-7/7R, GAGW-09S/D), LNAPL has not been identified on-Site.

Based on the 2013 Phase II Preliminary Environmental Site Investigation by Applemon Corporation, petroleum odors were encountered from approximately 5 to 9 ft bgs on the Site (PID readings ranging from 0 to 18 ppm in the depth interval where petroleum odors were encountered). VOCs detected in the soil sample were below UUSCOs. Several PAHs were detected in the soil sample in exceedance of UUSCOs though most were below Industrial Use SCOs. The rest of the analyzed parameters did not exceed UUSCOs.

4.1.2 Quanta Resources Property (RAD II)

There are several potential off-site LNAPL sources including surrounding properties that have been used for historical oil refining and / or transport. The Quanta Resources Property (RAD II) located north of the Site represents a potential LNAPL source. Quanta Resources Property has a long history of oil refining and other industrial uses.

Several potential LNAPL source areas existed on the Quanta Resources Property throughout its operations history documented as early as the late 19th century. The primary LNAPL source area, the tank farm area in the northeast portion of the Quanta Resource Property, was removed when the facility was decommissioned in 1982. Based on the 2005 RIR, the radial flow of LNAPL from the tank farm area appeared to be the primary cause of the LNAPL observed upgradient/northeast of Review Avenue, as well as LNAPL impacts documented to the southeast and northwest. LNAPL existed as a secondary source following the removal of the primary source in 1982 until remediation commenced in 2014. NAPL detected on Quanta Resources Property is generally characterized as viscous, weathered, and heterogeneous petroleum product. LNAPL gradient is generally low and is toward Newtown Creek (southwest).

Previous investigations indicate that the Lot 69 Easement associated with Quanta Resources existed for piping associated with former barging operations which brought and removed oil to and from Newtown Creek. The 2012 Draft Upland Site Summary Report for the Quanta Resources Property (RAD II) indicates that RAD II discharged untreated stormwater, wastewater, and LNAPL from at least the 1930s through the early 1970s via an 8-inch discharge pipe extending from the southwest corner of RAD II to the Newtown Creek. This was evidenced by the 2005 Haley & Aldrich Supplemental Remedial Site Inspection Update Report. Based on the available information and a title report review, these pipes, located on the eastern boundary of the Site and owned by Triplex Oil, successor to Quanta Resources, represent another potential source and preferential pathway of LNAPL contamination.

Prior investigations indicate the presence of NAPL in close proximity to the Site, at the upgradient Quanta Resources Property as well as the FPOW site immediately adjacent to the east of the Site (Section 4.1.3). The presence of NAPL on adjacent properties indicates its ubiquity in this highly industrialized area and reflects the potential from NAPL that is off-site to migrate onto the Site.

The Anchor QEA Report identified several pathways for the transport of contaminants from the Quanta Resources Property to Newtown Creek. Overland transport is a potential complete historic pathway, due to the site sloping gently from the northeast boundary to Newtown Creek, as well as the Quanta Resources Property's history of uses (oil refining, zinc alloy and metal manufacturing, fertilizer manufacturing, animal rendering, coal storage, construction and demolition and asphalt waste transfer stations, and vehicle fueling and maintenance). Direct discharge of wastewater and stormwater into the Creek is a complete historic pathway and a potential complete current pathway. Bank erosion is another potential historic pathway, however the Report notes that the South Capasso (Site) had not been characterized to date.

Remedial activities, including an LNAPL Recovery System, commenced operating in the Fall of 2014 at RAD II. There is also potential for NAPL to have migrated from adjacent sites onto the Site prior to the commencement of the remedial activities. The extensive underground piping network that appears to disregard property boundaries based upon the recent Title Review and the 2009 Kleinfelder Interim Site Characterization indicate that there is potential for NAPL from off-site petroleum operations to have leaked onto the Site.

4.1.3 Former Pratt Oil Works Property (FPOW)

The FPOW property located directly east of the Site represents a potential LNAPL source, with a long history of oil refining and documented presence of LNAPL in soil and groundwater. The waterfront parcels of FPOW are located directly adjacent to the Site and an underground piping network that is also present at the Site exists at the FPOW property. The waterfront parcels of the FPOW site were developed and used for industrial activities including petroleum, chemical, gravel, warehousing/storage, and waste transfer operations from the early 1850s to present. Petroleum and chemical operations were conducted on the FPOW site from approximately 1953 to 1984.

LNAPL was detected in several monitoring wells across the FPOW site, including at MW-4, the closest well to the Site, containing NAPL from 4 to 9 ft bgs. LNAPL was observed in soils at several boring/monitoring well locations across the FPOW site, including at SB-1, the closest boring to the northwest portion of the Site, where black NAPL was observed from approximately 7 to 13 ft bgs. The spatial distribution of LNAPL at the FPOW site is characterized as sporadic on the southern portion of FPOW and more widely distributed in the northern portion of the FPOW site. LNAPL-saturated soil was identified in multiple vertical horizons including the zone above the water table in the capillary fringe, and below semi-confining stratigraphic layers. LNAPL characterized as broad-cut distillates, attributable to a wide variety of petroleum-related activities, was identified across the western portion of the waterfront FPOW parcels.

Based on the 2005 Haley & Aldrich Supplemental Remedial Site Inspection Update Report, there has been a long history of oil operations in the vicinity of the Site with a complicated history of ownership and easements associated with several pipes located on the FPOW property associated with off-site parties, and several pipes located on the Site suspected to be decommissioned barge loading lines containing NAPL associated with the former Quanta Resources operation.

4.2 Environmental Fate and Transport

Chemicals are transported or transformed in the environment through physical and kinetic processes. Physical processes including dissolution, vaporization, and adsorption result in the transfer of substances across media and phases. Kinetic processes, which include biotic and abiotic chemical transformations, decrease the concentration of a chemical by degrading it into other products. The current understanding of the fate and transport of petroleum hydrocarbons is summarized below for each of the environmental media of interest at the Site.

4.2.1 Soil

Movement of LNAPL in the subsurface is controlled by several processes. Upon release, LNAPL will migrate downward under the force of gravity. If a small volume is released, a fraction of the hydrocarbons will be retained in the soil pores, and the NAPL mass will become depleted until it no longer moves. If sufficient LNAPL is released, it will migrate until it reaches a physical barrier, or as it reaches the capillary fringe above the water table. When it reaches the capillary fringe, some of the LNAPL may move laterally due to gravity capillary forces.

The LNAPL that is present in soil pores may be potentially mobile or non-mobile (residual). In the saturated soil below the water table LNAPL constituents may exist in the LNAPL phase or the dissolved phase, or it may partition to the soil. Saturation is the relative fraction of total pore space containing a particular fluid in a representative volume of a porous medium. The mobility of LNAPL is related to its degree of saturation. The saturation level whereby a LNAPL becomes immobilized by capillary forces is known as the residual saturation.

Residual saturation represents a potential source of dissolved phase constituents in groundwater. The magnitude of residual saturation is affected by factors including pore-size distribution, wetting properties of the fluids and soils, interfacial tension, hydraulic gradients, ratios of fluid viscosities and densities, gravity, buoyancy forces, and flow rates.

Based upon the available data from adjacent sites and the age of potential releases, site-specific mobility and migration of NAPL is expected to be limited to a low LNAPL viscosity and gradient with minimal radial extension. LNAPL, if located on-Site is anticipated to be stable and naturally contained within pore spaces. However, leaky pipes traversing the Site have the potential to be a source of LNAPL at the Site.

4.2.2 *Groundwater*

The available subsurface soil and groundwater data indicate that the subsurface soils and LNAPL do not present a source of concentrations of COPCs to groundwater that would represent risk to human health or the environment above acceptable levels. This is primarily because groundwater at the Site is not utilized for potable drinking water and the current Site use is industrial. In addition, concentrations of COPCs in groundwater are, at most, marginally above TOGS criteria.

Groundwater at the Site generally flows to the southwest Newtown Creek. The fate and transport mechanisms that affect groundwater include advection, dispersion, dissolution, and potentially, natural degradation. COPCs that are present in the groundwater at the Site will eventually discharge into Newtown Creek. COPCs would be subject to dissolution and other forms of natural attenuation that would immediately reduce the concentration of any dissolved phase COPCs to concentrations that would likely not warrant further evaluation.

4.2.2.1 LNAPL in Monitoring Wells

LNAPL saturation is variable depending on conditions such as the depth of the LNAPL, hydrogeological conditions, LNAPL properties, and soil properties. LNAPL occupies the soil pore spaces of soil along with water and sometimes air; therefore, LNAPL saturation is never 100%. Therefore, though LNAPL floats on the water that is present in monitoring wells, it does not act the same way in the formation that surrounds the monitoring wells. Volume of LNAPL in the formation is often much less than the measured LNAPL thickness in a monitoring well. The measured thickness of LNAPL in a monitoring well is influenced by a number of these same factors as well as groundwater table fluctuations; and therefore, measured thickness of LNAPL in a well may not be representative of the total volume of LNAPL in the soil at that location.

4.2.2.2 LNAPL Mobility

The existence of free-phase LNAPL at a monitoring well is not indicative that the LNAPL is mobile, as a driving force is necessary for LNAPL migration to occur. Mobility and the potential mobility of LNAPL is an important factor to consider when assessing remedial technologies and potential receptor risk.

LNAPL mobility is influenced by the presence of water in the soil pore spaces. When soil pore volume is saturated with water, LNAPL is rendered less mobile. When soil pore volume is less saturated, known as the degree of water saturation, then LNAPL becomes more mobile. LNAPL also flows more readily when the water table is lower, and it accumulates in spaces that do not contain soil or pore spaces, such as a monitoring well. Therefore, the presence of LNAPL and the ability of LNAPL to flow to a monitoring well may not be indicative of its potential or ability to migrate beyond the source or the location of the LNAPL mass.

4.2.3 Soil Vapor

COPCs in soil vapor are not anticipated to represent a significant risk to human health or the environment above acceptable levels. This is based on the fact that the nature of the NAPL observed at adjacent sites is old and weathered with little remaining volatile organic compounds (VOCs) as a result of many prior years of volatilization. The Site does not contain any basements or subbasements, and the warehouse located on the eastern portion of the Site is not enclosed.

4.3 Potential Sensitive Receptors and Exposure Pathways

The potential receptors at the Site include facility workers. Based on the peer-reviewed principles of environmental risk assessment, there is no risk to a receptor when either (1) no receptor is present or (2) there is no complete exposure pathway for that receptor. If potential receptors are identified with respect to a Site-related COPC, one of the key remedial objectives will be to eliminate the potential exposure pathway. This could involve, for example, eliminating the potential for direct contact by workers with LNAPL of soils that contain COPCs.

The Site Characterization will be conducted to address any data gaps that remain in the CSM with respect to determining whether there is a potential completed exposure pathway and, as appropriate, if a potential risk to receptors exists.

4.3.1 Soil

The mere presence of LNAPL does not necessarily represent an unacceptable risk. A complete exposure pathway (e.g., the migration of LNAPL to a receptor) is needed for a potential risk to be present.

Construction workers may potentially come into direct contact with this material during subsurface construction activities. This potential direct contact risk is typically addressed through the use of institutional controls such as a health and safety plan (HASP). Note that the Owner is required to restrict access to the terminal to facility workers, and no unplanned construction may occur on the property without the approval of the Owner.

4.3.2 Groundwater

Groundwater at the site is not used for drinking water. Local residents are served by New York City Water. Therefore, under current conditions, there is no ingestion risk associated with groundwater. The property is currently zoned for manufacturing. Groundwater is unlikely to be used in the future as a source of drinking water at the site. Therefore, there are no completed exposure pathways in connection with groundwater at the Site

The Federal Clean Water Act requires states to periodically assess and report on the quality of waters in their state. Section 303(d) of the Act also requires states to identify impaired waters, where designated uses are not fully supported. Newtown Creek is considered an impaired water body.

4.3.3 Soil Vapor

There are no completed exposure pathways in connection with soil vapor at the Site.

5.0 AREAS OF CONCERN

The following AOCs have been identified for the Site.

AOC-1 – Off-Site Historical Operations: Surrounding properties have a long history of industrial uses, including oil refining and fuel storage, and subsurface impacts have been documented in several prior investigations (Section 2.7).

AOC-2 - Quanta Resources Property and Associated On-Site Easement Piping: Previous investigations on the Quanta Resources Property indicate a former primary source of NAPL and a current source of residual NAPL contamination. Based on the title review, the easement for the pipes running through the Site are owned by Triplex Oil and its successors in interest, the former owner of the Quanta Resources parcel. The pipes also represent a potential preferential pathway for off-site contamination to migrate onto the Site.

AOC-3 – On-Site Former Fuel Oil Storage: Several tanks located in the northeast portion of the Site, adjacent to the location of former well GAL-28 where evidence of gross contamination was encountered. Sanborn maps indicate that former ASTs / USTs containing fuel oil were located in the northeast portion of the Site. Soil samples will be collected to evaluate whether a petroleum hydrocarbon release has occurred in connection with the historical fuel storage.

6.0 SCOPE OF WORK

The primary objective of this SC is to collect the information and field data necessary to address on-Site data gaps identified in Section 5. The Scope of Work includes the following tasks:

1. Geophysical Investigation
2. Manhole & Piping Evaluation
3. Soil Investigation
4. Groundwater Investigation

The SC will be conducted in accordance with NYSDEC's *DER-10/ Technical Guidance for Site Investigation and Remediation* Issued May 3, 2010.

6.1 Limited Geophysical Investigation

LaBella will perform a limited geophysical survey and subsurface utility locating to clear boring locations and identify to the degree practicable the location of any potentially accessible underground pipes. The geophysical survey will include the use of electro-magnetic (EM) equipment and ground-penetrating radar (GPR) to identify subsurface anomalies that may warrant additional investigation. The results of the geophysical investigation would further guide the investigation as appropriate and could potentially result in adjustments in proposed boring locations if subsurface anomalies are encountered. If NAPL is encountered, the geophysical investigation will be expanded as needed to delineate conditions around the proposed boring locations.

In order to adequately conduct an EM/GPR survey, the proposed locations of investigation must be cleared of debris, rubbish, scrap metal, and any other large objects (e.g., vehicles, heavy machinery) that would prevent the transport of equipment or persons to and from any proposed boring or survey areas. Failure to have areas cleared will limit the ability to detect anomalies. The presence of reinforced concrete may interfere with geophysical sensing equipment and prevent accurate detection beneath it.

6.2 Manhole & Piping Evaluation

LaBella or the Owner will access the manhole and open the piping to determine if there are any contents. Containment will be set up under the pipe ends to collect any material that is released after the pipes are

opened. Any content encountered will be captured, containerized, and characterized for proper off-site disposal at a permitted disposal facility. After accessing the piping and removing any contents, the piping will be inspected to document pipe materials and diameters and then the interior of the piping will be assessed via a camera. The camera will be used to assess the integrity of the piping and identify any deficiencies or breaks and the location of these will be documented for testing in these locations (if accessible).

LaBella will also advance two to three test pits along the west side of Easement 5 to assess subsurface conditions in proximity to the piping. It is anticipated that each test pit will extend to at least 1-ft. below the piping and any associated bedding or in the event of impacts until apparent clean soil is encountered. However, test pit depths may be limited based location and concerns with adjacent structures or utilities. The anticipated test pit locations are shown on Figure 2, but actual locations will depend on the video scoping and will be biased (pending accessibility) to locations with suspect piping conditions or breaks.

One soil sample will be collected from each test pit and be biased towards the worst-case impacts observed, if any. If no impacts are observed the soil sample will be collected from beneath the invert of the piping. The soil samples will be analyzed for the following parameters:

- TCL VOCs via USEPA Method 8260
- TCL SVOCs via USEPA Method 8270
- Extractable Petroleum Hydrocarbons (EPH) (C19-C36) via MADEP Method
- TAL Metals via USEPA Methods 6010 & 7471 (mercury)
- TCL PCBs via USEPA Method 8082

Samples will be transferred to laboratory-supplied glassware and packed in a cooler with ice and shipped under proper chain-of-custody procedures to a NYSDOH ELAP-certified laboratory for analysis individually following NYSDEC ASP - Category B Deliverables. LaBella currently plans to utilize Pace Analytical Laboratories, LLC for the analytical testing work. Pace Analytical Laboratories, LLC is a NYSDOH ELAP certified laboratory for the planned testing. Specific constituents for each testing method that will be reported by the laboratory and the detection limits are included in **Appendix D.**

Findings of the manhole and piping evaluation will be reported in the SC report.

6.3 Soil Investigation

A total of 12 soil borings (Figure 2) will be advanced across the Site to evaluate subsurface conditions and the potential for migration of petroleum contamination related to the former property use. Soil borings will be advanced utilizing a Geoprobe® direct-push drill rig outfitted with a dual-core sampler or closed piston sampler and dedicated acetate liners or by hand-clearing methodology potentially utilizing an air knife, hand auger, and/or slide hammer.

6.3.1 Soil Investigation Methodology: NAPL Contamination Delineation

Soil borings will be advanced to approximately 20 ft bgs, or until native/clean material is encountered. A LaBella scientist will document soil types, changes in lithology, and wastes (if any) encountered. Soil samples for VOC and EPH analysis will be biased toward elevated PID readings or visible impacted material, and at least one sample per boring will be collected at the water table interface. Soil borings will be classified using the ASTM D2488 Unified Soil Classification Method. LaBella will utilize a PID to screen the soils from the soil cores for volatile organic vapors, which are commonly associated with petroleum products. A soil boring log will be developed for each boring, and detailed boring logs will be appended to the SC Report.

For borings where NAPL is not observed, soil samples will be collected for laboratory analysis at each five-foot interval and analyzed for the following parameters:

- TCL VOCs via USEPA Method 8260
- TCL SVOCs via USEPA Method 8270
- Extractable Petroleum Hydrocarbons (EPH) (C19-C36) via MADEP Method
- TAL Metals via USEPA Methods 6010 & 7471 (mercury)
- TCL PCBs via USEPA Method 8082

Soil samples may be further analyzed for forensic purposes. Samples collected for VOC analysis will be collected directly from the acetate liners utilizing terra-core sampling devices. Samples will be transferred to laboratory-supplied glassware and packed in a cooler with ice and shipped under proper chain-of-custody procedures to a NYSDOH ELAP-certified laboratory for analysis individually following NYSDEC ASP - Category B Deliverables. LaBella currently plans to utilize Pace Analytical Laboratories, LLC (Pace) for the analytical testing work. Pace is a NELAP certified laboratory for the planned testing. Specific constituents for each testing method that will be reported by the laboratory and the detection limits are included in **Appendix D.**

NAPL Delineation Borings

Additional borings will be advanced north, south, east, and west (to the extent feasible based on accessibility) in the horizontal direction from all soil borings where NAPL has been observed. To ensure vertical delineation of NAPL, the new borings will be advanced to a minimum depth of where NAPL was observed in borings performed in the initial investigation. Final soil boring depths will be determined based on field observation using the NAPL Field Descriptions (**Appendix E**). If NAPL is not observed at the minimum required depth, no further advancement of the boring is required. If NAPL is observed, the boring will be advanced until vertical delineation of NAPL has been determined. For soil borings where NAPL has been observed, grab soil samples will be collected at and immediately below each distinct interval of NAPL and will be analyzed for the following parameters:

- TCL VOCs via USEPA Method 8260
- TCL SVOCs via USEPA Method 8270
- Extractable Petroleum Hydrocarbons (EPH) (C19-C36) via MADEP Method
- TAL Metals via USEPA Methods 6010 & 7471 (mercury)
- TCL PCBs via USEPA Method 8082

Soil samples may be further analyzed for forensic purposes. Samples collected for VOC analysis will be collected directly from the acetate liners utilizing terra-core sampling devices. Samples will be transferred to laboratory-supplied glassware and packed in a cooler with ice and shipped under proper chain-of-custody procedures to a NYSDOH ELAP-certified laboratory for analysis individually following NYSDEC ASP - Category B Deliverables. LaBella currently plans to utilize Pace for the analytical testing work. Pace is a NELAP certified laboratory for the planned testing. Specific constituents for each testing method that will be reported by the laboratory and the detection limits are included in **Appendix E.**

6.4 Groundwater Investigation

A total of 8 monitoring wells will be installed to evaluate groundwater conditions relative to Newtown Creek and the potential for subsurface site conditions to impact Newtown Creek. Additional monitoring wells will be installed at soil boring locations where NAPL is observed in the borings. The location and quantity of any additional monitoring wells will be confirmed with NYSDEC prior to installation. The monitoring well installation and groundwater sampling procedures will be conducted in accordance with NYSDEC DER-10.

The monitoring well will be constructed of Schedule 40 2-inch diameter PVC with 15 feet of screen set to a maximum depth of approximately 20 feet bgs. Appropriate drilling methods will be used to ensure a minimum 6 3/8-inch borehole is used to install 2" monitoring wells. All monitoring wells will have 2 inches of annular space surrounding the monitoring well. A sand filter pack (Morie 0) will be installed into the annular space to no less than 2 feet above the top of the screen. A 1-foot-thick layer of choke sand (Morie 00), a 1-foot thick of bentonite seal, and approximately 3 feet clean cuttings (if available) or Morie 0 sand to 3-feet from

grade will be placed above the filter pack. The well will be finished with 2.5 to 3 feet of portland-bentonite and an 8" flush mounted manhole/protective cover set in a 1-ft^2 concrete pad.

After completion, the monitoring well location will be surveyed by a licensed surveyor. The wells will be developed 24 to 48 hours after construction with a downhole submersible pump. Water quality parameters including temperature, pH, conductivity, and turbidity, will be collected and recorded at a frequency of not less than once per well volume removed. No less than 3 well volumes will be removed. However, purging will continue until a turbidity of less than 50 Nephelometric Turbidity Units (NTU is achieved).

Groundwater samples will be collected three to five days after well development is complete.

- Prior to sampling, LaBella field staff will collect headspace readings and static water level measurements from each well. Headspace readings will be collected by measuring VOC concentrations with a photo ionization detector (PID) immediately after removing the cap from each well. The PID will be capable of measuring VOCs in the parts per billion (PPB) range and utilize an 11.7 eV lamp. Static water level readings will be collected using an oil-water interface probe. The probe will also be extended to the bottom of each well to gauge for non-aqueous phase liquid (NAPL).
- A peristaltic pump will be utilized for low flow sampling. During sampling, the pump intake will be set in the middle of the well screen for each well.
- Pumping rates will be used that ensure water level stabilization in accordance with EPA low-flow procedures. Water quality parameters including turbidity, pH, temperature, specific conductivity, dissolved oxygen, oxidation reduction potential, and depth to water will be recorded at 5-minute intervals. If 5-minute intervals are not sufficient to ensure one flow-through cell volume is "turned over" between measurements based on the flow rate required to achieve water level stabilization, the measurement interval will be extended appropriately. Samples will be collected when the parameters have stabilized for three (3) consecutive monitoring intervals to within the specified ranges below:
    - Turbidity (+/- 10%, <50 NTU for metals)
    - pH (+/-0.1)
    - Temperature (+/- 3%)
    - Specific conductivity (+/- 3%)
    - Dissolved Oxygen (+/- 10%)
    - Oxidation reduction potential (+/- 10 millivolts)

Flow rates used to achieve water level stabilization will remain constant throughout purging, indicator parameter monitoring and during sample collection.

Groundwater samples will be analyzed for the following parameters:

- TCL VOCs via USEPA Method 8260
- TCL SVOCs via USEPA Method 8270
- EPH (C19-C36) via MADEP Method
- TAL Metals via USEPA Methods 6010 & 7471 (mercury)
- TCL PCBs via USEPA Method 8082

Samples will be transferred to laboratory supplied glassware and packed in a cooler with ice and shipped under proper chain-of-custody protocols to a NYSDOH ELAP certified laboratory for analysis individually following NYSDEC ASP – Category B Deliverables. QA/QC samples such as trip blanks, duplicate samples, matrix spike/matrix spike duplicate samples (MS/MSD), and field blanks will be collected. LaBella currently plans to utilize Pace laboratory for the analytical testing work. Pace is a NELAP certified laboratory for the planned testing. Specific constituents for each testing method that will be reported by the laboratory and the detection limits are included in **Appendix D**.

6.5 Investigation Derived Waste

Investigation derived waste including drilling cuttings, drilling water, purge water, decontamination water, etc. will be containerized in 55-gallon drums stored on-Site and disposed of following all investigation activities at a permitted facility pending waste characterization. Drums will be labeled identifying the contents.

7.0 HEALTH AND SAFETY

LaBella's Health and Safety Plan (HASP) for this project is included in **Appendix F.**

8.0 QUALITY CONTROL

Activities completed at the Site will be managed under LaBella's Quality Control Program, which is included in **Appendix G**. Quality assurance/ quality control (QA/QC) sampling will include analysis of one matrix spike/ matrix spike duplicate (MS/MSD) and one (1) blind duplicate sample for each matrix type (i.e., soil, and groundwater) at a rate of one per 20 samples collected for each parameter group, or one per shipment, whichever is greater. One (1) trip blank will be included in each shipment of groundwater samples for VOC analysis. QA/QC sampling will not be conducted for waste characterization or bedrock core samples.

All samples will be delivered under Chain of Custody procedures to a NYSDOH ELAP-certified laboratory. The laboratory will provide NYSDEC ASP Category B Deliverables and NYSDEC EQUIS Electronic Data Deliverables (EDDs) for all samples except waste characterization and bedrock core samples. A data usability summary report (DUSR) will be completed for all ASP Category B format laboratory data packages per DER-10.

9.0 SCHEDULE AND DELIVERABLES

Work is anticipated to begin within 60 days of Work Plan approval from NYSDEC. At the conclusion of the investigation, a SC Report will be developed including investigation methods, results, findings, and conclusions.

A tentative schedule of field activities is included below, assuming NYSDEC approval by late-September and field activities beginning in mid October, pending contractor availability. Based on the nature of the facility operations, we understand that the Client has the ability to make boring locations accessible as needed, however this may require multiple mobilizations. As a results, the schedule is somewhat uncertain, but we have provided general schedule for the first 4 to 6 weeks with geophysical as needed within that time frame.

Phase I Schedule:

Item	Duration
Geophysical / Mark outs	1 - 2 day
Soil Boring / Well Installation	1 week
Well Development / Sampling	2 - 3 weeks
Test Pitting	1 day
Pipe Evaluation	1 week

Supplemental work will be performed per discussions with NYSDEC. Additional mobilizations will be performed as needed.

A SC Report will be submitted within 2 weeks following receipt of the DUSRs for all data.

FIGURES

Creator: INITIALS Reviewer: INITIALS

Path: B:\GIS\~NY Countywide\Queens\~Townwide\Long Island City\~SiteData\Railroad Avenue_37-98and38-20\SITE\SITE_GeoRef\SITE_GeoRef.aprx

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MM Newtown -
Railroad Ave, LIC

37-98 and 38-20 Railroad Avenue Long Island City, New York

N

0 70 140
Feet

Legend

- Parcels
- Site Boundary

Sources:

1. Site Survey : 2004 & Quanta Resource Data Report - Golder Associates
2. Bing Imagery - Microsoft Corp, CNES, TomTom, Maxar & Distribution Airbus DS
3. Parcel Data - NYS GIS Program Office & NYS Department of Taxation and Finance's Office or Real Property

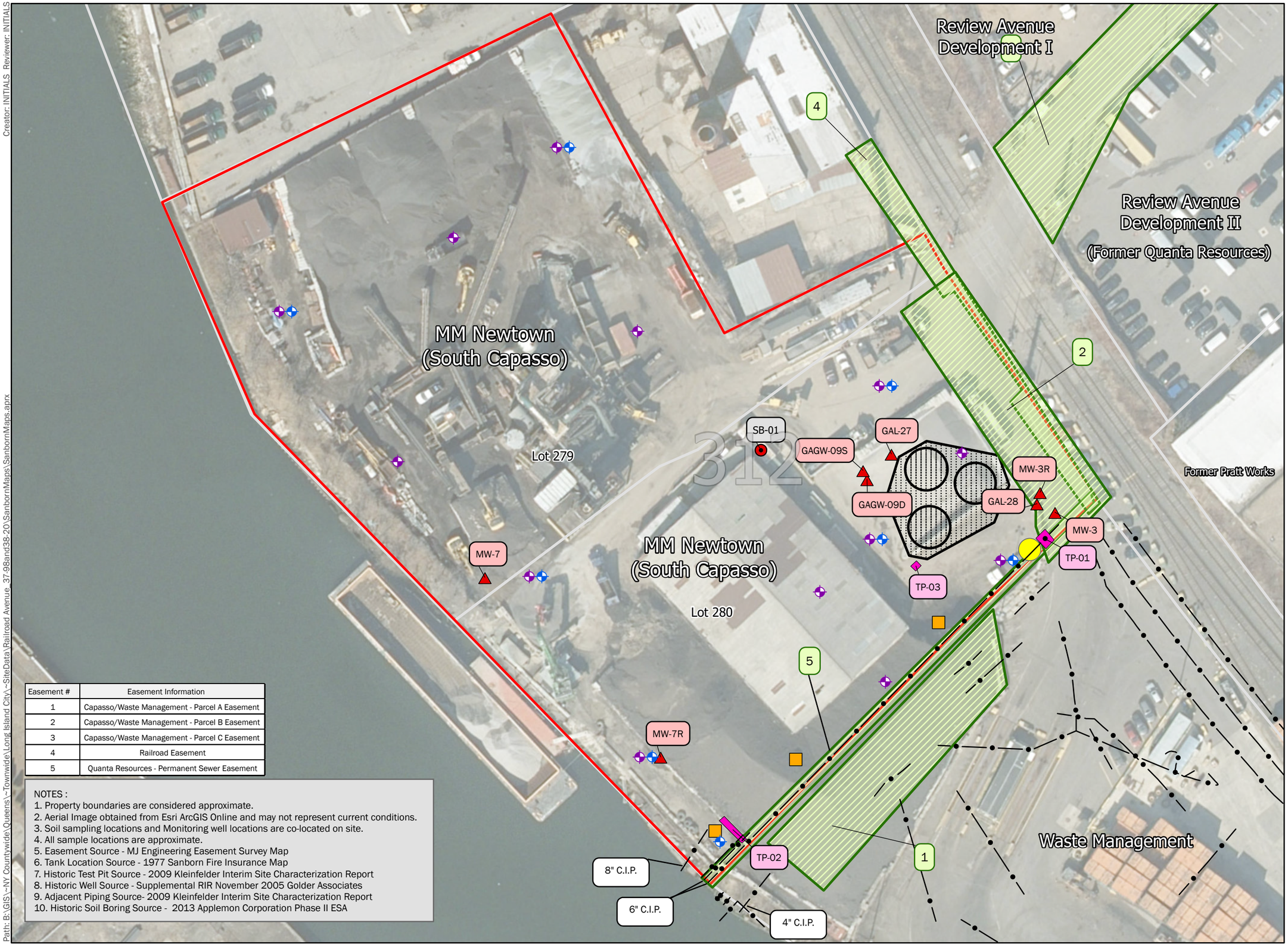
Site Location Map

FIGURE 1

LaBella Project No: 2233115
Date: February 2025

Creator: INITIALS Reviewer: INITIALS

Path: B:\GIS\~NY Countywide\Queens\~Townwide\Long Island City\~SiteData\Railroad Avenue_37-98and38-20\SanbornMaps\SanbornMaps.aprx



Easement #	Easement Information
1	Capasso/Waste Management - Parcel A Easement
2	Capasso/Waste Management - Parcel B Easement
3	Capasso/Waste Management - Parcel C Easement
4	Railroad Easement
5	Quanta Resources - Permanent Sewer Easement

NOTES :
1. Property boundaries are considered approximate.
2. Aerial Image obtained from Esri ArcGIS Online and may not represent current conditions.
3. Soil sampling locations and Monitoring well locations are co-located on site.
4. All sample locations are approximate.
5. Easement Source - MJ Engineering Easement Survey Map
6. Tank Location Source - 1977 Sanborn Fire Insurance Map
7. Historic Test Pit Source - 2009 Kleinfelder Interim Site Characterization Report
8. Historic Well Source - Supplemental RIR November 2005 Golder Associates
9. Adjacent Piping Source- 2009 Kleinfelder Interim Site Characterization Report
10. Historic Soil Boring Source - 2013 Applemon Corporation Phase II ESA

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MM Newtown - Railroad Ave, LIC

37-98 and 38-20 Railroad Avenue Long Island City, New York

N

0 60

1 inch = 60 feet

Legend
- Site Boundary
- Tax Parcels
- Historic Easements
- Historic Tanks
- HIstoric Test Pits
- Historic Wells
- Historic Soil Boring
- Manhole
- Pipes
- Proposed Soil Boring Locations
- Proposed Monitoring Well Locations
- Proposed Test Pit Location

Soil Boring And Monitoring Well Locations

FIGURE 2

LaBella Project No: 2233115
Date: June 2025

APPENDIX A

NYSDEC Correspondence

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Remediation, Remedial Bureau B
625 Broadway, 12th Floor, Albany, NY 12233-7016
P: (518) 402-9767 I F: (518) 402-9773
www.dec.ny.gov

Transmitted via Certified Mail
Return Receipt Requested

May 4, 2023

Michael Capasso
MM Newtown Capital, LLC
C/O C.A.C Industries Inc.
54-08 Vernon Blvd
Long Island City, NY 11101

Re: NYSDEC Spill No. 0707419
3798 and 38-20 Railroad Avenue, Long Island City, NY 11101
Tax map ID numbers: Queens County, Block 312, Lots 279 and 280

Dear Mr. Capasso:

The New York State Department of Environmental Conservation (DEC) has re-opened the above-referenced spill and determined investigation and/or remediation is necessary at the above-referenced properties. The properties have been identified as potential upland sources of contamination to Newtown Creek based on recent investigation work performed by DEC which observed impacts to the Creek emanating from the properties. Additionally, Lot 280 has a historical presence of non-aqueous phase liquid (NAPL) (from former Capasso conveyance piping containing NAPL).

Before DEC implements any work, all potentially responsible parties for the Spill must be given the opportunity to perform the work themselves. MM Newtown Capital, LLC has been identified as a potentially responsible party. As such, two options are provided:

- Perform the necessary work to the satisfaction of DEC. Please notify DEC by **6/2/2023** if you will investigate and remediate the site.

- Decline to perform the necessary work by **6/2/2023.** DEC will then do the work with its own contractor(s). If you are determined to be responsible for this spill, you, and possibly your insurance company, will be responsible for all costs incurred by the State of New York for the investigation and/or remedial work.

Some of the work will be on your property. If you elect to have DEC do the work, please sign and return the enclosed Right-of-Entry form by **6/2/2023.**

The New York State Navigation Law authorizes DEC or its authorized agents to enter upon any site, areas near such site, or area on which it has reason to believe that

contaminants were disposed or discharged for purposes of inspection, sampling and testing, implementing a remedial program and long-term operation and maintenance.

If you fail to do the necessary work or fail to return the Right-of-Entry form, DEC will start legal action against you to proceed with the site investigation or remediation. Legal action will include, but is not limited to, a warrant to enter your property to allow for the work. You also may be fined by DEC.

Your cooperation with the investigation and/or remediation of this site is requested. If you have any technical questions, please contact me at kyle.forster@dec.ny.gov or (518) 402-8644. For any legal questions, please contact DEC attorney, Michael Murphy, at michael.murphy1@dec.ny.gov or (518) 402-8564.

Sincerely,

Kyle Forster
Project Manager, Bureau B
Division of Environmental Remediation

Attachments:
-Right-of-Entry Form

ec: S. Quandt Sarah.Quandt@dec.ny.gov
M. Murphy michael.murphy1@dec.ny.gov

New York State Department Environmental Conservation

Property Owner Acknowledgment/Consent Form

I _____ hereby acknowledge and consent to the
Print Name

Department's right of entry for purposes of investigation activities associated with NYSDEC Spill No. 0707419 onto the premises described below:

Tax Map ID Nos.: Queens County, Block 312, Lot 279
Queens County, Block 312, Lot 280

Addresses: 3798 Railroad Avenue, Long Island City, NY 11101
38-20 Railroad Avenue, Long Island City, NY 11101

Signature _____

Date _____

Daytime Phone Number_____

Use/Disclosure of Data: The Department may conduct sampling at or near the premises to inform its investigation/remediation of the site referenced herein. Sampling data obtained by the Department is subject to disclosure under the New York State Freedom of Information Law (Article 6 of the Public Officers Law). Please note that any identifying information related to sampling from the premises, including names, addresses, and personal emails/phone numbers, will not be disclosed by the Department.

Keep This Copy for Your Records

New York State Department Environmental Conservation

Property Owner Acknowledgment/Consent Form

I _____ hereby acknowledge and consent to the
Print Name

Department's right of entry for purposes of investigation activities associated with NYSDEC Spill No. 0707419 onto the premises described below:

Tax Map ID Nos.: Queens County, Block 312, Lot 279
Queens County, Block 312, Lot 280

Addresses: 3798 Railroad Avenue, Long Island City, NY 11101
38-20 Railroad Avenue, Long Island City, NY 11101

Signature _____

Date _____

Daytime Phone Number_____

Use/Disclosure of Data: The Department may conduct sampling at or near the premises to inform its investigation/remediation of the site referenced herein. Sampling data obtained by the Department is subject to disclosure under the New York State Freedom of Information Law (Article 6 of the Public Officers Law). Please note that any identifying information related to sampling from the premises, including names, addresses, and personal emails/phone numbers, will not be disclosed by the Department.

Return This Copy to the NYSDEC in the Postage-Paid Envelope Provided

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Remediation, Remedial Bureau B
625 Broadway, 12th Floor, Albany, NY 12233-7016
P: (518) 402-9543 | F: (518) 402-9722
www.dec.ny.gov

April 15, 2024

Atten: Eric Rogan
MM Newtown Capital, LLC
C/O C.A.C Industries, LLC
54-08 Vernon Blvd
Long Island City, NY 11101
erogan@cacindinc.com

Steven Russo
Greenberg Traurig, LLP
One Vanderbilt Avenue
New York, NY 10017
steven.russo@gtlaw.com

Richard Kampf
LaBella Associates
45 Main Street, Suite 1018
Brooklyn, NY 11201
rkampf@labellapc.com

Re: Newtown Creek, Site No. 241117
Spill No. 0707419
Spill No. 2400354
38-20/37-98 Railroad Avenue
Queens Block 312, Lot 279, Lot 280
Long Island City, NY

Dear Messrs. Rogan, Russo, and Kampf:

The New York State Department of Environmental Conservation (NYSDEC) has received the April 4, 2024 Memorandum prepared by Jacob N. Warren related to Spill No. 0707419 regarding the subject property. Following review of the Memorandum and available information, Spill No. 2400354 has been opened on Queens Block 312, Lots 279 and 280. These properties have been identified as potential upland sources of contamination to Newtown Creek based on the former use of the properties and the presence of grossly impacted material previously encountered at well locations GAL-27 and GAL-28. These identified impacts are in the vicinity of historical oil refining and fuel storage as noted in the attached documentation.

As previously discussed in NYSDEC's May 5, 2023 letter, all potentially responsible parties for the Spill must be given the opportunity to perform the work themselves. MM

Newtown Capital, LLC has been identified as a potentially responsible party. As such, two options are provided:

- Perform the necessary work to the satisfaction of DEC. Please notify DEC by **5/15/2024** if you will investigate and remediate the site.

- Decline to perform the necessary work by **5/15/2024.** DEC will then do the work with its own contractor(s). If MM Newtown Capital, LLC is determined to be a discharger for this spill, MM Newtown Capital, LLC, and possibly its insurance company, will be strictly liable for cleanup and remediation costs pursuant to Navigation Law § 181(1).

The work will be on Lots 279 and 280. If MM Newtown Capital, LLC elects to have DEC do the work, please sign and return the enclosed Right-of-Entry form by **5/15/2024.**

The New York State Navigation Law authorizes DEC or its authorized agents to enter upon any site, areas near such site, or area on which it has reason to believe that contaminants were disposed or discharged for purposes of inspection, sampling and testing, implementing a remedial program and long-term operation and maintenance.

If MM Newtown Capital fails to do the necessary work or fails to return the Right-of-Entry form, NYSDEC will commence legal action to proceed with the site investigation or remediation. Legal action will include, but is not limited to, a warrant to enter the subject property to allow for the work. You also may be fined by NYSDEC.

Your cooperation with the investigation and/or remediation of this site is requested. If you have any technical questions, please contact me at (518) 402-8644 or at kyle.forster@dec.ny.gov. For any legal questions, please contact the NYSDEC attorney, Michael Murphy, at (518) 402-8564 or at michael.murphy1@dec.ny.gov.

Sincerely,

Kyle Forster
Project Manager, Bureau B

ec: S. Quandt
S. Deyette
M. Haggerty
H. Dudek
M. Murphy
Dan Noll, Cynthia Chu – LaBella
Jacob Warren, Matthew Cannon – Greenberg Traurig, LLP
J. McMurray – CAC Industries, Inc.

New York State Department Environmental Conservation

Property Owner Acknowledgment/Consent Form

I _____ hereby acknowledge and consent to the
Print Name

Department's right of entry for purposes of investigation activities associated with NYSDEC Spill No. 0707419 onto the premises described below:

Tax Map ID Nos.: Queens County, Block 312, Lot 279
Queens County, Block 312, Lot 280

Addresses: 3798 Railroad Avenue, Long Island City, NY 11101
38-20 Railroad Avenue, Long Island City, NY 11101

Signature _____

Date _____

Daytime Phone Number_____

Use/Disclosure of Data: The Department may conduct sampling at or near the premises to inform its investigation/remediation of the site referenced herein. Sampling data obtained by the Department is subject to disclosure under the New York State Freedom of Information Law (Article 6 of the Public Officers Law). Please note that any identifying information related to sampling from the premises, including names, addresses, and personal emails/phone numbers, will not be disclosed by the Department.

Keep This Copy for Your Records

New York State Department Environmental Conservation

Property Owner Acknowledgment/Consent Form

I _____ hereby acknowledge and consent to the
Print Name

Department's right of entry for purposes of investigation activities associated with NYSDEC Spill No. 0707419 onto the premises described below:

Tax Map ID Nos.: Queens County, Block 312, Lot 279
Queens County, Block 312, Lot 280

Addresses: 3798 Railroad Avenue, Long Island City, NY 11101
38-20 Railroad Avenue, Long Island City, NY 11101

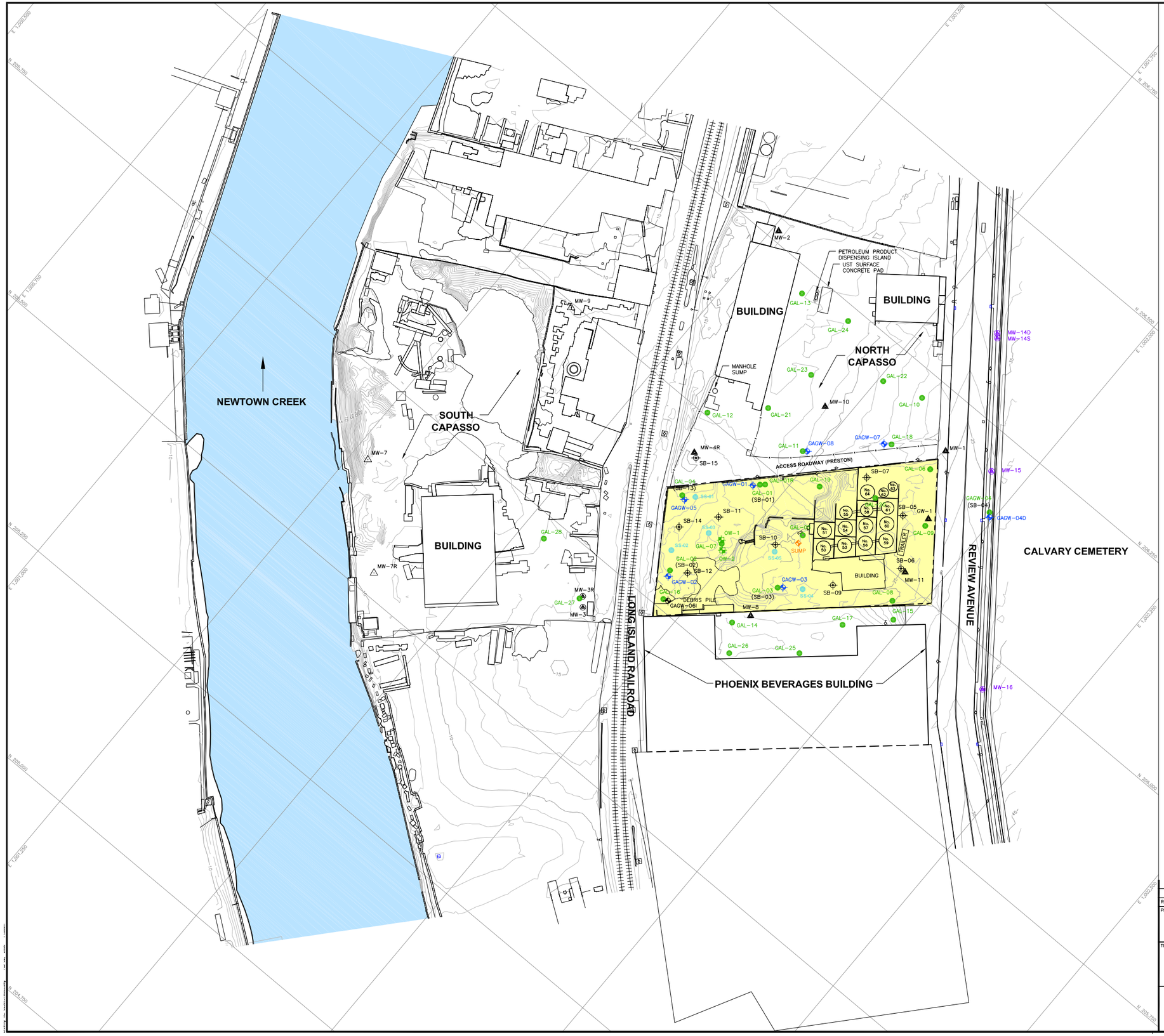
Signature _____

Date _____

Daytime Phone Number_____

Use/Disclosure of Data: The Department may conduct sampling at or near the premises to inform its investigation/remediation of the site referenced herein. Sampling data obtained by the Department is subject to disclosure under the New York State Freedom of Information Law (Article 6 of the Public Officers Law). Please note that any identifying information related to sampling from the premises, including names, addresses, and personal emails/phone numbers, will not be disclosed by the Department.

Return This Copy to the NYSDEC in the Postage-Paid Envelope Provided



LEGEND

- SURFICIAL SOIL SAMPLE LOCATIONS
- LNAPL MONITORING WELL (GOLDER ASSOCIATES 2003/2004/2005) (SEE REFERENCE 2)
- SHALLOW GROUNDWATER MONITORING WELL (GOLDER ASSOCIATES 2004) (SEE REFERENCE 2)
- DEEP GROUNDWATER MONITORING WELL (GOLDER ASSOCIATES 2003/2004) (SEE REFERENCE 2)
- SOIL BORING (GOLDER ASSOCIATES 2003/2004) (SEE REFERENCE 2)
- ROEHR CHEMICAL INVESTIGATION WELL LOCATION (NOVEMBER 2000) (SEE REFERENCE 2)
- EXISTING ON-SITE AND OFF-SITE MONITORING WELL LOCATION (SEE REFERENCE 2)
- EXISTING OFF-SITE MONITORING WELL LOCATION (LOCATION APPROXIMATE)
- SUMP (SEE REFERENCE 2)
- LNAPL PILOT TEST STUDY OBSERVATION WELL (GOLDER ASSOCIATES 2004) (SEE REFERENCE 2)
- EXISTING OFF-PROPERTY MONITORING WELL LOCATIONS (SEE REFERENCES 5 AND 6)
- EXISTING ABOVE GROUND TANK (REPORTED TO BE EMPTY AND DECONTAMINATED)
- QUANTA PROPERTY BOUNDARY (SEE REFERENCE 3)
- RAILROAD
- FENCE LINE
- 5 FOOT CONTOUR LINE (FT.-MSL)
- 1 FOOT CONTOUR LINE (FT.-MSL)

REFERENCES

1.) BASE MAP TAKEN FROM DIGITAL FILE 2148.dwg, ENTITLED TOPOGRAPHIC SURVEY OF QUANTA RESOURCES SUPERFUND SITE, LONG ISLAND CITY, NY, PROVIDED BY GEOD CORPORATION, DATED JANUARY 11, 2004.

2.) WELL COORDINATES TAKEN FROM A MICROSOFT EXCEL FILE Quanta Samples and Wells.xls, 2148A 8-23-04.xls AND 2148A 4-11-05.xls, PROVIDED BY GEOD CORP.

3.) PROPERTY BOUNDARY TAKEN FROM DIGITAL FILE 2148 Boundary.dwg, TITLED "MAP SHOWING BOUNDARY OF BLOCK 312 LOT 69", DATED APRIL 29, 2004, PROVIDED BY GEOD CORP.

4.) DEBRIS PILE BOUNDARY REVISED PER FIELD OBSERVATIONS MADE BY GOLDER ASSOCIATES PERSONNEL DURING SITE VISITS.

5.) LOCATION OF MW-9 DIGITIZED FROM HARDCOPY FIGURE TITLED "GROUNDWATER CONTOURS", PROVIDED BY HALEY & ALDRICH, DATED FEBRUARY 2004.

6.) LOCATION OF MW-7 DIGITIZED FROM HARDCOPY FIGURE TITLED "SITE PLAN WITH SITE INVESTIGATION BORING LOCATIONS", PROVIDED BY ENVIRON, DATED SEPTEMBER 2000.

50 0 50 100
SCALE FEET

REV	DATE	DES	REVISION DESCRIPTION	CADD	CHK	RVW

PROJECT

QUANTA RESOURCES SITE
REMEDIAL INVESTIGATION REPORT
QUEENS COUNTY, NEW YORK

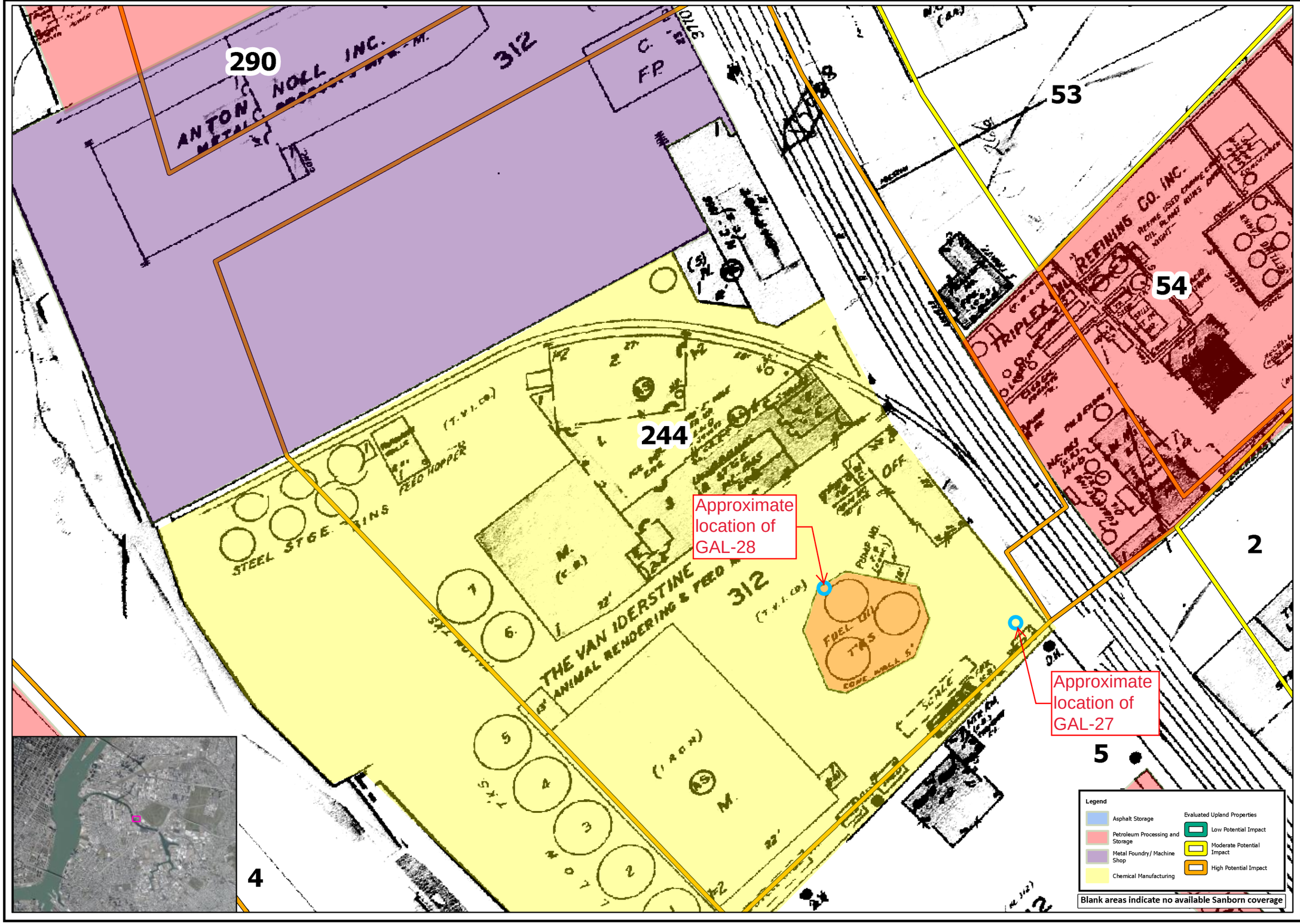
TITLE

REMEDIAL INVESTIGATION MONITORING POINTS AND VICINITY PLAN

Golder Associates
Philadelphia USA

PROJECT No.	023-6151		FILE No.	0236151M005	
DESIGN	SDM	06/02/05	SCALE	AS SHOWN	REV. 0
CADD	AM	06/20/05			
CHECK	SDM	06/20/05			
REVIEW	RSW	06/20/05			

FIGURE 5



Path: S:\Data\NNYDEC - NYSDEC\NEW YORK\NEWTOWN CREEK, NEW YORK, NY 11378\DEC1025P3\GIS\sanborn_file_maps.aprx

HRP
MOVE YOUR ENVIRONMENT FORWARD
ONE FAIRCHILD SQUARE
SUITE 110
CLIFTON PARK, NY 12065
(518) 877-7101
HRPASSOCIATES.COM

North

0 30 60 Feet

Revisions					
No.					
Date					

Designed By:	Drawn By:	Reviewed By:
CMS	CMS	JRK

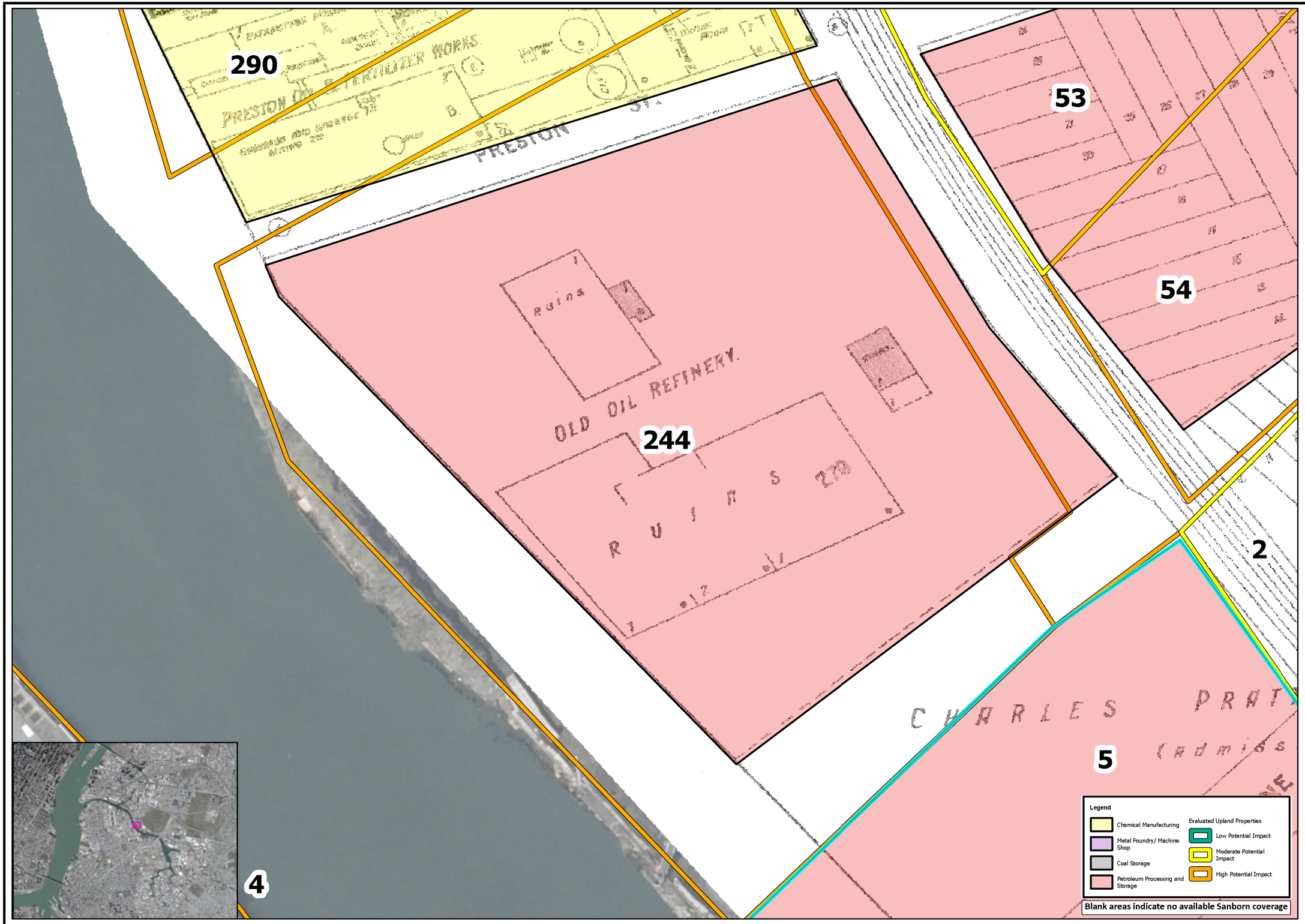
Issue Date:	Project No:	Sheet Size:
4/28/2023	DEC1025.P3	11x17

Sanborn Features
1977-1978

Evaluted Property ID: No .244

Newtown Creek
Site #241117
City of New York, New York

App B.



Path: S:\Data\NNYDEC - NYSDEC\NEW YORK\NEWTOWN CREEK, NEW YORK, NY 11378\DEC1025P3\GIS\sanborn_file_maps.aprx

HRP
MOVE YOUR ENVIRONMENT FORWARD
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SUITE 110
CLIFTON PARK, NY 12065
(518) 877-7101
HRPASSOCIATES.COM

North

0 30 60
Feet

Revisions					
No.					
Date					

Designed By:	Drawn By:	Reviewed By:
CMS	CMS	JRK

Issue Date:	Project No:	Sheet Size:
4/28/2023	DEC1025.P3	11x17

Sanborn Features
1887-1898

Evaluted Property ID: No .244

Newtown Creek
Site #241117
City of New York, New York

TABLE 12E
SUMMARY OF TOTAL PETROLEUM HYDROCARBON DETECTIONS - METHOD 418.1
SOIL SAMPLE ANALYSES
QUANTA RESOURCES SITE
37-80 REVIEW AVENUE
LONG ISLAND CITY, NEW YORK

GAGW-04	GAGW-04 TPH CONCENTRATION VS. DEPTH																					
DEPTH - FT. - BGS	2	6	12	18	22	26	30															
CONCENTRATION, MG/KG	112	0.0	0.0	64.5	26,800	22,700	7,320															
GAL-18/GAGW-07	GAL-18/GAGW-07 TPH CONCENTRATION VS. DEPTH																					
DEPTH - FT. - BGS	7	11	15	16	18	21	23	26	31	33												
CONCENTRATION, MG/KG	10,500	10,700	13,900	9,690	32,100	24,700	25,900	25,900	12,700	9,590												
GAL-19	GAL-19 TPH CONCENTRATION VS. DEPTH																					
DEPTH - FT. - BGS	17	19	23	25	27	31	33	35														
CONCENTRATION, MG/KG	5,170	10,700	45,600	35,000	32,200	14,400	21,400	17,500														
GAL-20	GAL-20 TPH CONCENTRATION VS. DEPTH																					
DEPTH - FT. - BGS	15	17	20	22	25																	
CONCENTRATION, MG/KG	18,400	12,400	4,180	17,200	61,100																	
GAL-21	GAL-21 TPH CONCENTRATION VS. DEPTH																					
DEPTH - FT. - BGS	6	9	11	13	15	17	19	21	23	27	33											
CONCENTRATION, MG/KG	3,060	2,760	57	1,390	70,700	98,900	49,900	26,600	5,790	10,200	8,660											
GAL-22	GAL-22 TPH CONCENTRATION VS. DEPTH																					
DEPTH - FT. - BGS	7	8	11	14	17	19	23	25	29	31												
CONCENTRATION, MG/KG	5,520	29,100	8,240	6,510	10,700	52,200	21,000	22,900	22,100	27,300												
GAL-23	GAL-23 TPH CONCENTRATION VS. DEPTH																					
DEPTH - FT. - BGS	9	11	13	14	17	19	21	25	26													
CONCENTRATION, MG/KG	1,630	8,720	11,600	23,400	22,900	28,300	21,400	15,100	13,000													
GAL-24	GAL-24 TPH CONCENTRATION VS. DEPTH																					
DEPTH - FT. - BGS	7	9	12	14	16	19	21	26	30													
CONCENTRATION, MG/KG	6,060	10,700	32	467	29,100	10,600	7,810	5,220	14,200													
GAL-25	GAL-25 TPH CONCENTRATION VS. DEPTH																					
DEPTH - FT. - BGS	7	9	11	15	17	19	22	25	29	31												
CONCENTRATION, MG/KG	6,550	11,700	8,670	26,000	39,100	49,900	14,200	27,500	20,200	23,300												
GAL-26	GAL-26 TPH CONCENTRATION VS. DEPTH																					
DEPTH - FT. - BGS	10	12	14	16	18	22	26	30	32													
CONCENTRATION, MG/KG	14,800	16,300	15,800	68,100	30,100	13,700	25,900	22,700	18,600													
GAL-27	GAL-27 TPH CONCENTRATION VS. DEPTH																					
DEPTH - FT. - BGS	10	14	16	18	20	24	26															
CONCENTRATION, MG/KG	13,400	717	63	117	32	76	0															
GAL-28	GAL-28 TPH CONCENTRATION VS. DEPTH																					
DEPTH - FT. - BGS	10	12	14	16	18	20	23	25														
CONCENTRATION, MG/KG	39,300	35,600	3,620	4,350	4,890	469	367	849														

RECORD OF BOREHOLE GAL-27

SHEET 1 of 2

PROJECT: Quanta
PROJECT NUMBER: 023-6151
DRILLED DEPTH: 26.0 ft
AZIMUTH: N/A
LOCATION: South Capasso Property

DRILL METHOD: Hollow-stem auger
DRILL RIG: Mobile B-58
DATE STARTED: 2/25/05
DATE COMPLETED: 2/25/05
WEATHER: P. Sunny

DATUM: Local
COORDS: N: 205,688.4 E: 1,001,626.4
GS ELEVATION: 13.0 ft
TOC ELEVATION: 12.5 ft
TEMPERATURE: 38-40 F

INCLINATION: -90
DEPTH W.L.:
ELEVATION W.L.:
DATE W.L.:
TIME W.L.:

DEPTH (ft)	ELEVATION (ft)	DESCRIPTION	USCS	GRAPHIC LOG	ELEV. / DEPTH (ft)	TYPE	BLOWS per 6 in	REC / ATT	PID per 6" (ppm)	Sample Interval	Laboratory Sample ID / Date/Time Collected	Analyses	Peak PID Reading per SS (ppm) 100 >200	MONITORING WELL / PIEZOMETER DIAGRAM and NOTES	WELL CONSTRUCTION DETAILS
0		0.0 - 0.5 CONCRETE AND ASPHALT.	CONC		12.5									0-1' cement grout / and concrete pad	WELL CASING Interval: 0-5 ft bgs Material: Sch 40 PVC Diameter: 4 inch Joint Type: Threaded
		0.5 - 8.0 Fragmented brick and rock FILL.	FILL		0.5									#00 Choker Sand – 1-2 ft bgs	WELL SCREEN Interval: 5-20 ft bgs Material: Sch 40 PVC Diameter: 4 inch Slot Size: 0.020 End Cap: Threaded
10															FILTER PACK Interval: 2-26 ft bgs Type: #2 Sand Quantity: 6X100 lb
5					5.0										FILTER PACK SEAL Interval: 1-2 ft bgs Type: #00 Sand Quantity: 1x50 lb
															ANNULUS SEAL Interval: 0-1 ft bgs Type: Cement Grout Quantity:
5		8.0 - 11.0 Black stained, very loose, very fine to fine SAND, trace fines, saturated @ 8 ft bgs, strong odor.	SP		8.0	SS	1 1 1 1	0.4 / 2.0	156						BOREHOLE DIAMETER: 10.5"
10					2.0	SS	1 0 1 0	1.8 / 2.0	54 38 5						
		11.0 - 13.0 Lt brown, very soft SANDY SILT, trace fines, slight odor.	SM		11.0									#2 Sand Filter pack 2-26 ft bgs 0.020" Slot Screen / 5-20 ft bgs	
0					0.0	SS	0 1 1 1	0.6 / 2.0	2.9 2						
		13.0 - 16.0 Lt brown, very soft, very fine SANDY SILT, trace coarse gravel, slight odor.	SM		13.0										
15					-3.0	SS	3 1 3 1	1.5 / 2.0	0.7 0.6 0.6						
		16.0 - 18.0 Lt bown, very loose, very fine SANDY SILT.	SM		16.0	SS	1 0 1 1	2.0 / 2.0	0.0 0.0 0.0						
-5					-5.0										
		18.0 - 20.0 Brown, very soft SILTY CLAY, little timber fragments.	CL-ML		18.0	SS	1 2 2 1	2.0 / 2.0	0.0 0.0 0.0						
20					-7.0										

Log continued on next page

LOG SCALE: 1 in to 3 ft
DRILLING COMPANY: Ameridrill
DRILLER: Andre Boutoille

GA INSPECTOR: JLH
CHECKED BY: SDM
DATE: 6/8/05

Golder Associates

RECORD OF BOREHOLE GAL-27

SHEET 2 of 2

PROJECT: Quanta
PROJECT NUMBER: 023-6151
DRILLED DEPTH: 26.0 ft
AZIMUTH: N/A
LOCATION: South Capasso Property

DRILL METHOD: Hollow-stem auger
DRILL RIG: Mobile B-58
DATE STARTED: 2/25/05
DATE COMPLETED: 2/25/05
WEATHER: P. Sunny

DATUM: Local
COORDS: N: 205,688.4 E: 1,001,626.4
GS ELEVATION: 13.0 ft
TOC ELEVATION: 12.5 ft
TEMPERATURE: 38-40 F

INCLINATION: -90
DEPTH W.L.:
ELEVATION W.L.:
DATE W.L.:
TIME W.L.:

DEPTH (ft)	ELEVATION (ft)	DESCRIPTION	USCS	GRAPHIC LOG	ELEV. / DEPTH (ft)	TYPE	BLOWS per 6 in	REC / ATT	PID per 6" (ppm)	Sample Interval	Laboratory Sample ID / Date/Time Collected	Analyses	Peak PID Reading per SS (ppm)	MONITORING WELL / PIEZOMETER DIAGRAM and NOTES	WELL CONSTRUCTION DETAILS
20		20.0 - 24.0 Brown, compact very fine SANDY CLAY, slight odor.	CLS		20.0	SS	1 1 1 1	0.5 2.0	0.0						
						SS	7 9 9 12	2.0 2.0	1.0 0.5 0.0						
-10					-11.0										
		24.0 - 26.0 Gray-brown, very fine to fine SAND, with varve-like features.	SP		24.0	SS	6 7 8 8	2.0 2.0	0.0 0.0 0.0						
25					-13.0										
		Boring completed at 26.0 ft													
-15															
30															
-20															
35															
-25															
40															

WELL CASING
Interval: 0-5 ft bgs
Material: Sch 40 PVC
Diameter: 4 inch
Joint Type: Threaded

WELL SCREEN
Interval: 5-20 ft bgs
Material: Sch 40 PVC
Diameter: 4 inch
Slot Size: 0.020
End Cap: Threaded

FILTER PACK
Interval: 2-26 ft bgs
Type: #2 Sand
Quantity: 6X100 lb

FILTER PACK SEAL
Interval: 1-2 ft bgs
Type: #00 Sand
Quantity: 1x50 lb

ANNULUS SEAL
Interval: 0-1 ft bgs
Type: Cement Grout
Quantity:

BOREHOLE
DIAMETER: 10.5"

LOG SCALE: 1 in to 3 ft
DRILLING COMPANY: Ameridrill
DRILLER: Andre Boutoille

GA INSPECTOR: JLH
CHECKED BY: SDM
DATE: 6/8/05

Golder Associates

QUANTA SOIL BOR QUANTA-1.GPJ GOLDER NJ-PA.GDT 6/8/05

RECORD OF BOREHOLE GAL-28

SHEET 1 of 2

PROJECT: Quanta
PROJECT NUMBER: 023-6151
DRILLED DEPTH: 26.0 ft
AZIMUTH: N/A
LOCATION: South Capasso Property

DRILL METHOD: Hollow-stem auger
DRILL RIG: Mobile B-58
DATE STARTED: 2/28/05
DATE COMPLETED: 2/28/05
WEATHER: Overcast

DATUM: Local
COORDS: N: 205,720.5 E: 1,001,534.0
GS ELEVATION: 12.5 ft
TOC ELEVATION: 12.4 ft
TEMPERATURE: 30-35 F

INCLINATION: -90
DEPTH W.L.:
ELEVATION W.L.:
DATE W.L.:
TIME W.L.:

DEPTH (ft)	ELEVATION (ft)	DESCRIPTION	USCS	GRAPHIC LOG	ELEV. / DEPTH (ft)	TYPE	BLOWS per 6 in	REC / ATT	PID per 6" (ppm)	Sample interval	Laboratory Sample ID / Date/Time Collected	Analyses	Peak PID Reading per SS (ppm)	MONITORING WELL / PIEZOMETER DIAGRAM and NOTES	WELL CONSTRUCTION DETAILS
0		0.0 - 0.5 CONCRETE AND ASPHALT.	CONC		12.0									Cement Grout – 0-10' #00 Choker Sand – 1-2 ft bgs	WELL CASING Interval: 0-5 ft bgs Material: Sch 40 PVC Diameter: 4 inch Joint Type: Threaded WELL SCREEN Interval: 5-20 ft bgs Material: Sch 40 PVC Diameter: 4 inch Slot Size: 0.020 End Cap: Threaded FILTER PACK Interval: 2-26 ft bgs Type: #2 Sand Quantity: 6X100 lb FILTER PACK SEAL Interval: 1-2 ft bgs Type: #00 Sand Quantity: 1x50 lb ANNULUS SEAL Interval: 0-1 ft bgs Type: Cement Grout Quantity: BOREHOLE DIAMETER: 10.5"
		0.5 - 8.0 Fragmented brick and rock FILL.	FILL		0.5										
10	10				4.5										
		8.0 - 11.0 Saturated, black stained very loose SILT and very fine SAND, little fine gravel, strong odor	SM		8.0	SS	1 1 1 1	0.6 2.0	285						
5	5				1.5	SS	1 1 1 0	0.8 2.0	35 7					#2 Sand Filter pack 2-26 ft bgs 0.020 (4 inch PVC) Slot Screen 8-28 bgs ft bgs	
		11.0 - 13.0 Saturated, gray-brown, very loose SILTY fine SAND, slight to moderate odor.	SM		11.0										
10	0				-0.5	SS	1 0 1 0	1.7 2.0	6.5 5.3 5.6						
		13.0 - 15.0 Saturated, lt brown, very soft very fine SANDY SILT, trace fines and fine gravel, slight odor.	SM		13.0										
15	-5				-2.5	SS	1 1 1 0	0.3 2.0	3.3						
		15.0 - 18.0 Saturated, lt brown, very loose SILTY very fine SAND, trace fine rounded gravel, slight odor.	SM		15.0										
20	-10				-5.5	SS	1 0 1 1	0.4 2.0	1.6						
		18.0 - 22.0 Saturated, tan-brown, very loose very fine to fine SAND, trace fines and fine subangular gravel.	SP		18.0	SS	1 1 1 1	1.3 2.0	1.1 0.8						

Log continued on next page

LOG SCALE: 1 in to 3 ft
DRILLING COMPANY: Ameridrill
DRILLER: Andre Boutoille

GA INSPECTOR: JLH
CHECKED BY: SDM
DATE: 6/8/05

Golder Associates

RECORD OF BOREHOLE GAL-28

SHEET 2 of 2

PROJECT: Quanta
PROJECT NUMBER: 023-6151
DRILLED DEPTH: 26.0 ft
AZIMUTH: N/A
LOCATION: South Capasso Property

DRILL METHOD: Hollow-stem auger
DRILL RIG: Mobile B-58
DATE STARTED: 2/28/05
DATE COMPLETED: 2/28/05
WEATHER: Overcast

DATUM: Local
COORDS: N: 205,720.5 E: 1,001,534.0
GS ELEVATION: 12.5 ft
TOC ELEVATION: 12.4 ft
TEMPERATURE: 30-35 F

INCLINATION: -90
DEPTH W.L.:
ELEVATION W.L.:
DATE W.L.:
TIME W.L.:

DEPTH (ft)	ELEVATION (ft)	DESCRIPTION	USCS	GRAPHIC LOG	ELEV. / DEPTH (ft)	TYPE	BLOWS per 6 in	REC / ATT	PID per 6" (ppm)	Sample interval	Laboratory Sample ID / Date/Time Collected	Analyses	Peak PID Reading per SS (ppm) 100 >200	MONITORING WELL / PIEZOMETER DIAGRAM and NOTES	WELL CONSTRUCTION DETAILS
20		18.0 - 22.0 Saturated, tan-brown, very loose very fine to fine SAND, trace fines and fine subangular gravel. *(Continued)*	SP		-9.5	SS	1 0 1 0	0.1 / 2.0	0.1						
	-10	22.0 - 23.0 Saturated, gray, very loose fine to medium SAND, slight odor.	SP		22.0 -10.5	SS	1 2 1 2	2.0 / 2.0	3.2 0.0 0.0						
		23.0 - 25.5 Saturated, dark gray, very soft CLAY, trace very fine sand.	CL		23.0	SS	3 3 4 6	2.0 / 2.0	0.0 0.0 0.0						
25		25.5 - 26.0 Gray-brown very fine SAND, trace fines.	SP		-13.0 25.5 -13.5										
		Boring completed at 26.0 ft													
	-15														
30															
	-20														
35															
	-25														
40															

WELL CASING
Interval: 0-5 ft bgs
Material: Sch 40 PVC
Diameter: 4 inch
Joint Type: Threaded

WELL SCREEN
Interval: 5-20 ft bgs
Material: Sch 40 PVC
Diameter: 4 inch
Slot Size: 0.020
End Cap: Threaded

FILTER PACK
Interval: 2-26 ft bgs
Type: #2 Sand
Quantity: 6X100 lb

FILTER PACK SEAL
Interval: 1-2 ft bgs
Type: #00 Sand
Quantity: 1x50 lb

ANNULUS SEAL
Interval: 0-1 ft bgs
Type: Cement Grout
Quantity:

BOREHOLE DIAMETER: 10.5"

LOG SCALE: 1 in to 3 ft
DRILLING COMPANY: Ameridrill
DRILLER: Andre Boutoille

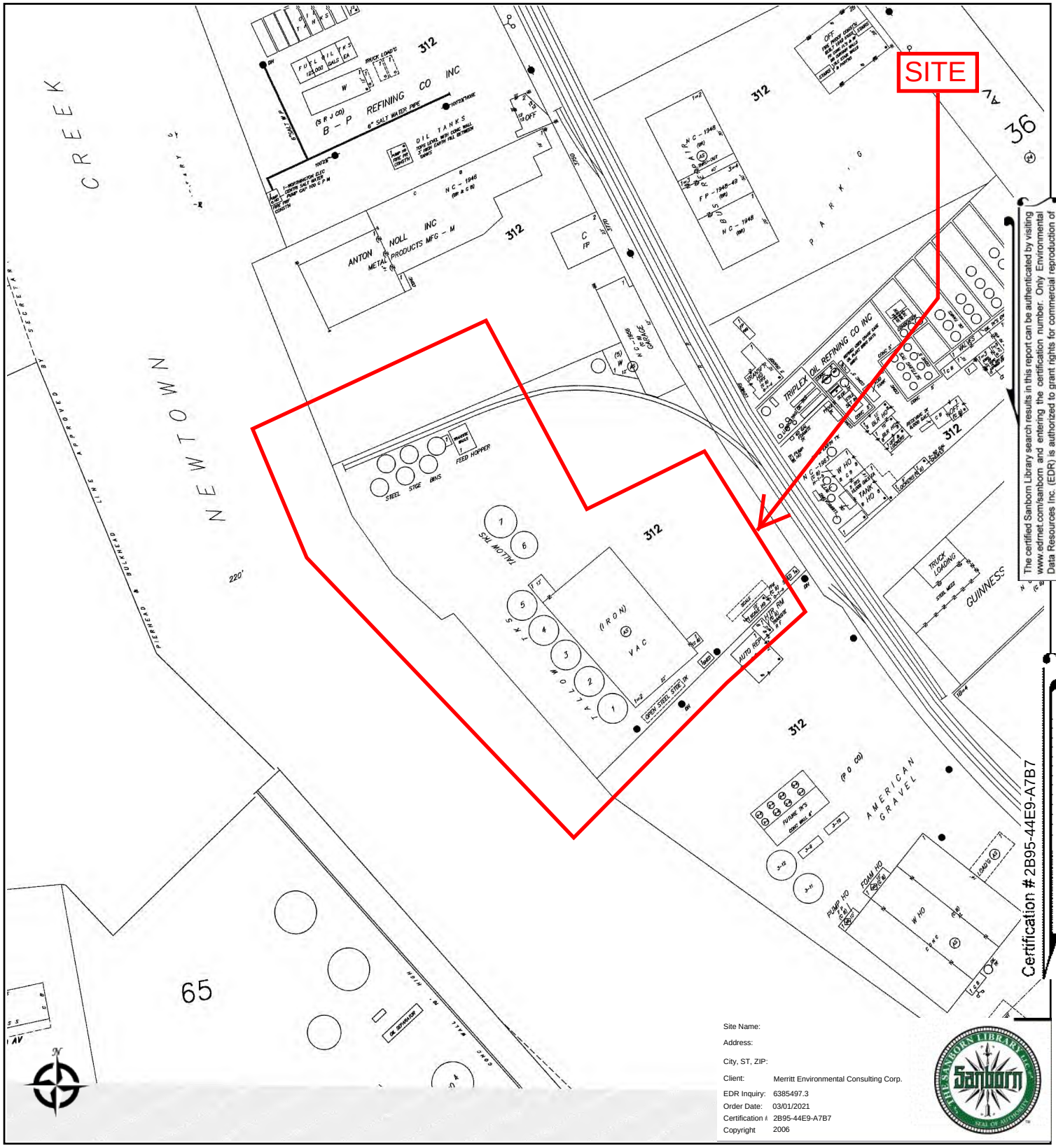
GA INSPECTOR: JLH
CHECKED BY: SDM
DATE: 6/8/05

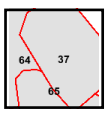
Golder Associates

QUANTA SOIL BOF QUANTA-1.GPJ GOLDER NJ-PA.GDT 6/8/05

APPENDIX B

Sanborn Maps





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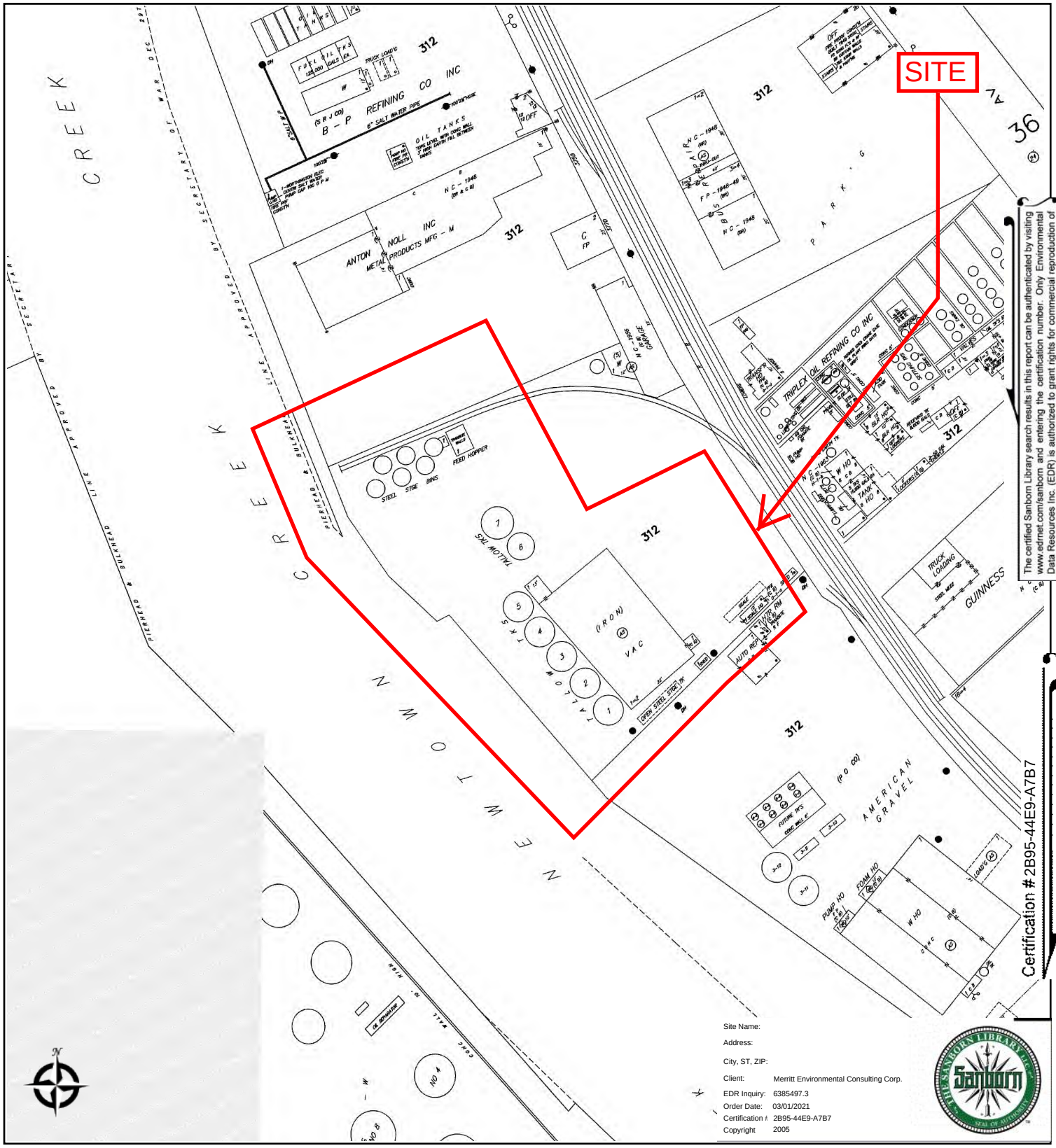
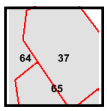
Volume 4, Sheet 64

0 Feet 150 300 600

2006 SANBORN MAP





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Volume 4, Sheet 64
Volume 1, Sheet 37

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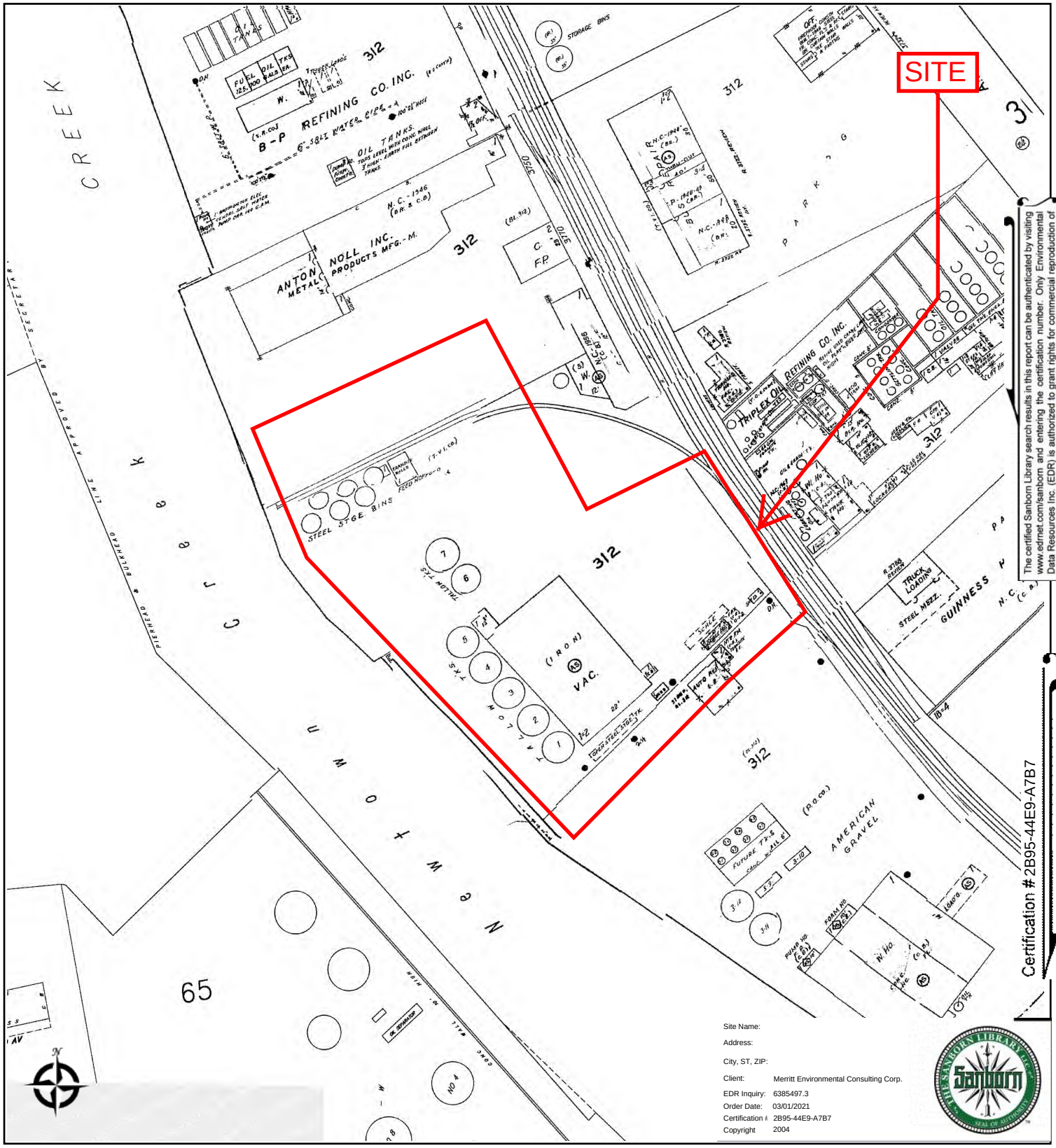
2005 SANBORN MAP

Certified Sanborn® Map

2004



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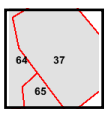
EDR Inquiry: 6385497.3
Order Date: 03/01/2021
Certification #: 2B95-44E9-A7B7
Copyright 2004



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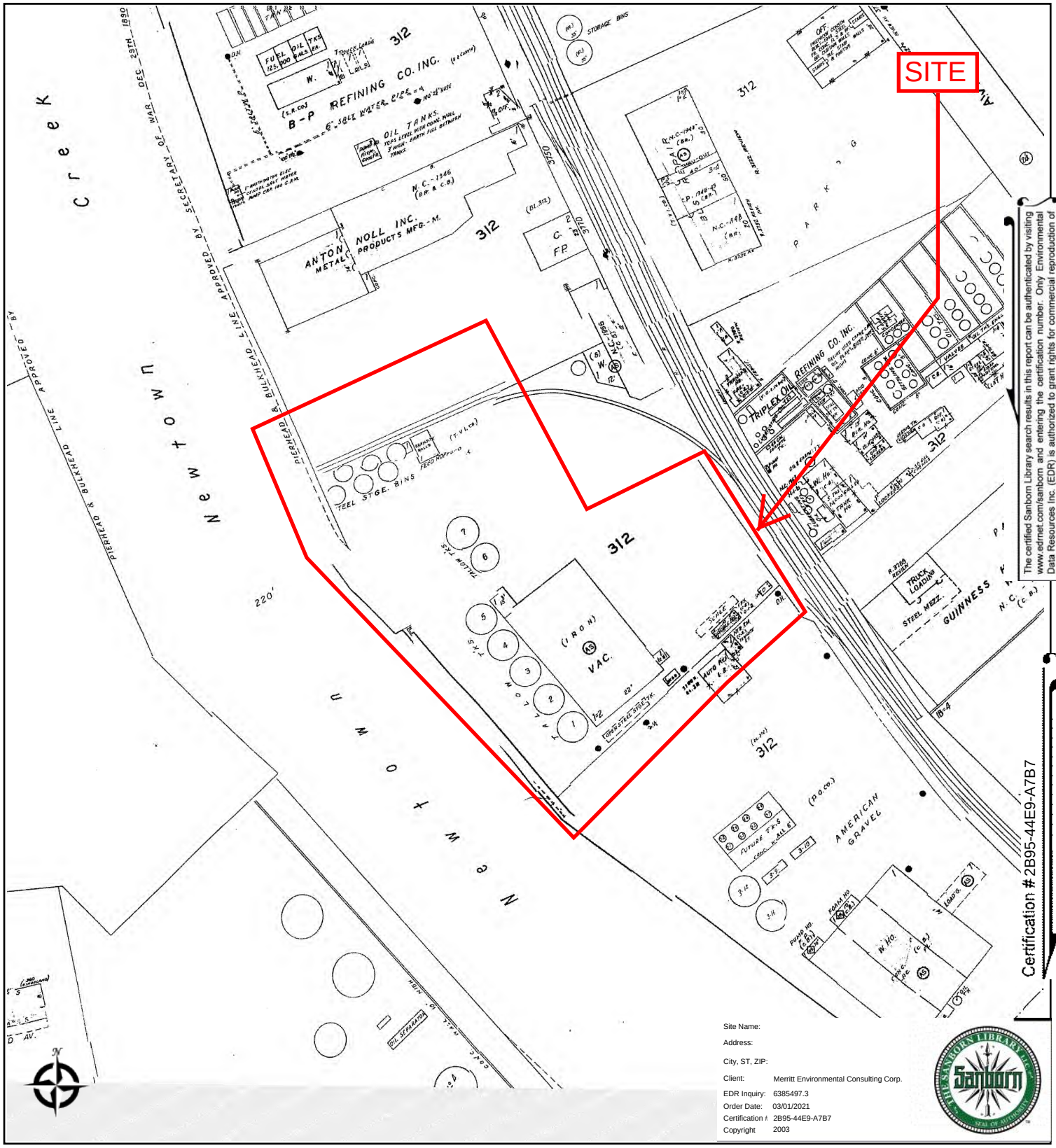

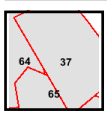

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Volume 1, Sheet 37

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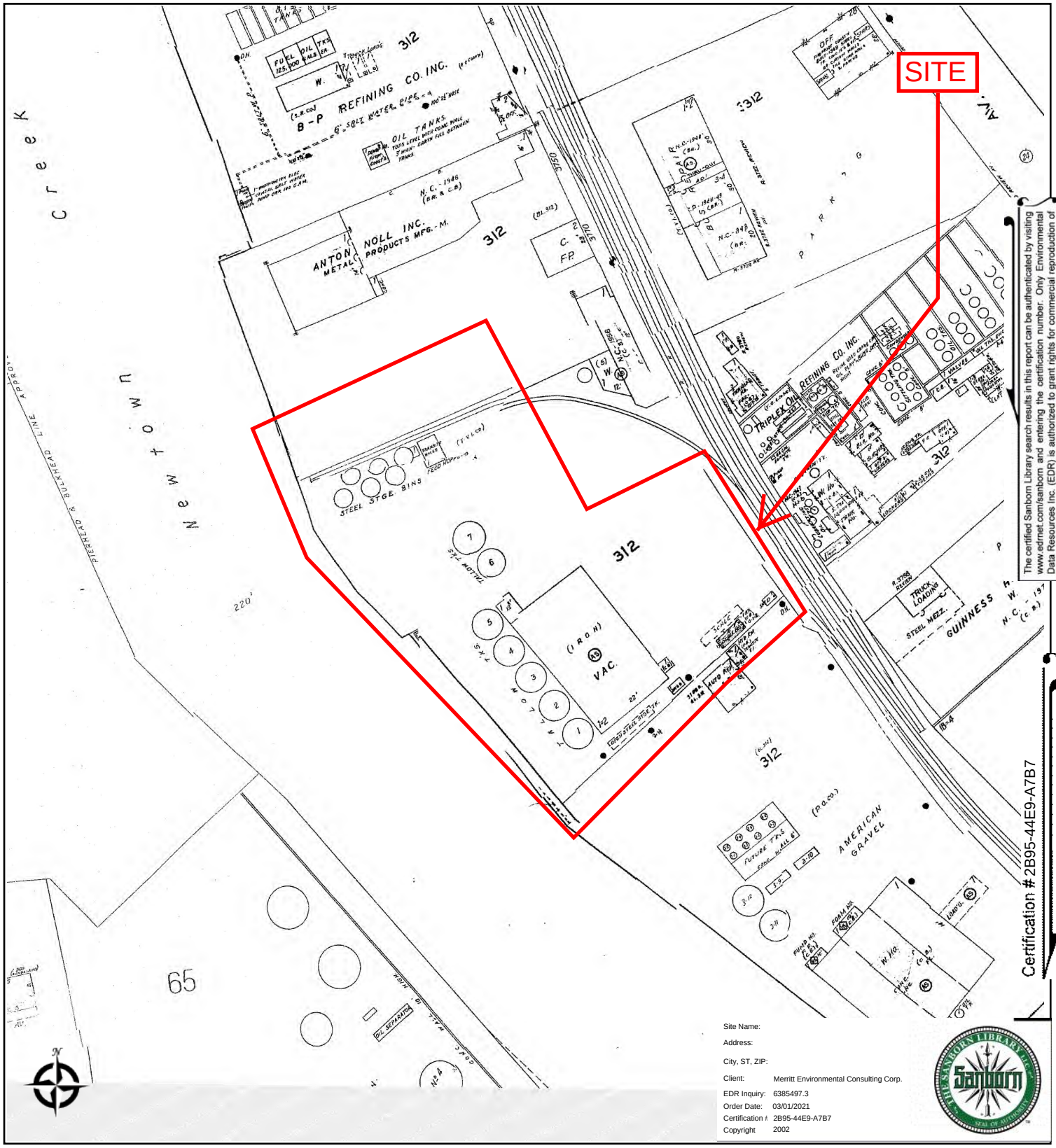

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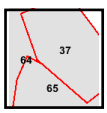

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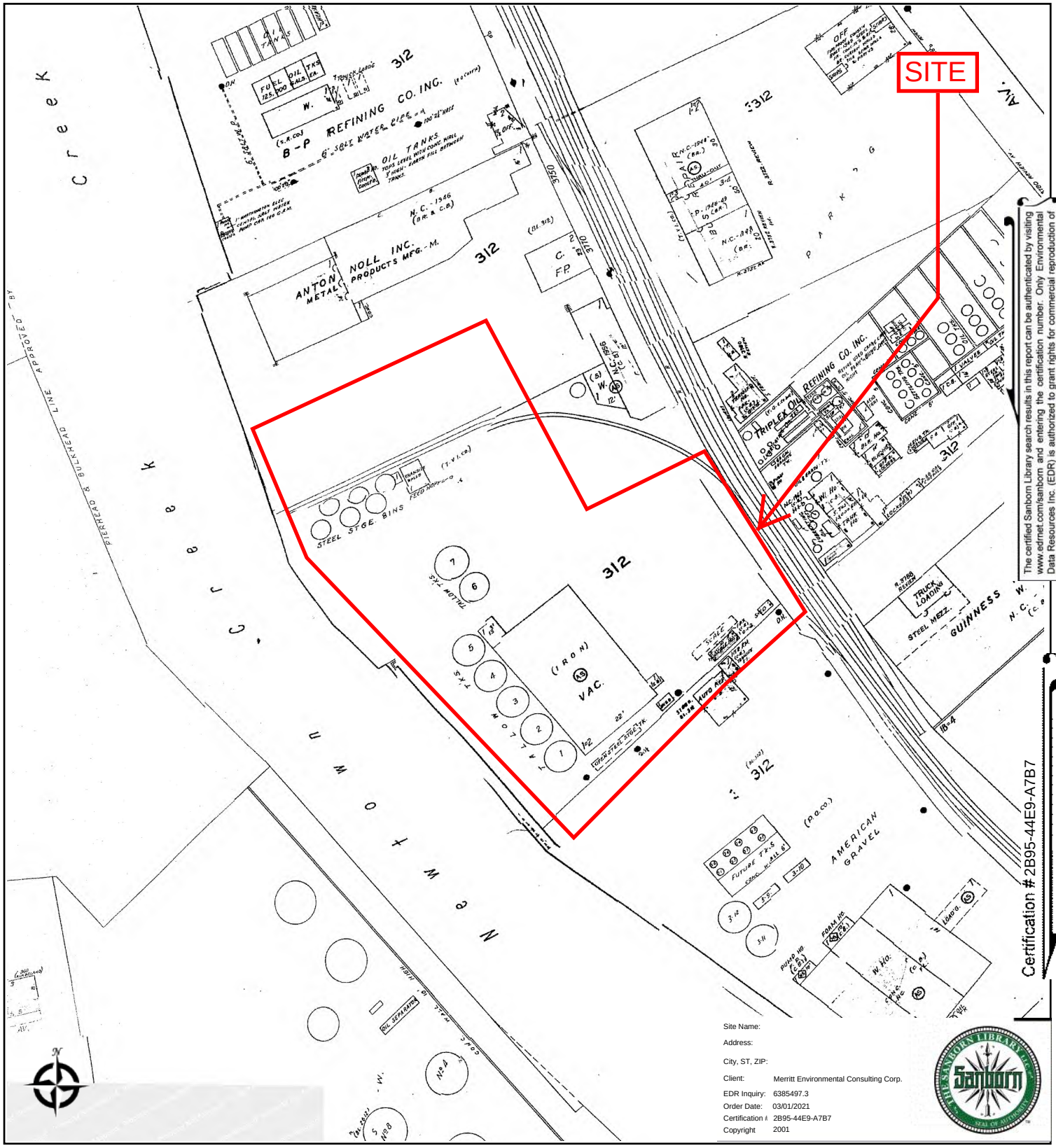

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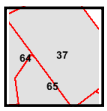

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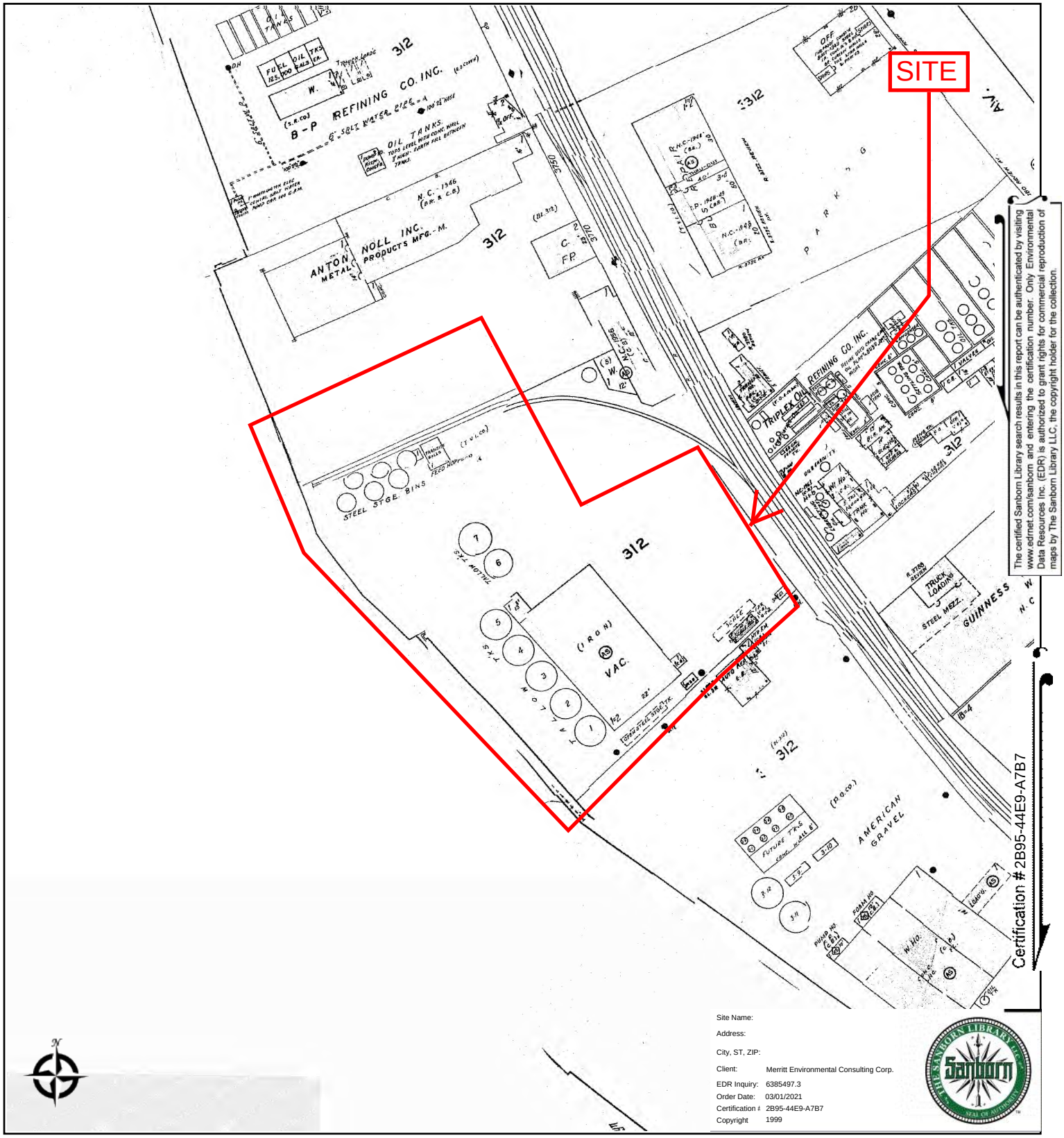

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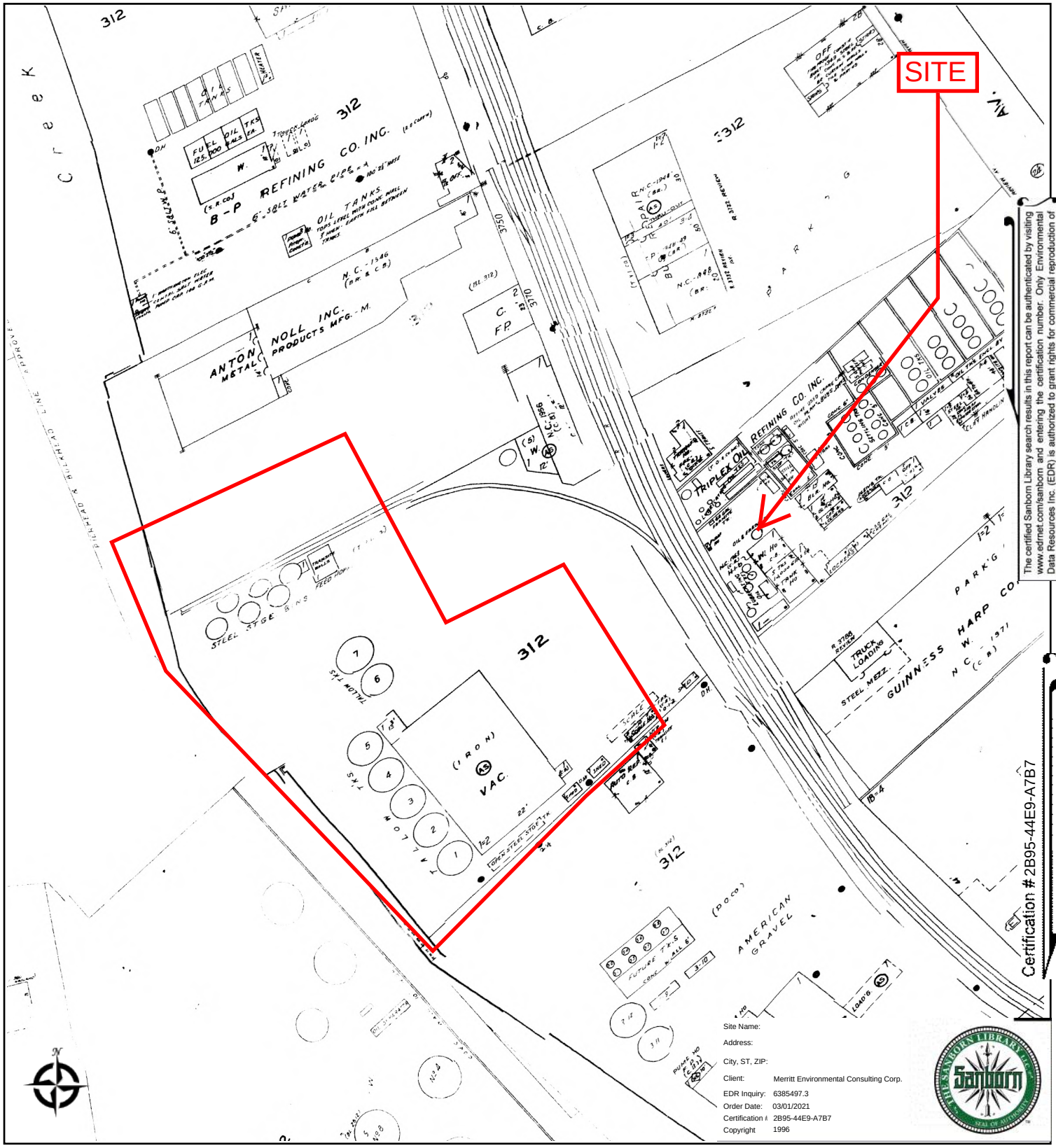

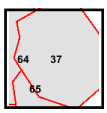

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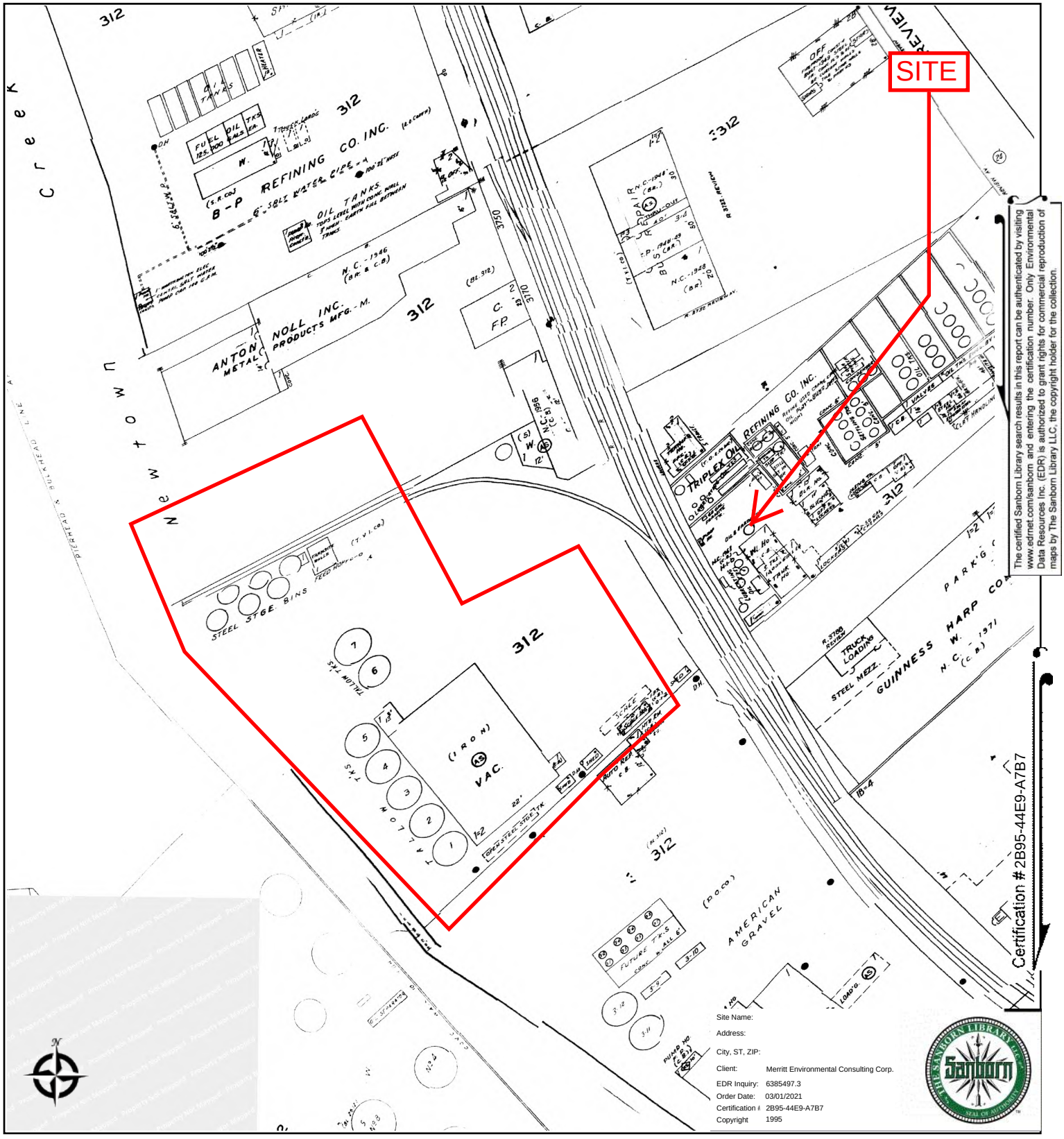

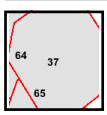

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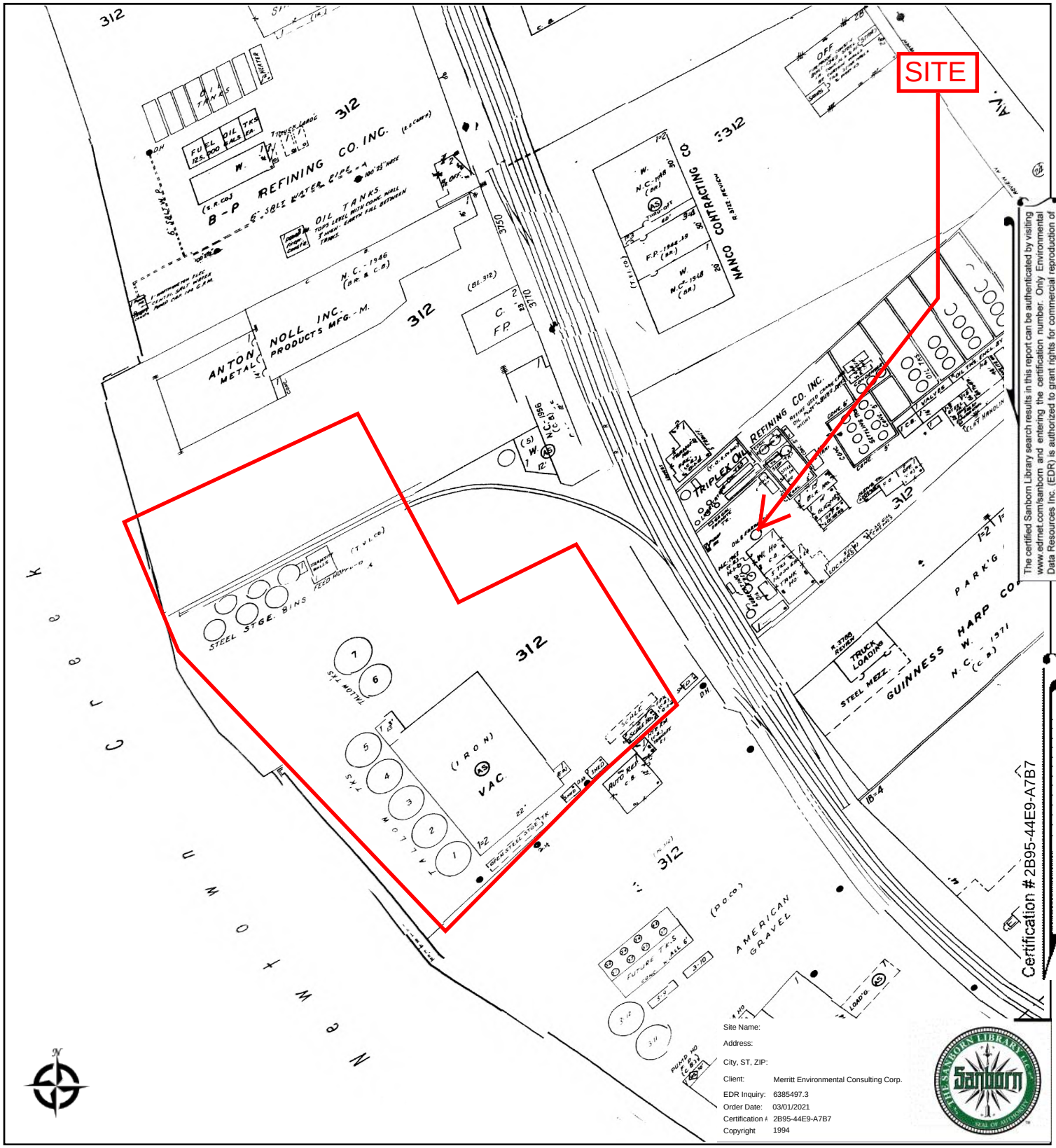

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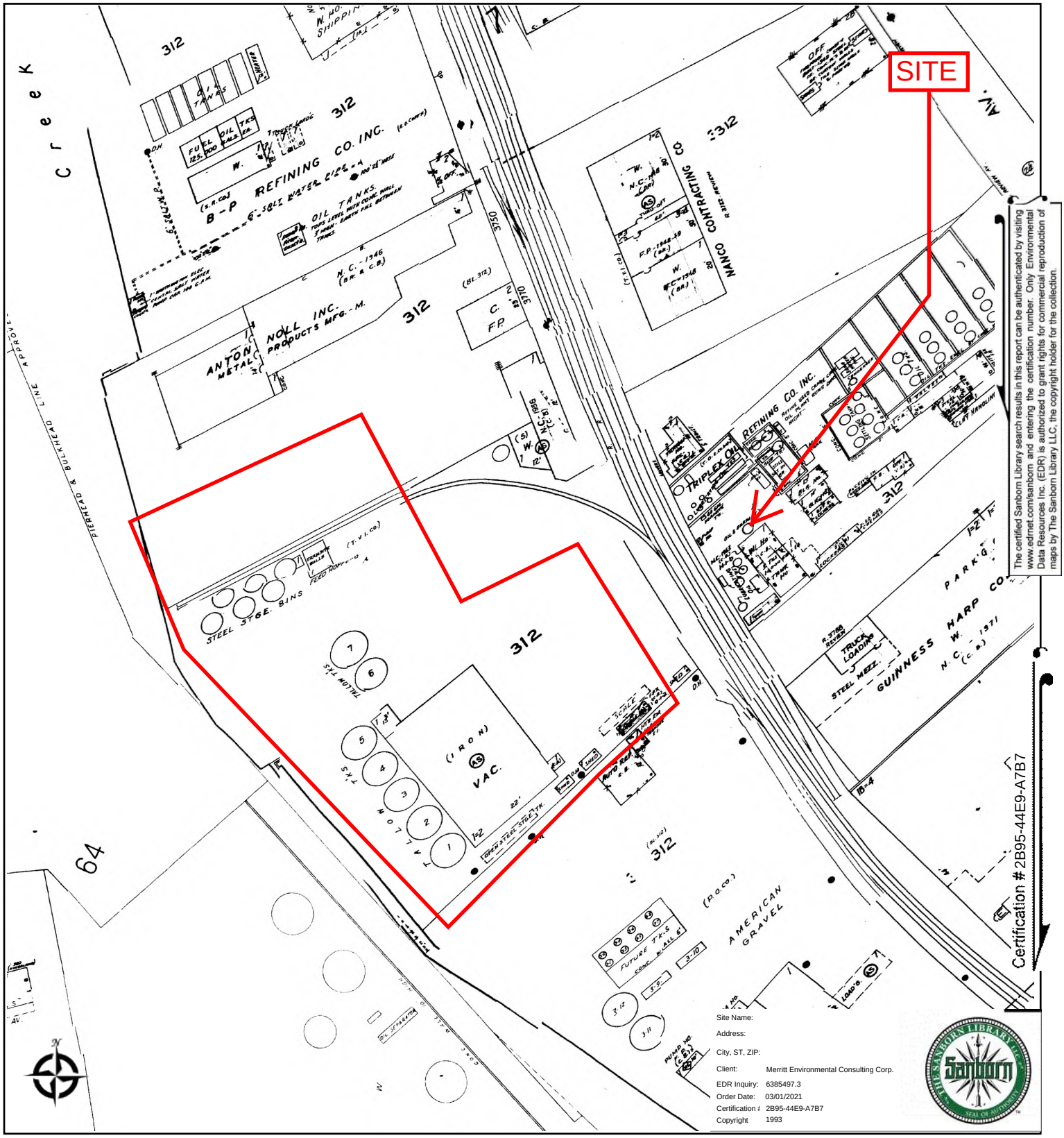

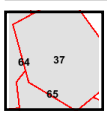

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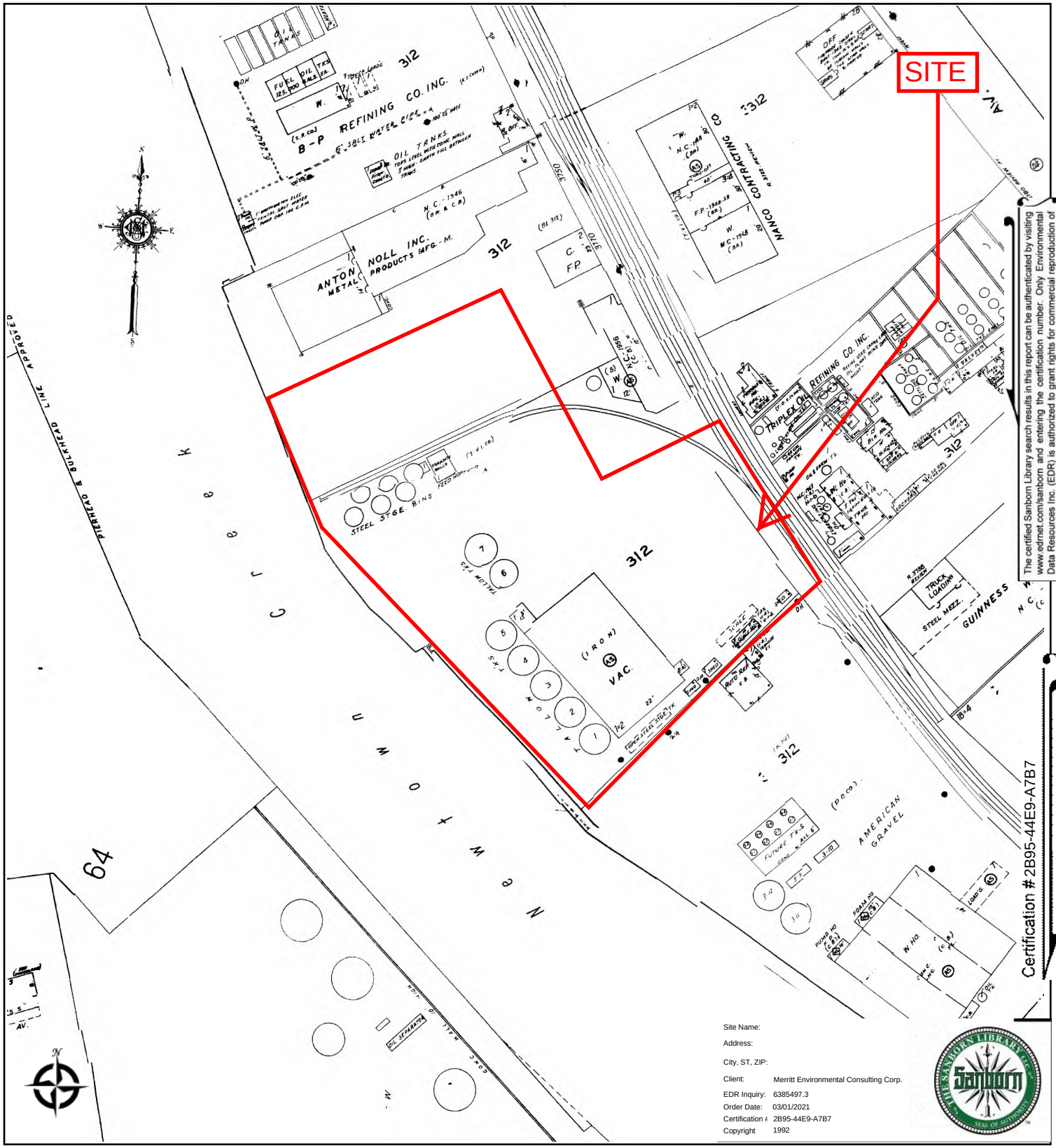
1993 SANBORN MAP



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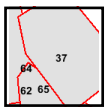

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Volume 4, Sheet 62
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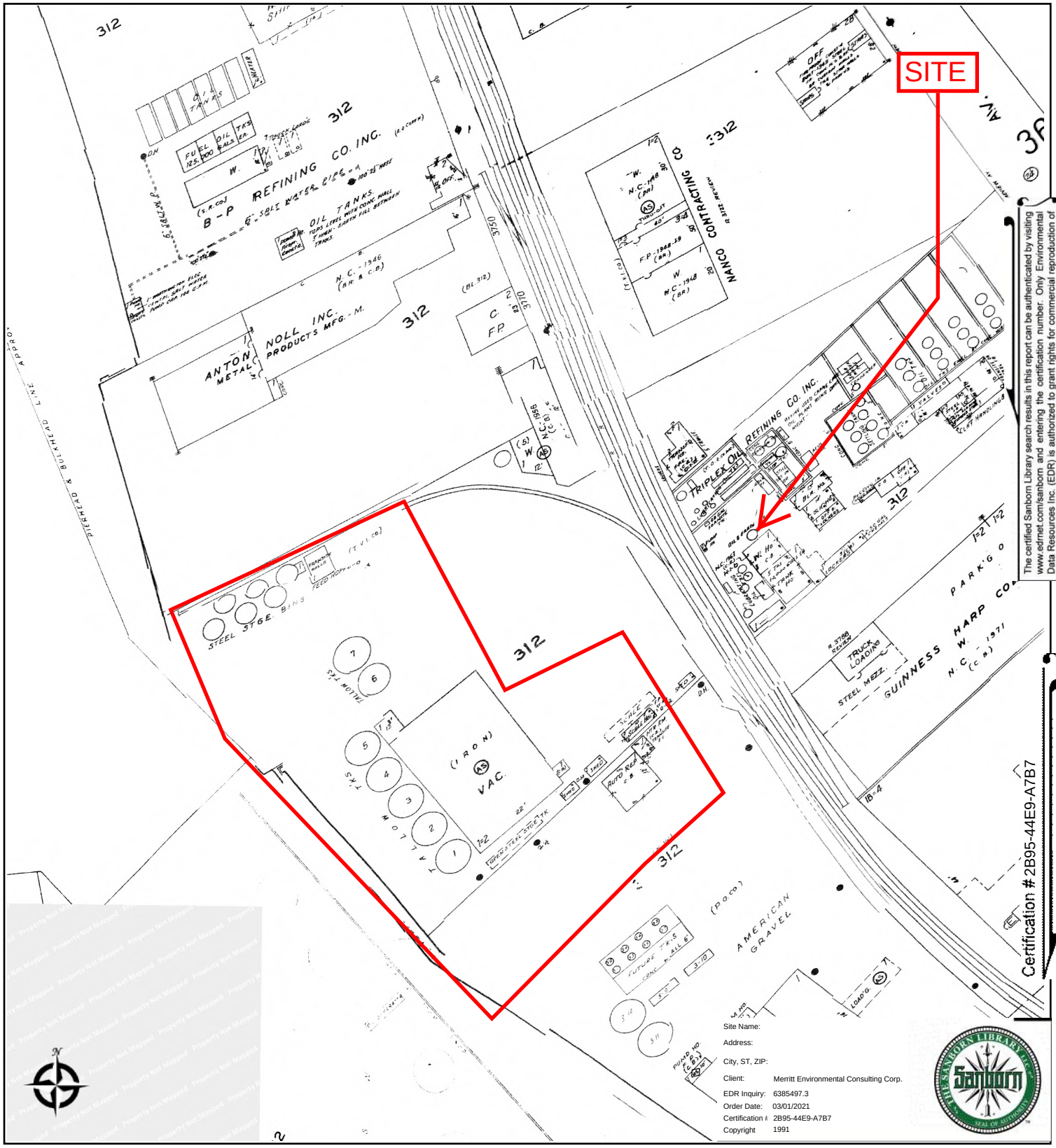
1992 SANBORN MAP



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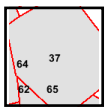

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Volume 4, Sheet 62

0 Feet 150 300 600

1991 SANBORN MAP

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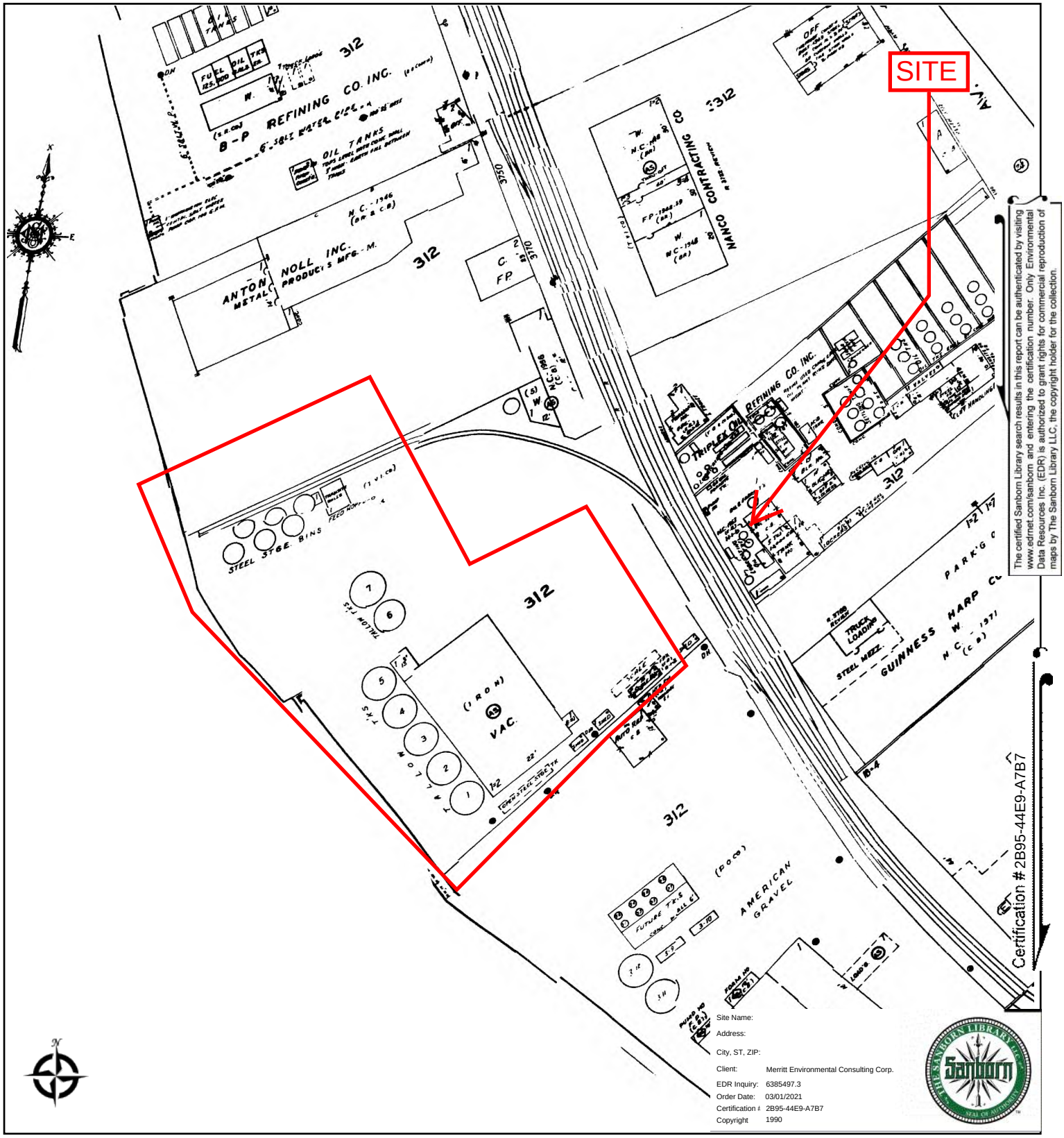
1990



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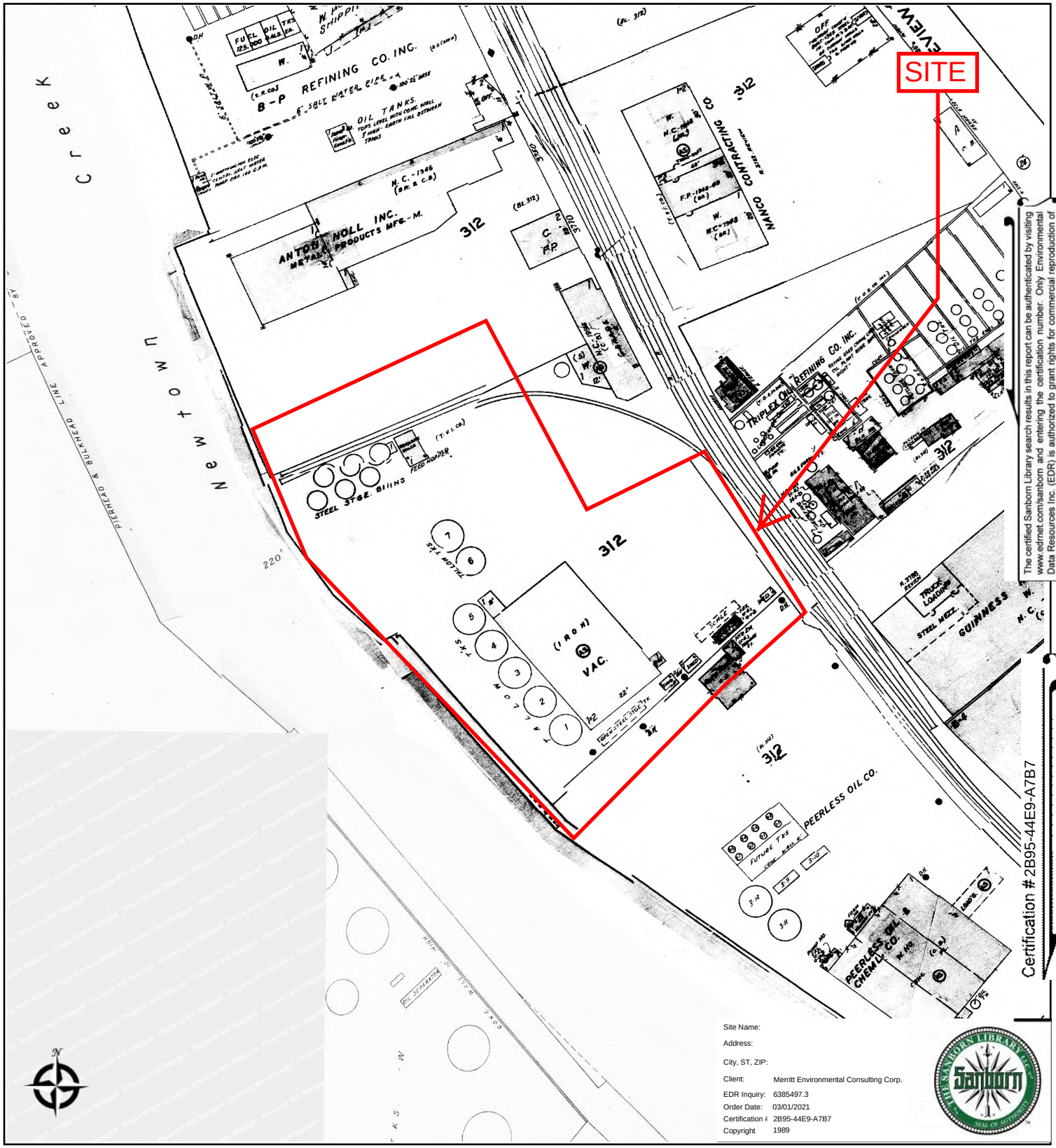

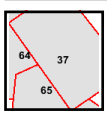

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Volume 1, Sheet 37

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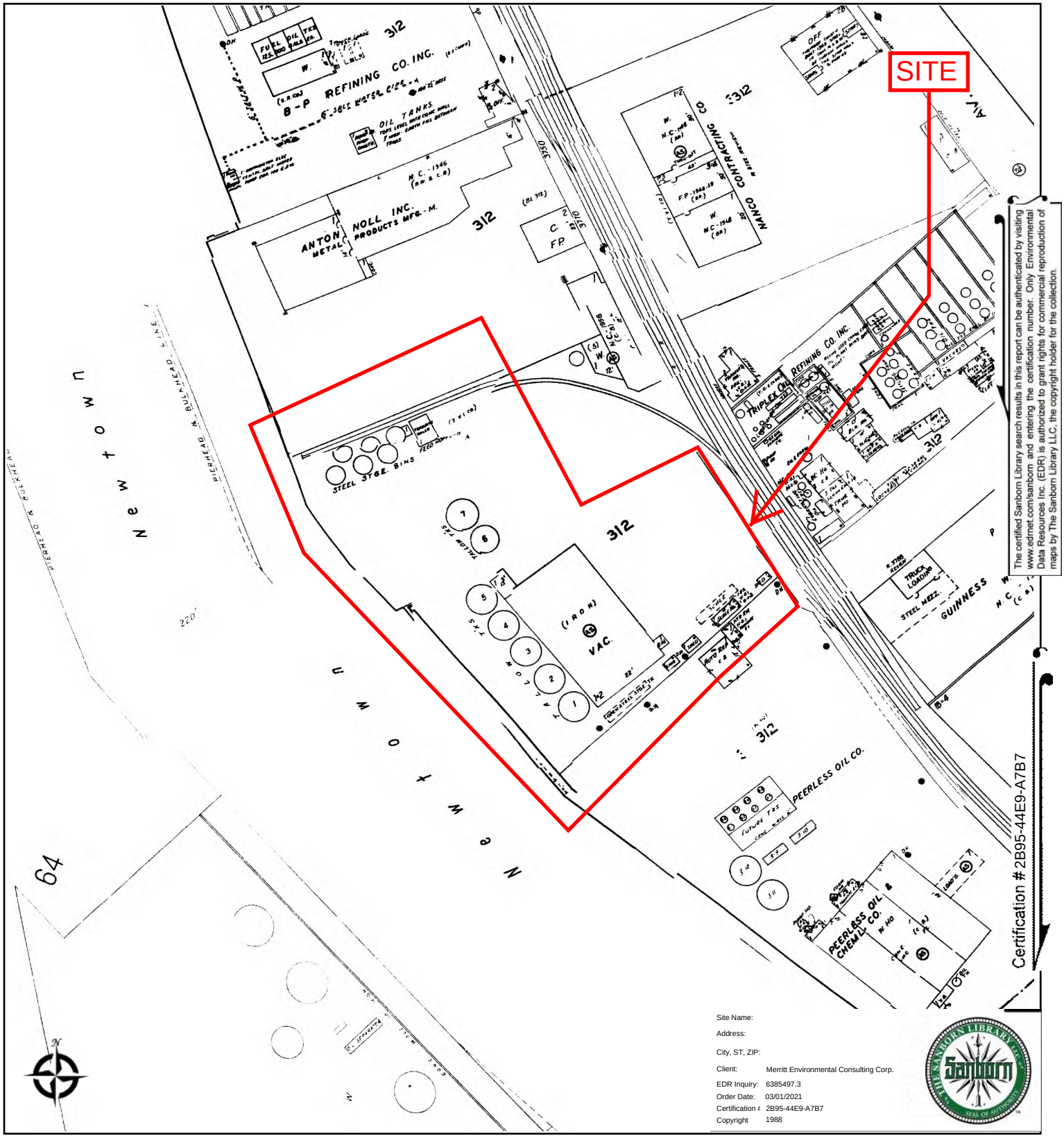

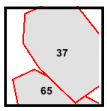

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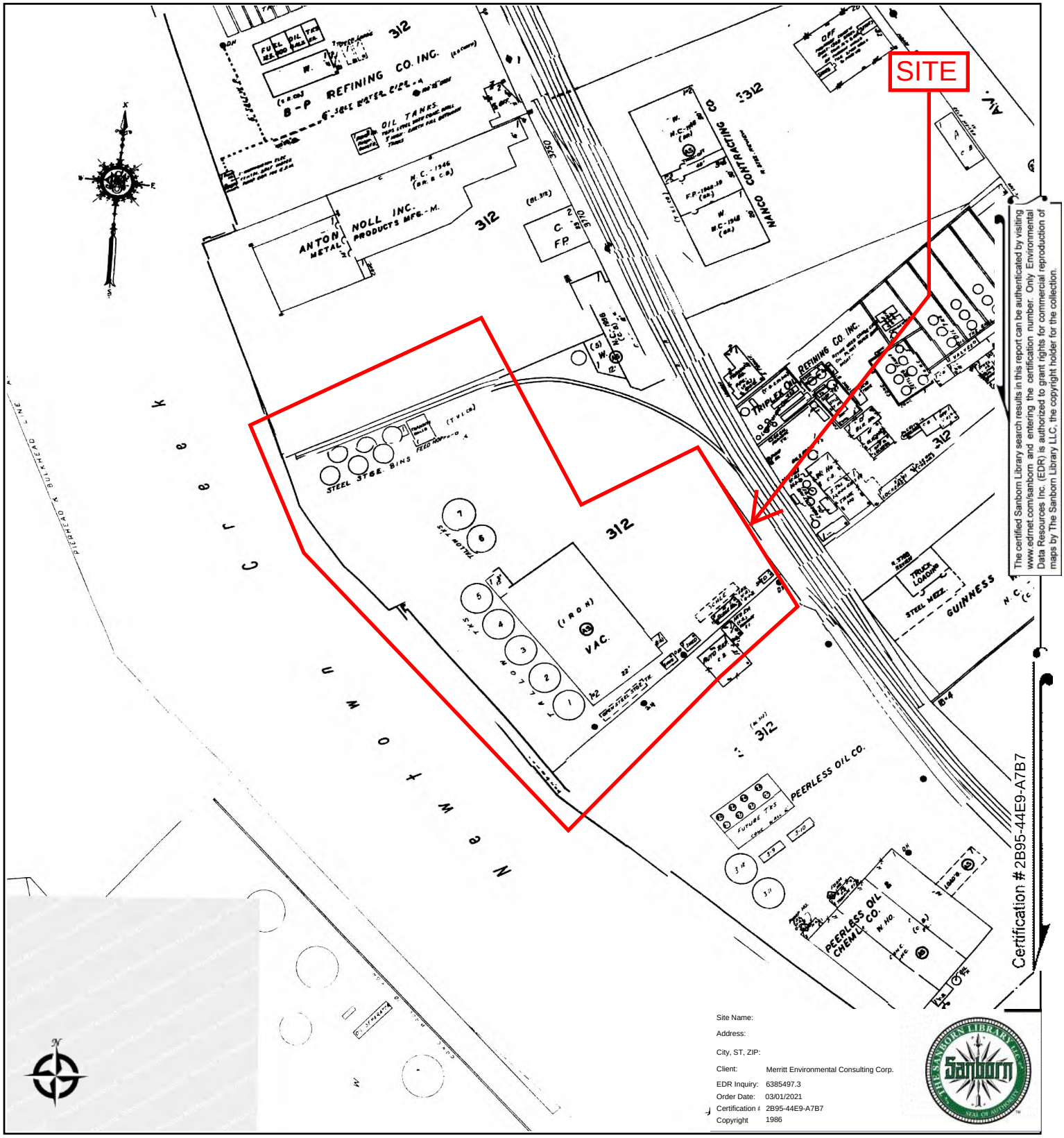

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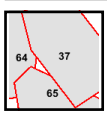

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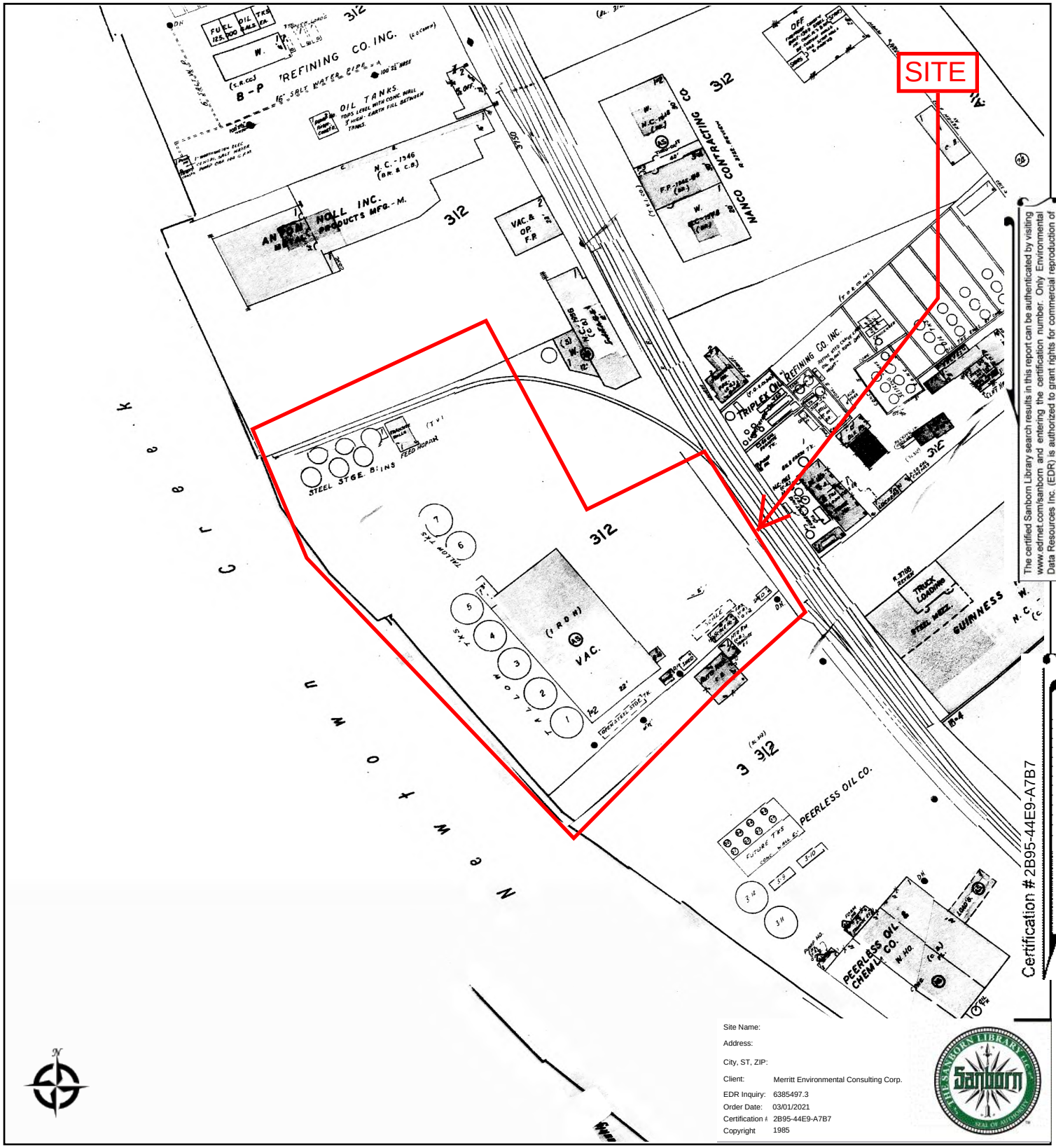

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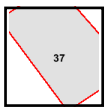

Volume 1, Sheet 37

0 Feet 150 300 600

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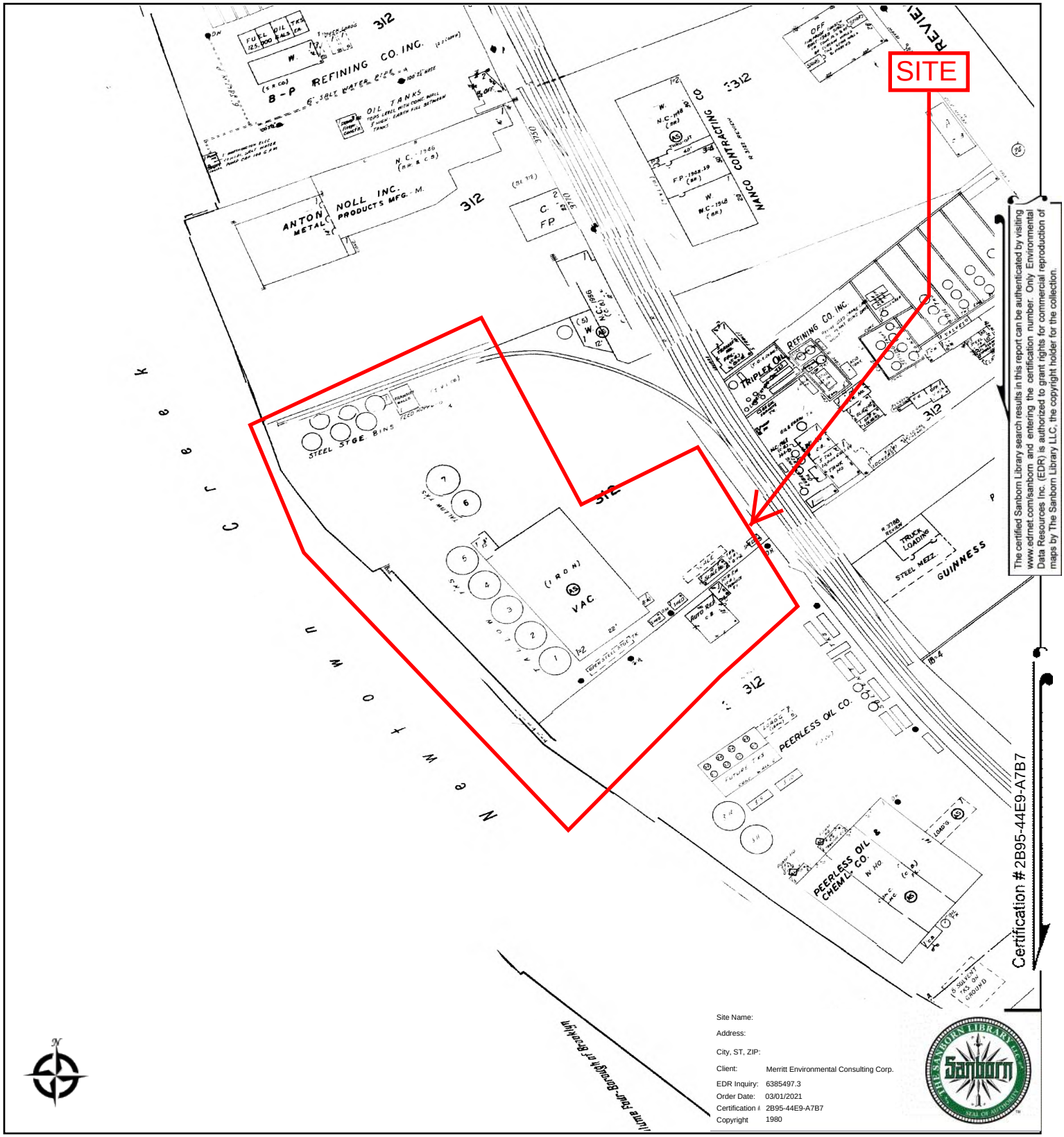

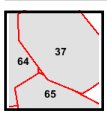

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Volume 4, Sheet 64

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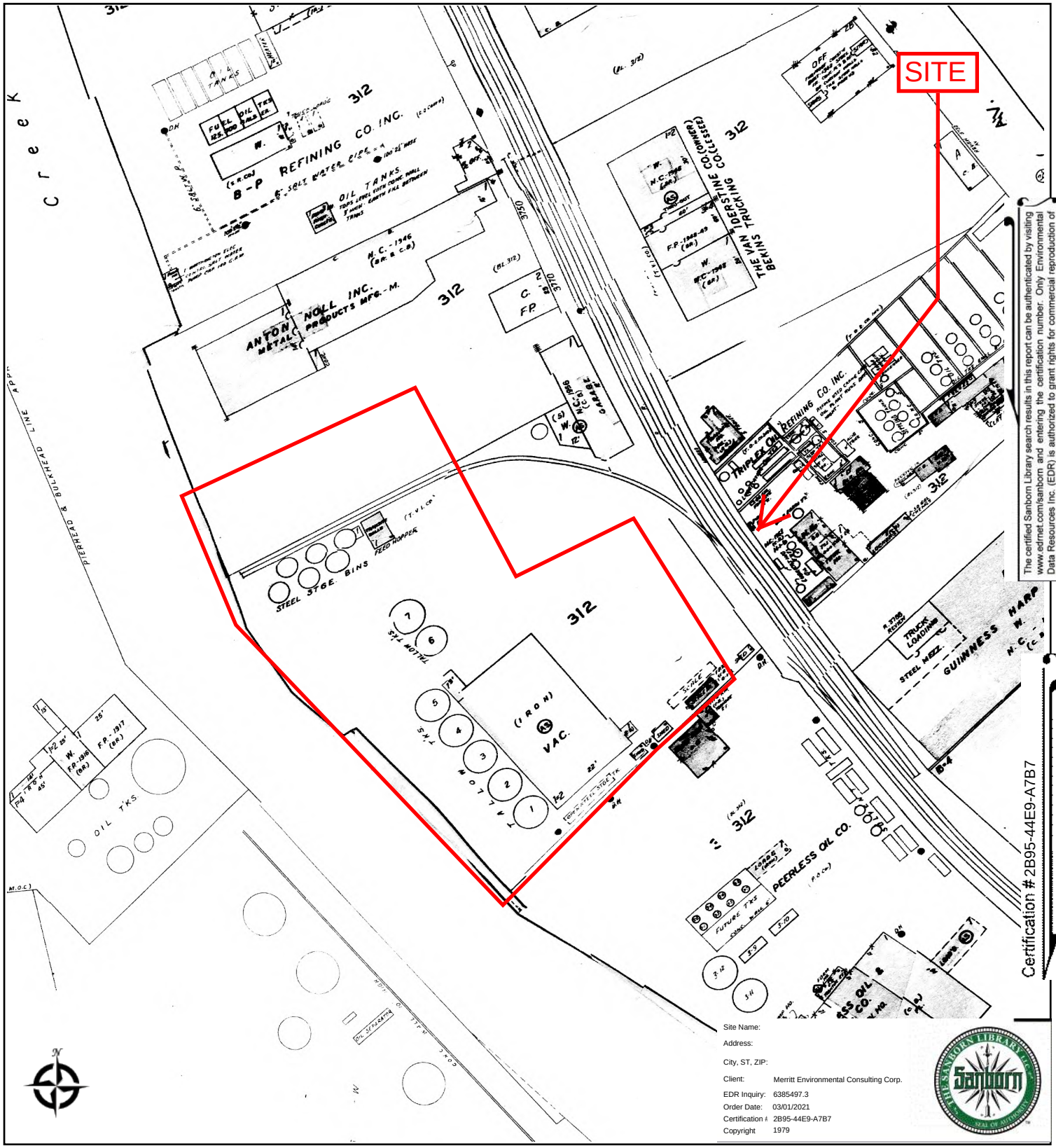

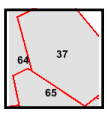

Volume 1, Sheet 37
Volume 4, Sheet 65
Volume 4, Sheet 64

0 Feet 150 300 600

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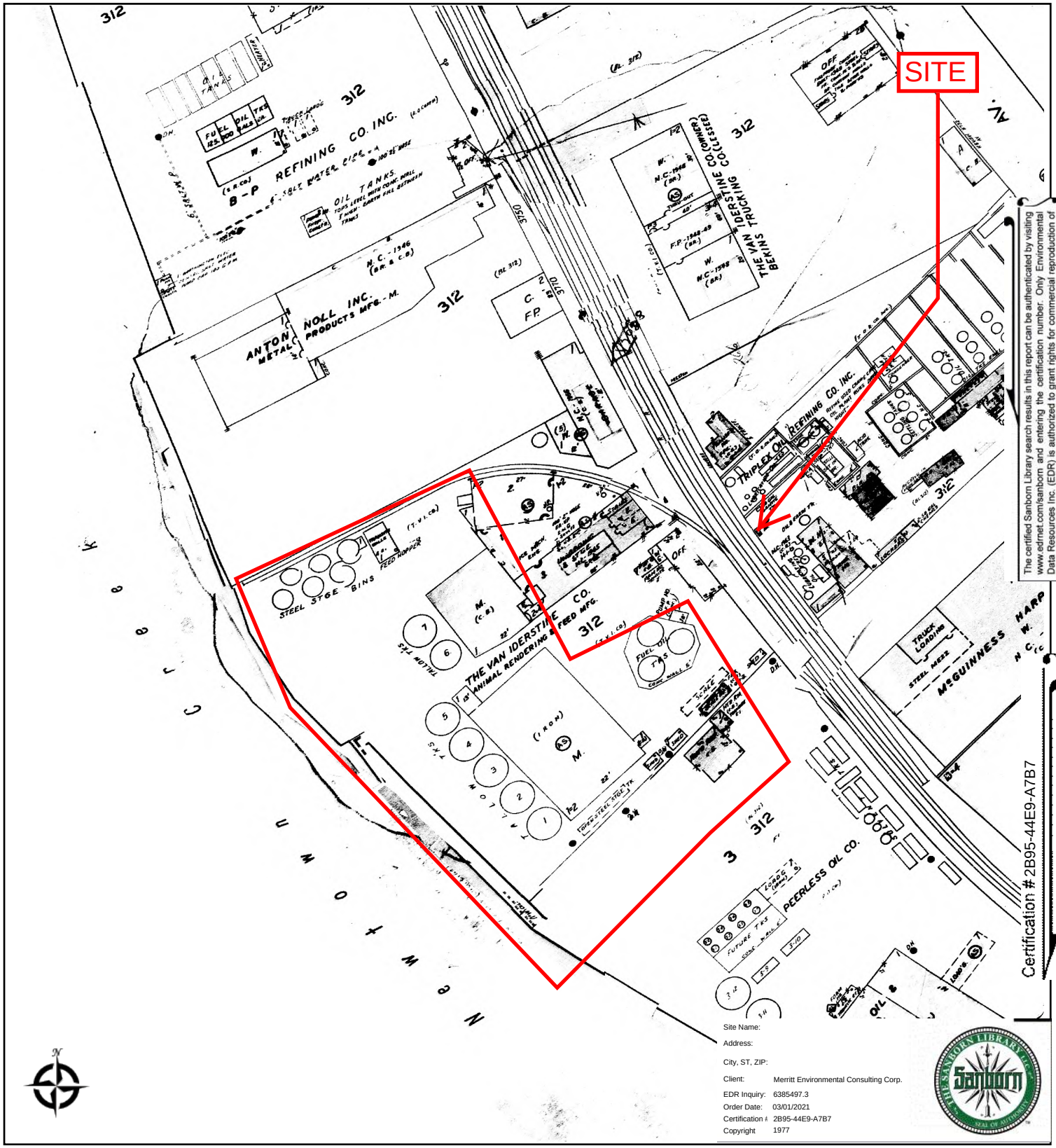

Certification # 2B95-44E9-A7B7

Volume 1, Sheet 37

37

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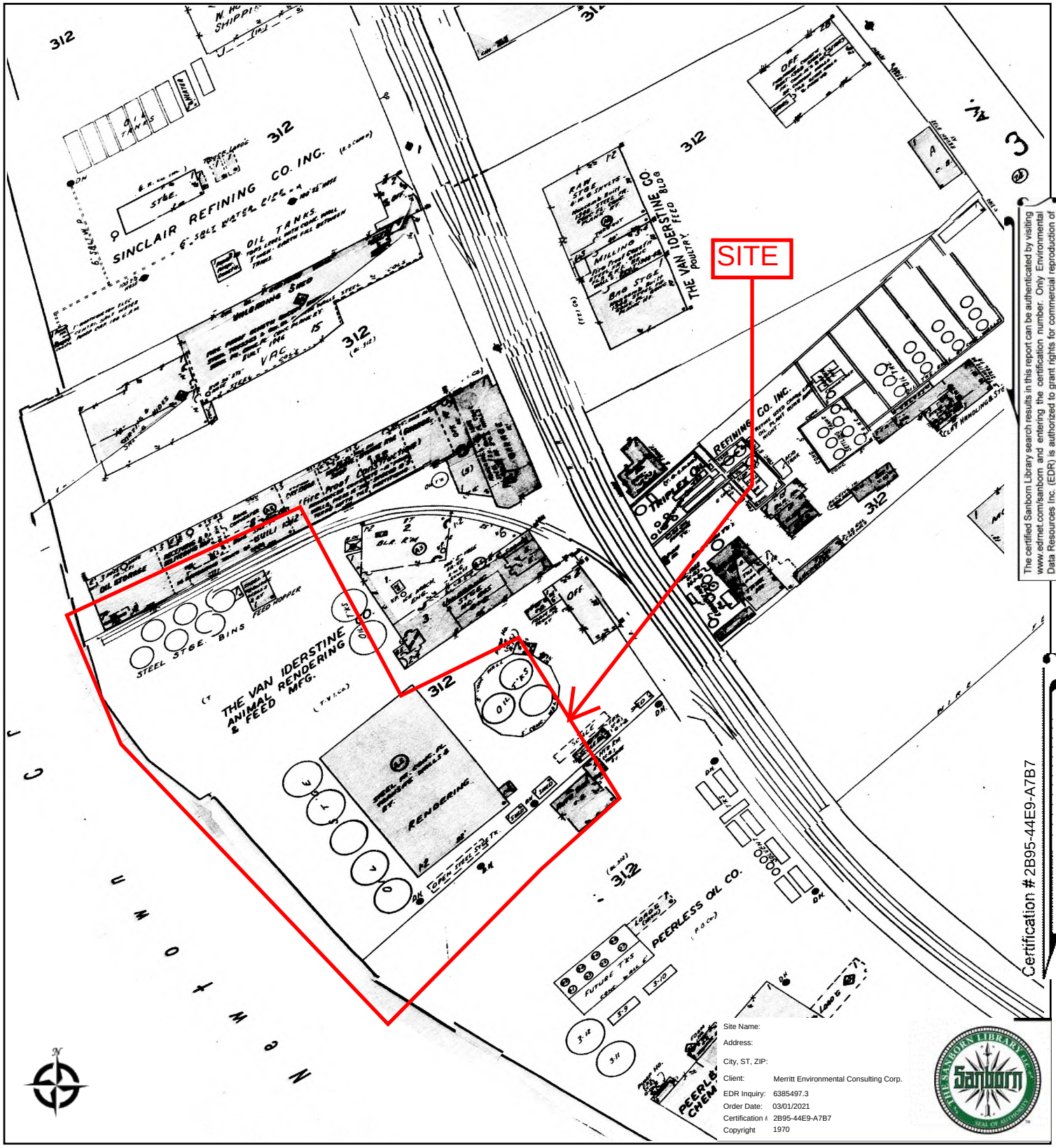

Volume 1, Sheet 37

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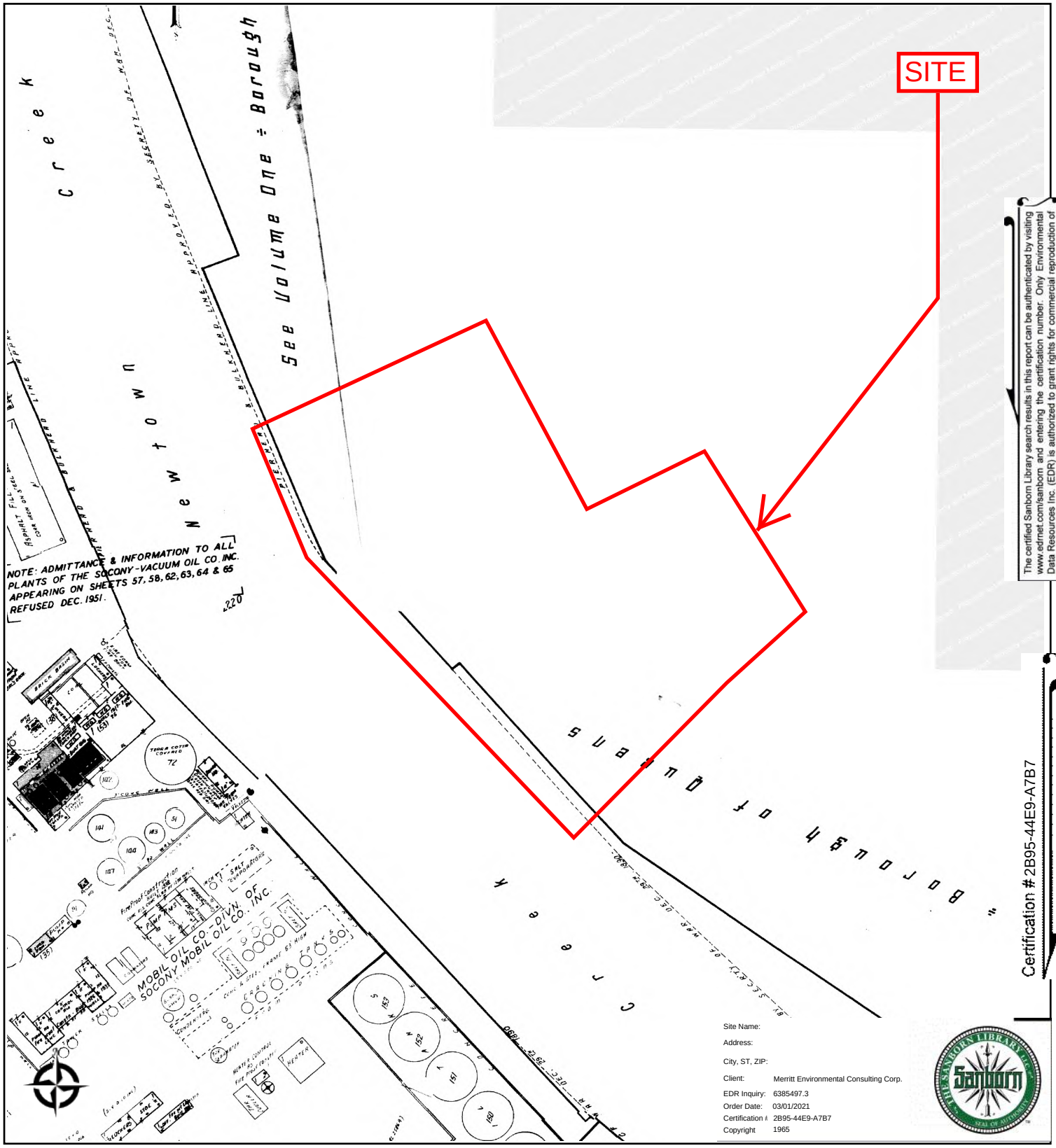
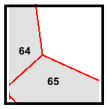
1970 SANBORN MAP



Certification # 2B95-44E9-A7B7



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Volume 4, Sheet 64

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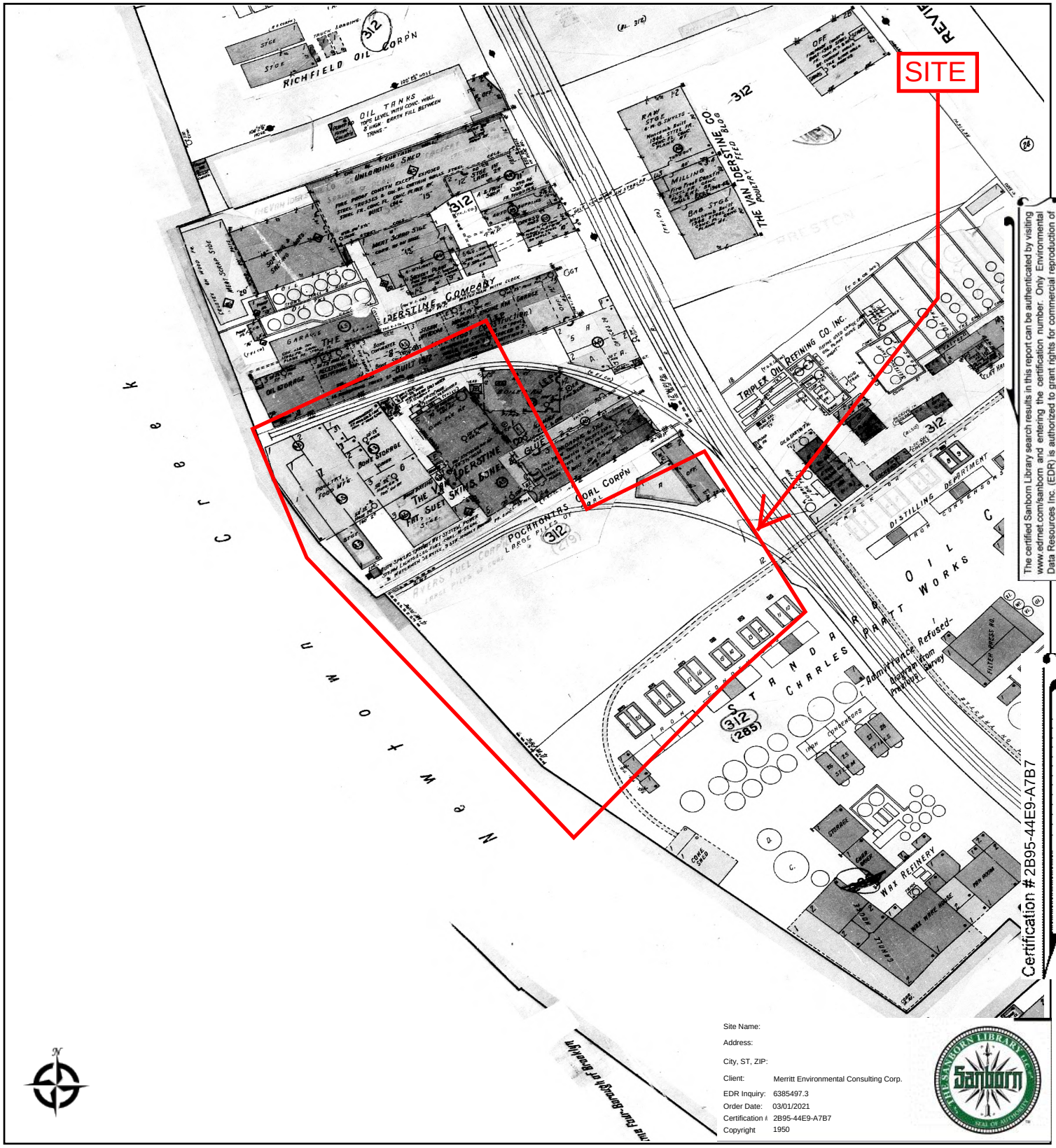
1965 SANBORN MAP



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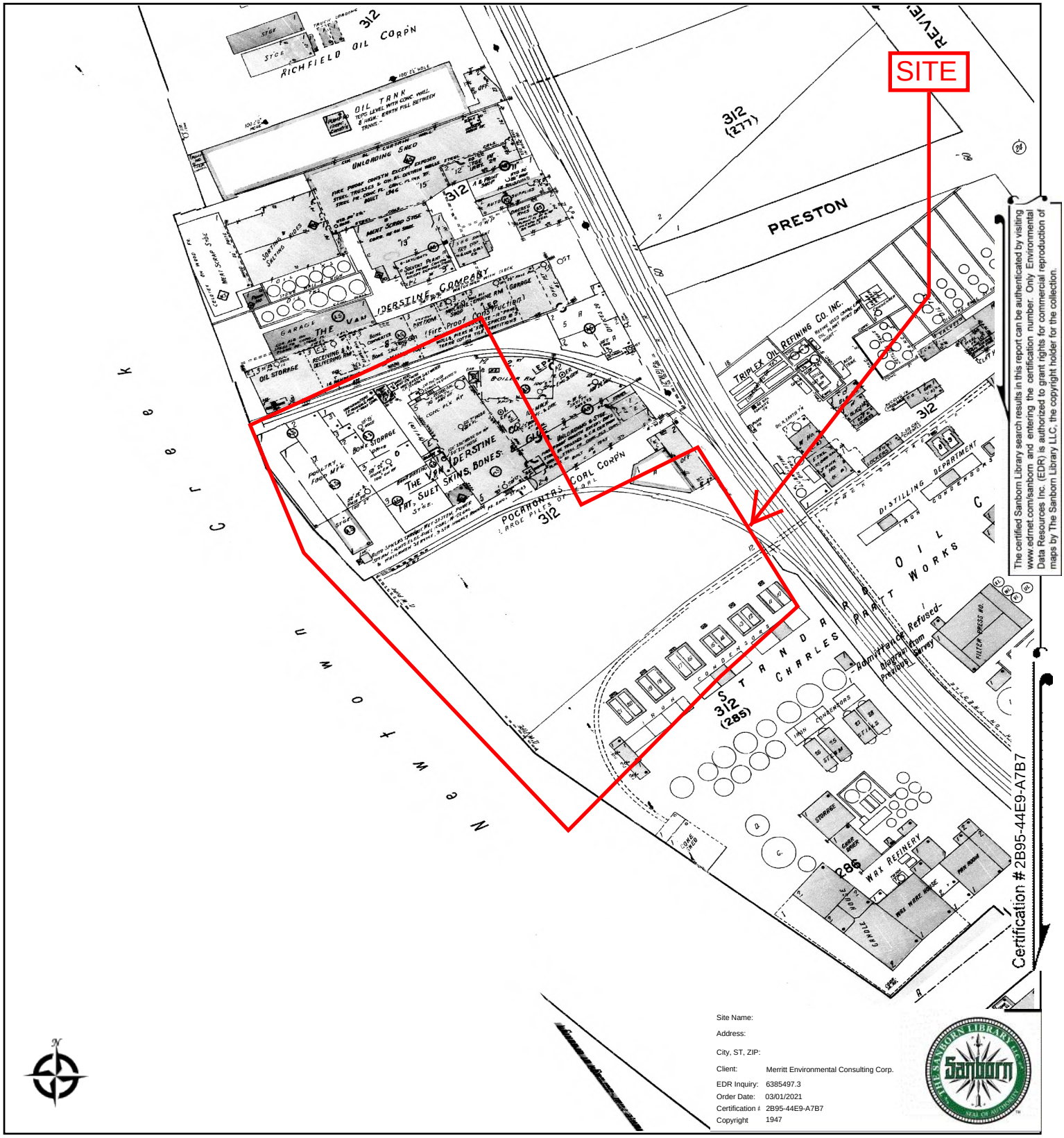
1950 SANBORN MAP



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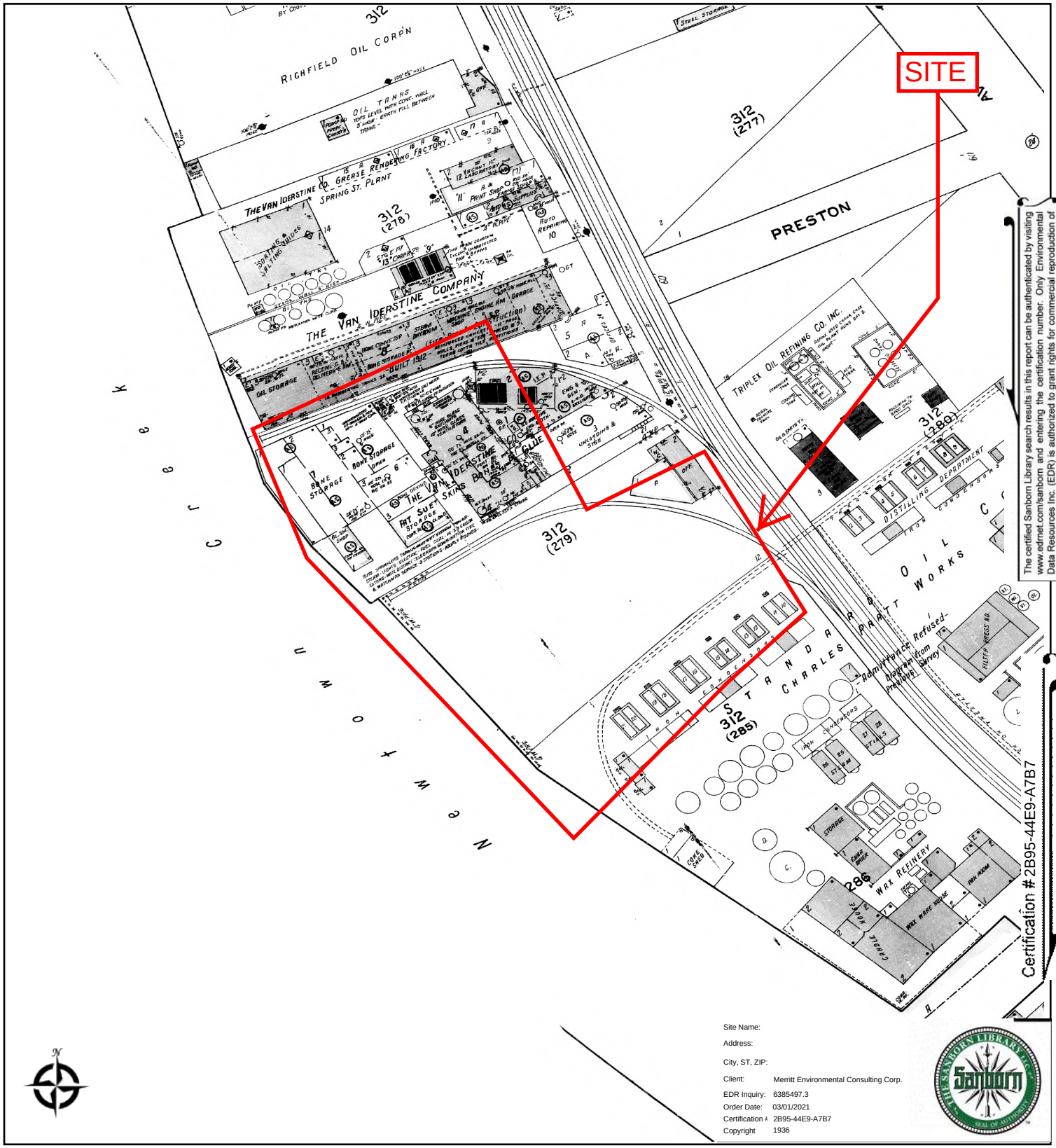
1947 SANBORN MAP



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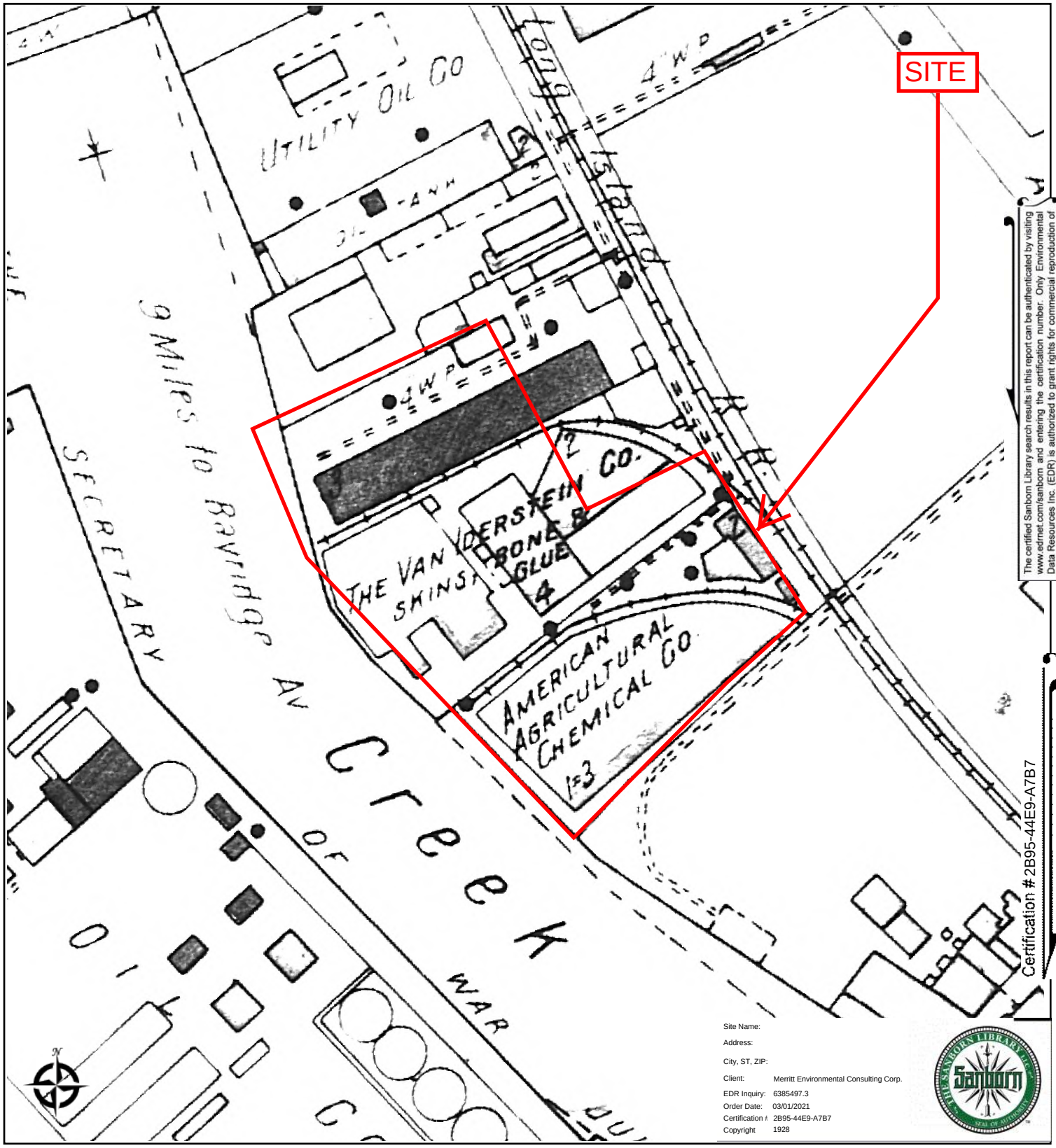
1936 SANBORN MAP



Volume Pier Maps, Sheet 40

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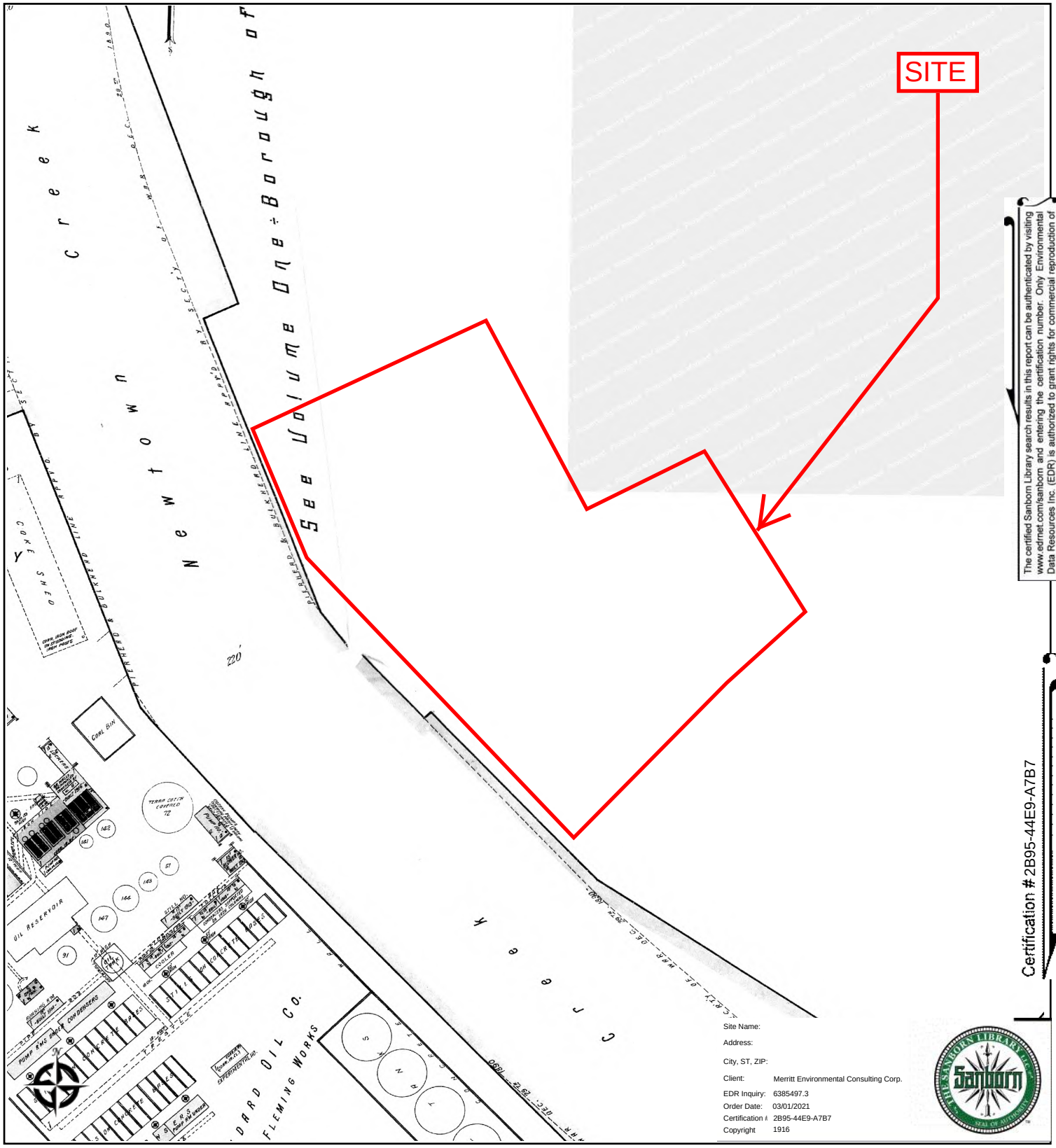
1928 SANBORN MAP



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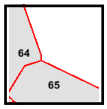

Volume 4, Sheet 65
Volume 4, Sheet 64

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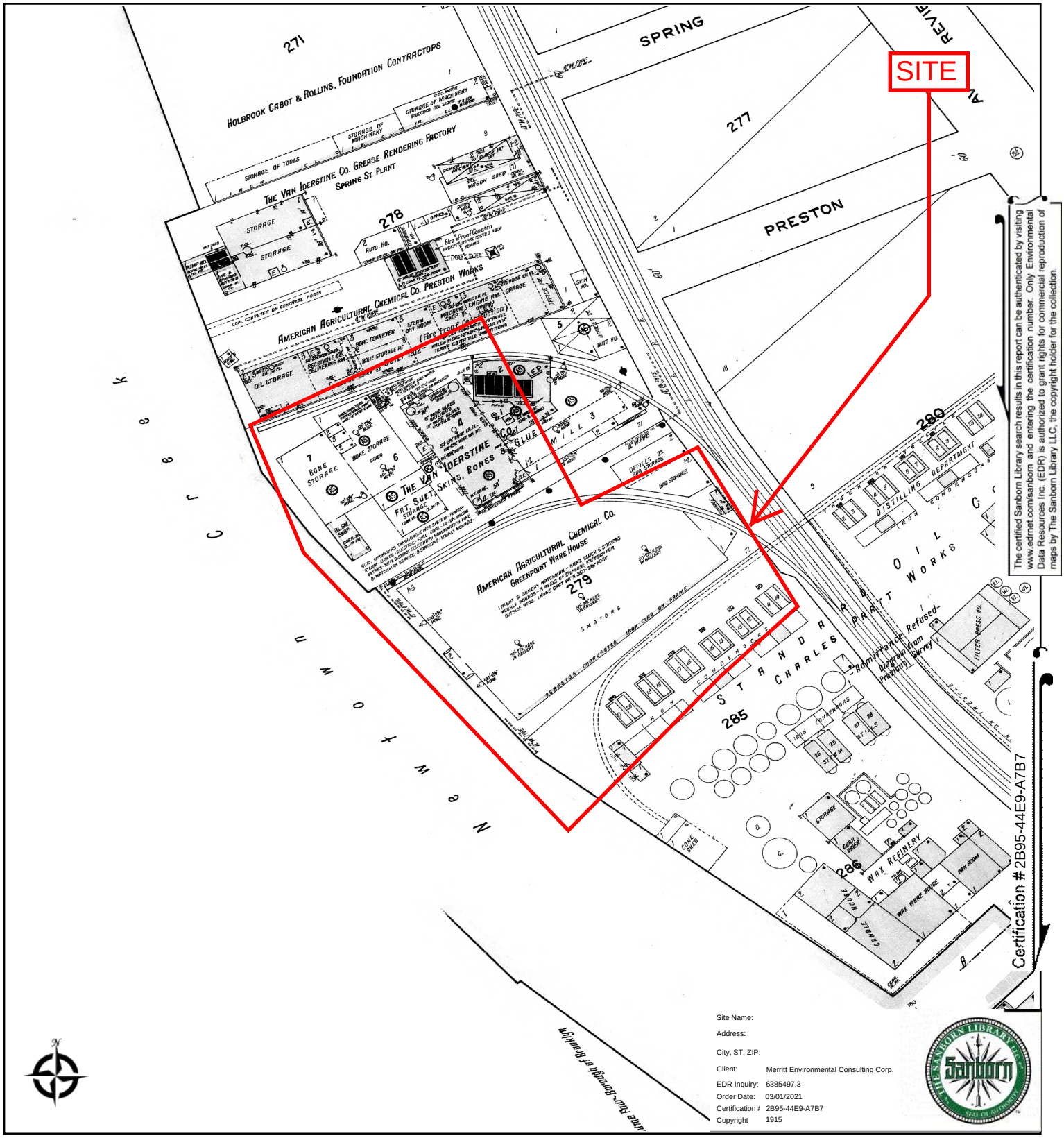
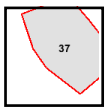
1916 SANBORN MAP



Certification # 2B95-44E9-A7B7

Site Name:
Address:
City, ST, ZIP:
Client: Merritt Environmental Consulting Corp.
EDR Inquiry: 6385497.3
Order Date: 03/01/2021
Certification #: 2B95-44E9-A7B7
Copyright 1915



Volume 1, Sheet 37

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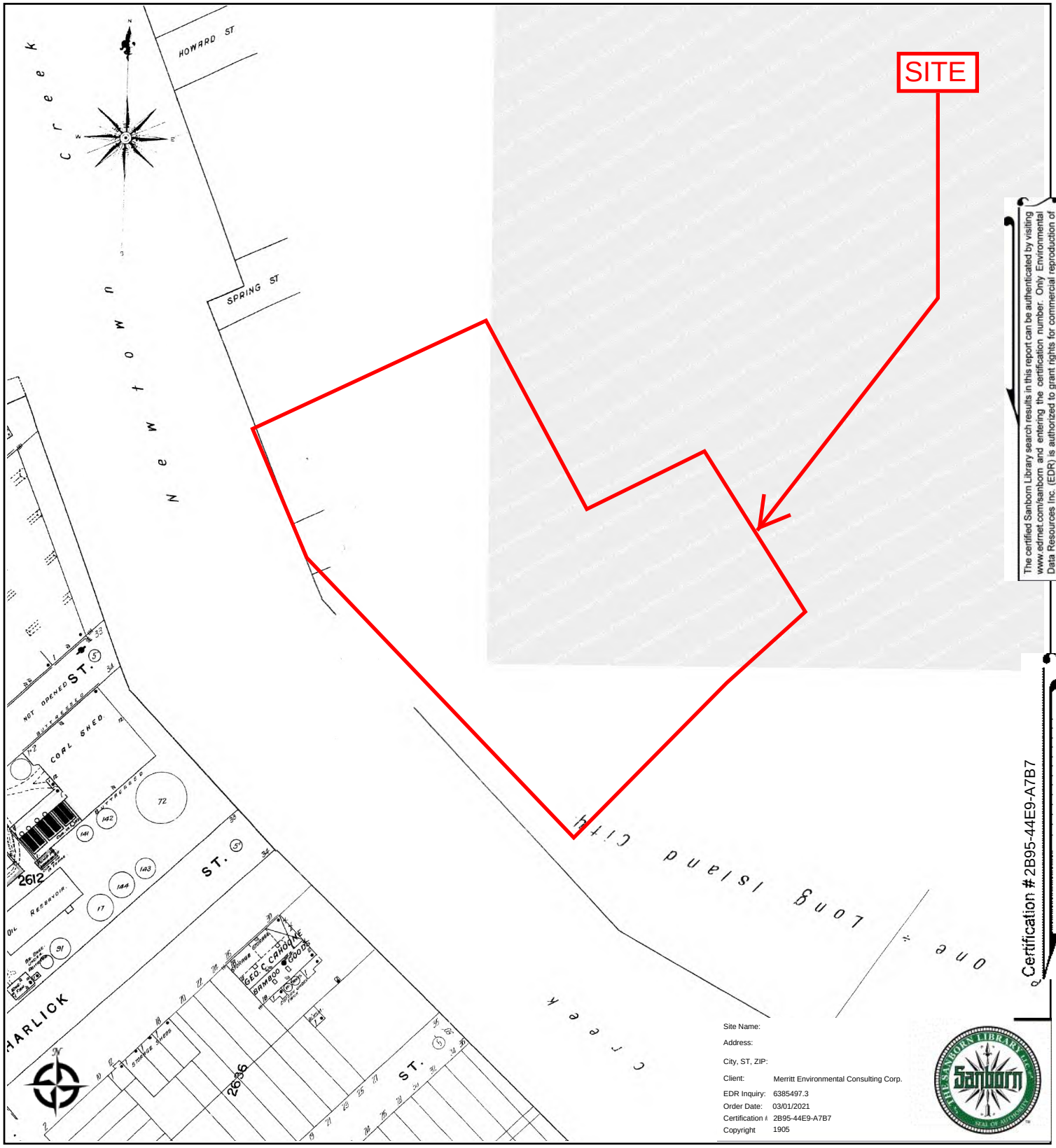
1915 SANBORN MAP



Certification # 2B95-44E9-A7B7

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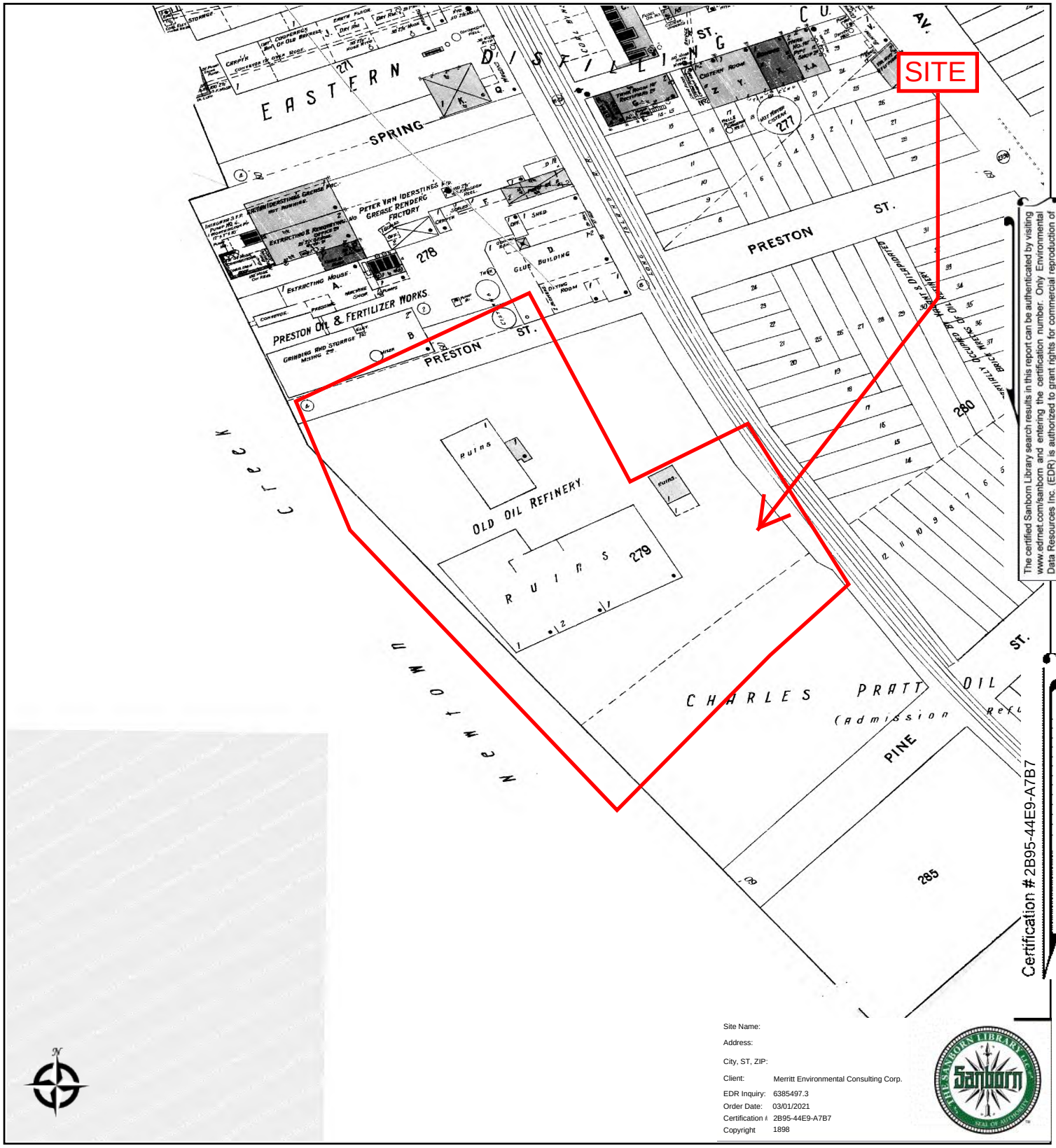
0 Feet 150 300 600

1905 SANBORN MAP



Site Name:
Address:
City, ST, ZIP:
Client: Merritt Environmental Consulting Corp.
EDR Inquiry: 6385497.3
Order Date: 03/01/2021
Certification #: 2B95-44E9-A7B7
Copyright 1898

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0 Feet 150 300 600

1898 SANBORN MAP

APPENDIX C

Title Review Memorandum

MEMORANDUM

TO: Richard Kampf

FROM: Jacob N. Warren

DATE: April 4, 2024

RE: Pipe Ownership under Easement on MM Newtown Site Lot 280 - Spill No. 0707419

RESEARCH QUESTION/TOPIC

I. Who is the owner of the Easement containing the pipes in question (shown as "No.5" on the diagram attached hereto as Exhibit A)?

II. Who is responsible for maintenance and clean-up of any releases of petroleum related to the pipes?

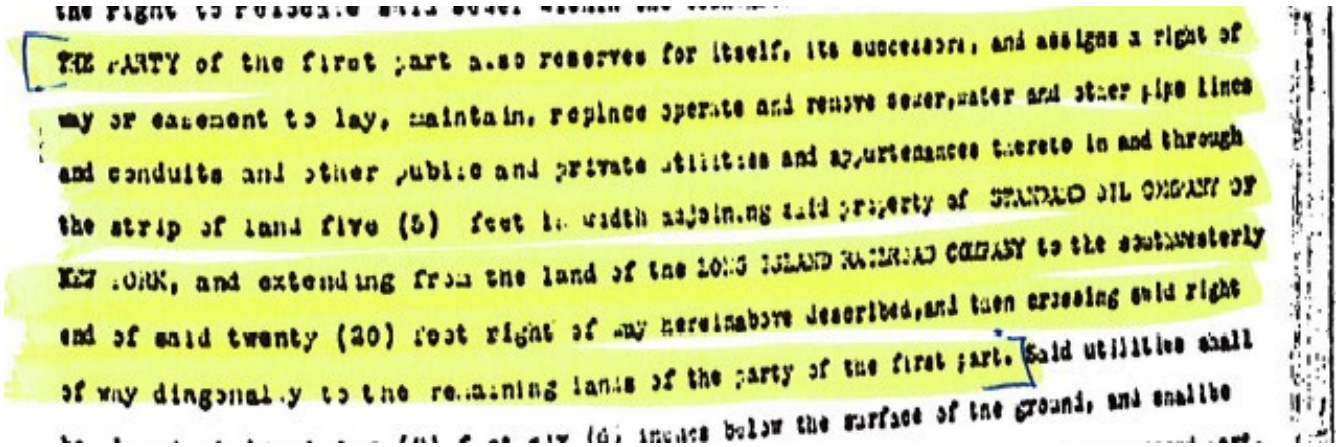
DISCUSSION/FINDINGS

I. Introduction

In 1930 (the earliest records available on title), the American Agricultural Chemical Company (the "Original Owner") owned the properties located at (i) 37-98 and 38-20 Railroad Avenue, Queens, NY Block: 312, Lot: 279 ("Lot 279"); (ii) 37-98 and 38-20 Railroad Avenue, Queens, NY Block: 312, Lot: 280 ("Lot 280"); and (iii) 37-98 and 38-20 Railroad Avenue, Queens, NY Block: 312, Lot: 69 ("Lot 69").

In 1931, the Original Owner deeded Lot 69 to Triplex Oil Refining Company ("Triplex Oil") (the "1931 Deed" attached hereto as Exhibit B). In the 1931 Deed, the Original Owner reserved for itself the right to build and maintain pipes via an easement over Lot 280 (the "Easement") (see relevant highlighted portion in Figure 1 below).

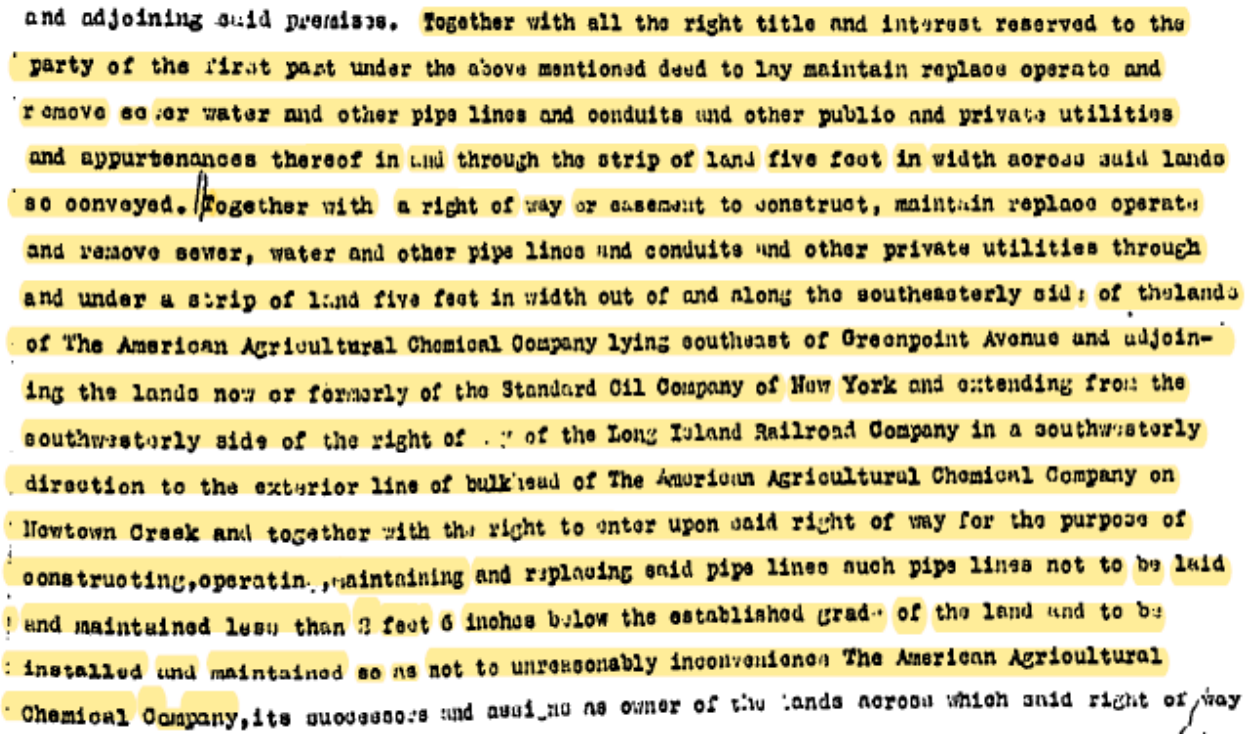
Figure 1:


the right to [illegible]

THE PARTY of the first part also reserves for itself, its successors, and assigns a right of way or easement to lay, maintain, replace operate and remove sewer,water and other pipe lines and conduits and other public and private utilities and appurtenances thereto in and through the strip of land five (5) feet in width adjoining said property of STANDARD OIL COMPANY OF NEW YORK, and extending from the land of the LONG ISLAND RAILROAD COMPANY to the southwesterly end of said twenty (20) foot right of way hereinabove described,and then crossing said right of way diagonally to the remaining lands of the party of the first part. Said utilities shall be [illegible] inches below the surface of the ground, and shall be

Subsequently, in 1938, the Original Owner deeded the Easement to Triplex Oil (the "1938 Deed" attached hereto as Exhibit C) (see relevant highlighted portion in Figure 2 below).

Figure 2:

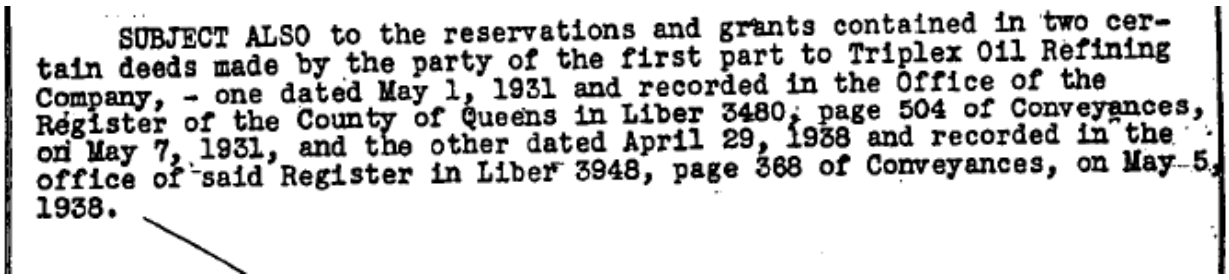


and adjoining said premises. Together with all the right title and interest reserved to the party of the first part under the above mentioned deed to lay maintain replace operate and remove sewer water and other pipe lines and conduits and other public and private utilities and appurtenances thereof in and through the strip of land five feet in width across said lands so conveyed. Together with a right of way or easement to construct, maintain replace operate and remove sewer, water and other pipe lines and conduits and other private utilities through and under a strip of land five feet in width out of and along the southeasterly side of the lands of The American Agricultural Chemical Company lying southeast of Greenpoint Avenue and adjoining the lands now or formerly of the Standard Oil Company of New York and extending from the southwesterly side of the right of way of the Long Island Railroad Company in a southwesterly direction to the exterior line of bulkhead of The American Agricultural Chemical Company on Newtown Creek and together with the right to enter upon said right of way for the purpose of constructing,operating,maintaining and replacing said pipe lines such pipe lines not to be laid and maintained less than 3 feet 6 inches below the established grade of the land and to be installed and maintained so as not to unreasonably inconvenience The American Agricultural Chemical Company,its successors and assigns as owner of the lands across which said right of way

II. Who is the owner of the Easement?

A. As explained in Section I above, the 1938 Deed conveyed the Easement from the Original Owner to Triplex Oil. At the time, the Original Owner still owned Lot 280. In 1941, the Original Owner deeded Lot 280 to Pocahontas Coal Corporation (the "1941 Deed" attached hereto as Exhibit D). The 1941 Deed was granted to Pocahontas Coal Corporation subject to the Easement (see relevant portion in Figure 3 below).

Figure 3:



SUBJECT ALSO to the reservations and grants contained in two certain deeds made by the party of the first part to Triplex Oil Refining Company, - one dated May 1, 1931 and recorded in the Office of the Register of the County of Queens in Liber 3480, page 504 of Conveyances, on May 7, 1931, and the other dated April 29, 1938 and recorded in the office of said Register in Liber 3948, page 368 of Conveyances, on May 5, 1938.

B. In 1970, Triplex Oil deeded Lot 69 and the Easement to Pentalic Corporation which subsequently, in 1972, deeded Lot 69 and the Easement to Sea Lion Corporation. Lot 69 and the Easement was deeded to various owners again in 1976, 1979, 1980, and 2005 when Quanta

Resources Corporation deeded Lot 69 and the Easement to 37-80 Review, LLC. Lot 69 was then foreclosed on pursuant to a judgment of a tax lien in the amount of $6,500,000.00 and subsequently sold via a referee's deed to 37-80 Review 123 LLC ("Current Lot 69 Owner").

The findings in Section II(A) in conjunction with the chain of title explained in Section II(B) show that Triplex Oil (or one of its successors/assigns listed in Section II(B)) is the owner of the Easement.

III. Who is Responsible for Maintenance and Clean-Up Related to the Pipes?

It is not known nor is there any information available confirming whether it was Triplex Oil or one of its successors/assigns who actually constructed the pipes under the Easement. However, for purposes of this Memorandum, responsibility of the pipes is the only relevant issue.

Section II(A) and the corresponding Exhibits A, B, C and D confirms that the Original Owner granted Lot 69 and the Easement to Triplex Oil. Section II(B) proves that the Easement was subsequently granted to several different parties – ending with the Current Lot 69 Owner. MM Newtown Capital, LLC, the current owner of Lot 280, does not hold the right to the Easement nor do they own or bear the responsibility of maintaining the pipes and/or the clean-up of any related petroleum spills originating from the pipes.

IV. Conclusion

Ultimately, the issue is responsibility – and the responsibility of the pipes is not with MM Newtown Capital, LLC. The deeds, chain of title, findings in Section II(A) and Section II(B) and corresponding Exhibits A, B, C and D show that the Easement holder and corresponding responsibility of the pipes is with Triplex Oil, one of its successors/assigns or the Current Lot 69 Owner.

EXHIBIT A

Easement/Lot Diagram

Easement #	Easement Information
1	Capasso / Waste Management - Parcel A Easement
2	Capasso / Waste Management - Parcel B Easement
3	Capasso / Waste Management - Parcel C Easement
4	Railroad Easement
5	Quanta Resources Permanent Sewer Easement

Sources:
1. Aerial Imagery - New York State, Maxar, Microsoft
2. Parcel Data - NYS GIS Program Office & NYS Department of Taxation and Finance's Office or Real Property
3. MJ Engineering- Easement Survey Map
4. Montrose Surveying Co. - Survey Map

LaBella
Powered by partnership.

MM Newtown
Railroad Ave, LIC

MM Newton Site
Local Easements

LaBella Project No: 2233115
Date: November 2023

MM NEWTOWN

FIGURE 9

Path: B:\GIS\~NY Countywide\Queens\~Townwide\Long Island City\~SiteData\Railroad Avenue_37-98and38-20\SITE\SITE_GeoRef\SITE_GeoRef.aprx
Creator: JV
Reviewer: RK

EXHIBIT B

1931 Deed

lies in section 56 in block 13905 on the land map of the county of Queens. Recorded May 7th, 1931 at 12;13 P. M., at the request of LILLIAN M.SMITH, 131-25 225th Street, LAURELTON, N. Y.

COMPARED

28610 THIS INDENTURE, made the 1st day of May 1931 between THE AMERICAN AGRICULTURAL CHEMICAL COMPANY, a corporation organized and existing under the laws of the State of Delaware, party of the first part, and TRIPLEX OIL REFINING COMPANY, a corporation also organized and existing under the laws of the State of Delaware,and having a principal office at NO. 391 BORDEN AVENUE, in the BOROUGH AND COUNTY OF QUEENS,CITY AND STATE OF NEW YORK, party of the second part, WITNESSETH, that the party of the first part, in consideration of ONE HUNDRED AND EIGHT DOLLARS, lawful money of the United States, paid by the party of the second part, does hereby grant and release unto the party of the second part, its successors, and assigns forever;-

A L L that certain plot or parcel of land,situate in the FIRST WARD, of the BOROUGH OF QUEENS, in the COUNTY OF QUEENS, CITY AND STATE OF NEW YORK: and bounded and described as follows;- BEGINNING, at a point in the southwesterly line of REVIEW AVENUE, where the same is intersected by the northwesterly line of land now or formerly of STANDARD O.L COMPANY OF NEW YORK, and running thence southwesterly along said line,as fixed in the boundary line agreement made between GEORGE F.PIPER, AND WALTER D. DOUGLAS, and STANDARD OIL COMPANY OF NEW YORK, dated August 3, 1925, and recorded in the office of the clerk of said county of Queens, in liber 1383 of conveyances,at page 418, to the northwesterly line of land conveyed by THE AMERICAN AGRICULTURAL CHEMICAL COMPANY (Connecticut) to L NG ISLAND RAILROAD COMPANY by deed dated December 22, 1925; and recorded January 17, 1921 in liber 2326 page 559; thence northeasterly along said last mentioned land on a curve to the right with a radius of 2,824.93 feet; a distance of one hundred eighty and eighty nine one hundredths (180.89) feet,more or less, measured along the arc to land now or formerly of VAN IDESTINE COMPANY; thence northeasterly along said last mentioned land one hundred eighty seven and twentyfive one hundredths (187.25) feet more or less, to a point which is distant one hundred and ninety five (195) feet southwesterly from the southwesterly side of REVIEW AVENUE, measured along a line drawn at right angles to the southwesterly line of REVIEW AVENUE; thence southeasterly and parallel to REVIEW AVENUE, to a point distant ten (10) feet northwesterly from the northeasterly boundary line of land now or formerly of STANDARD OIL COMPANY OF NEW YORK, as established, measured along a line drawn at right angles to the northwesterly line of land now or formerly of STANDARD OIL COMPANY OF NEW YORK, thence northeasterly and parallel with said last mentioned line of landnow or formerly of STANDARD OIL COMPANY OF NEW YORK, and distant ten (10) feet northwesterly therefrom, measured at right angles thereto to a point in the southwesterly line of REVIEW AVENUE; and thence southeasterly along the southwesterly line of REVIEW AVENUE, to the point of beginning. Together with all right title and interest of the party of the first part in and to any land lying in the bed of any street,road or avenue,open or proposed, in front of and adjoining said premises to the centre line thereof. TOGETHER WITH a right of way ten (10) feet in width extending from REVIEW AVENUE, southwesterly and adjoining for the entire length the ten (10) feet strip of land included in the premises above described adjoining the land now or formerly of STANDARD OIL COMPANY OF NEW YORK; which right of way is to be used in common by the parties hereto, and their respective successors,

and assigns as a means of ingress from and egress to REVIEW AVENUE; and reserving to the party of the first part, its successors, and assigns, an easement over the ten (10) foot strip of land, included in the premises first above describe, adjoining the land now or formerly of the STANDARD OIL COMPANY OF NEW YORK; said strip of land to be used in common by the parties hereto and their respective successors, and assigns as a means of ingress from and egress to REVIEW AVENUE, so that the parties hereto, and their respective successors, and assigns shall have a common easement or right of way over a strip of land, twenty (20) feet in width lying between the lands now or formerly of the STANDARD OIL COMPANY OF NEW YORK, and other land of the party of the first part. Said twenty (20) foot right of way to be allowed by the parties hereto, and their respective successors, and assigns, to install, operate, maintain and replace sewers, gas and water mains, telephone, electric light and power lines and other public and private utilities, above or under ground, to serve the lands hereby conveyed and other lands of the party of the first part, it being expressly agreed that such utilities are to be installed in such manner as not to interfere with the use of said right of way as a means of egress from and egress to Review Avenue, from the land hereby conveyed and other lands of the party of the first part. TOGETHER ALSO, with the right to the party of the second part, its successors, and assigns to connect with and use the existing six (6) inch sewer on other land of the party of the first part lying southwesterly of the lands of the LONG ISLAND RAILROAD COMPANY, such sewer connection not to exceed six (6) inches in diameter, and such connection, and use to continue only so long as the same may be permitted by municipal or other governmental authority having jurisdiction of such sewer, provided, however, that the party of the second part, its successors, or assigns, shall pay a just and reasonable proportion of the cost of maintaining said existing sewer; and reserving to the party of the first part, its successors, and assigns, the right to relocate said sewer within the boundaries of other lands at their own expense. THE PARTY of the first part also reserves for itself, its successors, and assigns a right of way or easement to lay, maintain, replace operate and remove sewer, water and other pipe lines and conduits and other public and private utilities and appurtenances thereto in and through the strip of land five (5) feet in width adjoining said property of STANDARD OIL COMPANY OF NEW YORK, and extending from the land of the LONG ISLAND RAILROAD COMPANY to the southwesterly end of said twenty (20) foot right of way hereinabove described, and then crossing said right of way diagonally to the remaining lands of the party of the first part. Said utilities shall be placed at least two (2) feet six (6) inches below the surface of the ground, and shall be installed and maintained so as not to unreasonably inconvenience the party of the second part, its successors, and assigns, and so as not to unreasonably interfere with the operation of a railroad spur track which may hereafter be constructed or with roadways which may hereafter be constructed. THE party of the first part, and its successors, and assigns who shall at such time own the lands adjoining fronting on REVIEW AVENUE, agree to and with the party of the second part, its successors, and assigns that it or they will indemnify and save harmless the party of the second part, its successors, and assigns from all loss or damage which the party of the second part, its successors, or assigns may suffer by reason of any damage to persons or property arising out of the installation and maintenance of said public or private utilities. SUBJECT TO any state of facts an accurate survey may show, not rendering title to the above property unmarketable, and subject also to the covenants and provisions of the above mentioned boundary line agreement. TOGETHER WITH the appurtenances and all the estate and rights of the party of the first part in and to said premises. TO HAVE AND TO HOLD the premises herein granted unto the party of the second part, its successors, and assigns forever.

AND the party of the first part,covenants,as follows; FIRST:THAT the party of the first part, is seized of the said premises in fee simple, and has good right to convey the same. SECOND: THAT the party of the second part, shall quietly enjoy the said premises. THIRD:THAT the said premises are free from incumbrances,except as aforesaid; FOURTH: THAT the party of the first part,will execute or procure any further necessary assurance of the title to said premises; FIFTH:THAT the party of the first part, will forever warrant the title to said premises. IN WITNESS WHEREOF, the party of the first part,has caused its corporate seal to be hereunto affixed,and these presents to be signed by its duly authorized officer the day and year first above written.

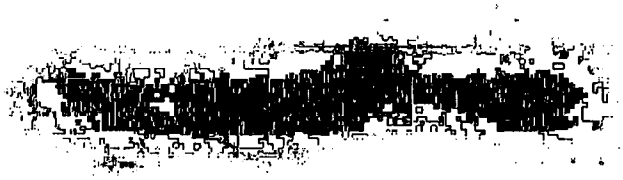
Attest; (CORPORATE SEAL) THE AMERICAN AGRICULTURAL CHEMICAL COMPANY
F. B. ...IL, (a Delaware Corporation)
ASSISTANT SECRETARY: by HORACE BOWKER, PRESIDENT.

STATE OF NEW YORK: COUNTY OF NEW YORK:SS: On the 1st day of May,nineteen hundred and thirty-one before me came HORACE BOWKER, to me known, who,being by me duly sworn, did depose and say that he resides in LAWRENCE, L. I., N. Y., that he is the President of THE AMERICAN AGRICULTURAL CHEMICAL COMPANY, a Delaware Corporation, the corporation described in,and which executed the foregoing instrument;that he knows the seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed byorder of the board of directors of said corporation; and that he signed his name thereto by like order. (LS) A.M. SHERMAN: Notary Public, WESTCHESTER COUNTY, N. Y., cert.filed in N. Y. CO.NO. 585; Reg. NO. 3-S-434; COMMISSION expires March 30, 1933.

STATE OF NEW YORK: COUNTY OF NEW YORK:SS: I, DANIEL E. FINN, CLERK of the county of NEW YORK: and also clerk of the SUPREME COURT, in and for said county, DO HEREBY CERTIFY: that said COURT is a court of Record,having by law a seal; that A.M.SHERMAN, whose name is subscribed to the annexed certificate or proof of acknowledgment of the annexed instrument,was,at the time of taking the same a NOTARY PUBLIC, acting in and for said county, duly commissioned and sworn, and qualified to act as such; that he has filed in the Clerk's office of the county of NEW YORK a certified copy of his appointment and qualification as NOTARY PUBLIC, for the COUNTY OF WESTCHESTER, with his autograph signature that as such NOTARY PUBLIC, he was duly authorized by the laws of the State of NEW YORK to protest notes;to take and certify depositions; to administer oaths and affirmations,to take affidavits and certify the acknowledgment and proof of deeds,and other written instruments for lands,tenements and hereditaments to be read in evidence or recorded inthis state;and further that I am well acquainted with the handwriting of such NOTARY PUBLIC, and verily believe that his signature to such proof or acknowledgment is genuine. IN TESTIMONY WHEREOF: I have hereunto set my hand and affixed the seal of said COURT, at the CITY OF NEW YORK in the county of NEW YORK this 2 day ofMAY, 1931; (LS) DANIEL E. FINN, CLERK:

THE LAND AFFECTED by the within instrument lies in section 4 in block 770 on the land map of the county of Queens. Recorded May 7th, 1931 at 12;13 P. M., at the request of N.Y.TITLE AND MORTGAGE CO., Jamaica, L.I.N.Y.

COMPARED



26614; AGREEMENT: made the 20th day of April, one thousand nine hundred and thirtyone,between MICHAEL J.BROWN, also known as MICHAEL J.BROWNE, hereinafter

EXHIBIT C

1938 Deed

Francis P.Murphy, City Surveyor," and filed as Map Number 987 in the QueensCounty Clerk's office on July 13,1910.Said premises are conveyed subject to any and all taxes, liens and assessments whatsoever all of which the grantee assumes and agrees to pay. For title see deed to me from Hanna Carolina Svenson (a single woman) dated January 23, 1931 recorded in the office of the Register of the County of Queens in Libor 3502 Page 236. Together with the appurtenances and all the estate and rights of the party of the first part in and to said premises. To have and to hold the premises herein granted unto the party of the second part,its successors and assigns forever. And the said party of the first part doth covenant as follows: First. That said party of the first part is seized of the said premises in fee simple and hath good right to convey the same. Second. That the party of the second part shall quietly enjoy the premises Third. That the said premises are free from incumbrances except as aforesaid.Fourth.That the party of the first part will execute or procure any further necessary assurance of thetitle to said premises.Fifth.That the said party of the first part will forever warrant the title to said premises except as aforesaid.IN WITNESS WHEREOF the party of the first part hath signed and sealed these presents the day and year first above written.

IN PRESENCE OF

WILBERT A BISHOP ANNA JOSEPHINE LARSON (L.S.)

COMMONWEALTH OF MASSACHUSETTS, ESSEX SS: April 4, 1938 . On this fourth day of April in the year nineteen hundred and thirty eight before me the undersigned personally came ANNA JOSEPHINE LARSON, to me personally known and known to me to be the individual described in and who execued the foregoing instrument and she acknowledged before me that she had executed the same. WILBERT A BISHOP, (L.S.) Notary Public, My commission expires Jan 13,1939.

COMMONWEALTH OF MASSACHUSETTS, ESSEX , SS.: BE IT KNOWN that I , A.N. FROST, Clerk of the Superior Court for the County of Essex, aforesaid the same being a Court of record having by law a seal do hereby certify that WILBERT A.BISHOP by whom the accompanying affidavit proof or acknowledgment was taken was at the date thereof a Notary Public within and for said County and residing in said County duly commissioned and sworn and authorized by the laws of said Commonwealth to administer oaths and take and certify the acknowledgments and proofs of deeds or conveyances for lands, tenements or hereditaments in said Commonwealth and other instruments in writing to be recorded in said Commonwealth, that I am well acquainted with the handwriting of said Notary Public and verily believe that the signature of said Notary Public to the foregoing certificate is genuine. IN TESTIMONY WHEREOF I hereunto set my hand and affixed the seal of said Court at Salem in said County on this fifth day of April in the year or our Lord One thousand nine hundred and thirty eight. A. N. FROST (L.S.) CLERK. The land affected by this instrument lies in Section 59,Block 14[illegible] on the Land Map of the County of Queens.Recorded on May 5th,1938 at 2.48 P.M. at the request of N.Y.Title Insurance Co,Jamaica,N.Y.

L3948 cp 368

14518 RECORDING FEE $5.40 $28.00 U.S.I.R.S.CANCELLED

THIS INDENTURE made the 29th day of April nineteen hundred and thirty eight between THE AMERICAN AGRICULTURAL CHEMICAL COMPANY, a corporation organized under thelaws of the State of Delaware,party of the first part and TRIPLEX OIL REFINING COMPANY also a corporation organized under thelaws of the State of Delaware and having a principal office at 37-60 Review Avenue in the Borough and County of Queens City and State of

New York, party of the second part, WITNESSETH that the party of the first part in consideration of One hundred and more dollars lawful money of the United States paid by the party of the second part does hereby grant and release unto the party of the second part its successors and assigns forever:

ALL that certain plot, piece or parcel of land situate in the First Ward of the Borough and County of Queens, City and State of New York bounded and described as follows: BEGINNING at a point in the southwesterly line of Review Avenue where the same is intersected by the division line between the southeasterly line of lands herein described and the northwesterly line of lands conveyed by The American Agricultural Chemical Company to Triplex Oil Refining Company by deed dated May 1, 1931 and recorded in the office of the Register of Queens County in Liber 3480 of Conveyances at page 504 thence running southwesterly along said division line 195 feet more or less to the northeasterly line of land so conveyed thence northwesterly along the northeasterly line of said land so conveyed by the above deed 180 feet more or less to lands now or formerly of Van Iderstine Company thence northeasterly along said lands of Van Iderstine Company 197 feet more or less to the southwesterly line of Review Avenue and thence southeasterly along the southwesterly line of Review Avenue 192 feet more or less to the point of beginning. Together with all the right title and interest of the party of the first part in and to the land lying in Review Avenue in front of and adjoining said premises. Together with all the right title and interest reserved to the party of the first part under the above mentioned deed to lay maintain replace operate and remove sewer water and other pipe lines and conduits and other public and private utilities and appurtenances thereof in and through the strip of land five feet in width across said lands so conveyed. Together with a right of way or easement to construct, maintain replace operate and remove sewer, water and other pipe lines and conduits and other private utilities through and under a strip of land five feet in width out of and along the southeasterly side of the lands of The American Agricultural Chemical Company lying southeast of Greenpoint Avenue and adjoining the lands now or formerly of the Standard Oil Company of New York and extending from the southwesterly side of the right of way of the Long Island Railroad Company in a southwesterly direction to the exterior line of bulkhead of The American Agricultural Chemical Company on Newtown Creek and together with the right to enter upon said right of way for the purpose of constructing, operating, maintaining and replacing said pipe lines such pipe lines not to be laid and maintained less than 3 feet 6 inches below the established grade of the land and to be installed and maintained so as not to unreasonably inconvenience The American Agricultural Chemical Company, its successors and assigns as owner of the lands across which said right of way is located and together with the right to construct operate maintain and replace on or near the bulkhead and over said strip of land a fireproof structure or shed not exceeding five feet in width by ten feet in length by ten feet in height to be used for the installation and storage of pumping equipment which may be used in the operation of said pipe lines and together with the right to moor or dock vessels barges or other carriers alongside the bulkhead in front of said five foot strip and to overlap on the bulkhead of the party of the first part immediately adjoining on the north so far as may be necessary and in such manner as not to unreasonably inconvenience the party of the first part, its successors and assigns it being understood that such overlapping shall be subordinate to the use of said adjoining bulkhead by the party of the first part, its successors and assigns. Said right of way over said five foot strip is however subject to the right of way twelve feet in width reserved to George F. Piper and Walter D. Douglas their heirs and assigns lying southwest of and adjoining the right of way of the Long

Island Railroad Company for the use and benefit of the owners and occupants of that property lying northwest of said five foot right of way and is also subject to any right and / or title of the City of New York and / or State of New York in and to that part of said five foot right of way below the original high water line of Newtown Creek and to the right of the United States of America and / or State of New York to regulate and change the pierhead and bulkhead lines and to any encroachment of the bulkhead into the waters of Newtown Creek, Subject to any state of facts an accurate survey may show and subject also to the taxes which may be levied or assessed against said premises for the year 1938 and subsequent years. Together with the appurtenances and all the estate andrights of theparty of the first part in and to said premises , To have and to hold the premises herein granted unto the party of the second part,its successors and assigns forever. The party of the first part covenants that if any improvements repairs or alterations to the premises have been commenced and have not been completed at least four months before the recording of this deed the grantor will receive the consideration for this conveyance as a trust fund to be applied first for the purpose of paying the cost of improvement and that said Grantor will apply the same first to the payment of the cost of improvement before using any part of the total of the same for any other purpose. And the party of the first part covenants as follows: First. That the party of thefirst part is seized of the said premises in fee simple and has good right to convey the same. Second. That the party of the second part shall quietly enjoy the said premises. Third.That the said premises are free fromencumbrances except as aforesaid.Fourth.That the party of the first part will execute or procure any further necessary assurance of the title to said premises. Fifth.That the party of the first part will forever warrant the title to said premises. IN WITNESS WHEREOF the party of the first part has caused its corporate seal to be hereunto affixed and these presents to be signed by its duly authorized officer the day and year first above written.

(CORPORATE SEAL) THE AMERICAN AGRICULTURAL CHEMICAL COMPANY

BY ANTHONY B. ARNOLD, VICE PRESIDENT

ATTEST: F. E BORNE ASSISTANT SECRETARY

STATE OF NEW YORK, COUNTY OF NEW YORK, SS.: On the 29th day of April nineteen hundred and thirty eight before me came ANTHONY B ARNOLD, to me known,who being by me duly sworn did depose and say that he resides in Westfield,New Jersey at 538 Lawrence Ave,, that he is the Vice President of THE AMERICAN AGRICULTURAL CHEMICAL COMPANY the corporation described in and which executed the foregoing instrument that he knows the seal of said corporation that the seal affixed to said instrument is such corporate seal,that it was so affixed by order of the Board of Directors of said corporation and that he signed his name thereto by like order. RODNEY T KINGSBURY (L.S) Notary Public, Nassau Co No 1765 Cert filed in N.Y.Co Clks No 442 Reg. No O-K- 265 Commission expires March 30, 1940.

STATE OF NEW YORK, COUNTY OF NEW YORK, SS.: I, ARCHIBALD R WATSON,Clerk of the County of New York and also Clerk of the Supreme Court in and for said county do hereby certify that said Court is a Court of Record having by law a seal that RODNEY T KINGSBURY whose name is subscribed to the annexed certificate or proof of acknowledgment of the annexed instrument was at the time of taking the same a Notary Public acting in and for said county duly commissioned and sworn and qualified to act as such,that he has filed in the Clerk's office of the County of New York a certified copy of his appointment and qualification as Notary Public for the County of Nassau with his autograph signature that as such Notary Public he was duly authorized by the laws of the State of New York to protest notes to take and certify depositions to

administer oaths and affirmations, to take affidavits and certify the acknowledgment and proof of deeds and other written instruments for lands, tenements and hereditaments to be read in evidence or recorded in this state, and further that I am well acquainted with the handwriting of such Notary Public and verily believe that his signature to such proof or acknowledgment is genuine. IN TESTIMONY WHEREOF I have hereunto set my hand and affixed the seal of said Court at the City of New York in the County of New York this 2 day of May,1938. ARCHIBALD R. WATSON CLERK(L.S.). The land affected by this instrument lies in Section 4, Block 770 on the Land Map of the County of Queens.Recorded on May 5th,1938 at 2.48 P.M. at the request of N.Y.Title Insurance Company,Jamaica,N.Y.

COMPARED.

14519 RECORDING FEE $3.40

THIS INDENTURE made the second day of May One thousand nine hundred and thirty eight between GUARANTY TRUST COMPANY OF NEW YORK a corporation organized and existing under and by virtue of the laws of the State of New York having its office and principal place of business at No 140 Broadway Borough of Manhattan City of New York party of the first part and STERLINGSHIRE INC a New York Corporation having its office and place of business at No 160-10 Hillside Avenue,Jamaica Queens County,New York, party of the second part WHEREAS STERLINGSHIRE INC by indenture of mortgage bearing date the 28th day of July,nineteen hundred and thirty seven recorded in the office of the Register of the County of Queens in Liber 4365 of mortgages of section 47 page 535 on the 3rd day of August nineteen hundred and thirty seven for the consideration therein mentioned and to secure the payment of the money therein specified did mortgage certain lands and tenements of which the lands hereinafter described are part unto J.A.Wigmore Land Company and assigned by J.A.Wigmore Land Company to Guaranty Trust Company of New York by instrument in writing dated October 20, 1937 and recorded in the Queens County Clerk's office on November 9,1937 in Liber 4388 of Mortgages Serial No 39654. And whereas the party of the first part at the request of the party of the second part has agreed to give up and surrender the lands hereinafter described unto the party of the second part and to hold and retain the residue of the mortgaged lands as security for the money remaining due on the said mortgage. NOW THIS INDENTURE WITNESSETH that the party of the first part in pursuance of said agreement and in consideration of One thousand four hundred eighty four and 38/100 dollars ($1,484.38) lawful money of the United States paid by the party of the second part does grant, release and quitclaim unto the party of the second part all that part of said mortgaged lands described as follows:

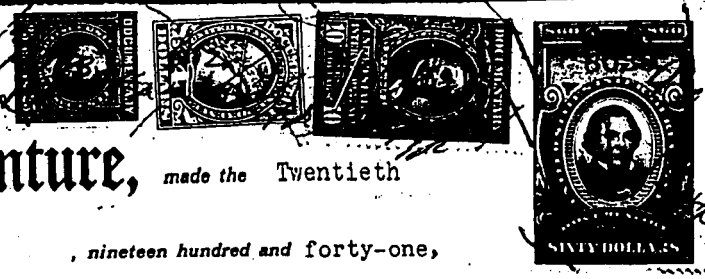
ALL those certain lots, pieces or parcels of land situate in the Fourth Ward in the Borough and County of Queens known and designated on a certain map entitled "Section No 1, Jamaica -Hillside" situate in the Fourth Ward Borough of Queens,City of New York" dated June 9th,1926 and filed in the County Clerk's office in Queens County on the 30th day of July,1926 as Map No 4948 as Lots 43 and 44 and the southerly one half (½) of Lot 45 in Block 85. Together with the hereditaments and appurtenances thereunto belonging and all the right title and interest of the party of the first part of in and to the same to the intent that the lands hereby released may be discharged from said mortgage and that the rest of the land in said mortgage specified may remain mortgaged to the party of the first part as heretofore. To have and to hold the lands and premises hereby re-

EXHIBIT D

1941 Deed

DEED 4346 PAGE 546

STATUTORY FORM CC—756
(Chapter 681, Laws 1917)
BARGAIN AND SALE DEED. With Covenant



This Indenture,

made the Twentieth day of February, nineteen hundred and forty-one,

Between THE AMERICAN AGRICULTURAL CHEMICAL COMPANY, a corporation organized under the laws of the State of Delaware, duly qualified to transact business in the State of New York and having its principal office at 50 Church Street in the Borough of Manhattan, City, County and State of New York,

~~a corporation organized under the laws of~~

, party of the first part,

and POCAHONTAS COAL CORPORATION, a corporation organized under the laws of the State of New York, and having its principal office at 1 Broadway, in the Borough of Manhattan, City, County and State of New York

, party of the second part,

Witnesseth, that the party of the first part, in consideration of Sixty-seven thousand five hundred Dollars ($67,500) ~~Dollars~~, lawful money of the United States, paid by the party of the second part, does hereby grant and release unto the party of the second part, its successors and assigns forever,

All that certain lot, piece or parcel of land, situate, lying and being at Long Island City in the First Ward of the Borough and County of Queens, City and State of New York, bounded and described as follows:

BEGINNING at a point in the Southwesterly right of way line of the Long Island Railroad Company where it is intersected by the division line between the herein described premises and lands now or formerly of The Standard Oil Company of New York, said division line being defined in a boundary line agreement dated August 3rd, 1905, between George F. Piper and Walter D. Douglas and Standard Oil Company of New York and recorded in the Office of the Clerk of the County of Queens in Liber 1383, page 418 of Conveyances on August 15th, 1905 and running (1) thence in a Southwesterly direction along said division line as defined in the above mentioned agreement 126.06 feet to an angle point in said division line; (2) thence continuing in a Southwesterly direction along said division line 236.47 feet to the Northeasterly bulkhead line of Newtown Creek; (3) thence in a Northwesterly direction along said Northeasterly bulkhead line 240.68 feet to the division line between the herein described premises and lands now or formerly of The Van Iderstine Company; (4) thence in a Northeasterly direction along said division line as described in the deed dated August 18, 1917, from The Van Iderstine Company to The American Agricultural Chemical Company (Connecticut) and recorded in the Office of the Clerk of the County of Queens in Liber 2146, page 69 of Conveyances on October 6th, 1917, a distance of 164 feet to an angle point in said division line; (5) thence continuing along said division line in a Northeasterly direction along a line forming with the last mentioned course an angle of 172 degrees 22 minutes 44 seconds, a distance of 28.26 feet to an angle point in said division line; (6) thence in a Northeasterly direction still along said division line as described in a deed from The American Agricultural Chemical Company to The Van Iderstine Company dated August 18, 1917, 196.82 feet to the Southwesterly right of way line of The Long Island Railroad Company; (7) thence in a Southeasterly direction along said Southwesterly right of way line to the point or place of beginning.

TOGETHER with any and all rights of the party of the first part, in and to the land under the waters of Newtown Creek in front of the premises herein described.

TOGETHER with the appurtenances and all the estate and rights and rights of reversion of the party of the first part in and to the lands now occupied by the Long Island Railroad Company included in a deed to the party of the first part from The American Agricultural Chemical Company, of Connecticut, dated June 30, 1930, and recorded in the Office of the Register of the County of Queens on August 15, 1930, in liber 3418 of Conveyances, page 249.

TOGETHER with a right of way over a strip of land about 12 feet in width lying southwesterly of and adjoining the right of way of the Long Island Railroad Company and extending Northwesterly from the herein described premises over other lands formerly owned by George F. Piper and Walter D. Douglas, as acquired by them by deed from Guaranty Trust Company of New York, dated February 28th, 1903 and recorded August 7, 1905 in Liber 1382, page 419 of Conveyances.

SUBJECT to changes heretofore made in the pier or bulkhead lines in Newtown Creek in front of said premises and the right of the United States Government and/or the State of New York to regulate and change said pier and bulkhead lines.

SUBJECT to a right of way reserved to George F. Piper and Walter D. Douglas, their heirs and assigns, over a strip of land twelve feet in width, a part of the herein described premises, lying Southwesterly of and adjoining the right of way of The Long Island Railroad Company, for the use and benefit of the owners or occupants of that property lying Northwest of the herein described premises, formerly owned by said George F. Piper and Walter D. Douglas and acquired by them by said deed from the Guaranty Trust Company of New York dated February 28th, 1903.

SUBJECT to all the terms and conditions of a boundary line agreement dated August 3, 1905, between George F. Piper and Walter D. Douglas and Standard Oil Company of New York and recorded in the Office of the Clerk of the County of Queens in Liber 1383, page 418 of Conveyances on August 15, 1905.

SUBJECT to the right and easement of The Van Iderstine Company, its successors and assigns, over a six foot strip, a portion of the above described premises, as the said right and easement is more specifically located and the uses and purposes defined in deed by The American Agricultural Chemical Company (a Connecticut Corporation) to said The Van Iderstine Company dated August 18, 1917 and recorded in the office of the Clerk of the County of Queens on September 1, 1917 in Liber 2142 of Conveyances, page 106.

SUBJECT ALSO to the reservations and grants contained in two certain deeds made by the party of the first part to Triplex Oil Refining Company, - one dated May 1, 1931 and recorded in the Office of the Register of the County of Queens in Liber 3480, page 504 of Conveyances, on May 7, 1931, and the other dated April 29, 1938 and recorded in the office of said Register in Liber 3948, page 368 of Conveyances, on May 5, 1938.

Form CC

Together *with the appurtenances and all the estate and rights of the party of the first part in and to said premises.*

To have and to hold *the premises herein granted unto the party of the second part,* its successors *and assigns forever*

And the party of the first part, in compliance with Section 13 of the Lien Law, covenants that it will receive the consideration for this conveyance as a trust fund to be applied first for the purpose of paying the cost of the improvement and that it will apply the same to the payment of the cost of the improvement before using any part of the total of the same for any other purpose.

And *the party of the first part covenants that it has not done or suffered anything whereby the said premises have been encumbered in any way whatsoever*

In Witness Whereof, *the party of the first part has caused its corporate seal to be hereunto affixed and these presents to be signed by its duly authorized officer the day and year first above written.*

THE AMERICAN AGRICULTURAL CHEMICAL COMPANY

Attest:

By Anthony B. [signature]
Vice President

[signature]
Asst-Secretary

State of NEW YORK
County of NEW YORK } ss.:

On the twentieth day of February, nineteen hundred and forty-one before me came Anthony B. Arnold to me known, who, being by me duly sworn, did depose and say that he resides at 538 Lawrence Avenue, Westfield, New Jersey, that he is a Vice President of The American Agricultural Chemical Company the corporation described in, and which executed, the foregoing instrument; that he knows the seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation; and that he signed his name thereto by like order.

Rodney Turner Kingsbury

NOTARY PUBLIC Kings Co. No. 860
Cert. filed in N. Y. Co. Clk's. No. 6, Reg. No. 2-K-11
Commission Expires March 4th, 1943

RODREY T. KINGSBURY NOTARY PUBLIC KINGS COUNTY

Form 2

State of New York, County of New York, } ss.: No. 91256

I, ARCHIBALD R. WATSON, County Clerk and Clerk of the Supreme Court, New York County, the same being a Court of Record having by law a seal, DO HEREBY CERTIFY, that

Rodney Turner Kingsbury

whose name is subscribed to the annexed deposition, certificate of acknowledgment or proof, was at the time of taking the same a NOTARY PUBLIC acting in and for said County, duly commissioned, sworn, and qualified to act as such; that he has filed in the Clerk's office of the County of New York a certified copy of his appointment and qualification as a Notary for the County of Nassau with his autograph signature; that as such Notary Public he was duly authorized by the laws of the State of New York to protest notes, to take and certify depositions, to administer oaths and affirmations, to take affidavits and to certify the acknowledgment or proof of deeds and other written instruments for lands, tenements and hereditaments to be read in evidence or recorded in this State. And further, that I am well acquainted with the handwriting of such Notary Public, or have compared the signature of such officer with his autograph signature filed in my office, and believe that the signature to the said annexed instrument is genuine.

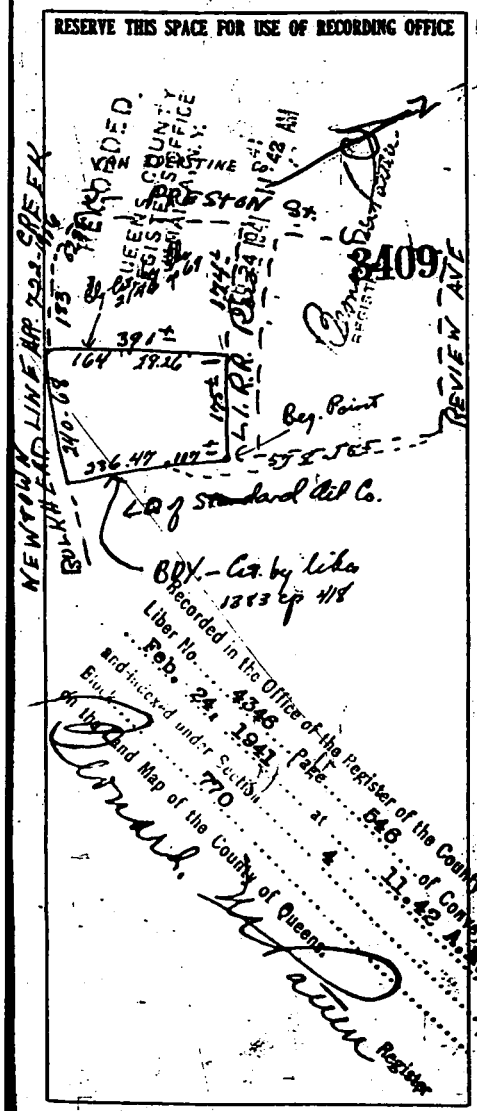
IN WITNESS WHEREOF, I have hereunto set my hand and affixed the seal of the said Court and County, this 27 day of Feb 1941

Archibald R. Watson
County Clerk and Clerk of the Supreme Court, New York County

65

502256

RESERVE THIS SPACE FOR USE OF RECORDING OFFICE



50256

19

THE AMERICAN AGRICULTURAL CHEMICAL COMPANY

6170 TO

POCAHONTAS COAL CORPORATION

480

Deed.

Dated February 20, 1941

The land affected by the within instrument lies in Section 4 in Block 770 on the Land Map of the County of Queens

Recorded at request of

RECORD & RETURN TO
LAWYERS TITLE CORPORATION
OF NEW YORK
92-30 UNION HALL ST., JAMAICA, N.Y.

DEED 4346 PAGE 550

APPENDIX D

Laboratory Detection Limits

Date Created: 07/24/25
Created By: Lisa Shaffer
File: PM19835-1
Page: 1

METALS by 6010D (SOIL)

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Surrogate Criteria	Holding Time	Container
Aluminum, Total	7429-90-5	4	1.3	mg/kg	80-120	20	75-125	20	20		180 days	1 - Metals Only-Glass 60mL/2oz unpreserved
Antimony, Total	7440-36-0	2	1.54	mg/kg	80-120	20	75-125	20	20		180 days	1 - Metals Only-Glass 60mL/2oz unpreserved
Arsenic, Total	7440-38-2	0.4	0.1728	mg/kg	80-120	20	75-125	20	20		180 days	1 - Metals Only-Glass 60mL/2oz unpreserved
Barium, Total	7440-39-3	0.4	0.0424	mg/kg	80-120	20	75-125	20	20		180 days	1 - Metals Only-Glass 60mL/2oz unpreserved
Beryllium, Total	7440-41-7	0.2	0.022	mg/kg	80-120	20	75-125	20	20		180 days	1 - Metals Only-Glass 60mL/2oz unpreserved
Cadmium, Total	7440-43-9	0.4	0.022	mg/kg	80-120	20	75-125	20	20		180 days	1 - Metals Only-Glass 60mL/2oz unpreserved
Calcium, Total	7440-70-2	4	2.268	mg/kg	80-120	20	75-125	20	20		180 days	1 - Metals Only-Glass 60mL/2oz unpreserved
Chromium, Total	7440-47-3	0.4	0.3392	mg/kg	80-120	20	75-125	20	20		180 days	1 - Metals Only-Glass 60mL/2oz unpreserved
Cobalt, Total	7440-48-4	0.8	0.0992	mg/kg	80-120	20	75-125	20	20		180 days	1 - Metals Only-Glass 60mL/2oz unpreserved
Copper, Total	7440-50-8	0.4	0.0908	mg/kg	80-120	20	75-125	20	20		180 days	1 - Metals Only-Glass 60mL/2oz unpreserved
Iron, Total	7439-89-6	2	0.42	mg/kg	80-120	20	75-125	20	20		180 days	1 - Metals Only-Glass 60mL/2oz unpreserved
Lead, Total	7439-92-1	2	0.0952	mg/kg	80-120	20	75-125	20	20		180 days	1 - Metals Only-Glass 60mL/2oz unpreserved
Magnesium, Total	7439-95-4	4	0.652	mg/kg	80-120	20	75-125	20	20		180 days	1 - Metals Only-Glass 60mL/2oz unpreserved
Manganese, Total	7439-96-5	0.4	0.2144	mg/kg	80-120	20	75-125	20	20		180 days	1 - Metals Only-Glass 60mL/2oz unpreserved
Nickel, Total	7440-02-0	1	0.3232	mg/kg	80-120	20	75-125	20	20		180 days	1 - Metals Only-Glass 60mL/2oz unpreserved
Potassium, Total	7440-09-7	100	20.28	mg/kg	80-120	20	75-125	20	20		180 days	1 - Metals Only-Glass 60mL/2oz unpreserved
Selenium, Total	7782-49-2	0.8	0.1316	mg/kg	80-120	20	75-125	20	20		180 days	1 - Metals Only-Glass 60mL/2oz unpreserved
Silver, Total	7440-22-4	0.2	0.1192	mg/kg	80-120	20	75-125	20	20		180 days	1 - Metals Only-Glass 60mL/2oz unpreserved
Sodium, Total	7440-23-5	80	42.4	mg/kg	80-120	20	75-125	20	20		180 days	1 - Metals Only-Glass 60mL/2oz unpreserved
Thallium, Total	7440-28-0	0.8	0.3608	mg/kg	80-120	20	75-125	20	20		180 days	1 - Metals Only-Glass 60mL/2oz unpreserved
Vanadium, Total	7440-62-2	0.4	0.0604	mg/kg	80-120	20	75-125	20	20		180 days	1 - Metals Only-Glass 60mL/2oz unpreserved
Zinc, Total	7440-66-6	2	0.2424	mg/kg	80-120	20	75-125	20	20		180 days	1 - Metals Only-Glass 60mL/2oz unpreserved

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. ***(Soil/Solids only)***
Please Note that the information provided in this table is subject to change at anytime at the discretion of Pace Analytical Services.

Date Created: 07/24/25
Created By: Lisa Shaffer
File: PM19835-1
Page: 1

METALS by 7471B (SOIL)

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Surrogate Criteria	Holding Time	Container
Mercury, Total	7439-97-6	0.08	0.05216	mg/kg	80-120		80-120	20	20		28 days	1 - Metals Only-Glass 60mL/2oz unpreserved

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. ***(Soil/Solids only)***
Please Note that the information provided in this table is subject to change at anytime at the discretion of Pace Analytical Services.

Date Created: 07/24/25
Created By: Lisa Shaffer
File: PM19835-1

TCL Pesticides - EPA 8081B (SOIL)

Holding Time: 14 days
Container/Sample Preservation: 1 - Glass 250ml/8oz unpreserved

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Surrogate Criteria		
4,4'-DDD	72-54-8	1.6008	0.570952	ug/kg	30-150	30	30-150	50	50			
4,4'-DDE	72-55-9	1.6008	0.370185	ug/kg	30-150	30	30-150	50	50			
4,4'-DDT	50-29-3	1.6008	1.28731	ug/kg	30-150	30	30-150	50	50			
Aldrin	309-00-2	1.6008	0.563615	ug/kg	30-150	30	30-150	50	50			
Alpha-BHC	319-84-6	0.667	0.189428	ug/kg	30-150	30	30-150	50	50			
Beta-BHC	319-85-7	1.6008	0.60697	ug/kg	30-150	30	30-150	50	50			
Chlordane	57-74-9	13.34	5.30265	ug/kg	30-150	30	30-150	50	50			
cis-Chlordane	5103-71-9	2.001	0.557612	ug/kg	30-150	30	30-150	50	50			
Delta-BHC	319-86-8	1.6008	0.31349	ug/kg	30-150	30	30-150	50	50			
Dieldrin	60-57-1	1.0005	0.50025	ug/kg	30-150	30	30-150	50	50			
Endosulfan I	959-98-8	1.6008	0.378189	ug/kg	30-150	30	30-150	50	50			
Endosulfan II	33213-65-9	1.6008	0.534934	ug/kg	30-150	30	30-150	50	50			
Endosulfan sulfate	1031-07-8	0.667	0.317492	ug/kg	30-150	30	30-150	50	50			
Endrin	72-20-8	0.667	0.27347	ug/kg	30-150	30	30-150	50	50			
Endrin aldehyde	7421-93-4	2.001	0.70035	ug/kg	30-150	30	30-150	50	50			
Endrin ketone	53494-70-5	1.6008	0.412206	ug/kg	30-150	30	30-150	50	50			
Heptachlor	76-44-8	0.8004	0.358846	ug/kg	30-150	30	30-150	50	50			
Heptachlor epoxide	1024-57-3	3.0015	0.90045	ug/kg	30-150	30	30-150	50	50			
Lindane	58-89-9	0.667	0.298149	ug/kg	30-150	30	30-150	50	50			
Methoxychlor	72-43-5	3.0015	0.9338	ug/kg	30-150	30	30-150	50	50			
Toxaphene	8001-35-2	30.015	8.4042	ug/kg	30-150	30	30-150	50	50			
trans-Chlordane	5103-74-2	2.001	0.528264	ug/kg	30-150	30	30-150	50	50			

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. ***(Soil/Solids only)***
Please Note that the information provided in this table is subject to change at anytime at the discretion of Pace Analytical Services.

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TCL Volatiles - EPA 8260D/5035 High&Low (SOIL)

Holding Time: 14 days
Container/Sample Preservation: 1 - 1 Vial MeOH/2 Vial Water

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Surrogate Criteria		
1,1,1,2-Tetrachloroethane	630-20-6	0.5	0.132	ug/kg	70-130	30	70-130	30	30			
1,1,1-Trichloroethane	71-55-6	0.5	0.167	ug/kg	70-130	30	70-130	30	30			
1,1,2,2-Tetrachloroethane	79-34-5	0.5	0.166	ug/kg	70-130	30	70-130	30	30			
1,1,2-Trichloroethane	79-00-5	1	0.267	ug/kg	70-130	30	70-130	30	30			
1,1-Dichloroethane	75-34-3	1	0.145	ug/kg	70-130	30	70-130	30	30			
1,1-Dichloroethene	75-35-4	1	0.238	ug/kg	65-135	30	65-135	30	30			
1,1-Dichloropropene	563-58-6	0.5	0.159	ug/kg	70-130	30	70-130	30	30			
1,2,3-Trichlorobenzene	87-61-6	2	0.322	ug/kg	70-130	30	70-130	30	30			
1,2,3-Trichloropropane	96-18-4	2	0.127	ug/kg	68-130	30	68-130	30	30			
1,2,4,5-Tetramethylbenzene	95-93-2	2	0.191	ug/kg	70-130	30	70-130	30	30			
1,2,4-Trichlorobenzene	120-82-1	2	0.272	ug/kg	70-130	30	70-130	30	30			
1,2,4-Trimethylbenzene	95-63-6	2	0.334	ug/kg	70-130	30	70-130	30	30			
1,2-Dibromo-3-chloropropane	96-12-8	3	0.998	ug/kg	68-130	30	68-130	30	30			
1,2-Dibromoethane	106-93-4	1	0.279	ug/kg	70-130	30	70-130	30	30			
1,2-Dichlorobenzene	95-50-1	2	0.144	ug/kg	70-130	30	70-130	30	30			
1,2-Dichloroethane	107-06-2	1	0.257	ug/kg	70-130	30	70-130	30	30			
1,2-Dichloroethene (total)	540-59-0	1	0.137	ug/kg				30	30			
1,2-Dichloropropane	78-87-5	1	0.125	ug/kg	70-130	30	70-130	30	30			
1,3,5-Trimethylbenzene	108-67-8	2	0.193	ug/kg	70-130	30	70-130	30	30			
1,3-Dichlorobenzene	541-73-1	2	0.148	ug/kg	70-130	30	70-130	30	30			
1,3-Dichloropropane	142-28-9	2	0.167	ug/kg	69-130	30	69-130	30	30			
1,3-Dichloropropene, Total	542-75-6	0.5	0.158	ug/kg				30	30			
1,4-Dichlorobenzene	106-46-7	2	0.171	ug/kg	70-130	30	70-130	30	30			
1,4-Diethylbenzene	105-05-5	2	0.177	ug/kg	70-130	30	70-130	30	30			
1,4-Dioxane	123-91-1	80	35.1	ug/kg	65-136	30	65-136	30	30			
2,2-Dichloropropane	594-20-7	2	0.202	ug/kg	70-130	30	70-130	30	30			
2-Butanone	78-93-3	10	2.22	ug/kg	70-130	30	70-130	30	30			
2-Hexanone	591-78-6	10	1.18	ug/kg	70-130	30	70-130	30	30			
4-Ethyltoluene	622-96-8	2	0.384	ug/kg	70-130	30	70-130	30	30			
4-Methyl-2-pentanone	108-10-1	10	1.28	ug/kg	70-130	30	70-130	30	30			
Acetone	67-64-1	10	4.811	ug/kg	54-140	30	54-140	30	30			
Acrylonitrile	107-13-1	4	1.15	ug/kg	70-130	30	70-130	30	30			
Benzene	71-43-2	0.5	0.166	ug/kg	70-130	30	70-130	30	30			
Bromobenzene	108-86-1	2	0.145	ug/kg	70-130	30	70-130	30	30			
Bromochloromethane	74-97-5	2	0.205	ug/kg	70-130	30	70-130	30	30			
Bromodichloromethane	75-27-4	0.5	0.109	ug/kg	70-130	30	70-130	30	30			
Bromoform	75-25-2	4	0.246	ug/kg	70-130	30	70-130	30	30			
Bromomethane	74-83-9	2	0.581	ug/kg	57-147	30	57-147	30	30			
Carbon disulfide	75-15-0	10	4.55	ug/kg	59-130	30	59-130	30	30			
Carbon tetrachloride	56-23-5	1	0.23	ug/kg	70-130	30	70-130	30	30			
Chlorobenzene	108-90-7	0.5	0.127	ug/kg	70-130	30	70-130	30	30			
Chloroethane	75-00-3	2	0.452	ug/kg	50-151	30	50-151	30	30			
Chloroform	67-66-3	1.5	0.14	ug/kg	70-130	30	70-130	30	30			
Chloromethane	74-87-3	4	0.932	ug/kg	52-130	30	52-130	30	30			
cis-1,2-Dichloroethene	156-59-2	1	0.175	ug/kg	70-130	30	70-130	30	30			
cis-1,3-Dichloropropene	10061-01-5	0.5	0.158	ug/kg	70-130	30	70-130	30	30			
Dibromochloromethane	124-48-1	1	0.14	ug/kg	70-130	30	70-130	30	30			
Dibromomethane	74-95-3	2	0.238	ug/kg	70-130	30	70-130	30	30			
Dichlorodifluoromethane	75-71-8	10	0.915	ug/kg	30-146	30	30-146	30	30			
Ethyl ether	60-29-7	2	0.341	ug/kg	67-130	30	67-130	30	30			
Ethylbenzene	100-41-4	1	0.141	ug/kg	70-130	30	70-130	30	30			
Hexachlorobutadiene	87-68-3	4	0.169	ug/kg	67-130	30	67-130	30	30			
Isopropylbenzene	98-82-8	1	0.109	ug/kg	70-130	30	70-130	30	30			
Methyl tert butyl ether	1634-04-4	2	0.201	ug/kg	66-130	30	66-130	30	30			
Methylene chloride	75-09-2	5	2.29	ug/kg	70-130	30	70-130	30	30			
n-Butylbenzene	104-51-8	1	0.167	ug/kg	70-130	30	70-130	30	30			

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Surrogate Criteria		
n-Propylbenzene	103-65-1	1	0.171	ug/kg	70-130	30	70-130	30	30			
o-Chlorotoluene	95-49-8	2	0.191	ug/kg	70-130	30	70-130	30	30			
o-Xylene	95-47-6	1	0.291	ug/kg	70-130	30	70-130	30	30			
p/m-Xylene	179601-23-1	2	0.56	ug/kg	70-130	30	70-130	30	30			
p-Chlorotoluene	106-43-4	2	0.108	ug/kg	70-130	30	70-130	30	30			
p-Isopropyltoluene	99-87-6	1	0.109	ug/kg	70-130	30	70-130	30	30			
sec-Butylbenzene	135-98-8	1	0.146	ug/kg	70-130	30	70-130	30	30			
Styrene	100-42-5	1	0.196	ug/kg	70-130	30	70-130	30	30			
tert-Butylbenzene	98-06-6	2	0.118	ug/kg	70-130	30	70-130	30	30			
Tetrachloroethene	127-18-4	0.5	0.196	ug/kg	70-130	30	70-130	30	30			
Toluene	108-88-3	1	0.543	ug/kg	70-130	30	70-130	30	30			
trans-1,2-Dichloroethene	156-60-5	1.5	0.137	ug/kg	70-130	30	70-130	30	30			
trans-1,3-Dichloropropene	10061-02-6	1	0.273	ug/kg	70-130	30	70-130	30	30			
trans-1,4-Dichloro-2-butene	110-57-6	5	1.42	ug/kg	70-130	30	70-130	30	30			
Trichloroethene	79-01-6	0.5	0.137	ug/kg	70-130	30	70-130	30	30			
Trichlorofluoromethane	75-69-4	4	0.695	ug/kg	70-139	30	70-139	30	30			
Vinyl acetate	108-05-4	10	2.15	ug/kg	70-130	30	70-130	30	30			
Vinyl chloride	75-01-4	1	0.335	ug/kg	67-130	30	67-130	30	30			
Xylene (Total)	1330-20-7	1	0.291	ug/kg				30	30			

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NYTCL Semivolatiles - EPA 8270E (SOIL)

Holding Time: 14 days
Container/Sample Preservation: 1 - Glass 250ml/8oz unpreserved

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Surrogate Criteria		
1,2,4-Trichlorobenzene	120-82-1	167	19.1048	ug/kg	38-107	50	38-107	50	50			
1,2-Dichlorobenzene	95-50-1	167	29.9932	ug/kg	40-140	50	40-140	50	50			
1,3-Dichlorobenzene	541-73-1	167	28.724	ug/kg	40-140	50	40-140	50	50			
1,4-Dichlorobenzene	106-46-7	167	29.1582	ug/kg	28-104	50	28-104	50	50			
1,4-Dioxane	123-91-1	25.05	7.682	ug/kg	40-140	50	40-140	50	50			
2,4,5-Trichlorophenol	95-95-4	167	31.9972	ug/kg	30-130	50	30-130	50	50			
2,4,6-Trichlorophenol	88-06-2	100.2	31.6632	ug/kg	30-130	50	30-130	50	50			
2,4-Dichlorophenol	120-83-2	150.3	26.8536	ug/kg	30-130	50	30-130	50	50			
2,4-Dimethylphenol	105-67-9	167	55.11	ug/kg	30-130	50	30-130	50	50			
2,4-Dinitrophenol	51-28-5	801.6	77.822	ug/kg	4-130	50	4-130	50	50			
2,4-Dinitrotoluene	121-14-2	167	33.4	ug/kg	40-132	50	40-132	50	50			
2,6-Dinitrotoluene	606-20-2	167	28.6572	ug/kg	40-140	50	40-140	50	50			
2-Chloronaphthalene	91-58-7	167	16.5664	ug/kg	40-140	50	40-140	50	50			
2-Chlorophenol	95-57-8	167	19.7394	ug/kg	25-102	50	25-102	50	50			
2-Methylnaphthalene	91-57-6	200.4	20.1736	ug/kg	40-140	50	40-140	50	50			
2-Methylphenol	95-48-7	167	25.885	ug/kg	30-130	50	30-130	50	50			
2-Nitroaniline	88-74-4	167	32.1976	ug/kg	47-134	50	47-134	50	50			
2-Nitrophenol	88-75-5	360.72	62.792	ug/kg	30-130	50	30-130	50	50			
3,3'-Dichlorobenzidine	91-94-1	167	44.422	ug/kg	40-140	50	40-140	50	50			
3-Methylphenol/4-Methylphenol	108-39-4/106-44-5	240.48	26.1522	ug/kg	30-130	50	30-130	50	50			
3-Nitroaniline	99-09-2	167	31.4962	ug/kg	26-129	50	26-129	50	50			
4,6-Dinitro-o-cresol	534-52-1	434.2	80.16	ug/kg	10-130	50	10-130	50	50			
4-Bromophenyl phenyl ether	101-55-3	167	25.4842	ug/kg	40-140	50	40-140	50	50			
4-Chloroaniline	106-47-8	167	30.394	ug/kg	40-140	50	40-140	50	50			
4-Chlorophenyl phenyl ether	7005-72-3	167	17.869	ug/kg	40-140	50	40-140	50	50			
4-Nitroaniline	100-01-6	167	69.138	ug/kg	41-125	50	41-125	50	50			
4-Nitrophenol	100-02-7	233.8	68.136	ug/kg	11-114	50	11-114	50	50			
Acenaphthene	83-32-9	133.6	17.3012	ug/kg	31-137	50	31-137	50	50			
Acenaphthylene	208-96-8	133.6	25.7848	ug/kg	40-140	50	40-140	50	50			
Acetophenone	98-86-2	167	20.6746	ug/kg	14-144	50	14-144	50	50			
Anthracene	120-12-7	100.2	32.565	ug/kg	40-140	50	40-140	50	50			
Benzo(a)anthracene	56-55-3	100.2	18.8042	ug/kg	40-140	50	40-140	50	50			
Benzo(a)pyrene	50-32-8	133.6	40.748	ug/kg	40-140	50	40-140	50	50			
Benzo(b)fluoranthene	205-99-2	100.2	28.1228	ug/kg	40-140	50	40-140	50	50			
Benzo(ghi)perylene	191-24-2	133.6	19.6392	ug/kg	40-140	50	40-140	50	50			
Benzo(k)fluoranthene	207-08-9	100.2	26.72	ug/kg	40-140	50	40-140	50	50			
Benzoic Acid	65-85-0	541.08	169.004	ug/kg	10-110	50	10-110	50	50			
Benzyl Alcohol	100-51-6	167	51.102	ug/kg	40-140	50	40-140	50	50			
Biphenyl	92-52-4	380.76	21.71	ug/kg	37-127	50	37-127	50	50			
Bis(2-chloroethoxy)methane	111-91-1	180.36	16.7334	ug/kg	40-117	50	40-117	50	50			
Bis(2-chloroethyl)ether	111-44-4	150.3	22.6452	ug/kg	40-140	50	40-140	50	50			
Bis(2-chloroisopropyl)ether	108-60-1	200.4	28.5236	ug/kg	40-140	50	40-140	50	50			
Bis(2-Ethylhexyl)phthalate	117-81-7	167	57.782	ug/kg	40-140	50	40-140	50	50			
Butyl benzyl phthalate	85-68-7	167	42.084	ug/kg	40-140	50	40-140	50	50			
Carbazole	86-74-8	167	16.2324	ug/kg	54-128	50	54-128	50	50			
Chrysene	218-01-9	100.2	17.368	ug/kg	40-140	50	40-140	50	50			
Dibenzo(a,h)anthracene	53-70-3	100.2	19.3052	ug/kg	40-140	50	40-140	50	50			
Dibenzofuran	132-64-9	167	15.7982	ug/kg	40-140	50	40-140	50	50			
Diethyl phthalate	84-66-2	167	15.4642	ug/kg	40-140	50	40-140	50	50			
Dimethyl phthalate	131-11-3	167	35.07	ug/kg	40-140	50	40-140	50	50			
Di-n-butylphthalate	84-74-2	167	31.6632	ug/kg	40-140	50	40-140	50	50			
Di-n-octylphthalate	117-84-0	167	56.78	ug/kg	40-140	50	40-140	50	50			
Fluoranthene	206-44-0	100.2	19.1716	ug/kg	40-140	50	40-140	50	50			
Fluorene	86-73-7	167	16.2324	ug/kg	40-140	50	40-140	50	50			
Hexachlorobenzene	118-74-1	100.2	18.704	ug/kg	40-140	50	40-140	50	50			
Hexachlorobutadiene	87-68-3	167	24.4488	ug/kg	40-140	50	40-140	50	50			

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Surrogate Criteria		
Hexachlorocyclopentadiene	77-47-4	477.62	151.302	ug/kg	40-140	50	40-140	50	50			
Hexachloroethane	67-72-1	133.6	27.0206	ug/kg	40-140	50	40-140	50	50			
Indeno(1,2,3-cd)Pyrene	193-39-5	133.6	23.2798	ug/kg	40-140	50	40-140	50	50			
Isophorone	78-59-1	150.3	21.6766	ug/kg	40-140	50	40-140	50	50			
Naphthalene	91-20-3	167	20.3406	ug/kg	40-140	50	40-140	50	50			
Nitrobenzene	98-95-3	150.3	24.716	ug/kg	40-140	50	40-140	50	50			
NitrosoDiPhenylAmine(NDPA)/DPA	86-30-6	133.6	19.0046	ug/kg	36-157	50	36-157	50	50			
n-Nitrosodi-n-propylamine	621-64-7	167	25.7848	ug/kg	32-121	50	32-121	50	50			
P-Chloro-M-Cresol	59-50-7	167	24.883	ug/kg	26-103	50	26-103	50	50			
Pentachlorophenol	87-86-5	133.6	36.74	ug/kg	17-109	50	17-109	50	50			
Phenanthrene	85-01-8	100.2	20.3072	ug/kg	40-140	50	40-140	50	50			
Phenol	108-95-2	167	25.217	ug/kg	26-90	50	26-90	50	50			
Pyrene	129-00-0	100.2	16.5998	ug/kg	35-142	50	35-142	50	50			

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TCL PCBs - EPA 8082A (SOIL)

Holding Time: 365 days
Container/Sample Preservation: 1 - Glass 250ml/8oz unpreserved

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Surrogate Criteria		
Aroclor 1016	12674-11-2	0.05	0.00444	mg/kg	40-140	50	40-140	50	50			
Aroclor 1221	11104-28-2	0.05	0.00501	mg/kg	40-140	50	40-140	50	50			
Aroclor 1232	11141-16-5	0.05	0.0106	mg/kg	40-140	50	40-140	50	50			
Aroclor 1242	53469-21-9	0.05	0.00674	mg/kg	40-140	50	40-140	50	50			
Aroclor 1248	12672-29-6	0.05	0.0075	mg/kg	40-140	50	40-140	50	50			
Aroclor 1254	11097-69-1	0.05	0.00547	mg/kg	40-140	50	40-140	50	50			
Aroclor 1260	11096-82-5	0.05	0.00924	mg/kg	40-140	50	40-140	50	50			
Aroclor 1262	37324-23-5	0.05	0.00635	mg/kg	40-140	50	40-140	50	50			
Aroclor 1268	11100-14-4	0.05	0.00518	mg/kg	40-140	50	40-140	50	50			
PCBs, Total	1336-36-3	0.05	0.00444	mg/kg				50	50			

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WETCHEM (SOIL)

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Method	Holding Time	Container
Solids, Total	NONE	0.1		%				20	20	2540G	7 days	1 - Plastic 2oz unpreserved for TS
Cyanide, Total	57-12-5	1	0.212	mg/kg	80-120	35	75-125	35	35	9010C/9012B	14 days	1 - Glass 250ml/8oz unpreserved

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METALS by 6020B (WATER)

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Surrogate Criteria	Holding Time	Container
Aluminum, Total	7429-90-5	0.01	0.00327	mg/l	80-120		75-125	20	20		180 days	1 - Plastic 500ml HNO3 preserved
Antimony, Total	7440-36-0	0.004	0.000429	mg/l	80-120		75-125	20	20		180 days	1 - Plastic 500ml HNO3 preserved
Arsenic, Total	7440-38-2	0.0005	0.000165	mg/l	80-120		75-125	20	20		180 days	1 - Plastic 500ml HNO3 preserved
Barium, Total	7440-39-3	0.0005	0.000173	mg/l	80-120		75-125	20	20		180 days	1 - Plastic 500ml HNO3 preserved
Beryllium, Total	7440-41-7	0.0005	0.000107	mg/l	80-120		75-125	20	20		180 days	1 - Plastic 500ml HNO3 preserved
Cadmium, Total	7440-43-9	0.0002	0.0000599	mg/l	80-120		75-125	20	20		180 days	1 - Plastic 500ml HNO3 preserved
Calcium, Total	7440-70-2	0.1	0.0394	mg/l	80-120		75-125	20	20		180 days	1 - Plastic 500ml HNO3 preserved
Chromium, Total	7440-47-3	0.001	0.000178	mg/l	80-120		75-125	20	20		180 days	1 - Plastic 500ml HNO3 preserved
Cobalt, Total	7440-48-4	0.0005	0.000163	mg/l	80-120		75-125	20	20		180 days	1 - Plastic 500ml HNO3 preserved
Copper, Total	7440-50-8	0.001	0.000384	mg/l	80-120		75-125	20	20		180 days	1 - Plastic 500ml HNO3 preserved
Iron, Total	7439-89-6	0.05	0.0191	mg/l	80-120		75-125	20	20		180 days	1 - Plastic 500ml HNO3 preserved
Lead, Total	7439-92-1	0.001	0.000343	mg/l	80-120		75-125	20	20		180 days	1 - Plastic 500ml HNO3 preserved
Magnesium, Total	7439-95-4	0.07	0.0242	mg/l	80-120		75-125	20	20		180 days	1 - Plastic 500ml HNO3 preserved
Manganese, Total	7439-96-5	0.001	0.00044	mg/l	80-120		75-125	20	20		180 days	1 - Plastic 500ml HNO3 preserved
Nickel, Total	7440-02-0	0.002	0.000556	mg/l	80-120		75-125	20	20		180 days	1 - Plastic 500ml HNO3 preserved
Potassium, Total	7440-09-7	0.1	0.0309	mg/l	80-120		75-125	20	20		180 days	1 - Plastic 500ml HNO3 preserved
Selenium, Total	7782-49-2	0.005	0.00173	mg/l	80-120		75-125	20	20		180 days	1 - Plastic 500ml HNO3 preserved
Silver, Total	7440-22-4	0.0004	0.000163	mg/l	80-120		75-125	20	20		180 days	1 - Plastic 500ml HNO3 preserved
Sodium, Total	7440-23-5	0.5	0.0293	mg/l	80-120		75-125	20	20		180 days	1 - Plastic 500ml HNO3 preserved
Thallium, Total	7440-28-0	0.001	0.000143	mg/l	80-120		75-125	20	20		180 days	1 - Plastic 500ml HNO3 preserved
Vanadium, Total	7440-62-2	0.005	0.00157	mg/l	80-120		75-125	20	20		180 days	1 - Plastic 500ml HNO3 preserved
Zinc, Total	7440-66-6	0.01	0.00341	mg/l	80-120		75-125	20	20		180 days	1 - Plastic 500ml HNO3 preserved

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METALS by 7470A (WATER)

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Surrogate Criteria	Holding Time	Container
Mercury, Total	7439-97-6	0.0002	0.0000915	mg/l	80-120		75-125	20	20		28 days	1 - Plastic 500ml HNO3 preserved

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TCL Pesticides - EPA 8081B (RVT) (WATER)

Holding Time: 7 days
Container/Sample Preservation: 2 - Amber 100ml unpreserved

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Surrogate Criteria		
4,4'-DDD	72-54-8	0.029	0.0101	ug/l	30-150	20	30-150	30	30			
4,4'-DDE	72-55-9	0.029	0.01	ug/l	30-150	20	30-150	30	30			
4,4'-DDT	50-29-3	0.029	0.0134	ug/l	30-150	20	30-150	30	30			
Aldrin	309-00-2	0.014	0.0051	ug/l	30-150	20	30-150	30	30			
Alpha-BHC	319-84-6	0.014	0.0048	ug/l	30-150	20	30-150	30	30			
Beta-BHC	319-85-7	0.02	0.0141	ug/l	30-150	20	30-150	30	30			
Chlordane	57-74-9	0.143	0.098	ug/l	30-150	20	30-150	30	30			
cis-Chlordane	5103-71-9	0.02	0.0068	ug/l	30-150	20	30-150	30	30			
Delta-BHC	319-86-8	0.014	0.0059	ug/l	30-150	20	30-150	30	30			
Dieldrin	60-57-1	0.029	0.0043	ug/l	30-150	20	30-150	30	30			
Endosulfan I	959-98-8	0.014	0.0047	ug/l	30-150	20	30-150	30	30			
Endosulfan II	33213-65-9	0.029	0.0084	ug/l	30-150	20	30-150	30	30			
Endosulfan sulfate	1031-07-8	0.029	0.0065	ug/l	30-150	20	30-150	30	30			
Endrin	72-20-8	0.029	0.0082	ug/l	30-150	20	30-150	30	30			
Endrin aldehyde	7421-93-4	0.03	0.0178	ug/l	30-150	20	30-150	30	30			
Endrin ketone	53494-70-5	0.029	0.0138	ug/l	30-150	20	30-150	30	30			
Heptachlor	76-44-8	0.014	0.0047	ug/l	30-150	20	30-150	30	30			
Heptachlor epoxide	1024-57-3	0.014	0.0045	ug/l	30-150	20	30-150	30	30			
Lindane	58-89-9	0.014	0.0049	ug/l	30-150	20	30-150	30	30			
Methoxychlor	72-43-5	0.143	0.0141	ug/l	30-150	20	30-150	30	30			
Toxaphene	8001-35-2	0.2	0.0942	ug/l	30-150	20	30-150	30	30			
trans-Chlordane	5103-74-2	0.02	0.011	ug/l	30-150	20	30-150	30	30			

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TCL Volatiles - EPA 8260D (WATER)

Holding Time: 14 days
Container/Sample Preservation: 3 - Vial HCl preserved

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Surrogate Criteria		
1,1,1,2-Tetrachloroethane	630-20-6	2.5	0.7	ug/l	64-130	20	64-130	20	20			
1,1,1-Trichloroethane	71-55-6	2.5	0.7	ug/l	67-130	20	67-130	20	20			
1,1,2,2-Tetrachloroethane	79-34-5	0.5	0.167	ug/l	67-130	20	67-130	20	20			
1,1,2-Trichloroethane	79-00-5	1.5	0.5	ug/l	70-130	20	70-130	20	20			
1,1-Dichloroethane	75-34-3	2.5	0.7	ug/l	70-130	20	70-130	20	20			
1,1-Dichloroethene	75-35-4	0.5	0.169	ug/l	61-145	20	61-145	20	20			
1,1-Dichloropropene	563-58-6	2.5	0.7	ug/l	70-130	20	70-130	20	20			
1,2,3-Trichlorobenzene	87-61-6	2.5	0.7	ug/l	70-130	20	70-130	20	20			
1,2,3-Trichloropropane	96-18-4	2.5	0.7	ug/l	64-130	20	64-130	20	20			
1,2,4,5-Tetramethylbenzene	95-93-2	2	0.542	ug/l	70-130	20	70-130	20	20			
1,2,4-Trichlorobenzene	120-82-1	2.5	0.7	ug/l	70-130	20	70-130	20	20			
1,2,4-Trimethylbenzene	95-63-6	2.5	0.7	ug/l	70-130	20	70-130	20	20			
1,2-Dibromo-3-chloropropane	96-12-8	2.5	0.7	ug/l	41-144	20	41-144	20	20			
1,2-Dibromoethane	106-93-4	2	0.65	ug/l	70-130	20	70-130	20	20			
1,2-Dichlorobenzene	95-50-1	2.5	0.7	ug/l	70-130	20	70-130	20	20			
1,2-Dichloroethane	107-06-2	0.5	0.132	ug/l	70-130	20	70-130	20	20			
1,2-Dichloroethene (total)	540-59-0	2.5	0.7	ug/l				20	20			
1,2-Dichloropropane	78-87-5	1	0.137	ug/l	70-130	20	70-130	20	20			
1,3,5-Trimethylbenzene	108-67-8	2.5	0.7	ug/l	64-130	20	64-130	20	20			
1,3-Dichlorobenzene	541-73-1	2.5	0.7	ug/l	70-130	20	70-130	20	20			
1,3-Dichloropropane	142-28-9	2.5	0.7	ug/l	70-130	20	70-130	20	20			
1,3-Dichloropropene, Total	542-75-6	0.5	0.144	ug/l				20	20			
1,4-Dichlorobenzene	106-46-7	2.5	0.7	ug/l	70-130	20	70-130	20	20			
1,4-Diethylbenzene	105-05-5	2	0.7	ug/l	70-130	20	70-130	20	20			
1,4-Dioxane	123-91-1	250	60.8	ug/l	56-162	20	56-162	20	20			
2,2-Dichloropropane	594-20-7	2.5	0.7	ug/l	63-133	20	63-133	20	20			
2-Butanone	78-93-3	5	1.94	ug/l	63-138	20	63-138	20	20			
2-Hexanone	591-78-6	5	1	ug/l	57-130	20	57-130	20	20			
4-Ethyltoluene	622-96-8	2	0.7	ug/l	70-130	20	70-130	20	20			
4-Methyl-2-pentanone	108-10-1	5	1	ug/l	59-130	20	59-130	20	20			
Acetone	67-64-1	5	1.46	ug/l	58-148	20	58-148	20	20			
Acrylonitrile	107-13-1	5	1.5	ug/l	70-130	20	70-130	20	20			
Benzene	71-43-2	0.5	0.159	ug/l	70-130	20	70-130	20	20			
Bromobenzene	108-86-1	2.5	0.7	ug/l	70-130	20	70-130	20	20			
Bromochloromethane	74-97-5	2.5	0.7	ug/l	70-130	20	70-130	20	20			
Bromodichloromethane	75-27-4	0.5	0.192	ug/l	67-130	20	67-130	20	20			
Bromoform	75-25-2	2	0.65	ug/l	54-136	20	54-136	20	20			
Bromomethane	74-83-9	2.5	0.7	ug/l	39-139	20	39-139	20	20			
Carbon disulfide	75-15-0	5	1	ug/l	51-130	20	51-130	20	20			
Carbon tetrachloride	56-23-5	0.5	0.134	ug/l	63-132	20	63-132	20	20			
Chlorobenzene	108-90-7	2.5	0.7	ug/l	75-130	20	75-130	20	20			
Chloroethane	75-00-3	2.5	0.7	ug/l	55-138	20	55-138	20	20			
Chloroform	67-66-3	2.5	0.7	ug/l	70-130	20	70-130	20	20			
Chloromethane	74-87-3	2.5	0.7	ug/l	64-130	20	64-130	20	20			
cis-1,2-Dichloroethene	156-59-2	2.5	0.7	ug/l	70-130	20	70-130	20	20			
cis-1,3-Dichloropropene	10061-01-5	0.5	0.144	ug/l	70-130	20	70-130	20	20			
Dibromochloromethane	124-48-1	0.5	0.149	ug/l	63-130	20	63-130	20	20			
Dibromomethane	74-95-3	5	1	ug/l	70-130	20	70-130	20	20			
Dichlorodifluoromethane	75-71-8	5	1	ug/l	36-147	20	36-147	20	20			
Ethyl ether	60-29-7	2.5	0.7	ug/l	59-134	20	59-134	20	20			
Ethylbenzene	100-41-4	2.5	0.7	ug/l	70-130	20	70-130	20	20			
Hexachlorobutadiene	87-68-3	2.5	0.7	ug/l	63-130	20	63-130	20	20			
Isopropylbenzene	98-82-8	2.5	0.7	ug/l	70-130	20	70-130	20	20			
Methyl tert butyl ether	1634-04-4	2.5	0.166	ug/l	63-130	20	63-130	20	20			
Methylene chloride	75-09-2	2.5	0.7	ug/l	70-130	20	70-130	20	20			
n-Butylbenzene	104-51-8	2.5	0.7	ug/l	53-136	20	53-136	20	20			

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Surrogate Criteria		
n-Propylbenzene	103-65-1	2.5	0.7	ug/l	69-130	20	69-130	20	20			
o-Chlorotoluene	95-49-8	2.5	0.7	ug/l	70-130	20	70-130	20	20			
o-Xylene	95-47-6	2.5	0.7	ug/l	70-130	20	70-130	20	20			
p/m-Xylene	179601-23-1	2.5	0.7	ug/l	70-130	20	70-130	20	20			
p-Chlorotoluene	106-43-4	2.5	0.7	ug/l	70-130	20	70-130	20	20			
p-Isopropyltoluene	99-87-6	2.5	0.7	ug/l	70-130	20	70-130	20	20			
sec-Butylbenzene	135-98-8	2.5	0.7	ug/l	70-130	20	70-130	20	20			
Styrene	100-42-5	2.5	0.7	ug/l	70-130	20	70-130	20	20			
tert-Butylbenzene	98-06-6	2.5	0.7	ug/l	70-130	20	70-130	20	20			
Tetrachloroethene	127-18-4	0.5	0.181	ug/l	70-130	20	70-130	20	20			
Toluene	108-88-3	2.5	0.7	ug/l	70-130	20	70-130	20	20			
trans-1,2-Dichloroethene	156-60-5	2.5	0.7	ug/l	70-130	20	70-130	20	20			
trans-1,3-Dichloropropene	10061-02-6	0.5	0.164	ug/l	70-130	20	70-130	20	20			
trans-1,4-Dichloro-2-butene	110-57-6	2.5	0.7	ug/l	70-130	20	70-130	20	20			
Trichloroethene	79-01-6	0.5	0.175	ug/l	70-130	20	70-130	20	20			
Trichlorofluoromethane	75-69-4	2.5	0.7	ug/l	62-150	20	62-150	20	20			
Vinyl acetate	108-05-4	5	1	ug/l	70-130	20	70-130	20	20			
Vinyl chloride	75-01-4	1	0.0714	ug/l	55-140	20	55-140	20	20			
Xylene (Total)	1330-20-7	2.5	0.7	ug/l				20	20			

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NYTCL Semivolatiles - EPA 8270E (RVT) (WATER)

Holding Time: 7 days
Container/Sample Preservation: 2 - Amber 100ml unpreserved

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Surrogate Criteria		
1,2,4-Trichlorobenzene	120-82-1	5	0.977	ug/l	39-98	30	39-98	30	30			
1,2-Dichlorobenzene	95-50-1	2	0.329	ug/l	40-140	30	40-140	30	30			
1,3-Dichlorobenzene	541-73-1	2	0.315	ug/l	40-140	30	40-140	30	30			
1,4-Dichlorobenzene	106-46-7	2	0.391	ug/l	36-97	30	36-97	30	30			
2,4,5-Trichlorophenol	95-95-4	5	2.07	ug/l	30-130	30	30-130	30	30			
2,4,6-Trichlorophenol	88-06-2	5	2.09	ug/l	30-130	30	30-130	30	30			
2,4-Dichlorophenol	120-83-2	5	1.7	ug/l	30-130	30	30-130	30	30			
2,4-Dimethylphenol	105-67-9	5	2.04	ug/l	30-130	30	30-130	30	30			
2,4-Dinitrophenol	51-28-5	20	5.42	ug/l	20-130	30	20-130	30	30			
2,4-Dinitrotoluene	121-14-2	5	0.541	ug/l	48-143	30	48-143	30	30			
2,6-Dinitrotoluene	606-20-2	5	0.845	ug/l	40-140	30	40-140	30	30			
2-Chloronaphthalene	91-58-7	2	0.35	ug/l	40-140	30	40-140	30	30			
2-Chlorophenol	95-57-8	2	0.653	ug/l	27-123	30	27-123	30	30			
2-Methylnaphthalene	91-57-6	2	0.372	ug/l	40-140	30	40-140	30	30			
2-Methylphenol	95-48-7	5	2.31	ug/l	30-130	30	30-130	30	30			
2-Nitroaniline	88-74-4	5	1.03	ug/l	52-143	30	52-143	30	30			
2-Nitrophenol	88-75-5	10	1.95	ug/l	30-130	30	30-130	30	30			
3,3'-Dichlorobenzidine	91-94-1	5	1.85	ug/l	40-140	30	40-140	30	30			
3-Methylphenol/4-Methylphenol	108-39-4/106-44-5	5	1.39	ug/l	30-130	30	30-130	30	30			
3-Nitroaniline	99-09-2	5	1.16	ug/l	25-145	30	25-145	30	30			
4,6-Dinitro-o-cresol	534-52-1	10	2.31	ug/l	20-164	30	20-164	30	30			
4-Bromophenyl phenyl ether	101-55-3	2	0.244	ug/l	40-140	30	40-140	30	30			
4-Chloroaniline	106-47-8	5	0.468	ug/l	40-140	30	40-140	30	30			
4-Chlorophenyl phenyl ether	7005-72-3	2	0.386	ug/l	40-140	30	40-140	30	30			
4-Nitroaniline	100-01-6	5	1.45	ug/l	51-143	30	51-143	30	30			
4-Nitrophenol	100-02-7	10	1.42	ug/l	10-80	30	10-80	30	30			
Acenaphthene	83-32-9	2	0.403	ug/l	37-111	30	37-111	30	30			
Acenaphthylene	208-96-8	2	0.315	ug/l	45-123	30	45-123	30	30			
Acetophenone	98-86-2	5	0.917	ug/l	39-129	30	39-129	30	30			
Anthracene	120-12-7	2	0.467	ug/l	40-140	30	40-140	30	30			
Benzo(a)anthracene	56-55-3	2	0.323	ug/l	40-140	30	40-140	30	30			
Benzo(a)pyrene	50-32-8	2	0.368	ug/l	40-140	30	40-140	30	30			
Benzo(b)fluoranthene	205-99-2	2	0.533	ug/l	40-140	30	40-140	30	30			
Benzo(ghi)perylene	191-24-2	2	0.369	ug/l	40-140	30	40-140	30	30			
Benzo(k)fluoranthene	207-08-9	2	0.621	ug/l	40-140	30	40-140	30	30			
Benzoic Acid	65-85-0	50	2.62	ug/l	10-164	30	10-164	30	30			
Benzyl Alcohol	100-51-6	2	0.381	ug/l	26-116	30	26-116	30	30			
Biphenyl	92-52-4	2	0.196	ug/l	40-140	30	40-140	30	30			
Bis(2-chloroethoxy)methane	111-91-1	5	0.842	ug/l	40-140	30	40-140	30	30			
Bis(2-chloroethyl)ether	111-44-4	2	0.392	ug/l	40-140	30	40-140	30	30			
Bis(2-chloroisopropyl)ether	108-60-1	2	0.403	ug/l	40-140	30	40-140	30	30			
Bis(2-Ethylhexyl)phthalate	117-81-7	3	1.42	ug/l	40-140	30	40-140	30	30			
Butyl benzyl phthalate	85-68-7	5	2.61	ug/l	40-140	30	40-140	30	30			
Carbazole	86-74-8	2	0.309	ug/l	55-144	30	55-144	30	30			
Chrysene	218-01-9	2	0.222	ug/l	40-140	30	40-140	30	30			
Dibenzo(a,h)anthracene	53-70-3	2	0.286	ug/l	40-140	30	40-140	30	30			
Dibenzofuran	132-64-9	2	0.401	ug/l	40-140	30	40-140	30	30			
Diethyl phthalate	84-66-2	5	0.765	ug/l	40-140	30	40-140	30	30			
Dimethyl phthalate	131-11-3	5	0.916	ug/l	40-140	30	40-140	30	30			
Di-n-butylphthalate	84-74-2	5	0.957	ug/l	40-140	30	40-140	30	30			
Di-n-octylphthalate	117-84-0	5	2.26	ug/l	40-140	30	40-140	30	30			
Fluoranthene	206-44-0	2	0.411	ug/l	40-140	30	40-140	30	30			
Fluorene	86-73-7	2	0.439	ug/l	40-140	30	40-140	30	30			
Hexachlorobenzene	118-74-1	2	0.452	ug/l	40-140	30	40-140	30	30			
Hexachlorobutadiene	87-68-3	2	0.355	ug/l	40-140	30	40-140	30	30			
Hexachlorocyclopentadiene	77-47-4	20	1.23	ug/l	40-140	30	40-140	30	30			

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Surrogate Criteria		
Hexachloroethane	67-72-1	2	0.203	ug/l	40-140	30	40-140	30	30			
Indeno(1,2,3-cd)Pyrene	193-39-5	2	0.484	ug/l	40-140	30	40-140	30	30			
Isophorone	78-59-1	5	0.862	ug/l	40-140	30	40-140	30	30			
Naphthalene	91-20-3	2	0.542	ug/l	40-140	30	40-140	30	30			
Nitrobenzene	98-95-3	2	0.205	ug/l	40-140	30	40-140	30	30			
NitrosoDiPhenylAmine(NDPA)/DPA	86-30-6	2	0.924	ug/l	40-140	30	40-140	30	30			
n-Nitrosodi-n-propylamine	621-64-7	5	0.906	ug/l	29-132	30	29-132	30	30			
P-Chloro-M-Cresol	59-50-7	2	0.606	ug/l	23-97	30	23-97	30	30			
Pentachlorophenol	87-86-5	10	2.51	ug/l	9-103	30	9-103	30	30			
Phenanthrene	85-01-8	2	0.419	ug/l	40-140	30	40-140	30	30			
Phenol	108-95-2	5	0.35	ug/l	12-110	30	12-110	30	30			
Pyrene	129-00-0	2	0.407	ug/l	26-127	30	26-127	30	30			

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. (Soil/Solids only)

Please Note that the information provided in this table is subject to change at anytime at the discretion of Pace Analytical Services.

Date Created: 07/24/25
Created By: Lisa Shaffer
File: PM19836-1

NYTCL Semivolatiles -EPA 8270E-SIM (RVT) (WATER)

Holding Time: 7 days
Container/Sample Preservation: 2 - Amber 100ml unpreserved

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Surrogate Criteria		
2-Chloronaphthalene	91-58-7	0.2	0.0227	ug/l	40-140	40	40-140	40	40			
2-Methylnaphthalene	91-57-6	0.1	0.0277	ug/l	40-140	40	40-140	40	40			
Acenaphthene	83-32-9	0.1	0.0235	ug/l	40-140	40	40-140	40	40			
Acenaphthylene	208-96-8	0.1	0.0205	ug/l	40-140	40	40-140	40	40			
Anthracene	120-12-7	0.1	0.0239	ug/l	40-140	40	40-140	40	40			
Benzo(a)anthracene	56-55-3	0.1	0.0295	ug/l	40-140	40	40-140	40	40			
Benzo(a)pyrene	50-32-8	0.1	0.024	ug/l	40-140	40	40-140	40	40			
Benzo(b)fluoranthene	205-99-2	0.1	0.0272	ug/l	40-140	40	40-140	40	40			
Benzo(ghi)perylene	191-24-2	0.1	0.0237	ug/l	40-140	40	40-140	40	40			
Benzo(k)fluoranthene	207-08-9	0.1	0.0338	ug/l	40-140	40	40-140	40	40			
Chrysene	218-01-9	0.1	0.031	ug/l	40-140	40	40-140	40	40			
Dibenzo(a,h)anthracene	53-70-3	0.1	0.0235	ug/l	40-140	40	40-140	40	40			
Fluoranthene	206-44-0	0.1	0.0272	ug/l	40-140	40	40-140	40	40			
Fluorene	86-73-7	0.1	0.0255	ug/l	40-140	40	40-140	40	40			
Hexachlorobenzene	118-74-1	0.8	0.0134	ug/l	40-140	40	40-140	40	40			
Hexachlorobutadiene	87-68-3	0.5	0.02	ug/l	40-140	40	40-140	40	40			
Hexachloroethane	67-72-1	0.8	0.0224	ug/l	40-140	40	40-140	40	40			
Indeno(1,2,3-cd)Pyrene	193-39-5	0.1	0.022	ug/l	40-140	40	40-140	40	40			
Naphthalene	91-20-3	0.1	0.0245	ug/l	40-140	40	40-140	40	40			
Pentachlorophenol	87-86-5	0.8	0.0565	ug/l	40-140	40	40-140	40	40			
Phenanthrene	85-01-8	0.1	0.0392	ug/l	40-140	40	40-140	40	40			
Pyrene	129-00-0	0.1	0.0425	ug/l	40-140	40	40-140	40	40			

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. (Soil/Solids only)
Please Note that the information provided in this table is subject to change at anytime at the discretion of Pace Analytical Services.

Date Created: 07/24/25
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File: PM19836-1

TCL PCBs - EPA 8082A (RVT) (WATER)

Holding Time: 365 days
Container/Sample Preservation: 2 - Amber 100ml unpreserved

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Surrogate Criteria		
Aroclor 1016	12674-11-2	0.071	0.0128	ug/l	40-140	50	40-140	50	50			
Aroclor 1221	11104-28-2	0.071	0.0153	ug/l	40-140	50	40-140	50	50			
Aroclor 1232	11141-16-5	0.071	0.0153	ug/l	40-140	50	40-140	50	50			
Aroclor 1242	53469-21-9	0.071	0.0153	ug/l	40-140	50	40-140	50	50			
Aroclor 1248	12672-29-6	0.071	0.0153	ug/l	40-140	50	40-140	50	50			
Aroclor 1254	11097-69-1	0.071	0.0153	ug/l	40-140	50	40-140	50	50			
Aroclor 1260	11096-82-5	0.071	0.0153	ug/l	40-140	50	40-140	50	50			
Aroclor 1262	37324-23-5	0.071	0.0153	ug/l	40-140	50	40-140	50	50			
Aroclor 1268	11100-14-4	0.071	0.0153	ug/l	40-140	50	40-140	50	50			
PCBs, Total	1336-36-3	0.071	0.0153	ug/l				50	50			

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. ***(Soil/Solids only)***
Please Note that the information provided in this table is subject to change at anytime at the discretion of Pace Analytical Services.

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Page: 1

WETCHEM (WATER)

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Method	Holding Time	Container
Cyanide, Total	57-12-5	0.005	0.0018	mg/l	85-115	20	80-120	20	20	9010C/9012B	14 days	1 - Plastic 250ml NaOH preserved

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. (Soil/Solids only)
Please Note that the information provided in this table is subject to change at anytime at the discretion of Pace Analytical Services.

APPENDIX E

NAPL Field Descriptions

Delineation of NAPL Contamination in Soil

Soil borings shall be advanced north, south, east, and west in the horizontal direction from all soil borings where NAPL has been observed. To ensure vertical delineation of NAPL, the new borings will be advanced to a minimum depth of where NAPL was observed in borings performed in the initial investigation. Final soil boring depths will be determined based on field observations using the NAPL Field Descriptions (attached). If NAPL is not observed at the minimum required depth, no further advancement of the boring is required. If NAPL is observed, the boring will be advanced until vertical delineation of NAPL has been determined. For soil borings where NAPL has been observed, grab soil samples will be collected at and immediately below each distinct interval of NAPL/GCM and will be analyzed for the full suite TCL/TAL. All preliminary analytical results and draft soil boring logs will be submitted to NYSDEC to facilitate review of delineation.

If NAPL is identified in soil borings noted above, additional investigation will be required to delineate the full extent of NAPL. Soil borings shall be advanced north, south, east, and west in the horizontal direction from soil borings where NAPL was observed. To ensure vertical delineation of NAPL, the new borings will be advanced to a minimum depth of where NAPL was observed. Final soil boring depths will be determined based on field observations of using the NAPL Field Descriptions (attached). If NAPL is not observed at the minimum required depth, no further advancement of the boring is required. If NAPL is observed, the boring will be advanced until vertical delineation of NAPL has been determined. For soil borings where NAPL has been observed, grab soil samples will be collected at and immediately below each distinct interval of NAPL and will be analyzed for the full suite TCL/TAL. All preliminary analytical results and draft soil boring logs will be submitted to NYSDEC to facilitate review of delineation. Delineation will only be deemed completed upon receipt of NYSDEC concurrence and approval.

Delineation of Contamination in Groundwater

To delineate groundwater contamination associated with NAPL, monitoring wells will be installed at soil boring locations directly downgradient of where NAPL is observed. Monitoring wells will be installed and screened at the groundwater interface and below the deepest observation of NAPL. Monitoring wells will be installed in accordance with the NYSDEC Guidelines on Installation of Overburden Wells (Monitoring Wells) for Environmental Investigations. Any observations of sheen, blebs, free-phase product/tar, staining or coating of the sampling equipment, odor, etc. made during sampling of groundwater are to be included in the groundwater sample collection log. If NAPL is observed in the well at the time of sampling, NAPL thickness will be documented in sampling logs and NAPL will be removed prior to groundwater sample collection.

A synoptic groundwater elevation gauging event must be performed following the installation and development of groundwater monitoring wells. Monitoring well locations will be surveyed by a licensed surveyor and tied into the NAVD88 datum. Monitoring well construction data, groundwater elevation, and surveyed locations in NAVD88 will be submitted electronically to the NYSDEC EQuIS database. All preliminary analytical results and draft groundwater sampling logs will be submitted to NYSDEC as soon as they are available to facilitate a timely review of delineation. Delineation will only be deemed completed upon receipt of NYSDEC approval.

NAPL Field Descriptions

SOIL SAMPLE DESCRIPTIONS

It is important that descriptive qualifiers are consistently used to characterize degree and nature of contaminant impacts and visual-manual soil classification. The following presents some examples of descriptive qualifiers.

SOIL LOGGING

• All soils are to be logged using the **Unified Soil Classification** (ASTM D 2488 field descriptions)

• **PID or FID** used to screen all soil samples (Jar Headspace method) – maximum readings should be recorded and included on the logs. The PID/FID should be calibrated daily at a minimum

• **Moisture terms** are: Dry, Moist, and Wet

• **Color terms** - use geotechnical color charts - colors may be combined: e.g. red-brown. Color terms should be used to describe the "natural color" of the sample as opposed to staining caused by contamination (see below)

• **Log of each sample interval** should be prepared as follows:

[Coarse Grained Example] NARROWLY GRADED SAND (SP); mostly fine sand; <5% fines; red-brown, moist, environmental/depositional/geologic descriptions.

[Fine Grained Example] SANDY SILT (ML); heterogeneous till structure, nonplastic, ~30% fine to coarse, subangular sand; ~10% subangular fine gravel, max. size ~ 10 mm; brown; environmental/depositional/geologic descriptions.

• **Representativeness** – Soil logs should include particular notes if the field representative believes that there is a possibility that the soil sample being described is not representative of the interval sampled.

• **Intervals for Description** – if using a 2' (split spoon) or 4' (Macro-core) long sampler – the field description should not necessarily be for the entire sample interval. It is important to look for, identify, and describe small-scale units and changes within each sample interval.

DESCRIPTION OF CONTAMINANTS

Visible Contamination Descriptors

• **Sheen** - iridescent petroleum-like sheen. Not to be used to describe a "bacterial sheen", which can be distinguished by its tendency to break up on the water surface at angles, whereas a petroleum sheen will be continuous and will not break up. A field test for sheen is to put a soil sample in a jar of water and shake the sample (jar shake test) , then observe the presence/absence of sheen on the surface of the water in the jar.

• **Stained** - used w/ color (i.e. black or brown stained) to indicate that the soil matrix is stained a color other than the natural (unimpacted) color of the soil.

• **Coated** - soil grains are coated with tar/free product – there is not sufficient free-phase material present to saturate the pore spaces. The degree of coating should be described as light, moderate, or heavy.

• **Blebs** - observed discrete sphericals of tar/free product - but for the most part the soil matrix was not visibly contaminated or saturated. Typically this is residual product. The estimated size and number of blebs should be reported.

• **Saturated** - the entirety of the pore space for a sample is saturated with the tar/free product. Care should be taken to ensure that you're not observing water saturating the pore spaces if you use this term. Depending on viscosity, tar/free-phase saturated materials may freely drain from a soil sample.

• **Oil** - Used to characterize free and/or residual product that exhibits a distinct fuel oil or diesel fuel like odor; distinctly different from MGP-related odors/impacts.

• **Tar** - Used to describe free and/or residual product that exhibits a distinct "coal tar" type odor (e.g. naphthalene-like odor). Colors of product can be brown, black, reddish-brown, or gold.

• **Solid Tar** - Used to describe product that is solid or semi-solid phase. The magnitude of the observed solid tar should be described (e.g. discrete granules or a solid layer).

• **Purifier Material** - Purifier material is commonly brown/rust or blue/green wood chips or granular material. It is typically associated with a distinctive sulfur-like odor. Other colors may be present.

Olfactory Descriptors

• Use terms such as " tar-like odor" or "naphthalene-like odor" or "fuel oil-like odor" that provide a qualitative description (opinion) as to the possible source of the odor.

• Use modifiers such as strong, moderate, faint to indicate intensity of the observed odor.

DNAPL/LNAPL

- A jar shake test should be performed to identify and determine whether observed tar/free phase product is either denser or lighter than water. In addition, MGP residues can include both light and dense phases - this test can help determine if both light and dense phase materials are present at a particular location.

Viscosity of Free-Phase Product – If free-phase product/tar is present a qualitative description of viscosity should be made. Use descriptors such as:

- Highly viscous (e.g. taffy-like)
- Viscous (e.g. No. 6 fuel oil or bunker crude like)
- Low viscosity (e.g. No. 2 fuel oil like)

GROUNDWATER SAMPLING OBSERVATIONS

- Any observations of sheen, blebs, free-phase product/tar, staining or coating of the sampling equipment, odor, etc. that made during sampling of groundwater are to be included in the groundwater sample collection log.

Standard Colors for Reporting NAPL Impacts

	RGB Color	Auto Cad Index
TAR SATURATED	255,0,0	10
COATED MATERIAL, LENSES	255,0,255	210
HARDENED TAR	129,64,0	34
BLEBS, GLOBS, SHEEN	255,191,0	40
STAINING, ODOR	255,255,0	50
PETROLEUM IMPACTS SATURATION & SHEENS	0,191,255	140
PETROLEUM IMPACTS STAINING & ODORS	170,234,255	141
PURIFIER WASTE AND ODOR	0,0,255	170
NO OBSERVED IMPACTS	0,165,0	92

APPENDIX F

Health and Safety Plan

Site-Specific Health and Safety Plan (HASP)

Project Title:

MM NEWTOWN CAPITAL, LLC - RAILROAD AVE LLC ENV. CONSULTING

Location:

37-98,38-20 Railroad Avenue, Long Island City, NY 11101

Prepared For:

MM NEWTOWN CAPITAL, LLC

LaBella Project No. 2233115

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0.0 HASP Acknowledgment

All LaBella project personnel, contractors, and subcontractors are required to sign the following agreement prior to conducting work:

1. I have read and fully understand the requirements of this site-specific HASP including my individual responsibilities listed above.

2. I agree to abide by the provisions of the HASP and participate in any health and safety meetings or modifications to the HASP criteria during the implementation of work.

Name	**Company**	**Date**

1.0 Introduction

The purpose of this Health and Safety Plan (HASP) is to provide guidelines for responding to potential health and safety issues that may be encountered at the project site, located at 37-98,38-20 Railroad Avenue, Long Island City, NY 11101 This HASP only reflects the policies of LaBella Associates D.P.C. and its affiliated companies LaBella Environmental, LLC and Aztech Environmental Technologies, Inc., collectively referred to as "LaBella". The requirements of this HASP are applicable to all approved LaBella personnel, contractors and subcontractors at the work site. This document's project specifications are to be consulted for guidance in preventing and quickly abating any threat to human safety or the environment. The provisions of the HASP do not replace or supersede any federal, state or local regulatory requirements.

2.0 Responsibilities

This HASP presents guidelines to minimize the risk of injury to project personnel, and to provide rapid response in the event of injury. The HASP is applicable only to activities of approved LaBella personnel and their authorized visitors specific to this project. The Project Manager shall implement the provisions of this HASP for the duration of the project. It is the responsibility of LaBella employees to follow the requirements of this HASP, and all applicable company safety procedures.

3.0 Daily Pre-Job Safety Meetings

Prior to the beginning of work each day the Field Supervisor/Foreman or on-site Project Manager will review upcoming daily job requirements, anticipated hazards and hazard control measures with the project team members. At this meeting information such as personal protective equipment, site conditions, emergency procedures, and other applicable topics may be addressed. A copy of the **Daily Pre-Job Safety Tailgate/Toolbox Meeting Form**.

4.0 Site Information

Project Name:	MM NEWTOWN CAPITAL, LLC - RAILROAD AVE LLC ENV. CONSULTING
LaBella Project No.:	2233115
Project Location:	37-98,38-20 Railroad Avenue, Long Island City, NY 11101
Current Use of Project Location:	Fill in
Uses of Surrounding Areas (Res Vacant	Commercial

Land, Commercial, etc.):	
Proposed Date(s) of Field Activity - Start:	
Proposed Date(s) of Field Activity - End:	

5.0 Scope of Work

The proposed field work covered under this HASP includes the following:

-Mobilize to site
- Geophysical investigation to confirm the location of piping on the property,
- Confirmation (if possible) of ownership of the piping , potentially through discussions with Exxon-Mobil,
- Documentation of the integrity of the pipes (i.e., scoping with video equipment), potential sampling of the pipes,
- Test pitting around piping to evaluate for potential impacts in the bedding,
- If necessary, installation of monitoring wells along the bedding (if necessary), and
- closure / abandonment of the piping.
- Demobilize

6.0 Emergency Information

The personnel and emergency response contacts associated with the proposed scope of work are presented below and are to be posted onsite during all field activities. The Site Safety Officer (SSO) is the primary authority for directing site operations and relaying communications under emergency conditions. During the SSO's absence, the Project Manager or Site Supervisor will lead emergency operations.

Project Personnel		
Contact	**Name**	**Phone**
LaBella Project Manager	Richard Kampf	917-280-6364
LaBella Site Supervisor		
Corporate Safety Manager	Catherine Monian	845-486-1557
Environmental Division Safety Program Manager	Tim Ruddy	315.440.5125
Site Contact	Eric Rogan	929) 489-6346

Human Resources	Michelle Hoyt	(585) 454-6110
Emergency Personnel including Police and Fire Dept and Ambulance – Dial 911		
Hospital- *see Hospital Route Section below for directions*	Northwell Health	+12123717230
Poison Control		800-336-6997
NYSDEC Spill Response Hotline		800-457-7362

First Aid

A First Aid Kit will be located as follows: <<First Aid Kit and Eyewash Station Location>> The injured person may be transported to a trained medical center for further examination and treatment. he preferred transport method is a professional emergency transportation service; however, if this option is not readily available or would result in excessive delay, other transport is authorized.

Under no circumstances should an injured person transport themselves to a medical facility for treatment, no matter how minor the injury may appear.

Incident Reporting

Employees shall report all incidents and injuries to their supervisor as soon as possible, including those involving employees operating vehicles and other equipment. All reporting procedures contained in LaBella Safety Policy 1.22 must be followed.

During emergencies employees should seek medical care immediately. When contacting their Supervisor/Safety Manager/HR, employees should discuss medical care options. If an employee is asked by medical personnel for a worker's compensation number they should tell them that LaBella should be billed directly.

When emergency medical care is not imminent, employees shall immediately report events to their immediate Supervisor, the Safety Manager and Human Resources, and participate in the investigation process as well as the corrective action process, as needed. The attached Accident /Incident/ Near Miss /Hazard Report Form must be submitted online or by e-mail to the Supervisor, Safety Manager and HR as soon as possible but no later than 24 hours after the event.

Hospital Route: *see* ***APPENDIX A Directions to Medical Facility***

7.0 Potential Health and Safety Hazards and Controls

This section lists potential health and safety hazards that project personnel may encounter at the project site and actions to be implemented by approved personnel to control and reduce the associated risk to health and safety. This is not intended to be a complete listing of any and all potential health and safety hazards. New or different hazards may be encountered as site environmental and site work conditions change. The suggested actions to be taken under this plan are not to be substituted for good judgment on the part of project personnel. At all times, the Site Safety Officer has responsibility for site safety and their instructions must be followed.

Physical Hazards		
Work Action or Condition	**Potential Safety Hazard**	**Controls (including PPE)**
Cold Weather	Frost nip, Frost bite, Hypothermia	Engineering: • Basic wind block • Heated shelter • Barriers or insulation placed on metal surfaces to reduce heat loss from extremities Administrative: It is recommended that multiple vehicles be utilized during periods of extreme cold unless a warm shelter is within reasonable proximity to the work site. Number of vehicles depends on number of employees. Warm liquids should be considered to combat dehydration and to manage core temperatures. Note that caffeinated beverages will lessen circulation and are discouraged. Adequate Breaks - Break periods will be at least ten (10) minutes long. While on break personnel should remove outer layers of clothing to ensure adequate warming of the core and

		extremities. Individuals should assess their physical condition during breaks. Do not return to work in the cold until adequately warmed. If engineering controls, such as shelters are used, the ambient temperature/wind chill where the work is taking place will be used to determine the work / warm–up schedule. Personal Protective Equipment: The outer layer of clothing must be fire retardant. • The outer most layers should consist of winter clothing (i.e. bibs, bomber or parka, head sock, winter /arctic boots). • Under layers (insulation) should consist of one or more thin garments. Outer winter layers should be removed prior to insulation layers becoming wet with perspiration. • Wet clothing should not be worn. A best practice is to bring extra insulating clothing and change clothes if they become wet. • PPE that is in direct contact with the skin should be changed if it becomes wet. • Exposed skin shall be avoided in extreme cold temperatures to minimize the risk of frostbite. • Hand / foot warmers are available on all sites.
Confined Spaces - Near/In	Suffocation/asphyxiation/released energy (e.g. Pneumatic, electrical) explosion/ injury	Confined space refers to an area that has 1) limited entry and exit openings, 2) unfavorable or restricted ventilation, and 3) is not intended for continuous occupancy, but is large enough to enter and perform work. Employees are NOT allowed in confined spaces except when they have received appropriate training. The following hazard

		control measures will be applied: • Enter a confined space only after receiving confined space training. • Enter only after pre-planning and with team involvement of at least three (3) trained people. • Air monitoring is required for all confined space work whether it be a permit required confined space or not.
Flammable Liquids	Burns from ignited flammable liquids	• Do not keep flammable liquids in anything other than an approved safety can and properly bond or ground container during transfers. • Consult safety data sheet before use to understand hazards. • Wear appropriate PPE. • Maintain adequate ventilation while using and elminate all potential ignition sources, including static electricity.
Hand Tools	Physical injury	• Do not use a tool if you have not been trained. Inspect tool before use and do not use damaged tools. • Maintain tools in good condition and follow manufacturers' instructions. • Wear gloves, safety glasses and and appropriate PPE /apparel, avoiding loose clothing; secure long hair. • When using a cutting tool hold its handly firmly and cut away from your body, never towards it. • If working on a ladder or scaffold raise and lower tools using a bucket and hand line; never carry tools in a way that prevents using both hands on a ladder (maintain three poits of contact)
Hunting Season	Accidental shooting	Hunting season varies depending on geographic location and occurs in all seasons. In order to minimze risk of accidental injury,

		the following hazard control measures will apply: • Wear bright orange or other high visibility clothing. • Look for signs of hunters such as vehicles or tree stands. • Make noise as you walk through wooded areas. • Use a flashlight in the early morning or late afternoon to increase your visibility.
Parking Vehicle	Struck by, caught in between, casing an obstruction on existing roadway. Fire from plants under hot exhaust	• Workers will park far enough off the edge of the road to stay well clear of traffic. • Put on hi-visibility vest before exiting parked car. • Leave Field Card on dashboard. • Use appropriate number of cones to mark for oncoming traffic as needed. • Do not park on/in flammable vegetation. • Keys stay on field person.
Power Tools	Injury from improper use Electrical shock and electrocution	• Unplug power tools when not in use. • Do not use a tool if you have not been trained. Inspect tool and cord before use and do not use damaged tools. • Maintain tools in good condition and follow manufacturers' instructions. • Wear gloves, safety glasses and and appropriate PPE /apparel, avoiding loose clothing; secure long hair. • Never remove a safety guard when a tool is being used. • Only plug electric tools into a grounded receptacle with a GFCI. Stop using tool if slight shock or tingling is felt. • Secure work with clamps to have both hands free to use the tool. • Keep power tool cords away from heat, oil and sharp edges.

		• Tag all damaged tools with "Do Not Use".
Drilling Activities	Potential presence of underground or overhead utilities, rotating and moving parts, pinch point hazards, falling objects/debris, high noise levels, ergonomic issues related to lifting heavy drill tooling and supplies (e.g., augers, bags of sand or grout).	• Prior to initiating drilling activities conduct a utility stakeout via the state one call system (e.g., UDig NY). A private utility location service may be required if private utilities may be present. • Ensure safe distance from overhead utilities such as electric, telephone and fiber optic/cable lines. • Wear appropriate PPE and avoid loose clothing or jewelry. • Stay clear of moving parts and know the location of emergency shut-off switches. • Take particular caution when raising/lowering the mast and near rotating augers/drill rods. • Practice safe lifting techniques. • Where possible use winches/cables to lift heavy tooling. • Use team lifting where mechanical lifting is not practical.
Slip-Trip-Fall	Injury	• Reduce and avoid slippery (wet, icy, oily, muddy, etc.) surfaces. • Workers will watch where they step and wear proper footwear. • Keep work areas free of obstructions and debris.
Underground Utilities	Damage to utility infrastructure, Electrocution, Explosion	• Utility marking is needed for this project. • Prior to the commencement of ground intrusive activities, underground utilities will be located by a third party locator. • Workers will not stand within 20-feet of any active excavations or boreholes if not actively working in those areas.
Uneven or Wet Terrain (Slopes, Leaves, Holes, etc.)	Slip, Trip, Fall	• Wear appropriate footwear for the site and conditions: steel toe or composite boots for construction sites, skid-resistant, hiking boots for other field work if

		indicated. • Use walking stick or other object for additional support/balance and to check for animal burrows/holes. • Watch for trip hazards such as uneven terrain, holes, ditches, puddles (if raining) stretched wires or ropes, or other materials or pieces of equipment in path.
Working on Wet, Icy, and Slippery Surfaces	Bodily harm (e.g. high falls, impalement) Bodily injury (e.g. strain muscles, broken bones)	Administrative: • Report unsafe conditions. Help identify areas where accidents are likely to occur so we can take steps to keep sit safe. *Note: The routine application of salt on icy surface on a project is commonly cover in contract but not always utilized. Personal Protective Equipment and work practice: Wear slip-resistant footwear that has good traction. Avoid shoes with smooth soles. Take shorter steps at a slower pace on icy pavement. Hold onto the handrails when using stairs. Keep your hands free to catch yourself if you start to fall. Use a cart and take the elevator when carrying large items. Avoid walking while distracted; put away your mobile device. Use caution when stepping off curbs and walking up or down steep slopes. • Don't rush! Give yourself extra time to get to your destination. • Wipe your feet on a mat when you enter a building to remove excess water.

Biological and Environmental Hazards		
Work Action or Condition	**Potential Safety Hazard**	**Controls (including PPE)**

Hazardous Insects	Injury from hazardous insects, including allergic reactions	Hazardous animals and insects may be encountered on a variety of properties, including rural sites. The following hazard control measures will be applied: • Apply bug repellant spray or lotion to exposed skin. • If you have been prescribed medication for stings, bring it with you. • Be cautious of walking path and foot placement to avoid places where snakes/spiders may be, (e.g., stepping over logs). • Stay on trails away from high grassy areas/bushes. Tuck pants into boots, wear tall boots if going through tall grass/bush. • For Ticks: Conduct daily tick check, wear long pants/long-sleeved shirts/hates/socks that are light in color, put hair up, carry tick removal kit. • For Spiders: Don't put unprotected hands inside items that might have spiders and be careful moving undisturbed piles of materials. • For Bears: Make noise and use bear spray. • For Snakes: Stay away - striking distance is 1/2 to 2/3 their body length.
Hazardous Plants	Injury from Hazardous Plants	Hazardous plant may be encountered on rural sites. The following hazard control measures will be applied: • Create a narrow path or route when possible. • Wear appropriate PPE for the vegetation (i.e. leather gloves, Carhart coveralls, and face shield for vegetation that could cause cuts/punctures and/or is higher than waist level) • Become familiar with and avoid poisonous plants, see Safety Manual section '3.05 Plants' • Separate clothes from normal laundry if you've been in contact with poisonous plants. • Use soap/water or Technu to wash poisonous plant oils from skin.
Water - Near/On (Wetlands, Streams, Lakes, Ponds)	Drowning, Hypothermia	• All workers must be capable swimmers to be assigned to projects involving water. • Appropriately sized Personal Flotation Devices (PFDs) must be worn when on a water craft or when working within 5-feet of water above knee height. • Workers will observe depth of water body and speed of any currents before proceeding. • Ensure enough PFDs for boat occupants, that PFD is appropriately sized for the wearer, and is

		worn per the manufacturer's instructions (straps/zippers used appropriately).

Ergonomic Hazards		
Work Action or Condition	**Potential Safety Hazard**	**Controls (including PPE)**

Chemical Hazards (General)		
Work Action or Condition	**Potential Safety Hazard**	**Controls (including PPE)**
Chemical Exposure - Volatile Organic Compounds (VOC)	*Contaminants identified in testing locations at the Site include various volatile organic compounds (VOCs), primarily VOCs associated with Site contamination. Volatile organic vapors may be encountered during subsurface activities at the project work site. Inhalation of high concentrations of volatile organic vapors can cause headache, stupor, drowsiness, confusion and other health effects. Skin contact can cause irritation, chemical burn, or dermatitis. Relevant Safety*	Volatile Organic Compound (VOC) gases may be emitted from a number of materials and products. The presence of organic vapors may be detected by their odor and by monitoring instrumentation and can lead to physical harm. VOC concentrations at this Site are not anticipated to exceed PELs. The following hazard control measures will be applied, however: • Workers should be wearing appropriate PPE, following listed decontamination procedures and be periodically screening the work zone to prevent against and evaluate for unexpected exposures. Refer to the relevant sections of this HASP for more detail regarding PPE, decontamination procedures and work zone screening.

	Data Sheets are included as Appendix 1.	
Chemical Exposure - Semi-Volatile Organic Compounds (SVOC)	*Contaminants identified in testing locations at the Site include SVOCs. SVOC-impacted media including fill material may be encountered during subsurface activities at the project work site.*	The presence of SVOCs in site media may be detected by their odor and monitoring instrumentation. SVOC concentrations at this Site are not anticipated to exceed PELs. The following hazard control measures will be applied, however: • Workers should be wearing appropriate PPE and following listed decontamination procedures to prevent exposures. Refer to the relevant sections of this HASP for more detail regarding PPE and decontamination procedures.

Individual Contaminant Hazards			
Chemical	**OSHA Permissible Exposure Limit (PEL)/ NIOSH Recommended Exposure Limit (REL) or Immediately dangerous to life or health air concentration values (IDLH)**	**Routes of Exposure**	**Symptoms of Overexposure**
Toluene (VOC)	**TWA 200 ppm NIOSH REL/IDLH: REL: TWA 100 ppm (375 mg/m3) IDLH: 500 ppm**	The substance can be absorbed into the body by inhalation, through the skin and by ingestion.	irritation eyes, nose, throat; resp sensitization, cough, pulmonary secretions, chest pain, dyspnea (breathing difficulty); asthma
Xylenes (o,m,p) (VOC)	**TWA 100 ppm (435 mg/m3) NIOSH REL/IDLH: REL-TWA 100 ppm (435 mg/m3) IDLH: 900 ppm**	The substance can be absorbed into the body by inhalation, through the skin and by ingestion.	irritate the eyes, nose, skin, and throat. Xylene can also cause headaches, dizziness, confusion, loss of muscle coordination

Trichloroethylene (VOC)	**TWA: 50 ppm 270 mg/m3 Ceiling: 200 ppm STEL: 200 ppm NIOSH REL/IDLH: IDLH: 1000 ppm**	The substance can be absorbed into the body by inhalation and by ingestion.	dizziness, headaches, sleepiness, confusion, nausea, unconsciousness
Benzo (b)(K) Fluoranthene (SVOC)	**NA**	The substance can be absorbed into the body by inhalation of its aerosol and through the skin.	generally have a low degree of acute toxicity to humans. Some studies have shown noncarcinogenic effects that are based on PAH exposure dose
1,3,5-Trimethylbenzene (VOC)	**TWA 10 ppm (60 mg/m3)**	inhalation, ingestion, skin and/or eye contact	irritation eyes, skin, nose, throat, respiratory system; bronchitis; hypochromic anemia; headache, drowsiness, lassitude (weakness, exhaustion), dizziness, nausea, incoordination; vomiting, confusion

8.0 Personal Protective Equipment (PPE)

All site workers will have appropriate training as identified in Section 7.0. Training includes the identification of PPE necessary for various tasks; how to don, doff, adjust, and wear PPE; limitations of PPE; and proper care, inspection, testing, maintenance, useful life, storage, and disposal of the PPE. PPE will be inspected on a regular basis.

Level D: A work uniform affording minimal protection, used for nuisance contamination, only.	• Coveralls or long-sleeves and pants • Gloves • Nitrile sampling gloves (as needed) • Boots/shoes, chemical-resistant steel toe and shank • Safety glasses or chemical splash goggles • Hard hat
Level C: The concentration(s) and type(s) of airborne substance(s) is known and the	• Full-face or half-mask, air purifying respirators (NIOSH approved) • Hooded chemical-resistant clothing (overalls; two-piece chemical-splash suit;

criteria for using air purifying respirators are met.	disposable chemical-resistant overalls) • Inner and outer chemical-resistant gloves • Boots, outer, chemical-resistant steel toe and shank • Hard hat

9.0 Employee Training

All workers and other personnel shall receive appropriate training prior to engaging in site activities. All workers must recognize and understand the potential hazards to health and safety that are associated with the proposed scope of work and must be thoroughly familiar with programs and procedures contained in this Safety Plan.

The following training levels were determined to be needed:

- OSHA 40 Hour - HAZWOPER

10.0 Exposure Monitoring

11.0 Site Control

12.0 Recordkeeping

An electronic or hardcopy version of this HASP will be present at the Site during all field work activities. Copies of field logs, including daily pre-job safety meeting logs, will be filed by LaBella and available for the duration of the project.

Employees will be able to provide physical or electronic copies of required training certificates.

Incident reporting will be completed in accordance with LaBella policies.

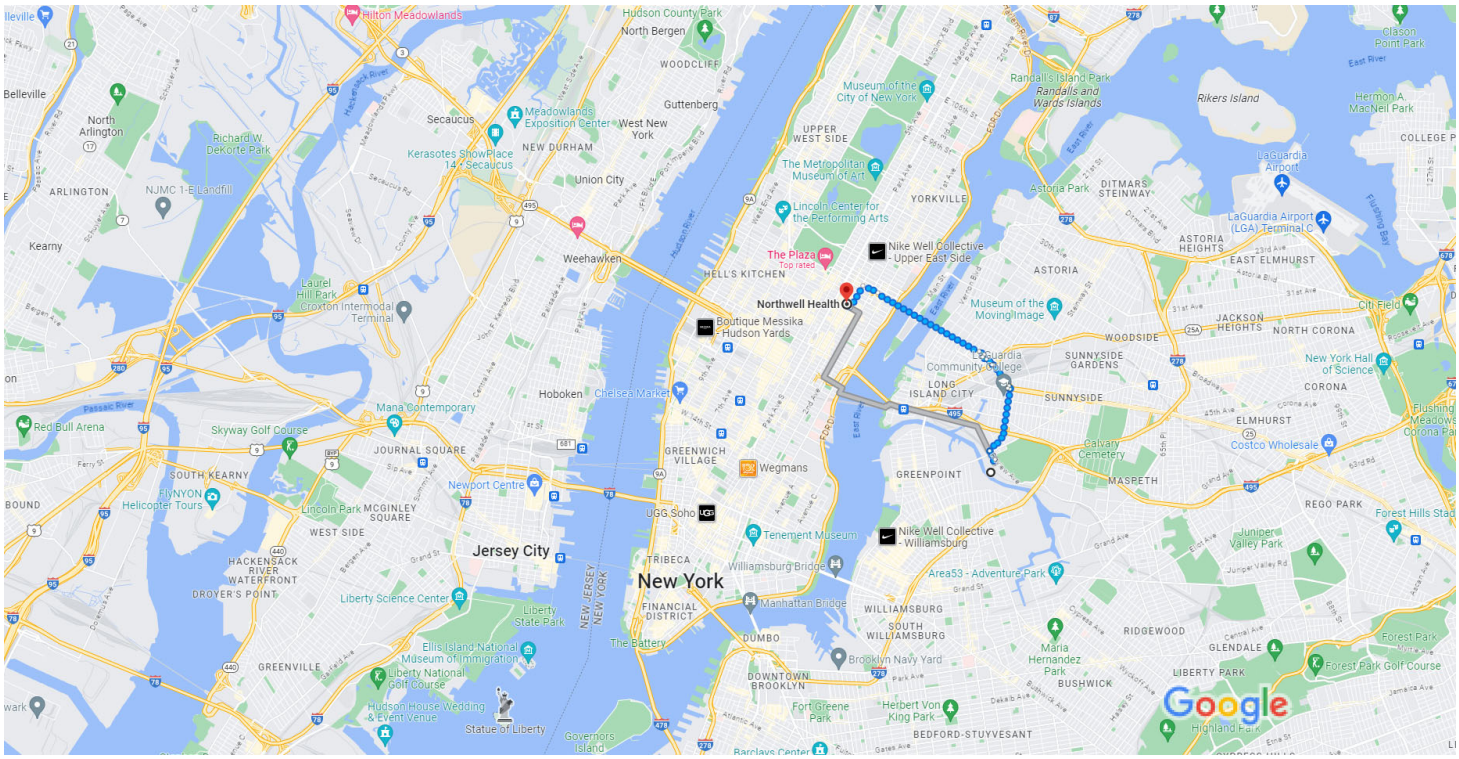
APPENDIX A

Directions to Medical Facility

Google Maps

20 Railroad Ave, Queens, NY 11101 to Northwell Health, 641 Lexington Ave, New York, NY 10022

Walk 3.5 miles, 1 hr 23 min



Map data ©2023 Google 1 mi

Use caution–walking directions may not always reflect real-world conditions

20 Railroad Ave
Queens, NY 11101

1. Head northwest toward Review Ave
   302 ft
2. Turn left onto Review Ave
   0.1 mi
3. Cross the road
   36 ft
4. Turn left onto Van Dam St
   0.8 mi
5. Turn left onto Thomson Ave
   194 ft
6. Turn right toward Queens Blvd
   328 ft
7. Turn left onto Queens Blvd
   0.3 mi
8. Turn left onto Jackson Ave
   85 ft

9. Turn right onto Queens Plaza S

489 ft

10. Slight left to stay on Queens Plaza S

295 ft

11. Turn right toward Bridge Plaza N/Queens Plaza N

197 ft

12. Turn left onto Bridge Plaza N/Queens Plaza N

331 ft

13. Turn left onto Ed Koch Queensboro Bridge Path

1.4 mi

14. Turn left onto E 60th St

0.2 mi

15. Turn left onto 3rd Ave

0.3 mi

16. Turn right onto E 54th St

Destination will be on the right

256 ft

Northwell Health

641 Lexington Ave, New York, NY 10022

APPENDIX B

Task Hazard Analysis Forms

JOB SAFETY ANALYSIS

6.02 TASK HAZARD ANALYSIS (THA) FORM

THA Title or Work Activity:	Division:	Project #:	THA ID#:	Date:	Revised Date:
EXCAVATION ACTIVITIES					

Person Preparing THA:	Position / Title:	Person Assisting with THA:	Position / Title:

Reviewer w/ Relevant Task Experience	Position / Title:	Safety Manager Sign off for High Risk or Very High Risk THAs	Position / Title:

MINIMUM REQUIRED PERSONAL PROTECTIVE EQUIPMENT

☐ HARD HAT	☐ AIR PURIFYING RESPIRATOR
☐ SAFETY GLASSES	☐ FACE SHIELD (WIRE MESH FOR DEBRIS, POLYCARBONATE IF MATERIAL REQUIRES SPASH PROTECTION)
☐ GLOVES	☐ HEARING PROTECTION
☐ SAFETY SHOES	☑ EYE WASH
☐ HIGH VIS CLOTHING	Other:

Materials, Equipment &Tools Needed

☐ Kevlar Chaps ☐ Kevlar Gloves ☐ Wire mesh face shield ☐ Back laced, steel protected boots

SEQUENCE OF STEPS	POTENTIAL HAZARDS	Recommended Control Measures/PPE/ Training
1. Mobilize to trench/ excavation location, establish work zone for staff and equipment	1a. cuts or fractures to the arms and other body parts that could result from the contact with equipment 1b. Damage equipment that could from excavation equipment operating to close to the edge of the excavation	1a. Check excavation locations for underground and overhead utilities follow PEC' Excavation Protocol or client-specific protocol. -Observe equipment set up, ensuring no contact with overhead obstacles. -The excavator must be positioned on level terrain prior to any excavation activities. -Do not position outriggers on landscaping and verify that they are not directly above an underground utility if on grass. -Excavator leveling is required. -Remind everyone never to leave hand tools on/near equipment. 1b. If excavator needs to work inside the opened excavation, insure that side slope and access ramp are constructed and approved by the onsite excavation competent person. -Excavator shall not be left unattended inside opened excavation. Note: If the mark out locations are not visible (i.e. covered by snow, debris, vehicles, washed away/faded, etc.), stop work and contact the project manager or senior office manager.
2 Begin Excavating Soil	2a. Whole body injury from the contact with or caught by machinery 2b. Skin or eye injury from exposure to site contaminants 2c. Burns from a Fire or explosion from the ignition of a flammable atmosphere inside excavation 2d. Body injury from trench collapse 2e. Arm and or hand fractures and contusions from tripping and falling from walking or working on uneven surfaces 2f. Fractures or muscular injuries from falls from ladder. 2g. Personal injury (SIF) due to the positioning of site vehicles (i.e., excavation machinery and dump trucks)	1a. Stay at least a 20 feet radius of center of moving equipment and at least 5 feet away from moving or rotating parts (e.g., excavator bucket, equipment tracks/wheels, vehicle drive shaft, etc.). 1b. Monitor air in work area in the breathing zone of workers and third party nearby accessed areas for elevated vapors during digging activities as required by the H&S plan. -Record any air monitoring data as required for the project's H&S Plan. -If visible airborne soil (particulate) results within the immediate work area, measures must be taken to limit or control emissions. The measures could include, but not be limited to wetting the area, using surfactant, etc. -In addition, if off-site migration results or is possible, a community air monitoring program may be necessary. 1c. Monitor excavation with an LEL meter. -If combustible gas levels exceed meter levels of 20 % of the LEL, digging activities should be halted and excavation and vapor control measures implemented that would include but not be limited to foam, surfactant, or similar material application. 1d. Excavated soils should be stored on site as indicated in the excavation plan. No personnel shall be permitted to enter a trench/excavation with the presence of standing water/product at the bottom. -Constantly monitor for the signs of weakening sidewalls, evacuate the area if an unstable condition develops. -Typically soil is stored on poly and covered with poly. - Keep soils and equipment at least 2 feet back from the excavation/trench. -If excavator needs to work inside the opened excavation, insure that the required side slope and access ramp are made. -Excavator shall not be left unattended inside opened excavation. -Ensure that any structures that may be supported by soil being removed (e.g., curbing, buildings, etc.) are supported or braced. 1e. Access to the trench/excavation shall be restricted if deeper than 4 feet. -If work scope requires personnel to enter a trench/excavation greater than 4 feet, specific approval must be obtained from corporate H&S prior to initiating field activities. -Under NO circumstances will a PEC employee and/or sub-contractor be allowed to enter an excavation greater than 4 feet in depth without the prior corporate H&S approval.

JOB SAFETY ANALYSIS

C. Working in a Trench/ Excavation	1a. Whole Body injury from contact with fill material 1b. Whole body Injury from contact with machinery	1a. Personnel are not permitted in trenches/excavations during the backfill process. -Remove all tools and equipment from the trench/excavation prior to replacing soils/pea gravel. 1b. Stay at least a 20 feet radius of center of moving equipment and at least 5 feet away from moving or rotating parts (e.g., excavator bucket, equipment tracks/wheels, vehicle drive shaft, etc.).
On-site edits:		

RISK ASSESSMENT CODES

Likelihood of Harm (People, Environment, Facility)	**Severity of Harm/Consequences** (People, Environment, Facility, Supply Chain Disruption, Brand Impact)		
	Slight Harm	**Moderate Harm**	**Extreme Harm**
Very Unlikely	Very Low Risk	Very Low Risk	High Risk
Unlikely	Very Low Risk	Medium Risk	Very High Risk
Likely	Low Risk	Medium Risk	Very High Risk
Very Likely	Low Risk	High Risk	Very High Risk

Definitions

Likelihood of Harm Categories: -Very Unlikely: Will not occur except in rare instances under certain conditions -Unlikely: Typically would not occur -Likely: May occur on a regular basis -Very Likely: Will occur in most instances	**Severity of Harm Categories:** -Slight harm: Only first aid required -Moderate harm: Injury or illness resulting in inability to work for a short period of time -Extreme harm: Death or serious injury or illness resulting in inability to work indefinitely

6.02 TASK HAZARD ANALYSIS (THA) FORM

THA Title or Work Activity:	Division:	Project #:	THA ID#:	Revision Date:	Risk Code:
Drilling/Well Construction	Enivronmental	2161937.075		10/6/2023	Medium Risk

Person Preparing THA:	Position / Title:	Person Assisting with THA:	Position / Title:
Dave Engert	Env. Construction Department Lead		

Reviewer w/ Relevant Task Experience	Position / Title:	Safety Manager Sign off for High Risk or Very High Risk THAs	Position / Title:
Neal Short	Drilling Program Manager		

MINIMUM REQUIRED PERSONAL PROTECTIVE EQUIPMENT

☑ HARD HAT	☐ AIR PURIFYING RESPIRATOR
☑ SAFETY GLASSES	☐ FACE SHIELD (WIRE MESH FOR DEBRIS, POLYCARBONATE IF MATERIAL REQUIRES SPASH PROTECTION)
☑ GLOVES	☑ HEARING PROTECTION
☑ SAFETY SHOES	☑ EYE WASH
☑ HIGH VIS CLOTHING	Other:

Materials, Equipment &Tools Needed

☐ Kevlar Chaps ☐ Kevlar Gloves ☐ Wire mesh face shield ☐ Back laced, steel protected boots

SEQUENCE OF STEPS	POTENTIAL HAZARDS	Recommended Control Measures/PPE/ Training
1. Load tools and travel to site	Strains	Use proper lifting techniques.
	Pinches	Wear leather work gloves
	Traffic Accidents	Check brakes, lights, mirrors and clean windows on drill rig and support trucks. Check for safety flairs, triangles, fire extinguisher, and first aid kit in vehicles. Drive defensively.
	Striking or crushing from loose or shifting loads	Secure loads with ratchet tie down straps. chain binders or other appropriate means.
2. Site set-up	Hazardous site conditions from other's activities	Review work scope with client. Conduct site reconnaissance by walking site to become familiar with visible utilities, non-LaBella workers and operations, identify methods of ingress and egress for work and for emergencies, note weather conditions and forecast, anticipate site changes due to retail customer activities, shift changes, deliveries, etc.
	Equipment failure, employee incident/accident	Conduct Daily Rig Inspection
	Traffic, getting hit by public, drill rig or support vehicles	Wear snug, highly visible clothing, set up work zone suitable to site conditions (i.e. traffic cones, caution tape, vehicle placement). Follow traffic control plan, if required. Use spotter standing to side of vehicle (not behind) when backing.
	Slips, trips and falls from obstacles restricting movement around rig	Maintain good housekeeping around rig and in work zone. Use equipment racks on rig and store tools and supplies neatly away from borehole and moving parts. Leave excess materials on support vehicle. Place empty material bags in trash bag. Use proper lifting techniques - lift with legs, straight back, do not twist while lifting heavy loads. As needed use sand or salt on work surfaces to improve traction and minimize potential for slips.
2. Site set-up (continued)	Fire	At least one 20-pound fire extinguisher is on site. Fuel can only be in approved safety cans. Fuel may only be added to non-operating equipment. Whenever possible allow equipment to cool before refueling.

3. Drill rig set up	Traffic, getting hit by public, drill rig or support vehicles	Wear highly visible clothing, set up work zone suitable to site conditions (i.e. traffic cones, caution tape, vehicle placement). Follow traffic control plan, if required. Use spotter standing to side of rig (not behind) when backing drill rig. Confirm proper operation of back-up alarm. Position drill rig and support vehicles to shield borehole and work zone from on-site traffic.
	Tripping over on uneven terrain	Choose level, open areas to drill whenever possible. Use jacks and proper blocking to level rig.
	Electrocution from overhead power lines	Avoid borehole locations near overhead lines, if possible. Do not move drill rig with tower up. Maintain distance of at least 20 feet from overhead power lines.
	Explosion, electrocution, utility damage from underground utilities	Confirm local "One Call" or other appropriate locators have been called (call Project Manager if necessary) and have responded to mark-out requests. Identify utility markings near boring, if appropriate. Check for signs of buried utilities including pavement patches, gas and water meters, manhole, vertical conduit or vent on buildings or utility poles, etc.
	Backing up/collision	Make all backing meneuvers slowly and cautiously
		Use spotter when moving, especially when backing up.
	Rig roll over	Do not move rig with mast raised.
		Cross all hills and obstructions head on.
		Set outriggers on solid surface or jack pads prior to raising mast.
	Contact with electric lines and other overhead obstacles	Position rig to avoid overhead utility lines by distance defined by voltage and local regulations
		Use a spotter when raising mast to confirm clearance of overhead lines and obstacles.
4. Advancing and adding rotating tools (augers, roller bit, spun casing, core barrel…)	Pinching, striking, crushing from rotating drill string	Wear gloves when connecting tools. Keep hands from under joints when aligning drill tools for connection. If joining tools requires operation of winch or feed controls, have 2 workers present: one to operate controls and one to align tools. One person should not operate controls and join tools simultaneously.
		All drilling personnel must know location of kill switch. Test prior to advancing first boring.
		Do not touch moving drill string or drive parts.
		Wear tight fitting clothes to avoid catching on moving parts.
		Be sure unused tools (especially chains, cables, and ropes) are secured to minimize shifting, falling or entanglement in moving parts due to vibrations from drill rig.
	Striking from suspended, swinging or dropped tools	Communicate and stay in sight of helper/driller when using winch. Clear path between tool racks or lay down area before using winch to lift tools.
	Splashing, striking from high pressure fluids or debris	Check conditions of hydraulic lines, water hoses, and pipe joints before and during use.
		Observe pressure gauges and return flow where applicable.
		Use whip checks on high pressure manual connections.
		Use wash "T" or diverter to minimize spray of soil or rock cuttings exiting from top of boring.
5. Down hole tool removal	Faulty equipment	Inspect rope/cable/rod for wear, fraying, oils and moisture prior to use, do not use if faulty until repaired or replaced
	Striking from recoil of pulling cables, ropes or drive tools	Do not wrap rope or cable around any part of the hand or body
		Have operator at controls at all times when tool string is under a load.
		Use auger fork, vice, or slide ring to support loads.

		Lift straight up using clevis or hoisting plug whenever possible (i.e. no J-hooks through auger bolt holes).
		Stay clear of strained winch cables or drive shafts.
		Never place body between pulling force and load.
6. Well construction	Pinch point	Watch hands, don't pinch between well casing and drill casing/auger while installing
	Inhalation of silica dust from sand, bentonite or concrete	Avoid dust in breathing zone and work up wind. Wear dust mask if dust cannot be controlled.
	Lacerations to hands while opening bagged materials	Open bags of dry materials carefully using appropriate tool, cut away from body.
	Strains from carrying bagged material	Use proper lifting techniques and good body position while lifting/carrying/holding bagged material. Use mechanical means to lift if available.
7. Drum handling	Pinch points	Position hands/fingers to avoid pinching/smashing/crushing when closing drum rings.
	Strains from moving heavy drums	Do not lift or move heavy containers with out assistance.
		Use proper bending/lifting techniques by lifting with arms and legs and not with back
		If possible, use powered lift truck, drum cart, or other mechanical means
On-site edits:		

RISK ASSESSMENT CODES

Likelihood of Harm (People, Environment, Facility)	**Severity of Harm/Consequences** (People, Environment, Facility, Supply Chain Disruption, Brand Impact)		
	Slight Harm	**Moderate Harm**	**Extreme Harm**
Very Unlikely	Very Low Risk	Very Low Risk	High Risk
Unlikely	Very Low Risk	Medium Risk	Very High Risk
Likely	Low Risk	Medium Risk	Very High Risk
Very Likely	Low Risk	High Risk	Very High Risk

Definitions

Likelihood of Harm Categories:	**Severity of Harm Categories:**
-Very Unlikely: Will not occur except in rare instances under certain conditions	-Slight harm: Only first aid required
-Unlikely: Typically would not occur	-Moderate harm: Injury or illness resulting in inability to work for a short period of time
-Likely: May occur on a regular basis	-Extreme harm: Death or serious injury or illness resulting in inability to work indefinitely
-Very Likely: Will occur in most instances	

APPENDIX C

Safety Data Sheets

Safety Data Sheet

Material Name: USED OIL **SDS ID: 81451**

* * * Section 1 - Identification * * *

Product Identifier

USED OIL

Product Code

Not applicable.

Synonyms

Waste oil; Used lubricating oil; Oil and water mixture

Recommended Use

Oil or water mixture for re-refining or reprocessing. If this product is used in combination with other products, refer to the Safety Data Sheet for those products.

Restrictions on Use

None known.

Manufacturer Information

Safety-Kleen Systems, Inc.
2600 North Central Expressway
Suite 200
Richardson, TX 75080

Phone: 1-800-669-5740
www.safety-kleen.com

Emergency # 1-800-468-1760

Issue Date

May 7, 2015

Supersedes Issue Date

September 15, 2013

Original Issue Date

January 15, 1990

* * * Section 2 - Hazard(s) Identification * * *

Classification in Accordance with 29 CFR 1910.1200.

Skin Corrosion / Irritation, Category 2
Eye Damage / Irritation, Category 2B
Sensitization - Respiratory, Category 1
Sensitization - Skin, Category 1
Germ Cell Mutagenicity, Category 1B
Carcinogenicity, Category 1B
Toxic to Reproduction, Category 1B
Specific Target Organ Toxicity - Single Exposure, Category 1 (kidneys, central nervous system, lungs)
Specific Target Organ Toxicity - Single Exposure, Category 3 (central nervous system and respiratory tract)
Aspiration Hazard, Category 1

GHS LABEL ELEMENTS

Symbol(s)

Signal Word

DANGER!

Hazard Statement(s)

Harmful if swallowed.
Causes skin irritation and eye irritation.
May cause allergy or asthma symptoms or breathing difficulties if inhaled.
May cause allergic skin reaction.
May cause genetic defects and cancer..
May damage fertility or the unborn child.
Causes damage to kidneys, central nervous system, and lungs.
May cause respiratory irritation, drowsiness or dizziness.
May be fatal if swallowed and enters airways.

Precautionary Statement(s)

Prevention

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe gas, fumes, vapor, or spray. In case of inadequate ventilation wear respiratory protection. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Use only outdoors or in a well-ventilated area. Do not eat, drink or smoke when using this product. Wear protective gloves/protective clothing/eye protection/face protection.

Response

IF exposed or concerned: Get medical advice/attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell. IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Do NOT induce vomiting.

Storage

Store in a well-ventilated place. Keep container tightly closed.

Disposal

Dispose in accordance with all applicable regulations.

* * * Section 3 - Composition / Information on Ingredients * * *

CAS	Component	Percent
70514-12-4	Lubricating oils, used	80-100*
7732-18-5	Water/Solids	0-20*
Not Available	Hydrocarbon solvents. May include gasoline, diesel fuel, jet fuel, mineral spirits, etc.	0-10*
Not Available	Metals. May include lead, iron, zinc, copper, chromium, arsenic, nickel and others: each below 1.0 WT%.	0-1.5*
Not Available	Polynuclear aromatics. May include naphthalene, fluoranthene, phenanthrene, pyrene, and others: each below 0.3%	0-1*
Not Available	Chlorinated solvents	0-0.5*

Component Related Regulatory Information

This product may be regulated, have exposure limits or other information identified as the following: Zinc (7440-66-6), Iron (7439-89-6), Lead (7439-92-1), Nickel (7440-02-0), Arsenic (7440-38-2), Copper (7440-50-8), Chromium (7440-47-3), Pyrene (129-00-0), Phenanthrene (85-01-8), Naphthalene (91-20-3), Fluoranthene (206-44-0).

Component Information/Information on Non-Hazardous Components

* Even though the concentration range does not fall under the ranges prescribed by WHMIS, this is the actual range which varies with each batch of the product.

* * * Section 4 - First Aid Measures * * *

Description of Necessary Measures

Inhalation

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell. If breathing is difficult, oxygen should be administered by qualified personnel.

Skin

IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention.

Eyes

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Ingestion

IF SWALLOWED: Do NOT induce vomiting. Immediately get medical attention. Call 1-800-468-1760 for additional information. If spontaneous vomiting occurs, keep head below hips to avoid breathing the product into the lungs. Never give anything by mouth to an unconscious person.

Most Important Symptoms/Effects

Acute

Harmful if swallowed., Causes skin irritation and eye irritation., May cause allergic skin reaction, asthma, allergic reactions, respiratory tract irritation, and central nervous system depression., Causes damage to kidneys, central nervous system, and lungs.

Delayed

May damage fertility or the unborn child., May cause cancer and mutagenic effects.

Indication of Immediate Medical Attention and Special Treatment Needed, If Needed

Treat symptomatically and supportively. Treatment may vary with condition of victim and specifics of incident. Call 1-800-468-1760 for additional information.

* * * Section 5 - Fire-Fighting Measures * * *

Suitable Extinguishing Media

Carbon dioxide, regular foam, dry chemical, water spray, or water fog.

Unsuitable Extinguishing Media

Do not use high-pressure water streams.

Specific Hazards Arising from the Chemical

Fire may produce irritating, poisonous and/or corrosive fumes. Vapors may cause drowsiness and dizziness. Containers may rupture or explode if exposed to heat. Empty product containers may retain product residue and can be dangerous. Product is not sensitive to mechanical impact or static discharge.

Hazardous Combustion Products

Decomposition and combustion materials may be toxic., Burning may produce oxides of carbon, oxides of nitrogen, oxides of metal, oxides of chlorine, phosgene, and miscellaneous decomposition products.

Special Protective Equipment and Precautions for Firefighters

A positive-pressure, self-contained breathing apparatus (SCBA) and full-body protective equipment are required for fire emergencies.

Fire Fighting Measures

Keep storage containers cool with water spray. Move container from fire area if it can be done without risk.

NFPA Ratings: Health: 1 **Fire:** 1 **Reactivity:** 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

* * * Section 6 - Accidental Release Measures * * *

Personal Precautions, Protective Equipment and Emergency Procedures

Wear personal protective clothing and equipment, see Section 8. Avoid release to the environment.

Methods and Materials for Containment and Clean Up

Remove all ignition sources. Do not touch or walk through spilled product. Stop leak if you can do it without risk. Wear protective equipment and provide engineering controls as specified in **SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Ventilate area and avoid breathing vapor or mist. A vapor suppressing foam may be used to reduce vapors. Contain spill away from surface water and sewers. Contain spill as a liquid for possible recovery, or sorb with compatible sorbent material and shovel with a clean, sparkproof tool into a sealable container for disposal.

Additionally, for large spills: Water spray may reduce vapor, but may not prevent ignition in closed spaces. Dike far ahead of liquid spill for collection and later disposal.

There may be specific federal regulatory reporting requirements associated with spills, leaks, or releases of this product. Also see **Section 15: Regulatory Information.**

* * * Section 7 - Handling and Storage * * *

Precautions for Safe Handling

Keep away from sparks or flame. Where flammable mixtures may be present, equipment safe for such locations should be used. Use clean tools and explosion-proof equipment. When transferring large volumes of product, metal containers, including trucks and tank cars, should be grounded and bonded. This product has a low vapor pressure and is not expected to present an inhalation hazard under normal temperatures and pressures. However, when aerosolizing, misting, or heating this product, do not breathe vapor or mist. Use in a well ventilated area. Avoid contact with eyes, skin, clothing, and shoes.

Conditions for Safe Storage, Including Any Incompatibilities

Keep container tightly closed when not in use and during transport. Store containers in a cool, dry place. Do not pressurize, cut, weld, braze, solder, drill, or grind containers. Keep containers away from flame or other sources of ignition. Empty product containers may retain product residue and can be dangerous.

Incompatibilities

Avoid acids, alkalis, oxidizing agents, reducing agents, halogens, or reactive metals.

* * * Section 8 - Exposure Controls / Personal Protection * * *

Component Exposure Limits

Metals. May include lead, iron, zinc, copper, chromium, arsenic, nickel and others: each below 1.0 WT%. (Not Available)

ACGIH: 0.05 mg/m3 TWA (related to Lead)

OSHA Final: 30 µg/m3 Action Level (See 29 CFR 1910.1025); 50 µg/m3 TWA (See 29 CFR 1910.1025, related to Lead)
50 µg/m3 TWA (related to Lead)

OSHA Vacated: 1 mg/m3 TWA (related to Nickel)

NIOSH: 0.050 mg/m3 TWA (related to Lead)
0.002 mg/m3 Ceiling (15 min, related to Arsenic)

Polynuclear aromatics. May include naphthalene, fluoranthene, phenanthrene, pyrene, and others: each below 0.3% (Not Available)

ACGIH: 10 ppm TWA (related to Naphthalene)
Skin - potential significant contribution to overall exposure by the cutaneous route (related to Naphthalene)

OSHA Final: 0.2 mg/m3 TWA (related to Pyrene)

OSHA Vacated: 10 ppm TWA; 50 mg/m3 TWA (related to Naphthalene)
15 ppm STEL; 75 mg/m3 STEL (related to Naphthalene)

NIOSH: 10 ppm TWA; 50 mg/m3 TWA (related to Naphthalene)
15 ppm STEL; 75 mg/m3 STEL (related to Naphthalene)

Appropriate Engineering Controls

Provide general ventilation needed to maintain concentration of vapor or mist below applicable exposure limits. Where adequate general ventilation is unavailable, use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below applicable exposure limits.

Individual Protective Measures, such as Personal Protective Equipment

Personal protective equipment should be selected based upon the conditions under which this material is used. A hazard assessment of the work area for PPE requirements should be conducted by a qualified professional pursuant to regulatory requirements. The following PPE should be considered the minimum required: Safety glasses, Gloves, and/or Lab coat or apron.

Eyes/Face Protection

Safety glasses with side shields should be worn at a minimum. Additional protection like goggles, face shields, or respirators may be needed dependent upon anticipated use and concentrations of mists or vapors. Provide an emergency eye wash fountain and quick drench shower in the immediate work area. Contact lens use is not recommended.

Skin Protection

Where skin contact is likely, wear neoprene, nitrile, or equivalent protective gloves; use of natural rubber or equivalent gloves is not recommended.

To avoid prolonged or repeated contact where spills and splashes are likely, wear appropriate chemical-resistant faceshield, boots, apron, whole body suits, or other protective clothing.

Respiratory Protection

A respiratory protection program which meets USA's OSHA General Industry Standard 29 CFR 1910.134 or Canada's CSA Standard Z94.4-M1982 requirements must be followed whenever workplace conditions warrant a respirator's use. Consult a qualified Industrial Hygienist or Safety Professional for respirator selection guidance.

* * * Section 9 - Physical & Chemical Properties * * *

Appearance/Odor :	Black and viscous (thick) liquid, petroleum odor	**pH:**	Not applicable.
Boiling Point:	Not available.	**Odor Threshold:**	Not available.
Solubility (H2O):	Slight.	**Melting Point:**	Not applicable.
Density:	7.3 LB/US gal (880 g/l) (approximately)	**Specific Gravity:**	0.8 - 1.0 @ 60°F (15.6°C) (water = 1)
Evaporation Rate:	Less than 1 (butyl acetate = 1)	**Octanol/H2O Coeff.:**	Not available.
LFL:	Not available	**Auto Ignition Temperature:**	Not Available
UFL:	Not available	**Flash Point:**	>200ºF (>93ºC) (minimum) Pensky-Martens Closed Cup
Vapor Pressure:	Not available.	**Viscosity:**	Not available
		Vapor Density:	Greater than 1 (air = 1) (Based on kerosene)

Other Property Information

No additional information is available.

* * * Section 10 - Stability & Reactivity * * *

Reactivity

No reactivity hazard is expected.

Chemical Stability

Stable under normal temperatures and pressures.

Possibility of Hazardous Reactions

Polymerization is not known to occur under normal temperature and pressures. Not reactive with water.

Conditions To Avoid

Avoid heat, sparks, or flame.

Incompatible Materials

Avoid acids, alkalis, oxidizing agents, reducing agents, halogens, or reactive metals.

Hazardous Decomposition Products

Burning may produce oxides of carbon, oxides of nitrogen, oxides of chlorine, oxides of metal, phosgene, and miscellaneous decomposition products.

* * * Section 11 - Toxicological Information * * *

Toxicity Data and Information

Component Analysis - LD50/LC50

Lubricating oils, used (70514-12-4)

Dermal LD50 Rabbit >4480 mg/kg; Oral LD50 Rat >2000 mg/kg

Metals. May include lead, iron, zinc, copper, chromium, arsenic, nickel and others: each below 1.0 WT%. (Not Available)

Oral LD50 Rat 984 mg/kg (related to Iron)

Polynuclear aromatics. May include naphthalene, fluoranthene, phenanthrene, pyrene, and others: each below 0.3% (Not Available)

Oral LD50 Rat 2700 mg/kg (related to Pyrene)

Information on Likely Routes of Exposure

Inhalation

May cause respiratory tract irritation, dizziness, drowsiness, asthma, and allergic reactions.

Ingestion

Harmful if swallowed. May be fatal if swallowed and enters airways.

Skin Contact

Causes skin irritation. May cause an allergic skin reaction.

Eye Contact

Causes eye irritation.

Immediate Effects

Harmful if swallowed. Causes skin irritation and eye irritation., May be fatal if swallowed and enters airways., May cause asthma or allergic reactions., Causes damage to kidneys, central nervous system, and lungs.

Delayed Effects

Prolonged or repeated eye contact may cause inflammation of the membrane lining the eyelids and covering the eyeball (conjunctivitis). Prolonged or repeated skin contact may cause drying, cracking, redness, itching, and/or swelling (dermatitis)., May cause cancer and mutagenic effects., May damage fertility or the unborn child.

Irritation/Corrosivity

Causes skin and eye irritation. May cause respiratory tract irritation.

Respiratory Sensitization

May cause sensitization.

Skin Sensitization

May cause sensitization.

Carcinogenicity

May cause cancer.

Component Carcinogenicity

Metals. May include lead, iron, zinc, copper, chromium, arsenic, nickel and others: each below 1.0 WT%. (Not Available)

ACGIH: A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans (related to Lead)

OSHA: 30 µg/m3 Action Level (See 29 CFR 1910.1025); 50 µg/m3 TWA (See 29 CFR 1910.1025) (specifically regulated carcinogen, related to Lead)
Present (select carcinogen, related to Lead)

NIOSH: potential occupational carcinogen (related to Nickel)

NTP: Known Human Carcinogen (Known Carcinogen, related to Arsenic)
Reasonably Anticipated To Be A Human Carcinogen (Suspect Carcinogen, related to Lead)

IARC: Monograph 100C [2012]; Monograph 84 [2004] (in drinking water); Supplement 7 [1987]; Monograph 23 [1980] (Group 1 (carcinogenic to humans), related to Arsenic)

Polynuclear aromatics. May include naphthalene, fluoranthene, phenanthrene, pyrene, and others: each below 0.3% (Not Available)

ACGIH: A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans (related to Naphthalene)

OSHA: Present (select carcinogen, related to Naphthalene)

NTP: Reasonably Anticipated To Be A Human Carcinogen (Suspect Carcinogen, related to Naphthalene)

IARC: Monograph 82 [2002] (Group 2B (possibly carcinogenic to humans), related to Naphthalene)

Germ Cell Mutagenicity

May cause genetic defects.

Teratogenicity

Contains material which may have reproductive toxicity, teratogenic or mutagenic effects.

Reproductive Effects

Based on best current information, there may be reproductive toxicity associated with this product.

Specific Target Organ Effects - Single Exposure

Kidneys, central nervous system, lungs, respiratory tract

Specific Target Organ Effects - Repeated Exposure

Prolonged or repeated inhalation of oil mist may cause oil pneumonia, lung tissue inflammation, and/or fibrous tissue formation.

Aspiration Hazard

This material is an aspiration hazard.

Medical Conditions Aggravated by Exposure

Individuals with pre-existing cardiovascular, liver, kidney, central nervous system, respiratory tract (nose, throat, and lungs), eye, and/or skin disorders may have increased susceptibility to the effects of exposure.

* * * Section 12 - Ecological Information * * *

Ecotoxicity

Toxic to aquatic life. Harmful to aquatic life with long lasting effects.

Component Analysis - Ecotoxicity - Aquatic Toxicity

Lubricating oils, used (70514-12-4)

Duration/Test/Species	Concentration/Conditions	Notes
96 Hr LC50 Brachydanio rerio	79.6 mg/L [semi-static]	
96 Hr LC50 Pimephales promelas	3.2 mg/L [semi-static]	
48 Hr EC50 Artemia salina	>22500 mg/L	

Metals. May include lead, iron, zinc, copper, chromium, arsenic, nickel and others: each below 1.0 WT%. (Not Available)

Duration/Test/Species	Concentration/Conditions	Notes
96 Hr LC50 Pimephales promelas	2.16 - 3.05 mg/L [flow-through]	
96 Hr LC50 Pimephales promelas	0.211 - 0.269 mg/L [semi-static]	
96 Hr LC50 Pimephales promelas	2.66 mg/L [static]	
96 Hr LC50 Cyprinus carpio	30 mg/L	
96 Hr LC50 Cyprinus carpio	0.45 mg/L [semi-static]	
96 Hr LC50 Cyprinus carpio	7.8 mg/L [static]	
96 Hr LC50 Lepomis macrochirus	3.5 mg/L [static]	
96 Hr LC50 Oncorhynchus mykiss	0.24 mg/L [flow-through]	
96 Hr LC50 Oncorhynchus mykiss	0.59 mg/L [semi-static]	
96 Hr LC50 Oncorhynchus mykiss	0.41 mg/L [static]	related to Zinc
96 Hr EC50 Pseudokirchneriella subcapitata	0.11 - 0.271 mg/L [static]	
72 Hr EC50 Pseudokirchneriella subcapitata	0.09 - 0.125 mg/L [static]	related to Zinc
48 Hr EC50 Daphnia magna	0.139 - 0.908 mg/L [Static]	related to Zinc

Polynuclear aromatics. May include naphthalene, fluoranthene, phenanthrene, pyrene, and others: each below 0.3% (Not Available)

Duration/Test/Species	Concentration/Conditions	Notes
96 Hr LC50 Pimephales promelas	5.74 - 6.44 mg/L [flow-through]	
96 Hr LC50 Oncorhynchus mykiss	1.6 mg/L [flow-through]	
96 Hr LC50 Oncorhynchus mykiss	0.91 - 2.82 mg/L [static]	
96 Hr LC50 Pimephales promelas	1.99 mg/L [static]	
96 Hr LC50 Lepomis macrochirus	31.0265 mg/L [static]	related to Naphthalene
48 Hr EC50 water flea	1.8 mg/L	related to Pyrene

Persistence and Degradability

No information available for the product.

Bioaccumulation Potential

No information available for the product.

Mobility in Soil

No information available for the product.

Other Adverse Effects

No additional information is available.

* * * Section 13 - Disposal Considerations * * *

Disposal Methods

Dispose in accordance with all applicable federal, state/regional and local laws and regulations. Regulations may also apply to empty containers. The responsibility for proper waste disposal lies with the owner of the waste. Contact Safety-Kleen regarding proper recycling or disposal.

This product, if discarded, is not expected to be a characteristic or listed hazardous waste. If recycled in the USA, it must be managed in accordance with 40 CFR Part 279. Processing, use, or contamination by the user may change the waste code(s) applicable to the disposal of this product.

* * * Section 14 - Transport Information * * *

Transportation Regulations

DOT **Shipping Name:** Not regulated as a hazardous material.

TDG **Shipping Name:** Not regulated as a dangerous good.

* * * Section 15 - Regulatory Information * * *

Federal Regulations

SARA 302/304

Component Analysis

Based on the ingredient(s) listed in SECTION 3, this product does contain "extremely hazardous substances" listed pursuant to Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) Section 302 or Section 304 as identified in 40 CFR Part 355, Appendix A and B:

Polynuclear aromatics. May include naphthalene, fluoranthene, phenanthrene, pyrene, and others: each below 0.3% (Not Available)	1000 lb lower TPQ; 10000 lb upper TPQ (related to Pyrene)

SARA 311/312 Hazardous Categories

This product poses the following health hazards as defined in 40 CFR Part 370 and is subject to the requirements of sections 311 and 312 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA):

Health: Yes **Chronic Health:** Yes **Fire:** No **Pressure:** No **Reactive:** No

SARA Section 313

Component Analysis

This product contains a "toxic" chemical subject to the requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) and 40 CFR Part 372.

Metals. May include lead, iron, zinc, copper, chromium, arsenic, nickel and others: each below 1.0 WT%. (Not Available)	1.0 % de minimis concentration (dust or fume only, related to Zinc)
Polynuclear aromatics. May include naphthalene, fluoranthene, phenanthrene, pyrene, and others: each below 0.3% (Not Available)	1.0 % de minimis concentration (related to Phenanthrene)

CERCLA

Component Analysis

Based on the ingredient(s) listed in SECTION 3, this product contains the following "hazardous substance" listed under the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) in 40 CFR Part 302, Table 302.4 with the following reportable quantities (RQ):

Metals. May include lead, iron, zinc, copper, chromium, arsenic, nickel and others: each below 1.0 WT%. (Not Available)	454 kg final RQ (no reporting of releases of this hazardous substance is required if the diameter of the pieces of the solid metal released is >100 µm); 1000 lb final RQ (no reporting of releases of this hazardous substance is required if the diameter of the pieces of the solid metal released is >100 µm, related to Zinc)
Polynuclear aromatics. May include naphthalene, fluoranthene, phenanthrene, pyrene, and others: each below 0.3% (Not Available)	5000 lb final RQ; 2270 kg final RQ (related to Pyrene)

TSCA Inventory

Component Analysis

Component	CAS #	TSCA
Lubricating oils, used	70514-12-4	No
Water/Solids	7732-18-5	Yes

U.S. State Regulations

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS	MA	MN	NJ	PA	CA
Metals. May include lead, iron, zinc, copper, chromium, arsenic, nickel and others: each below 1.0 WT%. (¹related to: Zinc) (²related to: Lead)	Not Available	Yes¹	Yes¹	Yes²	Yes¹	Yes¹
Polynuclear aromatics. May include naphthalene, fluoranthene, phenanthrene, pyrene, and others: each below 0.3% (¹related to: Pyrene) (²related to: Naphthalene)	Not Available	Yes¹	Yes¹	Yes²	Yes¹	Yes¹

The following statement(s) are provided under the California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65):

WARNING! This product contains a chemical known to the state of California to cause cancer.

WARNING! This product contains a chemical known to the state of California to cause reproductive/developmental effects.

Canadian Regulations

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all information required by the CPR.

Component Analysis

Component	CAS #	CAN
Lubricating oils, used	70514-12-4	DSL
Water/Solids	7732-18-5	DSL

Canadian WHMIS Information

D2A

D2B

Component Analysis - WHMIS IDL

The following components are identified under the Canadian Hazardous Products Act Ingredient Disclosure List:

Metals. May include lead, iron, zinc, copper, chromium, arsenic, nickel and others: each below 1.0 WT%. (Not Available)

0.1 % (related to Lead)

* * * Section 16 - Other Information * * *

Revision Information

New SDS: May 7, 2015

Key/Legend

ACGIH - American Conference of Governmental Industrial Hygienists; AU - Australia; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CAS - Chemical Abstracts Service; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CN - China; CPR - Controlled Products Regulations; DOT - Department of Transportation; DSL - Domestic Substances List; EEC - European Economic Community; EINECS - European Inventory of Existing Commercial Chemical Substances; EPA - Environmental Protection Agency; EU - European Union; F - Fahrenheit; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; ICAO - International Civil Aviation Organization; IDL - Ingredient Disclosure List; IMDG - International Maritime Dangerous Goods; JP - Japan; Kow - Octanol/water partition coefficient; KR - Korea; LEL - Lower Explosive Limit; LOLI - List Of LIsts™ - ChemADVISOR's Regulatory Database; NFPA - National Fire Protection Agency; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; NTP - National Toxicology Program; NZ - New Zealand; OSHA - Occupational Safety and Health Administration; PH - Philippines; RCRA - Resource Conservation and Recovery Act; RTECS - Registry of Toxic Effects of Chemical Substances®; SARA - Superfund Amendments and Reauthorization Act; STEL - Short-term Exposure Limit; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act; TWA - Time Weighted Average; UEL - Upper Explosive Limit; US - United States

Disclaimer

User assumes all risks incident to the use of this product. To the best of our knowledge, the information contained herein is accurate. However, Safety-Kleen assumes no liability whatsoever for the accuracy or completeness of the information contained herein. No representations or warranties, either expressed or implied, of merchantability, fitness for a particular purpose or of any other nature are made hereunder with respect to the information or the product to which the information refers. The data contained on this sheet apply to the product as supplier to the user.

End of Sheet 81451

APPENDIX D

Daily Tailgate Safety Meeting Form

6.08 PRE-JOB SAFETY TAILGATE/TOOLBOX MEETING FORM

Date		Time	
Location or Address		Temperature	
Project Number		Humidity	
Conducted by		Conditions	
Were all workers reminded that COVID is still prevalent and that appropriate measures should be taking to prevent infection of themselves and others?			Yes ☐ No ☐

911	**If 911 is unavailable at this location, please state the procedure for reporting emergencies** _____

List Safety Topic of Discussion and/or Any Specific Hazards for the Work Being Performed Today	
1	
2	
3	
4	
5	
6	
7	
List Control Measures for Each Specific Hazard Listed Above	
1	
2	
3	
4	
5	
6	
7	

PLEASE SIGN THE BACK OF THIS SHEET

The presenter and all attendees shall print and sign in the appropriate areas on the back of this sheet

By signing, you declare that you understand the information presented in today's meeting, and that you have had the opportunity to ask questions and to clarify any uncertainty regarding such information.

All Visitors and Contractors Must Print Their Company Name

Name	Signature	Company

APPENDIX G

Quality Assurance Project Plan

Quality Assurance Project Plan

NYSDEC Spill No. 0707419
NYSDEC Spill No. 2400354

Location:

38-20/37-98 Railroad Avenue
Queens Block 312, Lot 279, Lot 280
Long Island City, New York 11101

Prepared for:

MM Newtown Capital, LLC
54-08 Vernon Boulevard
Long Island City, New York 11101

LaBella Project No. 2233115

September 2025

LaBella
Powered by partnership.

45 Main Street, Suite 1018 | Brooklyn, NY 11201 | p 917-280-6364

Table of Contents

Appendices

1.0 INTRODUCTION

LaBella Associates, D.P.C. ("LaBella") was retained by MM Newtown Capital, LLC (Owner) to prepare a Site Characterization Work Plan (SCWP) for the property located at 37-98 and 38-20 Railroad Avenue, Long Island City, Queens County, New York, hereinafter referred to as "the Site". The Site is an approximately 3.8-acre parcel identified by tax parcel identification numbers Queens County, Block 312, Lots 279 and 280. This Quality Assurance Project Plan (QAPP) outlines the procedures that will be followed during SCWP activities completed at the Site.

2.0 PROJECT ORGANIZATION

The investigative efforts defined in this QAPP will be coordinated by LaBella on behalf of MM Newtown Capital, LLC. The following identifies the responsibilities of various organizations supporting the SCWP:

- The NYSDEC Project Manager (Kyle Forster) will be responsible for reviewing and approving this work plan, coordinating approval of requested modifications, and providing guidance on regulatory requirements.
- The LaBella Project Manager (Richard T. Kampf, PG) will perform general project coordination and technical direction and review. The Project Manager is responsible for ensuring that the requirements of this RI work plan are implemented. The Project Manager will also act as the Site Health and Safety Manager (HSM).
- The LaBella Lead Remedial Engineer (Dan Noll, P.E) will provide technical expertise for review of the project plans, reports, and ongoing field activities. The Lead Remedial Engineer will act as the project's Quality Assurance Manager.
- The LaBella Quality Assurance Officer (Jennifer Gillen, PG) will be responsible for ensuring that products and services meet established quality standards in regulatory compliance.
- LaBella Assistant Project Manager (Cynthia Chu) will be responsible for assisting with day-to-day project management, task leadership, and project engineering support and for the planning and implementation of RI activities.
- LaBella Field Team Leader (Wilson Corella) will be responsible for sample collection, oversight of subcontractor personnel, and coordination of daily field activities. The Field Team Leader will act as the Site Health and Safety Officer ensuring implementation of the Site Health and Safety Plan.
- Labella's Third-Party Data Validator (Tracey Evans) will be responsible for ensuring the authenticity and validity of data.
- A NYSDOH ELAP certified laboratory (York Laboratory) will be contracted to perform required analyses and reporting, including ASP Category B Deliverables, which will allow for data validation.
- Subcontractors will perform surveying, drilling, and/or sampling at the direction of the Field Team Leader in accordance with this work plan.

Resumes for LaBella project personnel are included in **Appendix A**.

3.0 PROJECT OBJECTIVES

The primary objective of this work is to obtain the information and field data needed to address on-Site data gaps. This work is intended to evaluate subsurface conditions across the Site and assess the potential for petroleum hydrocarbon impacts associated with historical and adjacent site uses.

In order to meet the project objectives, the following Site Characterization scope of work will be performed:

1. Geophysical Investigation
2. Manhole and Piping Evaluation
3. Soil Investigation
4. Groundwater Investigation

4.0 SAMPLING PROCEDURES

4.1 SOIL & GROUNDWATER INVESTIGATION

Soil and groundwater sampling shall be conducted in accordance with NYSDEC Division of Environmental Remediation (DER)-10 Technical Guidance for Site Investigation and Remediation dated May 3, 2010 and any Site-specific work plans.

Prior to drilling, all drill sites will be cleared with appropriate utility companies to avoid potential accidents relating to underground utilities. Utility drawings will be reviewed, if available.

4.2 Drilling Equipment and Techniques

Hollow-Stem Auger Advanced Borings:
The drilling and installation of soil borings and monitoring wells will be performed using a rotary drill rig which will have sufficient capacity to perform 4 1/4-inch inside diameter (ID) hollow-stem auger drilling in the overburden and retrieve Macrocore or split-spoon samples. Equipment sizes and diameters may vary based on project-specific criteria. Any investigative derived waste generated during the advancement of soil borings and monitoring well installations will be handled per the work plan.

During the drilling, visual screening will be utilized to identify any Non-Aqueous Phase Liquid (NAPL) in the soil cores, refer to work plan for details.

Screen and riser sections shall be joined by flush-threaded coupling to form watertight unions that retain 100% of the strength of the casing. Solvent PVC glue shall not be used at any time in the construction of the wells. The bottom of the screen shall be sealed with a treated cap or plug. No lead shot or lead wool is to be employed in sealing the bottom of the well or for sealant at any point in the well.

4.2.1 Artificial Sand Pack

When utilized, granular backfill will be chemically and texturally clean, inert, siliceous, and of appropriate grain size for the screen slot size and the host environment The sand pack will be installed using a tremie pipe, when possible (i.e., a tremie pipe may not fit into smaller, 2-in. diameter boreholes). When utilized, the well screen and casing will be installed, and the sand pack placed around the screen and casing to a depth extending at least 2-ft.. A pre-packed well screen may be used if pre-approved by the NYSDEC.

4.2.2 Bentonite Seal

A minimum 2-ft. thick seal will be placed directly on top of the sand pack, and care will be taken to avoid bridging. In the event that Site geology does not allow for a 2-ft. seal (e.g., only 1-ft. of space remains between the top of the sand pack and ground surface), the remaining space in the annulus will be filled with bentonite.

4.2.3 Grout Mixture

Upon completion of the bentonite seal, the well may be grouted with a non-shrinking cement grout (e.g., Volclay^{R}) mix to be placed from the top of the bentonite seal to the ground surface. The cement grout shall consist of a mixture of Portland cement (ASTM C 150) and water, in the proportion of not more than 7 gallons of clean water per bag of cement (1 cubic foot or 94 pounds). Additionally, 3% by weight of bentonite powder may be added.

4.2.4 Surface Protection

At all times during the progress of the work, precautions shall be used to prevent tampering with or the entrance of foreign material into the well. Upon completion of the well, a suitable cap shall be installed to prevent material from entering the well. Where permanent wells are to be installed, the well riser shall be protected by a flush mounted road box set into a concrete pad or locking well cap for stick-up wells. A

concrete pad, sloped away from the well, shall be constructed around the flush mount road box or stick-up casing at ground level.

Any well that is to be temporarily removed from service or left incomplete due to delay in construction shall be capped with a watertight cap.

4.2.5 Surveying

Coordinates and elevations will be established for each monitoring well and sampling location. Elevations to the closest 0.01 foot shall be used for the survey. These elevations shall be referenced to a regional, local, or project-specific datum. The location, identification, coordinates, and elevations of the wells will be plotted on maps with a scale large enough to show their location with reference to other structures at each site.

5.0 LABORATORY ANALYSIS

Requirements for sample analysis are described below. All samples will be submitted to NYSDOH ELAP certified laboratory York Laboratories or Alpha Analytical for analysis. Analytical methods, preservation, container requirements, and holding times are summarized below:

ANALYTICAL METHODS

(SOIL)

Sample Matrix	Sample Type	Parameters	EPA Method	Sample Preservation	Holding Time	Sample Container
Soil	Grab	TCL VOCs	8260C/5035 (High Level)	5 ml MeOH Cool to 4°C	14 days	40 ml vials
Soil	Grab	TCL VOCs	8260C/5035 (Low Level)	5 ml Water Cool to 4°C	48 hrs freeze, 14 days	(2) 40 ml vials
Soil	Grab	TCL SVOCs	8270	Cool to 4°C	14 days	4 oz wide mouth glass
Soil	Grab	Extractable Petroleum Hydrocarbons [C19-C36] (EPH)	MADEP	8oz unpreserved	14 days	Glass 250 mL
Soil	Grab	TAL Metals	6010	2 oz unpreserved	180 days	Glass 60 mL

Sample Matrix	Sample Type	Parameters	EPA Method	Sample Preservation	Holding Time	Sample Container
Soil	Grab	TCL PCBs	8082	8 oz unpreserved	365 days	Glass 250 mL

Soil samples will be collected as described in Section 6.2 of the SCWP.

ANALYTICAL METHODS
(GROUNDWATER)

Sample Matrix	Sample Type	Parameters	EPA Method	Sample Preservation	Holding Time	Sample Container
Water	Grab	TCL VOCs	8260	Vial HCl preserved	14 days	3
Water	Grab	TPH-ORO	8015	Amber 1L unpreserved	7 days	2
Water	Grab	TAL Metals	6010	500mL HNO3 preserved	180 days	1 Plastic
Water	Grab	TCL PCBs	8082	Amber 100mL unpreserved	365 days	2
Water	Grab	EPH [C19-C36]	MADEP	Amber 1L HCl preserved	14 days	2

Groundwater samples will be collected as described in Section 6.3 of the SCWP. Analytical data will be provided in electronic format in accordance with DER-10, Section 1.15.

6.0 FIELD/LABORATORY DATA CONTROL REQUIREMENTS

QC procedures will be followed in the field and at the laboratory to facilitate that reliable data are obtained. When performing field sampling, care shall be taken to prevent the cross-contamination of sampling equipment, sample bottles, and other equipment that could compromise sample integrity. QC samples, will include blind duplicates, equipment blanks, trip blanks, method blanks, matrix spike and matrix spike duplicates, summarized below.

Quality Assurance Summary Table

Sample Matrix	Parameters	Field Samples	Field Duplicates	Matrix Spikes	Matrix Spike Duplicates	Field Blanks	Trip Blanks	Total # Analyses
Soil	TCL VOCs, TCL SVOCs, EPH, TAL Metals, TCL PCBs*	48**	3	3	3	0	1	58
Groundwater	TCL VOCs, TPH-ORO, EPH, TAL Metals, TCL PCBs	8	1	1	1	0	1	12

*Additional parameters may be analyzed for forensic purposes.
** At a minimum, 48 soil samples will be analyzed (plus QA/QC samples). Any additional required analyses will be determined based on results from the first 48 samples and visual observations.

7.0 SAMPLE IDENTIFICATION

Each sample will be identified with a set of information relating individual sample characteristics. Required information consists of Sample Designation, Depth, Date, Time, and Matrix. Examples of sample IDs are shown below.

- SB-01 (0-2) (geoprobe sample, soil boring #1 from 0 to 2 feet)
- SS-01 (sub-slab soil vapor sample)
- MW-01 (groundwater sample)

Sample frequency, locations, depths, and nomenclature may change subject to field decisions and professional judgment.

8.0 DATA QUALITY USABILITY OBJECTIVES

The main purpose of the data is for use in defining the extent of contamination at the site, to aid in evaluation of potential human health and ecological exposure assessments, and to support remedial action decisions. Based upon this, data usability and validation will be performed as described below. Complete data packages will be archived in the project files, and if deemed necessary additional validation can be performed using procedures in the following sections.

8.1.1 Data Usability and Validation Requirements

Data usability and validation are performed on analytical data sets, primarily to confirm that sampling and COC documentation are complete, sample IDs can be tied to specific sampling locations, samples were analyzed within the required holding times, and analyses are reported in conformance with NYSDEC ASP, Category B data deliverable requirements as applicable to the method utilized.

8.1.2 Data Usability and Validation Methods

A designee of the LaBella Project Manager will complete a data usability evaluation for the data collected during the SC and a data usability summary report (DUSR) will be prepared. The DUSR will be prepared in accordance with NYSDEC DER-10, Appendix 2B, and will be available within 10 weeks.

Independent third-party data validation will be performed on 5% of the sample data, or on one sample from each sample delivery group (SDG), whichever is greater. Data validation will be performed by a qualified subcontractor independent of the project.

9.0 CHAIN-OF-CUSTODY, SAMPLE PACKAGING AND SHIPMENT

Each day that samples are collected, a chain-of-custody/request for analysis form will be completed and submitted to the laboratory with samples to be analyzed. A copy of the chain-of-custody will be retained by the Project Manager. The COC will include the project name, sampler's signature, sample IDs, date and time of sample collection, and analysis requested.

Samples will be packaged and shipped in a manner that maintains sample preservation requirements during transport (i.e., ice to keep samples cool until receipt at the laboratory), ensures that sample holding times can be achieved by the laboratory, and prevents samples from being tampered with.

If a commercial carrier ships samples, a bill of lading (waybill) will be used as documentation of sample custody. Receipts for bills of lading and other documentation of shipment shall be maintained as part of the permanent custody documentation. Commercial carriers are not required to sign the COC as long as it is enclosed in the shipping container and evidence tape (custody seal) remains in place on the shipping container.

10.0 FIELD EQUIPMENT CALIBRATION

Equipment will be inspected and approved by the Field Team Leader before being used. Equipment will be calibrated to factory specifications, if required. Monitoring equipment will be calibrated following manufacturers recommended schedules. Daily field response checks and calibrations will be performed as necessary (i.e., PID calibrations) following manufacturers standard operating procedures. Equipment calibrations will be documented in a designated field logbook.

11.0 EQUIPMENT DECONTAMINATION

11.1 General Procedures

Drilling equipment will be decontaminated in a designated area. Sampling equipment and probes will be decontaminated in an area covered with plastic sheeting near the sampling location. Waste material generated during decontamination activities will be containerized, stored and disposed of in accordance with the procedures detailed in Section 9.0. Decontamination of sampling equipment shall be kept to a minimum, and wherever possible, dedicated sampling equipment shall be used. Personnel directly involved in equipment decontamination shall wear appropriate personal protective equipment (PPE).

11.2 Drilling Equipment

Drilling equipment shall be decontaminated prior to performance of the first boring/excavation and between all subsequent borings/excavations. This shall include hand tools, casing, augers, drill rods, temporary well material and other related tools and equipment. Water used during drilling and/or steam cleaning operations shall be from a potable source.

11.3 Sampling Equipment

Sampling equipment (i.e., trowels, knives, split-spoons, bowls, hand augers, etc…) will be decontaminated prior to each use as follows:

- Laboratory-grade glassware detergent and tap water scrub to remove visual contamination
- Generous tap water rinse
- Distilled water rinse

11.4 Meters and Probes

All meters and probes that are used in the field (other than those used solely for air monitoring purposes, e.g., PID meters) will be decontaminated between uses as follows:

- Laboratory-grade detergent and tap water solution wash
- Tap water rinse
- Distilled water rinse (triple rinse)

12.0 MANAGEMENT OF INVESTIGATION DERIVED WASTE

Waste materials generated from the field operations may consist of soil cuttings, purge water, and miscellaneous solid materials such as (PPE) and supplies. Investigative derived waste (IDW) generated during field operations will be disposed of in accordance with applicable regulations.

Soil cuttings generated from soil boring activities that are not grossly contaminated will placed back into the borehole. If soil cuttings are observed to be grossly contaminated, cuttings will be stored in 55-gallon drums. Drums will be labeled to indicate the source of the soil and will be stored in a designated area onsite. Soil cores and soil cuttings will be field screened using a PID, while performing drilling operations. If any soil cuttings are drummed, they will be sampled to determine if spreading on-site is appropriate or off-site disposal is required. Following receipt of the analytical results, recommendations for disposition of the drummed soil will be provided to the NYSDEC.

Investigation and remedial derived wastes will be disposed of as hazardous or non-hazardous waste based upon their characteristic qualities.

13.0 FIELD DOCUMENTATION

Documentation will take place on either appropriate forms or in a dedicated site logbook. Permanent black or blue ink will be used to record information in the logbook. Errors in field documentation will be lined through, initialed, dated, and corrected. Forms will be kept by the LaBella Field Team Leader during the field activities. Field activities will be documented in the field logbook. The logbook will contain waterproof pages that are consecutively numbered and be permanently bound with a hard cover. Upon completion of daily activities, unused portions of pages will be lined-through and initialed.

The primary purpose of the field logbook is to document the daily field activities and to provide descriptions of each activity. All entries in the field logbook will be recorded and dated by person making the entry.

14.0 QUALITY ASSURANCE GLOSSARY

1. “Alteration” means altering a sample collected for analysis in any way other than by adding a preservative, such as nitric acid to lower pH. Examples of alteration include, but are not limited to: filtering, settling and decanting, centrifuging and decanting and acid extracting.
2. “Analytical Services Protocol” or "ASP" means DEC’s compilation of approved EPA laboratory methods for sample preparation, analysis and data handling procedures.
3. “Correlation sample” means a sample taken, when using a field-testing technology, to be analyzed by an ELAP-certified laboratory to determine the correlation between the laboratory and field analytical results.
4. "Effective solubility" means the theoretical aqueous solubility of an organic constituent in groundwater that is in chemical equilibrium with a separate-phase (NAPL) mixed product (product containing several organic chemicals). The effective solubility of a particular organic chemical can be estimated by multiplying its mole fraction in the product mixture by its pure-phase solubility.
5. “Environmental Laboratory Accreditation Program” or “ELAP” means a program conducted by the NYSDOH which certifies environmental laboratories through on-site inspections and evaluation of principles of credentials and proficiency testing. Information regarding ELAP is available at the NYSDOH Wadsworth Laboratory website
6. "Filtration" means the filtering of a groundwater or surface water sample, collected for metals analysis, at the time of collection and prior to preservation. Filtering includes but is not limited to the use of any membrane, fabric, paper or other filter medium, irrespective of pore size, to remove particulates from suspension.
7. “Final delineation sample” means a sample taken to make a decision regarding the extent of contamination at a site during the investigation and the design of the remedy or confirmation/documentation sampling during remedial construction, which is to be analyzed by an ELAP-certified laboratory.
8. “Intermediate sample” means a sample taken during the investigation or remediation process that will be followed by another sampling event to confirm that remediation was successful or to confirm that the extent of contamination has been defined to below a level of concern.
9. "Method detection limit" or "MDL" means the minimum concentration of a substance that can be measured and reported with a 99 percent confidence that the analyte concentration is greater than zero and is determined from the analysis of a sample in a given matrix containing the analyte.
10. “Minimum reporting limit” means the lowest concentration at which an analyte can be detected and which can be reported with a reasonable degree of accuracy. It is the lowest concentration that can be measured, a lab-specific number, developed from minimum detection limits, and is also referred to as the practical quantitation limit (PQL).
11. “Nephelometric Turbidity Unit” or "NTU" is the unit by which turbidity in a sample is measured.
12. "Preservation" means preventing the degradation of a sample due to precipitation, biological action, or other physical/chemical processes between the time of sample collection and analysis. The most common examples involve refrigeration at 4 degrees Celsius and lowering sample pH by the addition

of acid to keep dissolved metals in solution or to reduce the biodegradation of dissolved organic analytes.

13. "Target analyte list" or "TAL" means the list of inorganic compounds/elements designated for analysis as contained in the version of the EPA Contract Laboratory Program Statement of Work for Inorganics Analysis, Multi-Media, Multi-Concentration in effect as of the date on which the laboratory is performing the analysis. For the purpose of this chapter, a Target Analyte List scan means the analysis of a sample for Target Analyte List compounds/elements.
14. "Targeted compound" means a contaminant for which a specific analytical method is designed to detect that potential contaminant both qualitatively and quantitatively.
15. "Target compound list plus 30" or "TCL+30" means the list of organic compounds designated for analysis (TCL) as contained in the version of the EPA Contract Laboratory Program Statement of Work for Organics Analysis, Multi-Media, Multi-Concentration in effect as of the date on which the laboratory is performing the analysis, and up to 30 non-targeted organic compounds (plus 30) as detected by gas chromatography/mass spectroscopy (GC/MS) analysis.
16. "Tentatively identified compound or TIC" means a chemical compound that is not on the target compound list but is detected in a sample analyzed by a GC/MS analytical method. TICs are only possible with methods using mass spectrometry as the detection technique. The compound is tentatively identified using a mass spectral instrumental electronic library search and the concentration of the compound estimated.
17. "Well development" means the application of energy to a newly installed well to establish a good hydraulic connection between the well and the surrounding formation. During development, fine-grained formation material that may have infiltrated the sand pack and/or well during installation is removed, allowing water from the formation to enter the well without becoming turbid and unrepresentative of groundwater in the formation.

APPENDIX A

LaBella Resumes

RICHARD KAMPF

NYC Regional Manager

Richard is the Regional Manager for the New York City office. He is a Professional Geologist with 20 years of experience providing environmental consulting, due diligence, risk management, and real estate advisory services in connection with environmental investigations, remediations, and risk management strategies. His clients include developers, real property owners and investors, Fortune 100 companies, municipalities, regulatory agencies, and attorneys. Richard's proven success in providing cost-beneficial value-added services is rooted in his commitment to achieving client objectives, his practical approach to environmental risk management, and his creative leadership.

PG
Licensed Geologist
NY, WA

EDUCATION
Pratt Institute: City & Regional Planning

New York University: Graduate Certificate – Real Estate Finance & Investment

Stony Brook University: Hydrogeology

College of William & Mary: B.S. in Geology

CERTIFICATIONS
Gold Certified Professional - New York City Office of Environmental Remediation

AFFILIATIONS
New York State Council of Professional Geologists

Gowanus Canal Conservancy - Board Member

Brownfield Coalition of the Northeast (BCONE)

NYC Brownfield Partnership

New York State Association-Affordable Housing (NYSAFAH)

Procida Development Group: Ebenezer Plaza 1—Brooklyn, NY

LaBella provided environmental planning, coordination, implementation, management, oversight, and reporting for the investigation and remediation of a multi-parcel consolidated city block in the Brownsville Section of Brooklyn, NY. The site consists of seven parcels on approximately 1.25 acres, formerly used for commercial purposes including several automobile body and repair shops, a former gasoline station, a used automobile dealership, and a former dry cleaner. Both sites, known as Ebenezer Plaza I (EP1) and II (EP2), are in the NYSDEC Brownfield Cleanup Program (BCP).

EP1 has been developed as a multi-story low- and moderate-income apartment housing complex with street level commercial storefronts. The complex includes over 310 units in two towers that surround a 40,000 square foot community center used for church services, soup kitchens, a food pantry, GED programs, addiction recovery meeting space, family counseling services, and more. The finished development converted a blighted property into a much needed and community-oriented mixed use complex.

At EP1, approximately 25,000 yd^3 of impacted soil that included regulated metals (lead and chromium) and chlorinated volatile organic compounds were excavated and removed for off-site disposal. The remediation included the treatment of groundwater heavily impacted with kerosene from historical dry-cleaning operations (circa 1930) and the identification and removal of 24 underground storage tanks. Engineering controls included a 20-foot-thick Petrofix barrier wall along the downgradient property boundary to mitigate off-site migration of residual groundwater impacts. The new development also utilized a vapor barrier system and sub-slab depressurization system for long-term mitigation. LaBella prepared the Phase I and Phase II ESAs, Remedial Investigation Work Plan, Remedial Investigation Report, Remedial Action Work Plan,

LaBella
Powered by partnership.

Final Engineering Report, and Site Management Plan.

This project achieved a Certificate of Completion in 2020 and was awarded the 2021 Big Apple Brownfield Award for Innovative Remediation.

On-Call Environmental Consulting and Brownfield Planning Services—New York City, NY

As Principal-in-Charge of PW Grosser Consulting's On-Call Environmental Consulting and Brownfield Planning Retainer Contract with the NYC Mayor's Office of Environmental Remediation (OER), led a team in the fields of environmental consulting, urban planning, economic development, real estate development, community engagement, transportation and environmental planning, and GIS/IT services. Directed and oversaw due diligence investigations for numerous City-owned properties, including performing a Phase I ESA and Phase II ESA/Remedial Investigation for 1921 Atlantic Avenue, a 14-story, 235-unit affordable housing development in Brooklyn's Bedford-Stuyvesant neighborhood to support its entry into the New York State BCP.

New York City Mayor's Office of Environmental Remediation and Private Real Estate Developer: On-Call Environmental Consulting Services, Remedial Investigation, Affordable Housing Development—Bedford-Stuyvesant, Brooklyn, NY

As Principal-in-Charge of PWGC's On-Call Environmental Consulting Contract with the NYC Mayor's Office of Environmental Remediation (OER), responsible for leading a team of best-in-practice professionals and consultants in the fields of urban planning, economic development, real estate development, community engagement, transportation and environmental planning, and GIS/IT services. Under this contract, directed and oversaw due diligence investigations for numerous city-owned properties, including performing a Phase I ESA and Remedial Investigation (RI) for 1921 Atlantic Avenue.

The 1921 Atlantic Avenue development is an integrated 14-story new construction project that combines dedicated senior, affordable, and middle-income housing and will bring a total of 183 units for seniors and low- to moderate-income households to the Bedford-Stuyvesant neighborhood of Brooklyn. The 30,000+ sf development consists of a total of 15 individual city lots, 12 of which are owned by the New York City Department of Housing Preservation and Development (HPD), while three were recently acquired by the developer through private transactions. Former uses of the property include auto repair and the presence of multiple petroleum underground storage tanks (USTs) have been documented.

Led project coordination efforts among project stakeholders including NYC OER, HPD, the developer, and environmental attorneys, in order to manage the collection of data as required by multiple regulatory jurisdictions and programs into a single report. The RI included the advancement of 21 soil borings including at least one on each lot, collection of 39 soil samples, installation and sampling of four groundwater monitoring wells, and collection of eight soil vapor samples. The RI Report supports the client's financing and environmental risk management objectives indicating that the property is eligible for entry into the New York State Brownfield Cleanup Program (BCP) and was included in a Brownfield Cleanup Program Application submitted to NYSDEC. Prepared remediation cost estimates to support the clients' project financing objectives.

On-Call Environmental Consulting Services: E-Designation Remedial Investigation—Brooklyn, NY

Project Director, Provided risk management and real estate advisory services to developer for the redevelopment of a former industrial property into a six-story condominium in Williamsburg, Brooklyn. Directed and oversaw the remedial investigation and remedial actions in NYC OER's E-Designation program. The property had a history of gas production and the presence of historic fill containing arsenic, lead, and copper at concentrations well above acceptable standards. Developed a technical and strategic approach based upon an accurate and conceptual site model and multiple lines of technical evidence to successfully negotiate a risk-based remedial action plan that involved pre-negotiated hot spot removal of soils without the potential for additional soil removal requirements based on sampling results.

Ideal Trading Company, Former Liberty Brass Site: NYS BCP Investigation & Remediation—Long Island City, Queens, NY

2019 Big Apple Brownfield Award Winner for Environmental Protection

Responsible for the investigation, remediation, and overall environmental risk management practices in connection with the redevelopment of a 22,500 square foot former metal plating and hardware manufacturing facility in Long Island City, Queens, New York.

Richard directed and oversaw the performance of a Remedial Investigation and facilitated the expedited NYSDEC-approval of a Remedial Investigation Report and Remedial Action Work Plan. Constituents of concern (COCs) in soil that require remediation include chlorinated aliphatic hydrocarbons and petroleum hydrocarbons associated with the use of a vapor degreaser and cutting oils. Additional COCs include metals, pesticides, and polyaromatic hydrocarbons resulting from the presence of historic fill.

Richard facilitated close communication among ownership, the construction manager, architect, project engineers, and NYSDEC and directed and oversaw PWGC engineers and scientists to ensure the removal and proper disposal of approximately 30,000 tons of material among a variety of waste streams. Challenges included the excavation of several deep hot spots of TCE-contaminated soil to the limits of technical practicability, the installation of an upgradient reactive barrier, and in-situ chemical oxidation injections to treat residual material in the source area. Oversaw the preparation, submittal, and approval of Final Engineering Report and Site Management Plan and led regulatory negotiation which, despite significant challenges, achieved a Certificate of Completion for a conditional Track 1 cleanup in December 2018.

Phelps Dodge Superfund Site: Environmental Due Diligence—Queens, NY

Project Director, directed and oversaw environmental due diligence in connection with the redevelopment of a portion of the former Phelps Dodge Superfund Site in Maspeth, Queens, New York. The properties, consisting of portions of a former copper refinery, are being remediated under an Order on Consent and Record of Decision with NYSDEC in coordination with NYSDOT, which has easements on the properties. Developed and executed the overall environmental risk management strategy for the client, provided support to attorneys on contract negotiations with the seller with respect to retained liabilities and potential re-openers, and integrated redevelopment plan with the remedial requirements.

Subsurface Investigation and Remedial Action Work Plan: 27-09 4th Avenue—Astoria, NY

Responsible for evaluating subsurface investigation results and preparing a Remedial Action Work Plan (RAWP) with the objective of achieving a Track 1 cleanup. Worked closely with the Client, NYSDEC, the Remedial Engineer, attorneys, and contractors to develop a remedy for a site with a complex geology and a history of chlorinated solvent usage. The remedy involves soil excavation to remove hot spots to depths of approximately 27 feet bgs, design and installation of soil vapor extraction and sub-slab depressurization systems, and groundwater treatment consisting of the application of reactive amendments at the groundwater interface in source areas, in-situ injection of chemical oxidant along transects located downgradient of source areas, and a downgradient permeable reactive barrier.

Environmental Due Diligence and Brownfield Planning: Waterfront Revitalization Master Plan—New Milford, CT

As a subcontractor to a leading NYC-based urban design, planning, and architecture firm, Richard was responsible for coordinating with project stakeholders, evaluating existing brownfield conditions, identifying strategic sites and performing Phase I and II environmental site assessments of a former railyard, fuel depot, and gasoline service station. This work was done as part of an effort to evaluate brownfield funding and remediation alternatives within the context of the development of an overarching waterfront master plan for the Housatonic Riverfront in New Milford, CT to support the Town's economic development objectives. Recommendations for remediation included shallow excavation with on-site beneficial re-use of coal ash contaminated with lead, arsenic, and other heavy metals.

Former Gasoline Service Station, Property Owner: Subsurface Investigation/Liability Management—Brooklyn, NY

Responsible for directing and overseeing subsurface investigation in connection with

the presence of petroleum hydrocarbon-related material in subsurface soils at a former gasoline service station located in Brooklyn, New York. Developed and executed a strategy to manage client's liability in response to a request from NYSDEC to investigate client's property, a former gasoline service station, located adjacent to another former gasoline service station with a known release and active spill number. NYSDEC requested the client to perform a subsurface investigation of its property to evaluate the potential for that property to be a source of dissolved-phase petroleum hydrocarbon-related material in groundwater. Developed a phased approach to performing the investigation and established multiple lines of evidence to support the conclusion that the adjacent former gasoline service station property was the source of any petroleum hydrocarbon-related material in the subsurface on client's property. NYSDEC agreed that no further action was necessary.

Technical Support for Groundwater Natural Resource Damage Assessment, Confidential

Provided technical support for the preparation of multiple deliverables to establish approaches and groundwater injury quantification and damages determination in connection with a groundwater Natural Resource Damage Assessment (NRDA) in New York State. Prepared a series of memorandum that characterized the quality of the aquifer system and related groundwater protection, recharge, and monitoring programs, evaluated the volume of impacted groundwater and available options, and related costs and benefits, of potential restoration projects, and examined the nature and extent of plume commingling.

Engineering Contract Administration: Architect/New York City Agencies

Developed and managed multiple engineering design services contracts as sub-contractor to architect with contracts with NYC DDC and General Services Administration (GSA). Managing contract for fuel system design engineering services for the new NYPD Station House within the 116th Precinct in Queens under architect's DDC Design Excellence Contract. Managing engineering design contract for replacement/repair of fuel storage tanks (24,000 gallon-tank at 500 Pearl Street and 1,000 gallon-tank at 26 Federal Plaza) under architect's contract with the GSA. Managing contract for fuel system design engineering services for the Clove Road Field Office Facility under architect's contract with DDC.

Former Atlas White Metal Site, Property Owner: Subsurface Investigation & Remediation—Brooklyn, NY

Responsible for directing and overseeing investigation, remediation, and overall environmental risk management practices in connection with a former lead smelting facility in Red Hook, Brooklyn, New York. The project is under United States Environmental Protection Agency (USEPA) oversight within its Removal Action Program. Constituents of concern (COCs) in soil that require remediation include lead, arsenic, and antimony. Directed and oversaw the performance of a Site Investigation according to an EPA-approved Work Plan, including Quality Assurance Project Plan (QAPP) and Health and Safety Plan (HASP). Prepared a Site Investigation Report and Remedial Action Work Plan. Presented multiple lines of evidence to support the conclusion that dissolved-phase lead and arsenic were not site-related and that shallow soil removal and capping would be the appropriate remedy.

Fortune 50 Telecommunications Company: Environmental Consulting and Risk Management—Basking Ridge, NJ

Directed and oversaw environmental compliance review in connection with the preparation of a decommissioning design plan for the removal of three subsurface vaults that are part of an existing underground eutectic energy storage system. Advised client regarding the risks associated with the potential for a confirmed discharge to occur, or to have occurred, which would require oversight by a New Jersey Licensed Site Remediation Professional (LSRP), and advised regarding means of evaluating/eliminating the potential for such a discharge to take place during the vault decommissioning process. Directed and oversaw waste disposal and coordination support services in connection with vault water and salt pack disposal, including vault water sampling, data evaluation, and disposal facility selection and approval. Constituents of concern (COCs) include trichloroethane (TCA).

Real Estate Developer: Subsurface Investigation & Remediation/Liability Management, Redevelopment—Brooklyn, NY

Provided risk management and real estate advisory services in connection with the redevelopment of a former industrial property into a six-story condominium in Williamsburg, Brooklyn. Responsible for directing and overseeing the remedial investigation and remedial actions under the oversight of the NYC Mayor's Office of Environmental Remediation (OER). The property had a history of gas production and the presence of historic fill containing arsenic, lead, and copper at concentrations well-above acceptable standards. Developed a technical and strategic approach based upon an accurate conceptual site model and multiple lines of technical evidence to successfully negotiate a risk-based remedial action plan that involved pre-negotiated hot spot removal of soils containing unusually high concentrations of metals without the potential for additional soil removal requirements based on sampling results. The approach provided the client with additional certainty regarding cost and schedule and resulted as well in cost savings in connection with eliminating the potential for additional soil excavation and related transportation and disposal fees.

Retail Shopping Center, Asset Management Firm: Subsurface Investigation & Remediation/ Liability Management—Irvington, NJ

Responsible for directing and overseeing the remedial investigation and remedial actions in connection with a site with a 20-year regulatory history in connection with multiple heating oil UST releases and dissolved-phase chlorinated aliphatic hydrocarbons (CAHs) in groundwater. Applied for and obtained extension of RI completion deadline. Developed technical and strategic approach that significantly reduced client's costs by utilizing deed restrictions rather than performing unnecessary soil excavation. Achieved soil-only Response Action Outcome within 12 months.

Industrial Business Park, Property Owner: Subsurface Investigation & Remediation/ Liability Management—Whippany, NJ

Responsible for directing and overseeing the remedial investigation and remedial actions in connection with heating oil UST release in advance of the sale of the property. Developed technical and strategic approach for a remedial strategy that saved client $500K+ by avoiding unnecessary soil excavation and utilizing monitored natural attenuation and a CEA for groundwater in close proximity to the Whippany River. Provided technical support for successful cost recovery from insurance carrier. Provided technical and strategic support for attorney-led negotiations in connection with an off-property former RCRA TSD source of a dissolved-phase chlorinated solvent groundwater plume that had migrated onto the client's property. Established multiple lines of evidence to support an alternative site conceptual model which demonstrated that leaking sanitary and stormwater infrastructure at the adjacent property was the most likely source of the dissolved-phase chlorinated solvent groundwater plume onto the client's property. Supported legal action to recover costs/damages in excess of $1M based on findings.

Fuel Oil Terminal, Mediating Attorney: Technical Support for Liability Mediation—Cold Springs, NY

Provided technical support to the mediating attorney on a multi-party settlement and cost-sharing agreement in connection with multiple co-mingled light non-aqueous-phase liquid (LNAPL) plumes composed of over a dozen different petroleum product types of varying age, critically reviewed PRP advocacy materials, including technical presentations and position papers, site conceptual models, constituent fate and transport mechanisms, and chemical forensics. Prepared technical questions for experts to help resolve discrepancies among alternative environmental forensic arguments and fate and transport scenarios for LNAPL and dissolved-phase constituents to support an independent technical foundation for cost allocation resulting in a successful mediated settlement.

Active Fuel Oil Terminal, Property Owner: Subsurface Investigation & Remediation/ Liability Management—Brooklyn, NY

Responsible for directing and overseeing remedial investigation and in connection with release of petroleum hydrocarbon-related materials at an active fuel oil terminal located on Gravesend Bay. Developed and executed a strategy to manage client's liability in connection with light non-aqueous phase liquid (LNAPL) that had allegedly

migrated from a major oil storage facility (MOSF) onto an adjacent property that was being redeveloped. Established multiple lines of evidence to support an alternative site conceptual model which raised uncertainty concerning the source of the petroleum hydrocarbons on the adjacent property. Confirmed that the LNAPL was limited in volume and extent, immobile, and did not present an unacceptable risk to human health or the environment thereby rendering unnecessary NYSDEC's requirement to excavate over 10,000 cubic yards of soil at a projected cost of over $2M. Negotiated an alternative remedial action for the adjacent property that was projected to cost less than $100K, which benefited the adjacent property and NYSDEC while eliminating client from liabilities at the adjacent property. Investigated and evaluated stormwater infrastructure, and included an updated stormwater management plan, as part of a sustainable groundwater remedy. On-property remedy also proposed the use of solar powered skimmers to address LNAPL.

PRP Group: Project Coordination/Liability Management, Quanta Resources Superfund Site—Edgewater, NJ

Provided technical and strategic environmental risk management for multi-member PRP group in connection with the investigation and selection of a remedy for a former coal tar processing plant, sulfuric acid plant, and other industrial uses, under CERCLA. Led technical and strategic efforts on behalf of PRP Group in connection with site characterization and development of remedial alternatives to address dissolved arsenic and dissolved and non-aqueous phase coal tar constituents in groundwater and soil. Developed and executed a strategy for obtaining approval from NJDEP for a Technical Impracticability Waiver of groundwater ARARs. Coordinated and oversaw preparation of technical work plans and sensitive and strategic deliverables in connection with source-apportionment, cost allocation, and settlement negotiations for the upland portion of the site as well the adjacent surface water body and associated sediments. Coordinated the preparation of an allocation report, utilizing Gore factors and other allocation criteria, based on historical operations, release scenarios, and key chemical forensic characteristics. A key strategic goal was to limit the client's exposure to a cost allocation and natural resource damage claim with respect to constituents in both upland and water-based operable units. A cash-out settlement significantly limited client's future potential liabilities at an extremely low percentage of total costs and with limited additional premium.

PRP Group: Project Coordination/Liability Management, Quanta Resources Superfund Site—Long Island City, NY

Provided technical and strategic environmental risk management for multi-member PRP group in connection with RI/FS, remedial design, and remedial action at former oil recycling facility in the New York State Superfund & Brownfield Cleanup Programs. As lead regulatory negotiator for the PRP group, successfully negotiated a remedy with NYSDEC with sufficient flexibility to accommodate uncertainty surrounding future redevelopment plans and address the concerns of multiple stakeholders. Directed and oversaw LNAPL remedy selection and the development of risk management strategies in connection with off-property vapor intrusion concerns. Oversaw the decommissioning and demolition of the facility which included the removal and disposal of a one million gallon capacity above-ground tank farm, associated piping, and asbestos-containing brick buildings, air monitoring, tire disposal, crushing and on-site beneficial reuse of concrete structures, segregation of soils suitable for on-site beneficial reuse, site grading, and stormwater management planning.

Matton Shipyard: Preservation & Adaptive Reuse Initiative - Erie Canalway Heritage Fund Peebles State Park—Cohoes, NY

Richard led the development of a multi-disciplinary team, the preparation of a proposal for the Eric Canalway Heritage Fund, and managed a project that involved performing building and shoreline assessments, cost estimating for stabilization and building mothballing, developing a plan for soil remediation, completing an aquatic and ecological assessment, and in coordination with First Nations, permitting, and grant writing. The completed assessments were combined into an initial document describing next steps and containing assessment reports, preliminary construction plans, and a SEQRA Environmental Assessment Form in coordination with the NYSOPRHP. A Joint Permit

Application was submitted to the Corps of Engineers and NYSDEC for the shoreline stabilization, along with a non-jurisdictional request to the NYSDEC for concurrence that there would not be impacts on a nearby bald eagle nest. Following receipt of comments from regulatory agencies, a SEQRA Negative Declaration was completed, contract documents developed, and a successful grant application resulting in a $485K grant issued to implement the next phase of the work - shoreline stabilization and soil remediation. Permitting is being finalized.

40th Avenue Dutch Kills Realty, LLC: 40th Avenue Supplemental Remedial Investigation—Long Island City, Queens, NY

As Project Director, Richard directed and oversaw the completion of a Supplemental Remedial Investigation and the preparation and NYSDEC-approval of a Remedial Action Work Plan for this site located in Astoria, Queens. An E-designated site for HazMat, noise and air, this site entered the New York State Brownfield Cleanup Program (NYSBCP) because of the presence of chlorinated solvents in soil and groundwater. Historical operations included a dry-cleaner, automotive repair and machine shop businesses, a glass factory, a woodworking, and photo-engraving shop. Complicating factors relevant to site remediation included the presence of a thick clay layer near the water table and the depth of contamination by chlorinated solvents. The site is being redeveloped into a mixed-use building consisting of commercial and residential space. The planned goal of the remediation is to achieve a Track 1 cleanup.

The Remedial Investigation identified the localized presence of PCE source material in at least three areas on site, at depths varying from 20 to 27 feet, and the presence of chlorinated aliphatic hydrocarbon related-constituents in soil vapor and groundwater throughout the property. Metals, SVOCs and a pesticide were also identified in soil at the site. The available information indicates that at least one potentially upgradient source, the Bridge Cleaners Site, may be contributing to the presence of PCE in groundwater at and around the site. In general, contaminated historic fill material is underlain by layers of fine to medium silty sands and silt which overlie thick, competent, high plasticity clay layer dips significantly towards the west and acts as a hydraulic boundary layer.

As part of the Supplemental Remedial Investigation (SRI) a total of fifty-five (55) soil samples were collected and analyzed. In addition, ten (10) groundwater monitoring wells were installed on-site and off-site and sampled and a total of eight soil vapor samples (four on-site and four off-site) were collected and analyzed. The remedy includes excavation of historic fill and hot spots to depth of up to 15 ft and deeper as necessary, a sub-slab depressurization system, soil vapor extraction system, and in-situ groundwater treatment system consisting of soil amendments, passive reactive barrier, and in-situ chemical oxidation that will be designed and installed to prevent the off-site migration of contaminated groundwater. Remediation has recently begun.

Procida Development Group: Ebenezer Plaza 2—Brooklyn, NY

At EP2, over 4511.32 tons of C&D debris was removed prior to performing a geophysical investigation which identified the presence of four 550-gallon gasoline underground storage tanks (USTs) which were removed and properly disposed. Supplemental soil delineation was performed in order to explore additional response actions to achieve a Track 2 clean up. Approximately 949 tons of lead contaminated soil, including 676 tons hazardous soil, was excavated from the top, approximately 6 ft from a high concentration lead area, which originated from the historical use of the property as a salvage yard. In addition, approximately 11,406 tons of petroleum-contaminated soil was excavated from a petroleum hot spot in the vicinity of the former petroleum USTs and extending to a depth of approximately 32 feet below ground surface (ft bgs) was excavated to a depth of approximately 17 ft bgs to remove soil containing COCs above applicable SCOs. A network of permanent in-situ chemical oxidation (ISCO) injection wells were installed in order to inject activated sodium persulfate (ASP) to treat the remaining petroleum contamination in the saturated zone. A total of 19,457 tons of debris and soil has been removed and transported for off-site disposal. The project required dewatering because of the shallow water table and the design and installation of a sub-slab depressurization system. The project is presently under construction.

DANIEL NOLL

Vice President

Dan has more than 28 years of experience with environmental projects at industrial/manufacturing facilities and environmental investigation and construction projects for a variety of clients including developers, financial institutions, industrial clients, and municipalities (municipally and US EPA grant funded projects). Dan has managed numerous Brownfield Assessment projects that have included site inventories, and Phase I and Phase II Environmental Site Assessments. These investigations have included groundwater monitoring programs, soil vapor investigations, test pit investigations, bedrock groundwater investigations, and geo-probe investigations. Dan also has extensive experience supporting construction projects that encounter fill materials and completing beneficial use determinations. In addition, Dan has significant remedial design and implementation experience including, landfill cover systems, electrical resistance heating systems, underground storage tank removals, soil removals, bio-cell remediations, and in-situ groundwater remediation. He also has experience with the design and installation oversight of mitigation systems.

Compliance Bio:

Dan has more than 28 years of experience with environmental compliance/audits and investigation and remediation projects at industrial/manufacturing and municipal facilities. Dan has worked with a large variety of manufacturing clients from food processing facilities to heavy industrial facilities like steel manufacturing. Dan has worked with all manner of clients to assess their operations and determine applicable regulations and compliance programs applicable to their specific work and location. Dan has assisted clients with a wide variety of permitting including, National and State Pollution Discharge Elimination System (NPDES/SPDES) permits, Petroleum Bulk Storage (PBS) permits, Chemical Bulk Storage (CBS) Permits, Resource Conservation and Recovery Act (RCRA) permits, air permits, Land Application permits, Composting permits, etc., Dan has also worked with clients to develop programs and compliance plans for their facilities including Spill Prevention, Control and Countermeasure (SPCC) Plans, Stormwater Pollution Prevention (SWPP) Plans, Hazardous Waste Contingency Plans, Spill Prevention Reports and other similar compliance plans.

PE

Professional Engineer: NY, ME, OH, NH, AZ, CO, CT, IA, KS, MA, ND, OR, SD, WA

EDUCATION

Clarkson University: B.S. in Chemical Engineering

CERTIFICATIONS/ REGISTRATIONS

OSHA 40-Hour Certified Hazardous Waste Site Worker Training

OSHA 8-Hour Certified Hazardous Waste Site Worker Refresher Training

NYSDEC Brownfield Cleanup Program (BCP)

Urban League of Rochester: Wollensak Optical—Rochester NY

Dan served as the overall Engineer in Charge of the investigation and remediation work at the former Wollensack Optical facility. The site was entered into the NYSDEC Brownfield Program to address contamination that resulted from historical operations the site. The remedial investigation identified orphaned underground storage tanks and associated petroleum

LaBella
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impacted soil and groundwater, chlorinated solvent impacts to soil and groundwater and radioactive building materials. Dan guided the technical aspects of the investigation work which included delineation of a chlorinated solvent groundwater plume that extended from the overburden and into a fractured bedrock network. Subsequent to completing the investigation work, Dan served as the Engineer of Record for the remedial analysis and the remedial action work plan. The selected remedy included in-situ chemical treatment to address chlorinated solvents, removal of underground tanks and a sub-slab depressurization system to mitigate potential exposure concerns. The remedial work allowed for the redevelopment of the building into an affordable housing complex.

Getinge USA, Inc.: Electrical Resistance Heating Project, Getinge Manufacturing Facility—Henrietta NY

Dan served as the overall Engineer in Charge and Certifying Engineer for the design, installation and operation of an electrical resistance heating system to remediate a source area of chlorinated solvents beneath a former manufacturing building. The ERH approach was selected in order to rapidly and effectively remove significant mass from the source area materials. The ERH operated for 80 days and removed an estimated 168 pounds of Trichloroethylene. The ERH was supplemented with an injection of an amendment to provide further long-term treatment and allow for natural attenuation monitoring as part of the overall remedy. This project successfully obtained a Certificate-of-Completion through the NYSDEC Brownfield Program.

Stern Family Limited Partnership: Former Manufacturing Facility BCP Site—Rochester, NY

Dan was the Project Engineer for this BCP Site, which underwent a Remedial Investigation, Interim Remedial Measures, and installation of a sub-slab depressurization system. Dan completed and stamped the Final Engineering Report required to obtain the Certificate of Completion for the property owner, allowing them to obtain their tax credits.

Springs Land Company: Carriage Cleaners BCP Site—Rochester, NY

As Project Manager, Dan completed a Brownfield Cleanup Program (BCP) Application & Work Plan to conduct a Remedial Investigation at a former dry cleaning facility. A soil, groundwater, and soil gas study was undertaken to develop remedial costs and assist with redeveloping the property. Subsequently, an Interim Remedial Measure was completed to remove the source area of impacts from the site. Dan completed a remedial alternatives analysis for selecting a treatment approach for the residual groundwater plume. Dan also attended town board meetings regarding this project.

American Siepmann Corporation: Former Manufacturing Facility BCP Site—Henrietta, NY

Dan was the Project Manager for this Brownfield Cleanup Program (BCP) Site and has overseen the installation of a groundwater monitoring well network and subsequent routine sampling as part of a Monitored Natural Attenuation (MNA) program for remediation of chlorinated groundwater impacts at the site.

RJ Dorschel Corporation: Former Gasoline/Service Station BCP Site - Rochester, NY

Dan was the Project Manager for this BCP Site, which included Remedial Investigations at two adjoining parcels, implementation of Interim Remedial Measures, and development of the Final Engineering Report and Site Management Plan. The project also included implementation of necessary Citizen Participation requirements. The project ultimately obtained the Certificate of Completion and thus the NYS tax credits.

One Flint Street Associates: Vacuum Oil BCP Site—Rochester, NY

Dan was the Project Manager for this Brownfield site that is the oldest oil refinery in the United States. The project included developing a remedial investigation plan for two parcels that have had a history of oil refining since the 1800s. The remedial investigation was designed to fill data gaps from previous studies in order to minimize cost to the Client.

Genesee Valley Real Estate: Former Bausch & Lomb Facility BCP Site—Rochester, NY

Dan is Project Manager for this Brownfield site that served as a manufacturing facility from the 1930s to the 1970s. The project includes a Remedial Investigation (RI) of a four-acre parcel with ten areas of concern identified based on historic information. The RI identified four areas requiring remedial actions and Interim Remedial Measures have been completed in three of the locations. The areas of remediation included petroleum impacted soil and groundwater with free floating petroleum product, and chlorinated solvent contamination including bedrock

impacts at depth. A remedial alternatives analysis is being completed to determine a final remedy for the site.

Alternative description below:

Dan was Project Manager for this Brownfield site that served as a manufacturing facility from the 1930s to the 1970s. The project included a Remedial Investigation (RI) a four-acre parcel with ten areas of concern identified. The RI identified four areas requiring remedial actions. The remedial areas included petroleum impacted soil and groundwater, free floating petroleum product, and two areas of chlorinated solvent contamination with one including bedrock impacts at depth. A Feasibility Study was completed that evaluated pros/cons and associated cost of each remedial alternative. The remedial work was agreed to with NYSDEC and Dan led the design of the remedial systems for each area. The remedial approach included in-situ chemical oxidation for one of the chlorinated solvent areas through several subsurface injection manifolds. The remediation approach for the other area of chlorinated solvent impacts included the design and installation of bedrock injection wells and a pump and treat groundwater extraction system. The injection wells were utilized inject zero-valent iron for treatment of the solvents. The pump and treat system was utilized to pull the injection chemicals across the impacted area for greater distribution. The remedial systems were successful and the site received a Certificate of Completion from NYSDEC in 2018.

Bajrangee, Inc.: Comfort Inn, BCP Site—Rochester, NY

Dan was the Project Manager for this Brownfield site that included a design phase investigation to determine the extent of remedial work. The remediation work included excavation of chlorinated solvent impacts to soil and groundwater from the basement of the building. This included proper shoring design to facilitate the removal action. A second phase of the remediation included injection of treatment chemicals to address downgradient groundwater impacts.

DePaul Properties: Brenneman Industrial—Oswego NY

Dan was the Engineer of Record for the investigation and remediation work at the former Brenneman industrial facility. The site was identified as a 'catalyst' site through the NYSDEC Brownfield Opportunity Area program and based on that a developer put the site into the NYSDEC Brownfield Program. The remedial investigation identified a plume of chlorinated solvents and significant fill material at the site. Mr. Noll led the team that evaluated remedial options and selected the remedy for the site. Mr. Noll provided technical oversight during the remedy implementation phase and during site management phase as part of the redevelopment of the site. The site was successfully redeveloped into an affordable housing building filling a need for the community.

Marketview Park—Ithaca NY

Dan served as the Technical Manager for an affordable housing/commercial redevelopment project in Ithaca NY. The site had significant urban fill material identified during a routine due diligence project. The funding source (Housing and Community Renewal) required specific actions be implemented during construction to allow for redevelopment for the intended use. Due to significant cost for removal and disposal of these materials, Dan led a project team that developed a beneficial use determination (BUD) for the reuse of the urban fill material that was encountered during construction. Ultimately several 'BUDs' were obtained to minimize disposal cost and allow the project to move forward.

Covanta Niagara, L.P.: Brownfield Redevelopment Project, Covanta Rail-to-Truck Intermodal Facility—Niagara Falls, NY

Dan was the Remedial Engineer for the investigation, remediation and redevelopment of a 15-acre former industrial site for use as a Rail-to-Truck Intermodal Facility (RTIF). The project was completed through the Brownfield Cleanup Program (BCP) and involved the completion of a Remedial Investigation (RI); development of a NYSDEC-approved Remedial Action Work Plan to address a range of contamination, including radioactive slag. The project was completed successfully and obtained a Certificate of Completion which allowed redeveloping the property for the proposed use.

Procida Development Group: Ebenezer Plaza II, BCP Site Remediation—Brooklyn, NY

Dan was the Engineer of Record for the design and construction of remedial systems at a Brownfield Cleanup Program Site in Brooklyn, NY. The remediation work consisted of a source area soil removal, in-situ chemical injections and a sub-slab depressurization system (SSDS). The soil removal was completed in-conjunction with the site development work in order to minimize excavation and dewatering costs. Subsequent to soil removal, an injection well network was designed for

treating residual impacts via in-situ chemical oxidation. The future site use will be residential and an SSDS was designed and installed as a precautionary measure in order to mitigate potential exposure due to vapor intrusion. The project has completed the remedial action construction phase and is on track to achieve a Certificate of Completion in 2024.

Mark IV Enterprises: Monoco Oil Brownfield Cleanup and Redevelopment—Pittsford, NY

Dan was the Engineer of Record for this NYSDEC Brownfield Cleanup Program for this project. This complex environmental project involves the cleanup and demolition of a 20-acre blighted vacant oil refinery. The remedial work included removal and disposal of over 20,000 tons of contaminated soils and construction of a cover system over the entire 20-acre site. The redevelopment plan for the project includes redevelopment of an upscale waterfront apartment and town home complex along the canal. Dan conducted all NYSDEC, NYSDOH, and local negotiations for many aspects of the project. Public participation and communication was been paramount to the project success.

Canandaigua Pinnacle North Brownfield Remediation—Canandaigua, NY

Dan was the Project Manager and Engineer-of-Record for the remediation and subsequent environmental monitoring during redevelopment of a 12 acre site in Canandaigua NY. The environmental concerns included former landfilling, gasoline filling stations, an area of PCB impacted soil and an area of pesticide impacted soils. The remediation work included removal of 17 Underground Storage Tanks (USTs), 11,000 tons of contaminated soil removal/disposal, confirmation soil sampling and subsequent groundwater monitoring. The remedial work and construction dewatering required removal and treatment of 9,400,000 gallons of groundwater and LaBella monitored/sampled and obtained the local sewer use permit for discharge. The remedial work also included constructing a cover system for the 12 acre site. Dan also designed and commissioned 3 sub-slab depressurization systems in order to eliminate the potential for soil vapor intrusion concerns. Dan also designed and oversaw installation of clay plugs around a storm sewer utility line that extended through an area of groundwater contamination in order to minimize concerns with contaminant migration along sewer bedding. All required reports were completed and approved by NYSDEC and the site received a certificate of completion.

US EPA Grant Funded Projects

City of Rochester: US EPA Brownfield Assessment Grant: Phase I & II ESAs– Rochester NY

Dan served as the Project Manager for over a dozen Phase I and II ESAs completed for the City of Rochester, NY. These projects were funded by the US EPA Brownfield Assessment Grant. These projects included manufacturing facilities, former dry cleaners, former gas stations, areas of landfilling and other former uses of concern. Dan completed site eligibility forms and Quality Assurance Project Plans for submission by the city to US EPA. Dan oversaw the Phase I ESAs and conducted final QA/QC reviews for the reports. Dan also oversaw all Phase II ESA work which included geophysical surveys, utility locating, soil borings, groundwater monitoring well installations and associated soil and groundwater sampling. Dan also completed developing remedial estimates for sites where contamination was identified.

US EPA Brownfield Assessment Grant, Phase I & II ESAs– Rochester NY

Dan served as the project manager for over a dozen Phase I and II ESAs completed for the City of Rochester NY. These projects were funded by the US EPA Brownfield Assessment Grant. LaBella completed site These projects included manufacturing facilities, former dry cleaners, former gas stations, areas of landfilling and other former uses of concern. Dan completed site eligibility forms and Quality Assurance Project Plans for submission by the City to US EPA. Dan oversaw the Phase I ESAs and conducted final QA/QC revies for the reports. Dan also oversaw all Phase II ESA work which included geophysical surveys, utility locating, soil borings, groundwater monitoring well installations and associated soil and groundwater sampling. Dan also completed developing remedial estimates for sites where contamination was identified.

Shenandoah County: US EPA Brownfield Assessment Grant– Shenandoah County, Virginia

Dan serves as the Principal-in-Charge for this US EPA Brownfield Assessment Grant Project. This project is funded through a $600,000 USEAP Grant and is currently underway. Shenandoah County is in a rural location in southern Virginia and consists of numerous small towns and cities. LaBella is completing the Site

Inventory and Public Engagement phase currently and is also assembling submissions to US EPA for conducting Phase I ESAs and Phase II ESAs at sites identified as priority sites by the County and through the public engagement activities. Dan has conducted final Quality Assurance/Quality Control reviews of the Quality Management Plan and Quality Assurance Project Plan for the project. This project is a anticipated to be completed in 2026.

US EPA Cleanup Grant, Former Photech Imaging Facility Remediation– Rochester, NY

Dan served as the Project Engineer to conduct the demolition and remediation of a 12.5 acre photographic film manufacturing facility. In addition to working through the New York State Regulatory program, Dan also led the efforts to complete an Analysis of Brownfield Cleanup Alternatives (ABCA) for obtaining US EPA Grant funding to conduct a portion of the cleanup work. The US EPA approved the ABCA and provided $200,000 grant for a potion of the remediation. The work also utilized approximately $4.5 Million in New York State funding to complete asbestos abatement, demolition and removal and disposal of impacted soil and groundwater. In addition an area of groundwater was treated with in-situ by placing a chemical reducing agent to immobilize metal impacts in bedrock groundwater. This project was completed and approved by US EPA and NYSDEC and the property has since been subdivided and redeveloped into light industrial facilities.

PFAS Projects

PFAS Investigation at Former Landfill—Orleans County, NY

Dan managed a project to assess a former landfill in Orleans County NY for Per and Polyfluoroalkyl Substances (PFAS). Due to concerns with the landfill closure (1980s), the NYSDEC required sampling of nearby residential drinking water wells and an assessment of the soil and groundwater at the landfill. Dan coordinated an assessment of drinking water wells in proximity of the landfill. Municipal water serviced a majority of the area but four residences still utilized private wells. Dan coordinated sampling with the NYSDOH, NYSDEC, Orleans County DOH and the property owners. In addition, Dan managed soil and groundwater sampling within and around the landfill to assess for PFAS sources.

Town of Palmyra: PFAS Investigation at Former Landfill—Palmyra, NY

Dan currently is managing a project to assess a former landfill in Palmyra NY for Per and Polyfluoroalkyl Substances (PFAS). The landfill was closed in the late 1970s. NYSDEC conducted an initial testing program and identified elevated levels of PFAS in groundwater. Dan has been working with the Town to evaluate nearby residences for private wells and public water availability. Dan is also managing an assessment of the landfill history and subsequent to completing that assessment a detailed investigation will be completed to determine any remedial actions required.

PFAS at Brownfield Sites – Various Locations, NY

The NYSDEC is currently undergoing a statewide assessment of Per and Polyfluoroalkyl Substances (PFAS) in groundwater. As part of that assessment NYSDEC has been requesting that active and former Brownfield sites be assessed for PFAS across the State of New York. This program resulted in numerous old and active remedial sites being further investigated. Mr. Noll was the project manager for over 15 Brownfield sites in NY where such testing was requested. Mr. Noll negotiated the details of the sampling and managed/coordinated the field activities and reporting. In addition to PFAS NYSDEC also required conducting emerging contaminant testing for 1,4-Dioxane.

Former Rock Quarry Water Sampling – Cortland, NY

Mr. Noll coordinated a project to characterize quarry water as part of a larger construction project. The former quarry filled with water after operations ceased. A large natural gas pipeline was being installed near the quarry and required ballast water for the pipeline installation. Mr. Noll coordinated the approvals for baseline sampling of the water through the Town of Cortland who owned the quarry. The sampling included contaminants of concern including Per and Polyfluoroalkyl Substances (PFAS). Mr. Noll negotiated the sampling requirements/scope and coordinated implementation with internally and with the natural gas company, Town and contractor. The sampling included baseline and post discharge of the ballast water to confirm there was no impact to the water since the Town was exploring possible future uses of the quarry.

Maine Department of Environmental Protection: PFAS Risk Assessment Work Plans– Maine

Dan served as the Project Manager for reviewing a Human Health Risk Assessment Work Plan and an Ecological Risk Assessment Work

Plan for the former Loring Air Force Base. The United States Air Force and their consultant developed the Risk Assessment Work Plans for review by US EPA and Maine DEP. Maine DEP retained LaBella to conduct a review of the work plans and provide comments. The Loring AFB operated for about 50 years and included three landfills, maintenance areas, a fire training area, multiple crash site and other sources of environmental impacts. The site was previously investigated for various contaminants but had not been assessed for per- and poly-fluoroalkyl substances (PFAS).

Wastewater Projects

City of Hornell – Wastewater Plant Aeration Basin Upgrades

Mr. Noll was the project manager for assessing and implementing replacements for the aeration basin aerators. The City's aeration basins had not been upgraded in almost 30 years and the aging equipment was past its useful life. Mr. Noll worked with the City to assess potential replacement equipment and coordinated a performance contract approach to complete the aeration equipment upgrades. Mr. Noll worked closely with the chief operator to assess the preferred equipment in order to make sure that the equipment would not only meet the process/ treatment requirements but to take into account the long-term maintenance and operations for a facility that will utilize the equipment for the next 30 years. Mr. Noll and the LaBella team assessed numerous types of aeration equipment and assisted with selection of the equipment. Mr. Noll also worked with the City to conduct construction administration activities to ensure a successful completion of the project.

City of Hornell – Wastewater Plant Phosphorus Removal Program

Mr. Noll was the project manager to assist the City of Hornell with completing the New York State mandated actions for removal of phosphorus from the wastewater. Initially, Mr. Noll worked with the City of Hornell to evaluate potential chemicals for use in removing phosphorus. Mr. Noll coordinated bench-scale studies with chemical suppliers to assess performance and cost of the chemicals. Based on the bench-scale studies a pilot-test was developed and proposed to NYSDEC. The pilot test was approved and implemented and the results were utilized to design and bid for construction a new chemical feed building. The design included a pre-fabricated building to house the chemicals and associated equipment (chemical feed pumps, day tank, piping, and controls). Mr. Noll also worked with the City to bid the project in such a way that the City could self-perform some of the construction work and reduce the overall cost of the project. The project was successful in utilizing alum in reducing the WPCP effluent phosphorus concentration to one (1) mg/l to meet new limits in the State Pollution Discharge Elimination System (SPDES) permit.

City of Hornell – Wastewater Plant Filter Building and Drive Upgrades

Mr. Noll worked with the City to apply for funding to complete upgrades to aging equipment. The drives providing mixing for numerous tanks were over 30 years old and beyond their useful life. Mr. Noll worked with the City to obtain the information on the aging drives and coordinate with replacement of similar equipment. Mr. Noll coordinated with the City to assess the sequencing of drive replacements to ensure that the plant processes would be maintained throughout the construction work so that effluent limits would be met. This project also included replacing filter blocks on the sand filter equipment. Similar to the drives, the filter building had not been upgraded in over 30 years and the blocks required replacement. Mr. Noll led the project to provide design drawings, bid specs and work with the City to bid and award the project. Mr. Noll also further assisted the City with the construction administration services.

Arconic: Firth Rixson Wastewater Pre-Treatment System—Rochester, NY

Mr. Noll assisted with the engineering evaluation, design, and construction phase services to address sewer use permit limit exceedances in an industrial wastewater discharge to a municipal sewer system. The evaluation consisted of sampling and hydraulic data to assess contaminant sources within the facility and associated loadings. This included an evaluation of the pump stations within the facility initially in order to determine the highest sources and evaluate treatment technologies. Mr. Noll assisted with assessing the data obtained and providing a feasibility study on options and associated cost. Ultimately an oil water separator was selected to reduce concentrations of oil and grease, zinc, nickel, and ammonia.

Village of Webster: WWTP Evaluation—Webster, NY

Mr. Noll assisted with a comprehensive engineering evaluation of the existing WWTP, including septage receiving, preliminary treatment, pre-

aeration and primary clarification, phosphorus removal chemical feed, trickling filter and pump station, final clarification, anaerobic digestion, centrifuge dewatering and sludge drying beds. The evaluation assessed multiple alternatives for the facility, including potential conversion of existing WWTP into a pump station and conceptual alignments for sewer and force main infrastructure to convey wastewater to neighboring POTWs.

Enbridge (Spectra Energy, LP): Gas Pipeline Characterization Work

Mr. Noll has worked with Enbridge to coordinate/oversee a program that characterizes natural gas piping that has been removed from service. Mr. Noll managed the program to characterized the exterior coating of piping (PCBs and asbestos) as well as the piping interior (PCBs). This work has included the characterization of over 25 miles of line piping and numerous pieces of compressor station equipment and associated piping over various projects in the northeast. The work was completed in accordance with applicable Federal regulations (e.g., 40 CFR 761) and state regulations depending on the project site (included New York, Massachusetts, Connecticut, Rhode Island and Pennsylvania).

Enbridge (Spectra Energy, LP): Wastewater Characterization Work

Mr. Noll was the project manager for the characterization of ballast water used as part of a 1-mile horizontal drilling program to install 42-inch diameter natural gas piping beneath the Hudson River. Mr. Noll coordinated with the regulatory agencies to develop the required sampling program and oversaw the collection and analysis for the sampling of approximately 500,000 gallons of ballast water. Based on the sampling completed a treatment system was developed and the water was directly discharged to surface water. LaBella completed this work in a very short timeframe based on the Client's request in order to accommodate the construction schedule.

Enbridge (Spectra Energy, LP): Radiological Characterization Work

Mr. Noll has worked with Enbridge to complete the characterization of suspect radiological materials. Specifically, Mr. Noll has worked with Enbridge to complete the necessary sampling of natural gas equipment that has been removed from service. LaBella coordinated/completed radiological surveys (alpha, beta and gamma) in order to preliminarily characterize the material. LaBella also coordinated/completed the collection of samples and analysis (through a 3rd party laboratory) for waste characterization purposes of materials that warranted such testing. This sampling included gamma spec analysis and other parameters as needed for the disposal facility.

LMC Industrial Contractors: Gas Pipeline Reclamation Facility

Mr. Noll has partnered with LMC Industrial Contractors in order to design and permit a facility that specializes in the recycling of natural gas piping that contains an asbestos coating. LaBella worked with LMC to design the facility and obtained the necessary New York State permits (air permit) and local permits (wastewater discharge). LaBella also oversees the program that completes the waste characterization of the piping for PCBs (exterior coating and interior) and asbestos (exterior coating). The facility has led to the reclamation of steel that may otherwise have been disposed of in landfills or transported at significant expense to facilities in Texas or elsewhere. The facility has taken piping from project sites in New York, Massachusetts, Connecticut, Rhode Island and Pennsylvania.

Confidential Utility Client: SPCC Program

Mr. Noll worked with a private utility client in order to develop a program to complete Spill Prevention, Control and Countermeasure (SPCC) Plans for approximately 600 electrical substations in New York State. Mr. Noll organized the program and led a team of over forty staff members to complete the inspection of each facility and develop an SPCC Plan for each facility in order to keep the facilities in compliance with Federal Regulations. The project included making recommendations for identifying areas of compliance issues. Mr. Noll worked with the Client on a second phase to implement recommendations at approximately 200 facilities across New York State to ensure compliance with regulations. The recommendations included modifications to routine monitoring and where necessary additional secondary containment.

Repsol (Talisman Energy): Groundwater Protection Program—Northern PA

Dan has managed the assessment of groundwater monitoring to assess for the potential of stray gas issues in the

Marcellus Shale area of Northern Pennsylvania. The sampling work includes completion of pre-drill sampling to establish baseline conditions of groundwater for wells within a certain distance from drilling operations prior to the operations occurring. This information is utilized when there is a complaint subsequent to drilling operations in order to evaluate for the potential for stray gas issues related to gas fracturing projects per the Pennsylvania Department of Environmental Protection (PADEP) regulations and additional requirements by the Client. The work included assessing the areas around drilling sites to establish potential potable water sources, contacting of residences to confirm potable water sources and then conducting pre-drill sampling for potential contaminants and gases in the potable water that exist prior to drilling operations to confirm baseline conditions. In the event of a complaint, post-drilling samples were collected and compared to pre-drill sampling to determine differences and potential issues. Dan also assisted with assessing potable water sampling information in order to evaluate and recommend potential treatment systems to address issues identified.

NYS Department of Transportation: Hazardous Materials Assessment & Remediation Term—DOT Regions 3, 4, 5, & 6, NY

Dan manages a NYSDOT Term Agreement for Hazardous Materials Assessment & Remediation for Regions 3, 4, 5, & 6. This agreement includes a variety of services to support the NYSDOT for all manner of construction projects and for property acquisition. The work includes Phase I & II Environmental Site Assessments to support property acquisitions and/or to pre-characterize soil and groundwater prior to construction in a NYSDOT corridor. Dan also has assisted the NYSDOT with waste characterization of soil, spent paint, and wastewater. In addition, NYSDOT has utilized LaBella for community air monitoring during construction work at impacted properties and to complete radiological screening for areas where radioactive slag has been a concern.

SCity of Rochester: Former Emerson Street Landfill Redevelopment—Rochester, NY

Mr. Noll has assisted the City of Rochester since 2010 with managing environmental legacy issues at this 250-acre former ash and municipal landfill. Mr. Noll has worked with the City to conduct environmental investigations at over 45 different parcels across the landfill and identify properties/buildings that require mitigation measures. Mr. Noll has assisted with redevelopment activities at 9 different properties that consisted of pre-construction soil and waste characterization to assist with planning and cost estimating activities, developing waste management and environmental monitoring plans, obtaining regulatory approvals and implementing these plans during construction activities. This work has assisted with the development of industrial/commercial developments and a 6-acre solar array. The solar array development also included utilizing a Beneficial Use Determination, site plans, geotechnical assessment and delisting the property from the NYSDEC list of inactive hazardous waste disposal sites.

Alternate description below:

Dan was the Project Manager and Lead Design Engineer assisting the City of Rochester since 2010 with managing environmental legacy issues at this 250-acre former ash and municipal landfill. Dan has worked with the City to conduct environmental investigations at over 45 different parcels across the landfill and identify properties/buildings that require mitigation measures due to soil vapor intrusion. The investigation resulted in the design and installation of sub-slab depressurization systems for two buildings at the site. Dan then assisted the City with the delineation of a significant chlorinated solvent plume emanating from a portion of the former landfill. The solvent plume is over 3 acres in size and extends almost 50-ft. below grade. Subsequent to completing the investigation, Dan completed a Feasibility Study to assess remedial options and associated cost. The selected remedy was agreed to by NYSDEC and a Remedial Action Work Plan was approved and implemented in 2021. The remedy included the design and construction of a Permeable Reactive Barrier utilizing zero-valent iron. The remedy included drilling 80 pilot holes 15 ft. into bedrock and completing blasting of the bedrock in order to create a highly permeable blast enhanced bedrock zone which was used to uniformly distribute over 430,000 lbs of zero-valent iron. The iron was injected through bedrock wells and direct injection within the shallow bedrock. The final remedial work included the construction of a 12.5 acre site cover system.

NYSDEC Petroleum Spill Investigation and Remediation Projects

Alexander Associates: Former Genesee Hospital—Rochester, NY

Dan was Project Manager for a Phase II ESA of a former hospital campus and adjoining parking garage. This assessment included evaluating potential impacts from the hospital chemical storage area, backup generators and associated fuel tanks, and historical site uses which included a former car dealership and service center. The Phase II ESA progressed in to the remediation of a NYSDEC Spill prior to redevelopment of the property. The investigation and remediation work obtained closure of a 20+ year old spill in less than 6-months.

DeCarolis Truck Rental: Petroleum Spill Site Remediation—Rochester, NY

Dan was Project Engineer for this site, responsible for the coordination of the removal/ disposal of approximately 800 tons of petroleum impacted soil and development of a confirmatory soil sampling program. Dan also coordinated work with NYSDEC and completed post removal monitoring in order to close the spill file.

City of Rochester: Petroleum Soil Removal & Oxygen Injection System—Rochester, NY

As Project Engineer, Dan developed a soil and groundwater study to investigate former underground storage tanks at a former gasoline/ auto repair facility. A remedial alternatives analysis was conducted to evaluate several options for remediating soil and groundwater at the site including light non-aqueous phase liquid. Dan followed this project through remediation which consisted of removing about 1,500 cy of soil and designing/installing an oxygen injection system to remediate groundwater over time.

Hoselton: Petroleum Spill Remediation—Rochester, NY

Dan was Project Manager for this project which included the removal and disposal of approximately 900 tons of petroleum impacted soil. Dan negotiated closure of the spill file with NYSDEC by addressing off-site contaminant migration by injection of treatment chemicals at the property line.

Permitting & Land Application Sites Mizkan Americas: Lagoon Design/Construction and SPDES Permitting—Lyndonville, NY

Dan served as the Project Manager and Engineer for the design and construction assistance for a 700,000 gallon lagoon to store food-grade wastewater. The objective was to reduce facility costs by discharge of food-grade wastewater to local sprayfields. The lagoon was designed and installed in accordance with NYSDEC requirements in order to store wastewater during the non-spraying season. This is a 20+ year old client who built their existing lagoon with LaBella's assistance in 1987. Project also includes permitting through NYSDEC SPDES (State Pollution Discharge Elimination System) Program.

Leo Dickson and Sons, Inc.: Land Application and Composting Permits - Bath, NY

Dan managed a project to permit a facility for composting of wastewater biosolids. The project included developing a report for NYSDEC to document design details for the facility, facility operations, and proposed monitoring. The facility received a NYSDEC Part 360 Composting Permit. In addition, Dan continues to provide annual reporting services for ensuring the facility operates within the permit conditions. He also assists this client with the annual reporting and permit renewals of a 2,000+ acre land application project under NYSDEC Part 360 solid waste regulations. The land application work includes permitting approximately 16 municipal facilities for land application.

City of Hornell: Land Application Reporting, Permit Renewals and Modifications - Hornell, NY

Project Manager and Engineer responsible for assisting the City of Hornell with their annual Land Application Reporting, permit renewals and modifications to their permit for over 20 years. In addition to completing each annual report in the past five years, LaBella also recently assisted the City of Hornell with their Permit Renewal (May 2010) and a Permit Modification (July 2011). LaBella has assisted the City of Hornell for the past 20 years with permitting approximately 498 acres of land for their biosolids application work. Hornell conducts land applications via subsurface injection and typically applies 700,000 to 1 Million gallons annually. In 2011, LaBella assisted Hornell with permitting approximately 204 acres of land. LaBella assisted with all aspects of the process including coordinating with agencies, wetland issues, test pitting, soil sampling, etc. LaBella's work with the City of Hornell has provided us with significant experience in quickly determining issues that require resolution/clarification as a first step prior to completing the application process.

Miscellaneous Projects

L Enterprises, LLC: Former Emerson Power Transmission Facility—Ithaca, NY

Dan completed a detailed review of this 100-acre site with 800,000 sq. ft. of manufacturing space. The site is in the NYSDEC Inactive Hazardous Waste Disposal Site registry and was a heavy industrial facility for over 100 years. The facility closed in 2009 and Dan is the Project Manager for environmental due diligence activities for a potential buyer. The facility has known issues with chlorinated solvents in bedrock and with significant off-site impacts. The overall project will include a detailed and in-depth environmental site assessment with sampling for soil, bedrock, groundwater, soil gas, sediments, and surface waters in order to document any impacts above NYSDEC criteria and thus limit liability for the purchaser.

Guthrie Clinic and Reidman Companies: Former Corning Hospital—Corning, NY

Dan was the Project Manager for completion of a Phase II Environmental Site Assessment at the Former Corning Hospital and 8 associated adjacent properties. A soil boring and groundwater monitoring program was implemented to identify subsurface impacts associated with former uses of the site including gasoline filling stations and former railroad.

City of Rochester: Genesee River Dredging Project - Rochester, NY

Dan managed a project to permit three areas for dredging near the mouth of the Genesee River. The project included evaluating the previous dredging operations in the area, the existing sediment sampling data, sediment levels, discharge points in the area to be dredged and 3-D modeling of the sediments for accurate volume calculations. This information was summarized in a presentation to NYSDEC and the Army Corp of Engineers in order to streamline the permitting process and determine any additional requirements for obtaining a permit. Subsequent to the presentation, Dan developed the permit and submitted them to the Client for signature, and then approval by regulatory agencies.

MRB Group: Sediment Sampling Project - Erie Canal, NY

Dan managed a project to pre-characterize sediment in the Erie Canal in order to determine the depth and volume of sediment in the work area, as well as the waste disposal requirements. This work was conducted prior to a utility line installation project in order to determine the feasibility of the project and the associated costs.

Dansville Properties, Inc.: Former Foster Wheeler Facility—Dansville, NY

Dan managed the effort to close out existing NYSDEC and EPA permits for the former facility and subsequently obtained permits for the new facility, which included multiple industrial companies operating throughout the campus. The permitting effort included obtaining a sewer use permit from the local municipality, a SPDES Multi-Sector General Permit for 5 outfalls, RCRA Generator ID, Title V Air Permit, and PBS Registration. Dan has managed this client's permits for more than 10 years, including permit modifications, renewals, and routine sampling.

Buckingham Properties: Manufacturing Facility - Rochester, NY

Dan assisted a developer that purchased a former Bausch & Lomb manufacturing facility to obtain a SPDES Permit for Industrial Discharges. This project included assessing the new operations and discussion of the Site with NYSDEC to determine the appropriate permits for the facility, since multiple tenants with various operations were in operation at the Site.

City of Rochester: Port Marina—Rochester, NY

Dan assisted with the environmental investigation of the City of Rochester Port Marina. This project included evaluating the extent of slag fill materials that would require proper management during any redevelopment work. The extent of slag was evaluated by implementing a grid pattern of soil borings and using the resulting data to develop a 3-dimensional model of the subsurface at the site. This model was used to generate volumes of material to be disturbed during redevelopment and estimate the cost burden of the environmental portion of the project. The slag fill material was reused through a beneficial use determination. This project also included evaluating the magnitude and permitting of a massive dewatering program to allow the mass excavation to be completed.

City of Rochester: Former Forestry Building—Rochester, NY

Dan managed a project to evaluate the extent of mercury impacts at a former City of Rochester Forestry operations building. The project included multiple rounds of sampling

at various depths in order to determine the extent of mercury impacted soils that required removal prior to redevelopment of the site by a local manufacturing company.

Valeo North America: Former Valeo Facility—Rochester, NY

Dan managed Remedial Investigations of two areas of potential contamination at this former manufacturing facility. These assessments included evaluating bedrock groundwater for plating waste impacts (metals and chlorinated solvents). These evaluations were complicated by the fact that multiple industrial companies were in operation at the site in the past and thus requiring LaBella to provide a focused assessment to only evaluate potential Valeo responsibilities.

City of Rochester: NYSDEC Legacy Site Soil Vapor Intrusion Project - Rochester, NY

Dan is Project Manager for this project which includes evaluating soil vapor intrusion from a former 230-acre municipal landfill with methane gas and chlorinated solvent impacts. The landfill was converted into an industrial park after closure in 1971 and is now developed with 45 separate parcels and over 2,000,000 square feet of building space. This challenging project included obtaining access from 27 different property owners and conducting site assessments at each facility and separately evaluating groundwater impacts over approximately 20-acre area. The results of this work determined the cost burden and liability of the City for addressing soil vapor intrusion. LaBella utilized all of the following mitigation approaches for minimizing this significant cost burden to the City: sealing of floors, vapor barriers, sub-slab depressurization systems and building pressurization depending on building conditions/uses.

City of Rochester: Vacuum Oil Brownfield Opportunity Area—Rochester, NY

Dan was Project Engineer for this project and his role was to develop a Pre-Nomination Study Report to facilitate entering the area into the NYSDEC Brownfield Opportunity Area program. The pre-nomination study included evaluating demographics of the area, current and past property uses, property ownership, area-wide utilities, etc. The pre-nomination report was approved by NYS Department of State and a grant was approved for the next phase of the BOA program.

Yates County: Environmental Restoration Program—Penn Yan, NY

Dan was Project Manager for this Environmental Restoration Program site that included completing a Remedial Investigation at the site and developing a Site Management Plan to guide future redevelopment in-conjunction with remediation. This project turned a liability into an asset for the Count

City of Rochester: Fill Relocation and Sub-Slab Mitigation System—Rochester, NY

Dan was Project Manager for this project which relocated approximately 3,000 cubic yards of fill material from a development site that is located on a former landfill operated by the City of Rochester. This work was conducted for the City but on private property. The fill was relocated and placed in a soil berm on City property with NYSDEC approval. In addition, Dan designed and oversaw construction of a sub-slab depressurization system for the new 8,000 square foot building.

Monroe County: Crime Lab Property Acquisition—Rochester, NY

Dan was Project Manager for this project which included conducting Phase I ESAs and Phase II ESAs at three properties being considered for development by the County for a new crime lab facility. The project included investigation and remedial cost estimates for the County to use in property acquisition negotiations. After property selection, Dan assisted with implementation of a remedial program that included removal of over 3,000 tons of NYSDEC Regulated Solid Waste. In addition, he designed and oversaw installation of a sub-slab depressurization system for addressing soil vapor intrusion concerns at the approximate 11,000 square foot new building.

City of Rochester: Bureau of Water, Lighting, and Parking Meter Operations—Rochester, NY

As Environmental Engineer, Dan worked on the redevelopment of the current site for reuse as a new facility for the operations center, which included the following tasks: delineate the extent of soil and groundwater contamination, evaluate potential remediation options, develop a Comprehensive Action Plan (CAP), assist in the development of remediation specifications, and identify the scope of potential Interim Remedial Measures (IRMs) at the site.

935 West Broad Street Petroleum Spill Site Characterization and Corrective Action—Rochester, NY

As Project Engineer, Dan developed a soil and groundwater study to investigate former underground storage tanks at a former gasoline/ auto repair facility. A remedial alternatives analysis was conducted to evaluate several options for remediating soil and groundwater at the site including light non-aqueous phase liquid. Dan followed this project through remediation which consisted of removing about 1,500 cy of soil and installing an oxygen injection system to remediate groundwater over time.

Petroleum Spill Investigation & Remediation—300 Scajaquada Expressway, Buffalo, NY

Dan was Project Manager for a Phase II Environmental Site Assessment that was completed to assess a former manufacturing facility that also included a reported underground storage tank (UST). The Phase II ESA identified an orphan UST with associated petroleum related impacts to soil and groundwater. In addition, the Phase II ESA identified fill material including industrial byproducts consisting of ash, cinders, slag, etc. Based on the petroleum impacts identified the NYSDEC was contacted a Spill File was opened for the parcel. Subsequent to completing the Phase II ESA, LaBella assisted the Client with estimating the cost of remediating the site in order to facilitate the real estate transaction that was pending for the property. LaBella was also retained to complete the remedial work which consisted of excavation and disposal of petroleum impacted soils and removal of the orphan UST. The work was completed on-time and within budget, which allowed the NYSDEC Spill File to be closed and the real estate transaction to be completed.

Village of Mamaroneck: Former Taylor's Lane Compostin, Landfill Monitoring—Mamaroneck, NY

LaBella assist the Village of Mamaroneck with annual monitoring of a formal landfill. Dan is the Engineer of Record for recent modifications to the Site Management Plan. The Site Management Plan identifies the required institutional and engineering controls for the site and also the routine monitoring of the site. The engineering controls at this site include a low permeability cap over the former landfill, security fencing, and a stormwater/leachate management system. The monitoring includes annual inspections of the engineering controls and annual groundwater monitoring.

New York Power Authority (NYPA): East Garden City Substation, Phase I Environmental Site Assessment (ESA)– Garden City, NY

Dan is the Principal-In-Charge on this on going Phase I ESA project in Garden City, NY. He is responsible for overseeing the project from start to finish.

City of Rochester: REJob Training Program—Rochester, NY

Dan has over 27 years of experience conducting environmental investigation and remediation projects throughout New York State, and specifically in the Rochester area. Dan is the Lead Engineer for LaBella Associates for work in western, central and finger lakes regions of New York. Dan has presented investigation and remediation work to the REJob Program since 2020.

US EPA Grant Funded Work

Mr. Noll has worked on numerous EPA funded projects for different clients. This work included conducting investigation and remediation projects at gas stations, dry cleaners, former industrial properties, and railroad yards. Mr. Noll has managed all aspects of these projects including developing Remedial Investigation Work Plans, Quality Assurance Project Plans, Analysis of Brownfield Cleanup Alternatives and Final Engineers Reports. Through this experience, Dan has a firm understanding of the EPA requirements for planning and implementing investigation and cleanup projects funded by the EPA.

Republic Steel: NPDES & 40 CFR 112.7 Compliance - Lorain & Canton, Ohio

Mr. Noll led a project to assist an industrial client with updating compliance plans for two steel manufacturing facilities in Ohio (Lorain & Canton). The Lorain facility was dormant; however, the facility still had an active NPDES Permit and had a release of oil to a surface water (prior to LaBella being retained). Due to the surface water release the facility was under a Consent Order with US EPA. The US EPA Consent Order (with Ohio EPA involvement) required updating of the SWPP Plan for both the vacant Lorain facility and the active manufacturing facility in Canton Ohio. In addition to numerous outfalls at each facility which necessitated the NPDES Permits, both facilities also had large quantities of oil storage and thus required SPCC Plans. LaBella was retained to update both facilities SWPP Plans and SPCC Plans for review by US EPA and Ohio EPA. LaBella completed a review of existing plans, completed site visits and updated the plans for review by regulatory agencies.

Ebenezer Plaza II – BCP Site Remediation

Mr. Noll was the engineer of record for the design and construction of remedial systems at a Brownfield Cleanup Program Site in Brooklyn NY. The remediation work consisted of a source area soil removal, in-situ chemical injections and a sub-slab depressurization system (SSDS). The soil removal was completed in-conjunction with the site development work in order to minimize excavation and dewatering costs. Subsequent to soil removal an injection well network was designed for treating residual impacts via in-situ chemical oxidation. The future site use will be residential and an SSDS was designed and installed as a precautionary measure in order to mitigate potential exposure due to vapor intrusion. This project is on-going and planned to receive a Certificate of Completion in 2023.

Former Taylor's Lane Composting – Landfill Monitoring

LaBella assist the Village of Mamaroneck with annual monitoring of a formal landfill. Mr. Noll is the engineer of record for recent modifications to the Site Management Plan. The Site Management Plan identifies the required institutional and engineering controls for the Site and also the routine monitoring of the Site. The engineering controls at this Site include a low permeability cap over the former landfill, security fencing, and a stormwater/leachate management system. The monitoring includes annual inspections of the engineering controls and annual groundwater monitoring.

JENNIFER GILLEN, PG

Senior Vice President, Director of Environmental

Jen has over 15 years of experience at LaBella and has held various roles including the Phase I ESA Program Manager, the Phase II ESA Program Manager and the Brownfield Remediation Program Manager. In addition to working on hundreds of Phase I and II ESAs throughout her career, she has managed numerous projects in the NYSDEC Brownfield Cleanup Program (BCP) and coordinated frequently with other leaders at LaBella to provide a comprehensive suite of services to her clients.

Jen has served in an advisory role for numerous Phase I and II ESAs completed for financial institutions, private developers and affordable housing developers within New York City. She has also provided advisory services, including review of DER-10 level work plans and reports for various projects subject to NYCRR Part 375.

Ebenezer Plaza 2 (#C224241)—Brooklyn, NY

Contaminants of concern at this NYSDEC Brownfield Cleanup Program Site have primarily included VOCs in groundwater and SVOC and heavy metals in shallow soil. The site is slated to be redeveloped for affordable housing and remediation is currently underway to meet NYCRR Part 375 Restricted Residential SCOs. The selected remedy includes demolition of existing buildings associated with former automotive repair and scrapping operations, removal of soil impacts above Restricted Residential SCOs and long-term engineering and institutional controls.

NYSDEC State Superfund Site—Hopewell Junction, NY

Jennifer acted as Principal-in-Charge and the certifying QEP during site characterization work to primarily assess VOCs and PFAS. The characterization investigation including a geophysical survey, soil boring advancement, monitoring well installation as well as soil and groundwater sampling and groundwater flow modeling to assess for potential source areas. Jen's work on this project included QA/QC and interface with the NYSDEC and property owner.

Former Michelsen Furniture Co., NYSDEC BCP #C828189—Rochester, NY

This site was entered into the NYSDEC BCP. Redevelopment of the site involved converting the property from a former manufacturing facility to an affordable housing apartment building. Jennifer completed the Phase II ESA and assisted with a Remedial Investigation, in-situ chemical treatment and installation of a sub-slab depressurization system as part of this project.

Warburton Dry Cleaners Site (#C360227)—Yonkers, NY

The site was entered into the NYSDEC Brownfield Cleanup Program in 2022 based on the presence of SVOCs, heavy metals and pesticides in shallow soils and dry-cleaning

PG

Professional Geologist, NY

EDUCATION

SUNY Albany: BS, Geological Sciences

SUNY Albany: MS, Geological Sciences

CERTIFICATIONS/ REGISTRATIONS/ COMMITTEES

Certified Hazardous Waste Operations & Emergency Response (40 Hour OSHA Health and Safety Training 29)

OSHA 8 Hour Hazardous Waste Operations and Emergency Response Course

LaBella Inclusion Council: 2021-2022 Team, Co-Leader

Carbon Forestry Trust, Board Member

PRESENTATION

NYSDEC Amendments to NYCRR Part 375 BCP Amendments, Presented at Greater Finger Lakes Air & Waste Management Association Annual Seminar; April 27, 2022.

LaBella
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related chlorinated solvents in groundwater and soil vapor. Existing buildings are planned to be demolished and the site will be redeveloped for affordable housing. The Remedial Investigation was completed in 2023 and consisted of excavation of previously identified geophysical survey magnetic anomalies, advancement of soil borings and the installation of additional groundwater monitoring wells and soil vapor points to delineate the nature and extent of impacts and develop a remedial strategy. The Remedial Action Work Plan is anticipated to be implemented in Spring 2024.

Former Sherwood Shoe Factory, NYSDEC BCP #828201—Rochester, NY

This property is enrolled in the NYSDEC BCP and subject to NYCRR Part 375 Regulations. Contamination at the site includes chlorinated volatile organic compounds, per- and polyfluoroalkyl substances (PFAS), urban fill and petroleum impacts. Previously utilized for shoe manufacturing and subsequently for staging by the NYSDOT, the site was recently redeveloped for residential purposes. LaBella personnel were on-site for almost a year during redevelopment to perform construction oversight and community air monitoring. The NYSDEC Certificate of Completion was obtained in 2020.

Lake Avenue—Rochester, NY

A portion of this affordable housing development was historically used as a dry cleaner, resulting in CVOC impacts to soil and groundwater. Jennifer managed this project through Phase I ESA, Phase II ESA, bedrock investigation and remediation via in-situ chemical injection and helped the client coordinate environmental requirements of funding agencies and lenders. This project was completed in 2017.

Former Midtown Plaza,NYSDEC BCP #C738045—Oswego, NY

This affordable housing project was completed in 2022. After managing the Phase II ESA at this property, Jennifer assisted the client in enrolling the site in the NYSDEC BCP, completing a Remedial Investigation and Remedial Alternatives Analysis as well as an Interim Site Management Plan to meet NYSDEC and funding agency requirements. The NYSDEC Certificate of Completion was obtained in 2021.

Former Emerson Power Transmission Facility—Ithaca, NY

Jennifer assisted with a detailed review of this 100-acre site with 800,000 sq. ft. of manufacturing space. The facility was a heavy industrial facility for over 100 years and has known issues with chlorinated solvents in bedrock and with significant off-site impacts. The project included a detailed and in-depth environmental site assessment in order to document any impacts above NYSDEC criteria and thus limit liability for the purchaser.

Sunset Avenue—Utica, NY

This affordable housing project required extensive coordination to efficiently provide the client an array of services including Phase I ESA, Phase II ESA, NYSDEC Spill closure, regulated building materials inspection and a geotechnical evaluation. This project was completed in 2019.

Apartment Complex—Potsdam, NY

Renovations to this affordable housing complex required due diligence services including a Phase I ESA and a Soil Vapor Intrusion Evaluation. Jennifer worked closely with the client and the funding agency to successfully complete this project. This project was completed in 2019.

Urban League of Rochester: Former Wollensack Optical, NYSDEC BCP #C828209—Rochester, NY

This project is currently underway. Jennifer has been the project manager and has helped the client meet tight environmental deadlines with funding agencies. This historic property is being converted from a former manufacturing facility to affordable housing. The site is enrolled in the NYSDEC BCP. Due to the funding deadlines, extensive coordination with contractors and the NYSDEC has been required because building renovations have been underway concurrently with investigation and remediation efforts. The project was completed in early 2021.

Urban League of Rochester: Jefferson Avenue—Rochester, NY

This property was recently redeveloped for mixed use purposes. The site had been vacant for decades and prior demolition lead to the presence of significant urban fill which required proper monitoring and management during construction, as well as post-construction documentation. As the project manager, Jennifer coordinated with the client, contractors and NYS agencies to find efficient solutions to the environmental challenges at this site. The project is planned to be completed in 2020.

Alternate description for above:

This property is enrolled in the NYSDEC Brownfield Cleanup Program (BCP) and subject to NYCRR Part 375 Regulations. Contamination at the site includes chlorinated volatile organic compounds, urban fill and petroleum impacts. Jennifer has managed an extensive investigation completed at the site as well as a Remedial Alternatives Analysis. The site is currently being redeveloped and LaBella is performing construction oversight and community air monitoring. This project is anticipated to be completed in 2021.

Ellicott Station and Ellicott Station East, NYSDEC BCP #C819021 & #C819023—Batavia, NY

Redevelopment of these dual BCP projects will consist of construction of an affordable housing structure as well as commercial structures. Jennifer has assisted the client with enrolling the sites in the BCP as well as completed Remedial Investigations, Interim Remedial Measures Work Plans and Interim Site Management Plans to meet NYSDEC and funding agency requirements. This project is anticipated to be completed in 2024.

City of Rochester: Phase II Environmental Site Assessment: Former Dry Cleaning Plant—Rochester, NY

Jennifer designed the Phase II ESA work plan and coordinated/managed the project, which included an extensive investigation of a former dry cleaning plant, automotive repair shop and gasoline filling station in a strategic redevelopment area of the City of Rochester. The scope of work included a geophysical survey, test pitting, sub-slab vapor screening evaluation, advancement of over 50 overburden soil borings, installation of five (5) bedrock wells and two (2) underground storage tank removals.

Canal Corridor Brownfield Opportunity Area Study—Oswego, NY

Jennifer was responsible for the compilation, analysis and dissemination of data associated with the BOA project, which spans 1,344 acres along the Oswego Canal and shore of Lake Ontario, within in the City of Oswego.

Tonawanda Brownfield Opportunity Area Study—Tonawanda, NY

Jennifer was responsible for the compilation, mapping and analysis of data associated with this 1,000 acre BOA on the Niagara River, which included properties used for radiological waste disposal associated with the Manhattan Project.

Genesee Valley Real Estate: 690 Saint Paul Street, NYSDEC BCP Site #C828159—Rochester, NY

Jennifer assisted with the development of two Interim Remedial Measure Work Plans, the Remedial Investigation Report and Remedial Alternatives Analysis/Remedial Action Work Plan for the remediation of a NYSDEC Brownfield Cleanup Program site formerly utilized as an industrial manufacturing facility. Implemented the two Interim Remedial Measures and portions of the Remedial Investigation at the site which included the excavation of contaminated soil and bedrock, the advancement of soil borings, and the installation and sampling of groundwater monitoring wells. Also included in this work was the installation of bedrock monitoring wells using conventional rock coring methods and installation of infrastructure for in situ chemical treatment. This process involved coordination with the NYSDEC, the NYSDOH, and the City of Rochester School District.

Yates County: Penn Yan Marine—Penn Yan, NY

Currently completing a groundwater delineation investigation and BCP application as well as a work plan for in situ treatment of groundwater contaminated with chlorinated volatile organic compounds. The implementation of the groundwater delineation investigation has included the installation and sampling of nineteen groundwater monitoring wells.

Lake Ontario Mariners Marina, NYSDEC VCP Site #V00585-6 — Henderson Harbor, NY

Developed a Remedial Alternatives Analysis/Remedial Action Work Plan for this NYSDEC Voluntary Cleanup Site. This work included the design of a sub-slab depressurization system within a building under which a plume of petroleum-contaminated groundwater is located and the design of a pilot test for an air sparging system.

City of Rochester Department of Environmental Services, Division of Environmental Quality: Pump Test Report, Port of Rochester—Rochester, NY

Geotechnical sampling and pump test. Assisted with the development of a work plan for and implementation of a pump test at the site in anticipation of future development. This work included the installation of a pumping well and observation

wells via hollow stem auger drilling and split-spoon sampling, which included geotechnical sampling. Implementation of the pump test included the pumping of over 650,000-gallons of water and the analysis of drawdown effects on observation wells. This process involved coordination with the New York State Department of Environmental Conservation, Monroe County Pure Waters, and the City of Rochester Division of Environmental Quality.

Property Owner: 185 Scio Street, NYSDEC Spill Site #0906903—Rochester, NY

Oversaw the installation of dedicated bedrock groundwater monitoring wells at the site using conventional rock coring methods. Completed sampling of these wells using standard low-flow methods.

Wemco Corp.: Phase II Environmental Site Assessment and Remediation, NYSDEC Spill #0911669 Wemco Corp., Saltonstall Street—Canandaigua, NY

Conducted geoprobe soil boring sampling and groundwater sampling to evaluate for potential subsurface effects related to historic fuel distribution operations. Following the subsurface investigation, assisted with the implementation of remedial excavations at the site and coordinated with the NYSDEC for the closure of the Spill.

Former Breneman Site, NYSDEC Site #C738046—Oswego, NY

Developed Remedial Investigation Work Plan and Citizen Participation Work Plan in anticipation of the upcoming Remedial Investigation at the site.

Eastman Kodak Park Due Diligence—Rochester and Greece, NY

Jennifer has worked extensively with Eastman Kodak to understand environmental impacts at the park and work with developers on redevelopment of various properties throughout the park. This work involves review and interpretation of existing Site Management Plans, deed restrictions/easements and other relevant documents to confirm all parties are working within State and Federal regulations as part of construction and redevelopment work. This project is on-going.

Unither Manufacturing LLC: Technical Environmental Assistance—Rochester, NY

Jen and her team serve as Unither's outside technical advisors for environmental compliance, investigation, and remediation. Over the years, Jen has provided technical assistance associated with historical groundwater impacts, waste compliance, NYSDEC interface, and a variety of other issues.

Hamilton-Stern: Unither - NYCRR Part 360 Compliance—755 Jefferson Road, Rochester, NY

Assisted Hamilton-Stern navigate NYCRR Part 360 regulations as part of excavation work for a building addition at the Unither Facility beginning in 2024. LaBella's work included precharacterizing material to be excavated, providing guidance on pre-determined beneficial use options, interfacing with the NYSDEC, and conducting environmental monitoring during portions of the construction work. LaBella was also on call to mobilize as-needed during construction work if any unexpected conditions were encountered.

Delaware Avenue Affordable Housing—Buffalo, NY

Assisted the client and construction manager in meeting NYSHCR and HUD environmental requirements during the transformation of a long-vacant, previously contaminated property into critical housing. Contributions included providing guidance on NYCRR Part 360 regulations, which ultimately led to drastically reducing the depth of the soil cap initially anticipated for the site. Jen's team contributed various funding agency requirements for environmental compliance including environmental oversight during construction and wetland and threatened and endangered species studies.

Multiple Clients: Phase I Environment Site Assessments—Northeastern United States

Performed numerous Phase I ESAs and Transaction Screens on a wide variety of residential, commercial, industrial, and manufacturing facilities including gasoline stations, repair shops, apartment complexes, office buildings, and restaurants for the following groups:

Financial Institutions

- Bank of Castile
- Canandaigua National Bank
- ESL Federal Credit Union
- First Niagara Bank
- Genesee Regional Bank
- Northwest Savings Bank
- Steuben Trust Company

Municipal and Government Clients

- City of Rochester
- City of Oswego
- New York State Department of Transportation
- Town of Victor
- Yates County

Development and Construction Companies

- Urban Housing League of Rochester
- Edgemere Development
- Chrisanntha, Inc.
- Buckingham Properties
- Morgan Management
- Rochester Cornerstone Group

CYNTHIA CHU

Environmental Engineer

Cynthia is an Environmental Engineer in the Due Diligence/ Investigation & Remediation Department responsible for field team coordination and assisting in project management of several NYS Brownfield Cleanup Program sites in the New York City metropolitan area. Cynthia has over three years of experience performing Phase I and Phase II environmental assessments, groundwater, soil, and air sampling, remediation/construction oversight in New York State.

EIT

Engineer-In-Training, NY, 2021

EDUCATION

Cornell University: BS, Environmental Engineering

Cornell University: M. Eng., Environmental Engineering

CERTIFICATION

OSHA 40-Hour HAZWOPER

Confidential Client: Warburton Dry Cleaners Site - Yonkers, NY

LaBella Associates is providing services for the remediation of the Warburton Dry Cleaners site, a 1.166-acre property comprised of 15 parcels in a mixed residential and commercial area of Yonkers, New York. Prior uses of the site have included residential housing and commercial auto repair. Adjacent properties include two former dry cleaners. The site is being remediated within the New York State Brownfield Cleanup Program to support the development of a 94-unit affordable housing project. Contaminated historic fill material (CHFM) is present to depths of up to 8 feet below ground surface (ft bgs) across the site, as well as several high concentration lead areas containing hazardous lead to a depth of 10 ft bgs in some areas of the site.

Cynthia is a Project Engineer responsible for planning and execution of field data collection; data management and evaluation; preparation of the Remedial Investigation Report, Remedial Action Work Plan (RAWP) and project related reporting; and coordination with subcontractors. Cynthia is also coordinating the planning and execution of the design phase investigation for the groundwater treatment system design including a proposed permeable reactive barrier. The project is scheduled to begin construction in June 2024.

Procida Development Corp: Ebenezer Plaza I– Brooklyn, NY

LaBella has provided environmental planning, coordination, implementation, management, oversight, and reporting for the investigation and remediation of a multi-parcel consolidated city block in the Brownsville section of Brooklyn, N.Y. The site consists of seven parcels on approximately 1.25 acres, formerly used for commercial purposes including several automobile body and repair shops, a former gasoline station, a used automobile dealership, and a former dry cleaner. Both sites, known as Ebenezer Plaza I (EP1) and II (EP2) are in the NYSDEC Brownfield Cleanup Program (BCP). EP1 has been developed as a multi-story affordable housing complex with street level commercial storefronts. At EP1, approximately 25,000 cubic yards of impacted soil that included regulated materials (lead and chromium) and chlorinated volatile organic compounds were

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excavated and removed for off-site disposal. The remediation included the treatment of groundwater heavily impacted with kerosene from historical dry-cleaning operations and the identification and removal of 24 underground storage tanks. Engineering controls included a 20-foot thick Petrofix barrier wall along the down-gradient property boundary to mitigate off-site migration of residual groundwater impacts. The new development also utilized a vapor barrier system and sub-slab depressurization system (SSDS) for long-term mitigation. LaBella prepared the Phase I and Phase II ESAs, Remedial Investigation Work Plan, Remedial Investigation Report, and Remedial Action Work ln, Final Engineering Report, and Site Management Plan. This project achieved a Certificate of Completion in 2020 and was awarded the 2021 Big Apple Brownfield Award for Innovative Remediation.

Cynthia is a Project Engineer responsible for coordination of Site Management Plan (SMP) implementation including the planning and execution of quarterly groundwater monitoring, SSDS and site inspections, and reporting.

Procida Development Corp.: Ebenezer Plaza II– Brooklyn, NY

At EP2, approximately 4800 tons of construction and demolition debris was removed prior to performing the geophysical investigation which identified the presence of four 550-gallon gasoline underground storage tanks, which were removed and properly disposed. Supplemental soil delineation was performed in order to explore additional response actions to achieve a Track 2 cleanup. As part of the remedial program, LaBella conducted Phase I and Phase II ESAs, Remedial Investigation, and remedial action including a supplemental remedial investigation with the goal of achieving a Track 2 to 15 ft across the site. Approximately 4802 tons of construction and demolition material was removed prior to performing a geophysical investigation which identified the presence of four 550-gallon gasoline underground storage tanks (USTs) which were removed and properly disposed.

Supplemental soil delineation was performed as part of a pre-design investigation to support the achievement of a Track 2 cleanup. A total of approximately 19,457 tons of contaminated material was excavated for remedial purposes. Approximately 949 tons of lead contaminated soil, including 676 tons of hazardous soil, was excavated from the top approximately 6 ft from a high concentration lead area, which originated from the historical use of a portion of the property as an auto salvage yard. In addition, approximately 11,406 tons of petroleum-contaminated soil was excavated from a petroleum hot spot in the vicinity of the former petroleum USTs and extending to a depth of approximately 32 feet below ground surface (ft bgs) was excavated to a depth of approximately 17 ft bgs to remove soil containing contaminants of concern above applicable soil cleanup objectives.

In-situ chemical oxidation (ISCO) to treat residual petroleum hydrocarbons in groundwater and saturated soil. The ISCO injection program consisted of injection of activated sodium persulfate into a network of permanent injection wells to facilitate future injections, if necessary.

The project required dewatering because of the shallow water table and the design and installation of the sub-slab depressurization system. Cynthia is a Project Engineer responsible for the preparation of the Final Engineering Report and Site Management Plan. The project has completed the remedial action construction phase and is on track to achieve a Certificate of Completion in 2024.

Melrose Cornerstone B2 LLC: Third Ave, Bronx– Bronx, NY

The site is a 13,800-square foot property located in the Melrose section in the Bronx, New York consisting of 5 parcels. The proposed site development consists of a multi-family residential building with street-level commercial spaces. LaBella completed a Phase I ESA for the site in April 2023 and identified several Recognized Environmental Conditions (RECs) associated with historical use of the site including historic manufacturing use and a historic hazardous material spill associated with an underground storage tank. LaBella is currently performing a Remedial Investigation including performing soil, groundwater, and soil vapor sampling on the site pursuant to the requirements of the New York City Office of Environmental Remediation (NYCOER) given the site's E-designation status. LaBella is also evaluating the potential eligibility of the properties into the New York State Brownfield Cleanup Program (NYSBCP). Cynthia is the Project Engineer responsible for the planning and execution of the field data collection program; data management, analysis and evaluation; and preparation of the Remedial Investigation Report pursuant to NYC OER regulations.

K-BTF, LLC: Broadway Mall Phase II ESA– Hicksville, NY

Cynthia was the Field engineer responsible for conducting a Phase II ESA to evaluate subsurface soil and groundwater conditions and establish baseline subsurface conditions prior to redevelopment. Cynthia was responsible for overseeing soil borings, installation of temporary groundwater monitoring wells, soil and groundwater sampling, and preparing a Phase II ESA report.

Central Park Conservancy: Dredge Permitting Assistance– Manhattan, NY

LaBella is designing key components for a smart water recirculation system for Central Park's north end water bodies for the Central Park Conservancy. The proposed system will recirculate and filter water regulated by an automated control system, enabling the simultaneous reduction of potable water use, mitigation of combined sewer overflows to the East River, and continuous water quality improvement. In addition to the core recirculation system, ecological interventions will include daylighting of culverted streams; stream, slope and shoreline stabilization; and restoring habitat that has been degraded by eutrophication and invasive species. In addition, LaBella is providing environmental engineering and consulting services related to the permitting associated with the maintenance dredging of the 100th St. Pool and the southeast cove of the Harlem Meer. Cynthia is the Project Engineer responsible for preparation of a Sediment Sampling Work Plan to assess sediment handling including disposal or potential beneficial reuse in accordance with 6 NYCRR Part 360 Regulations.

Experience Under Previous Employer

Environmental Engineer: Brooklyn, NY– CHA Consulting*

- Preparation of Phase I Environmental Site Assessments in accordance with ASTM E1527-13 and ASTM E1527-21 standards including reviewing technical database reports, searching multiple NYSDEC databases for bulk storage tanks and spills, and report writing.
- Phase II ESA/Subsurface Investigations (Soil, Groundwater, Vapor)
    - Design boring layouts and sampling plans for multiple subsurface investigations in New York and Florida
    - Performing soil, groundwater, and vapor sampling
    - Data collection and management
    - Technical reporting including preparation of figures and tables
- Environmental and Water Quality Monitoring
    - Landfill operations support at 9 local and state owned active and inactive landfills across NYS: field engineer providing monitoring assistance including collecting quarterly groundwater samples within the landfill's monitoring network, combustible gas monitoring, site inspections, and preparing quarterly and annual reports for the NYSDEC.
    - Quarterly monitoring and preparation of quarterly reports for the NYSDEC for two manufacturing plants in the NYS Superfund Program
    - Field engineer responsible for collection of drinking water samples at four New Jersey schools in accordance with 2021 NJ lead-related drinking water laws and regulations.
    - Provided O&M support for active soil vapor extraction system at a manufacturing facility in the State Superfund Site program including maintenance of O&M logs and data regarding carbon usage and change schedules.
    - SMP implementation for an environmental restoration site on the Hudson River Waterfront including annual site inspections, groundwater sampling, bulkhead inspection, and preparation of annual Periodic Review Reports.
- Construction Monitoring & Oversight
    - Field engineer responsible for overseeing compliance with investigation work plans for multiple subsurface investigations in a former manufactured gas plant in Queens, NY. Provided third-party environmental oversight on behalf of site owner including serving as a point of contact between on-site subcontractors and facility personnel.

**Completed with a previous employer*

- Environmental Compliance
  - Assisting with preparation of Spill Prevention, Control, and Countermeasure (SPCC), Spill Prevention Report (SPR), and Best Managment Practices (BMP) plans
  - Field engineer providing compliance assistance, monthly inspections, and legionella sampling, bacteriological indicator testing, and providing recommendations to on-site facility and plant engineering staff on best management practices for NYSDOH and NYC regulatory compliance for legionella management at 9 facilities in the NYC metropolitan area.
  - Preparation of Soil and Groundwater Management Plan (SGMP) to address management of potentially contaminated soils during site redevelopment and ground intrusive activities.
- Environmental engineer responsible for evaluating treatment alternatives for a groundwater treatment system for a site in the Indiana State Superfund Program. Responsibilities included research and alternatives/ viability analysis for several treatment options within project constraints, analysis of historical water quality data, and writing design specifications for construction bid set. Project constraints included managing high level iron concentrations and contamination involved with a dewatering related fish-kill in a previous project stage, and ensuring discharge compliance with Indiana Water Quality Standards.

EDUCATION

Universidad de las Américas, Quito- Ecuador: Environmental Engineering en Prevention y Remediation

WILSON CORELLA

Environmental Engineer *(Fluent in Spanish)*

Wilson is new to LaBella's environmental division and has experience in environmental consulting, management and compliance with environmental obligations, working as the external environmental department for several private industries at a time. Specialist in identifying, evaluating, preventing and mitigating industrial environmental problems towards the environment. He is passionate about acquiring new knowledge and highly motivated to face and solve current environmental problems.

Private Developer, Affordable Housing, NYS BCP Remedial Action Oversight, Carman Place Site– Hempstead, NY

LaBella Associates is providing field oversight for the remediation of the Carman Place Site, a 2.5-acre property comprised of 11 parcels in a mixed residential and commercial area of Hempstead, New York. Prior uses of the site have included residential, commercial, and dry-cleaning activities. The site is being remediated within the New York State Brownfield Cleanup Program to support the development of a 228 unit affordable housing project. Contaminated historic fill material (CHFM) is present to depths of up to 5 ft bgs with several hot spots consisting of petroleum hydrocarbons, SVOCs, and metals at depths of up to 13 ft bgs. Wilson directs the contractor to ensure that the NYSDEC-approved Remedial Action Work Plan (RAWP) is properly implemented and communicates daily with his supervisors. Wilson provides daily field oversight during soil excavation activities and ensures compliance with the health and safety plan (HASP) and community air monitoring plan (CAMP). He performs Community Air Monitoring during all intrusive activity and prepares daily reports and collects waste manifest and import fill receipt. Wilson performed soil sampling to characterize contaminated soil associated with numerous stormwater drainage structures and floor drains. He documents project activities including demolition, excavation, the movement of material across the site, and the collection of samples.

Wilson oversees the daily removal and off-site transportation of up to 40 truckloads of contaminated soil to ensure that multiple waste streams are properly disposed at various permitted facilities. He oversaw the removal and proper disposal of a 550-gallon former underground storage tank (UST) from the site as well as its proper disposed off-site. Upon achieving the remedial depth, Wilson collects post-excavation confirmation soil samples for laboratory analysis according to the RAWP. The total approximate volume of CHFM to be removed for remedial purposes is 11,653 cubic yards, including approximately 100 yards of hazardous material.

Private Developer, Retail Shopping Center, NYS BCP Site Management Plan Implementation, New City Shopping Center– New City, NY

The client entered into a Brownfield Cleanup Agreement with the NYSDEC to take over the implementation of a Site Management Plan (SMP) for a 1.17-acre portion of a 12-acre shopping plaza property located in New City, New York. The SMP was prepared

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to manage remaining chlorinated solvent contamination. The SMP includes an Engineering and Institutional Control Plan, a Site Monitoring Plan, and an Operation and Maintenance Plan for multiple sub-slab depressurization system (SSDS).

Wilson performs groundwater sampling for volatile organic compounds (VOCs) as well as site cover and SSDS inspections, including overseeing necessary upgrades and repairs. Following the recent transaction of the property, Wilson provided support for the preparation of the updated Site Management Plan and Health and Safety Plan as well as the Periodic Review Report, including the preparation of tables and figures.

Technical Environmental Manager– SICMA ECUADOR*

- Environmental consulting & compliance, working as an external environmental department for various clients in the manufacturing and health sector
- Management of the technical department
  - Monitoring of environmental processes and projects
  - Logistic and technical assistance of department projects
  - Intern selection and activity designation for the technical department
- Technical support on Environmental Impact Studies
- Create, obtain and implement environmental permits, environmental management, and action plans
- Presentation and monitoring of Environmental Compliance Reports and Audits until approval is achieved
- Program and coordination of site sampling of environmental parameters
- Analysis of wastewater, noise, and atmospheric emission monitoring reports
- Technical support in designing and implementing wastewater treatment plants
- Phase I and II assessment and profiling
- Dictation of training seminars and video conferences regarding environmental topics and compliance
- Technical assistance in commercial visits with potential clients
- Social intervention and education of surrounding communities as part of the process of obtaining environmental licenses for clients
- Experience in specialized training seminars
- Interview surrounding population of an industry/ project as part of the process of environmental impact assessments.

Environmental Technician– COSTECAM*

- Environmental consulting & compliance in the telecommunications sector
- On-site field inspections and compliance reports
- Environmental Compliance Reports & Audits
- Coordination and execution of field trips across various Provinces in Ecuador
- Process tracking, follow-ups, and monthly reunions with local and national environmental authorities
- Writing formal written responses and correction of non-compliance observations made by the environmental authority
- Participation in community approach and socialization regarding installation of cellular base towers in distant communities.

Tracey Evans

Experience

3/2018-Present, 4/2014-10/2015 — Long Island Environmental Assessment, Inc. (DBA Environment Assessment & Remediations) — Patchogue, NY

Scientist

- Assist with management of sites on behalf of the NYSDEC Spills and Hazardous Waste Division
- Validation, evaluation and reporting of field data and laboratory analytical data, which includes generating data usability summary reports (DUSR)
- Assist with research of site history, hydrogeological settings, and analyze recent and historical data to compose project summary reports
- Experienced with groundwater collection methods in accordance with New York State Department of Environmental Conservation (NYSDEC) guidelines

Scientist (January 2014 – October 2015)

- Working knowledge of instruments utilized to purge groundwater such as peristaltic pumps, inertia pumps, and submersible pumps
- Completion and organization of paperwork, which includes Chains of Custody, labels, and work orders, to assist in the coordination and accurate execution of groundwater sampling events
- Transporting and sending samples to certified labs for analysis
- Field screening for classification and identification of waste chemicals at an inactive hazardous waste cleanup site utilizing a hazardous categorization kit (2011 version)
- Provided oversight and direction of sampling, grouping, staging, and lab packing of waste chemicals
- Utilization and calibration of multi-RAE four gas meter and photoionization detector
- Generate bid solicitations for subcontracted work
- Operation and maintenance of an on-site mobile laboratory
- Developed and refined data usability report procedures for ten analytical methods
- Reviews laboratory analytical reports and complies data usability report packages

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10/2015-2/2018 — Montgomery College-Rockville Chemistry Department — Rockville, MD

Instructional Associate

- Operation and maintenance of an on-site instrumentation such as GC-FIDS, GC-MS, NMR, FTIR, Lab Quest units (1 and 2) and accessories
- Laboratory experiment set up, maintenance and shut down
- Assistance in faculty/student experimental design and implication
- Writing of standard operation procedures for laboratory operation
- Serving on hiring committee
- Oversee training and orientation of newly employees
- Assisting and reviewing laboratory experiment design for courses
- Overseeing compliance of safety rules and regulation during laboratory operations

9/2009-1/2014	Mak Laboratory School of Marine and Atmospheric Science Stony Brook University	Stony Brook, NY

Laboratory Manager

- Project design and application
- Organization of projects and field campaigns
- Operation, maintenance and calibration of specialized equipment such as gas chromatograph for mass spectrometry, flame ionization detector, proton transfer reaction time of flight mass spectrometer and carbon monoxide extraction apparatus
- Utilization of specialized laboratory equipment and software to process air samples, analyze and evaluate data and develop novel techniques to process samples
- Maintenance of laboratory including order supplies, replacements and organizing equipment repairs

Education/Training

May 2005 B.S Chemistry	State University of New York	Stony Brook, NY
August 2009 M.S. Atmospheric Science	State University of New York	Stony Brook, NY

Research

- Development of an O17 extraction system for ice cores (2009-2014)
- BEACHON-RoMBAS Field Campaign (Summer 2011)
- BEACHON-ROC Field Campaign, Mangrove VOCs production study (Summer 2011)
- VOCs and aerosol sampling apparatus design and implication for field sampling/Phyto VOCs and aerosol production over lake inlet study (Summer 2009)
- Thesis work at SUNY Stony Brook University: "The study o Biological Volatile Organic Compounds (VOCs) produced by the phytoplankton species Thalassiosira pseudonana (2005-2009)
- Undergraduate research at SUNY Old Westbury: Development of spectrofluorescence detection procedure for ammonium, determined at rate of reaction and order (2002-2005)
- Summer REU at Biological Process Development Facility (BPDF) at the University of Nebraska in the analytical laboratory to develop a procedure to detect and isolate Phenyl methyl sulfonyfluoride in protein samples (Summer 2004)

Training

- OSHA 40-hr HAZWOPER (29 CFR/OSHA 1910.120) (Completed 2/14)
- OSHA 8-hr HAZWOPER (29 CFR/OSHA 1910.120) (Renewal due 06/24)
- National Safety Council First Aid & CPR (Renewal due 06/24)
- Respirator trained and fit tested