

Date: March 26, 2021

**Interim Deliverable: Underground Storage Tank, Vessel and Drum Sampling Results
Route 203 Site
Nassau, New York**

This document is the first of two interim deliverables requested by the United States Environmental Protection Agency (USEPA) and has been prepared by Ramboll Americas Engineering Solutions, Inc. (Ramboll) to summarize the analytical results¹ from the underground storage tanks (UST), non-aqueous phase liquid (NAPL) from above UST-1, a steel vessel and several drums at the Route 203 Site. A second interim deliverable is being prepared to summarize the analytical results for the soil, sediment and groundwater samples.

The Route 203 Site, located at 5225-5239 Route 203 in the Town of Nassau, Rensselaer County, New York (Site), has been owned by different generations of the Loeffel family since 1955. Beginning in the mid-1950s, Richard Loeffel and then his son Dewey Loeffel, used the Site for the storage of trucks used for the collection of waste oil and industrial wastes, associated with the Loeffels' various companies, including Loeffel Refining Products, Inc., Loeffel's Waste Oil and Removal Service Company, Inc. and Marcar Oil, Inc. (the "Loeffel Companies"). Additionally, the Site was reportedly permitted by the New York State Department of Environmental Conservation (NYSDEC) as a waste oil transfer and storage facility in the 1970s and early 1980s. The Loeffels' also held an Industrial Waste Collector Certificate of Registration from NYSDEC purportedly serving customers within a 75-mile radius from Nassau, New York. The Route 203 Site was subject to inspections by the Rensselaer County Department of Health (RCDOH).

The analytical results presented in this first interim deliverable are based on the sampling conducted under the USEPA-approved Removal Sampling Work Plan (RSWP) (Ramboll, February 2020) and a subsequent work scope that was submitted to and approved by USEPA for additional investigation activities (Phase 2 Work Scope) (Ramboll, September 2020). A copy of the Phase 2 Work Scope is included as Attachment 1² to supplement the information provided herein.

The UST, NAPL, vessel and drum locations are shown on the attached Figure 1. The analytical results are summarized on the attached Tables 1a through 1e and, for waste characterization parameters, including via the Toxicity Characteristic Leaching Procedure (TCLP), on the attached Tables 2a through 2e and Table 3. A summary of the drum and vessel sampling is included on the attached Table 4. The tables are also being provided to USEPA in a Microsoft Excel file. A Photo Log is included as Attachment 2.

¹ In accordance with the approved Removal Sampling Work Plan (RSWP), the analytical results for the samples associated with the first interim deliverable were not validated. The results for environmental media (i.e., soil, sediment and groundwater) samples are being validated, and will be presented in the second interim deliverable.

² The figure included in the original Phase 2 Work Scope submittal has been removed from Attachment 1.

Summary of Surface Geophysical Surveys

The Route 203 property had been inspected by County officials during the time the property was registered by the NYSDEC. In addition to inspection reports, three known surface geophysical surveys have been performed at the Route 203 Site. According to a RCDOH letter dated November 24, 1981 (included as Attachment 3), a magnetometer survey of the Loeffel Refining Products waste oil storage site was performed at the Route 203 Site by Kestner Engineering Inc. on behalf of the RCDOH on November 17, 1981. The survey area included the entire property owned and/or controlled by Mr. Dewey Loeffel, including the pond. The magnetometer survey did not detect buried ferrous metal large enough to be a single drum, rather some ferrous metal objects appearing to be less than 6 inches in size were detected.³ Reinforcement bars in concrete foundations, a small fuel tank for space heating and a 6-inch diameter well casing were the only other ferrous metal objects reportedly detected. RCDOH concluded that the Route 203 Site was not a drum burial area.

On October 16, 2018, USEPA's contractor, Weston Solutions, Inc. (Weston), performed a ground-penetrating radar (GPR) survey at select areas of the Route 203 Site. One suspected UST was detected located east of the garage located closest to Route 203 (Weston, May 2019).

Under the RSWP, a surface geophysical investigation and utility mark-out was performed by RETTEW Field Services, Inc. (RETTEW), under Ramboll oversight, from May 11 through 28, 2020 prior to the initiation of subsurface disturbance activities. The entirety of the Route 203 Site (including the pond) was surveyed with three different geophysical techniques⁴ except for the area including/surrounding the residence in the northeast corner of the property and several relatively smaller areas that were inaccessible because of thick vegetation and/or steep slopes. GPR and metal detector instruments were also used at targeted areas of the Route 203 Site. Three suspected USTs (including the suspected UST identified by Weston) were detected located east of the garage located closest to Route 203.⁵

Summary of NAPL Sampling

Following the completion of the May 2020 surface geophysical survey in the vicinity of the suspected USTs, Parratt-Wolff, Inc (P-W), under Ramboll oversight, mobilized its vacuum truck to the Route 203 Site and commenced an investigation of the three potential USTs pursuant to the RSWP.⁶ While conducting the initial UST investigation using soft-dig, vacuum-assisted techniques, less than approximately 0.5 liters of NAPL was observed. The NAPL was located approximately 1.5 feet below

³ RCDOH's letter does not quantify the number of small ferrous metal objects that were detected.

⁴ The geophysical techniques employed during the survey were electromagnetic (EM) inphase and terrain conductivity mapping, and magnetic (MAG) gradiometer mapping.

⁵ Additional anomalies were identified and discussed with USEPA and are included in RETTEW's June 17, 2020 Surface Geophysical Survey and Utility Mark-out Report. This report was submitted to USEPA on June 17, 2020.

⁶ This UST investigation under the RSWP was performed on May 26 and 27, 2020 and ultimately became the first of two UST investigations performed by Ramboll at the Route 203 Site. The second investigation was performed under the Phase 2 Work Scope and is discussed in the "Summary of UST Sampling" section of this interim deliverable.

grade below a thin metal sheet and adjacent to a buried concrete slab. Below the metal sheet, which had several punctures approximately 1-inch in diameter, a shallow void was observed. This void contained a bi-phasic liquid consisting of a black, viscous NAPL and water. A photograph of the sample location is included in the Photo Log (see Photo 3, Attachment 2). Due to the location of this NAPL above the suspected UST, and the presence of metal sheeting above the NAPL, it was believed at that time to be the contents of the UST and was sampled accordingly. Additionally, buried debris consisting of a ridged plastic office mat and scrap pieces of carpet was observed buried above the UST approximately 3 feet away from the observed NAPL.

A sample of the NAPL was collected using a peristaltic pump and disposable tubing and sent to the laboratory for analysis of Target Compound List (TCL) volatile organic compounds (VOCs) and polychlorinated biphenyls (PCBs).⁷ The recovered sample was a mix of water and NAPL, consisting of a black layer that floated on water with an oily appearance and some globules. A petroleum-like odor was noted from the NAPL. Due to difficulty imparted by the very dense soil conditions overlying the UST and limited access using the soft-dig techniques, it was assumed this NAPL sample represented the contents of the UST. However, subsequent UST investigation activities (including removal of soil overlying UST-01 with an excavator) revealed that the NAPL sample was not representative of the contents of UST-01; rather, the NAPL sample had been collected from a void adjacent to a buried concrete slab overlying UST-01.

After the completion of NAPL sampling activities above UST-01, the soft-dig excavations were backfilled with excavated soil and covered using separately segregated near-surface soil and sod pursuant to a May 21, 2020 conference call with USEPA. Traffic cones were placed over the disturbed soil locations (see Photo 4, Attachment 2).

Summary of UST Sampling

As described above, three potential USTs were identified using surface geophysical techniques located east of the garage located closest to Route 203. Subsequent UST investigation activities performed under the USEPA-approved Phase 2 Work Scope revealed the presence of two USTs as shown on Figure 1.⁸ Using an excavator, overlying soils were removed from above UST-01 and UST-02 (see Photos 5 and 10, Attachment 2). During excavation the visibly impacted soils were segregated to the extent possible from those not visibly impacted. In general, the sod and the upper 6- to 12-inch soil horizon were set aside on plastic sheeting to be placed back on top during backfilling consistent with the Phase 2 Work Scope.

UST-01 was exposed for a portion of its length, with half of the tank lengthwise being overlain by a concrete slab. While excavating, a significant length of the tank was exposed to confirm it is a single UST and not two USTs as was indicated by the geophysical investigation. The visible areas of UST-01 were observed to be in generally good condition with no obvious defects or holes. A sample of liquid

⁷ The small amount of NAPL available for sampling precluded laboratory analysis of additional parameters.

⁸ Instead of two separate USTs in the vicinity of UST-01, this UST is a single, larger tank.

from UST-01 was collected by inserting a sampling tube through an access hatch discovered near the mid-point of the tank. The access hatch was sealed when it was discovered and was then set ajar to facilitate sample collection.

At UST-02, the northern end of the tank was exposed. UST-02 was observed to be in good condition with minimal corrosion and no visible defects or holes. Although an appurtenant pipe for UST-02 was discovered and accessed, this pipe did not allow access to the tank interior. UST-02 was sampled by inserting a sampling tube into a perforation that was created using non-sparking tools on top of the tank.

The contents of both USTs were sampled using a peristaltic pump and tubing inserted into the access points. Sample bottles were filled directly from this tubing and the level of the tubing intake was raised and lowered during the sampling to vary the depth of the sampling tube inlet to collect representative samples of the liquid tank contents.

The sample from UST-01 contained two phases of liquid, a black, oily light non-aqueous phase liquid (LNAPL) layer and a clear liquid layer (see Photo 7, Attachment 2). The sample from UST-02 was a generally clear liquid with an oily sheen on the surface and a faint petroleum-like odor.

Liquid samples collected from both USTs were submitted to Eurofins Lancaster Laboratories Environmental, LLC (Eurofins) for laboratory analysis in accordance with Table 2-1 of the RSWP, specifically:

- TCL VOCs (see Table 1a)
- TCL SVOCs (see Table 1b)
- TCL Pesticides (see Table 1c)
- TCL PCBs (see Table 1d)
- Target Analyte List (TAL) metals and mercury (total and dissolved) (see Table 1e)

Additionally, samples from both USTs were submitted to Eurofins for analysis of waste characterization parameters in accordance with Table 2-1 of the RSWP, specifically:

- TCLP VOCs (see Table 2a)
- TCLP SVOCs (see Table 2b)
- TCLP pesticides (see Table 2c)
- TCLP herbicides (see Table 2d)
- TCLP metals and mercury (see Table 2e)
- Other waste characterization parameters (see Table 3)

Following receipt of the UST-01 sample results, and at the request of USEPA, Ramboll submitted an inquiry to Eurofins regarding its procedure for analyzing bi-phasic liquid samples.⁹ Eurofins responded that its standard laboratory procedure when analyzing a sample with distinct phases is to mix the

⁹ The liquid sample collected from UST-01 consisted of a clear, water-like phase and a floating, dark, oil-like phase.

phases prior to extraction.¹⁰ After doing this a representative sample aliquot was removed from the sample bottle for analysis.

Note that during analysis of the UST samples, the laboratory mistakenly assigned sample containers intended for TCL VOC analysis to TCLP VOC analysis and no preserved sample volume remained for TCL VOC analysis. However, the laboratory was able to use remaining sample volume from other analyses to perform the TCL VOC analysis. Due to this error, the sample for TCL VOCs was analyzed beyond the holding time and the sample container did not have zero headspace, and the UST results on Table 1a are therefore flagged as "H" or "UH" accordingly and are potentially biased low.

Following the sampling activities, the USTs were secured and the excavations were backfilled. The UST-01 access hatch was resealed and the backfilled soils returned to the excavation. At UST-02, the perforation was covered with weighted plastic sheeting and the excavated soils were returned to the excavation. For each excavation the soil removed from directly above the UST was replaced first, followed by upper soil and the sod. Soil disturbance areas were seeded, and the area cordoned off with construction fencing (see Photos 11 and 12, Attachment 2). After the new grass was established the fencing was removed.

Summary of Drum and Vessel Sampling

During the investigation activities, several drums were identified at the Site. These were in addition to the drums previously identified and sampled during USEPA's investigation. A total of four drums and an unknown steel vessel were identified at/near the surface by visual observation (see Figure 1 for locations and see Photos 13 through 17, Attachment 2). The interiors of the drums and vessel were exposed using hand tools. Of the four drums accessed, only two contained any material for sampling (designated DRUM-02 and DRUM-03 on the Figure 1 and the summary tables). The contents from each drum and vessel were separately homogenized and sampled (i.e., three samples were collected, one from each of the two drums with contents and one from the vessel).

As requested by USEPA during the field event, an additional sample was collected from the previously identified drum area (see Photo 19, Attachment 2). Four of the nine drums contained material that was accessible. The grab samples collected from each of these four drums (see Photo 20, Attachment 2) were composited into a single sample.

The drum and vessel samples were submitted to Eurofins for analysis of waste characterization parameters in accordance with Table 2-1 of the RSWP, specifically:

- TCLP VOCs (see Table 2a)
- TCLP SVOCs (see Table 2b)
- TCLP pesticides (see Table 2c)
- TCLP herbicides (see Table 2d)

¹⁰ Eurofins also indicated that exceptions to this procedure are provided in the analytical report. Eurofins' laboratory report for the UST-01 sample indicates that for Method 6010D (i.e., TAL metals analysis) the bottom sample layer was used for the preparation. No other exceptions were noted for the other UST-01 analyses.

- TCLP metals and mercury (see Table 2e)
- Other waste characterization parameters (see Table 3)

After the completion of the sampling activities, the soil removed to facilitate access to the sampled drums was returned to each excavation.

Summary of UST and NAPL Results

The UST samples were analyzed for TCLP constituents and other waste parameters to characterize the liquids contained within the two tanks for disposal purposes. The UST samples were also analyzed for TCL/TAL constituents to characterize the nature of the liquids.

The sample of the liquid in UST-01 was not ignitable (D001), reactive (D002) or corrosive (D003) (see Table 3). Based on the results of the TCLP testing, the sample of the UST-01 liquid is characteristically hazardous for the following:

- Lead (D008) (see Table 2e)
- Chlordane (D020) (see Table 2c)
- 1,2-Dichloroethane (D028) (see Table 2a)
- Chloroform (D022) (see Table 2a)
- Trichloroethene (D040) (see Table 2a)

PCBs were detected in the sample of the liquid in UST-01, but at a low concentration (i.e., less than 1 milligrams per liter [mg/L]) (see Table 1d). Aroclor 1242 was reported at 0.200 mg/L. Aroclor 1260 was reported at 0.730 mg/L, but the result was "B" flagged, meaning Aroclor 1260 was also detected in the associated laboratory blank.

The results from the sample from UST-02 indicated the liquid in this tank is non-hazardous. It was not ignitable (D001), reactive (D002) or corrosive (D003) (see Table 3), and none of the TCLP results exceeded the associated regulatory thresholds (see Tables 2a through 2e). In addition, no PCBs were detected in the UST-02 sample (see Table 1d).

Due to limited volume, the NAPL sample collected from above UST-01 was only analyzed for TCL VOCs and TCL PCBs. PCBs were reported at 1,300 milligrams per kilogram (mg/kg) (see Table 1d). Several VOCs were detected in the UST-01 sample (see Table 1a), with the highest concentrations reported for toluene, ethylbenzene, xylenes,¹¹ and trichlorobenzenes. Several other VOCs were also detected, but at lower concentrations. With respect to the more typical chlorinated solvents and their associated degradation products, 1,1,1-trichloroethane (TCA) was reported at the highest concentration followed by tetrachloroethene (PCE), then some of the degradation products and trichloroethene (TCE).

¹¹ Benzene was not detected in the NAPL sample.

Summary of Drum and Vessel Results

The analytical results of the TCLP testing and for the other waste characterization parameters results show that the contents of the drums (DRUM-02 and DRUM-03 and, a composite sample from drums in the same area previously sampled by USEPA) and vessel are non-hazardous. None of these samples were ignitable (D001) or reactive (D002) (see Table 3),¹² and none of the TCLP results exceeded the associated regulatory thresholds (see Tables 2a through 2e). In addition, the PCB results for each sample were below 50 mg/kg, with the maximum being 6.6 mg/kg in the sample from DRUM-02 (see Table 1d).¹³

¹² The drum and vessel samples were not analyzed for corrosivity (D003).

¹³ PCBs were detected in the other two drum samples, but at lower concentrations. The sample from the vessel was non-detect for PCBs.

TABLES

Table 1a
 Tank and Drum Analytical Results
 TCL Volatile Organic Compounds
 Route 203 Site
 Nassau, New York

Location ID Sample ID Sample Date Result Unit	NAPL UST01-052620 5/26/2020 ug/kg	UST-01 UST-01-10212020 10/21/2020 ug/L	UST-02 UST-02-10222020 10/22/2020 ug/L
Chemical Name			
1,1,1-Trichloroethane	54,000	500 UH	1.0 UH
1,1,2,2-Tetrachloroethane	50,000 U	500 UH	1.0 UH
1,1,2-Trichloroethane	50,000 U	500 UH	1.0 UH
1,1-Dichloroethane	16,000 J	500 UH	1.0 UH
1,1-Dichloroethene	50,000 U	500 UH	1.0 UH
1,2,3-Trichlorobenzene	78,000 J	2,500 UH	5.0 UH
1,2,4-Trichlorobenzene	380,000	2,500 UH	5.0 UH
1,2-Dibromo-3-chloropropane	50,000 U	2,500 UH	5.0 UH
1,2-Dibromoethane	50,000 U	500 UH	1.0 UH
1,2-Dichlorobenzene	50,000 U	200 JH	5.0 UH
1,2-Dichloroethane	41,000 J	2,200 H	1.0 UH
1,2-Dichloropropane	50,000 U	500 UH	1.0 UH
1,3-Dichlorobenzene	50,000 U	2,500 UH	5.0 UH
1,4-Dichlorobenzene	28,000 J	2,500 UH	5.0 UH
2-Butanone	99,000 U	76,000 H	2.6 JH
2-Hexanone	99,000 U	5,000 UH	0.53 JH
4-Methyl-2-pentanone	99,000 U	1,200 JH	10 UH
Acetone	200,000 U	670,000 H	5.6 JH
Benzene	50,000 U	270 JH	1.0 UH
Bromochloromethane	50,000 U	2,500 UH	5.0 UH
Bromodichloromethane	50,000 U	500 UH	1.0 UH
Bromoform	99,000 U	2,000 UH	4.0 UH
Bromomethane	50,000 U	500 UH	1.0 UH
Carbon disulfide	50,000 U	2,500 UH	5.0 UH
Carbon tetrachloride	50,000 U	500 UH	1.0 UH
Chlorobenzene	50,000 U	500 UH	1.0 UH
Chloroethane	50,000 U	500 UH	1.0 UH
Chloroform	50,000 U	33,000 H	1.0 UH
Chloromethane	50,000 U	500 UH	1.0 UH
cis-1,2-Dichloroethene	50,000 U	500 UH	1.0 UH
cis-1,3-Dichloropropene	50,000 U	500 UH	1.0 UH
Cyclohexane	6,400 J	2,500 UH	5.0 UH
Dibromochloromethane	50,000 U	500 UH	1.0 UH
Dichlorodifluoromethane	50,000 U	500 UH	1.0 UH
Ethylbenzene	56,000	500 UH	4.5 H
Freon 113	99,000 U	5,000 UH	10 UH
Isopropylbenzene	12,000 J	2,500 UH	1.2 JH
m+p-Xylene	180,000	2,500 UH	31 H
Methyl acetate	50,000 U	1,500 JH	0.85 JH
Methylcyclohexane	17,000 J	2,500 UH	5.0 UH
Methylene chloride	50,000 U	9,800 H	1.0 UH
Methyl tertiary butyl ether	50,000 U	500 UH	1.0 UH
o-Xylene	69,000	500 UH	21 H
Styrene	50,000 U	2,500 UH	5.0 UH
Tetrachloroethene	30,000 J	500 UH	1.0 UH
Toluene	220,000	130,000 H	7.0 H
trans-1,2-Dichloroethene	50,000 U	500 UH	1.0 UH
trans-1,3-Dichloropropene	50,000 U	500 UH	1.0 UH
Trichloroethene	7,300 J	3,500 H	1.0 UH
Trichlorofluoromethane	50,000 U	500 UH	1.0 UH
Vinyl chloride	50,000 U	500 UH	1.0 UH
Xylenes, Total	250,000	3,000 UH	52 H

- Notes:**
1. Units are displayed in the table. "ug/kg" indicates micrograms per kilogram. "ug/L" indicates micrograms per liter.
 2. Target Compound List (TCL) volatile organic compounds analyzed using United States Environmental Protection Agency (USEPA) SW-846 Method 8260C by Eurofins Lancaster Laboratories Environmental, LLC of Lancaster, Pennsylvania.
 3. "U" designates compound is not detected at or above the practical quantitation limit (PQL).
 4. "H" designates sample was prepped or analyzed beyond the method-specified holding time.
 5. "J" designates compound is detected between the method detection limit (MDL) and PQL.
 6. Internal laboratory qualifiers are not reported.
 7. Detections are bolded.
 8. Non-aqueous phase liquid (NAPL) sample collected in subsurface located above UST-01.

Table 1a
 Tank and Drum Analytical Results
 TCL Volatile Organic Compounds
 Route 203 Site
 Nassau, New York

Location ID Sample ID Sample Date Result Unit	Trip Blank TB_052620 00:00 5/26/2020 ug/L
Chemical Name	
1,1,1-Trichloroethane	1.0 U
1,1,2,2-Tetrachloroethane	1.0 U
1,1,2-Trichloroethane	1.0 U
1,1-Dichloroethane	1.0 U
1,1-Dichloroethene	1.0 U
1,2,3-Trichlorobenzene	5.0 U
1,2,4-Trichlorobenzene	5.0 U
1,2-Dibromo-3-chloropropane	5.0 U
1,2-Dibromoethane	1.0 U
1,2-Dichlorobenzene	5.0 U
1,2-Dichloroethane	1.0 U
1,2-Dichloropropane	1.0 U
1,3-Dichlorobenzene	5.0 U
1,4-Dichlorobenzene	5.0 U
2-Butanone	10 U
2-Hexanone	10 U
4-Methyl-2-pentanone	10 U
Acetone	20 U
Benzene	1.0 U
Bromochloromethane	5.0 U
Bromodichloromethane	1.0 U
Bromoform	4.0 U
Bromomethane	1.0 U
Carbon disulfide	5.0 U
Carbon tetrachloride	1.0 U
Chlorobenzene	1.0 U
Chloroethane	1.0 U
Chloroform	1.0 U
Chloromethane	1.0 U
cis-1,2-Dichloroethene	1.0 U
cis-1,3-Dichloropropene	1.0 U
Cyclohexane	5.0 U
Dibromochloromethane	1.0 U
Dichlorodifluoromethane	1.0 U
Ethylbenzene	1.0 U
Freon 113	10 U
Isopropylbenzene	5.0 U
m+p-Xylene	5.0 U
Methyl acetate	5.0 U
Methylcyclohexane	5.0 U
Methylene chloride	1.0 U
Methyl tertiary butyl ether	1.0 U
o-Xylene	1.0 U
Styrene	5.0 U
Tetrachloroethene	1.0 U
Toluene	1.0 U
trans-1,2-Dichloroethene	5.0 U
trans-1,3-Dichloropropene	1.0 U
Trichloroethene	1.0 U
Trichlorofluoromethane	1.0 U
Vinyl chloride	1.0 U
Xylenes, Total	6.0 U

- Notes:**
1. Units are displayed in the table. "ug/kg" indicates micrograms per kilogram. "ug/L" indicates micrograms per liter.
 2. Target Compound List (TCL) volatile organic compounds analyzed using United States Environmental Protection Agency (USEPA) SW-846 Method 8260C by Eurofins Lancaster Laboratories Environmental, LLC of Lancaster, Pennsylvania.
 3. "U" designates compound is not detected at or above the practical quantitation limit (PQL).
 4. "H" designates sample was prepped or analyzed beyond the method-specified holding time.
 5. "J" designates compound is detected between the method detection limit (MDL) and PQL.
 6. Internal laboratory qualifiers are not reported.
 7. Detections are bolded.
 8. Non-aqueous phase liquid (NAPL) sample collected in subsurface located above UST-01.

Table 1b
 Tank and Drum Analytical Results
 TCL Semi-Volatile Organic Compounds
 Route 203 Site
 Nassau, New York

Location ID Sample ID Sample Date	UST-01 UST-01-10212020 10/21/2020	UST-02 UST-02-10222020 10/22/2020
Chemical Name		
1,4-Dioxane ^a	69 B	6.3 U
1,1'-Biphenyl	490 U	110
1,2,4,5-Tetrachlorobenzene	97 U	21 U
1,4-Dioxane	240 U	52 U
2,3,4,6-Tetrachlorophenol	490 U	100 U
2,4,5-Trichlorophenol	97 U	21 U
2,4,6-Trichlorophenol	97 U	21 U
2,4-Dichlorophenol	97 U	21 U
2,4-Dimethylphenol	170 J	100 U
2,4-Dinitrophenol	1,500 U	310 U
2,4-Dinitrotoluene	240 U	52 U
2,6-Dinitrotoluene	97 U	21 U
2-Chloronaphthalene	49 U	10 U
2-Chlorophenol	97 U	21 U
2-Methylnaphthalene	180	990
2-Methylphenol	3,700	21 U
2-Nitroaniline	240 U	52 U
2-Nitrophenol	490 U	100 U
3&4-Methylphenol	1,400	21 U
3,3'-Dichlorobenzidine	490 U	100 U
3-Nitroaniline	340 U	73 U
4,6-Dinitro-2-methylphenol	1,000 U	220 U
4-Bromophenyl-phenylether	97 U	21 U
4-Chloro-3-methylphenol	170 U	37 U
4-Chloroaniline	490 U	100 U
4-Chlorophenyl-phenylether	97 U	21 U
4-Nitroaniline	150 U	31 U
4-Nitrophenol	1,500 U	310 U
Acenaphthene	24 U	5.2 U
Acenaphthylene	24 U	5.2 U
Acetophenone	490 U	100 U
Anthracene	24 U	44
Atrazine	240 U	52 U
Benzaldehyde	490 U	100 U
Benzo (a) anthracene	24 U	5.2 U
Benzo (a) pyrene	24 U	5.2 U
Benzo (b) fluoranthene	24 U	5.2 U
Benzo (g,h,i) perylene	24 U	5.2 U
Benzo (k) fluoranthene	24 U	5.2 U
bis (2-Chloroethoxy) methane	97 U	21 U
bis (2-chloroethyl) ether	97 U	21 U
bis (2-Chloroisopropyl) ether	97 U	21 U
bis (2-Ethylhexyl) phthalate	540 U	120 U
Butylbenzylphthalate	240 U	52 U
Caprolactam	540 U	120 U
Carbazole	97 U	45

Table 1b
 Tank and Drum Analytical Results
 TCL Semi-Volatile Organic Compounds
 Route 203 Site
 Nassau, New York

Location ID Sample ID Sample Date	UST-01 UST-01-10212020 10/21/2020	UST-02 UST-02-10222020 10/22/2020
Chemical Name		
Chrysene	24 U	5.2 U
Dibenz (a,h) anthracene	24 U	5.2 U
Dibenzofuran	97 U	21 U
Diethylphthalate	240 U	52 U
Dimethylphthalate	240 U	52 U
Di-n-butylphthalate	240 U	52 U
Di-n-octylphthalate	540 U	120 U
Fluoranthene	12 J	5.2 U
Fluorene	24 U	120
Hexachlorobenzene	24 U	5.2 U
Hexachlorobutadiene	97 U	21 U
Hexachlorocyclopentadiene	540 U	120 U
Hexachloroethane	240 U	52 U
Indeno (1,2,3-cd) pyrene	24 U	5.2 U
Isophorone	97 U	21 U
Naphthalene	75	300
Nitrobenzene	97 U	21 U
N-Nitroso-di-n-propylamine	150 U	31 U
N-Nitrosodiphenylamine	150 U	31 U
Pentachlorophenol	240 U	52 U
Phenanthrene	57	270
Phenol	11,000	21 U
Pyrene	18 J	43

- Notes:**
1. Units in micrograms per liter (ug/L).
 2. Target Compound List (TCL) semi-volatile organic compounds analyzed using United States Environmental Protection Agency (USEPA) SW-846 Method 8270D by Eurofins Lancaster Laboratories Environmental, LLC of Lancaster, Pennsylvania.
 "a" designates 1,4-dioxane was analyzed using USEPA Method SW-846 8270D selected ion monitoring (SIM).
 3. "B" designates compound was found in the blank and sample.
 4. "U" designates compound is not detected at or above the practical quantitation limit (PQL).
 5. "J" designates compound is detected between the method detection limit (MDL) and PQL.
 6. Internal laboratory qualifiers are not reported.
 7. Detections are bolded with the exception of the "B" qualified results.

Table 1c
 Tank and Drum Analytical Results
 TCL Pesticides
 Route 203 Site
 Nassau, New York

Location ID Sample ID Sample Date	UST-01 UST-01-10212020 10/21/2020	UST-02 UST-02-10222020 10/22/2020
Chemical Name		
4-4-DDD	3.0	0.37 J
4-4-DDE	2.9 U	0.14 J
4-4-DDT	73	0.17 J
a-BHC	2.0 U	0.14 JB
Aldrin	0.21 J	0.068 JB
alpha-Chlordane	0.90 J	0.23 J
b-BHC	1.4 JB	0.23 JB
d-BHC	2.0 U	0.42 U
Dieldrin	2.9 U	0.64 U
Endosulfan I	2.0 U	0.14 J
Endosulfan II	3.9 U	0.39 J
Endosulfan Sulfate	2.9 U	0.64 U
Endrin	3.2	0.24 J
Endrin Aldehyde	31	0.80 J
Endrin Ketone	20 U	0.15 J
gamma-Chlordane	1.3 J	0.17 J
Heptachlor	2.0 U	0.19 J
Heptachlor Epoxide	1.4 J	0.42 U
Lindane	0.34 J	0.099 J
Methoxychlor	8.9 J	0.75 J
Toxaphene	98 U	21 U

- Notes:**
1. Units in milligrams per kilogram (ug/L).
 2. Target Compound List (TCL) pesticides analyzed using United States Environmental Protection Agency (USEPA) SW-846 Method 8081B by Eurofins Lancaster Laboratories Environmental, LLC of Lancaster, Pennsylvania.
 3. "J" designates compound is detected between the method detection limit (MDL) and practical quantitation limit (PQL).
 4. "U" designates compound is not detected at or above the PQL.
 5. "B" designates compound was found in the blank and sample.
 6. Internal laboratory qualifiers are not reported.
 7. Detections are bolded with the exception of the "B" qualified results.

Table 1d
 Tank and Drum Analytical Results
 TCL Polychlorinated Biphenyls
 Route 203 Site
 Nassau, New York

Location ID Sample ID Sample Date Result Unit	DRUM-02 DRUM-02-10202020 10/20/2020 mg/kg	DRUM-03 DRUM-03-10202020 10/20/2020 mg/kg	DRUM AREA-COMPOSITE DRUM-COMPOSITE-10202020 10/20/2020 mg/kg	VESSEL VESSEL-10202020 10/20/2020 mg/kg
Chemical Name				
PCB-1016	0.75 U	0.25 U	0.37 U	0.017 U
PCB-1221	0.75 U	0.25 U	0.37 U	0.017 U
PCB-1232	0.75 U	0.25 U	0.37 U	0.017 U
PCB-1242	0.75 U	0.25 U	0.37 U	0.017 U
PCB-1248	0.75 U	0.25 U	0.37 U	0.017 U
PCB-1254	0.75 U	0.25 U	0.37 U	0.017 U
PCB-1260	6.6	2.1	3.6	0.017 U
PCB-1262	0.75 U	0.25 U	0.37 U	0.017 U
PCB-1268	0.75 U	0.25 U	0.37 U	0.017 U
Polychlorinated biphenyls, Total	6.6	2.1	3.6	0.017 U

- Notes:**
1. Units are displayed in the table. "mg/kg" indicates milligrams per kilogram. "mg/L" indicates milligrams per liter.
 2. Target Compound List (TCL) polychlorinated biphenyls (PCBs) analyzed using United States Environmental Protection Agency (USEPA) SW-846 Method 8082A by Eurofins Lancaster Laboratories Environmental, LLC of Lancaster, Pennsylvania.
 3. "*" designates that total PCBs were not provided on laboratory data sheet and therefore not included on this table for consistency.
 4. "U" designates compound is not detected at or above the practical quantitation limit (PQL).
 5. "B" designates compound was found in the blank and sample.
 6. Internal laboratory qualifiers are not reported.
 7. Detections are bolded with the exception of the "B" qualified results.
 8. Non-aqueous phase liquid (NAPL) sample collected in subsurface located above UST-01.

Table 1d
 Tank and Drum Analytical Results
 TCL Polychlorinated Biphenyls
 Route 203 Site
 Nassau, New York

Location ID Sample ID Sample Date Result Unit	NAPL UST01-052620 5/26/2020 mg/kg	UST-01 UST-01-10212020 10/21/2020 mg/L	UST-02 UST-02-10222020 10/22/2020 mg/L
Chemical Name			
PCB-1016	100 U	0.051 U	0.00053 U
PCB-1221	100 U	0.051 U	0.00053 U
PCB-1232	100 U	0.051 U	0.00053 U
PCB-1242	100 U	0.200	0.00053 U
PCB-1248	100 U	0.051 U	0.00053 U
PCB-1254	100 U	0.051 U	0.00053 U
PCB-1260	1,300	0.730 B	0.00053 U
PCB-1262	100 U	0.051 U	0.00053 U
PCB-1268	100 U	0.051 U	0.00053 U
Polychlorinated biphenyls, Total	*	*	*

- Notes:**
1. Units are displayed in the table. "mg/kg" indicates milligrams per kilogram. "mg/L" indicates milligrams per liter.
 2. Target Compound List (TCL) polychlorinated biphenyls (PCBs) analyzed using United States Environmental Protection Agency (USEPA) SW-846 Method 8082A by Eurofins Lancaster Laboratories Environmental, LLC of Lancaster, Pennsylvania.
 3. "*" designates that total PCBs were not provided on laboratory data sheet and therefore not included on this table for consistency.
 4. "U" designates compound is not detected at or above the practical quantitation limit (PQL).
 5. "B" designates compound was found in the blank and sample.
 6. Internal laboratory qualifiers are not reported.
 7. Detections are bolded with the exception of the "B" qualified results.
 8. Non-aqueous phase liquid (NAPL) sample collected in subsurface located above UST-01.

Table 1e
 Tank and Drum Analytical Results
 TAL Metals and Mercury
 Route 203 Site
 Nassau, New York

Location ID	UST-01	UST-02
Sample ID	UST-01-10212020	UST-02-10222020
Sample Date	10/21/2020	10/22/2020
Chemical Name		
Total Metals		
Aluminum	0.85 J	0.30 U
Antimony	0.25 U	0.050 U
Arsenic	0.081 J	0.050 U
Barium	7.8	0.19
Beryllium	0.025 U	0.0050 U
Cadmium	0.85	0.0099
Calcium	35,000	360
Chromium	0.11	0.015 U
Cobalt	0.031	0.15
Copper	5.5	0.04
Iron	73	160
Lead	47	0.21
Magnesium	130	11
Manganese	11	8.6
Mercury	0.0064 J	0.00020 U
Nickel	0.26	0.63
Potassium	500	12
Selenium	0.25 U	0.050 U
Silver	0.050 U	0.010 U
Sodium	3,600	49
Thallium	0.15 U	0.030 U
Vanadium	0.016 J	0.010 U
Zinc	86	11
Dissolved Metals		
Aluminum	3.1 U	0.31 U
Antimony	0.20 J	0.052 U
Arsenic	0.52 U	0.052 U
Barium	4.7	0.19
Beryllium	0.052 U	0.0052 U
Cadmium	0.81	0.0089
Calcium	38,000	380
Chromium	0.057 J	0.015 U
Cobalt	0.052 U	0.15
Copper	0.66	0.03
Iron	11	140
Lead	15	0.041
Magnesium	110	11
Manganese	9.1	8.7
Mercury	0.00050 U	0.00020 U
Nickel	0.14	0.62
Potassium	460	13
Selenium	0.52 U	0.052 U
Silver	0.10 U	0.0090 J
Sodium	3,500	51
Thallium	0.31 U	0.031 U
Vanadium	0.10 U	0.0020 J
Zinc	69	9.1

- Notes:**
1. Units in milligrams per liter (mg/L).
 2. Target Analyte List (TAL) metals analyzed using United States Environmental Protection Agency (USEPA) SW-846 Method 6010D. Mercury analyzed using USEPA SW-846 Method 7471A. All analyses by Eurofins Lancaster Laboratories Environmental, LLC of Lancaster, Pennsylvania.
 3. "J" designates compound is detected between the method detection limit (MDL) and practical quantitation limit (PQL).
 4. "U" designates compound is not detected at or above the PQL.
 5. Internal laboratory qualifiers are not reported.
 6. Detections are bolded.

Table 2a
 Tank and Drum Analytical Results
 TCLP Volatile Organic Compounds
 Route 203 Site
 Nassau, New York

Location ID Sample ID Sample Date	DRUM-02 DRUM-02-10202020 10/20/2020	DRUM-03 DRUM-03-10202020 10/20/2020	DRUM AREA-COMPOSITE DRUM-COMPOSITE-10202020 10/20/2020	VESSEL VESSEL-10202020 10/20/2020
Chemical Name				
1,1-Dichloroethene	0.020 U	0.020 U	0.020 U	0.020 U
1,2-Dichloroethane	0.020 U	0.020 U	0.43	0.020 U
2-Butanone	0.48	0.20 U	0.17 J	0.20 U
Benzene	0.020 U	0.0083 J	0.020 U	0.020 U
Carbon tetrachloride	0.020 U	0.020 U	0.020 U	0.020 U
Chlorobenzene	0.020 U	0.020 U	0.020 U	0.020 U
Chloroform	0.020 U	0.020 U	0.020 U	0.020 U
Tetrachloroethene	0.020 U	0.020 U	0.020 U	0.020 U
Trichloroethene	0.020 U	0.020 U	0.020 U	0.020 U
Vinyl Chloride	0.020 U	0.020 U	0.020 U	0.020 U

- Notes:**
1. Units in milligrams per liter (mg/L).
 2. Toxicity Characteristic Leaching Procedure (TCLP) volatile organic compounds analyzed using United States Environmental Protection Agency (USEPA) SW-846 Method 1311/8260C by Eurofins Lancaster Laboratories Environmental, LLC of Lancaster, Pennsylvania.
 3. "U" designates compound is not detected at or above the practical quantitation limit (PQL).
 4. "J" designates compound is detected between the method detection limit (MDL) and PQL.
 5. Internal laboratory qualifiers are not reported.
 6. Detections are bolded.

Table 2a
 Tank and Drum Analytical Results
 TCLP Volatile Organic Compounds
 Route 203 Site
 Nassau, New York

Location ID Sample ID Sample Date	UST-01 UST-01-10212020 10/21/2020	UST-02 UST-02-10222020 10/22/2020
Chemical Name		
1,1-Dichloroethene	0.10 U	0.020 U
1,2-Dichloroethane	1.6	0.020 U
2-Butanone	48	0.20 U
Benzene	0.19	0.020 U
Carbon tetrachloride	0.10 U	0.020 U
Chlorobenzene	0.070 J	0.020 U
Chloroform	28	0.020 U
Tetrachloroethene	0.022 J	0.020 U
Trichloroethene	2.8	0.020 U
Vinyl Chloride	0.10 U	0.020 U

- Notes:**
1. Units in milligrams per liter (mg/L).
 2. Toxicity Characteristic Leaching Procedure (TCLP) volatile organic compounds analyzed using United States Environmental Protection Agency (USEPA) SW-846 Method 1311/8260C by Eurofins Lancaster Laboratories Environmental, LLC of Lancaster, Pennsylvania.
 3. "U" designates compound is not detected at or above the practical quantitation limit (PQL).
 4. "J" designates compound is detected between the method detection limit (MDL) and PQL.
 5. Internal laboratory qualifiers are not reported.
 6. Detections are bolded.

Table 2b
 Tank and Drum Analytical Results
 TCLP Semi-Volatile Organic Compounds
 Route 203 Site
 Nassau, New York

Location ID Sample ID Sample Date	DRUM-02 DRUM-02-10202020 10/20/2020	DRUM-03 DRUM-03-10202020 10/20/2020	DRUM AREA-COMPOSITE DRUM-COMPOSITE-10202020 10/20/2020	VESSEL VESSEL-10202020 10/20/2020
Chemical Name				
1,4-Dichlorobenzene	0.010 U	0.010 U	0.10 U	0.010 U
2,4,5-Trichlorophenol	0.010 U	0.010 U	0.10 U	0.010 U
2,4,6-Trichlorophenol	0.010 U	0.010 U	0.10 U	0.010 U
2,4-Dinitrotoluene	0.025 U	0.025 U	0.25 U	0.025 U
2-Methylphenol	10	0.010 U	13	0.0043 J
3&4-Methylphenol	13	0.010 U	46	0.0077 J
Hexachlorobenzene	0.0025 U	0.0025 U	0.025 U	0.0025 U
Hexachlorobutadiene	0.010 U	0.010 U	0.10 U	0.010 U
Hexachloroethane	0.025 U	0.025 U	0.25 U	0.025 U
Nitrobenzene	0.010 U	0.010 U	0.10 U	0.010 U
Pentachlorophenol	0.025 U	0.025 U	0.25 U	0.025 U
Pyridine	0.025 U	0.025 U	0.25 U	0.025 U

- Notes:**
1. Units in milligrams per liter (mg/L).
 2. Toxicity Characteristic Leaching Procedure (TCLP) semi-volatile organic compounds analyzed using United States Environmental Protection Agency (USEPA) SW-846 Method 1311/8270D by Eurofins Lancaster Laboratories Environmental, LLC of Lancaster, Pennsylvania.
 3. "U" designates compound is not detected at or above the practical quantitation limit (PQL).
 4. "J" designates compound is detected between the method detection limit (MDL) and PQL.
 5. Internal laboratory qualifiers are not reported.
 6. Detections are bolded.

Table 2b
 Tank and Drum Analytical Results
 TCLP Semi-Volatile Organic Compounds
 Route 203 Site
 Nassau, New York

Location ID Sample ID Sample Date	UST-01 UST-01-10212020 10/21/2020	UST-02 UST-02-10222020 10/22/2020
Chemical Name		
1,4-Dichlorobenzene	0.10 U	0.010 U
2,4,5-Trichlorophenol	0.10 U	0.010 U
2,4,6-Trichlorophenol	0.10 U	0.010 U
2,4-Dinitrotoluene	0.25 U	0.025 U
2-Methylphenol	51	0.010 U
3&4-Methylphenol	14	0.010 U
Hexachlorobenzene	0.025 U	0.0025 U
Hexachlorobutadiene	0.10 U	0.010 U
Hexachloroethane	0.25 U	0.025 U
Nitrobenzene	0.10 U	0.010 U
Pentachlorophenol	0.25 U	0.025 U
Pyridine	0.25 U	0.025 U

- Notes:**
1. Units in milligrams per liter (mg/L).
 2. Toxicity Characteristic Leaching Procedure (TCLP) semi-volatile organic compounds analyzed using United States Environmental Protection Agency (USEPA) SW-846 Method 1311/8270D by Eurofins Lancaster Laboratories Environmental, LLC of Lancaster, Pennsylvania.
 3. "U" designates compound is not detected at or above the practical quantitation limit (PQL).
 4. "J" designates compound is detected between the method detection limit (MDL) and PQL.
 5. Internal laboratory qualifiers are not reported.
 6. Detections are bolded.

Table 2c
 Tank and Drum Analytical Results
 TCLP Pesticides
 Route 203 Site
 Nassau, New York

Location ID Sample ID Sample Date Chemical Name	DRUM-02 DRUM-02-10202020 10/20/2020	DRUM-03 DRUM-03-10202020 10/20/2020	DRUM AREA-COMPOSITE DRUM-COMPOSITE-10202020 10/20/2020	VESSEL VESSEL-10202020 10/20/2020
Chlordane	0.13 U	0.025 U	0.13 U	0.025 U
Endrin	0.0050 U	0.0010 U	0.0050 U	0.0010 U
Heptachlor	0.0025 U	0.00050 U	0.0025 U	0.00050 U
Heptachlor Epoxide	0.0025 U	0.00050 U	0.0025 U	0.00050 U
Lindane	0.0025 U	0.00050 U	0.0025 U	0.00050 U
Methoxychlor	0.025 U	0.0050 U	0.025 U	0.0050 U
Toxaphene	0.75 U	0.15 U	0.75 U	0.15 U

- Notes:**
1. Units in milligrams per liter (mg/L).
 2. Toxicity Characteristic Leaching Procedure (TCLP) pesticides analyzed using United States Environmental Protection Agency (USEPA) SW-846 Method 1311/8081B by Eurofins Lancaster Laboratories Environmental, LLC of Lancaster, Pennsylvania.
 3. "U" designates compound is not detected at or above the practical quantitation limit (PQL).
 4. "J" designates compound is detected between the method detection limit (MDL) and PQL.
 5. Internal laboratory qualifiers are not reported.
 6. Detections are bolded.

Table 2c
 Tank and Drum Analytical Results
 TCLP Pesticides
 Route 203 Site
 Nassau, New York

Location ID Sample ID Sample Date	UST-01 UST-01-10212020 10/21/2020	UST-02 UST-02-10222020 10/22/2020
Chemical Name		
Chlordane	0.11 J	0.13 U
Endrin	0.0028 J	0.0023 J
Heptachlor	0.0025 U	0.0054
Heptachlor Epoxide	0.0025 U	0.0025 U
Lindane	0.012	0.0032
Methoxychlor	0.025 U	0.014 J
Toxaphene	0.75 U	0.75 U

- Notes:**
1. Units in milligrams per liter (mg/L).
 2. Toxicity Characteristic Leaching Procedure (TCLP) pesticides analyzed using United States Environmental Protection Agency (USEPA) SW-846 Method 1311/8081B by Eurofins Lancaster Laboratories Environmental, LLC of Lancaster, Pennsylvania.
 3. "U" designates compound is not detected at or above the practical quantitation limit (PQL).
 4. "J" designates compound is detected between the method detection limit (MDL) and PQL.
 5. Internal laboratory qualifiers are not reported.
 6. Detections are bolded.

Table 2d
 Tank and Drum Analytical Results
 TCLP Herbicides
 Route 203 Site
 Nassau, New York

Location ID Sample ID Sample Date Chemical Name	DRUM-02 DRUM-02-10202020 10/20/2020	DRUM-03 DRUM-03-10202020 10/20/2020	DRUM AREA-COMPOSITE DRUM-COMPOSITE-10202020 10/20/2020	VESSEL VESSEL-10202020 10/20/2020
2,4-D	0.050 U	0.050 U	0.050 U	0.050 U
Silvex	0.0050 U	0.0050 U	0.0050 U	0.0050 U

- Notes:**
1. Units in milligrams per liter (mg/L).
 2. Toxicity Characteristic Leaching Procedure (TCLP) herbicides analyzed using United States Environmental Protection Agency (USEPA) SW-846 Method 1311/8151A by Eurofins Lancaster Laboratories Environmental, LLC of Lancaster, Pennsylvania.
 3. "U" designates compound is not detected at or above the practical quantitation limit (PQL).
 4. "J" designates compound is detected between the method detection limit (MDL) and PQL.
 5. Internal laboratory qualifiers are not reported.
 6. Detections are bolded.

Table 2d
 Tank and Drum Analytical Results
 TCLP Herbicides
 Route 203 Site
 Nassau, New York

Location ID	UST-01	UST-02
Sample ID	UST-01-10212020	UST-02-10222020
Sample Date	10/21/2020	10/22/2020
Chemical Name		
2,4-D	0.035 J	0.050 U
Silvex	0.0037 J	0.0050 U

- Notes:**
1. Units in milligrams per liter (mg/L).
 2. Toxicity Characteristic Leaching Procedure (TCLP) herbicides analyzed using United States Environmental Protection Agency (USEPA) SW-846 Method 1311/8151A by Eurofins Lancaster Laboratories Environmental, LLC of Lancaster, Pennsylvania.
 3. "U" designates compound is not detected at or above the practical quantitation limit (PQL).
 4. "J" designates compound is detected between the method detection limit (MDL) and PQL.
 5. Internal laboratory qualifiers are not reported.
 6. Detections are bolded.

Table 2e
 Tank and Drum Analytical Results
 TCLP Metals and Mercury
 Route 203 Site
 Nassau, New York

Location ID Sample ID Sample Date	DRUM-02 DRUM-02-10202020 10/20/2020	DRUM-03 DRUM-03-10202020 10/20/2020	DRUM AREA-COMPOSITE DRUM-COMPOSITE-10202020 10/20/2020	VESSEL VESSEL-10202020 10/20/2020
Chemical Name				
Arsenic	0.030 U	0.030 U	0.030 U	0.030 U
Barium	0.46 B	0.051 B	0.087 B	0.064 B
Cadmium	0.0020 J	0.0050 U	0.0013 J	0.0050 U
Chromium	0.0017 J	0.0027 J	0.048	0.0018 J
Lead	0.098	0.017	1.0	0.011 J
Mercury	0.00020 U	0.00020 U	0.00020 U	0.00020 U
Selenium	0.050 U	0.050 U	0.050 U	0.050 U
Silver	0.010 U	0.010 U	0.010 U	0.010 U

- Notes:**
1. Units in milligrams per liter (mg/L).
 2. Toxicity Characteristic Leaching Procedure (TCLP) metals analyzed using United States Environmental Protection Agency (USEPA) SW-846 Method 1311/6010D. TCLP mercury analyzed using USEPA SW-846 Method 1311/7471A. All analyses by Eurofins Lancaster Laboratories Environmental, LLC of Lancaster, Pennsylvania.
 3. "U" designates compound is not detected at or above the practical quantitation limit (PQL).
 4. "B" designates compound was found in the blank and sample.
 5. "J" designates compound is detected between the method detection limit (MDL) and PQL.
 6. Internal laboratory qualifiers are not reported.
 7. Detections are bolded with the exception of the "B" qualified results.

Table 2e
 Tank and Drum Analytical Results
 TCLP Metals and Mercury
 Route 203 Site
 Nassau, New York

Location ID Sample ID Sample Date	UST-01 UST-01-10212020 10/21/2020	UST-02 UST-02-10222020 10/22/2020
Chemical Name		
Arsenic	0.15 U	0.030 U
Barium	5.4	0.19 B
Cadmium	0.78	0.010
Chromium	0.093	0.015 U
Lead	28	0.060
Mercury	0.00069	0.00020 U
Selenium	1.0 U	0.016 J
Silver	0.050 U	0.010 U

- Notes:**
1. Units in milligrams per liter (mg/L).
 2. Toxicity Characteristic Leaching Procedure (TCLP) metals analyzed using United States Environmental Protection Agency (USEPA) SW-846 Method 1311/6010D. TCLP mercury analyzed using USEPA SW-846 Method 1311/7471A. All analyses by Eurofins Lancaster Laboratories Environmental, LLC of Lancaster, Pennsylvania.
 3. "U" designates compound is not detected at or above the practical quantitation limit (PQL).
 4. "B" designates compound was found in the blank and sample.
 5. "J" designates compound is detected between the method detection limit (MDL) and PQL.
 6. Internal laboratory qualifiers are not reported.
 7. Detections are bolded with the exception of the "B" qualified results.

Table 3
 Tank and Drum Analytical Results
 General Chemistry
 Route 203 Site
 Nassau, New York

	Location ID	DRUM-02	DRUM-03	DRUM AREA-COMPOSITE	VESSEL
	Sample ID	DRUM-02-10202020	DRUM-03-10202020	DRUM-COMPOSITE-10202020	VESSEL-10202020
	Sample Date	10/20/2020	10/20/2020	10/20/2020	10/20/2020
Chemical Name	Result Unit				
Flash Point for Liquids	deg F	---	---	---	---
Ignitability					
Ignitable to Air	none	No	No	No	No
Ignitable to Flame	none	No	No	No	No
Ignitable to Friction	none	No	No	No	No
Ignitable to Water	none	No	No	No	No
Reactivity					
Cyanide Reactivity	mg/kg	60 U	60 U	59 U	59 U
Sulfide Reactivity	mg/kg	160 U	160 U	160 U	160 U
General Chemistry					
Corrosivity	none	---	---	---	---
pH	S.U.	---	---	---	---
Specific Gravity	none	---	---	---	---
Temperature	deg C	---	---	---	---

- Notes:**
1. Units are displayed in the table. "deg F" indicates degrees Fahrenheit. "mg/kg" indicates milligrams per kilogram. "S.U." indicates standard unit. "deg C" indicates degrees Celcius.
 2. Flash point for liquids analyzed using United States Environmental Protection Agency (USEPA) SW-846 Method 1010. Ignitability analyzed in accordance with Code of Federal Regulations Title 40 Section 261.21. Cyanide reactivity analyzed using USEPA SW-846 Method 9012. Sulfide reactivity analyzed using USEPA SW-846 Method 9034. General chemistry analyzed using USEPA SW-846 Method 9040C. All analyses by Eurofins Lancaster Laboratories Environmental, LLC of Lancaster, Pennsylvania.
 3. "---" designates that a sample was not collected for that analysis.
 4. "U" designates compound is not detected at or above the practical quantitation limit (PQL).
 5. "HF" indicates field parameter with a holding time of 15 minutes.
 6. Internal laboratory qualifiers are not reported.
 7. Non-aqueous phase liquid (NAPL) sample collected in subsurface located above UST-01.

Table 3
 Tank and Drum Analytical Results
 General Chemistry
 Route 203 Site
 Nassau, New York

	Location ID	NAPL	UST-01	UST-02
	Sample ID	UST01-052620	UST-01-10212020	UST-02-10222020
	Sample Date	5/26/2020	10/21/2020	10/22/2020
Chemical Name	Result Unit			
Flash Point for Liquids	deg F	---	> 214	> 187
Ignitability				
Ignitable to Air	none	---	---	---
Ignitable to Flame	none	---	---	---
Ignitable to Friction	none	---	---	---
Ignitable to Water	none	---	---	---
Reactivity				
Cyanide Reactivity	mg/kg	---	58 U	59 U
Sulfide Reactivity	mg/kg	---	150 U	160 U
General Chemistry				
Corrosivity	none	---	No HF	No HF
pH	S.U.	---	5.6 HF	4.9 HF
Specific Gravity	none	0.99	---	---
Temperature	deg C	---	19.6 HF	19.6 HF

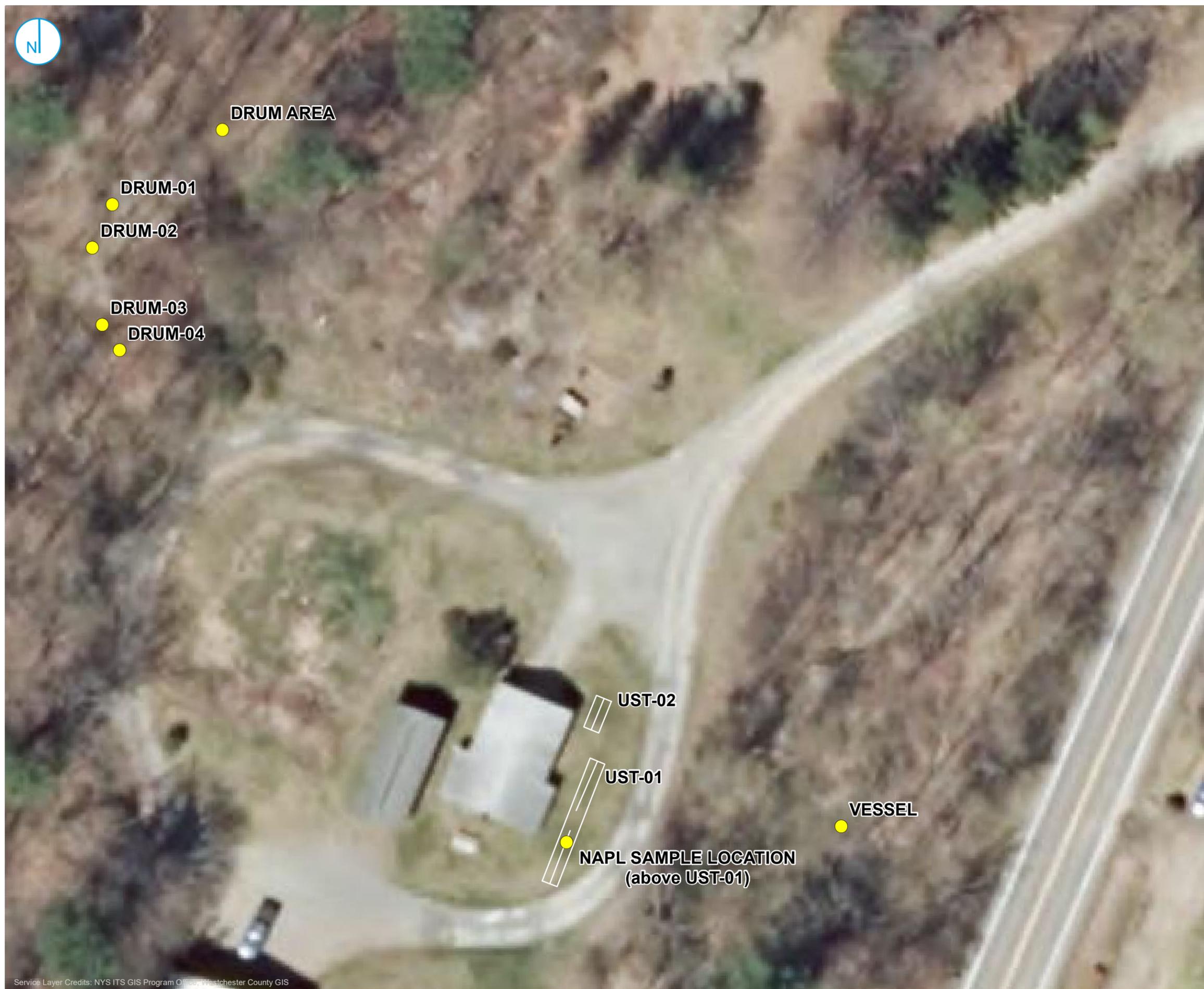
- Notes:**
1. Units are displayed in the table. "deg F" indicates degrees Fahrenheit. "mg/kg" indicates milligrams per kilogram. "S.U." indicates standard unit. "deg C" indicates degrees Celcius.
 2. Flash point for liquids analyzed using United States Environmental Protection Agency (USEPA) SW-846 Method 1010. Ignitability analyzed in accordance with Code of Federal Regulations Title 40 Section 261.21. Cyanide reactivity analyzed using USEPA SW-846 Method 9012. Sulfide reactivity analyzed using USEPA SW-846 Method 9034. General chemistry analyzed using USEPA SW-846 Method 9040C. All analyses by Eurofins Lancaster Laboratories Environmental, LLC of Lancaster, Pennsylvania.
 3. "---" designates that a sample was not collected for that analysis.
 4. "U" designates compound is not detected at or above the practical quantitation limit (PQL).
 5. "HF" indicates field parameter with a holding time of 15 minutes.
 6. Internal laboratory qualifiers are not reported.
 7. Non-aqueous phase liquid (NAPL) sample collected in subsurface located above UST-01.

Table 4
 Drum and Vessel Sampling Summary
 Route 203 Site
 Nassau, New York

Drum/Vessel ID	Approximate Size (gal)	Location Relative to Ground Surface	Condition	PID Screening of Interior (ppm)	Odor	Description of Contents	Visual Indication of Migration of Contents Outside of Container
Drum-01	55	Mostly buried	Partially crushed, limited corrosion and minor holes	0.0	None	Empty	No
Drum-02	55	Mostly buried	Partially crushed, limited corrosion and minor holes	1000	Moderate when material disturbed	Drum contains a small amount of a black, brittle resin-like material.	No
Drum-03	55	Partially buried	Slightly crushed, extensive corrosion on exposed side	0.0	Slight	Drum is collapsed, thin layer of resin tar in bottom of drum.	Limited
Drum-04	55	Mostly buried	Partially crushed, limited corrosion and minor holes	0.0	None	Empty	No
Drum Area	Multiple, 55 each	On ground surface	Partially to mostly crushed, limited to moderate corrosion and minor to major holes	0.0	Slight	Nine drums in total. Five drums were empty, three drums had solid black/brown tar, and one drum contained a light beige, fibrous resin.	Limited
Vessel	200	On ground surface	Partially crushed, limited corrosion and holes	0.0	Slight	Vessel contains a small amount of black, waxy, brittle resin-like material.	No

- Notes:**
1. "gal" designates gallons
 2. "ppm" designates parts per million

FIGURES



**UNDERGROUND STORAGE TANK,
DRUM AND VESSEL SAMPLING
LOCATIONS**

ROUTE 203 SITE
NASSAU, NEW YORK

FIGURE 01



ATTACHMENTS

ATTACHMENT 1*

*The figure included in the original Phase 2 Work Scope has been removed from Attachment 1.

MEMO

Project name **Loeffel Route 203 Property**
 Project no. **73458**
 Client **General Electric Company**
 Memo no. **1**
 Version **1**
 To **Lewis S. Streeter**
 From **Jesse J. Vollick**
 Copy to **File**

Additional Removal Investigation Activities (Phase 2)

Date September 28, 2020

In accordance with Paragraph 60 of the Administrative Settlement Agreement and Order on Consent For a Removal Action (Index No. CERCLA-02-2020-2008) (Settlement Agreement) between USEPA and the General Electric Company (Respondent), Respondent is submitting this work scope to obtain concurrence from USEPA on additional investigation activities (hereinafter Phase 2) at the Loeffel Route 203 property. The Phase 2 activities described herein were discussed during the September 17, 2020 conference call between Respondent and USEPA.¹

Ramboll
 94 New Karner Road
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Based on the results of the previous activities implemented under the Removal Sampling Work Plan (RSWP) and discussions with USEPA, most recently on September 17, 2020, Respondent proposes to perform additional soil sampling, monitoring well installation, groundwater sampling, and tank sampling. Additionally, as requested by USEPA, Respondent will attempt to collect characterization samples from the drums that were identified in an additional area of the site.

The work activities proposed herein, including investigation-derived materials (IDM) management, will be performed in accordance with the USEPA-approved RSWP and Quality Assurance Project Plan (QAPP) and also the Health and Safety Plan (HASP).

This submittal includes a brief discussion of the following items:

- Additional Soil Sampling and Analysis;
- Additional Monitoring Well Installation and Groundwater Sampling;
- Additional Sampling of Underground Storage Tank (UST) Contents;

¹ Due to delays in gaining access to the National Grid property, Respondent will also implement the RSWP-related sampling on the National Grid property concurrent with the Phase 2 activities. This assumes that access is obtained from National Grid in a timely manner.

- Sampling of Drum Contents; and,
- Schedule.

Additional Soil Sampling and Analysis

Respondent will perform additional soil sampling for laboratory analysis to further characterize soil at the Loeffel Route 203 property. Consistent with the previous RSWP activities, soil borings will be advanced by Parratt-Wolff under the oversight of OBG (a Ramboll company), at the approximate locations shown on Figure 1. Continuous soil cores will be collected from ground surface to a depth of 5 feet at 13 locations, and to a depth of 15 feet at 15 locations, or refusal (if shallower). Samples will be analyzed for polychlorinated biphenyls (PCBs) or will be archived for potential PCB analysis consistent with Table 2-1 of the RSWP based on the depth of the boring. In addition, for the deeper borings, a sample of the 14- to 15-foot depth interval will be collected and archived for potential PCB analysis.

Additional Monitoring Well Installation and Groundwater Sampling

Three additional overburden monitoring wells will be installed at the approximate locations shown on Figure 1. Installation, construction, and development of the wells will be similar to the monitoring wells installed during the RSWP activities.

The three new monitoring wells will be sampled no less than two weeks after the completion of well development activities. The samples will be analyzed for target Compound List/target Analyte List (TCL/TAL) constituents and cyanide (CN) per Table 2-1 of the RSWP. Concurrent with the sampling of the three new monitoring wells, water level measurements will also be collected from the pond staff gage and the five existing monitoring wells.

Additional Sampling of UST Contents

Additional UST characterization activities will be performed at each of the three USTs located adjacent to the garage. Clean Harbors Environmental Services (Clean Harbors) or an alternative qualified tank contractor will first excavate soil to access either the top of UST 1 or the concrete slab that lies over the top of USTs 2 and 3. The upper 6 to 12 inches of soil will be segregated during the excavation activities and temporarily stockpiled on plastic sheeting. Clean Harbors will cut an opening in the concrete slab overlying UST #2 and, if needed, over UST #3 (it is unclear if UST 3 is completely covered by the concrete slab) to access the top of the USTs. An approximately 1 square foot access hole will be safely (i.e., using non-sparking techniques) cut into each UST to facilitate inspection and sample collection (both without entry). If liquids and/or solids are present, samples will be collected and analyzed per Table 2-1 of the RSWP. Following sample collection, diamond plate or suitable alternative support will be placed over each access point and the excavations will be backfilled with the previously excavated soil (with the soil from the 6- to 12-inch horizon placed on top).

Sampling of Drum Contents

Characterization activities will be performed at the previously identified partially buried drums identified on the slope east of the pond and at the unknown steel vessel located adjacent to soil boring SS-P001-044 near the eastern property boundary. Soil overlying the drums will be partially excavated with hand tools to gain access to the drum interiors. If unable to access the drum interiors with hand tools, Respondent will discuss the use of the excavator used for the UST sampling with USEPA. Samples will be collected for disposal characterization analysis in accordance with Table 2-1 of the RSWP.

Schedule

Upon USEPA's concurrence on the scope of the additional work, Respondent will proceed with the Phase 2 field activities per the following schedule. As discussed with USEPA, Parratt-Wolff is scheduled to begin drilling activities on October 5, 2020 and the UST investigation work is scheduled to begin the week of October 19. USEPA will be informed of the definitive schedule for the UST investigation as soon as it is known. An updated implementation schedule will be sent to USEPA under separate cover. Respondent and OBG are closely following COVID-19 developments and will contact USEPA in the event any delay(s) become likely during implementation of the work.

ATTACHMENT 2

ATTACHMENT 2 – PHOTOGRAPHIC LOG

Project		Site location	Project no.
Route 203 Site		5225-5239 Route 203 Nassau, New York	73458
Photo no. 1	Date 5-26-2020		
<p><u>Description</u></p> <p>First UST Investigation/NAPL Sampling</p> <p>Example of soft-dig equipment utilized at UST-01.</p>			

Project		Site location	Project no.
Route 203 Site		5225-5239 Route 203 Nassau, New York	73458
Photo no. 2	Date 5-26-2020		
<p><u>Description</u></p> <p>First UST Investigation/NAPL Sampling</p> <p>Debris discovered overlying UST-01 consisting of ridged plastic and carpeting.</p>			

Project		Site location	Project no.
Route 203 Site		5225-5239 Route 203 Nassau, New York	73458
Photo no. 3	Date 5-26-2020		
<u>Description</u> First UST Investigation/NAPL Sampling Perforations observed in thin metal sheet showing NAPL below.			

Project		Site location	Project no.
Route 203 Site		5225-5239 Route 203 Nassau, New York	73458
Photo no. 4	Date 5-26-2020		
<u>Description</u> First UST Investigation/NAPL Sampling Restoration of soil/sod above UST-01.			

Project		Site location	Project no.
Route 203 Site		5225-5239 Route 203 Nassau, New York	73458
Photo no. 5	Date 10-21-2020		
<p><u>Description</u></p> <p>Second UST Investigation</p> <p>Soil excavation over UST-01 and along the concrete slab to the right below the orange traffic cone. The UST centerline is below the slab, with the access hatch evident just below the cone. The southern terminus of UST-01 was not exposed but lies somewhere below the excavator. The access hatch is located approximately mid-length along UST-01.</p>			

Project		Site location	Project no.
Route 203 Site		5225-5239 Route 203 Nassau, New York	73458
Photo no. 6	Date 10-20-2020		
<p><u>Description</u></p> <p>Second UST Investigation</p> <p>Soil excavation at UST-01. Exposed metal sheeting overlying/ adjacent to the concrete slab to the left and extending off the slab to the right above UST-01. NAPL was observed in the void space below the metal sheeting and was sampled during the first UST investigation.</p>			

Project		Site location	Project no.
Route 203 Site		5225-5239 Route 203 Nassau, New York	73458
Photo no. 7	Date 10-21-2020		
<p><u>Description</u></p> <p>Second UST Investigation</p> <p>Samples collected from UST-01 showing the bi-phasic liquid recovered from the UST. NAPL and globules visible in the containers.</p>			

Project		Site location	Project no.
Route 203 Site		5225-5239 Route 203 Nassau, New York	73458
Photo no. 8	Date 5-26-2020		
<p><u>Description</u></p> <p>Second UST Investigation</p> <p>Soil excavation at the northern extent of UST-01 and concrete slab.</p>			

Project		Site location	Project no.
Route 203 Site		5225-5239 Route 203 Nassau, New York	73458
Photo no. 9	Date 10-20-2020		
<p><u>Description</u></p> <p>Second UST Investigation</p> <p>Piping associated with the top of UST-02 and terminating at circular opening visible on the small concrete pad at the top of the image.</p>			

Project		Site location	Project no.
Route 203 Site		5225-5239 Route 203 Nassau, New York	73458
Photo no. 10	Date 10-22-2020		
<p><u>Description</u></p> <p>Second UST Investigation</p> <p>Soil excavation over UST-02 showing the top of UST-02 and associated piping. Initial attempts to sample by disconnecting the union fitting were unsuccessful due to an obstruction in the pipe. A 1-inch diameter perforation was created at the top of UST-02 to the left of the pipe to facilitate sample collection.</p>			

Project		Site location	Project no.
Route 203 Site		5225-5239 Route 203 Nassau, New York	73458
Photo no. 11	Date 10-22-2020		
<p><u>Description</u></p> <p>Second UST Investigation</p> <p>UST-01 and UST-02 area immediately following backfilling excavations with soil and application of grass seed and straw cover. Temporary fencing installed to minimize surface disturbance.</p>			

Project		Site location	Project no.
Route 203 Site		5225-5239 Route 203 Nassau, New York	73458
Photo no. 12	Date 11-17-2020		
<p><u>Description</u></p> <p>Second UST Investigation</p> <p>UST-01 and UST-02 area one month after backfilling the excavations with soil and application of grass seed and straw cover.</p>			

Project		Site location	Project no.
Route 203 Site		5225-5239 Route 203 Nassau, New York	73458
Photo no. 13	Date 10-20-2020		
<p><u>Description</u></p> <p>Drum and Vessel Sampling</p> <p>Drum-01 post-excavation. No material was observed inside of the drum and no sample was collected.</p>			

Project		Site location	Project no.
Route 203 Site		5225-5239 Route 203 Nassau, New York	73458
Photo no. 14	Date 10-20-2020		
<p>Drum and Vessel Sampling</p> <p>Drum-02 post excavation. Existing perforation was enlarged to facilitate access.</p>			

Project		Site location	Project no.
Route 203 Site		5225-5239 Route 203 Nassau, New York	73458
Photo no. 15	Date 10-20-2020		
<p><u>Description</u></p> <p>Drum and Vessel Sampling</p> <p>Drum-03 as found and required no excavation. Drum sidewalls can be seen to the left and right of the material. Red-orange material is the drum contents.</p>			

Project		Site location	Project no.
Route 203 Site		5225-5239 Route 203 Nassau, New York	73458
Photo no. 16	Date 10-20-2020		
<p><u>Description</u></p> <p>Drum and Vessel Sampling</p> <p>Drum-04 post-excavation. No material was observed inside of the drum and no sample was collected.</p>			

Project		Site location	Project no.
Route 203 Site		5225-5239 Route 203 Nassau, New York	73458
Photo no. 17	Date 10-20-2020		
<p><u>Description</u></p> <p>Drum and Vessel Sampling</p> <p>Vessel as found and required no excavation.</p>			

Project		Site location	Project no.
Route 203 Site		5225-5239 Route 203 Nassau, New York	73458
Photo no. 18	Date 10-20-2020		
<p><u>Description</u></p> <p>Drum and Vessel Sampling</p> <p>Representative material of the vessel. A black, resin-like material was observed inside the vessel and a sample was collected.</p>			

Project		Site location	Project no.
Route 203 Site		5225-5239 Route 203 Nassau, New York	73458
Photo no.	Date		
19	9-10-2019		
<p><u>Description</u></p> <p>Drum and Vessel Sampling</p> <p>Drum area as found (the same drum area that was previously sampled by USEPA). No excavation was required to access the drums.</p>			

Project		Site location	Project no.
Route 203 Site		5225-5239 Route 203 Nassau, New York	73458
Photo no.	Date		
20	10-20-2020		
<p><u>Description</u></p> <p>Drum and Vessel Sampling</p> <p>Drum area (the same drum area that was previously sampled by USEPA). Representative material collected from the drums located in the drum area used to collect a composite sample.</p>			

ATTACHMENT 3



RENSSELAER COUNTY
DEPARTMENT OF HEALTH

*The Loeffel
Renes Co*

DR. JOHN H. REID
COMMISSIONER OF HEALTH

KENNETH VAN PRAAG
DEPUTY COMMISSIONER OF HEALTH

November 24, 1981

RECEIVED

NOV 25 1981

TOXIC SUBSTANCES UNIT

Mr. John Hanna
Whiteman Osterman Hanna
99 Washington Avenue
Albany, New York 12210

Re: Magnetometer Survey
Loeffel Refining Products
Sweets Crossing Road
Town of Nassau

Dear Mr. Hanna:

With the approval of you and your client, Mr. Dewey Loeffel, a magnetometer survey was done of the Loeffel Refining Products waste oil storage site on Rt. 203 and Sweets Crossing Road in the Town of Nassau. The survey was done on Tuesday, November 17, 1981, for the purpose of investigating reports received from area residents that drums of toxic waste had been buried at that site. The survey was done by Frank Fazio, Project Engineer, and Robert Grimsley, Project Manager of Kestner Engineering Inc. A Schonstedt magnetic locator was used for the survey. This instrument will locate ferrous metals only to a depth of approximately 10 feet.

The investigation showed no areas of buried metal large enough to be a single drum. Within the work area some spots of metal were detected which appeared to be of a very small size, less than 6 inches. This is assumed to be normal debris from a work area. The only other metal detected was reinforcement bars in concrete foundations, a small fuel tank for space heating, and a 6 inch well casing. The area surveyed included the entire property owned and/or controlled by Mr. Dewey Loeffel. The pond was checked by using a small aluminum row boat. The pond is a maximum of 2-3 feet deep with the bottom visible at all points.

Our conclusion of this investigation is that the site is not a drum burial area.

Thank you for your cooperation in allowing us to conduct this investigation. If you have any questions please feel free to contact this department.

Very truly yours,

John G. Sheehan
John G. Sheehan
Public Health Sanitarian

JGS/vp
cc: Dewey Loeffel
Town Supervisor Hitchcock
N.Y.S.D.O.H. Tramantano
N.Y.S.D.E.C., Region IV Bonsel
County Executive Murphy

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