August 3, 2021

Mr. Sarken Dressler
Division of Environmental Remediation
New York State Department of Environmental Conservation Region 1
SUNY at Stony Brook
50 Circle Road
Stony Brook, New York 11790

Re: Pre-Design Investigation and Endpoint Sampling Work Plan
281-301 Warner Avenue, Roslyn, New York
Brownfield Cleanup Program Site No. C130238

Dear Mr. Dressler:

On behalf of 281-301 Warner Ave LLC (Warner), Roux Environmental Engineering and Geology, D.P.C. (Roux) is submitting this Pre-Design Investigation (PDI) and Endpoint Sampling Work Plan (Work Plan) for the above-referenced property located at 281-301 Warner Avenue, Roslyn, New York (Site). The PDI and Endpoint Sampling was included as a preliminary first step for the remedy, outlined in the Remedial Action Work Plan (RAWP) dated March 26, 2021.

Presented below are the objectives, technical details and procedures for the proposed sampling.

PDI and Endpoint Sampling Objectives

The PDI sampling program will be conducted to address the following:

- **Collection of vertical delineation soil samples at RMW-2** – Vertical delineation soil samples are proposed to supplement one sample that was previously collected during the Remedial Investigation (RI) at location RMW-2 (Figure 1). The previously collected sample exceeded NYSDEC Part 375 Restricted Residential Soil Cleanup Objectives (RRSCOs) and Commercial Use Soil Cleanup Objectives (CUSCOs) for semivolatile organic compounds (SVOCs) from the 0-2 feet below surface (ft bls) interval. A minimum of three samples at varying depths below 2 ft bls will be collected. The shallowest sample (2-4 ft bls) will be analyzed immediately following collection, and the two deeper samples (4-6 ft bls and 6-8 ft bls) will be placed on hold at the laboratory, pending analytical results. If necessary, deeper samples will be analyzed until SVOCs are detected at concentrations below UUSCOs to a maximum depth of 8 ft bls, where SVOCs did not exceed Unrestricted Use Soil Cleanup Objectives (UUSCOs). These samples will complete the characterization of soil quality and verify compliance with Track 1 SCOs at this location.
- **Collection of vertical delineation soil samples at SB-13** – Vertical delineation soil samples are proposed to supplement one sample that was previously collected during the RI at location SB-13 (Figure 1), which previously exceeded the UUSCO for hexavalent chromium (1 mg/kg) from the 0-2 ft bls interval at a concentration of 2.88 milligrams per kilogram (mg/kg). A minimum of five samples at varying depths below 2 ft bls will be collected. The shallowest sample (2-4 ft bls) will be analyzed immediately following collection, and the four deeper samples (4-6 ft bls, 6-8 ft bls, 8-10 ft bls, and 10-13 ft bls) will be placed on hold at the laboratory, pending analytical results. If necessary, deeper samples will be analyzed until hexavalent chromium is detected at a concentration below its UUSCO to a maximum depth of 13 ft bls, where hexavalent chromium did not exceed its UUSCO. These samples will complete the characterization of soil quality and verify compliance with Track 1 SCOs at this location.
- **Collection of vertical delineation soil samples at RXSB-1** – Vertical delineation soil samples are proposed to supplement one sample that was previously collected during the RI at location RXSB-1 (Figure 1), which previously exceeded the UUSCO for tetrachloroethene (PCE) (1,300 micrograms per kilogram [µg/kg]) from the 4-6 ft bls interval at a concentration of 15,000 µg/kg.

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California ■ Illinois ■ Massachusetts ■ New Jersey ■ New York ■ Texas

A minimum of five samples at varying depths below 6 ft bls will be collected. The shallowest sample (6-8 ft bls) will be analyzed immediately following collection, and the four deeper samples (8-10 ft bls, 10-12 ft bls, 12-15 ft bls, and 15-18 ft bls) will be placed on hold at the laboratory, pending analytical results. If necessary, the deeper samples will be analyzed until PCE is detected at a concentration below its UUSCO to a maximum depth of 18 ft bls, where PCE did not exceed its UUSCO. These samples will complete the characterization of soil quality and verify compliance with Track 1 SCOs at this location.

- **Collection of vertical delineation soil samples at SB-8** – Vertical delineation soil samples are proposed to supplement one sample that was previously collected during the RI at location SB-8 (Figure 1), which exceeded the UUSCO for 4,4'-DDT (3.3 µg/kg) from the 0-2 ft bls interval at a concentration of 6.08 µg/kg. A minimum of three samples at varying depths below 2 ft bls will be collected. The shallowest sample (2-3 ft bls) will be analyzed immediately following collection, and the two deeper samples (3-5 ft bls and 5-7 ft bls) will be placed on hold at the laboratory, pending analytical results. If necessary, the deeper samples will be analyzed until 4,4'-DDT is detected at a concentration below its UUSCO to a maximum depth of 7 ft bls, below which 4,4'-DDT did not exceed its UUSCO. These samples will complete the characterization of soil quality and verify compliance with Track 1 SCOs at this location.
- **Collection of vertical delineation soil samples at SB-7** – Vertical delineation soil samples are proposed to supplement two samples that were previously collected during the RI at location SB-7 (Figure 1), which previously exceeded the UUSCOs for 4,4'-DDE (3.3 µg/kg) and 4,4'-DDT (3.3 µg/kg). Sample SB-7 (0-2) exceeded the UUSCO for 4,4'-DDE at a concentration of 10.3 µg/kg and samples SB-7 (0-2) and SB-7 (8-10) exceeded the UUSCO for 4,4'-DDT at concentrations of 17.8 µg/kg and 6.08, respectively. A minimum of three samples at varying depths below 10 ft bls will be collected. The shallowest sample (10-12 ft bls) will be analyzed immediately following collection and the two deeper samples (12-14 ft bls and 14-16 ft bls) will be placed on hold at the laboratory, pending analytical results. If necessary, the deeper samples will be analyzed until 4,4'-DDT is detected at a concentration below its UUSCO. These samples will complete the characterization of soil quality and verify compliance with Track 1 SCOs at this location.

The endpoint sampling program will be conducted to address the following:

- **Collection of Site-wide *in situ* Endpoint Documentation Samples** – A total of 20 endpoint/documentation samples will be collected across the Site to verify that residual soils, after remedial action and construction, will meet Track 1 UUSCOs. The proposed grid system, as shown on Figure 1, is sufficient to establish bottom documentation samples collected from final excavation depths, according to final design drawings/excavation plans provided by Warner, during remedial excavation of the Site.

Sampling Frequency

The proposed number and density of soil samples/locations are discussed below. Where possible, vertical delineation samples and endpoint samples will utilize the same sample location to reduce the number of soil borings that need to be advanced. At this time, this approach is anticipated to apply to the proposed endpoint samples nearest RMW-2, SB-8, and SB-7 (see Figure 1).

Vertical Delineation Soil Sampling – Five soil borings will be advanced for vertical delineation adjacent to the following locations: RMW-2, SB-13, RSXB-1, SB-8, and SB-7. Samples collected during the RI at these locations exceeded UUSCOs for SVOCs, hexavalent chromium, PCE, and pesticides (SB-8 and SB-7), respectively. A minimum of three soil samples will be collected from each of these borings, as described above.

***In Situ* Endpoint Documentation Borings throughout the Site** – A total of 20 soil borings will be advanced across the Site to provide an endpoint sample density of approximately one sample per 2,000 square feet (sq ft), based on an approximate Site area of 39,204 sq ft. This proposed sampling

is consistent with the sampling frequency outlined in the RAWP and in accordance with the guidance provided in NYSDEC DER-10 5.4 for excavations greater than 300 feet in perimeter.

Soil Sampling Analyses

Soil samples collected for analysis during the PDI will be submitted to a New York State Department of Health (NYSDOH) Environmental Laboratory Accreditation Program (ELAP)-certified laboratory for analysis of the parameter groups identified below.

Delineation Sampling

Vertical delineation soil samples will be collected from depths and for the parameters in the table below which also shows the justification for each proposed sample:

Location	Sampling Depth Intervals (ft bls)	Maximum Depth (ft bls)	Analyses	Rationale
RMW-2	2-4, 4-6, 6-8	8	SVOCs	To vertically delineate SVOC exceedances in shallow soil
SB-13	2-4, 4-6, 6-8, deeper if needed	13	Hexavalent Chromium	To vertically delineate hexavalent chromium exceedance in shallow soil
RXSB-1	6-8, 8-10, 10-12, deeper if needed	Until analytes are below UUSCOs	VOCs	To vertically delineate PCE exceedance
SB-8	2-3, 3-5, 5-7	7	Pesticides	To vertically delineate 4,4'-DDT exceedance in shallow soil
SB-7	10-12, 12-14, 14-16, deeper if needed	Until analytes are below UUSCOs	Pesticides	To vertically delineate 4,4'-DDT exceedance from 8-10 ft bls

Endpoint Documentation Sampling:

All endpoint soil samples collected will be analyzed for the target compound list (TCL)/Part 375 plus 30/target analyte list (TAL) (TCL + 30/TAL) list of parameters and emerging contaminants including:

- TCL/Part 375 VOC + 10 Tentatively identified compounds (TICs) via United States Environmental Protection Agency (USEPA) Method 8260C;
- TCL/Part 375 Base neutral acids (BNA)/Semivolatile organic compounds (SVOCs), including 1,4-dioxane + 20 TICS via USEPA Method 8270D;
- TCL/Part 375 Pesticides via USEPA Method 8081A;
- TCL/Part 375 Herbicides via USEPA Method 8151A;
- TCL/Part 375 Polychlorinated Biphenyls (PCBs) via USEPA Method 8082A;
- TAL/Part 375 Metals via USEPA Method 6010D/7471B (including hexavalent chromium via USEPA Method 3060A/7196A);
- Total Cyanide via USEPA Method 9010C; and
- Per-and Polyfluoroalkyl Substances (PFAS) via LC-MS/MS-Isotope Dilution.

Methodology & Quality Assurance/Quality Control

The methodology used to advance the soil borings and the quality assurance/quality control (QA/QC) to collect the samples described above will be performed in accordance with the Quality Assurance Project Plan (QAPP), included as Appendix E of the RAWP.

Data Usability Summary Report

A Data Usability Summary Report (DUSR) will be prepared to evaluate the collected samples by a third-party, independent from the laboratory performing the analysis and from the project team, in accordance with Appendix 2B of the DER Technical Guidance for Site Investigation and Remediation (DER-10). The Quality Assurance Project Plan (QAPP), included as Appendix E of the RAWP, describes the DUSR to be prepared for the project.

Community Air Monitoring Plan (CAMP)

The project specific CAMP, included as Appendix D of the Remedial Investigation Work Plan (RIWP) dated November 8, 2019, will be implemented during all exterior intrusive work for the PDI and Endpoint Sampling.

Schedule

The PDI and endpoint sampling field work will commence within 30 days of NYSDEC approval of this Work Plan and is expected to take approximately two weeks to complete. The results of the PDI sampling will be tabulated and summarized in a submittal to NYSDEC prior to the start of the remedial action. Any changes to the excavation depths proposed in the RAWP based on the endpoint sample results will be communicated to NYSDEC.

Certification

I, Noelle Clarke, P.E., certify that I am currently a Professional Engineer licensed in the state of New York and that this Pre-Design Investigation and Endpoint Sampling Work Plan was prepared in accordance with all applicable statutes and regulations and in substantial conformance with DER-10.

Sincerely,

ROUX ENVIRONMENTAL ENGINEERING AND GEOLOGY, D.P.C.

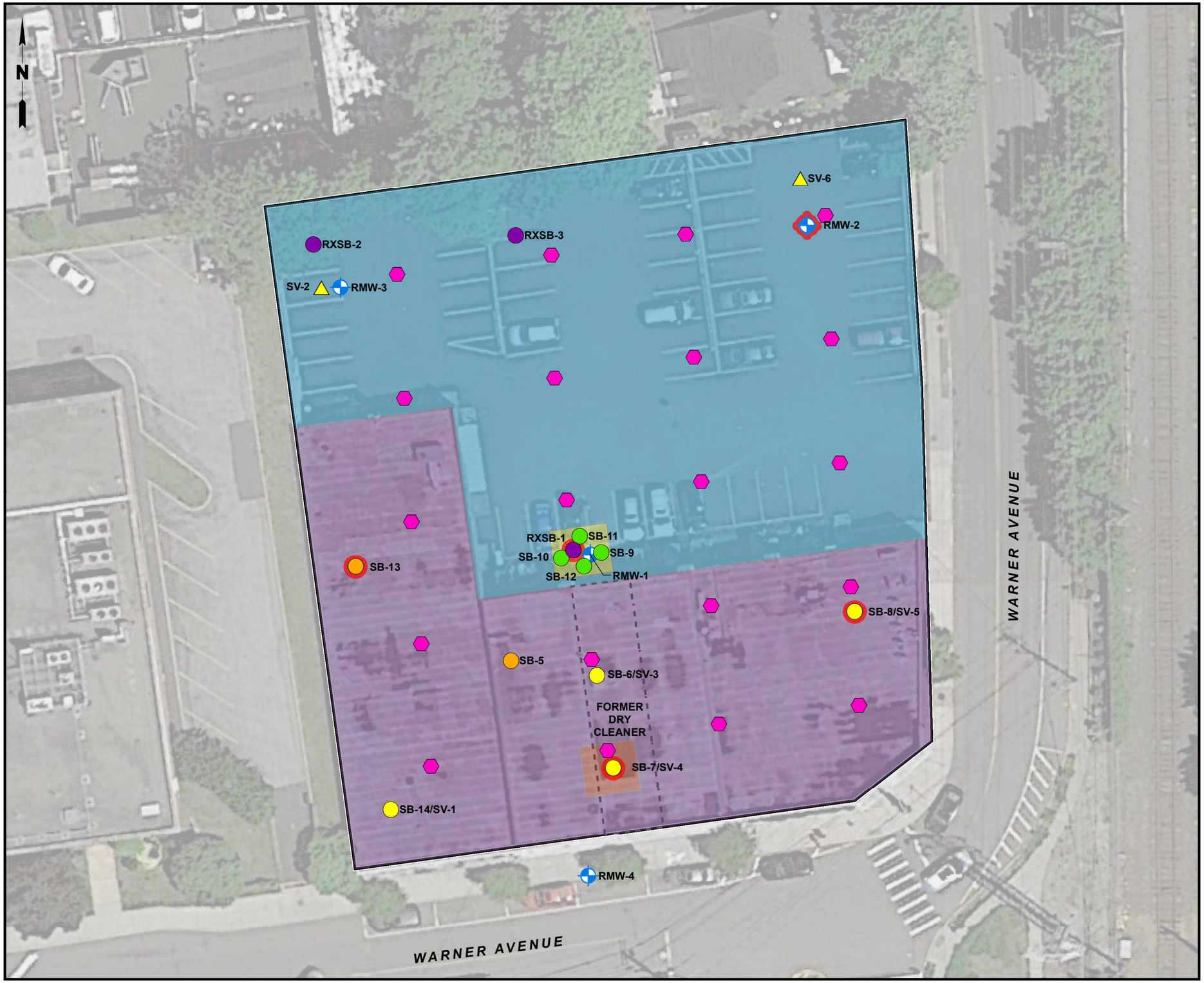
Ronald A. Lombino II
Project Hydrogeologist/Project Manager

Noelle Clarke, P.E.-NY
Principal Engineer

Christopher Proce, P.G.-NY
Principal Hydrogeologist/Vice President

Attachment

cc: Jordan Karlik, 281-301 Warner Ave LLC
Johnathan Robinson, NYSDOH



LEGEND

- LOCATION OF PROPOSED ENDPOINT/ DOCUMENTATION SAMPLE
- LOCATION OF ROUX RI SOIL BORING AND MONITORING WELL
- LOCATION OF ROUX RI SOIL BORING ANALYZED FOR FULL SUITE
- LOCATION OF ROUX RI SOIL BORING ANALYZED FOR FULL SUITE AND SUB-SLAB SOIL VAPOR POINT
- LOCATION OF ROUX RI SOIL BORING ANALYZED FOR VOCS ONLY
- LOCATION OF ROUX PHASE II ESA SOIL BORING
- LOCATION OF ROUX RI SOIL VAPOR SAMPLE POINT
- LOCATION REQUIRING DELINEATION
- AREA OF PROPOSED REMEDIAL EXCAVATION TO 2 FT BELOW EXISTING GRADE (SEE NOTE 2)
- AREA OF PROPOSED REMEDIAL EXCAVATION TO 2 FT BELOW EXISTING SLAB (SEE NOTE 2)
- APPROXIMATE AREA OF PROPOSED REMEDIAL EXCAVATION TO AT LEAST 10 FT BELOW EXISTING GRADE (SEE NOTE 2)
- AREA OF PROPOSED REMEDIAL EXCAVATION TO AT LEAST 6 FT BELOW EXISTING GRADE (SEE NOTE 2)
- SITE BOUNDARY

NOTES

1. EXCAVATION DEPTHS FOR ALL AREAS ARE APPROXIMATE.
2. FINAL EXCAVATION DEPTHS WILL BE BASED UPON ENDPOINT SAMPLES MEETING UNRESTRICTED USE SOIL CLEANUP OBJECTIVES (UUSCOS).

30 0 30'

Title:

PROPOSED PRE-DESIGN INVESTIGATION & ENDPOINT SAMPLING PLAN

281 - 301 WARNER AVENUE, ROSLYN, NY

Prepared for:

281-301 WARNER AVE LLC

ROUX

Compiled by: C.S.	Date: 05/07/21
Prepared by: M.S.R.	Scale: AS SHOWN
Project Mgr: R.L.	Project: 3110.0001Y000
File: 3110.0001Y130.2.mxd	

FIGURE 1

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