June 20, 2023

Mr. Dan McNally
Project Manager
Division of Environmental Remediation
New York State Department of Environmental Conservation (DEC)
625 Broadway, Albany, New York 12233-5060

Re: Proposed Ground Water Monitoring Plan
Former FO Pierce (C241251)
2-33 50th Avenue, Long Island City, New York

Dear Mr. McNally:

Roux Environmental Engineering and Geology, D.P.C. (herein referred to as Roux) is presenting the below groundwater monitoring plan following the installation of the building foundation and site cover system, on behalf of The Vorea Group (herein after referred to as Client). This groundwater monitoring plan calls for the installation of 7 monitoring wells, four monitoring wells to cover the Track 1 portions of the site, and three monitoring wells to cover the Track 4 portion of the site while maintaining proximity to the areas of concern. The proposed well locations are meant to provide coverage of the post remedial groundwater conditions throughout the site following shutdown of the construction dewatering influence and recharge of ambient groundwater to the pre-dewatering elevation.

Task 1 – Installation of Ground Water Monitoring Wells

AARCO Environmental Services Corp.(AARCO) will install 2" PVC wells with 10 feet of screen, 20 slot, set 8 ft below the water table and 2 feet above the water table at each location. Groundwater level is anticipated to be encountered at +1.21' elevation once recharge is complete. After installation, the annular space surrounding the well screen will be filled with sand with a 2-foot grout seal and a flush mount steel monitoring well cover will be installed at grade. A Geoprobe 420M and a Geoprobe 610 handcart rig will be utilized to complete the well installations. Well locations for GW-01 and GW-02 will be installed within a small street level access corridor that runs north to south along the western perimeter of the site (indoor). Well location for GW-03 through GW-7 will be located outdoors within the sidewalk surrounding the property. All well locations are included as attachment #1.

Roux field staff will screen soil using a handheld PID and document all findings, observations and well construction dimensions on the well construction logs.

Task 2 – Implementation of Ground Water Monitoring Plan

Following installation of the wells, Roux will implement the Ground Water Monitoring Plan(GWMP) which includes 4 groundwater sampling events conducted by Roux field staff. The GWMP will begin after the dewatering system is shut down and after groundwater is allowed to recharge to ambient levels. Sampling events are outlined below:

1. The first ground water sample will be collected from each of the seven wells following ground water recharge;
2. The second sampling event will occur 4 months after the initial sample;
3. The third sampling event will occur 4 months after the second; and
4. The final sampling event will occur 4 months after the third.

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All QA/QC sampling protocols will be followed at each sampling event as directed by the previously approved RI dated July 7th 2021. Table 1 has been included as an reference to the approved RI to highlight the QA/QC groundwater sampling schedule.

Task 3 – Analysis and Reporting of Findings

Sample results will be submitted electronically to NYSDEC for review following each round of sampling within one month. Following the 4th round of sampling, all ground water data will be validated by a Roux Validator and summarized in a Groundwater Monitoring Plan Summary Report. The report will highlight all findings and data results related to the implementation of this Proposed Groundwater Monitoring Plan. All samples will be analyzed by Alpha Analytical Laboratories Labs for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs) and total metals and compared against Ambient Water-Quality Standards and Guidance Values (AWQSGV).

In the event the summary report includes data showing acceptable results when compared to AWQSGV, the report will include a petition to cease sampling and decommission the wells permanently.

In the event the summary report includes data showing unacceptable results when compared to AWQSGV, dependent on the severity of the elevated pollutants, the report will include a treatment plan utilizing targeted chemical injections and extension of the proposed sampling plan.

If this proposed plan is acceptable or you require further clarity please contact Alexander Policastro by telephone at (516) 375-5580, or by email at apolicastro@rouxinc.com.

Sincerely,

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

Alexander Policastro, P.E.
Senior Engineer

Charles J. McGuckin, P.E.
Principal Engineer / Vice President

Table 1. Field and Laboratory QC Summary

QC Check Type	Minimum Frequency	Use
Field QC		
Duplicate	1 per matrix per 20 samples or SDG*	Precision
Trip Blank	1 per VOC cooler	Sensitivity
Field Blank (non-PFAS)	1 per matrix per 20 samples	Sensitivity
Field Blank (PFAS)	1 per matrix per day	Sensitivity
Laboratory QC		
Laboratory Control Sample	1 per matrix per SDG	Accuracy
Matrix Spike/Matrix Spike Duplicate/Matrix Duplicate**	1 per matrix per SDG	Accuracy/Precision
Surrogate Spike	All organics samples	Accuracy
Laboratory Duplicate	1 per matrix per SDG	Precision
Method Blank	1 per matrix per SDG	Sensitivity

Notes:

* SDG - Sample Delivery Group - Assumes a single extraction or preparation

** Provided to lab by field sampling personnel

PFAS - Per- and Polyfluoroalkyl Substances