442044

PRECISION
ENVIRONMENTAL SERVICES, INC.
831 RT. 67, LOT 38 A
BALLSTON SPA, NY 12020
TEL: 518-885-4399
FAX: 518-885-4416
CERTIFIED WOMEN-OWNED BUSINESS ENTERPRISE

20 YEARS 1991 - 2011

October 8, 2015

Mr. Dale Desnoyers
Allen and Desnoyers, LLP
90 State Street, Suite 1009
Albany, NY 12207

RE: Proposed Interim Remedial Action Work Plan
Fashion Care Cleaners
595 Columbia Tpke.
East Greenbush, NY

Dear Mr. Desnoyers:

This letter represents Precision Environmental Services, Inc.'s (PES) proposed Interim Remedial Action Work Plan (IRAWP) to perform additional confirmatory subsurface sampling coupled with the installation of a presumptive remedial measure intended to protect human health and the environment at the above referenced site. Specifically, the work will take place at 593 and 595 Columbia Turnpike (US Route 9), Town of East Greenbush, Rensselaer County, NY (collectively hereafter referred to as the Site) (see Attachment A, Figure 1 for site location details). The commercial property at 593 Columbia Tpke. is currently occupied by Quigley's Food and Drink restaurant (Quigley's) and 595 Columbia Tpke. is occupied by Fashion Care Cleaning and Laundry (Fashion Care) which performs dry cleaning and laundering services on premises. The work proposed herein is in response to a request by legal counsel representing the current land owner and current and former operators of Fashion Care [The 595 Columbia Turnpike Working Group (The Group)] and is based on previous investigative data (collected by others) as well as services rendered and data collected by PES on behalf of The Group.

BACKGROUND:

Previous investigative efforts completed at the Site by PES and others have identified Tetrachloroethene (PCE) and associated daughter compounds in subsurface soils and groundwater beneath the Site. Site history suggests a source area for these documented impacts in the vicinity of the Fashion Care building. The highest concentration of PCE in soils has been recorded at 30 mg/kg at SB-6. Soils beneath the Site consist of interbedded fine sands with intermittent silt and silty clay seams. Total depth of exploration has reached 45-feet below grade. The first, substantial and continuous water bearing zone has been documented at approximately 30-feet below grade. A lesser quantity and extent of shallower, perched water has also been documented at various elevations through the drilling process and from monitoring installed wells with varying screen intervals and depths. The most recent data collected from deeper wells installed within the 30-foot deep water bearing zone indicates that

groundwater within this regime flows in a northwesterly direction, which is similar to regional topography. The highest concentration of PCE in groundwater (6,900 µg/L), has been documented within this deeper water bearing zone at well MW-6D, which is located cross to down gradient from the suspected source area. The second highest concentration (290 µg/L) was identified at MW-5D.

PCE is a volatile organic compound that is recognized by NYSDEC and NYSDOH as having potential to impact indoor air quality via soil vapor intrusion. There are two occupied structures (Fashion Care and Quidley's) proximate to the documented PCE plume. PCE vapors have the potential to emanate from the dissolved contaminants within groundwater as well as those that are adsorbed to shallow soils beneath these buildings creating potential for PCE detection in indoor air.

PROPOSED WORKSCOPE:

The primary objective of this proposed work plan is to confirm the extent of the groundwater contamination down gradient form the suspected source area in order to effectively implement an interim remedial measure (IRM) to perform in situ remediation of volatile contaminants and to eliminate potential exposure to the subsurface conditions. The two properties are services with municipal water.

The IRM will address the source area beneath Fashion Care and will protect against potential vapor intrusion within the Fashion Care and Quigley's structures. Additional investigative efforts will involve the installation of additional groundwater monitoring wells, collection of soil samples and surveying, gauging and sampling of newly installed and existing monitoring wells. The IRM will consist of an active soil vapor extraction (SVE) system that will focus vacuum and air flow beneath and adjacent to Fashion Care and Quigley's structures. The IRM will be protective of human health and the environment by eliminating the vapor intrusion exposure pathway through active subslab depressurization and by remediating the source area beneath Fashion Care via SVE. Both SVE and subslab depressurization are established technologies and are routinely approved by oversight agencies.

Soil Boring Installation:
Soil borings will be installed at the Site utilizing conventional hollow stem auger drilling methods. Proposed soil boring and monitoring well locations have been presented in Attachment A, figure 2. 4¼-inch diameter augers will be driven into the subsurface to allow for sample collection and ultimately monitoring well installation. Continuous split spoon sampling will be completed during boring advancement to retrieve successive soil core samples from the borehole at two-foot increments. A qualified geologist from PES will oversee and document all soil boring installation activities including local pedology as ascertained through dissection of the soil cores. Soil samples will be continuously collected and monitored using a photoionization detector (PID) to qualitatively determine the presence and amount of volatile organic compounds (VOCs) and to determine groundwater monitoring well construction. As determined in the field and through soil characteristics discovered at the Site, a minimum of one (1) soil sample from each borehole will be secured in laboratory-supplied glassware, placed on ice and shipped via chain-of-custody protocol to Phoenix Environmental Laboratories, Inc. (Phoenix). Soil samples will be selected for laboratory analysis based on elevated PID responses, visual

or olfactory evidence of impacts and/or the location of the soil relative to encountered water bearing zones. The sampling locations will be based on conditions encountered in the field and will be strategically selected to allow for further site characterization and evaluation. The laboratory results will provide quantitative data regarding the soil quality at the Site. The soil samples will be analyzed for halogenated VOCs via EPA method 8260.

Soil generated during the investigation will be collected in 55-gallon drums and managed on site as Investigation Derived Waste (IDW) as subsequently discussed. All non-dedicated, down-hole equipment will be decontaminated prior to and between use at each boring location. A non-phosphate detergent and tap water wash followed by a tap water rinse will be utilized to ensure equipment is decontaminated.

Monitoring Well Construction:
At select boring locations, a two (2)-inch diameter, PVC, groundwater monitoring well with 0.010-inch slotted screen will be installed. Each well will be constructed such that the screened section extends across the observed water table. The annular space surrounding the well screen will be filled with #0 silica sand to approximately one (1)-foot above the well screen. A bentonite seal will be placed above the sand to prevent the infiltration of surface waters. The remaining annular space will be filled with concrete/bentonite slurry material to a depth of approximately one (1)-foot below grade. Monitoring wells will then be completed with a flush-to-grade, bolt down, traffic rated road box set in concrete. Upon completion, each well will be developed by repetitive bailing. The wells will later be surveyed, gauged and sampled.

Monitoring Well Development, Surveying and Gauging:
Following installation, newly installed monitoring wells and available existing monitoring wells will be developed by surge block method and/or over pumping with removal of a minimum of three well volumes. Wells will also be surveyed to allow for incorporation into the site map and to determine groundwater elevation and groundwater gradient. All elevation data will be relative to an assumed elevation based on a temporary benchmark. The depth to groundwater *(gauging)* and the presence and/or thickness of non-aqueous phase liquid (NAPL) will be measured at each well to allow calculation of the groundwater gradient.

Monitoring Well Sampling:
Groundwater samples will be collected from all newly installed monitoring wells and available existing monitoring wells and analyzed for halogenated VOCs using EPA Method 8260. Encountered NAPL will be collected, characterized and sampled for identification through laboratory verification. Sampling and/or gauging order will be formulated based on the information obtained during the installation process and historic knowledge of The Site. Gauging and sampling will be performed from the least to the most contaminated well to minimize the possibility of cross contamination. All sampling devices (i.e.: *bailers and/or water level indicator, etc.*) will be decontaminated before, and between, each well. Samples will be secured in laboratory-supplied glassware, placed on ice and shipped via chain-of-custody protocol to Phoenix.

Laboratory Reporting:
The laboratory will provide an ASP Category B QA/QC deliverable package for associated soil and groundwater analysis.

Investigation-Derived Wastes:
All IDW, such as decontamination rinsate, soil cuttings and monitoring well purge water, will be containerized in U.S. Department of Transportation-approved 55-gallon, steel, open-top drums. Drums will be properly labeled and staged on site pending characterization and offsite disposal in accordance with federal and state requirements. Proper off-site disposal will be completed in a timely manner.

Reporting:
Upon receipt of the laboratory analytical results for the soil and groundwater samples, a comprehensive subsurface investigation report will be prepared that combines newly acquired and historic information. The report will include:

- Summary of historical data for the Site
- A Brief description of the regional geology, from the literature, and local geology – inferred from the soil boring logs.
- Detailed site map illustrating major surface structures and boring/well locations within the area of study.
- Soil boring data and monitoring well completion details.
- Field observations resulting from soil monitoring with the PID instrument, NAPL occurrence, thickness, etc.
- Groundwater flow direction and gradient will be discussed. A groundwater gradient map for the Site will be included (if appropriate).
- VOC (if present) distribution will be discussed.
- A brief conclusion section regarding soil and groundwater conditions on-site will be included, as supported by the data collected during the investigation.
- All data including well installation, development and sampling logs, laboratory analyses reports and data validation reports will be included as appendices.

IRM Remedial System Installation
Data collected from the proposed investigative work will be combined with existing and previously collected data to locate proposed SVE wells for IRM implementation. Given current data collected it is anticipated that up to four, four-inch diameter, SVE wells will be installed at the Site as part of the proposed system. Two SVE wells will be installed adjacent to Fashion Care and Quigley's structures respectively. Drilling methods and procedures will be completed in accordance with the soil boring installation procedures as previously discussed. Following installation, a brief pilot test will be completed on the installed points to ascertain effect of active SVE on each point and to confirm size of equipment required to provide full depressurization beneath Fashion Care and Quigley's concrete slabs and to provide remedy for the source.

The four SVE wells will be connected via conveyance piping to a central location where a vacuum blower will extract air from the wells. A separate and stand-alone power supply will be provided for the remedial system. The system will be constructed and installed as an integral part of the Site such that interference, if any, with existing on-going use of the properties will be minimal.

Following installation, start up and initial testing the system will be monitored and sampled to determine mass removal and compliance with NYSDEC and NYSDOH guidelines regarding discharge of the removed contaminants. Regular and routine system operation and maintenance and monitoring will be completed on a monthly basis at minimum. Post start up testing of the system's effectiveness at providing negative pressure beneath the Fashion Care and Quigley's slabs will be completed and documented. Annual performance evaluation of the depression will be carried out thereafter. Quarterly monitoring of contaminant concentrations in select groundwater monitoring wells will be completed to track remedial efforts and trends over time to confirm effectiveness.

Project Organization:
Individual tasks of the proposed work scope will be performed as expediently as possible under the field conditions encountered. All aspects of the project will be coordinated and supervised by experienced representatives of PES. The project team assigned to this work scope will be comprised of experienced personnel capable of completing the technical and logistical aspects of the assignment.

Scheduling:
PES is anticipating a minimum of five (5) workdays to complete the fieldwork for the investigation. PES can implement the proposed subsurface investigation within 14 days following approval of this work plan. A report of findings will be submitted within 30 days after receipt of the laboratory analytical data associated with the subsurface investigation work. SVE well installation, pilot testing and IRM system installation will take place in a timely fashion thereafter.

If you have any questions concerning any aspect of this correspondence, please call the undersigned at (518) 885-4399.

Sincerely,
PRECISION ENVIRONMENTAL SERVICES, INC.

Stephen M. Phelps
Project Manager

Attachments

CC: M. Sterthous
D. Sommer

ATTACHMENT A



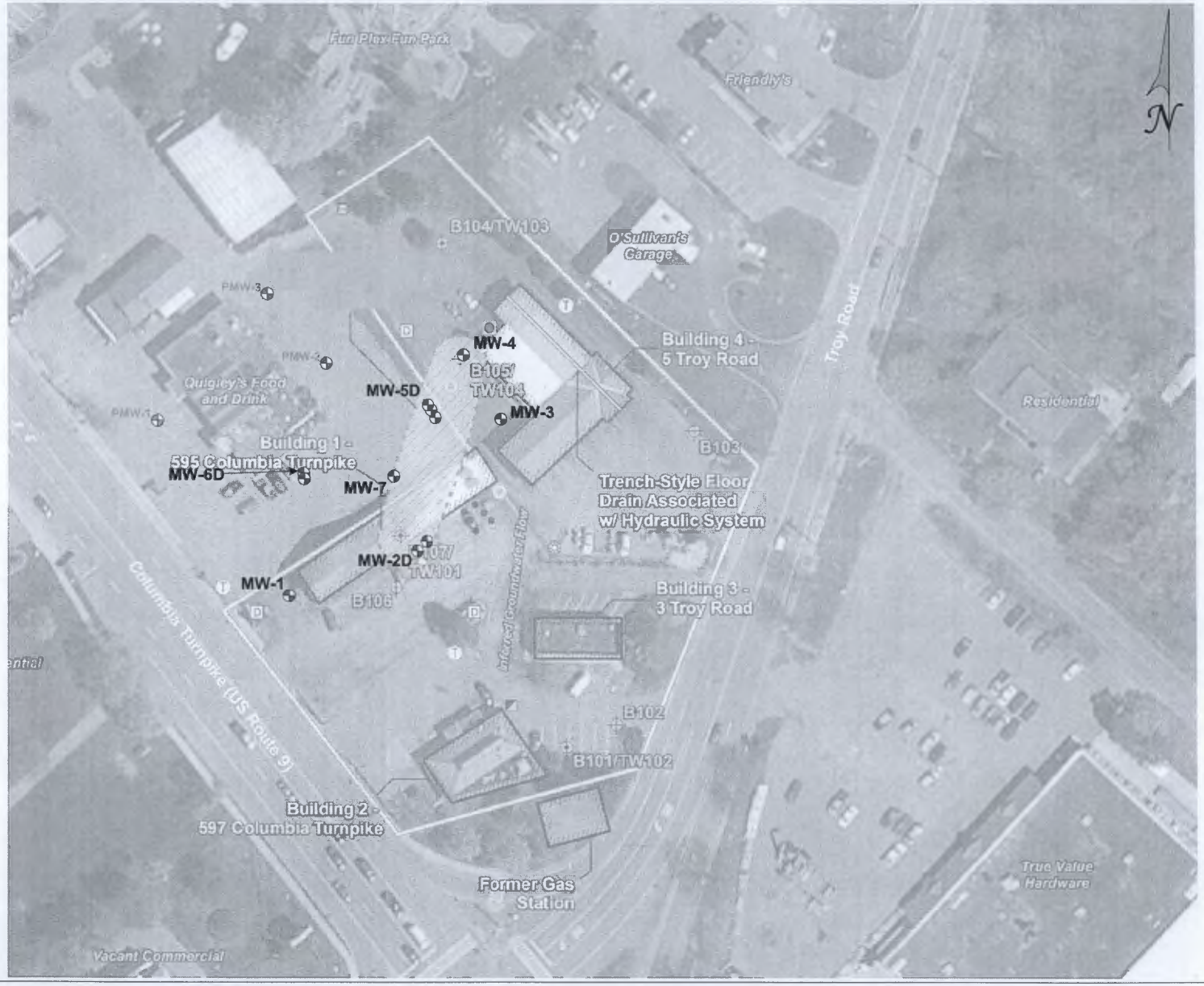
Image Courtesy of the U.S. Geological Survey: East Greenbush NY Quadrangle 1980

PRECISION
ENVIRONMENTAL SERVICES, INC.
831 RT. 67,LOT 38 A
BALLSTON SPA, NY 12020
TEL: 518-885-4399
FAX: 518-885-4416

Fashion Care

Site Location Detail

Location: 595 Columbia Tpk., E. Greenbush	Date: October 2015
Client:	Scale: NTS
Drawn By:	Figure: 1



FASHION CARE CLEANERS SITE

PROPOSED WELLS

PROJECT #:	
LOCATION:	595 COLUMBIA TPKE, EAST GREENBUSH, NY
DATE: 9/30/2015	**REVISED BY:** SMP
FIGURE: 2	**SCALE:** NTS

LEGEND

B101/ TW101	EXISTING SOIL BORING/TEMP WELL
MW-1	MONITORING WELL
PMW-1	MONITORING WELL

NOTES:

- ORIGINAL MAP WITH AERIAL AND MARK UP BY RANSOM CONSULTING ENGINEERS AND SCIENTISTS
- ALL LOCATIONS ARE APPROXIMATE