## FORMER PARKWAY CLEANERS ONTARIO, COUNTY CANANDAIGUA, NEW YORK

### INTERIM SITE MANAGEMENT PLAN

**NYSDEC Site Number: C835028** 

#### Prepared for:

Parkway Plaza Limited Partnership
46 Prince Street
Rochester, New York 14607

#### Prepared by:

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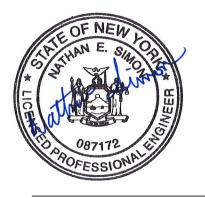
#### **Revisions to Approved Interim Site Management Plan:**

Revision	Date		NYSDEC
No.	Submitted	Summary of Revision	Approval Date

SEPTEMBER 2019

#### **CERTIFICATION STATEMENT**

I NATHAN SIMON certify that I am currently a NYS registered professional engineer as in defined in 6 NYCRR Part 375 and that this Interim Site Management Plan was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10).



P.E.

October 7, 2019 Date

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#### **List of Acronyms**

ASP Analytical Services Protocol

AST Above-Ground Storage Tank

BCA Brownfield Cleanup Agreement

BCP Brownfield Cleanup Program

CAMP Community Air Monitoring Plan

DAY Day Engineering, P.C.

DER Division of Environmental Remediation

EC Engineering Control

EWP Excavation Work Plan

HASP Health and Safety Plan

IC Institutional Control

IRM Interim Remedial Measure

ISMP Interim Site Management Plan

NYS New York State

NYSDEC New York State Department of Environmental Conservation

NYSDOH New York State Department of Health

O&M Operation and Maintenance

OM&M Operation, Maintenance and Monitoring

OSHA Occupational Safety and Health Administration

OU Operable Unit

PCE perchloroethylene, tetrachloroethylene

Phase I ESA Phase I Environmental Site Assessment

Phase II ESA Phase II Environmental Site Assessment

PID Photoionization Detector

PRR Periodic Review Report

QA/QC Quality Assurance/Quality Control

QAPP Quality Assurance Project Plan

RAO Remedial Action Objective

RAWP Remedial Action Work Plan

RI/FS Remedial Investigation/Feasibility Study

ROD Record of Decision

RSO Remedial System Optimization

SCG Standards, Criteria and Guidelines

SMP Site Management Plan

SSD Sub-slab Depressurization

VOC Volatile Organic Compound

#### ES EXECUTIVE SUMMARY

The following provides a brief summary of the controls implemented for the Site, as well as the inspections, monitoring, maintenance and reporting activities required by this Interim Site Management Plan:

Site C835028, Former Parkway Plaza, 39 Eastern Boulevard, Canandaigua, Identification: New York

New York Institutional The property may be used for restricted commercial use; Controls: 2. All ECs must be operated and maintained as specified in this ISMP; 3. Operation, maintenance, monitoring, inspection, and reporting of any mechanical or physical component of the remedy shall be performed as defined in this ISMP; 4. All ECs must be inspected at a frequency and in a manner defined in the ISMP. 5. The use of groundwater underlying the property is prohibited without necessary water quality treatment as determined by the NYSDOH or the Ontario Department of Health to render it safe for use as drinking water or for industrial purposes, and the user must first notify and obtain written approval to do so from the Department. 6. All future activities that will disturb remaining contaminated material must be conducted in accordance with this ISMP; 7. The potential for vapor intrusion must be evaluated for any buildings developed at the Site, and any potential impacts that are identified must be monitored or mitigated; and 8. Vegetable gardens and farming on the Site are prohibited;

Engineering Controls: 1. Cover system				
Inspections:		Frequency		
1. Cover inspection		Annually		
2. SSDS		Quarterly		
Monitoring:	Monitoring:			
TBD	TBD			
Maintenance:				
1. Cover System	As needed			
2. SSDS	As needed			
Reporting:				
1. Inspection Report	Annually			
2. Periodic Review Report	Annually			

Further descriptions of the above requirements are provided in detail in the latter sections of this Interim Site Management Plan.

#### 1.0 INTRODUCTION

#### 1.1 General

This Interim Site Management Plan (ISMP) is a required element of the remedial program for the former Parkway Cleaners Site located in Canandaigua, New York. The Site includes three tenant spaces within the Parkway Plaza addressed as 47 Eastern Boulevard, 51 Eastern Boulevard and 57 Eastern Boulevard (hereinafter referred to as the "Site"), which comprise approximately 0.5 acres of the 12.78-acre Parkway Plaza parcel. Refer to the Meets and Bounds description provided in Appendix A and see Figure 1 for a project locus map. The Site is currently in the New York State (NYS) Brownfield Cleanup Program (BCP), Site No.C835028 which is administered by New York State Department of Environmental Conservation (NYSDEC).

Parkway Plaza Limited Partnership LLC entered into a Brownfield Cleanup Agreement (BCA), on September 26, 2018 with the NYSDEC to remediate the Site. A figure showing the Site location and boundaries of this Site is provided in Figure 2. Work at the Site is required to be in compliance with this ISMP until such time that a final Site Management Plan (SMP) for the Site has been approved by the NYSDEC which is anticipated to be after the remedy for the Site has been substantially completed.

This ISMP identifies the requirements and protocols to maintain and document the effectiveness of the installed remedial components at the Site. Additional Site data, requirements and protocols will be added to this document in the future to address Site media and/or remedial activities as applicable. This plan has been approved by the NYSDEC. This ISMP may only be revised with the approval of the NYSDEC.

This ISMP is intended to manage contamination at the Site until the majority of the remedial activities have been completed and a final SMP has been prepared and subsequently approved by the NYSDEC. This ISMP, with some modifications will form the basis for developing the final SMP.

All reports associated with the Site can be viewed by contacting the NYSDEC or its successor agency managing environmental issues in New York State. A list of contacts for persons involved with the Site is provided in Appendix B of this ISMP.

This ISMP was prepared by Day Engineering P.C. (DAY), on behalf of Parkway Limited Partnership LLC, in accordance with the requirements of the NYSDEC's DER-10 ("Technical Guidance for Site Investigation and Remediation"), dated May 2010, and the guidelines provided by the NYSDEC.

#### 1.2 Revisions

Revisions to this plan will be proposed in writing to the NYSDEC's project manager. Revisions will be necessary upon, but not limited to, the following occurring: a change in media monitoring requirements, upgrades to, or shut-down of, a remedial system, post-remedial removal of contaminated sediment or soil, or other significant change to the Site conditions.

#### 1.3 Notifications

Notifications will be submitted by the property owner to the NYSDEC, as needed, in accordance with NYSDEC's DER – 10 for the following reasons:

- 60-day advance notice of any proposed changes in Site use that are required under the terms of the BCA, 6NYCRR Part 375 and/or Environmental Conservation Law.
- 7-day advance notice of any field activity associated with the remedial program.
- 15-day advance notice of any proposed ground-intrusive activity pursuant to the Excavation Work Plan.
- Notice within 48-hours of any damage or defect to the foundation, structures or EC that reduces or has the potential to reduce the effectiveness of an EC, and likewise, any action to be taken to mitigate the damage or defect.
- Verbal notice by noon of the following day of any emergency, such as a fire;
   flood; or earthquake that reduces or has the potential to reduce the effectiveness

- of ECs in place at the Site, with written confirmation within 7 days that includes a summary of actions taken, or to be taken, and the potential impact to the environment and the public.
- Follow-up status reports on actions taken to respond to any emergency event requiring ongoing responsive action submitted to the NYSDEC within 45 days describing and documenting actions taken to restore the effectiveness of the ECs.

Any change in the ownership of the Site or the responsibility for implementing this ISMP will include the following notifications:

- At least 60 days prior to the change, the NYSDEC will be notified in writing of
  the proposed change. This will include a certification that the prospective
  purchaser/Remedial Party has been provided with a copy of the BCA, and all
  approved work plans and reports, including this ISMP.
- Within 15 days after the transfer of all or part of the Site, the new owner's name, contact representative, and contact information will be confirmed in writing to the NYSDEC.

Table 1 on the following page includes contact information for the above notification. The information on this table will be updated as necessary to provide accurate contact information. A full listing of site-related contact information is provided in Appendix B.

Table 1: Notifications\*

Name	Contact Information
Timothy A. Schneider, P.E.	(585)226-5480
NYSDEC Project Manager	timothy.schneider@dec.ny.gov
Bernette Schilling P.E.	(585)226-5315
NYSDEC Regional HW Engineer	bernette.schilling@dec.ny.gov
Kelly Lewandowski, P.E.	(518)402-9553
NYSDEC Site Control	Kelly.lewandowski@dec.ny.gov

<sup>\*</sup> Note: Notifications are subject to change and will be updated as necessary.

### 2.0 SUMMARY OF PREVIOUS INVESTIGATIONS AND REMEDIAL ACTIONS

#### 2.1 Site Location and Description

The Site is located in Canandaigua, Ontario County, New York and is identified as Section 084.18 Block 1 and Lot 6.111 on the City of Canandaigua Tax Map. The Site is an approximately 0.5-acre of the 12.78-acre Parkway Plaza, and is bound by Parkway Plaza to the north and east, commercial to the west and mixed commercial and residential (i.e., townhouse and apartments) to the south, refer to exhibit H, Survey of 84.18-1-6.111 with Site drawing, of the Site's BCP Application, included in Appendix A for additional details regarding property boundary. [Note: A Meets and Bounds/Environmental Easement will be provided in the Final SMP and provided in Appendix A]. The owner of the Site at the time of issuance of this ISMP is Parkway Plaza Limited Partnership

#### 2.2 Physical Setting

#### 2.2.1 *Land Use*

The Site consists of three tenant spaces, comprising a portion of the Parkway Plaza building, and a parking area to the south. The Site is zoned commercial, and it currently contains a vacant tenant space (i.e., former Parkway Laundry) and two occupied spaces to the east and west of the former Parkway Laundry tenant space. Site occupants include Sakura Japanese Steak House and Sushi Bar and The Great Wall Restaurant located adjacent to the former Parkway Cleaners to the east and west, respectively.

The properties adjoining the Site and, in the neighborhood, surrounding the Site primarily include commercial and residential, properties. The properties immediately south of the Site include mixed commercial and residential properties; the properties immediately north, east and west of the Site include commercial properties.

#### 2.2.2 Geology

Based on a review of the Geologic Map of New York: Finger Lakes Sheet compiled and edited by Lawrence V. Rickard and Donald W. Fisher dated March 1970, bedrock underlying the overburden deposits in proximity to the Site consists of the Skaneateles Formation belonging to the Hamilton Group of the Middle Devonian, Paleozoic Era. The bedrock is flat laying sedimentary rock comprised primarily of soft shale and siltstone. The depth to bedrock in the vicinity of the Site is in excess of 57 ft. bgs (i.e., the depth of the deepest test boring advanced during investigative studies conducted by DAY).

According to the Ontario and Yates Counties, New York Soil Survey, United States Department of Agriculture Soil Conservation Service, 1958, soil at the Site is listed as Sloan silt loam (Sk). This soil is identified as a poorly drained alluvial deposit occurring at slopes of between 0 and 1 percent. [Note: It appears that the area of the Site was modified subsequent to the data collection used to develop the soil survey by the placement of fill material, some of which is more permeable.]

Based on a review of the New York State Geological Survey, Surficial Geologic Map of New York – Finger Lakes Sheet, E.H Muller and D.H. Cadwell, 1986, soil in the area of the Site is predominantly lacustrine silt and clay that was deposited in proglacial lakes. These deposits are generally laminated and of variable thicknesses of up to 50 meters (about 165 ft.).

The geologic conditions identified at the Site based upon the explorations completed to date are summarized below.

• The ground surface of the Site is predominately paved with asphalt or covered with concrete (i.e., including the former Parkway Cleaners). Heterogeneous fill consisting primarily of reworked soil intermixed with trace amounts of brick underlies the asphalt and concrete. Some organics and wood were observed near the bottom of the fill, which may be indicative of the top of the ground surface

prior to filling. The fill at the Site extends to an average depth of approximately 8 ft. bgs.

- The indigenous soil beneath the fill generally consists of alternating layers of silt, silty sand and silty clay extending to an approximate depth of 13 ft. to 14 ft. bgs. Thereafter a 25+-foot thick silty clay deposit extending to depths of 33.5 ft. to 49 ft. bgs was encountered above a sand and gravel deposit that contains some varves/layers of silt. Test borings were advanced to a maximum depth of 57 ft. bgs during the RI without penetrating the entire thickness of the sand and gravel deposit or encountering bedrock.
- The screened section of the "shallow" monitoring wells installed at the Site is above the silty clay deposit. The well screens of the "deep" monitoring wells installed at the Site are sealed below the silty clay deposit (i.e., within the sand and gravel deposit).

Geologic cross section A-A', running generally from north to southwest across the Site (i.e., in the direction of the most common groundwater flow direction), and geologic cross section B-B', running from west to east near the southern boundary of the Site, depict subsurface conditions. Geologic cross section A-A' and B-B' are presented as Figure 3 and Figure 4, respectively. Site specific boring logs are provided in Appendix C.

#### 2.2.3 Hydrogeology

Based on field observations, surface water flows via sheet flow off the asphalt parking lot generally to the south or to storm sewer inlets within the parking lot.

A principal water-supply aquifer is not located in proximity of the Site. Per the United States Department of the Interior Geological Survey, Water-Resources Investigations Report #87-4122, Unconsolidated Aquifers in Upstate New York (Finger Lakes Sheet), a confined aquifer is located beneath the Site. This aquifer is comprised of sand and gravel deposits deemed capable of producing between 5 and 500 gallons per minute. However,

this aquifer is separated from an overlying unconfined surficial aquifer by impermeable fine-grained deposits of silt and clay.

Regionally groundwater flow is generally to the south-southwest toward Canandaigua Lake, which is located approximately 825 ft. (0.15 miles) south of the Site. Localized variations in groundwater flow are likely due to buried utilities, the Canandaigua Outlet, Canandaigua Feeder Canal and/or other features.

The depth to groundwater at the Site varies seasonally, but groundwater was typically encountered beginning at depths of about 3 ft. to 5 ft. bgs in the "shallow" monitoring wells. Groundwater was measured at depths of about 5 ft. and 9 ft. bgs in the "deep" monitoring wells. Average hydraulic conductivities measured in select "shallow" monitoring wells ranged between 4.8 x 10-5 cm/sec and 7.4 x 10-5 cm/sec and an average hydraulic conductivity of 1.56 x 10-4 cm/sec was measured in the "deep" monitoring well tested. These values are consistent with published values for silty clay to silty sand as referenced in Groundwater by R. Allan Freeze & John A. Cherry, 1979.

Based upon measurements made at various times during this study, the average hydraulic gradient between the "shallow" monitoring wells ranged between about 0.01 ft./ft. and 0.02 ft./ft. Using the range of calculated hydraulic conductivities and average horizontal gradients and an estimated porosity of 0.40 (i.e., as referenced in Groundwater, by R. Allan Freeze & John A., Cherry, 1979), the "shallow" groundwater flow at the Site was calculated to range between about 0.004 ft./day and 0.011 ft./day. More permeable material such as fill above the native soil, fill used within utility trenches and/or interbedded fine sand, could result in more rapid transport of the groundwater and dissolved constituents.

In locations where shallow and deep monitoring wells installed in proximity to one another (i.e., MW-1s and MW-1D), downward hydraulic gradients ranging from approximately 0.04 ft./ft. and 0.09 ft./ft. were calculated.

Although groundwater flow patterns vary seasonally, groundwater flow measured in the "shallow" monitoring wells is generally to the south/southwest. The groundwater flow measured in the "deep" monitoring wells is generally to the north and northeast. Groundwater contour maps developed at various times during this study for the "shallow" monitoring wells are included as Figure 5 and 6. Groundwater elevation data is also provided on Figure 5 and Figure 6. Groundwater monitoring well construction logs are provided in Appendix C.

#### 2.3 Investigation and Remedial History

The following narrative provides a remedial history timeline and a brief summary of the available project records to document key investigative and remedial milestones for the Site. Full titles for each of the reports referenced below are provided in Section 8.0 - References.

#### Phase I Environmental Site Assessment, by IVI Environmental, Inc. dated 1998

IVI Environmental Inc. completed a Phase I Environmental Site Assessment (Phase I ESA) in June 1998 for the Parkway Plaza property (the 12.78-acre property). The Phase I ESA indicated that the Site is part of a strip plaza (Parkway Plaza) that was constructed in approximately 1957. Prior to approximately 1957, the Site was vacant undeveloped land. The Phase I ESA indicated that dry cleaning operations were conducted at the former Parkway Cleaners Site between 1963 and 1991 and included the use of perchloroethylene (a/k/a tetrachloroethylene or PCE) at the Site. The Phase I ESA also identified a 100-gallon storage tank on the roof of the historic dry cleaner. This aboveground storage tank (AST) was reportedly associated with the storage of PCE for the former dry-cleaning operations. Significant areas of staining or evidence of liquid discharge were not observed in the vicinity of the AST. Wastewater associated with the laundromat and possibly the dry-cleaning operations reportedly discharged to the sanitary sewer system.

#### Phase II Environmental Site Assessment by IVI Environmental, Inc. dated 1998

IVI prepared a Phase II Environmental Site Assessment (Phase II ESA) for the Parkway Plaza Property in August of 1998. During this study four soil borings were advanced and one sample from each boring was collected and tested for volatile organic compounds (VOCs). In addition, two groundwater samples were collected from two of the borings. Analytical laboratory results indicated that chlorinated VOCs above NYSDEC groundwater standards were present in the sample collected from the south side of the Site and in proximity to the rear of the building. Chlorinated VOCs were also detected in soil samples collected from the south side of the Site, in proximity to the rear of the building and inside the former dry cleaner, however, the constituents were below the NYSDEC cleanup objectives.

#### Data Package prepared by DAY dated March 1999

In November 1998, DAY performed supplemental environmental studies at the Site to further define the nature and extent of contamination. A drain tracer indicated that two active sanitary pipes exit the south side of the building and connect to the municipal sanitary sewer system. One of these pipes passed through an apparent sediment trap located immediately south of the former Parkway Cleaners building. The walls of the sediment trap/sump were constructed on concrete block and this structure had a soil bottom. During this study ten test borings were advanced with four of them completed as groundwater monitoring wells. Select soil and groundwater samples were submitted for VOC testing at an analytical laboratory. Concentrations of VOCs detected in some of the soil and groundwater samples exceeded NYSDEC soil cleanup objectives and/or groundwater standards. The extent of VOCs impact in the soil appeared to limited to an area close to the south end of the former Parkway Cleaners building in proximity to the sediment trap/sump. VOCs exceeding NYSDEC groundwater standards appeared to be primarily located close to the Parkway Cleaners building, however, groundwater samples collected from two wells at the southern property boundary contained chlorinated VOCs, with concentrations from one well exceeding NYSDEC groundwater standards.

## <u>Interim Remedial Measure Report, Former Parkway Cleaners, Parkway Plaza, Canandaigua, New York prepared by DAY dated September 2002</u>

In 2001, an interim remedial measure (IRM) was conducted to excavate and dispose of VOC-impacted soil identified during previous studies and remove the 100-gallon PCE AST. Soil was excavated from two locations south the former Parkway Cleaners building, refer to Figure 2. An approximate total of 517 tons of VOC-impacted soil was removed and disposed off-site, 47 tons were determined to be a hazardous waste. The IRM excavations were backfilled with clean granular material obtained from an off-site source. In addition, four six-inch diameter monitoring points, designated MP-1 through MP-4, were installed within the backfilled excavations to provide access for future monitoring and/or treatment.

## Remedial Investigation/Recommended Remedial Alternative Report, prepared by DAY dated March 2010 (revised August 2012 and August 2014)

Subsequent to the soil removal IRM, additional studies were completed at the Site to assess the effectiveness of remedial activities and characterize the subsurface conditions. These studies generally included the installation of groundwater monitoring wells and collection/testing of groundwater, sub-slab vapor and indoor air samples. The highest concentrations of chlorinated VOCs were measured in soil samples collected from the area surrounding the former sediment trap/sump with some impacted soils extending beneath the Alcove portion of the Parkway Cleaners building. Concentrations of chlorinated VOCs detected in groundwater samples collected from "shallow" monitoring wells suggest a plume migrated away from the former sediment trap/sump (i.e., source area). Concentrations of chlorinated VOCs were not detected in samples collected from the "deep" monitoring wells, indicating that the thick layer of silty clay below the "shallow" monitoring wells serves as barrier impending the downward migration of chlorinated VOCs. Sub-slab and indoor air testing conducted in April 2007 did not detect concentrations of VOCs within the former Parkway Cleaners or adjacent tenant spaces (i.e., currently occupied by the Great Wall Restaurant and Sakura Japanese Steak House

and Sushi Bar Restaurant) that required remediation beyond the installation of the vapor extraction point within the Alcove portion of the Parkway Cleaners building.

#### Draft Remedial Action Work Plan prepared by DAY dated 2019

Prior to developing this Draft Remedial Action Work Plan supplemental studies were conducted to address data gaps associated with the Site. This work included the collection of groundwater samples from existing on-site monitoring wells and off-site monitoring wells, advancement of 6 test borings using direct push technology and installation of one groundwater monitoring well. Two soil samples from each of the test borings advanced in the former Alcove area were tested for halogenated VOCs (i.e., a sample exhibiting the most-apparent impact as evidenced by PID readings, chemical odors, etc.), as well as a groundwater sample collected from the monitoring well installed in TB-4. Results of this study indicated that chlorinated VOC-impacted soils are present between approximately 4 ft. bgs and 16 ft. bgs beneath the former Alcove. In addition, groundwater samples collected within, and in proximity of, the former Alcove exceed groundwater standards and are the only locations where PCE is currently detected in the groundwater (PCE is the "parent compound" associated with the dry-cleaning fluid previously used at the Site). The remaining wells sampled only contained breakdown compounds of PCE.

The drill cuttings, test boring samples not submitted for analytical laboratory testing, used PPE, and other subsurface media encountered during the study were containerized in three steel, open top, NYSDOT-approved 55-gallon drums. At the request of the disposal company utilized (Sun Environmental Corporation) the analytical laboratory data from the soil samples tested as part of the supplemental study were used to develop a waste profile for the containerized waste. The three drums of solid material were removed from the Site on November 4, 2016 under waste manifest 007931851 JJK, refer to Appendix D for a copy of the waste manifest. As indicated on the waste manifest, the drums were transported to Cycle Chem Inc. for disposal. [Note: The NYSDEC incorrectly identified

the waste code for Tetrachloroethylene as the waste code for Mercury on its tracking

form.]

Pre-Renovation Asbestos Containing Materials Inspections Report prepared by LaBella

Associates, D.P.C. dated March 2019 and Asbestos Air Monitoring and Abatement

Completion Summary Letter dated April 16, 2019.

LaBella Associates, D.P.C. (LaBella) conducted a limited Pre-Renovation Asbestos-

Containing Materials inspection of the interior portion of the Site. Based on laboratory

analysis, a section of brown floor tile and associated mastic located at the rear of the

building was determined to contain greater than 1% asbestos. The floor tile and mastic

were observed to be in good condition and covered an approximate 110 square foot area.

The clean-up and removal of asbestos-containing brown 9"x9" floor tile was completed

on April 5, 2019. Refer to the LaBella report and summary letter included as Appendix

D for additional information including a full list of materials sampled.

Corrective Action Letter, prepared by DAY, dated July 19, 2019.

Subsequent to observing a pile of covered soil and concrete debris in an exterior portion

of the Site that was reportedly generated during interior building utility renovations being

conducted by a future tenant of the former Parkway Cleaners space, DAY prepared a

corrective action letter work plan. In accordance with the draft ISMP, the corrective

action letter work plan described the handling and disposal of the stockpiled material and

the restoration of the interior building space. The NYSDEC approved the corrective

action work plan letter, and the work described therein was initiated. Refer to Appendix

D for a copy of the NYSEC-approved corrective action work plan letter.

Construction Completion Report: Sub-Slab Depressurization System

(on-going, results pending)

#### 2.4 Remedial Action Objectives

The Remedial Action Objectives (RAOs) for the Site are as follows:

#### GROUNDWATER

#### **RAOs for Public Health Protection**

- Prevent ingestion of groundwater with contaminant levels exceeding drinking water standards.
- o Prevent contact with, or inhalation of, volatiles from contaminated groundwater.

#### **RAOs for Environmental Protection**

- Restore ground water aquifer to pre-disposal/pre-release conditions, to the extent practicable.
- o Prevent the discharge of contaminants to surface water.
- o Remove the source of ground or surface water contamination.

Soil

#### **RAOs for Public Health Protection**

- o Prevent ingestion/direct contact with contaminated soil.
- o Prevent inhalation of or exposure from contaminants volatilizing from contaminants in soil.

#### **RAOs for Environmental Protection**

 Prevent migration of contaminants that would result in groundwater or surface water contamination.

 Prevent impacts to biota from ingestion/direct contact with soil causing toxicity or impacts from bioaccumulation through the terrestrial food chain.

SOIL VAPOR

**RAOs for Public Health Protection** 

o Mitigate impacts to public health resulting from existing, or the potential for, soil vapor intrusion into buildings at the Site.

#### 2.5 Remaining Contamination

Remediation of on-site soil and groundwater and vapor mitigation the Site is on-going. Once the remedial activities are complete an analysis of remaining contamination will be conducted and documented in a revised ISMP/SMP.

#### 2.5.1 Soil

(Results pending completion of remedial activities)

#### 2.5.2 Groundwater

(Results pending completion of remedial activities)

#### 2.5.3 Soil Vapor

(Results pending completion of remedial activities)

#### 3.0 INSTITUTIONAL AND ENGINEERING CONTROL PLAN

Since remediation at the Site has yet to be completed, this section currently contains only those Engineering Controls and/or Institutional Controls applicable to the soil cover system. Additional ECs and/or ICs will be added to this section, as applicable and as needed, pending completion of remedial activities at the Site.

#### 3.1 General

Since remaining contamination exists at the Site, Institutional Controls (ICs) and Engineering Controls (ECs) are required to protect human health and the environment. This IC/EC Plan describes the procedures for the implementation and management of all IC/ECs at the Site. The IC/EC Plan is one component of the ISMP and is subject to revision by the NYSDEC. The ICs/ECs presented herein are preliminary and based on existing remedial components and data. It is anticipated that the IC/ECs will be amended and modified as additional remedial components are completed/installed at the Site. This plan provides:

- A description of all IC/ECs on the Site;
- The basic implementation and intended role of each IC/EC;
- A description of the key components of the ICs;
- A description of the controls to be evaluated during each required inspection and periodic review;
- A description of plans and procedures to be followed for implementation of IC/ECs, such as the implementation of the Excavation Work Plan (EWP) (as provided in Appendix E) for the proper handling of remaining contamination that may be disturbed during maintenance or redevelopment work on the Site; and
- Any other provisions necessary to identify or establish methods for implementing the IC/ECs required by the site remedy, as determined by the NYSDEC.

#### 3.2 Institutional Controls

A series of ICs is required to: (1) implement, maintain and monitor Engineering Control systems; (2) prevent future exposure to remaining contamination; and, (3) limit the use and development of the Site to commercial uses only.

- The property may be used for restricted commercial use;
- All ECs must be operated and maintained as specified in this ISMP;
- All ECs must be inspected at a frequency and in a manner defined in the ISMP.
- The use of groundwater underlying the property is prohibited without necessary water quality treatment as determined by the NYSDOH or the Ontario Department of Health to render it safe for use as drinking water or for industrial purposes, and the user must first notify and obtain written approval to do so from the Department.
- All future activities that will disturb remaining contaminated material must be conducted in accordance with this ISMP;
- Operation, maintenance, monitoring, inspection, and reporting of any mechanical or physical component of the remedy shall be performed as defined in this ISMP;
- The potential for vapor intrusion must be evaluated for any buildings developed at the Site, and any potential impacts that are identified must be monitored or mitigated; and
- Vegetable gardens and farming on the Site are prohibited;

Additional requirements are as follows:

- Compliance with this ISMP by the owner and occupants of the Site, and their successors and assigns;
- Environmental or public health monitoring must be performed as defined in this ISMP; and

• Data and information pertinent to the management of the Site must be reported at a frequency and in a manner defined in this ISMP.

Institutional controls defined in the ISMP may not be discontinued without amendment or extinguishment of the ISMP.

#### 3.3 Engineering Controls

#### 3.3.1 *Cover* (*or Cap*)

Exposure to remaining contamination at the Site is prevented by a cover system placed over the Site. This cover system is comprised of asphalt pavement, concrete-covered sidewalks, concrete building slabs and a small strip of vegetation immediately adjacent to asphalt paving and the southern property boundary. Figure 2 presents the location of the cover system. The Excavation Work Plan (EWP) provided in Appendix E outlines the procedures required to be implemented in the event the cover system is breached, penetrated or temporarily removed, and any underlying remaining contamination is disturbed. Procedures for the inspection of this cover are provided in the Monitoring and Sampling Plan included in Section 4.0 of this ISMP. Any work conducted pursuant to the EWP must also be conducted in accordance with the procedures defined in a Health and Safety Plan (HASP) and associated Community Air Monitoring Plan (CAMP) prepared for the Site and provided in Appendix F.

Procedures for operating and maintaining the cover system are documented in the Operation and Maintenance Plan (Section 5.0 of this ISMP).

#### 3.3.2 Sub-slab Depressurization System (SSDS)

Installation of a SSDS is pending. This section will be updated once the SSDS installation is complete and effectiveness testing indicates that it is functioning in accordance with regulatory standards. Upon occupying the space, tenants will be notified of the installed mitigation system and its basic operating principles, checks that can be made to verify system is operating properly, how the system will be maintained and

monitored and by whom, a list of appropriate actions to be taken if the system's warning device or indicator is activated, and contact information for further information.

#### 3.3.4 Criteria for Completion of Remediation/Termination of Remedial Systems

Generally, remedial processes are considered completed when monitoring indicates that the remedy has achieved the remedial action objectives identified by the decision document. The framework for determining when remedial processes are complete is provided in Section 6.4 of NYSDEC DER-10.

#### 3.3.4.1 - Cover System

The composite cover system is a permanent control and the quality and integrity of this system will be inspected at defined, regular intervals in accordance with this ISMP in perpetuity.

#### 3.3.4.2 - Sub-Slab Depressurization System (SSDS)

(Installation of the SSDS is pending.)

Once installed the active SSDS will not be discontinued unless prior written approval is granted by the NYSDEC and the NYSDOH. In the event that monitoring data indicates that the SSDS may no longer be required, a proposal to discontinue the SSDS will be submitted by the remedial party to the NYSDEC and NYSDOH.

#### 3.3.4.3 - Monitoring Wells associated with Remedial Performance

Groundwater monitoring activities to assess remedial performance will continue, as determined by the NYSDEC with consultation with NYSDOH, until residual groundwater concentrations are found to be consistently below ambient water quality standards, the site SCGs, or have become asymptotic at an acceptable level over an extended period. In the event that monitoring data indicates that monitoring for remedial performance may no longer be required, a proposal to discontinue the system will be

submitted by the remedial party. Monitoring will continue until permission to discontinue is granted in writing by the NYSDEC. If groundwater contaminant levels become asymptotic at a level that is not acceptable to the NYSDEC, additional source removal, treatment and/or control measures may be evaluated.

#### 4.0 MONITORING AND SAMPLING PLAN

#### 4.1 General

This Monitoring and Sampling Plan describes the measures for evaluating the overall performance and effectiveness of the remedy. This Monitoring and Sampling Plan may only be revised with the approval of the NYSDEC. Details regarding the sampling procedures, data quality usability objectives, analytical methods, etc. for all samples collected as part of site management for the Site are included in the Quality Assurance Project Plan provided in Appendix H.

This Monitoring and Sampling Plan describes the methods to be used for:

- Sampling and analysis of all appropriate media (e.g., groundwater, indoor air, soil vapor, soils);
- Assessing compliance with applicable NYSDEC standards, criteria and guidance (SCGs), particularly groundwater standards;
- Evaluating Site information periodically to confirm that the remedy continues to be effective in protecting public health and the environment;

To adequately address these issues, this Monitoring and Sampling Plan provides information on:

- Sampling locations, protocol and frequency;
- Information on all designed monitoring systems;
- Analytical sampling program requirements;
- Inspection and maintenance requirements for monitoring wells;
- Monitoring well decommissioning procedures; and
- Annual inspection and periodic certification.

Reporting requirements are provided in Section 7.0 of this ISMP.

#### 4.2 Site-wide Inspection

Site-wide inspections will be performed once per year. Modification to the frequency or duration of the inspections will require approval from the NYSDEC. Site-wide inspections will also be performed after all severe weather conditions that may affect ECs or monitoring devices. During these inspections, an inspection form will be completed as provided in Appendix I - Site Management Forms. The form will compile sufficient information to assess the following:

- Compliance with all ICs, including site usage;
- An evaluation of the condition and continued effectiveness of ECs;
- General site conditions at the time of the inspection;
- The site management activities being conducted including, where appropriate, confirmation sampling and a health and safety inspection; and
- Confirm that site records are up to date.

Inspections of all remedial components installed at the Site will be conducted. A comprehensive site-wide inspection will be conducted and documented according to the ISMP schedule, regardless of the frequency of the Periodic Review Report. The inspections will determine and document the following:

- Whether ECs continue to perform as designed;
- If these controls continue to be protective of human health and the environment;
- Compliance with requirements of this ISMP;
- Achievement of remedial performance criteria; and
- If site records are complete and up to date; and

Reporting requirements are outlined in Section 7.0 of this plan.

Inspections will also be performed in the event of an emergency. If an emergency, such as a natural disaster or an unforeseen failure of any of the ECs occurs that reduces or has the potential to reduce the effectiveness of ECs in place at the Site, verbal notice to the NYSDEC must be given by noon of the following day. In addition, an inspection of the Site will be conducted within 5 days of the event to verify the effectiveness of the IC/ECs implemented at the Site by a qualified environmental professional, as determined by the NYSDEC. Written confirmation must be provided to the NYSDEC within 7 days of the event that includes a summary of actions taken, or to be taken, and the potential impact to the environment and the public.

#### 4.3 Mitigation System Monitoring and Sampling

Monitoring of the existing SSDS installed in the former Parkway Cleaners building (i.e., within a former alcove) will be performed on a routine basis, as identified in Table 4.3 Remedial System Monitoring Requirements and Schedule (see below). Modification to the frequency or sampling requirements will require approval from the NYSDEC. A visual inspection of the complete system will be conducted during each monitoring event. Unscheduled inspections and/or sampling may take place when a suspected failure of the SSDS system has been reported or an emergency occurs that is deemed likely to affect the operation of the system. SSDS system components to be monitored include, but are not limited to, the components included in Table 4.3 below.

Table 4.3 – Remedial System Monitoring Requirements and Schedule

Remedial System	Monitoring	Operating Range	Monitoring
Component	Parameter		Schedule
Fan Inlet 1	Vacuum Pressure	<u>TBD</u>	Quarterly
(SSDS Suction Pipe)			
Fan Inlet 2	Vacuum Pressure	TBD	Quarterly
(Pending Installation)			

A complete list of components to be inspected is provided in the Inspection Checklist, provided in Appendix I - Site Management Forms. If any equipment readings are not within their specified operation range, any equipment is observed to be malfunctioning or the system is not performing within specifications, then maintenance and repair, as per the Operation and Maintenance Plan, is required immediately.

#### 4.4 Post-Remediation Media Monitoring and Sampling

Groundwater samples and indoor air samples shall be collected on a routine basis. Groundwater sampling locations, required analytical parameters and schedule will be determined following pending groundwater remediation activities at the Site. Indoor air sampling locations, required analytical parameter and schedule will be determined following pending sub-slab depressurization system installation and startup testing activities at the Site.

#### 4.4.1 Groundwater Sampling

Groundwater monitoring will be performed at a frequency to be determined to assess the performance of the remedy. Modification to the frequency or sampling requirements will require approval from the NYSDEC.

The network of monitoring wells has been installed to monitor upgradient, on-site and downgradient groundwater conditions at the Site.

Table 4.4.1 summarizes the wells identification number, as well as the purpose, location, depths, diameter and screened intervals of the wells. As part of the groundwater monitoring it is anticipated that, upgradient wells, on-site wells and downgradient wells are sampled to evaluate the effectiveness of the remedial system.

**Table 4.4.1 – Monitoring Well Construction Details** 

		Coordinates	Well	Elevation (arbitrary 100. 00 ft. datum)			
Monitoring	Well Location	(longitude/	Diameter			Screen	Screen
Well ID		latitude)	(inches)	Casing	Surface	Тор	Bottom
MP-3	Source Area	-77.267351/42.876989	6	98.60	99.12		76.60
MP-4	Source Area	-77.267352/42.876970	6	98.48	99.05		76.48
MW-102s	Background	-77.267258/42.876939	2	98.90	99.14	94.90	85.90
IP-3	Background	-77.267473/42.876937	1	98.77		94.77	84.77
MW-103s	Down-gradient	-77.267590/42.876843	2	98.54	98.86	95.54	85.54

<sup>--</sup> Information not available

Monitoring well construction logs are included in Appendix C of this document.

If biofouling or silt accumulation occurs in the monitoring wells, the wells will be physically agitated/surged and redeveloped. Additionally, monitoring wells will be properly decommissioned and replaced, if an event renders the wells unusable.

Repairs and/or replacement of wells in the monitoring well network will be performed based on assessments of structural integrity and overall performance.

The NYSDEC will be notified prior to any repair or decommissioning of any monitoring well for the purpose of replacement, and the repair or decommissioning and replacement process will be documented in the subsequent Periodic Review Report. Well decommissioning without replacement will be done only with the prior approval of the NYSDEC. Well abandonment will be performed in accordance with NYSDEC's guidance entitled "CP-43: Groundwater Monitoring Well Decommissioning Procedures." Monitoring wells that are decommissioned because they have been rendered unusable

will be replaced in kind in the nearest available location, unless otherwise approved by the NYSDEC.

The sampling frequency may only be modified with the approval of the NYSDEC. This ISMP will be modified to reflect changes in sampling plans approved by the NYSDEC.

Deliverables for the groundwater monitoring program are specified in Section 7.0 - Reporting Requirements.

#### 4.4.2 Soil Vapor Intrusion Sampling

Following SSDS installation and startup period, soil vapor intrusion sampling will be performed to assess the performance of the remedy. Modification to the frequency or sampling requirements will require approval from the NYSDEC. Prior to the collection of the samples, a chemical inventory may be completed/updated for products used in the sample location and surrounding areas of the building in accordance with NYSDOH guidance document protocols. In conjunction with indoor air testing, an outdoor (background) sample will be collected from a location positioned upwind of the Site.

The sampling frequency may only be modified with the approval of the NYSDEC. This ISMP will be modified to reflect changes in sampling plans approved by the NYSDEC.

Deliverables for the soil vapor intrusion sampling program are specified in Section 7.0 - Reporting Requirements.

#### 4.4.3 Monitoring and Sampling Protocol

All sampling activities will be recorded in a field book and associated sampling log as provided in Appendix I - Site Management Forms. Other observations (e.g., groundwater monitoring well integrity, etc.) will be noted on the sampling log. The sampling log will serve as the inspection form for the monitoring network. Additional detail regarding monitoring and sampling protocols are provided in the site-specific Field Sampling Plan provided as Appendix J of this document.

#### 5.0 OPERATION AND MAINTENANCE PLAN

#### 5.1 General

Installation of the Site remedial components are not complete. It is anticipated that a complete sub-slab depressurization system; and in-situ remediation of the residual source area saturated soil/groundwater, and downgradient plume, will be completed at the Site. The remedial components currently installed at the Site include a Site Cover system and one vapor extraction point that will be part of the building wide SSDS. As remedial components are installed, and following the startup period of installed remedial components, this Operation and Maintenance Plan will be updated. This Operation and Maintenance Plan provides a brief description of the measures necessary to operate, monitor and maintain the mechanical components of the remedy selected for the Site. This Operation and Maintenance Plan:

- Includes the procedures necessary to allow individuals unfamiliar with the Site to operate and maintain the SSDS at the former Parkway Cleaners.
- Will be updated periodically to reflect changes in site conditions or the manner in which the SSDS is operated and maintained.

Further detail regarding the Operation and Maintenance of the SSDS is provided in Appendix G - Operation and Maintenance Manual. A copy of this Operation and Maintenance Manual, along with the complete ISMP, is to be maintained at the Site. This Operation and Maintenance Plan is not to be used as a stand-alone document, but as a component document of this ISMP.

#### 5.2 Remedial System or other Engineering Control Performance Criteria

#### 5.2.1 SSDS Performance Criteria

The SSDS is intended to be operated indefinitely until such time as monitoring data indicates that the system is no longer required (e.g., sub-slab soil vapors are reduced to the extent that mitigation of potential soil vapor intrusion is deemed unnecessary), and approval to discontinue system operations is received from the NYSDEC and NYSDOH.

The basic processes utilized in the system are summarized as follows:

• SSDS – a suction field is created to induce a negative pressure beneath the slab, thus minimizing the potential for soil vapors from entering the building while removing chlorinated solvent vapors from the sub-surface.

# 5.3 Operation and Maintenance SSDS

The following sections provide a description of the operations and maintenance of the SSDS. Cut-sheets for the existing component of the SSDS are provided in Appendix G - Operations and Maintenance Manual. The current SSDS is a single FANTECH HP-2190 in-line centrifugal fan with a maximum flow rate of 163 cubic feet per minute. The fan is mounted on the south exterior wall of the building and exhausts above the roofline. The fan provides vacuum to a suction cavity below the northwest corner of the former alcove slab.

# 5.3.1 System Start-Up and Testing

The only mechanical portion of the SSDS system is a single FANTECH HP-2190 in-line centrifugal fan. Start-up of this fan from a shutdown condition only requires that power be restored to the fan. It is expected that the fan will be continuously operational if energized, and this fan does not require any type of manual restart, so the fan should restart automatically once power is restored to the building or circuit. In the event the fan is de-energized for work on the fan or associated duct work, re-energizing the fan will similarly re-enable the SSDS system.

#### 5.3.2 Routine System Operation and Maintenance

The SSDS system is designed for continuous, unmanned operation and requires minimal operation and maintenance labor. All components of this system are designed for years of uninterrupted service. Nonetheless, quarterly system checks and annual review will be performed to confirm that all are operating as intended, and to identify the need for any

maintenance. These monitoring activities will be completed as described in, and

documented on, the site management forms in Appendix I.

5.3.3 Non-Routine Operation and Maintenance

As stated above, the SSDS is designed for continuous unmanned operation. Non-routine

maintenance would be limited to damage incurred to the system that would be likely to

reduce system effectiveness and would result in either repair or replacement of the

affected system component.

5.3.4 SSDS Monitoring Devices and Alarms

The SSDS is designed for continuous, unmanned operation and has warning devices to

indicate the system is not operating properly. In the event of SSDS

failure, assessment and notification to the State will be made within 24 hours. The

assessment should include appropriate actions to reduce potential exposures. It will be

the entity responsible for the ISMP to fix repairs in a timely manner to reduce potential

exposures.

Quarterly system checks and annual reviews will indicate if maintenance and repairs are

warranted. Operational problems will be noted in the Periodic Review Report to be

prepared for that reporting period.

#### 6.0 PERIODIC ASSESSMENTS/EVALUATIONS

# 6.1 Climate Change Vulnerability Assessment

Increases in both the severity and frequency of storms/weather events, an increase in sea level elevations along with accompanying flooding impacts, shifting precipitation patterns and wide temperature fluctuation, resulting from global climactic change and instability, have the potential to significantly impact the performance, effectiveness and protectiveness of a given site and associated remedial systems. Vulnerability assessments provide information so that the Site and associated remedial systems are prepared for the impacts of the increasing frequency and intensity of severe storms/weather events and associated flooding.

This section provides a summary of vulnerability assessments that will be conducted for the Site during periodic assessments, and briefly summarizes the vulnerability of the Site and/or engineering controls to severe storms/weather events and associated flooding.

- Flood Plain: Based on review of a Flood Insurance Rate Map for a portion of the City of Canandaigua, New York (Community Panel 3605970001C effective date September 24, 1982) acquired from the online FEMA Flood Map Services Center, the Site is designated as being Zone C designations. Zone C is defined as "Areas of minimal flooding." As such, the Site is considered outside the 100-year floodplain.
- Site Drainage and Strom Water Management: The existing Site development has adequate storm water management systems.
- Erosion: The majority of the Site is covered by existing building and associated parking lots. The grade of the Site is such that erosion will not occur during periods of severe rain events.
- High Wind: The majority of the Site is covered by the existing building and associated parking lots. Remedial system components are not

susceptible to damage from wind itself or falling objects, such as trees or utility structures during periods of high wind.

- Electricity: The fan associated with the SSDS system, is a component of
  the remedy that could be susceptible to power loss and/or dips/surges in
  voltage during severe weather events including lightning strikes. It is
  anticipated that such disruptions would be temporary and would have
  minimal effect on human health since business operations at the Site
  would also be shut down during such events due to lack of electricity.
- Spill/Contaminant Release: No areas of the Site and/or remedial systems
  are anticipated to be susceptible to a spill or other contaminant release due
  to storm related damage caused by flooding, erosion, high winds, loss of
  power, etc.

#### **6.2** Green Remediation Evaluation

NYSDEC's DER-31 Green Remediation requires that green remediation concepts and techniques be considered during all stages of the remedial program including site management, with the goal of improving the sustainability of the cleanup and summarizing the net environmental benefit of any implemented green technology. This section of the ISMP provides a summary of any green remediation evaluations to be completed for the site during site management, and as reported in the Periodic Review Report (PRR).

- Waste Generation: Waste generation is minimal. Groundwater sampling techniques utilized for this Site generate minimal quantities of waste. As such, it does not appear that additional waste reduction efforts are necessary at this time. Waste will also be generated during the implementation of the in-situ remedial components, however, the volume of waste (e.g., direct push drill cuttings, decontamination water, decontamination pad, etc.) is also expected to be minimal.
- Energy Usage: The SSDS is powered by electricity provided by an energy services company. The SSDS has been designed to incorporate a fan that

operates near the peak efficiency points on its design curves for optimal efficiency while maintaining negative pressure beneath the building slab. Other sources of electrical energy (hydro, solar, wind) may be cost prohibitive, may not be efficient, may not be available or may not be reliable to solely maintaining the SSDS.

- Emissions: The only potential emissions associated with the remedy at the Site are from operation of the SSDS and vehicles used during the completion of remediation activities, sampling and/or inspections. These emissions are considered typical in relation to the type of remedy being implemented at the Site.
- Water Usage: Potable water use at the Site as part of the remedy is minimal (e.g., reagent mix water, injection chase water, decontamination water, etc.) and is procured from the City of Canandaigua public water system. In addition, the analytical laboratory may provide minimal amounts of deionized water for certain types of samples associated with monitoring.
- Land and/or Ecosystems: No disturbance or restoration of land/or ecosystems is anticipated in relation to the remedy for the Site.

#### 6.2.1 Timing of Green Remediation Evaluations

For major remedial system components, green remediation evaluations and corresponding modifications will be undertaken as part of a formal Remedial System Optimization (RSO), or at any time that the Project Manager feels appropriate (e.g. during significant maintenance events or in conjunction with storm recovery activities).

Modifications resulting from green remediation evaluations will be routinely implemented and scheduled to occur during planned/routine operation and maintenance activities. Reporting of these modifications will be presented in the PRR.

## 6.2.2. Remedial Systems

Remedial systems will be operated properly considering the current Site conditions to conserve materials and resources to the greatest extent possible. Consideration will be given to operating rates and use of reagents and consumables. Spent materials will be sent for recycling, as appropriate.

# 6.2.3 Building Operations

Structures including buildings and sheds will be operated and maintained to provide for the most efficient operation of the remedy, while minimizing energy, waste generation and water consumption.

# 6.2.4 Frequency of System Checks, Sampling and Other Periodic Activities

Transportation to and from the Site and use of consumables in relation to visiting the Site in order to conduct system checks, collect samples and/or shipping samples to a laboratory for analyses have direct and/or inherent energy costs. The schedule and/or means of these periodic activities have been prepared so that these tasks can be accomplished in a manner that does not impact remedy protectiveness but reduces expenditure of energy or resources.

#### 6.2.5 Metrics and Reporting

The remedy for the Site involves little to no waste generation energy usage, water usage, transportation, and disturbance to land/ecosystems. As such, documentation and reporting in relation to green remediation during site management is not warranted.

#### **6.3** Remedial System Optimization

A Remedial Site Optimization (RSO) study will be conducted any time that the NYSDEC or the remedial party requests in writing that an in-depth evaluation of the remedy is needed. An RSO may be appropriate if any of the following occur:

• The remedial actions have not met or are not expected to meet RAOs;

 The management and operation of the remedial system is exceeding the estimated costs;

- The remedial system is not performing as expected or as designed;
- Previously unidentified source material may be suspected;
- Plume shift has potentially occurred;
- Site conditions change due to development, change of use, change in groundwater use, etc.;
- There is an anticipated transfer of the site management to another remedial party or agency; and
- A new and applicable remedial technology becomes available.

An RSO will provide a critique of a Site's conceptual model, give a summary of past performance, document current cleanup practices, summarize progress made toward the Site's cleanup goals, gather additional performance or media specific data and information and provide recommendations for improvements to enhance the ability of the present system to reach RAOs or to provide a basis for changing the remedial strategy.

The RSO study will focuses on overall Site cleanup strategy, process optimization and management with the intent of identifying impediments to cleanup and improvements to site operations to increase efficiency, cost effectiveness and remedial time frames. Green remediation technology and principals are to be considered when performing the RSO.

# 7.0 REPROTING REQUIREMENTS

#### 7.1 Site Management Reports

All site management inspection, maintenance and monitoring events will be recorded on the appropriate site management forms provided in Appendix I. These forms are subject to NYSDEC revision.

All applicable inspection forms and other records, including media sampling data and system maintenance reports, generated for the Site during the reporting period will be provided in electronic format to the NYSDEC in accordance with the requirements of Table 7.1 and summarized in the Periodic Review Report.

Table 7.1: Schedule of Interim Monitoring/Inspection Reports

Task/Report	Reporting Frequency*
Inspection Report (Site Cover and SSDS)	Annually
Periodic Review Report	Annually, or as otherwise determined by the Department
Groundwater Monitoring Results	To be determined
Indoor Air Monitoring	To be determined

<sup>\*</sup> The frequency of events will be conducted as specified until otherwise approved by the NYSDEC.

All interim monitoring/inspections reports will include, at a minimum:

- Date of event or reporting period;
- Name, company, and position of person(s) conducting monitoring/inspection activities;
- Description of the activities performed;

 Where appropriate, color photographs or sketches showing the approximate location of any problems or incidents noted (included either on the checklist/form or on an attached sheet);

- Type of samples collected (e.g., sub-slab vapor, indoor air, outdoor air, etc.);
- Copies of all field forms completed (e.g., well sampling logs, chain-of-custody documentation, etc.);
- Sampling results in comparison to appropriate standards/criteria;
- A figure illustrating sample type and sampling locations;
- Copies of all laboratory data sheets and the required laboratory data deliverables required for all points sampled (to be submitted electronically in the NYSDECidentified format);
- Any observations, conclusions, or recommendations; and
- A determination as to whether contaminant conditions have changed since the last reporting event.

Routine maintenance event reporting forms will include, at a minimum:

- Date of event;
- Name, company, and position of person(s) conducting maintenance activities;
- Description of maintenance activities performed;
- Any modifications to the system;
- Where appropriate, color photographs or sketches showing the approximate location of any problems or incidents noted (included either on the checklist/form or on an attached sheet); and,
- Other documentation such as copies of invoices for maintenance work, receipts for replacement equipment, etc., (attached to the checklist/form).

Non-routine maintenance event reporting forms will include, at a minimum:

• Date of event:

 Name, company, and position of person(s) conducting non-routine maintenance/repair activities;

- Description of non-routine activities performed;
- Where appropriate, color photographs or sketches showing the approximate location of any problems or incidents (included either on the form or on an attached sheet); and
- Other documentation such as copies of invoices for repair work, receipts for replacement equipment, etc. (attached to the checklist/form).

Data will be reported in digital format as determined by the NYSDEC. Currently, data is to be supplied electronically and submitted to the NYSDEC EQuIS<sup>TM</sup> database in accordance with the requirements found at this link http://www.dec.ny.gov/chemical/62440.html.

# 7.2 Periodic Review Report

A Periodic Review Report (PRR) will be submitted to the Department beginning sixteen (16) months after the Certificate of Completion is issued. After submittal of the initial Periodic Review Report, the next PRR shall be submitted annually to the Department or at another frequency as may be required by the Department. In the event that the Site is subdivided into separate parcels with different ownership, a single Periodic Review Report will be prepared that addresses the Site. The report will be prepared in accordance with NYSDEC's DER-10 and submitted within 30 days of the end of each certification period. Media sampling results will also be incorporated into the Periodic Review Report. The report will include:

- Identification, assessment and certification of all ECs/ICs required by the remedy for the Site.
- Results of the required annual site inspections and severe condition inspections, if applicable.
- All applicable site management forms and other records generated for the Site during the reporting period in the NYSDEC-approved electronic format, if not previously submitted.

• A summary of any discharge monitoring data and/or information generated during the reporting period, with comments and conclusions.

- Data summary tables and graphical representations of contaminants of concern by media (groundwater, soil vapor, etc.), which include a listing of all compounds analyzed, along with the applicable standards, with all exceedances highlighted.
   These will include a presentation of past data as part of an evaluation of contaminant concentration trends.
- Results of all analyses, copies of all laboratory data sheets, and the required laboratory data deliverables for all samples collected during the reporting period will be submitted in digital format as determined by the NYSDEC. Currently, data is supplied electronically and submitted to the NYSDEC EQuIS<sup>TM</sup> database in accordance with the requirements found at this link: http://www.dec.ny.gov/chemical/62440.html.
- A site evaluation, which includes the following:
  - The compliance of the remedy with the requirements of the site-specific RAWP, ROD or Decision Document;
  - The operation and the effectiveness of all treatment units, etc., including identification of any needed repairs or modifications;
  - Any new conclusions or observations regarding site contamination based on inspections or data generated by the Field Sampling Plan for the media being monitored;
  - Recommendations regarding any necessary changes to the remedy and/or Monitoring and Sampling Plan; and
  - Trends in contaminant levels in the affected media will be evaluated to determine if the remedy continues to be effective in achieving remedial goals as specified by the Decision Document.
  - The overall performance and effectiveness of the remedy.

# 7.2.1 Certification of Institutional and Engineering Controls

Following the last inspection of the reporting period, Professional Engineer licensed to practice in New York State will prepare, and include in the Periodic Review Report, the following certification as per the requirements of NYSDEC DER-10:

"For each institutional or engineering control identified for the site, I certify that all of the following statements are true:

- The inspection of the Site to confirm the effectiveness of the institutional and engineering controls required by the remedial program was performed under my direction;
- The institutional control and/or engineering control employed at this Site is unchanged from the date the control was put in place, or last approved by the Department;
- Nothing has occurred that would impair the ability of the control to protect the public health and environment;
- Nothing has occurred that would constitute a violation or failure to comply with any site management plan for this control;
- Access to the Site will continue to be provided to the Department to evaluate the remedy, including access to evaluate the continued maintenance of this control;
- If a financial assurance mechanism is required under the oversight document for the Site, the mechanism remains valid and sufficient for the intended purpose under the document;
- Use of the Site is compliant with the environmental easement;
- The engineering control systems are performing as designed and are effective;
- To the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program and generally accepted engineering practices; and
- The information presented in this report is accurate and complete.

I certify that all information and statements in this certification form are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law. I, [name], of [business address], am certifying as Parkway Plaza Limited Partnership.

I certify that all information and statements in this certification form are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law. I, [name], of [business address], am certifying as Parkway Plaza Limited Partnership.

- No new information has come to my attention, including groundwater monitoring data from wells located at the Site boundary, if any, to indicate that the assumptions made in the qualitative exposure assessment of off-site contamination are no longer valid; and
- The assumptions made in the qualitative exposure assessment remain valid.

The signed certification will be included in the Periodic Review Report.

The Periodic Review Report will be submitted, in electronic format, to the NYSDEC Central Office, Regional Office in which the site is located and the NYSDOH Bureau of Environmental Exposure Investigation. The Periodic Review Report may need to be submitted in hard-copy format, as requested by the NYSDEC project manager.

#### 7.3 Corrective Measures Work Plan

If any component of the remedy is found to have failed, or if the periodic certification cannot be provided due to the failure of an institutional or engineering control, a Corrective Measures Work Plan may be submitted to the NYSDEC for approval. This plan will explain the failure and provide the details and schedule for performing work necessary to correct the failure. Unless an emergency condition exists, no work will be performed pursuant to the Corrective Measures Work Plan until it has been approved by

the NYSDEC. The following subsection presents a corrective action that will be completed at the Site to facilitate SSDS design and operation.

#### 7.3.1 Perimeter Seal Corrective Action

An elastomeric sealant will be used to seal an approximate 1-inch wide gap that is present at portions of the building perimeter, between the building footer and the building floor slab. A silicone rubber caulk or engineer-approved equal will be used to fill and seal this gap, which will further isolate the indoor air space from the sub-slab soil vapors, and enhance the effectiveness of the pending SSDS.

## 7.4 Remedial Site Optimization Report

In the event that an RSO is to be performed (see Section 6.3), upon completion of an RSO, an RSO report must be submitted to the Department for approval. The RSO report will document the research/investigation and data gathering that was conducted, evaluate the results and facts obtained, present a revised conceptual site model and present recommendations. RSO recommendations are to be implemented upon approval from the NYSDEC. Additional work plans, design documents, HASPs etc., may still be required to implement the recommendations, based upon the actions that need to be taken. A final engineering report and update to the ISMP/SMP may also be required.

The RSO report will be submitted, in electronic format, to the NYSDEC Central Office, Regional Office in which the site is located, Site Control and the NYSDOH Bureau of Environmental Exposure Investigation.

#### 8.0 REFERENCES

# Previous Reports and Documents

Phase I Environmental Site Assessment, dated June 29, 1998 prepared by IVI Environmental, Inc. (IVI).

Phase II Environmental Site Assessment, dated August 6, 1998 prepared by IVI.

Data Package Former Dry Cleaners Parkway Plaza Canandaigua, New York, dated March 1999 prepared by Day Environmental, Inc. (DAY).

Work Plan, Voluntary Cleanup Program, Former Parkway Cleaners, Portion of Parkway Plaza, Canandaigua, New York, Index No. B8-0555-99-06, dated June 2000 prepared by Day Environmental, Inc.

INTERIM REMEDIAL MEASURE REPORT: Former Parkway Cleaners, Parkway Plaza-Canandaigua, New York: NYSDEC Site Code #V00238-8, Site Index Number B8-0555-99-06, dated September 2002 prepared by Day Environmental, Inc.

Vapor Intrusion Evaluation Report, Former Parkway Cleaners, Parkway Plaza-Canandaigua, New York: NYSDEC Site Code #V00238-8, dated May 3, 2007 prepared by Day Environmental, Inc.

Remedial Investigation/Recommended Remedial Alternative Report, Former Parkway Cleaners, Eastern Boulevard, Parkway Plaza, City of Canandaigua, Ontario County, New York, NYSDEC Site Number: V00238-8, dated March 2010 (Revised August 2012 and August 2014) prepared by Day Environmental, Inc.

Draft Remedial Action Work Plan, Former Parkway Cleaners, Eastern Boulevard, Parkway Plaza, City of Canandaigua, Ontario County, New York, BCP Site Number: C835028, dated February 2019, prepared by Day Engineering, P.C.

Pre-Renovation Asbestos-Containing Materials Inspection, Unit 51- Parkway Plaza, 79 Eastern Boulevard, Canandaigua, New York 14424, dated March 2019, prepared by LaBella Associates, D.P.C.

Asbestos Air Monitoring and Abatement Completion, Parkway Plaza Unit 51- Brow 9"x9" Floor Tile Removal, LaBella Project 2190865 dated April 16, 2019 prepared by LaBella Associates, D.P.C.

Corrective Action Letter, Former Parkway Cleaners, NYSDEC Site #:C835028, 47 Eastern Boulevard, Canandaigua, New York, dated July 19, 2019 prepared by Day Environmental, Inc.

# **Regulatory Documents**

Federal Emergency Management Agency, Flood Insurance Rate Map, City of Canandaigua, New York, Ontario County, Panel 1 of 2, Community Panel Number, 360597 0001 C, Map Revised: September 24, 1982.

Final Guidance for Evaluating Soil Vapor Intrusion in the State of New York dated October 2006 prepared by the New York State Department of Health

NYSDEC Division of Water Technical and Operational Guidance Series 1.1.1 document titled "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations" (TOGS 1.1.1) dated June 1998, including April 2000 Addendum Table 1.

NYSDEC DER-10 Technical Guidance for Site Investigation and Remediation, May 3, 2010.

6NYCRR Part 375, Environmental Remediation Programs. December 14, 2006.

# Reference Materials

Groundwater, R Allan Freeze & John A. Cherry, 1979.

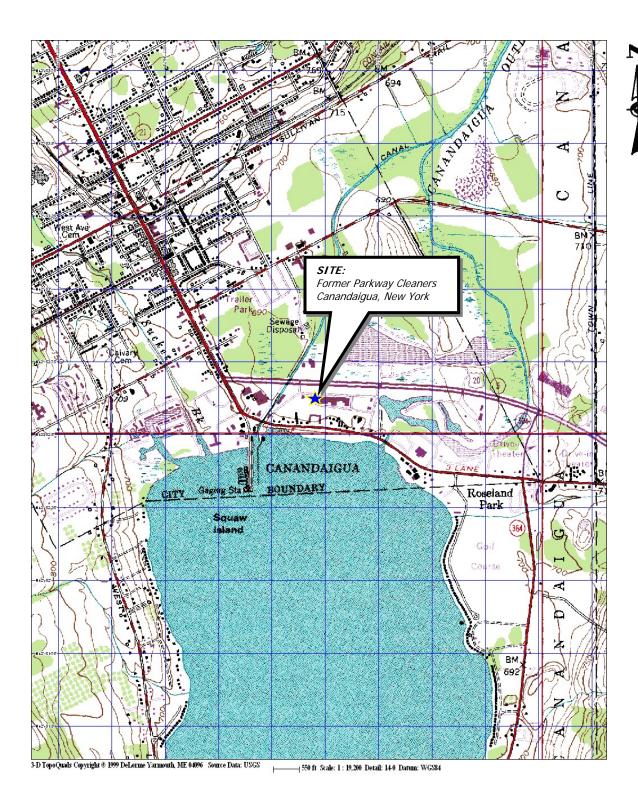
Geologic Map of New York: Finger Lakes Sheet compiled and edited by Lawrence V. Rickard and Donald W. Fisher dated March 1970.

New York State Geological Survey, *Surficial Geologic Map of New York – Finger Lakes Sheet*, E.H Muller and D.H. Cadwell, 1986.

Ontario and Yates Counties, New York Soil Survey, United States Department of Agriculture Soil Conservation Service, 1958.

United States Department of the Interior Geological Survey, Water-Resources Investigations Report #87-4122, *Unconsolidated Aquifers in Upstate New York (Finger Lakes Sheet)*.

# **FIGURES**



Drawing Produced From: 3-D TopoQuads, DeLorme Map Co., referencing USGS quad maps Canandaigua (NY) 1978 and Canandaigua Lake (NY) 1978. Site Lat/Long: N42° 52.6′ – W77° 16.0′

DATE
2/27/2019

DRAWN BY
RJM

SCALE

1" = 2000'

DAY ENVIRONMENTAL, INC.
ENVIRONMENTAL CONSULTANTS
ROCHESTER, NEW YORK 14614-1008
NEW YORK, NEW YORK 10165-1617

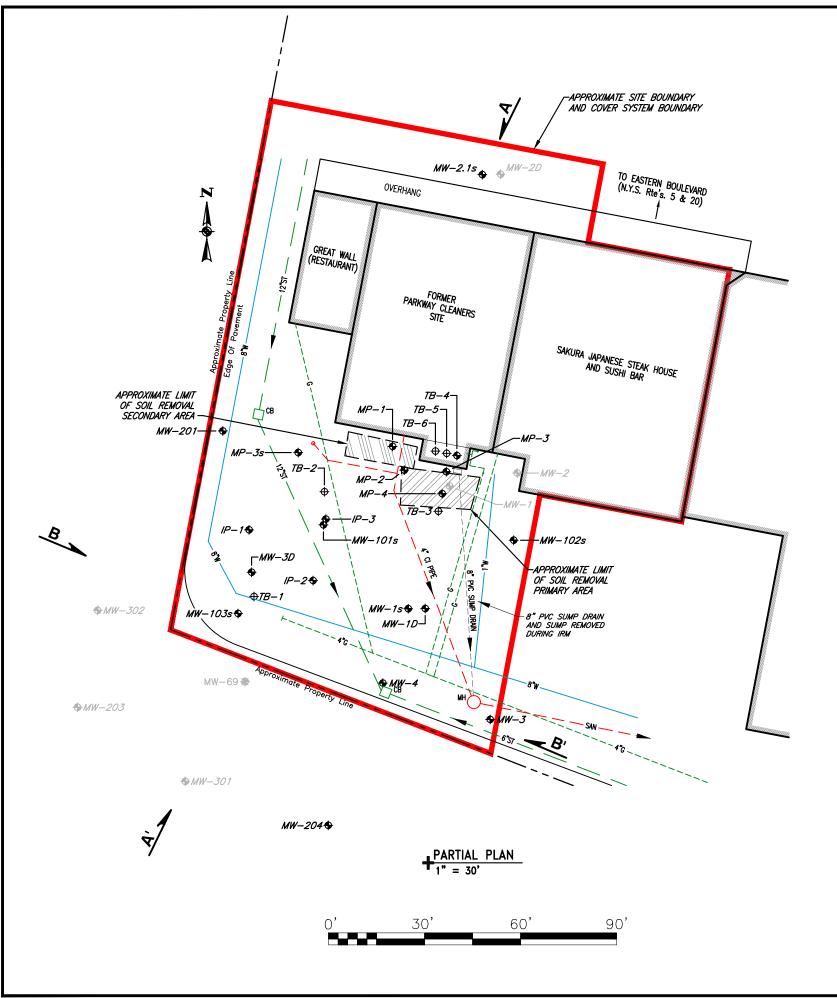
PROJECT TITLE
FORMER PARKWAY CLEANERS
BCP SITE NO. C835028
CANANDAIGUA, NEW YORK

DRAWING TITLE PROJECT LOCUS MAP

PROJECT NO.

5188R-15

FIGURE 1

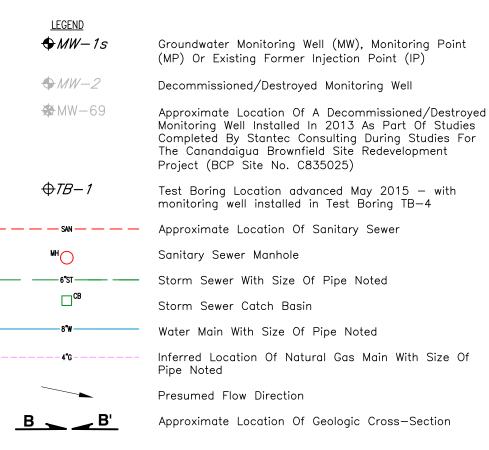


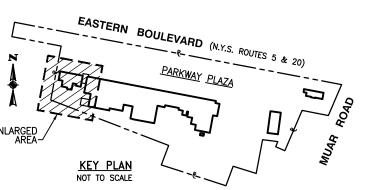
NOTES:

Partial Plan Adapted From A Drawing By IVI

Environmental, Inc, Entitled "Sample Location Map", Dated August 3, 1998 And By A Site Sketch Made By DAY Environmental, Inc. On November 5 & 6, 1998.

- 2. Groundwater Monitoring Well/Injection Point Locations Were Tape Measured Or Observed From Existing Site Structures And Should Be Considered Accurate To The Degree Implied By The Method Used.
- 3. Property Lines Shown Are From A Map Of An Instrument Survey By MRB Group, Entitled "Plan Of Land Owned By Parkway Plaza Limited Partnership In The City Of Canandaigua, Town Of Canandaigua, Ontario County, NY, Boundary Map", Dated June 22, 1988 And Last Revised On December 6, 1988.
- 4. Approximate Site Boundary And Cover System Boundary Are From A Drawing By Passero Associates, Entitled "ALTA/ACSM Land Title Survey, 161 Eastern Boulevard, Lands Now of Formerly of Parkway Plaza Limited Partnership, Tax Account No. 084.18-0001-006.11, City Of Canandaigua, County Of Ontario, State Of New York' Drawing Number ALTA-1 and Dated March 2016.





2-25-2019 2-27-2019 Noted RLK

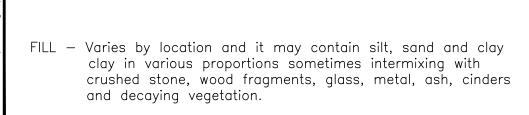
RJM DAY ENVIRONMENTAL, INC. ENVIRONMENTAL CONSULTANTS ROCHESTER, NEW YORK 14606 NEW YORK, NEW YORK 10170

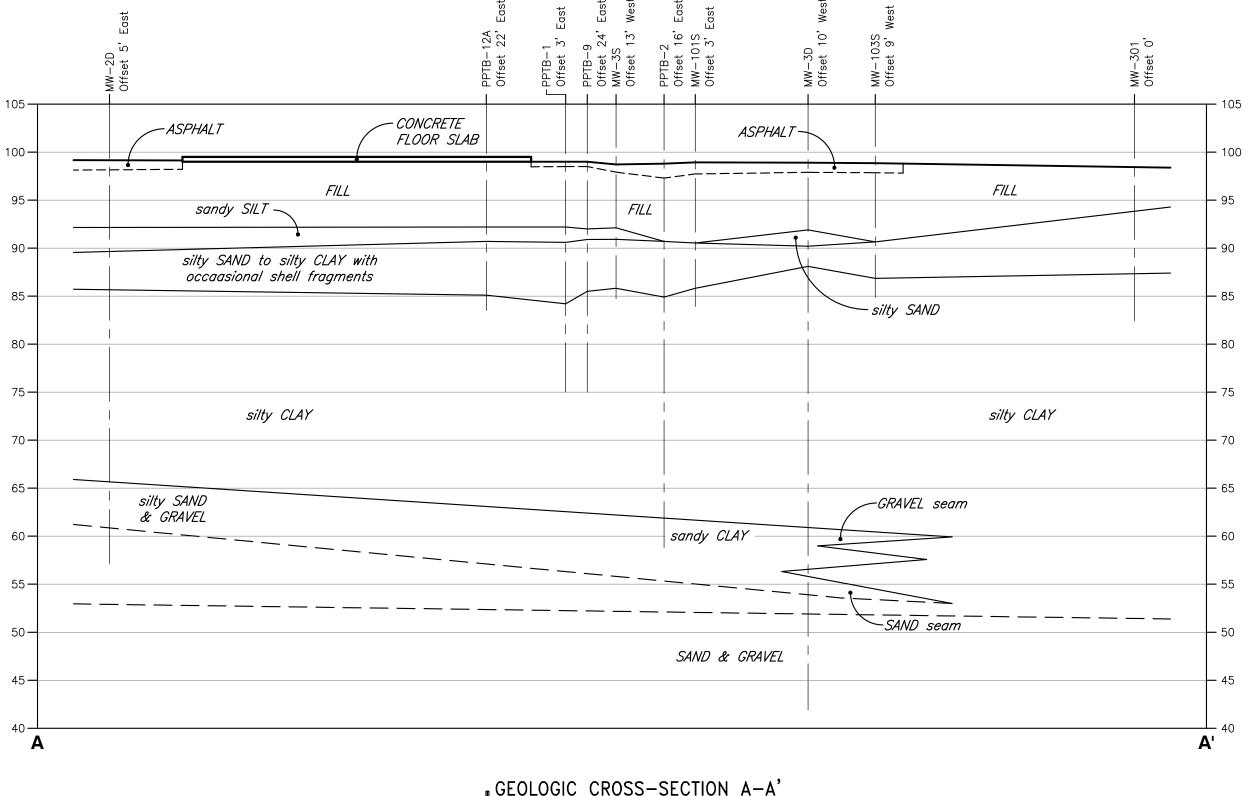
CLEANERS FORMER PARKWAY CLEANE BCP SITE C835028 CANANDAIGUA, NEW YORK

5188R-15

Site Plan With Test Locations

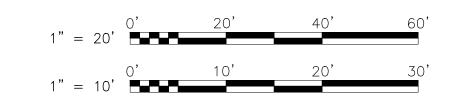
FIGURE 2





GEOLOGIC CROSS—SECTION A—A'

1" = 20' Horizontal
1" = 10' Vertical



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INTAL, INC.	RJM	2-27-2019
SULTANTS RK 14614-1008	SCALE	DATE ISSUE
(10165-1617	As Noted	2-27-2019

DAY ENVIRONMEN'
ENVIRONMENTAL CONSU
ROCHESTER, NEW YORK
NEW YORK, NEW YORK 10

FORMER PARKWAY CLEANERS
BCP SITE C835028
CANANDAIGUA, NEW YORK

Geologic Cross Section A-A'

PROJECT NO. 5188R-15

FIGURE 3

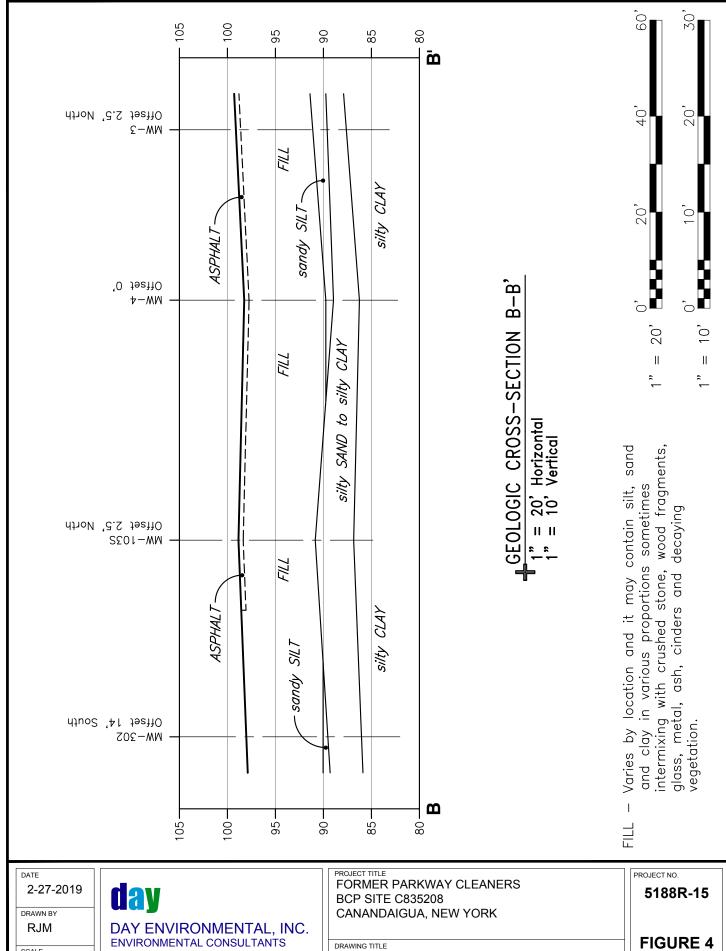
Pen Setting File: 800psFullcolor.ctb Section A-A plotscale.dwg 2019 7:59:13 AMe Name: P:\Drawings\Park 5188R-15\5188R-15 Layout: Layout2 Time Plotted: Wednesday, February 27, Ref2: Ref1: Section A-A.dwg

SCALE

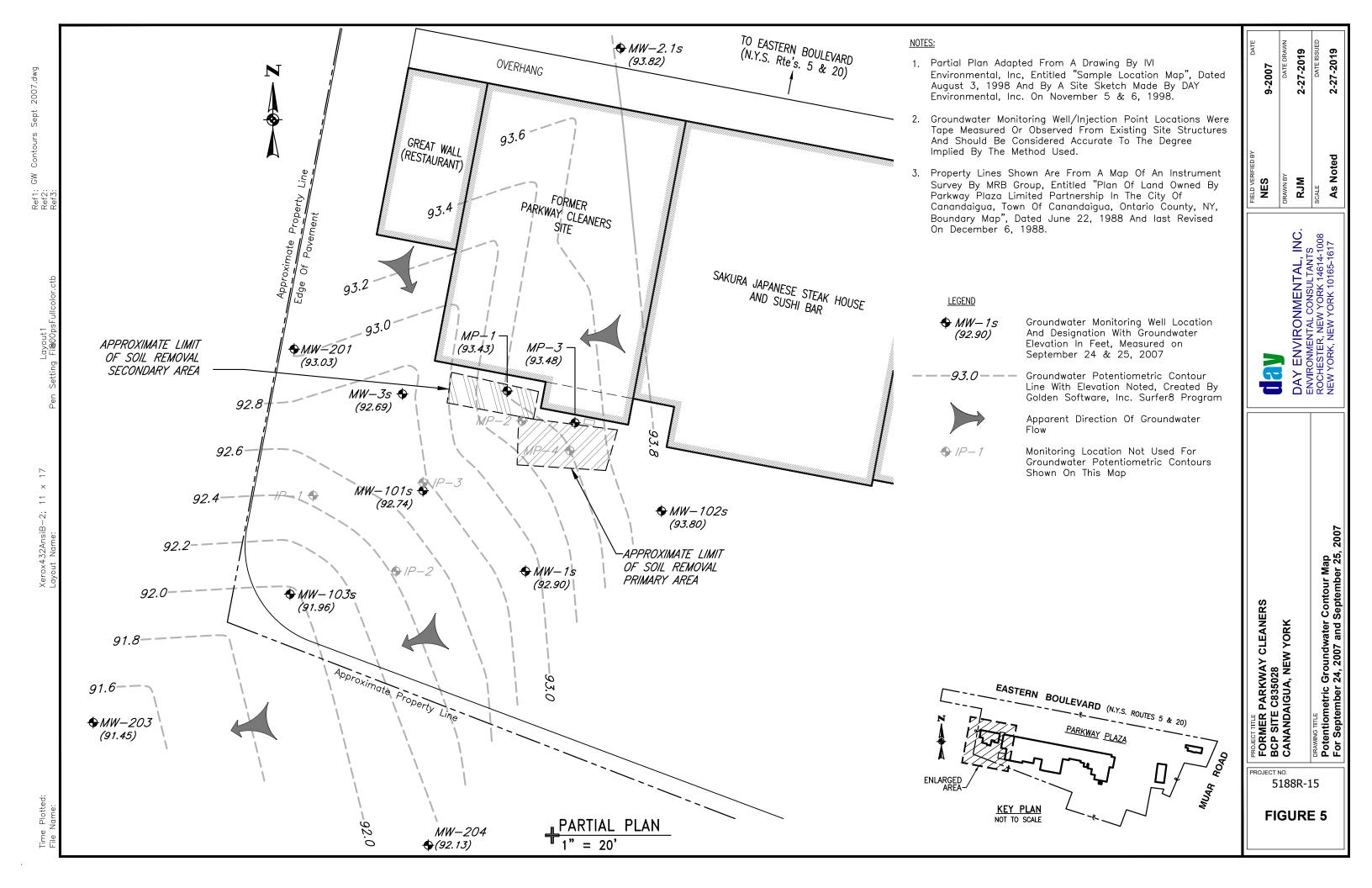
As Noted

ROCHESTER, NEW YORK 14614-1008

NEW YORK, NEW YORK 10016-0710



Geologic Cross-Section B-B'





03-18-2010

**CPS** 

AS NOTED

DAY ENVIRONMENTAL, INC.

**Environmental Consultants** Rochester, New York 14606 New York, New York 10170

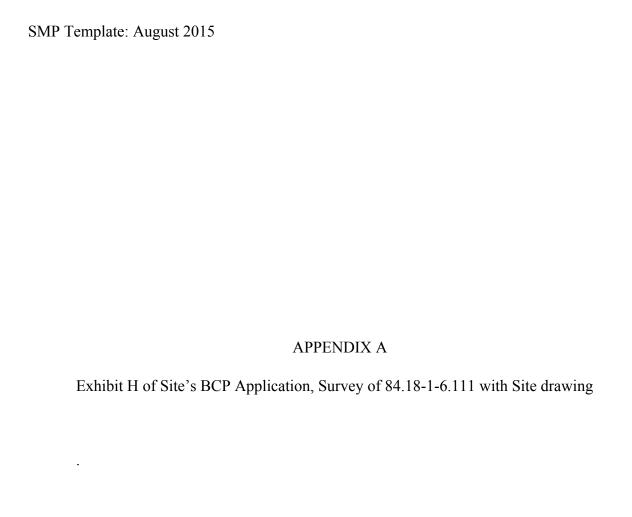
FORMER PARKWAY CLEANERS BCP SITE NO.: C835028 CANANDAIGUA, NEW YORK

Drawing Title
Potentiometric Groundwater Contour Map for September 22, 2009

5188R-15

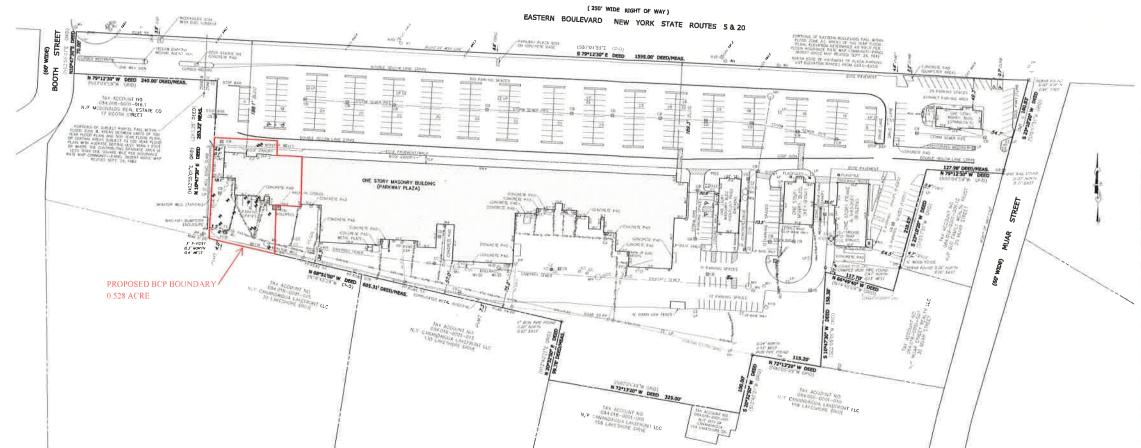
FIGURE 6

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- 3. THERE IS NO OBSERVED EVIDENCE OF SITE USE AS A SOUR WASTE DUMP, SUMP OR SANITARY LANDFILL ON SUBJECT PREMISES AT THE TIVE OF THIS SURVEY.

- PREFERENCE:

  MAP PREPARED BY MYB GROUP ENGINEEPING/ARCHITECTURE/SURVEING P.C.

  CHTILED INSTRUMENT SURVEY, PLAN. OF LAND OWNED BY PARKWAY PLAZA

  LUMIDD PARTIERSHIP PROCEST ON 2522-240R DATED 121.002
- 2 MAP PREPARED BY JACK R. ANDERSEN, U.S. ENTITLED "MAP OF LATIDS OF MISH DEVELOPMENT COPP. PARKMAY PLAZA SKOPPING CENTER" FILED IN THE ONTARIO COUNTY CLERKS OFFFICE. SURVEY MAP # 5824.
- 4. DEED RECORDED IN THE OITARIO COUNTY CLERKS OFFICE, LIBER 809 DEEDS PAGE 1086.
- 5 DEED RECORDED IN THE CHITARIO COUNTY CLERKS OFFICE, DOCUMENT NO. 2010/9190169.
- 6 DEED RECGROED IN THE ONTARIO COUNTY CLEPAS OFFICE, LIBER 1070 DECDS PAGE 738
- 7 DEED RECORDED IN THE GNTARIO COUNTY CLERKS OFFICE, DOCUMENT NO. 201505220141

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CITY OF CANANDAIGUA

**Passero Associates** 242 West Mein Street, Suite 100 (980) 325-1000 Rechester, NY 14614

7 Printed to Company 3.F.C.

Product Plannager R.A.V.
Caning by Q.P.S.

JADD Management LLC 415 Park Avenue Rochester, New York 14607 (585) - 703 - 4201

> ALTA/ACSM Land Title Survey

161 Eastern Boulevard Lands Now or Formerly of Parkway Plaza Limited Partnership

Tax Account No. 084.18-0001-006.1 City of Canandalgua County of Ontario, State of New York

20162200.0001

ALTA-1 1 of 1

1" = 50' MAR.2016

# APPENDIX B LIST OF SITE CONTACTS

Name	Phone/Email Address
Parkway Plaza Limited Partnership	585-434-5220/abodewes@parkgrove.com
Park Grove Realty	585-434-5220/abodewes@parkgrove.com
Day Engineering, P.C.	585-454-0210/nsimon@daymail.net
Timothy A. Schneider, P.E.	585-226-5480/timothy.schneider@dec.ny.gov
Bernette Schilling, P.E.	585-226-5315/bernette.schilling@dec.ny.gov
Sakura Japanese Steak House and Sushi Bar	585-393-1888
Great Wall Restaurant	585-396-9191
Linda Shaw, Esq.	585-546-4324/lshaw@nyenvlaw.com

# APPENDIX C

TEST BORING LOGS/MONITORING WELL INSTALLATION DIAGRAMS

Test Boring Logs/Monitoring Well Installation Diagrams
TB-1 through TB-10
MW-1 through MW-4
November 1998

FILE NO.: <u>1764S-98</u> BORING NO.: TB-1 (MW-1) PROJECT: PHASE II STUDY PARKWAY PLAZA CANANDAIGUA, NEW YORK

CONTRACTOR: Zebra Environmental Corp. TYPE OF DRILL RIG: Truck mounted Geoprobe SURFACE ELEV.: 98.66' LOCATION: South Side of Sump DATUM: 100.00'

SAMPLING METHOD: 3" Large Bore Core

DATE STARTED: 11/5/98

DATE FINISHED: 11/5/98

AUGERS: NA

DAY REPRESENTATIVE: John Blanchard

JSB3047a / 1764S-98

	RS: NA	OVERR	mpm:	. 374	DEDE	тры ты	DITO BOO	DAY REPRESENTATIVE: John Blanchard	JSB3047a / 1764S-98
THICK	NESS OF	OVERBU	JRDEN:	NA.	DEPTI	H DRILLED	INTO ROC	CK: 0' TOTAL DEPTH OF HOLE: 20.0' WEATHER: O	vercast, breezy, ~40°F
DEPTH (FT)	SAMPLE NO.,	BLOWS PER 0.5 FOOT	N-VALUE	% RECOVERY	PEAK PID READING (PPM)	PEAK FID READING (PPM)	<b>ДЕРТН (FT)</b>	SOIL AND ROCK DESCRIPTION	Well Diagram
		NA	NA					Asphalt	
-1-	SS-1			95	0.0	0.0	-1-	Black to brown Clay and Silt (FILL), moist.	Bentonite
-2-		-					-2-		
					66.9	720	2		
-3-							-3-	Brown Clay, some Silt and Cobbles (FILL), moist.	
-4-	ļ						-4-		Sand
					72.6	>1000			
-5-							-5-	Brown CLAY, little Silt, trace Gravel, moist (FILL) strong VOC odor.	
	SS-2			80			-6-	satisfy the odds.	
-6-							-0-		1 1/4" PVC
-7-					3,201	>1000	-7-		Riser
								strong VOC odor.	
-8-							-8-	Brown to black SAND and COBBLES, moist.	
-9-					4,524	>1000	-9-	Blown w black SAIVD and COBBLES, moist.	
-7-									
-10-	SS-3			90		ŀ	-10-		
								Black CLAY, wet.	
-11-					8,695	>1000	-11-		1 1/4" PVC Well Screen
12							-12-		
-12-							-12-		1 ¼" PVC Well Screen
-13-					132	45	-13-	Grey SILT and SAND, little shell fragments, wet	
	SS-4			100					
-14-	<del> </del>				į		-14-		
15					0.0	0.0	-15-		777777777777
-15-				ł			-13-	Brown CLAY, moist.	
-16-							-16-		
					15.0	10.0			,
-17-							-17-	Brown SAND, little Silt and Shell fragments, Wet.	
	SS-5			90					
-18-							-18-		
-19-					17.2	12	-19-	Brown CLAY, Wet.	
-20-		<b>*</b>	<b>*</b>				-20-	Boring terminated at 20' BGS.	
MISCEL	LANEO	US NOT	ES: PPN	1 = parts p	er million PI	D = Photoioniz	ation detecto	FID = Flame Ionization Detector NC = Not Collected NA = Not Applicable BGS =	Below Ground Surface

FILE NO.: <u>1764S-98</u> BORING NO.: TB-2 (MW-2) PROJECT: PHASE II STUDY PARKWAY PLAZA CANANDAIGUA, NEW YORK

CONTRACTOR: Zebra Environmental Corp.

TYPE OF DRILL RIG: Truck mounted Geoprobe

SURFACE ELEV.: 98.78'

LOCATION: East of Sump Area DATE STAPTED: 11/5/09

DATUM: 100.00'

	PLING ME' ERS: <u>NA</u>	THOD: 3	" Large	Bore Cor	<u>e</u>			DATE STARTED: <u>11/5/98</u> DATE FINISHED: <u>11/5/99</u> DAY REPRESENTATIVE: <u>John Blanchard</u>	8 JSB3047A / 1764S-98
	KNESS OF	OVERB	URDEN	: NA	DEPTI	I DRILLED	INTO RO		vercast, breezy, ~40°F
DEPTH (FT)	SAMPLE NO.,	BLOWS PER 0.5	N-VALUE	% RECOVERY	PEAK PID READING (PPM)	PEAK FID READING (PPM)	DEPTH (FT)	SOIL AND ROCK DESCRIPTION	Well Diagram  Curb box
-1-		NA	NA.		5.3	400	-1-	Asphalt  Brown to black Sand and Gravel, some Silt (FILL), damp.	Bentonite
-2-	SS-1		***************************************	100			-2-		1 1/4" PVC
-3-					4.9	>1,000	-3-	slight VOC odor.	Riser
-4-					6.5	110	-4-	Black Sand, some Silt, trace Clay, Organics, and Cobbles,	
-5-	SS-2			85	0.3	110	-5-	damp (FILL).	Sand
-6-	35-2			05	7.0	80	-6-	Brown SAND, GRAVEL, and COBBLES, moist.	
-7-					7.0		-7-	Wet at 7.0 feet.	
-8-							-8-		
-9-					6.0	30	-9-		1 1/4" PVC
-10-	SS-3			10			-10-	Black CLAY, little Silt, moist.	Well Screen
-11-			***************************************		6.0	30	-11-		
-12-							-12-		1 1/4" PVC Well Screen
-13-					3.0	350	-13-	Gray SILT, little Shell fragments, wet.	
-14-	SS-4			100			-14-		
-15-					4.0	100	-15-	Brown CLAY, moist.	
-16-							-16-	Boring terminated at 16' BGS.	
-17-							-17-		
-18-							-18-		
-19-							-19-		
-20- MISCE	LLANEO	US NO	▼ ΓES: PP	M = parts p	er million Pl	D = Photoionia	-20-	or FID = Flame Ionization Detector NC = Not Collected NA = Not Applicable BGS	Below Ground Surface

FILE NO.: 1764S-98 BORING NO.: TB-3
PROJECT: PHASE II STUDY
PARKWAY PLAZA
CANANDAIGUA, NEW YORK

CONTRACTOR: Zebra Environmental Corp.

TYPE OF DRILL RIG: Truck mounted Geoprobe

SAMPLING METHOD: 3" Large Bore Core
AUGERS: NA

SURFACE ELEV.: NA

DATUM: NA

LOCATION: West of Sump (near rear entrance)

DATE STARTED: 5/6/98

DATE FINISHED: 5/6/98

DAY REPRESENTATIVE: John Blanchard JSB3047A / 1764S-98

THICK	NESS OF	OVERBU	JRDEN:	NA	DEPTI	H DRILLED	INTO ROC	CK: 0' TOTAL DEPTH OF HOLE: 16.0' WEATHER: O	vercast, breezy ~40°F
DEPTH (FT)	SAMPLE NO.,	BLOWS PER 0.5 FOOT	N-VALUE	% RECOVERY	PEAK PID READING (PPM)	PEAK FID READING (PPM)	рертн (FT)	SOIL AND ROCK DESCRIPTION	COMMENTS
		ŅA	NA			<u> </u>		Asphalt	
-1-					12.5	10	-1-	Black Sand and Cobbles, some Gravel (FILL), damp.	
-2-	SS-1			40		i	-2-		
-3-					28.2	300	-3-		
-4-							-4-		Slight VOC Odor
-5-		***			59	600	-5-	Tan Clay, little Sand and Silt, moist (FILL).	
-6-	SS-2	******		50			-6-		
-0-									Strong VOC Odor
-7-					119	>1,000	-7-		
-8-							-8-	grass encountered (original ground surface).	
-0-									:
-9-				l	36.5	60	-9-	Black CLAY, trace Gravel, moist.	
	[			ļ				Becoming gray.	
-10-	SS-3			70			-10-		
10									Slight VOC Odor
-11-	[			]	34.0	30	-11-	Grey to gray-green SAND and SILT, wet.	Ū
-11-									
-12-							-12-		
-12-					ì			Grey CLAY, moist.	
-13-							-13-		
"					15.6	110			
-14-	SS-4			80			-14-		
								Grey SAND, little Silt, Wet.	
-15-					16.9	100	-15-		
-16-							-16-		
		$\perp$						Boring terminated at 16' BGS.	
-17-							-17-		
-18-							-18-		
10-									
-19-							-19-		
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<del>-</del> 20-							-20-		
		₩	<b>*</b>						<u> </u>
MISCEI	LANEO	US NOT	TES: PP	M = parts	per million Pl	ID = Photoioni	zation detecto	or FID = Flame Ionization Detector NC = Not Collected NA = Not Applicable BGS	= Below Ground Surface

BORING NO.: TB-4 FILE NO.: 1764S-98 PROJECT: PHASE II STUDY PARKWAY PLAZA CANANDAIGUA, NEW YORK

CONTRACTOR: Zebra Environmental Corp.

SURFACE ELEV .: NA LOCATION: West of TB-1 DATUM: NA

TYPE OF DRILL RIG: Truck mounted Geoprobe SAMPLING METHOD: 3" Large Bore Core

DATE STARTED: 11/5/98

DATE FINISHED: 11/5/98 JSB3047A / 1764S-98

AUGEF THICK	NESS OF	OVERBU	RDEN:	NA	DEPTH	DRILLED	INTO ROC	DAY REPRESENTATIVE: John Blanchard  CK: 0' TOTAL DEPTH OF HOLE: 16.0' WEATHER: O	JSB3047A / 1764S vercast, breezy, ~40°
(FT)	SAMPLE NO.,	BLOWS PER 0.5 FOOT	N-VALUE	% RECOVERY	PEAK PID READING (PPM)	PEAK FID READING (PPM)	рертн (FT)	SOIL AND ROCK DESCRIPTION	COMMENTS
		NA	NA					Asphalt	
-1-	SS-1		***************************************	60	0.0		-1-	Black Sand, some Cobbles and Gravel (FILL), damp.	
-2-	35-1						-2-		Į.
-3-					0.0	-	-3-		8
,								Brown Clay, Little Gravel and Cobbles, moist (FILL).	
-4-							-4-		
-5-							-5-		
	SS-2			50	0.0	-			
-6-							-6-	layer of crushed stone.	
-7-					0.0	-	-7-		
								Wood and Grass encountered (original ground surface).	
-8-						i	-8-	Black SILT, trace Clay, moist.	
-9-					0.0		-9-	more Clay.	
10-	SS-3			70			-10-	Grey SAND and SILT, little Shell fragments, wet.	
					0.0	-		, , , , , , , , , , , , , , , , , , , ,	
11-							-11-		
12-							-12-		
13-	<u> </u>						-13-		
-0.1	SS-4			100	7.3		•5-		
14-	55-4			100			-14-	Brown CLAY, little Silt, moist to wet.	
15-					0.0	-	-15-		
	-							29	
16-							-16-	Boring terminated at 16' BGS.	
17-	-						-17-		
18-							-18-		
19-							-19-		
	-								
20-	-					İ	-20-		

FILE NO.: 1764S-98 BORING NO.: TB-5
PROJECT: PHASE II STUDY
PARKWAY PLAZA
CANANDAIGUA, NEW YORK

CONTRACTOR: Zebra Environmental Corp.

TYPE OF DRILL RIG: Truck mounted Geoprobe

SURFACE ELEV.: NA
LOCATION: South of TB-1

DATUM: NA

SAMPLING METHOD: 3" Large Bore Core

DATE STARTED: 11/5/98

DATE FINISHED: 11/5/98

AUGERS: NA DAY REPRESENTATIVE: John Blanchard JSB3047A / 1764S-98 THICKNESS OF OVERBURDEN: NA DEPTH DRILLED INTO ROCK: 0' TOTAL DEPTH OF HOLE: 16.0° WEATHER: Overcast, breezy ~60°F PEAK PID READING (PPM) % RECOVERY PEAK FID READING (PPM) SAMPLE NO. BLOWS PER 0.5 FOOT DEPTH (FT) DEPTH (FT) SOIL AND ROCK DESCRIPTION COMMENTS Asphalt NA NA. -1--1-20 3.2 Brown Gravel, Cobbles and Sand (FILL), damp. SS-1 80 -2--2-200 4.7 -3--3-Brown Silt, little Sand and Gravel, moist (FILL). -4--4-...some Clay. -5--5-650 2.0 95 SS-2 -6--6-...Wood encountered. -7--7->1,000 2.2 -8--8-Black CLAY, trace Wood, moist. -9--9-1.0 200 SS-3 90 -10--10--11--11-110 0.0 Black to Grey CLAY, trace Organics, moist. -12--12--13--13-0.0 35 ...no Organics. SS-4 85 -14--14-0.0 0.0 -15--15--16--16-Boring terminated at 16' BGS. -17--17--18--18--19--19--20--20-

MISCELLANEOUS NOTES: PPM = parts per million PID = Photoionization detector FID = Flame Ionization Detector NC = Not Collected NA = Not Applicable BGS = Below Ground Surface

FILE NO.: 1764S-98 BORING NO.: TB- 6 (MW-3)
PROJECT: PHASE II STUDY
PARKWAY PLAZA
CANANDAIGUA, NEW YORK

CONTRACTOR: Zebra Environmental Corp.

SURFACE ELEV.: 98.72'

DATUM: 100.00'

TYPE OF DRILL RIG: Truck mounted Geoprobe
SAMPLING METHOD: 3" Large Bore Core

LOCATION: South of manhole along southern property line

DATE STARTED: 11/5/98

DATE FINISHED: 11/5/98

DAY REPRESENTATIVE: John Blanchard JSB3047A / 1764S-98 AUGERS: NA WEATHER: Overcast, breezy, ~40°F DEPTH DRILLED INTO ROCK: 0' THICKNESS OF OVERBURDEN: TOTAL DEPTH OF HOLE: 16.0° PEAK PID READING (PPM) Well Diagram DEPTH (FT) BLOWS PER 0.5 FOOT SAMPL: NO., DEPTH (FT) SOIL AND ROCK DESCRIPTION Asphalt. NA -1--1-Brown Sand, some Cobbles and Gravel (FILL), damp. 0.0 80 SS-1 -2--2-0.0 -3--3-1 1/4" PVC Brown Sand, some, Silt, little Clay (FILL), moist. -4-4 ...Layer of wood encountered. -5--5-0.0 Brown Clay, trace Gravel, moist (FILL). SS-2 90 -6--6-0.5 -7--7--8--8-Black CLAY, little organics, wet. -9--9-0.0 50 SS-3 -10--10-1.6 Grey SAND, little Silt and Shell fragments, wet. -11--11-Black CLAY, wet. 1 1/4" PVC -12--12-Well Screen -13--13-0.0 ...Becoming grey. 80 SS-4 -14--14-0.0 ... Becoming brown, wet. -15--15--16--16-Boring terminated at 16' BGS. -17--17--18--18--19--19--20--20-MISCELLANEOUS NOTES: PPM = parts per million PID = Photoionization detector FID = Flame Ionization Detector NC = Not Collected NA = Not Applicable BGS = Below Ground Surface

FILE NO.: 1764S-98 BORING NO.: TB-7
PROJECT: PHASE II STUDY
PARKWAY PLAZA
CANANDAIGUA, NEW YORK

CONTRACTOR: Zebra Environmental Corp.

TYPE OF DRILL RIG: Truck mounted Geoprobe

LOCATION: South of TB-2

DATUM: NA

SAMPLING METHOD: 3" Large Bore Core

DATE STARTED: 11/5/98

SURFACE ELEV .: NA

DATE FINISHED: 11/5/98

DAY REPRESENTATIVE: John Blanchard JSB3047A / 1764S-98 AUGERS: NA DEPTH DRILLED INTO ROCK: 0' WEATHER: Overcast, breezy, ~40°F THICKNESS OF OVERBURDEN: TOTAL DEPTH OF HOLE: 16.0° PEAK PID READING (PPM) N-VALUE DEPTH (FT) DEPTH (FT) SAMPLI NO., BLOWS PER 0.5 FOOT SOIL AND ROCK DESCRIPTION COMMENTS Asphalt ŅΑ -1--1-0.0 Brown to tan Sand, Gravel, and Cobbles (FILL), damp. SS-1 80 -2--2-0.0 ...Little Silt. -3--3--4--4-Reddish brown Clay (FILL), moist. -5--5-0.0 SS-2 75 -6--6-2.0 -7--7-Brown Sand and Cobbles, little Clay (FILL). ...Grass encountered (original ground surface). -8--8-Black SILT, little Wood, trace Clay, moist. -9--9-0.0 SS-3 -10--10-0.3 ...Becoming grey. -11--11--12--12-Grey SAND and SILT, trace shell fragments, wet. -13--13-1.7 100 SS-4 -14--14-0.2 Grey CLAY, wet. -15--15--16--16-Boring terminated at 16' BGS. -17--17--18--18--19--19--20--20-

MISCELLANEOUS NOTES: PPM = parts per million PID = Photoionization detector FID = Flame Ionization Detector NC = Not Collected NA = Not Applicable BGS = Below Ground Surface

#### DAY ENVIRONMENTAL, INC. 2144 BRIGHTON-HENRIETTA TOWN LINE ROAD ROCHESTER, NEW YORK 14623 (716) 292-1090

FILE NO.: 1764S-98 BORING NO.: TB-8 PROJECT: PHASE II STUDY PARKWAY PLAZA CANANDAIGUA, NEW YORK

CONTRACTOR: Zebra Environmental Corp.

SURFACE ELEV.: NA

DATUM: NA

TYPE OF DRILL RIG: Truck mounted Geoprobe SAMPLING METHOD: 3" Large Bore Core

LOCATION: South of TB-3 DATE STARTED: 11/6/98

DATE FINISHED: 11/6/98

	RS: NA		, <u></u>		= <u></u>			DAY REPRESENTATIVE: John Blanchard JSB3047A / 1764S-98		
THIC	CNESS OF	OVERB	URDEN	: NA	DEPTI	DRILLED	INTO ROO	CK: 0' TOTAL DEPTH OF HOLE: 16.0' WEATHER Par	tly cloudy, ~30°F	
<b>DEPTH (FT)</b>	SAMPLE NO.,	BLOWS PER 0.5		% RECOVER Y	PEAK PID READING (PPM)	PEAK FID READING (PPM)	<b>DEPTH (FT)</b>	SOIL AND ROCK DESCRIPTION	COMMENTS	
	300	NA	NA			1		Asphalt		
-1-					4.9		-1-	Down Sand Count and Cabiles down (TVI)		
-2-	SS-1			90	4.5		-2-	Brow Sand, Gravel, and Cobbles, damp (FILL).		
-3-					7.5	-3-				
-4-							-4-	Brown Silt, little Clay and Gravel, moist (FILL).		
-5-					4.2		-5-			
-6-	SS-2			100			-6-	_		
-7-					3.5		-7-			
-8-	1						-8-	Wood present (original ground surface).		
-9-					1.4		-9-	Brown SILT and CLAY, moist.		
-10-	SS-3			80			-10-	n e		
-11-			***		1.2		-11-			
-12-							-12-	Grey SAND and SILT, little Shell fragments, moist.	:	
-13-			***		0.2		-13-			
-14-	SS-4		***************************************	100			-14-			
-15-		-			0.1		-15-	Brown CLAY, moist.		
-16-							-16-	Boring terminated at 16' BGS.		
-17-							-17-	Doing leminiated at 10 DOS.		
-18-							-18-			
-19-							-19-			
-20-		<b>+</b>	•				-20-			
MISCE	LLANEO	US NO	ΓES: PP	M = parts pe	er million PI	D = Photoioniz	zation detecto	or FID = Flame Ionization Detector NC = Not Collected NA = Not Applicable BGS =	Below Ground Surface	

#### DAY ENVIRONMENTAL, INC. 2144 BRIGHTON-HENRIETTA TOWN LINE ROAD ROCHESTER, NEW YORK 14623 (716) 292-1090

FILE NO.: 1764S-98 BORING NO.: TB-9 PROJECT: PHASE II STUDY PARKWAY PLAZA CANANDAIGUA, NEW YORK

CONTRACTOR: Zebra Environmental Corp.

TYPE OF DRILL RIG: Truck mounted Geoprobe

DATE STARTED: 11/6/98

SURFACE ELEV .: NA

DATUM: NA

SAMPLING METHOD: 3" Large Bore Core

LOCATION: South of TB-1 and North of TB-8

DATE FINISHED: 11/6/98

DAY REPRESENTATIVE: John Blanchard AUGERS: NA JSB3047A / 1764S-98 THICKNESS OF OVERBURDEN: DEPTH DRILLED INTO ROCK: 0' WEATHER: Partly Cloudy, ~30°F TOTAL DEPTH OF HOLE: 16.0' DEPTH (FT) PEAK PID READING (PPM) DEPTH (FT) % RECOVER Y SAMPLI NO., BLOWS PER 0.5 FOOT SOIL AND ROCK DESCRIPTION COMMENTS ŅΑ Asphalt -1--1-10.6 Brown Sand, Gravel, and Cobbles, damp (FILL). SS-1 75 -2--2-5.9 -3--3-Brown Clay, some Silt, moist (FILL). -4--4--5--5-9.4 SS-2 100 -6--6-9.6 -7--7-.. Wood encountered (Original Ground Surface). -8--8--9--9-Black CLAY and SILT, moist. 11.1 SS-3 100 -10--10-...Becoming Grey. 7.7 Grey SAND and SILT, little shell fragments, wet. -11--11--12--12--13--13-6.3 Brown CLAY and SILT, wet. SS-4 100 -14--14-6.4 -15--15--16--16-Boring terminated at 16' BGS. -17--17--18--18--19--19--20--20-

MISCELLANEOUS NOTES: PPM = parts per million PID = Photoionization detector FID = Flame Ionization Detector NC = Not Collected NA = Not Applicable BGS = Below Ground Surface

#### DAY ENVIRONMENTAL, INC. 2144 BRIGHTON-HENRIETTA TOWN LINE ROAD ROCHESTER, NEW YORK 14623 (716) 292-1090

FILE NO.: 1764S-98
PROJECT: PI
PARKW

BORING NO.: TB- 10 (MW-4)

PROJECT: PHASE II STUDY PARKWAY PLAZA CANANDAIGUA, NEW YORK

CONTRACTOR: Zebra Environmental Corp.

SURFACE ELEV.: 97.81' DA
LOCATION: East of TB-6 along the southern property line

DATUM: 100.00'

TYPE OF DRILL RIG: Truck mounted Geoprobe
SAMPLING METHOD: 3" Large Bore Core

DATE STARTED: 11/6/98

DATE FINISHED: 11/6/98

AUGERS: NA

DAY REPRESENTATIVE: John Blanchard

JSB3047A / 1764S-98

	ERS: NA	OVERBIL	DDEM.	NTA	DEME	I DDW I ED	DITO DOC	DAY REPRESENTATIVE: John Blanchard	JSB3047A / 1764S-98
IHICI	KNESS OF	OVERBU.	KUEN:	NA T	_	I DRILLED	IN 10 ROC	CK: 0' TOTAL DEPTH OF HOLE: 16.0' WEATHER: P	artly Cloudy, ~30°F
DEPTH (FT)	SAMPLE NO.,	BLOWS PER 0.5 FOOT	N-VALUE	% RECOVE RY	PEAK PID READING (PPM)	PEAK FID READING (PPM)	DEPTH (FT)	SOIL AND ROCK DESCRIPTION	Well Diagram  Curb box
-1-	SS-1	NA	NA	90	0.0	-	-1-	Asphalt  Brown to black Sand, Gravel, and Cobbles, damp (FILL).	Bentonite
-3-					0.0		-3-	Some Brick.	1 ¼" PVC Riser
-4- -5- -6-	SS-2			20	0.1		-4- -5- -6-		
-7- -8-			***************************************		0.0		-7- -8-	Black Silt and Sand, some Cobbles, wet.	Sand
-9-	SS-3			100	0.2	-	-9-	Black CLAY, little Silt, moist.	
-10-					0.0	-	-10-	Grey SAND and SILT, wetMore Silt.	1 1/4" PVC Well Screen
-12-	SS-4			100	0.0		-12-	Brown CLAY, moist to wet.	
-14- -15- -16-					0.0	-	-14-		
-17-			***************************************				1	Boring terminated at 16' BGS.	
-18-			***************************************				-18-		
-19-							-19-		
MISCEL			S: PPM	= parts per	million PII	= Photoioniz	ation detector	FID = Flame Ionization Detector NC = Not Collected NA = Not Applicable BGS =	Below Ground Surface

Test Boring Logs
PPTB-1 through PPTB-9
TB-10 through TB-12A
PPTB-13 through PPTB-15
September 2000

Project: Parkway Plaza

DAY Representative: John S. Blanchard

**Drilling Contractor: Nothnagle** 

**Drilling Rig: CME75** 

Sampling Method: 4' Acetate sleeves

Completion Method: Backfilled with grout

**BORING NUMBER: PPTB-1** 

Project No: 2105R-99

Boring Location: See Site Plan

**Ground Surface Elevation: NA** 

Start Date: 9/5/00

Datum: NA

**Completion Date:** 

Borehole Depth: 24 feet

Water Level: Approximately 10 feet

Borehole Diameter: 3 inches

Depth (feet)	Blows per 0.5'	Number	Depth (feet)	% Recovery	N-Value or RQD %	Peak PID Reading (ppm)	Well Installation Log	Sample Description
1-		S-1	0-4	90	NA .	0.0 0.0 2.2		Asphalt and gravel.  Brown Sand and gravel, little Clay, moist (FILL).
3-						29.5		Brown Silt, little gravel and Sand, damp (FILL).  Brown Sand and gravel, damp (FILL).
4-						24.2		
5-	4					59.0		
"		S-2	4-8	40		0.0		Brown Clay, moist to wet, (FILL).
7-						0.0		Black SILT, little Clay, moist.
9-						9.3		Grey Sandy CLAY, moist to wet.
10-		S-3	8-12	100		0.0		
11-			"-			0.0		samples wet at approximately 10 feet.
12						0.0		shell fragments.
13						0.0		
14-		S-4	12-16	100		0.0		
15						0.0		
16						0.0		Brown CLAY, trace organics, moist to wet.
17						0.0		
18		S-5	16-20	95		0.0		
19						0.0		
20				_		0.0		
21						0.0		seams of silty clay, moist to wet.
22		S-6	20-24	35		0.0		Seams of sitty day, most to wet.
23						0.0		
24		<u> </u>				0.0		POUL -4 041
25								BOH at 24'.

File: 2105r001.log

Project: Parkway Plaza

DAY Representative: John S. Blanchard

**Drilling Contractor:** Nothnagle

**Drilling Rig: CME75** 

Sampling Method: 4' Acetate sleeves
Completion Method: Backfilled with grout

**BORING NUMBER: PPTB-2** 

Project No: 2105R-99

Boring Location: See Site Plan

**Ground Surface Elevation: NA** 

Borehole Diameter: 3 inches

Start Date: 9/5/00

Datum: NA

Completion Date: 9/5/00

Borehole Depth: 40 feet

Water Level: approximately 11 feet

Depth (feet)	Blows per 0.5'	Number	Depth (feet)	% Recovery	N-Value or RQD %	Peak PID Reading (ppm)	Well Installation Log	Sample Description
				1				Asphalt and gravel.
1 2 3 4 5 6 7 8 9 10 11 11 11 11 11 11 11 11 11 11 11 11	NA	S-1	0-4	80	NA	0.0 0.0 0.0		Brown Sand and Gravel, little Clay, damp (FILL).
5 milimin		S-2	4-8	80		0.0		some Clay.
7 1						0.0		Brown Clay, damp (FILL).
8 =		-				1 . 1		Brown SILT, little Clay, trace organics, moist.
9 =			0.40			0.0		
10 =		S-3	8-12	30		0.0		
]		<u> </u>				] 0.0		
13						0.0		Grey Sandy CLAY, moist to wet.
12 13 14 15 11 15 11		S-4	12-16	95		0.0		Brown CLAY, moist.
15 =						5.3		blown GEAT, most.
16=				<u> </u>		1		
17-		2-	40.00	400		0.0		
18-		S-5	16-20	100	100	0.0		layers of Silt and Clay.
19 20						0.0		
21-				1		0.0	-	Brown SILT and CLAY, trace to little gravel, moist to wet.
22-		S-6	20-24	100		0.0		layers of Clay present.
23						0.0		
24								
25-						0.0		Brown CLAY, moist to wet.
26		S-7	24-28	100		0.0		wet at 26 feet.
27						0.0		
28						0.0	İ	little Silt and Sand.
29 = 30 = 3		S-8	28-32	95		0.0		little gravel.
31 -						0.0		
32 🗐								Brown CLAY, little Silt, trace Sand and gravel, wet.
33 =	ļ					0.0		BIOMIT SEAT, HILLO SHIL, HOUR SOLIN ON GUIGINA, WELL
34 🖥		S-9	32-36	100		0.0		layers of Clay, less Sand and Silt.
35-						0.0		•
34 1 35 1 36 1 37 1 1 37 1 1 1 1 1 1 1 1 1 1 1 1 1 1							ļ	Brown Sandy CLAY, wet.
37 = 38 = 3		S-10	36-40	5		3.5 (HSS)	ĺ	
39-		0	00 70			0.0 (1100)		shell fragments.
40								
41	Ì							BOH at 40'.

File: 2105r002.log

Project: Parkway Plaza

DAY Representative: John S. Blanchard

**Drilling Contractor: Nothnagle** 

**Drilling Rig: CME75** 

Sampling Method: 4' Acetate sleeves
Completion Method: Backfilled with grout

**BORING NUMBER: PPTB-3** 

Project No: 2105R-99

**Boring Location:** See Site Plan

**Ground Surface Elevation: NA** 

Start Date: 9/5/00

Datum: NA

Completion Date: 9/5/00

Borehole Depth: 24 feet

**Borehole Diameter:** 3 inches **Water Level:** Approximately 5 feet

Depth (feet)	Blows per 0.5'	Number	Depth (feet)	% Recovery	N-Value or RQD %	Peak PID Reading (ppm)	Well Installation Log	Sample Description
						0.0		Asphalt and gravel (FILL).
'	1-					0.0		Brown Sand and gravel, damp (FILL).
2	1	S-1	0-4	80	NA	0.0		
3	3-∃					0.0		little Clay, moist.
4	4 = = = = = = = = = = = = = = = = = = =	+		<del> </del>		0.0		
5								wet at approximately 5 feet.
6	711	S-2	4-8	70		0.0		Clay layer.
7	, <u>]</u>					0.0		
8	, <del>]</del>					0.0		Black SILT, little Clay, damp.
9	, <del>[</del>					0.0		
10	j	S-3	8-12	90		0.0		Black to grey CLAY, damp.
11	3					0.0	i	
12	‡					0.0		little Sand and gravel, moist to wet.
	3					0.0		
13	#					0.0		
14	4	S-4	12-16	30		0.0		
15	-					0.0		
16-								
17-								
18-	7	S-5	16-20	0		NA		No Recovery (16-20 feet).
19-								
20-	<u> </u>							seam of sand and gravel, wet.
21-	=======================================					0.0		trace shell fragments.
22-	<del>-</del>	S-6	20-24	100		0.0		Brownish-red CLAY, little Silt, wet.
23				22		0.0		DIOWINSTFIEL OLD I, INCIE OIR, WEL.
24-	1	ļ				0.0		
25-								BOH at 24'.

File: 2105r003.log

Project: Parkway Plaza

DAY Representative: John S. Blanchard

**Drilling Contractor: Nothnagle** 

**Drilling Rig: CME75** 

Sampling Method: 4' Acetate sleeves
Completion Method: Backfilled with grout

**BORING NUMBER: PPTB-4** 

Project No: 2105R-99

Boring Location: See Site Plan

**Ground Surface Elevation: NA** 

Borehole Diameter: 3 inches

Start Date: 9/5/00

Datum: NA

Completion Date: 9/5/00

Borehole Depth: 24 feet

Water Level: approximately 12 feet

Depth (feet)	Blows per 0.5'	Number	Depth (feet)	% Recovery	N-Value or RQD %	Peak PID Reading (ppm)	Well Installation Log	Sample Description
						0.0		Asphalt and gravel (FILL).  Brown Sand and gravel, little CLAY, damp (FILL).
1 2 -	NA	S-1	0-4	90	NA NA	0.0		Brown Sand and graver, nittle GEAT, Gamp (FILL).
3 =						0.0		,,, some Clay, little Silt.
4						0.0	:	
5						0.0		
6-		S-2	4-8	70		0.0		
7 - 1 8 - 1						0.0		
8 -						0.0		
9						0.0		Black SILT, little Clay, trace organics, damp.
10		S-3	8-12	100		0.0		
11-						0.0		Black CLAY, moist.
12-						0.0		Gray Silty CLAY, moist to wet.
13						0.0		Gray CLAY, moist.
14-		S-4	12-16	90			Ì	
15						0.0	}	
16-						0.0		layers of Silt.
17-						0.0		
18-		S-5	16-20	100		0.0		
19						0.0		
20								No Recovery (20-24 feet).
21								
22-		S-6	20-24	0		NA		
23								
24								BOH at 24'.

File: 2105r004.log

Project: Parkway Plaza

DAY Representative: John S. Blanchard

**Drilling Contractor: Nothnagle** 

**Drilling Rig: CME75** 

Sampling Method: 4' Acetate sleeves
Completion Method: Backfilled with grout

**BORING NUMBER: PPTB-5** 

Project No: 2105R-99

Boring Location: See Site Plan

**Ground Surface Elevation: NA** 

Borehole Diameter: 3 inches

Start Date: 9/5/00

Datum: NA

Completion Date: 9/5/00

Borehole Depth: 24 feet

Water Level: Approximately 8 feet

Depth (feet)	Blows per 0.5'	Number	Depth (feet)	% Recovery	N-Value or RQD %	Peak PID Reading (ppm)	Well Installation Log	Sample Description
1 2 - 3 -	NA	S-1	0-4	90	NA	0.0		Asphalt and gravel (FILL).  Brown Sand and gravel, damp.
3 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -		S-2	4-8	70		0.0 0.0 0.0		little Clay little Cobbles.
9 10 11 11 11 11 11 11 11 11 11 11 11 11		S-3	8-12	100		0.0 0.0 0.0		samples wet at approximately 8 feet.  Black SILT, little Clay, trace gravel, damp.  Black CLAY, damp.  Gray Silty CLAY, little Sand, moist to wet.  shell fragments.
13-		S-4	12-16	90		0.0		gray CLAY, moist lenses of Silt present.
18-		S-5	16-20	10		0.0 0.0 0.0 0.0		
21 22 - 23 - 23 - 24 - 24 - 24 - 24 - 24 -		S-6	20-24			0.0 0.0 0.0		
24								BOH at 24'.

File: 2105r005.log

**Project:** Parkway Plaza

DAY Representative: John S. Blanchard

**Drilling Contractor: Nothnagle** 

**Drilling Rig: CME75** 

Sampling Method: 4' Acetate sleeves Completion Method: Backfilled with grout

**BORING NUMBER: PPTB-6** 

Boring Location: See Site Plan

**Ground Surface Elevation: NA** 

Start Date: 9/6/00

Project No: 2105R-99

Datum: NA

Completion Date: 9/6/00 Borehole Depth: 24 feet

Borehole Diameter: 3 inches

Water I	Level:	Approximately	y 12 feet
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Depth (feet)	Blows per 0.5'	Number	Depth (feet)	% Recovery	N-Value or RQD %	Peak PID Reading (ppm)	Well Installation Log	Sample Description
1-		S-1	0-4	70	NA NA	0.6		Asphalt and gravel.  Brown to grey, Sand and gravel, damp (FILL).
3-1						1.0		little to Some Clay.
511						0.8		seam of gravel and Cobbles
6		S-2	4-8	70		0.0		Gray Sand and gravel, little Clay and Silt, moist (FILL).
8						0.3		little Cobbles.  Black SILT, some Clay.
10		S-3	8-12	50		0.2		trace silt.
12								Black to gray CLAY, damp to moist trace shell fragments samples wet at approximately 12 feet.
13-		S-4	12-16	100		0.1		
15						0.2	ĺ	Gray CLAY, moist seams of Silt.
16 <del>-  </del> 17 <del>-  </del>						0.3		
18		S-5	16-20	90		0.4		
19						0.6		
20=						0.0		less Silt.
21-		S-6	20-24	70		0.0		
22-		<b>3</b> -0	20-24	/0		0.0		
=						0.0		
24								BOH at 24'.

File: 2105r006.log

Project: Parkway Plaza

DAY Representative: John S. Blanchard

**Drilling Contractor: Nothnagle** 

**Drilling Rig: CME75** 

Sampling Method: 4' Acetate sleeves

Completion Method: Backfilled with grout

**BORING NUMBER: PPTB-7** 

Project No: 2105R-99

**Boring Location:** See Site Plan

**Ground Surface Elevation: NA** 

Borehole Diameter: 3 inches

Start Date: 9/6/00

Datum: NA

Completion Date: 9/6/00

Borehole Depth: 44 feet

Water Level: Approximately 11.5 feet

Depth (feet)	Blows per 0.5'	Number	Depth (feet)	% Recovery	N-Value or RQD %	Peak PID Reading (ppm)	Well Installation Log	Sample Description
=								Asphalt and gravel, damp.
1-	NA	S-1	0-4	60	NA	0.6 2.7		Brown Sand and gravel, little Silt, damp (FILL).
3-						3.3		
5-1		S-2	4-8	90		7.3 11.2		Red Clay, little Sand and gravel, damp (FILL).
7-						1.1		Black Silt, little Clay, trace organics, damp.
9-1		S-3	8-12	80		2.5		
11-						0.6		Gray CLAY, little Silt, trace shell fragments, moist to wet.
12								wet at 11.5 feet.
14		S-4	12-16	0		NA		No Recovery (rock in cut shoe).
16		S-5	16-20	90		0.2		Grey CLAY, moist.
19						0.2		
20						0.2		becoming wet.
22				10		0.4		
23						0.4		

File: 2105r007.log

Project: Parkway Plaza

DAY Representative: John S. Blanchard

**Drilling Contractor: Nothnagle** 

**Drilling Rig: CME75** 

Sampling Method: 4' Acetate sleeves
Completion Method: Backfilled with grout

BORING NUMBER: PPTB-7

Project No: 2105R-99

**Boring Location:** See Site Plan

Ground Surface Elevation: NA

Borehole Diameter: 3 inches

Start Date: 9/6/00

Datum: NA

Completion Date: 9/6/00

Borehole Depth: 44 feet

Water Level: Approximately 11.5 feet

Depth (feet)	Blows per 0.5'	Number	Depth (feet)	% Recovery	N-Value or RQD %	Peak PID Reading (ppm)	Well Installation Log	Sample Description
23		S-6	20-24	10		0.4		becoming wet.
24- 25- 26-		S-7	24-28	5		0.3		
27-						0.2		Brown SAND, trace gravel, wet.
29			20.00	45		0.2		
31-		S-8	28-32	15		0.2		little Silt and Clay.
32						0.1		
34		S-9	32-36	30		0.1		
36						0.1		
38		S-10	36-40	5		0.1		
41-						0.1		
43-		S-11	40-44	10				
44								BOH at 44'.

File: 2105r007.log

Project: Parkway Plaza

DAY Representative: John S. Blanchard

**Drilling Contractor:** Nothnagle

**Drilling Rig: CME75** 

Sampling Method: 4' Acetate sleeves
Completion Method: Backfilled with grout

**BORING NUMBER: PPTB-8** 

Project No: 2105R-99

Boring Location: See Site Plan

**Ground Surface Elevation: NA** 

Borehole Diameter: 3 inches

**Start Date: 9/6/00** 

Datum: NA

Completion Date: 9/6/00

Borehole Depth: 40 feet

Water Level: Approximately 12.5 feet

			Daukilled (	,,,,,, grout				The state of the s
Depth (feet)	Blows per 0.5'	Number	Depth (feet)	% Recovery	N-Value or RQD %	Peak PID Reading (ppm)	Well Installation Log	Sample Description
1 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		S-1	0-4	60	NA	0.6 1.1 1.2		Asphalt and gravel, (FILL).  Brown Sand and gravel, little Clay, damp (FILL).
1 2 3 4 5 6 7 8 9 9		S-2	4-8	95		1.2 1.3 1.4		little Cobbles.  Black SILT, little Clay and Organics, damp.
10-∄		S-3	8-12	15		1.3		Black SILT, inter Glay and Organics, camp.
11 12 13 14 15 15 15 15 15 15 15 15 15 15 15 15 15		S-4	12-16	100		0.5		Brown SILT and SAND, little gravel, wet samples wet at approximately 12.5 feet.
16 17 18 19 19 19 19 19 19 19 19 19 19 19 19 19		S-5	16-20	100		0.2 0.3 0.3		Brown to black CLAY, wet to moist seams of Clay, little Silt.
20 21 22 23 23 23 23 23 23 23 23 23 23 23 23		S-6	20-24	20		0.3		trace Silt.  Brown SAND and SILT, trace gravel, Wet.
24		S-7	24-28	0		NA		No Recovery 24-28 feet.
28 1 29 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		S-8	28-32	15		0.1		Brown CLAY, little Sand, trace Silt, wet.
32 11 33 11 34 11 11 35 11 11 11 11 11 11 11 11 11 11 11 11 11		S-9	32-36	30		0.2		shell fragments.  Black SAND, little gravel, wet
36 37 38 39 39 39 39 39 39 39 39 39 39 39 39 39		S-10	36-40	5		0.1		little Cobbles, some gravel.
40 41 -								BOH at 40'.

File: 2105r008.log

Project: Parkway Plaza

DAY Representative: John S. Blanchard

**Drilling Contractor: Nothnagle** 

**Drilling Rig: CME75** 

Sampling Method: 4' Acetate sleeves
Completion Method: Backfilled with grout

**BORING NUMBER: PPTB-9** 

Project No: 2105R-99

Boring Location: See Site Plan

**Ground Surface Elevation: NA** 

Datum: NA

Start Date: 9/6/00

Completion Date: 9/6/00

Borehole Diameter: 3 inches

Borehole Depth: 24 feet

Water Level: Approximately 12.5 feet Well Installation Log Peak PID Reading (ppm) % Recovery Depth (feet) Depth (feet) N-Value or RQD % Sample Description per Number Blows 0.5' Asphalt and gravel. 0.0 Brown Sand and gravel, little Clay, trace Silt, damp (FILL). 1.1 90 NA NA S-1 0-4 1.3 ... increasing clay. 0.0 Tan Clay, little Sand, damp (FILL). 0.0 ... Sand decreases. 0.0 ... trace gravel. S-2 4-8 60 0.3 0.2 8 9 CAVE IN - No Sample recovered. 0 10 S-3 8-12 NA 11 12 1.9 ... samples wet at approximately 12.5 feet. 13 0.0 Brown CLAY, moist. S-4 12-16 40 14 0.0 15-... seams of Silt. 0.0 16 Brown SAND and GRAVEL, little Silt, wet. 29.1 17 1.2 ... trace shell fragments. 70 S-5 16-20 18 19 1.1 20 0.8 21 0.4 20-24 80 S-6 22-Brown to tan CLAY, little Silt, wet to moist. 0.0 23-0.0 24 BOH at 24'. 25

File: 2105r009.log

Project: Voluntary Cleanup Agreement

**DAY Representative:** J. Dorety

**Drilling Contractor:** Day Environmental

Drilling Rig: Hand-held Geoprobe
Sampling Method: 2' Acetate Sleeves

Completion Method: Filled with concrete

**BORING NUMBER: TB-10** 

Project No: 2105R-99

Boring Location: See Site Plan

**Ground Surface Elevation: NA** 

Borehole Diameter: 1.5 inches

Start Date: 9/6/00

Datum: NA

Completion Date: 9/6/00

Borehole Depth: 2.4 feet

Water Level: NA

Sample Description   Sample	001	iibietioii w	otiloa.	I IIICG WIGH				Water Le	
NA   S-1   0-2   75   NA   35.9   1308   486   127	Depth (feet)	Blows per 0.5'	Number	Depth (feet)	% Recovery	N-Value or RQD %	Peak PID Reading (ppm)	Well Installation Log	Sample Description
S-2 2.2.4 10 127  Dark brown Sandy CLAY, some Silt, trace Gravel, damp.  BOH at 2.3'.  BOH at 2.3'.	1 1	NA		0-2	75		23.6 35.9 1308		
3- 4- 5- 6- 7- 8- 9- 10- 11- 11- 11- 11- 11- 11- 11- 11- 11	2-	-	S-2	2-2.4	10	1	127	-	Dark brown Sandy CLAY, some Silt, trace Gravel, damp.
24	3 4 1 5 1 6 7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1								

File: 2105r010.log

**Project:** Voluntary Cleanup Agreement

**DAY Representative:** J. Dorety

Drilling Contractor: Day Environmental
Drilling Rig: Hand-held Geoprobe

Sampling Method: 2' Acetate Sleeves

Completion Method: Filled with concrete

**BORING NUMBER: TB-10A** 

Project No: 2105R-99

Boring Location: See Site Plan

Ground Surface Elevation: NA Start Date: 9/6/00 Datum: NA

Completion Date: 9/6/00

Borehole Diameter: 1.5 inches Borehole Depth: 2.4 feet

Water Level: NA

C01	npietion wi	ethod: 1	rinea wiai c	oncrete			Water Lev	ei, rea
Depth (feet)	Blows per 0.5'	Number	Depth (feet)	% Recovery	N-Value or RQD %	Peak PID Reading (ppm)	Well Installation Log	Sample Description
1 - 2 - 1		S-1	0-2	40	NA	16.4 20.7 18.3		Brown Sand, Silt, Gravel, Clay, Cinders, Organics, moist (FILL).
2 =		S-2	2-2.4	5		2455		Strong sweet odor.
3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 10 11 12 13 14 15 16 17 18 19 20 21 21 22 23 24 25 1								BOH at 2.4*.
25								

File: 2105r10a.log

Project: Voluntary Cleanup Agreement

DAY Representative: J. Dorety

**Drilling Contractor:** Day Environmental

**Drilling Rig:** Hand-held Geoprobe **Sampling Method:** 2' Acetate Sleeves

Completion Method: Filled with concrete

**BORING NUMBER: TB-11** 

Project No: 2105R-99

Boring Location: See Site Plan

**Ground Surface Elevation: NA** 

Datum: NA

Start Date: 9/7/00 Completic

Borehole Diameter: 1.5 inches

Completion Date: 9/7/00 Borehole Depth: 18 feet

Water Level: NA

Depth (feet)	Blows per 0.5'	Number	Depth (feet)	% Recovery	N-Value or RQD %	Peak PID Reading (ppm)	Well Installation Log	Sample Description
1	NA	S-1	0-2	40	NA	4.4 3.8 1.9		Concrete 6".  Brown Sand, Silt, Gravel, Cinders, Clay, damp (FILL).
3-1		S-2	2-4	60		2.1 3.7 12.9 117		Brown Sandy Clay, some Silt, little Gravel, Organics, moist (FILL).  Brown Silty Sand and Gravel, trace Clay, moist (FILL).
5-1		S-3	4-6	50		6.7 21.1 53.9		Slight sweet petroleum odor.
7		S-4	6-8	50		2.3 12.7 38.0 98.1		Dark brown SILT and ORGANICS, trace Clay, little Gravel, moist.
9-11		S-5	8-10	60		63.1 28.8 7.9 2.1		Olive gray CLAY, some Sand, trace Silt, moist, plastic.
10		S-6	10-12	40		4.7 3.2 2.2 2.1		Gray fine SAND, little Silt, trace fine Gravel, small mollusk shells, moist Organic odor.
13		S-7	12-14	5		1.9		
14		S-8	14-16	0		NA		No recovery.
16		S-9	16-18	0		NA		No recovery.
18								BOH at 18'.
20 -								
21								
24-								
25-		1						

File: 2105r011.log

**Project:** Voluntary Cleanup Agreement

**DAY Representative:** J. Dorety

**Drilling Contractor:** Day Environmental

Drilling Rig: Hand-held Geoprobe

Sampling Method: 2' Acetate Sleeves

Completion Method: Filled with concrete

**BORING NUMBER: TB-12** 

Project No: 2105R-99

Boring Location: See Site Plan

**Ground Surface Elevation: NA** 

Borehole Diameter: 1.5 inches

Start Date: 9/7/00

Datum: NA

Completion Date: 9/7/00

Borehole Depth: 2.5 feet

Water Level: NA

Depth (feet)	Blows per 0.5'	Number	Depth (feet)	% Recovery	N-Value or RQD %	Peak PID Reading (ppm)	Well Installation Log	Sample Description
1-	NA	S-1	0-2	40	NA	2.3 2.9 2.2 1.9		Brown Sand, Gravel, Silt, Clay, Cinders, damp (FILL).
1		S-2	2-2.5	5		0.6		Wood in cutting shoe.
2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1								BOH at 2.5°.

File: 2105r012.log

Project: Voluntary Cleanup Agreement

**DAY Representative:** J. Dorety

**Drilling Contractor:** Day Environmental

Drilling Rig: Hand-held Geoprobe Sampling Method: 2' Acetate Sleeves

Completion Method: Filled with concrete

**BORING NUMBER: TB-12A** 

Project No: 2105R-99

Boring Location: See Site Plan

**Ground Surface Elevation: NA** 

Borehole Diameter: 1.5 inches

Start Date: 9/7/00

Datum: NA

Completion Date: 9/7/00

Borehole Depth: 16 feet

Water Level: 6,75 feet

	·							
Depth (feet)	Blows per 0.5'	Number	Depth (feet)	% Recovery	N-Value or RQD %	Peak PID Reading (ppm)	Well Installation Log	Sample Description
1	=	S-1	0-2	75	NA	0.6 0.9 0.9 1.2		Brown Sand, Gravel, Clay, Silt, Cinders, damp (FILL).
3-	]	S-2	2-4	70		1.0 0.7 1.4 1.8		Dark brown Organics, Clay, Silt, Fine Gravel, Sand, damp (FILL).
5-		S-3	4-6	90		2.6 1.9 1.1 0.8		Brown Sandy Clay, some Silt, little Gravel, damp.
7-		S-4	6-8	90		0.5 0.4 1.0 0.9		wet at 6.75 feet.  Dark brown to black SILT and ORGANICS, trace Clay, moist.
9-		S-5	8-10	70		0.2 0.6 0.1 0.1		Brown and gray CLAY, some Silt, trace fine Sand, little fine Gravel, moist, plastic.
11-		S-6	10-12	60		0.2 0.4 0.1		Gray fine SAND, some Silt, trace fine Gravel, wet Small white mollusk shells.
13-	3	S-7	12-14	-		-		No recovery.
15-		S-8	14-16	-		-		No recovery.
Ξ								BOH at 16'.
17-								
18								
19-								
20								
21								
22-								
23-								
24								
25		1		Ī	ļ			

File: 2105r12A.log

Project: Parkway Plaza

DAY Representative: John S. Blanchard

**Drilling Contractor: Nothnagle** 

**Drilling Rig: CME75** 

Sampling Method: 4' Acetate sleeves
Completion Method: Backfilled with grout

Project No: 2105R-99

**Boring Location:** See Site Plan **Ground Surface Elevation:** NA

Start Date: 9/7/00

Datum: NA

**BORING NUMBER: PPTB-13** 

Completion Date: 9/7/00

Borehole Depth: 24 feet

**Borehole Diameter:** 3 inches **Water Level:** Approximately 9 feet

	223							
Depth (feet)	Blows per 0.5'	Number	Depth (feet)	% Recovery	N-Value or RQD %	Peak PID Reading (ppm)	Well installation Log	Sample Description
								Asphalt and gravel, damp (FILL).  Brown, Sand and Gravel, little Clay, and Cobbles, damp (FILL).
1-						0.2		Brown, Sand and Graver, little Clay, and Cooples, damp (PILL).
2-	NA	S-1	0-4	80	NA	0.4		
3=						0.6		some Clay.
4 = = = = = = = = = = = = = = = = = = =		-			-	3.6		Reddish brown, Clay, little Silt and Gravel, damp (FILL).
5 =						8.4		
5 6		S-2	4-8	80				
7=						2.1		Black, SILT, little Clay, damp to moist.
8=						1.5		
9-						5.9		Gray, SILT, little Sand and Gravel, wet.
10-		S-3	8-12	30		10.3		
11						10.4		trace shell fragments.
12								
						22.7		
13-		6.4	10.46	00		13.3		Brown, CLAY, wet to moist.
14		S-4	12-16	90		10.2		
15								
16-7						3.9		
17-						1.2		
18		S-5	16-20	95				
19						1.9		
20=								
21=						4.5		
22-		S-6	20-24	60		3.0		Brown, CLAY and SILT, wet.
23			Œ			0.8		Biomi, GEAT and GIET, Well.
24								
25								BOH at 24'.

File: 2105r013.log

Project: Parkway Plaza

DAY Representative: John S. Blanchard

**Drilling Contractor:** Nothnagle

**Drilling Rig:** CME75

Sampling Method: 4' Acetate sleeves
Completion Method: Backfilled with grout

**BORING NUMBER: PPTB-14** 

Project No: 2105R-99

Boring Location: See Site Plan

**Ground Surface Elevation: NA** 

Start Date: 9/7/00

Datum: NA

Completion Date: 9/7/00

Borehole Depth: 24 feet

Borehole Diameter: 3 inches
Water Level: Approximately 9 feet

Depth (feet)	Blows per 0.5'	Number	Depth (feet)	% Recovery	N-Value or RQD %	Peak PID Reading (ppm)	Well Installation Log	Sample Description
						32.0		Asphalt and Gravel, damp (FILL).
1-						3.2		Brown Sand and Gravel, little Clay, damp (FILL).
2-	NA	S-1	0-4	40	NA	2.1		
3-						23.0		
1 =						]		Brown Clay, little Gravel, damp (FILL).
4-						142	1	
5-						213		
5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		S-2	4-8	70				seam of Silt.
7-						1432		seam or one
3						1324		
8 -						4.2		Pleak CLAV was to maint
9-7						3.8		Black CLAY, wet to moist.
10-		S-3	8-12	90				Gray SILT and SAND, trace shell fragments, little Clay, wet.
11=						0.6		oray oran and orang account magnitudes, made oray, were
12						0.8		
]						20.4		Brown CLAY, wet to moist.
13-						10.2		blown occi, werto most.
14-		S-4	12-16	95		1.6 1.7		
15						1.7		seams of Clay, trace Silt.
=						1.4		
16-						20.9		Brown SAND and GRAVEL, wet.
17-						21.0		
18		S-5	16-20	80		[		Brown CLAY, moist.
19-		_				2.1		
4						2.2		
20 =		Ì						Brown SAND and SILT, trace gravel, wet
21 =								
22		S-6	20-24	30		HSS-495		
23								
7								
24-3-								BOH at 24'.
25								

File: 2105r014.log

Project: Parkway Plaza

DAY Representative: John S. Blanchard

**Drilling Contractor: Nothnagle** 

**Drilling Rig: CME75** 

Sampling Method: 4' Acetate sleeve
Completion Method: Backfilled with grout

**BORING NUMBER: PPTB-15** 

Project No: 2105R-99

Boring Location: See Site Plan

**Ground Surface Elevation: NA** 

Start Date: 9/7/00

Datum: NA

Completion Date: 9/7/00

Borehole Depth: 24 feet

Water Level: Approximately 9.5 feet

Borehole Diameter: 3 inches

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Depth (feet)	Blows per 0.5'	Number	Depth (feet)	% Recovery	N-Value or RQD %	Peak PID Reading (ppm)	Well Installation Log	Sample Description
1	NA	S-1	0-4	60	NA	0.1 0.3 2.2 3.3		Asphalt and Gravel.  Brown to black, Sand and Gravel, little Clay, damp (FILL).  clay content increasing.
3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		S-2	4-8	90		7.9 13.4 216 19.5		Brown, Clay, trace gravel and Silt, damp (FILL).  Black, SILT, little Clay and gravel, damp (FILL).
10-11-11-11-11-11-11-11-11-11-11-11-11-1		S-3	8-12	10		2.3 12.9 3.8		Gray, SAND and SILT, trace shell fragments, wet.
13		S-4	12-16	0		NA		No Recovery.
18-1		S-5	16-20	80		0.2 0.8 0.3		Brown, CLAY, moist.  seams of Silt, wet.  free phase product present on sampler.
20		S-6	20-24	90		1.0 0.8 49.1 0.3		trace shell fragments.  Brownish red, CLAY, trace to little Silt, moist.  BOH at 24'.
25								

File: 2105r015.log

Test Boring Logs/Monitoring Well Installation Diagrams MW-1S, MW-2S and MW-3S MW-1D, MW-2D and MW-3D September 2001

Project: Parkway Plaza

DAY Representative: A. Farrell

Drilling Contractor: Lyon Drilling
Drilling Rig: CME-55 Direct Push Mode

Sampling Method: 4' Acetate Sleeve

Completion Method: 1,25" PVC Well

**BORING NUMBER: MW-1S** 

Project No: 2105R-99

Boring Location: See Site Plan

Ground Surface Elevation: NA

Datum: NA

Start Date: 09/04/01

Completion Date: 09/04/01

Borehole Diameter: 2.25\*

Borehole Depth: 14.0'

Water Level: 5.68' (Date measured 10/08/01)

Completion Method: 1.25" PVC Well W								Water Level: 5.68' (Date measured 10/08/01)		
Depth (feet)	Blows per 0.5'	Number	Depth (feet)	% Recovery	N-Value or RQD %	Peak PID Reading (ppm)	Well Installation Log	Sample Description		
							13 13	Asphalt pavement		
1-	NA	S-1	0-2	NA	NA	2.6		Augered to 2.0' to set curb box		
2 - 3 - 3 - 1								Brown Sand and Gravel, damp (FILL)		
5-	NA	S-2	2-6	25	NA	0.0		layer of Gravel wet		
7-1								no recovery from 6-10, reran with basket still no recovery, (refer to log for MW-ID)		
9-1	NA	S-3	6-10	0	NA	NA				
10-1								Gray Sandy SILT, some Clay, wet		
13-	NA	S-4	10-14	60	NA	0.0		Gray/Black Silty CLAY, wet		
14	· · ·						<i>x</i>	BOH at 14.0'		
15 16 17 18 19 19 19										
20							-			

File: 2105sw1.log

Project: Parkway Plaza

DAY Representative: A. Farrell

Drilling Contractor: Lyon Drilling
Drilling Rig: CME-55 Direct Push Mode
Sampling Method: 4' Acetate Sleeve

Completion Method: 1.25" PVC Well

**BORING NUMBER: MW-2S** 

Project No: 2105R-99

Boring Location: See Site Plan

**Ground Surface Elevation: NA** 

Datum: NA

Start Date: 09/04/01

Completion Date: 09/04/01

Borehole Diameter: 2.25"

Borehole Depth: 14.0'

Water Level: 4.7' (Date measured 9/18/01)

Depth (feet)	Blows per 0.5*	Number	Depth (feet)	% Recovery	N-Value or RQD %	Peak PID Reading (ppm)	Well Installation Log	Sample Description
1-	NA	S-1	0-2	NA	NA	0.0		Asphalt pavement  Augered to 2.0' to set curb box
3   4   5   1   1   1   1   1   1   1   1   1	NA	S-2	2-6	60	NA	0.0		Dark Brown to Gray Silt, Sand, Gravel, Clay, damp, (FILL)
6	NA	S-3	6-10	80	NA	0.0		moist  Gray/Black Silty CLAY, moist  Light Gray Sandy SILT, some Clay, wet
11-	NA	S-4	10-14	85	NA	0.0		layer of shell fragments  Dark Gray Silty CLAY, wet
15   15   17   18   19   19   1   20   1   1   1   1   1   1   1   1   1					2			BOH at 14.0'

File: 2105sw2.log

Project: Parkway Plaza

DAY Representative: A. Farrell
Drilling Contractor: Lyon Drilling
Drilling Rig: CME-55 Direct Push Mode
Sampling Method: 4' Acetate Sleeve

Completion Method: 1.25" PVC Well

**BORING NUMBER: MW-3S** 

Project No: 2105R-99

Boring Location: See Site Plan

Ground Surface Elevation: NA

Datum: NA

Start Date: 09/04/01

Completion Date: 09/04/01

Borehole Diameter: 2.25"

Borehole Depth: 14.0'

Water Level: 5.36' (Date measured 9/18/01)

			1.25 PVC				water Level. 5.56 (Date measured 9/16/01)			
Depth (feet)	Blows per 0.5'	Number	Depth (feet)	% Recovery	N-Value or RQD %	Peak PID Reading (ppm)	Well Installation Log	Sample Description		
1-	NA	S-1	0-2	NA	NA	NA		Asphalt pevernent Augered to 2.0' to set curb box		
3-	NA	S-2	2-6	90	NA	0.0		Sand, Silt, Clay, Gravel, damp, (FILL)  Reddish-Brown Sand, Silt, Clay, damp, (FILL)		
8	NA	S-3	6-10	100	NA	0.0		Black SILT, some Clay, damp  Gray Silty CLAY, damp  Light Gray Silty SAND, some Clay, wet		
11 12 13 13 13	NA	S-4	10-14	100	NA	0.0		Reddish-Brown Silty CLAY, wet		
15-115-115-115-115-115-115-115-115-115-								BOH at 14.0*		

File: 2105R-03.log

Project: Parkway Plaza

DAY Representative: A. Farrell

**Drilling Contractor:** Lyon Drilling

**Drilling Rig: CME-55** 

Sampling Method: 2' Split Spoon

Completion Method: 2" PVC Well

**BORING NUMBER: MW-1D** 

Project No: 2105R-99

Boring Location: See Site Plan

**Ground Surface Elevation: NA** 

Datum: NA

Start Date: 09/05/01

Completion Date: 09/05/01

Borehole Diameter: 12.0 inches

Borehole Depth: 55.0 feet

Water Level: 5.35' (Date Measured 9/18/01)

-	.protron in							
Depth (feet)	Blows per 0.5'	Number	Depth (feet)	% Recovery	N-Value or RQD %	Peak PID Reading (ppm)	Well Installation Log	Sample Description
							111111111111111111111111111111111111111	Asphalt pavement
14	NA	S-1	0-2	NA	NA	NA	M M	Augered first 2' for curb box
2							M = M	
1	2					0.0	M = M	Brown Sand, Silt, Clay, damp (FILL)
3-	3	S-2	2-4	50	6		M = M	
4 4	3		<u></u>			0.0	M	Brown Silty Clay, moist (FILL)
1 7 3	2			1		0.0	M M	
5 =	2 3	S-3	4-6	90	5		M M	
1 7	3	1				0.0	M	
6 =	3			i		0.0	M	
7 =	4 5	S-4	6-8	40	9	-	M = M	Dark Brown SILT, some Clay, moist
8	5					0.0	M M	Dark Diown SIL1, Some Olay, most
l °∃	1			ĺ		0.0	M = M	
[-e	1	S-5	8-10	95	2	V.	M = M	Gray, Silty CLAY, moist
1 7	1			1	İ .	0.0	M = M	Light Gray Silty SAND, some Clay, wet
103	WOR					0.0	M M	agin out, only of the control of the
11=	1	S-6	10-12	100	1 1	0.0	M M	A 18 A 2
1 7	2	i				0.0	M	shell fragments
123	2	-		<del>                                     </del>		0.0	M	
13	5	S-7	12-14	100	10	0.0	M M	
"∄	5 7	•				0.0	M M	Dark Gray to Brown, Silty CLAY, wet
14=	3	<b></b>				0.0	M M	
15	6	S-8	14-16	100	13	0.0		
"	7				, ,	0.0	M	
16-	12 8			-	-			
17-	7	S-9	16-18	100	13	0.0	U = U	
1 -	6		10-10	100	"	0.0	$U \cup U$	
18 -	6 4						M = M	
19=	4	S-10	18-20	100	8	0.0	M = M	
, –	4	0-10	10 20	100		0.0	M M	
20	4 1						M M	
21=	1	S-11	20-22	100	2	0.0	M	
	1	0-11	20-22	100	-	0.0	113 113	
22=	1				-		111 111	
23	1	S-12	22-24	100	3	0.0	M M	
233	2	3-12	22-24	100		0.0	W = W	
24	WOH				<del>  </del>			Dark Gray to Brown Silty CLAY, wet
==	1	0 40	24-26	100	1	0.0	M = M	Dark Gray to Brown Only SEAT, Will
25-	1	S-13	24-20	100	'	0.0	U = U	red-brown
26	1 1						11 11	
] =	1		00.00	400		0.0	11 11	
27	WOH	S-14	26-28	100	1	0.0	11/11/11	
28	11						11 11	
				455	,,,	0.0	11 11	
29=	WOH	S-15	28-30	100	WOH	0.0	13 13	
30					<b>  </b>		11 11	
								and the second s

File: 2105DW1a.log

Project: Parkway Plaza

**DAY Representative:** A. Farrelli

**Drilling Contractor:** Lyon Drilling

**Drilling Rig: CME-55** 

Sampling Method: 2" Split Spoon

Completion Method: 2" PVC Well

**BORING NUMBER: MW-1D** 

Project No: 2105R-99

Boring Location: See Site Plan

**Ground Surface Elevation: NA** 

Start Date: 09/05/01

Datum: NA

Completion Date: 09/05/01

Borehole Diameter: 12.0 inches

Borehole Depth: 55.0 feet

Water Level: 5.35' (Date Measured 9/18/01)

Con	npletion	Method	1: 2" PVC \	Nell			Water Level: 5.35' (Date Measured 9/18/01)			
Depth (feet)	Blows per 0.5'	Number	Depth (feet)	% Recovery	N-Value or RQD %	Peak PID Reading (ppm)	Well Installation Log	Sample Description		
31	WOR WOR WOR	S-16	30-32	100	WOR	0.0				
32	WOR WOR WOR	S-17	32-34	100	WOR	0.0				
34	WOR	S-18	34-36	100	WOR	0.0				
36	WOR	S-19	36-38	100	WOR	0.0				
38	WOR WOR 1 3	S-20	38-40	100	1	0.0		seam of Sand		
41	WOR 1 WOH	S-21	40-42	100	1	0.0		_		
43	WOR 1 1 1	S-22	42-44	100	2	0.0		£		
45	WOR WOR 3 4	S-23	44-46	70	3	0.0				
46	3 3 4 3	S-24	46-48	100	7	0.0				
48	1 3 2 1	S-25	48-50	80	5	0.0		Reddish Brown Silty CLAY, wet  Dark Brown Coarse grained SAND, wet		
50	4 2 2 3	S-26	50-52	80	4	0.0		Dark Brown SAND and GRAVEL, wet		
52 - 53 - 54 - 54	2 3 3 4	S-27	52-54	60	6	0.0				
54 -	•	S-28	54-55					Augered- 54'-55' no sample collected		
								ВОН @ 55.0'		

File: 2105DW1b.log

Project: Parkway Plaza

**DAY Representative:** A. Farrell

**Drilling Contractor:** Lyon Drilling

**Drilling Rig: CME-55** 

Sampling Method: 2' Split Spoons

Completion Method: 2" PVC Well

**BORING NUMBER: MW-2D** 

Project No: 2105R-99

Boring Location: See Site Plan

**Ground Surface Elevation: NA** 

Start Date: 09/07/01

Datum: NA

Completion Date: 09/07/01

Borehole Diameter: 12.0 inches

Borehole Depth: 42.0 feet

Water Level: 9.22' (Date measured 9/18/01)

Depth (feet)  Number  Number  Number  Number  Number  Number  Noull  Nou	
Augered to 16', See Well Installation Log for SW-2, for Soil Profile of 0-16'  NA NA NA NA NA NA NA NA NA NA NA NA NA N	
16 2 Dark Brown Silty CLAY, moist 0.0 0.0 Dark Brown Silty CLAY, moist	
18	
20 4 0.0 0.0 wet 21 5 3 20-22 100 3 0.0	
22 1 2 3 1 S-4 22-24 100 3 0.0	
24	

File: 21050M/2a log

Project: Parkway Plaza

**DAY Representative:** A. Farrell

**Drilling Contractor:** Lyon Drilling

**Drilling Rig: CME-55** 

Sampling Method: 2" Split Spoon

Completion Method: 2" PVC Well

**BORING NUMBER: MW-2D** 

Project No: 2105R-99

Boring Location: See Site Plan

**Ground Surface Elevation: NA** 

Start Date: 09/07/01

Datum: NA

Completion Date: 09/07/01

Borehole Diameter: 12.0 inches

Borehole Depth: 42.0 feet

Water Level: 9.22' (Date Measured 9/18/01)

					,			
Depth (feet)	Blows per 0.5'	Number	Depth (feet)	% Recovery	N-Value or RQD %	Peak PID Reading (ppm)	Well Installation Log	Sample Description
	5 WOR	S-5	24-26	100	wor	0.0		Dark Brown Silty CLAY, wet
2	3	S-6	26-28	100	WOH	0.0		
2	9 WOR	S-7	28-30	100	WOR	0.0		
3	WOH WOH WOH	S-8	30-32	25	WOH	0.0		
	2 WOR 3 WOR 3 2 4	S-9	32-34	100	2	0.0		Dark Brown Silty SAND and GRAVEL, wet
	3 2 5 1 3 7	S-10	34-36	40	5	0.0		seam of clay
37	3 4 3	S-11	36-38	30	7	0.0		Black coarse grained Silty SAND, wet
38	3 7	S-12	38-40	10	14	0.0		
40	AA E	NA	40-42	NA	NA	NA		Augered 40'-42'; no samples collected
42	:					_	- Laurence	BOH at 42.0'
43	3							
44	3							
45	3							
46	3							
48	3					_		

File: 2105DW2h loa

Project: Parkway Plaza

DAY Representative: A. Farrell

**Drilling Contractor:** Lyon Drilling

Drilling Rig: CME-55

Sampling Method: 2' Split Spoons

Completion Method: 2" PVC Well

**BORING NUMBER: MW-3D** 

Project No: 2105R-99

Boring Location: See Site Plan

**Ground Surface Elevation: NA** 

Datum: NA

Start Date: 09/07/01

Completion Date: 09/07/01

Borehole Diameter: 12.0 inches

Borehole Depth: 57.0 feet

Water Level: 6.04' (Date Measured 9/18/01)

		1		1			Γ	
Depth (feet)	Blows per 0.5'	Number	Depth (feet)	% Recovery	N-Value or RQD %	Peak PID Reading (ppm)	Well Installation Log	Sample Description
1							13 13	Asphalt pavement
1	NA	S-1	0-2	NA	NA	NA.		Augered first 2' for curb box
3-1	6 9 10	S-2	2-4	10	19	0.0		Sand, Silt, Clay, damp (FILL)
4 = 5 = 5	12					0.0		fractured rock in bottom of split spoon
1 =	10 5 2	S-3	4-6	50	15	0.0		Sand, Silt, Clay, Gravel, damp (FILL)
6	1					0.0		
7-	2 2 2	S-4	6-8	10	4	0.0		Black SILT, damp
8 1	1	S-5	8-10	95	2	0.0		Dark Gray, Silty CLAY, damp
10	1		0-10	55		0.0		layer of Sand, wet
11=	WOH 1 1	S-6	10-12	40	2	0.0 0.0		Dark Brown Silty CLAY, wet
12=	1 2 5					0.0		layer of Sand
13-	4	S-7	12-14	100	9	0.0		Dark Brown Silty CLAY, moist
14	4 8 11	S-8	14-16	100	19	0.0		
16=	16 11					0.0		
17-	14 14 16	S-9	16-18	100	28	0.0		wet
19-	2 3 3	S-10	18-20	100	6	0.0		
20	4					0.0		
21 = 22 = -	2 2 3	S-11	20-22	100	4	0.0		
22 -	1 2	S-12	22-24	100	3	0.0		
24	1 2 WOR		<b>_</b> .			0.0		
25	WOH 1	S-13	24-26	100	1	0.0		
26	1					0.0		
27	1 1	S-14	26-28	100	2	0.0		
28	1					0.0		
29-	WOR WOR	S-15	28-30	100	WOR	0.0		
30=						0.0	<u> </u>	

File: 2105DW3a.log

Project: Parkway Plaza

**DAY Representative:** A. Farrell

**Drilling Contractor:** Lyon Drilling

**Drilling Rig: CME-55** 

Sampling Method: 2" Split Spoons

Completion Method: 2" PVC Well

**BORING NUMBER: MW-3D** 

Project No: 2105R-99

Boring Location: See Site Plan

**Ground Surface Elevation: NA** 

Datum: NA

Start Date: 09/07/01

Completion Date: 09/07/01

Borehole Diameter: 12.0 inches

Borehole Depth: 57.0 feet

Water Level: 6.04' (Date Measured 9/18/01)

			1. 2 FVC	1				Total Modern of Carlo
Depth (feet)	Blows per 0.5'	Number	Depth (feet)	% Recovery	N-Value or RQD %	Peak PID Reading (ppm)	Well Instaliation Log	Sample Description
31	WOR	S-16	30-32	100	NA	0.0		
33-	1 WOH 1 WOH	S-17	32-34	100	NA	0.0		
35	WOR 1	S-18	34-36	100	NA	0.0		
36	WOH 1 1	S-19	36-38	100	NA	0.0		
38	WOR 1 2 4	S-20	38-40	100	3	0.0 0.0		seam of Gravel
41	WOR	S-21	40-42	100	NA	0.0		MY.
43	WOR	S-22	42-44	100	NA	0.0 0.0		
45	WOR 3 2 3	S-23	44-46	100	5	0.0		seam of Sand
48 49 1	WOR WOH 1	S-24	46-48	100	NA	0.0		Dark Brown SILT, trace clay, wet
1 -	1 1 1 2	S-25	48-50	80	3	0.0		Dark Brown Silty SAND and GRAVEL, some Clay, wet
51	WOR 8	S-26	50-52	100	NA	0.0		Dark Brown SILT, some Clay, wet
52 -	WOH WOR 2 3	S-27	52-54	100	NA	0.0		Dark Brown Silty SAND and GRAVEL, wet
55-	3 2 2 3	S-28	54-56	100	4	0.0		
56		•						Augered 56' - 57', no sample collected
5, 1								BOH @ 57.0'

File: 2105DW3b.loa

Test Boring Logs/Monitoring Well Installation Diagrams MW-2.1S, MW-101S, MW-102S and MW-103S IP-1, IP-2 and IP-3 2004

**BORING NUMBER: MW-2.1s** 

Project: Parkway Plaza, Canandaigua, NY

DAY Representative: C. Davidson

Drilling Contractor: Lyon Drilling

Drilling Rig: CME 45B

Sampling Method: 2' Split Spoon

Completion Method: 2" PVC Well Installed

Project No: 2105R-99

Boring Location: See Site Plan

**Ground Surface Elevation: NA** 

Borehole Diameter: 4 1/4"

Start Date: 9/20/04

Datum: NA

Completion Date: 9/20/04

Borehole Depth: 12.5'

Water Level:

Depth (feet)	Blows per 0.5'	Number	Depth (feet)	% Recovery	N-Value or RQD %	Peak PID Reading (ppm)	Well Installation Log	Sample Description
	NA	NA	0-1	NA	NA	NA		Asphalt Pavement
2-3-	7 5 5 7	S-1	1-3	50	10	0.0 0.0 0.0		Gray Gravel, damp (FILL)  Loose Brown Sand and Gravel, damp (FILL)
4-	12 11 9 7	S-2	3-5	50	20	0.0 0.0 0.0		
5	NA	NA .	5-12.5	NA	NA			Note: Samples not collected below 5 feet in depth  NA  BOH at 12.5'
20-								

File: 2105104.LOG

**Project:** Former Parkway Cleaners **DAY Representative:** C. Davidson

**Drilling Contractor:** Lyon Drilling Company, Inc.

Drilling Rig: CME 45B

Sampling Method: 2' Split Spoon

Completion Method: 2" PVC Well Installed

**BORING NUMBER: TB-101S** 

Project No: 2105R-99

Boring Location: See Site Plan

**Ground Surface Elevation: NA** 

Start Date: 01/29/04

Datum: NA

Completion Date: 01/29/04

Borehole Depth: 15.0'

Borehole Diameter: 4 1/4" Water Level: 3.75' on 2/13/04

Depth (feet)	Blows per 0.5'	Number	Depth (feet)	% Recovery	N-Value or RQD %	Peak PID Reading (ppm)	Well Installation Log	Sample Description
	NA	NA	0-0.5	NA	NA	NA		3" Asphalt
1-	50	S-1	.5-2.0	100	NA	3.1		6" Asphalt sub-base  Medium dense Brown to Gray Silty Clay, Gravel, Glass, moist (FILL)
3	8 8 5 4	S-2	2-4	0	13	NA		
5	2 3 6 10	S-3	4-6	15	9	0.0		loose
7-	4 4 5 5	S-4	6-8	50	9	0.0		Stiff Brown to Red Silty CLAY, trace Gravel, wet
9	1 2 2 3	S-5	8-10	100	4	0.0		Loose Gray Sandy SILT, wet
11-	1 1 1	S-6	10-12	100	2	0.0		sea shells
13	1 2 4 6	S-7	12-14	80	6	0.0		Red to Gray  Medium stiff Gray Silty CLAY, wet
14	NA	NA	14-15	NA	NA	NA		
16								BOH at 15.0°

File: 2105R101.log

**Project:** Former Parkway Cleaners **DAY Representative:** C. Davidson

Drilling Contractor: Lyon Drilling Company, Inc.

**Drilling Rig: CME 45B** 

Sampling Method: 2' Split Spoon

Completion Method: 2" PVC Well Installed

**BORING NUMBER: TB-102S** 

Project No: 2105R-99

**Boring Location:** See Site Plan

**Ground Surface Elevation: NA** 

Start Date: 01/29/04

Datum: NA

Completion Date: 01/29/04

Borehole Depth: 15.0'

Borehole Diameter: 4 1/4"
Water Level: 3.17' on 2/13/04

Depth (feet)	Blows per 0.5	Number	Depth (feet)	% Recovery	N-Value or RQD %	Peak PID Reading (ppm)	Well Installation Log	Sample Description
	NA	NA	0-0.5	NA	NA	NA		3" Asphalt
1 1 1	50 2	S-1	.5-2.0	10	NA	0.0		6" Asphalt sub-base  Medium dense Brown to Gray Sitty Clay, Gravel, Glass, moist (FILL)
3-	7 10 7 4	S-2	2-4	40	17	0.0		
5	4 5 12 14	S-3	4-6	60	17	0.0		
7-	5 4 5 5	S-4	6-8	30	9	0.0		Stiff Brown Silty CLAY, trace Gravel, wet
9-1	1 3 3 6	S-5	8-10	80	6	0.0		Medium stiff, Gray
11-	2 3 2 2	S-6	10-12	40	5	0.0		Loose Gray Clayey SILT, sea shells, wet
13-	2 3 7 10	S-7	12-14	30	10	0.0		Stiff Gray Silty CLAY, wet
14-	NA	NA	14-15	NA	NA	NA		
15			ā					BOH at 15.0°

File: 2105R102 log

### Day Environmental, Inc. 40 Commercial Street Rochester, New York 14614 (585) 454-0210

Project: Parkway Plaza, Canandaigua, NY

DAY Representative: C. Davidson

**Drilling Contractor:** Lyon Drilling

**Drilling Rig:** CME 45B

Sampling Method: 2' Split Spoon

Completion Method: 2" PVC Well Installed

**BORING NUMBER: MW-103s** 

Project No: 2105R-99

Boring Location: See Site Plan

**Ground Surface Elevation: NA** 

Borehole Diameter: 4 1/4 inches

Start Date: 9/16/04

Datum: NA

Completion Date: 9/16/04

Borehole Depth: 14.0'

Water Level:

		F	<del></del>		1			
Depth (feet)	Blows per 0.5	Number	Depth (feet)	% Recovery	N-Value or RQD %	Peak PID Reading (ppm)	Welf Installation Log	Sample Description
1-	NA 7 8 7	S-1	0-2	30	NA	0.0		Asphalt Pavement Gray gravel, damp (FILL) Loose Brown Sand and Gravel, damp (FILL)
3-	8 3 4	S-2	2-4	25	7	0.0		
5-	8 10 7 15	S-3	4-6	10	17	0.0		moist
7-	5 3 1	S-4	6-8	30	4	1		Gravel lens wet
9-	2 1 2 1	S-5	8-10	60	3	- 1:		Soft light Gray, SILT, trace Clay and seashells, wet
10-	2 1 1 2	S-6	10-12	50	2			
12-	4 5 8	S-7	12-14	60	13	0.0		Stiff Brown to Red CLAY, trace Gravel, wet
14=								BOH at 14.0'
15   16   17   18   19   11   12   11   12   12   13   14   14   15   15   15   15   15   15								

File: 21051035.log

### Day Environmental, Inc. 40 Commercial Street Rochester, New York 14614-1008 (585) 454-0210

**BORING NUMBER: IP-1** 

Project: Parkway Plaza, Canandaigua, NY

DAY Representative: C. Davidson

**Drilling Contractor:** SLC Environmental

**Drilling Rig:** Vehicle Mounted Direct Push

Sampling Method: NA

Completion Method: 1-inch PVC Well Screen & Riser

Project No: 2105R-99

Boring Location: See Site Plan

**Ground Surface Elevation: NA** 

Start Date: 11/29/04

Borehole Diameter: 3.0"

Datum: NA

Completion Date: 11/29/04

Borehole Depth: 15.0'

Water Level:

	·						water L	
Depth (feet)	Blows per 0.5'	Number	Depth (feet)	% Recovery	N-Value or RQD %	Peak PID Reading (ppm)	Well Installation Log	Sample Description
10 11 12 13 14 15 16 17 18 19 19 19 19 19 19 19 19 19 19 19 19 19	NA	NA	0-15	NA	NA	NA		Note: Injection points installed with solid point drive; no soil samples were collected.]  BOH at 15.0'

File: 2105ip1.LOG

### Day Environmental, Inc. 40 Commercial Street Rochester, New York 14614-1008 (585) 454-0210

**BORING NUMBER: IP-2** 

Project: Parkway Plaza, Canandaigua, NY

DAY Representative: C. Davidson

**Drilling Contractor:** SLC Environmental

**Drilling Rig:** Vehicle Mounted Direct Push

Sampling Method: NA

Completion Method: 1-inch PVC Well Screen & Riser

Project No: 2105R-99

Boring Location: See Site Plan

**Ground Surface Elevation: NA** 

Start Date: 11/29/04

Borehole Diameter: 3.0"

Water Level:

Datum: NA

Completion Date: 11/29/04

Borehole Depth: 15.0'

							water Lev	
Depth (feet)	Blows per 0.5'	Number	Depth (feet)	% Recovery	N-Value or RQD %	Peak PID Reading (ppm)	Weii Instaliation Log	Sample Description
1 2 3 4 5 6 7 7 8 9 10 11 12 13 14 15 16 17 18 19 19 19 20 19 10 10 11 12 13 14 15 16 17 18 19 19 19 19 19 19 19 19 19 19 19 19 19	NA	NA	0-15	NA	NA	NA		Note: Injection points installed with solid point drive; no soil samples were collected.]  BOH at 15.0'

File: 2105ip2.LOG

### Day Environmental, Inc. 40 Commercial Street Rochester, New York 14614-1008 (585) 454-0210

BORING NUMBER: IP-3

Project No: 2105R-99

Boring Location: See Site Plan

**Ground Surface Elevation: NA** 

Start Date: 11/29/04

Borehole Diameter: 3.0"

Datum: NA

Completion Date: 11/29/04

Borehole Depth: 15.0'

Sampling Method: NA

Completion Method: 1-inch PVC Well Screen & Riser

Project: Parkway Plaza, Canandaigua, NY

**Drilling Contractor: SLC Environmental** 

Drilling Rig: Vehicle Mounted Direct Push

DAY Representative: C. Davidson

Water Level:

			- 1110111110				Water Le	
Depth (feet)	Blows per 0.5'	Number	Depth (feet)	% Recovery	N-Value or RQD %	Peak PID Reading (ppm)	Well Installation Log	Sample Description
1		NA	0-15	NA	NA			Note: Injection points installed with solid point drive; no soil samples were collected.]  BOH at 15.0'

File: 2105ip3.LOG

Test Boring Logs/Monitoring Well Installation Diagrams MW-201, MW-203 and MW-204 September 7, 2007

roje: mie:	a #: at Add	ress:		R-99 way Pla	7A		_			TEST BORING TB-20
,				,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			_	Ground Elevation: Datum:		Page 1 of 1
AYE	Pepres	vitativ	e: M. D	ckinson			_	Date Started: 9/7/2007 Date Ended: 9/7/2	2007	
		ractor:	_		nmental		_	Borehole Depth: 16.0' Borehole Diameter:		
атр	ing M	elhod:	Direc	t Push			_	Completion Method: Well installed Backlitted with Grout	Backfilled with C	ullings
-	actions:	-		_	-	-	-	Water Level (Date): 6.79 (9-7-07)		-BAN-PARKET
				1	١.	Headspace PID (ppm)	-			
	=	1 3	€		ő	10	<u> </u>		1	
	ě	E	1 5	≥	Ĕ	8	B B	Sample Description		Notes
	8	1 8	9	Š	3	ğ	3			
neptro (11)	Blows per 0.5 ft.	Sample Number	Sample Depth (ft)	% Recovery	N-Value or RQD%	3	PID Reading (ppm)			
+		1		+	- Z	-	+-	The second secon		
1		1	1			1	1	Asphalt		
1		l	1			1	0.0	Gravel, Rock, trace Sand, moist (FILL)	-	
-		1	1			1				
	NA	S-1	0.4	75	NA	0.0	0.0			
1		ı	1			1	1	Dark Brown, fine Sandy SiLT, trace Gravel, trace Organics, moist		
1		1		1			1		1	
3		l			1	1	0.0		ŀ	
1					1	1	"	trace tan fine Sand	1	
4			-	+-	+	-	-		-	
1				l			ĺ			
5		Ε.		1	1		0.0			
	3			1	1					
	NA	S-2	4-8	5	NA	0.0	0.0		1	
1	-			İ					ľ	
				1						
7				1	1		0.0		t	
									1	
8	-		-	-					-	
	1									
9							0.0	moist		
ì	- 1							Black, fine Silty SAND, Organics, Roots	3	
	NA	S-3	8-12	45	NA	0.3	0.0		20	
1										
1							0.0		t	
	- 1						t	D. D. D. D. B. D. D. D. D. D. D. D. D. D. D. D. D. D.		
-	$\dashv$			_	$\vdash$	-1	—	Gray/Dark Gray, Black, line Silty SAND, trace Gravel, wet	-	
									Į.	
	- 1					- 1	0.0		ŀ	
ı	- 1			i			- 1		Ī	
١	M	5-4	12-16	10	NA	0.0	0.0		L	
		1	8			- 1				
					- 1	- 1				
				- 1			0.0	.very wet	ľ	
					- 1				1	
$\vdash$	+	$\dashv$	-		$\dashv$	$\dashv$	-	Constitute & 10 N		
1) 4	ater le	vols wo	re made a	t the time	s and und	er conditio	ons stated.	Complete @ 16.0' Fluctuations of groundwater levels may occur due to seasonal factors and other conditions		
2) S	tratifica	tion line	s represe	korqqs M	mate bou	daries. 1	ransidons	may be gradual.	) (page 1	
						ndard me	asured in	the headspace above the sample using a MiniFlae 2000 equipped with a 10.6 eV lamp.		TOY DODUING TO ALL
			ie or Not / eadings m		uenced by	moistura			l <sub>II</sub>	EST BORING TB-201
		LSTR		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,						

DAY ENVIRONMENTAL, IN	IC. AN AF	ENVIRONMENTAL CONSULTANT FILIATE OF DAY ENGINEERING, P. (
	MONITORING WELL CONSTRUCTION DIAGRAM	The state of the s
Project #: 2105R-99 Project Address: Parkway Plaza		MONITORING WELL MW-201
DAY Representative: M. Dickin TREC E	Date Liveur	NA Page 1 of 1 9/7/2007
Refer to Test Boring Log TB-201 for Suil Description	Flush Mounted Roadbox  O.1 Depth to Top of Riser Pipe (ft)  NA Depth to Bottom of Cement Surface Patch (ft)  Backfill Type NA  O.5 Depth to Top of Bentonite Seal (ft)  8.0 Depth to Bottom of Bentonite Seal (ft)  10 Depth to Top of Well Screen (ft)  2.25 Diameter of Borehole (in)  Backfill Type Sand  1.0 Inside Diameter of Well (in)  Type of Pipe PVC Schedule 40  Screen slot size 10  15.0 Depth to Bottom of Well Screen (ft)  16.0 Depth of Borehole (ft)	
es: 1) Water lovels were made at the tirr	es and under conditions stated. Fluctuations of groundwater levels may occur due to seasonal fac	three and other coordinate
2) NA = Not Available or Not Applica	ble	TO THE PROPERTY.
		MONITORING WELL MW-201

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1	ay									Ę	ENVIRONMENTAL CONSULTANTS
	0000.000		MENTA	L, INC						AN AFFILI	IATE OF DAY ENGINEERING, P.C.
	ject #: ject Ac	ldress:		6R-99 lovay Pt	aza			_			TEST BORING TB-203
DA	Y Repr	esentati	/e: M. l	Dickinso	n				Ground Elevation: NA   Datum: 9/7/2007		Page 1 of 2
		ntractor.		C Envi		tetne		_	Borehole Depth: 20.0' Borehole Diameter:		
38	ubung:	Welhod:	UNITE	ct Push				_	Completion Method: Well installed Backfilled with Grout  Water Level (Oate): 12.45 (9-7-07)	Backfilled with C	Cuttings
Depth (ft)	Blows per 0.5 ft	Sample Number	Semple Death (ft)	Semple Depth (ft) % Recovery N-Value or RQD% Headepace P(D (ppm) P1D Reeding (ppm)					Sample Description		Notes
			T	Т			Γ		Brown, Siby SAND, Gravel, Roots, Organics, moist	T	
	1				-			0.0		-	
	NA.	S		В	.	NA	0.0	0.0		1	
	2						"				1
		1									1
	1							0.0	Tan/White, Black, Ash and Cinders, Rock and Gravel, Roots, moist	T	
-	┡	+	+	+	+					ŀ	
			1					0.0			
5						ı		"		t	1
6	NA	S-2	4-8	90	- [	NA	0.0	0.0			1
Ĭ									Black/Gray, highly Plastic CLAY, trace Roots, moist	Ţ	
7										1	1
				1				0.0	Tan/Gray/Green, Sandy StLT, some Clay, moist		1
8		$\vdash$	T	T	$\dagger$	$\dashv$				-	
9			l					0.0		30	1
7				1		- 1		8 1	Brown/Tan, Silty CLAY, trace small Gravel, moist		
10	NA	\$-3	8-12	85	1	VA	0.0	0.0			
								ŀ	Desure highly Physic Ct AV male	1	
11								0.0	Brown, highly Plastic CLAY, moist	-	
12					L	1					1
						- 1					
13						-	- 1	0.0	Gray, highly Plastic CLAY, moist	-	
	NA	S-4	12-16	100	l N		0.0	0.0			
14						-					
15									İ		Į
								0.0	.very moist cone (silty layer?)	5) B	
16					-	+	-	-		_	
105. 1	) Water	lovels w	re made	at the tim	es an	d unde	r condition	ons stated.	Fluctuations of groundwater tevels may occur due to seasonal factors and other conditions.		
2	) Siradii	cation lin	es repros	ond appro	oimati	a boun	daries. T	ransitions	may be gradual. The headspece above the sample using a Minkflae 2000 equipped with a 10.6 eV lemp.	_	
4)	NA = N	ot Availai	ale or Not	Applicab	le				All the second control of the second	71	EST BORING TB-203
<b>HERIOTA</b>	<b>SCHOOL</b>	AL STR	readings EET	may be if	niu4b	ced by	moisture	100	The second secon		
			OPIK 146	14-100	В					NE	EW YORK, NEW YORK 10165-1617
	4-0210 5) 454-								www.dayenvironmental.com		(212) 986-8645 FAX (212) 986-8657

	AY ENVI	RONM	ENTAL,	INC.					AN A	ENVIRONMENTAL CONSULTA
	ct Addr			ay Plaza	3			Ground Elevation: NA Datum: 9/7/2007		TEST BORING TB-20
Drillin	Repress g Contr ling Me	actor;	TREC Direct	Environ	rnental		_	Date Started: 9/7/2007 Date Ended: 9/7/2007  Borehole Depth: 20.0' Borehole Diameter:  Completion Method: Well Installed Bacidited with Grout  Water Level (Date): 6.79 (9-7-07)	Backfilled v	
Depth (ft)	Blows per 0.5 ft.	Sample Number	Sample Depth (ft)	% Recovery	N-Value or ROD%	Headspace PID (ppm)	PiD Reading (ppm)	Sample Description		Notes
17							0.0	Gray, highly Plastic CLAY, moist		
18	NA	S-5	16-20	100	NA	0.0	0.0			
20	-	-					0.0	Complete ⊕ 20.0*	-	
21										
23									-	
5									-	
6									-	
									-	
								*	-	
									-	
2) Sin 3) PIC 4) NA	reading • Not Av	n imes re is are ref salable ci	buseul st	oproximel o a bonze icable	le bound ne stand	aries. Tr lard mea	ansilions π	uctuations of groundwater levels may occur due to seasonal factors and other conditions by be gradual.  Headspace above the sample using a Miniflae 2000 equipped with a 10.5 eV lamp.		TEST BORING TB-203
MAJEF ESTE 54-02	RCIAL S R, NEV	TAEET YORK						www.dayenvironmental.com		NEW YORK, NEW YORK 10155-1617 (212) 986-8645

day Day environme	NTAL, INC.			AN AFI		ITAL CONSULTA ENGINEERING, F	
		MONITORING WI	ELL CONSTRUCTION D	IAGRAM			
•	5R-99 tway Plaza			,	MONITORING WELL MW-		
DAY Representative: Orilling Contractor:	M. Dickinson TREC Env.	Ground Elevation: Date Started: Water Level (Date):	NA 9/7/2007 12.45 (9-7-07)	Datum: Date Ended:	NA 9/7/2007	Page 1 of 1	
Refer to Test Baring Log TB-203 for Sail Description		Flush Mounted F  0.1 Depth to Top of  NA Depth to Bottom Backfill Type NA  0.5 Depth to Top of 1  2.0 Depth to Bottom  4.0 Depth to Top of 1  2.25 Diameter of Bore  Backfill Type Sand  1.0 Inside Diameter of  Type of Pipe PVC Sch Screen slot size 10  19.0 Depth to Bottom of	Riser Pipe (ft) of Cement Surface Pa Bentonite Seal (ft) of Bentonite Seal (ft) Well Screen (ft) whole (in) of Well (in)	ulch (fl)			
5: 1) Water levels were r	nade at the times and und	er conditions stated. Fluctuations	of groundwater levels may o	cour due to seasonal faci	ors and other conditions.		
2) NA = Not Available	or Not Applicable						
					MONITORING V	VELL MW-202	

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DAY ENVIRO			****					ENVIRONMENTAL CONSULTA
Project #:	ONME	2105		-				AN AFFILIATE OF DAY ENGINEERING.
Project Address  DAY Represent  Drilling Contract  Sampling Metho	iative: tor:	M. DI	vay Pla		d (			Page 1 of 1
Depth (ft) Blows par 0.6 ft.	Sampte Number	Bempte Depth (ft)	% Recovery	N.Value or RODE	Hendepase PIO (man)	PID Reading (ppm)	Water Level (Date): 7.79 (9-7-07)  Sample Description	Notes
2	\$-1	0-4	80			0.0	Tan/Brown, Sity SAND, some Grawel, moistBrown, fine SAND, moist	
5 NA S	1-2	4-8	10	NA	0.0		Block, fine Sity Sand, mostly Ash and Cinders, Metal Nails, Rock and Gravel, moist (Fit.L.)  Brown/Tan, Sity Sand, Gravel and Rock, Ash, Cinders (Fit.L.)	
9 NA 54	3 8	9-12	10	NA	0.0	0.0	very wetmetal pieces Black/Derk Green, Sandy SILT, frace Gravel, very wet	
3 NA S-4	12	2-16	100	NA.	0.0	0.0	Gray/Red Streaks, highly Plastic CLAY, moist	
	-	1				0.0	Complete # 16.0*	
1) Water levels	were m	nade at	the time	s and un	der condit	ions stated	Fluctuations of groundwater levels may occur due to seasonal factors and other conditions	
2) Strablication I	lines rep are refe llable or D read:	present erenced r Not Ap ings ma	approxi 1 to a be oplicable	male bou mzene sl t	indaries. andard m	Transitions easured in	mey be gradual. the headspace above the sample using a MiniRae 2000 equipped with a 10.6 eV lamp,	TEST BORING TB-204
MMMEHCIAL ST HESTER, NEW ' 454-0210			1-1008					NEW YORK, NEW YORK 10165-1617 (212) 986-8645

day Day environme	ENTAL, INC.			AN AFF		ITAL CONSULTANT ENGINEERING, P.O	
		MONITORING WEL	L CONSTRUCTION			Errome Errina, F.C	
Project #: 210 Project Address: Parl	5R-99 kway Plaza				MONITORING WELL MW-204		
DAY Representative: Drilling Contractor:	M. Dickinson TREC Env.	Ground Elevation: NA Datum: Date Started: 9/7/2007 Date Ended:  Water Level (Date): 7.79 (9-7-07)			NA 9/7/2007	Page 1 of 1	
Refer to Test Boring Log TB-204 for Soil Description		Flush Mounted Ro  O.1 Depth to Top of Ri NA Depth to Bottom of Backfill Type NA  O.5 Depth to Top of Be 4.0 Depth to Bottom of 6.0 Depth to Top of W  2.25 Diameter of Boreho  Backfill Type Sand  1.0 Inside Diameter of  Type of Pipe PVC Scher Screen slot size 10  16.0 Depth to Bottom of	iser Pipe (ft) f Cement Surface I entonite Seal (ft) I Bentonite Seal (ft) ell Screen (ft) ole (in)  Well (in)  well Screen (ft)				
tes: 1) Water levels were 2) NA = Not Available		er conditions stated, Fluctuations of	groundwater levels ma	occur due to seasonal fact	tors and other conditions.		
	The state of the s				MONITORING I	WELL MW-204	

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DAY	ENVI	RONMI	ENTAL,	INC.					AN AFFIL	JATE OF DAY ENGINEERING, P.C.
Proje Proje	ct #: ct Addr	ess:	2105R- Parkwa				-	Ground Elevation: 98.44 Datum: 100'		TEST BORING TB-301
Drillir	Repres og Contr oling Me	ractor:	C. Ham TREC E Geopro	nvironm	nental		-	Date Started:         8/27/2009         Date Ended:         8/27/2009           Borehole Depth:         16.0'         Borehole Diameter:         1"	kfilled with C	-
Depth (ft)	Blows per 0.5 ft.	Sample Number	THE RESERVE OF THE PERSON NAMED IN COLUMN 1					Sample Description		Notes
1 2 3	NA	S-1	0-4	90	NA	NA	0.0	Light Brown, fine Sand, little Silt, intermixed roots, damp (FiLL) Brown, little Silt, trace Gravel Tan/Brown, fine/medium Sand  Brown, Silty Sand, some Organics/Roots, trace Gravel, damp (original ground surface)  Gray, Sand, intermixed Ash and Cinders, Glass, Metal, occassional iron oxide	-	
6	NA	S-2	4-8	95	NA	NA	0.0	staining, damp (FILL)  Gray, SILT and CLAY, moist Gray/Black	-	
9 10	NA	S-3	8-12	70	NA	NA	0.0	Light Gray, Clayey SAND, wet  Brown, Silty CLAY, trace SAND, wet	MW-301:	I.D. Schedule 40 PVC monitoring
13 14 15	NA	S-4	12-16	85	NA	NA	0.0		well instal	lied with No. 10 slot well screen tween 10.5' and 15.0'
	1) Wate	er levele	vere mad	at the time	mes and	under oon	ditions etc	Bottom of Hole @ 16,0' sted, Fluctuations of groundwater levels may occur due to seasonal factors and other conditions.		
4	2) Stratifi 3) PID re ) NA = N ) Heads	cation lin adings a lot Availa pace PID	es represe e reference ble or Not readings	ent approx ced to a b Applicable	ximate bo enzene s	oundaries, standard r	Transition	ited. Pilutuations of groundwater levels may occur due to seasonal factors and other conditions. ns may be gradual, in the headspace above the sample using a MiniRae 2000 equipped with a 10.6 eV lamp.		TEST BORING TB-301
ROCH (585)	0 COMMERCIAL STREET  10 CHESTER, NEW YORK 14614-1008  NEW YORK, NEW YORK 10165-1617  585) 454-0210  (212) 988-8645  (AX (585) 454-0825  www.dayenvironmental.com  FAX (212) 988-8657									

CAH0155 (2105R-99)

d	day environmental consultants									
DAY	ENVIR	ONME	NTAL, II	NC.					AN AFFIL	IATE OF DAY ENGINEERING, P.C.
Proje Proje	ct #: ct Addre	ss:	2105R- Parkwa				-			TEST BORING TB-302
DAY	Represe	ntative:	C. Ham	pton			-	Ground Elevation: 98.44   Datum: 100'		Page 1 of 1
	g Contra		TREC E		nental			Borehole Depth: 16.0' Borehole Diameter: 2 1/4"	*************	-
Samp	ling Met	hod:	Geopro	be					acidilled with (	Cuttings
	-	_	_		_	_		Water Level (Date):		
Depth (ft)	Blows per 0.5 ft.	Sample Number	Sample Depth (ft)	% Recovery	N-Value or RQD%	Headspace PID (ppm)	PID Reading (ppm)	Sample Description		Notes
							0.0	Brown, Silty Sand, with Roots/Vegetation, damp (FILL)	Ì	
2	NA	S-1	0-4	30	NA	NA	0.0	Brown, Sand, Silt, trace Gravel, damp (FILL)	-	
3							0.0	Som, San, San, acce Grave, Garp (FILL)		
5	NA NA	S-2	4-8	20	NA	NA	0.0	Dark Brown, Sand, some Silt, intermixed w/Organics, Cinders, Glass, Wood, damp (FILL)	-	
8							0.0	Dark Gray, Clay, wet	-	
9								Light Gray, fine SAND, little Silt, trace Clay, wet	L	
							0.0	Brown, Clayey Sand, little Silt, wet		
10	NA	S-3	8-12	95	NA	NA	0.0		•.: •::	
0.2							370045			
12				i i			0.0	Brown, Silty CLAY, wet	MW-302: 1.25-inch I.D	. Schedule 40 PVC monitoring
14	NA	S-4	12-16	10	NA	NA	0.0			d with No. 10 slot well screen een 10.5' and 15.0'
15							0.0			
16		384					0.0			
								Bottom of Hole @ 16.0'		
Notes:								d. Fluctuations of groundwater levels may occur due to seasonal factors and other conditions.		
	3) PID re	adings a	re referen	ed to a b	enzene s			in the headspace above the sample using a MiniRae 2000 equipped with a 10.6 eV lamp.		
			ble or Not			hy moier	ıre			TEST BORING TB-302
	MMERC		_		uonioed	Jy motali				
11			ORK 146	514-100	В					NEW YORK, NEW YORK 10165-1617
	454-0210							and the second s		(212) 986-8645
PAX (	85) 454	-V052		-			of an area	www.dayenvironmental.com	metanon	FAX (212) 986-8657

Test Boing Logs/Monitoring Well Installation Diagrams
TB-1 Through TB-6
Monitoring Well TB-4
May 28, 2015

da		ONIME	NITAL IN	NC.						VIRONMENTAL CONSULTANT
DAY	ENVIR	ONME	NTAL, II	NC.					AN AFFILIA	TE OF DAY ENGINEERING, P.O
Projec Projec	t #: t Addres	ss:	2105R-9 Former		/ Cleane	ers	-		1	Test Boring TB-1
	_		Canand					Ground Elevation: Datum:		Page 1 of 1
	Represer g Contra		W. Batis				-	Date Started:         5/28/2015         Date Ended:         5/28/2015           Borehole Depth:         8.0'         Borehole Diameter:         2 1/4"		
	ling Meth		Direct P		ioniai, in	10.	-		Backfilled with 0	Cuttings
							-	Water Level (Date): Not Encountered		
Depth (ft)	Blows per 0.5 ft.	Sample Number	Sample Depth (ft)	% Recovery	N-Value or RQD%	Headspace PID (ppm)	PID Reading (ppm)	Sample Description		Notes
							0.0	Asphalt (~2")	Near MW-103S	<b>i</b>
								Light brown, SILT, little fine Sand, some fine Gravel, moist		
1							0.0			
2	NA	S-1	0-5	50	-	0.0	0.0			
3							0.0			
4							0.0			
5							0.0			
								some medium Gravel		
6	NA	S-2	5-8	70	_	0.0	0.0			
	100	02		70		0.0	0.0			
7							0.0			
							0.0			
8								Dark brown, PEAT, some Organics, trace fine Gravel, moist		
								Bottom of Test Boring @ 8.0'		
9										
10										
11										
12										
13										
14										
15										
16										
Notes:	1) Water	r levels w	l vere made	at the tim	nes and u	nder cond	litions stat	ed. Fluctuations of groundwater levels may occur due to seasonal factors and other conditions.	<u> </u>	
	2) Stratif	fication li	nes repres	ent appro	oximate b	oundaries	. Transiti	ons may be gradual.		
			are referen able or No			ene standa	ara meası	rred in the headspace above the sample using a MiniRae 2000 or PPB RAEequipped with a 10.6 eV la		Test Boring TB-1
	5) Heads	space PIE	) readings			by moist	ure			
	YELL AV		YORK 14	606					2	20 LEXINGTON AVENUE, SUITE : NEW YORK, NEW YORK 101
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da	Ŋ								E	ENVIRONMENTAL CONSULTANTS
		ONMEI	NTAL, IN	NC.					AN AFFIL	IATE OF DAY ENGINEERING, P.C.
Project Project	t #: t Addres	ss:	2105R-9 Former	Parkway		ers	•	Cround Flourism		Test Boring TB-2
DAY F	epreser	ntative:	Canand W. Batis			er	•	Ground Elevation: -   Datum: -		Page 1 of 1
	Contra		TREC E				•	Borehole Depth: 10.0' Borehole Diameter: 2 1/4"		-
	ing Meth		Direct P					· · · · · · · · · · · · · · · · · · ·	Backfilled wit	- h Cuttings
								Water Level (Date): ~ 9.0'		
Depth (ft)	Blows per 0.5 ft.	Sample Number	Sample Depth (ft)	% Recovery	N-Value or RQD%	Headspace PID (ppm)	PID Reading (ppm)	Sample Description		Notes
							0.0	Asphalt (~ 3")	Near IP-3	
1							0.0	Light brown, SILT and fine Gravel, trace fine Sand, moist		
3	NA	S-1	0-5	50	-	0.0	0.0			
4 5							0.0	SILT, some fine Gravel SILT, some fine Sand, moist		
6	NA	S-2	5-10	60		0.4	0.0 0.0 0.0			
8	101	02	0 10	00		0.4	0.0		_	
9							0.0	Dark brown, PEAT, some Organics, moist		
10							0.2	Greenish-gray, fine SAND, trace Silt, wet	-	
								Bottom of Test Boring @ 10.0'		
11										
12										
13										
14										
15										
16 Notes:	1) Water	r levels w	ere made	at the tim	nes and u	nder cond	litions stat	ed. Fluctuations of groundwater levels may occur due to seasonal factors and other conditions.		
	2) Strati	fication li	nes repres	ent appro	ximate b	oundaries	. Transitio	ons may be gradual.		
						ene standa	ard measu	rred in the headspace above the sample using a MiniRae 2000 or PPB RAEequipped with a 10.6 eV la	amp.	Took Doring TD 0
			able or No readings			d by moist	ure			Test Boring TB-2
1563 L	YELL A'	VENUE								420 LEXINGTON AVENUE, SUITE 30
	ESTER 154-021		'ORK 14	606						NEW YORK, NEW YORK 10170 (212) 986-8645
	85) 454							www.dayenvironmental.com		FAX (212) 986-8657

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da	V									E	NVIRONMENTAL CONSULTANTS
		ONME	NTAL, IN	NC.						AN AFFILI	ATE OF DAY ENGINEERING, P.C
Projec Projec	t #: t Addres	ss:	2105R-9		/ Cleane	rs	-				Test Boring TB-3
,			Canand					Ground Elevation: -	Datum: -		Page 1 of 1
			W. Batis					Date Started: <u>5/28/2015</u>	Date Ended: 5/28/2015		•
	Contra		TREC E		ental, In	C.		Borehole Depth: 14.0'	Borehole Diameter: 2 1/4"	Destribed with	
Sampi	ing Meth	noa:	Direct P	usn			•	Completion Method: Well Installed Water Level (Date): ~ 10.0'	Backfilled with Grout	Backfilled with	Cuttings
Depth (ft)	Blows per 0.5 ft.	Sample Number	Sample Depth (ft)	% Recovery	N-Value or RQD%	Headspace PID (ppm)	PID Reading (ppm)	Sample Descri	ption		Notes
							0.0	Asphalt		Near MP-3	
							0.0	Brown, fine Sandy SILT, some coarse Gravel, mo	ist		
1							0.0	, , , , , , , , , , , , , , , , , , , ,			
							0.0				
2	NA	S-1	0-5	60	-	14.5	0.0				
							0.0				
3							0.0				
							3.3	Brown, SILT, trace fine Sand, moist			
4							4.5	Brown, GIET, trace line Sund, moist			
							3.9				
5							10.9				
							23.8				
6							3.3	some Clay			
							0.0	os.iio etay			
7	NA	S-2	5-10	60	-	29.4	0.0				
							0.0				
8							0.0				
							0.0				
9							0.0	Dark brown, PEAT, some fine Gravel, moist			
							0.0	, , , , , , , , , , , , , , , , , , , ,			
10							0.0	Brown, SILT, trace Clay, wet			
							0.0				
11							0.0				
40	NA	S-3	10-14	100	-	0.0	0.0				
12							0.0				
40							0.0				
13							0.0				
							0.0				
14								Bottom of Test Boring @	14.0'		
4 E											
15											
46											
16			<u> </u>								
								ed. Fluctuations of groundwater levels may occur due to s	easonal factors and other conditions.		
								ons may be gradual. Ired in the headspace above the sample using a MiniRae	2000 or PPB RAEequipped with a 10.6 of	eV lamp.	
	4) NA = 1	Not Availa	able or No	t Applicat	ole						Test Boring TB-3

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5) Headspace PID readings may be influenced by moisture

1563 LYELL AVENUE

(585) 454-0210 FAX (585) 454-0825

ROCHESTER, NEW YORK 14606

da	Ŋ								E	ENVIRONMENTAL CONSULTANTS
DAY	ENVIR	ONMEI	NTAL, II	NC.					AN AFFIL	IATE OF DAY ENGINEERING, P.C
Project Project	t #: t Addres	ss:	2105R-9 Former	Parkwa		ers	-			Test Boring TB-4
DAVE			Canand				-	Ground Elevation: - Datum: -		Page 1 of 2
	Represer g Contra		W. Batis				-	Date Started:         5/28/2015         Date Ended:         5/28/2015           Borehole Depth:         20.0'         Borehole Diameter:         8"		_
	ling Meth		Direct P				-		Backfilled wit	- h Cuttings
								Water Level (Date): Not Encountered		
Depth (ft)	Blows per 0.5 ft.	Sample Number	Sample Depth (ft)	% Recovery	N-Value or RQD%	Headspace PID (ppm)	PID Reading (ppm)	Sample Description		Notes
								Concrete Slab (.3' thick)		
								Brown, SILT, some fine Sand, little fine Gravel, moist		
1										
2	NA	S-1	0-5	45	_	78.0				
	107		0.0	40		70.0				
3										
4										
_										
5								Silty fine SAND, trace Clay		
6										
7										
	NA	S-2	5-10	40	-	3600				
8										
·										
9										
									Analytical L	aboratory Sample TB-4 (10')
10								wet, strong chemical odor (perchloroethene)	•	, , , ,
11										
12										
	NA	S-3	10-15	75	-	>9999		Brown, Silty CLAY, little Shells, wet		
42									Analytical L	aboratory Sample TB-4 (13')
13										
14										
15										
16										
		<u> </u>		L	<u> </u>	<u> </u>	<u> </u>			
Notes:								ted. Fluctuations of groundwater levels may occur due to seasonal factors and other conditions. ons may be gradual.		
								ons may be gradual. ured in the headspace above the sample using a MiniRae 2000 or PPB RAEequipped with a 10.6 eV lar	mp.	
			able or No							Test Boring TB-4
			readings	may be i	nfluence	d by moist	ure			1
	YELL A' IESTER		ORK 14	606						420 LEXINGTON AVENUE, SUITE 30 NEW YORK, NEW YORK 1017
(585)	454-021	0								(212) 986-864
FAX (	585) 454	1-0825						www.dayenvironmental.com		FAX (212) 986-865

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da		o =									NVIRONMENTAL CONSULTANTS
DAY	ENVIR	ONME	NTAL, IN	NC.						AN AFFILIA	ATE OF DAY ENGINEERING, P.C.
Projec	t #: t Addres	ss:	2105R-9 Former		/ Cleane	ers	-				Test Boring TB-4
DAY F		ntative:	Canand W. Batis TREC E	aigua, N ste, S. S nvironm	IY hoemak	er	- - -	Completion Method: Well Installed Bac	Datum: - Date Ended: 5/28/20 chole Diameter: 8" ckfilled with Grout	15 Backfilled with	Page 2 of 2 Cuttings
		1	1	ı	1		l	Water Level (Date): Not Encountered		<u> </u>	
Depth (ft)	Blows per 0.5 ft.	Sample Number	Sample Depth (ft)	% Recovery	N-Value or RQD%	Headspace PID (ppm)	PID Reading (ppm)	Sample Description			Notes
								Brown, Silty CLAY, wet			
17 18 19	NA	S-4	15-20	60	-	15.6					
20								Bottom of Test Boring @ 20.0'			
21											
22											
23											
24											
25											
26											
27											
28											
29											
30											
31											
32											
Notes:	2) Strati	fication li	ines repres	ent appro	oximate b	oundaries	. Transiti	ed. Fluctuations of groundwater levels may occur due to seasonal fa ons may be gradual.			
			are referen lable or No			standard ı	measured	in the headspace above the sample using a MiniRae 2000 equipped	J with a 10.6 eV lamp.		Test Boring TB-4
1563	5) Heads		D readings	may be i	nfluenced	d by moist	ure				420 LEXINGTON AVENUE, SUITE 300
ROCH		, NEW	YORK 14	606				t a transition			NEW YORK, NEW YORK 10170 (212) 986-8645

SMS001 / 2105R-99 4/20/2016

# Former Parkway Cleaners Parkway Plaza Canandaigua, New York VCP Site No. V00238-8

Peak PID Readings (ppm) Measured
Each 0.25 Foot Interval Within Macro Core Liner
Test Boring TB-4

Sample Interval	0-5'		5-10'		10-15'		15-20'		Тор
									•
		•							
		•							
		•							
		i						i	
		i e				>9,999		į.	
		i e				3,078		į.	
		•				481			
		•				58.0		0.0	
		•				67.1		64.9	
		•				43.7		94.0	
		0.0				12.2		4.6	
		0.0		8.6		11.1		1.5	
		0.0		59.3		9.0		0.0	
		34.4		91.3		10.9		0.0	
		66.0		1,266		9.8		0.0	
		161		4,880		8.9		0.0	
		217		65.2		6.5		0.0	
		35.2		126		14.1		0.0	
		135		4,100		6.9		0.0	Bottom
ercent	45%		40%		75%		60%		
ample									
Recovery									
		•				Ī			
		= No Recov	ery			= Sample F	lecover	ed	

8.6 = Peak PID reading measured in sample interval

day	ENVIRONMENTAL CONSULTANTS
DAY ENVIRONMENTAL, INC.	AN AFFILIATE OF DAY ENGINEERING, P.C.  MONITORING WELL CONSTRUCTION DIAGRAM
Project #: 2105R-99 Project Address: Former Parkway Cleaners	MONITORING WELL TB-4
Canandaigua, NY DAY Representative: WDB, SMS Drilling Contractor: TREC Sampling Method: Direct Push	Ground Elevation:
Refer to Test Boring Log TB-4 for Soil Description	Flush Mounted Roadbox Depth to Top of Riser Pipe (ft) 1.0 Depth to Bottom of Cement Surface Patch (ft) Backfill Type Bentonite  1.0 Depth to Top of Bentonite Seal (ft) 5.0 Depth to Bottom of Bentonite Seal (ft)  7.5 Depth to Top of Well Screen (ft)  Backfill Type Sand  2.0 Inside Diameter of Well (in)  Type of Pipe PVC Screen slot size 10 Slot  17.5 Depth to Bottom of Well Screen (ft)  Depth to Bottom of Well Screen (ft)
Notes: 1) Water levels were made at the times and u 2) NA = Not Available or Not Applicable	under conditions stated. Fluctuations of groundwater levels may occur due to seasonal factors and other conditions.
	MONITORING WELL TB-4

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SMS002/2105R-99 4/20/2016

da	v								E	ENVIRONMENTAL CONSULTANTS
		ONMEN	NTAL, IN	NC.						ATE OF DAY ENGINEERING, P.C.
DAT	LIVII	ONNIE	<b>₹17.</b> , 11	10.					AIVAITIE	ATE OF BAT ENGINEERING, 1.0.
Projec			2105R-9				-			Test Boring TB-5
Projec	t Addres	SS:	Former			ers	-	Ground Elevation: - Datum: -		Page 1 of 2
DAY F	Represer	ntative:	Cananda W. Batis			er	•	Date Started: 5/28/2015 Date Ended: 5/28/2015		rage 1 01 2
	Contra		TREC E					Borehole Depth: 20.0' Borehole Diameter: 2 1/4"		_
Sampl	ing Meth	hod:	Direct P	ush					Backfilled with	n Cuttings
					1		1	Water Level (Date): Not Encountered		
			_			Headspace PID (ppm)	-			
	5 ft.	per	E)		aD%	ē	udd)			
(1	er 0.	N L	Dept	/ery	or R	Se F	ding	Sample Description		Notes
Depth (ft)	Blows per 0.5 ft.	Sample Number	Sample Depth (ft)	% Recovery	N-Value or RQD%	dsb	PID Reading (ppm)			
Dep	Blo	San	San	% R	>-Z	Неа	PID			
								Concrete Slab (~ 3")		
								Brown, SILT, some fine Sand, trace Clay, moist		
1										
2	NA	S-1	0-5	60	_	41.6				
3										
4										
5								Brown, Clayey SILT, fine Sand lense, moist, chemical odor (perchloroethene)		
6										
٠										
7	NA	S-2	5-10	40	-	257				
									Analytical La	aboratory Samplt TB-5 (8')
8										
								D. I.I. DEAT O i.I.		
9								Dark brown, PEAT, some Organics, moist		
								Dark brown, Silty CLAY, moist	Analytical L	phorotory Comple TD 5 (40")
10								Greensh-Gray, line SAND, wet	Analytical Li	aboratory Sample TB-5 (10')
								Brown, fine Sandy SILT, trace Shells, wet		
11										
12										
	NA	S-3	10-15	70	-	306		some shells		
13								Brown, Silty CLAY, wet		
.3										
14										
15								1		
16										
Notes:	1) Water	r levels w	ere made	at the tim	les and u	nder cond	I litions stat	led. Fluctuations of groundwater levels may occur due to seasonal factors and other conditions.	<u> </u>	
	2) Stratif	fication lir	nes repres	ent appro	ximate be	oundaries	. Transiti	ons may be gradual.		
			re referen able or No			ene standa	ard measi	ured in the headspace above the sample using a MiniRae 2000 or PPB RAEequipped with a 10.6 eV lat	mp.	Test Boring TB-5
			readings			by moist	ure			Tool Boiling 1B-5
		VENUE	(ODI( 1 :	enc						420 LEXINGTON AVENUE, SUITE 300
KUCF	LOIEK	, IN⊏VV Y	ORK 14	000						NEW YORK, NEW YORK 10170

SMS001 / 2105R-99 4/20/2016

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da		o									NVIRONMENTAL CONSULTANTS
DAY	ENVIR	ONME	NTAL, IN	NC.						AN AFFILI	ATE OF DAY ENGINEERING, P.C.
Project Project	t #: t Addres	ss:	2105R-9 Former		/ Cleane	ers	-				Test Boring TB-5
DAY F		ntative:	W. Batis TREC E	aigua, N ste, S. S nvironm	IY hoemak	er	- - - -	Ground Elevation: -   Date Started:	Datum: - Date Ended: 5/28// Borehole Diameter: 8" Backfilled with Grout	2015  Backfilled with	Page 2 of 2
Depth (ft)	Blows per 0.5 ft.	Sample Number	Sample Depth (ft)	% Recovery	N-Value or RQD%	Headspace PID (ppm)	PID Reading (ppm)	Sample Desc	ription		Notes
								Brown, Silty CLAY, wet			
17 18 19	NA	S-4	15-20	20	-	0.0					
20								Bottom of Test Boring	@ 20.0'		
21											
22											
23											
24											
25											
26											
27											
28											
29											
30											
31											
32											
Notes:								ted. Fluctuations of groundwater levels may occur due to ons may be gradual.	seasonal factors and other condition	S.	
			are referen lable or No			standard i	measured	in the headspace above the sample using a MiniRae 20	000 equipped with a 10.6 eV lamp.		Test Boring TB-5
1563 L	5) Heads		D readings	may be i	nfluenced	by moist	ure				420 LEXINGTON AVENUE, SUITE 300
ROCH		, NEW	YORK 14	606							NEW YORK, NEW YORK 10170 (212) 986-8645

SMS001 / 2105R-99 4/20/2016

# Former Parkway Cleaners Parkway Plaza Canandaigua, New York VCP Site No. V00238-8

Peak PID Readings (ppm) Measured
Each 0.25 Foot Interval Within Macro Core Liner
Test Boring TB-5

Sample					_
Interval	0-5'	5-10'	10-15'	15-20'	Тор
			240		
			1.4		
	0.0		1.9		
	0.0		7.5		
	0.0		3.7		
	0.0		2.6		
	0.0	62.5	4.2		
	0.0	153.0	9.3		
	1.7	104.0	0.0		
	3.0	711	0.0		
	2.5	99.4	0.0	0.0	
	25.8	102	15.4	0.0	
	43.8	41.8	6.2	1.0	
	238	8.6	0.0	0.0	Bottom
Percent	60%	40%	70%	20%	
Sample					
Recovery					
			<u></u>		
	= No F	Recovery	= Sam	nple Recovered	

8.6 = Peak PID reading measured in sample interval

da	ıy								ENVIRONMENTAL CONSULTANTS
		NME	NTAL, IN	IC.					AN AFFILIATE OF DAY ENGINEERING, P.C.
Projec Projec	t #: t Addres	ss:	2105R-9 Former I		Cleane	rs			Test Boring TB-6
			Cananda	aigua, N	Υ			Ground Elevation: Datum:	Page 1 of 2
			W. Batis					Date Started: <u>5/28/2015</u> Date Ended: <u>5/28/2015</u>	
	Contra		TREC E		ental, In	C.		Borehole Depth: 20.0' Borehole Diameter: 2 1/4"	<del></del>
Sampl	ing Meth	nod:	Direct P	ush				Completion Method: Well Installed Backfilled with Grout Water Level (Date): Not Encountered	Backfilled with Cuttings
	.5 ft.	nber	th (ft)		tab%	PID (ppm)	(mdd) I		
Depth (ft)	Blows per 0.5 ft.	Sample Number	Sample Depth (ft)	% Recovery	N-Value or RQD%	Headspace PID (ppm)	PID Reading (ppm)	Sample Description	Notes
		0,	0,	9,				Concrete Slab (~ 3")	
1								Brown, SILT, some fine Sand, tract Clay, moist	
·									
2									
	NA	S-1	0-5	40	-	18.7			
3									
4									
5									
6									
7									
,	NA	S-2	5-10	60	-	156		Dark brown, PEAT, some Organics, moist, chemical odor (perchloroethene)	
8									
9									
								some Sand	
10									
								L'ALLE COMPANIE DE	
11								Light tan, fine SAND, little Silt, wet	
12	NA	S-3	10-15	80	-	12.3		Brown, Silty fine SAND, wet	
42									
13									
14									
15								Brown, Clayey SILT, wet	
									Analytical Laboratory County TD C (40)
16									Analytical Laboratory Sample TB-6 (16')
								ed. Fluctuations of groundwater levels may occur due to seasonal factors and other conditions.	•
								ons may be gradual. red in the headspace above the sample using a MiniRae 2000 or PPB RAEequipped with a 10.6 eV la	
			able or Not			hv -:	ıro		Test Boring TB-6
	YELL A		readings	may be if	illuenced	by moist	ле		420 LEXINGTON AVENUE, SUITE 300
	IESTER, 454-021		ORK 14	606					NEW YORK, NEW YORK 10170 (212) 986-8645
	585) 454							www.dayenvironmental.com	FAX (212) 986-8657

4/20/2016 SMS001 / 2105R-99

da		ONMEI	NTAL, IN	NC.						ENVIRONMENTAL CONSULTANTS
Projec Projec	t #: t Addres	ss:	2105R-9	Parkway		ers	-			Test Boring TB-6
Drilling	AY Representative:  W. Batiste, S. Shoemaker  TREC Environmental, Inc.  Direct Push		- - -	Ground Elevation: - Datum: -  Date Started: 5/28/2015 Date Ended: 5/28/2015  Borehole Depth: 20.0' Borehole Diameter: 2 1/4"  Completion Method: Well Installed Water Level (Date): Not Encountered	Backfilled with	Page 2 of 2 n Cuttings				
Depth (ft)	Blows per 0.5 ft.	Sample Number	Sample Depth (ft)	% Recovery	N-Value or RQD%	Headspace PID (ppm)	PID Reading (ppm)	Sample Description		Notes
								Brown, Clayey SILT, wet		
17	NA	S-4	15-20	60	-	987			Analytical L	aboratory Sample TB-6 (18')
19								Brown, Silty CLAY, wet		
20								Bottom of Test Boring @ 20.0'		
22										
23										
24										
25										
26										
27										
28										
29										
30										
32										
								Led. Fluctuations of groundwater levels may occur due to seasonal factors and other conditions.  ons may be gradual.	1	
	4) NA = 1	Not Availa	are referen able or No O readings	t Applicat	ole			in the headspace above the sample using a MiniRae 2000 equipped with a 10.6 eV lamp.		Test Boring TB-6
1563 L ROCH (585) 4	YELL A	VENUE , NEW \ 0	ORK 14					www.dayenvironmental.com		420 LEXINGTON AVENUE, SUITE 300 NEW YORK, NEW YORK 10170 (212) 986-8645 FAX (212) 986-8657

4/20/2016 SMS001 / 2105R-99

# Former Parkway Cleaners Parkway Plaza Canandaigua, New York VCP Site No. V00238-8

### Peak PID Readings (ppm) Measured Each 0.25 Foot Interval Within Macro Core Liner Test Boring TB-6

Sample Interval	0-5'	5-10'		10-15'		15-20'		Тор
								-
							•	
							•	
							•	
					0.0		,	
					0.0		,	
					0.0		,	
					0.0		,	
			1.5		0.0		1,032	
			15.5		0.0		1,227	
			33.5		0.2		205	
			17.0		3.6		69.8	
	0.0		22.1		10.7		27.8	
	0.0		302		4.3		19.3	
	0.0		338		18.3		8.7	
	0.0		241		15.2		9.7	
	0.0		101		5.9		2.9	
	0.0		135		4.6		3.8	
	43.7		39.7		9.7		2.7	
	20.2		8.4		97.0		1.9	Bottom
ercent	40%	60%		80%		60%		
ample								
Recovery								
					1			
	= N	o Recovery			= Sampl	e Recovere	ed	

8.6 = Peak PID reading measured in sample interval

SMP Template: August 2015

Appendix D

Applicable Site Documents

SMP Template: August 2015

Waste Manifest 007931851 JJK

			PHONE	<ol> <li>Generator f</li> </ol>	D Number			2 Dage 4 of			. Phil	4 44 44				
1	UNIFO	ORM HAZAF ISTE MANIF	EST	NVC		1 3 9	0 0 4		3. Emergen	icy Respons 16-5660	e Phone		Tracking I		11	IIV
Ш		erator's Name		Address	, , ,	138	9 1	1 1			(if different ti	han mailing addre		185	) <u>T</u>	JN
	51 C	arkway 1 <b>Easte</b> i Ananda	RN BLV	D	4							Jan Maning Galact	,,,,,			
		ator's Phone: sporter 1 Com	nany Nama									110 507 5				
П		UN ENV	COLUMBIA CONTRACTOR		COPP							U.S. EPA ID				
Н		sporter 2 Comp			CORP.				- 4			U.S. EPA ID		0 1 7	6 9	58
Ш			Michigan Communica									U.S. EPAID	Number			
П	8. Desig	gnated Facility	Name and	Site Address			_					U.S. EPA ID	Number		-	
	55 LE	YCLE CH 50 INDUS EWISBER	TRIAL	DR. 17339		è						The second second	TO THE STORY OF TH			
Н		's Phone: 7				-	3					PAI	000	708	8.8	2 2
П	9a. HM	9b. U.S. DOT and Packing (	Description Group (if any	(including Pro /))	oper Shipping N	lame, Hazard Cl	lass, ID Number	T.		10. Contain		11. Total	12. Unit	13	. Waste Cod	20
H	1 101									No.	Туре	Quantity	Wt./Vol.	- 10	T 174010 000	
GENERATOR	X	ERG# 1	71	RDOUS	WASTE !	SOLID NO	18, 9,PG#		0	03	DM	01500	Р	D039	D040	F00
äГ	2	le.								1,5		01000	<u> </u>		_	
١٥																
H								2								
	3.							3								
П															-	-
ŀ	4.															
П	*	•														_
	- 1				1			3. 3.5								
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SMP Template: August 2015
Pre-Renovation Asbestos Containing Materials Inspections Report prepared by LaBella
Associates, D.P.C. dated March 2019



### Pre-Renovation Asbestos-Containing Materials Inspection



### Location:

Unit 51 – Parkway Plaza 79 Eastern Boulevard Canandaigua, New York 14424

### Prepared for:

Parkway Plaza LP 415 Park Avenue Rochester, New York 14607

LaBella Project No. 2190865

March 2019

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### I. PROJECT DESCRIPTION

In accordance with current regulations, LaBella Associates, D.P.C. (LaBella) conducted a Limited Pre-Renovation Asbestos-Containing Materials (ACM) Inspection of the Laundry Mat (Unit 51) space within the Parkway Plaza complex located at 79 Eastern Boulevard in the Town of Canandaigua, New York. The objective was to sample suspect flooring materials which may require abatement or removal prior to or during renovation due to applicable regulations. Only floor tiles and the associated mastics were sampled.

### II. INSPECTION PROCEDURES

The following procedures were used to obtain the data for this Report:

- A. A visual inspection of the flooring was conducted to identify visible and accessible sources of suspect ACMs. Photographs captured during this inspection are attached in Appendix C.
- B. Bulk samples of suspect flooring ACMs were collected and submitted for laboratory analysis.
- C. Asbestos samples were submitted for laboratory analysis. Preliminary Polarized Light Microscopy analyses of non-friable, organically bound (NOB) materials were performed by LaBella Laboratories, a NYSDOH accredited laboratory, to determine the presence and percentage of asbestos in each sample. Transmission electron microscopy analyses of NOB materials, if necessary, were performed by AMA Laboratories.
- D. Results of the laboratory analyses, field testing and the visual on-site inspection were compiled and summarized.

### III. INSPECTION LIMITATIONS

This inspection was conducted in accordance with generally accepted environmental engineering practices for this region. Collection of bulk samples of suspect ACMs was limited to those materials readily accessible using hand tools or hand-held power tools. Homogeneous materials were identified and located based on visual observation from readily accessible points. The data derived from representative samples of any given homogeneous material represent conditions that apply only at that particular location. Inspection protocol and methodology requires that sample data be used to draw conclusions about the entire homogeneous area, but such conclusions may not necessarily apply to the general Site as a whole. No sub-surface investigations were performed to determine the possible presence of regulated materials on or in the immediate vicinity of the Site. No record drawings of the building were available for review as part of this investigation. LaBella makes no other warranty or representation, either expressed or implied, nor is one intended to be included as part of its services, proposals, contracts or reports. No asbestos inspection can wholly eliminate the uncertainty regarding the potential for undiscovered ACMs. The Work performed by LaBella is intended to reduce, but not eliminate, uncertainty regarding the potential for ACMs at the Site. This asbestos inspection report is not intended to be a bid document for an abatement scope of work. This report is intended to satisfy the requirements of NYS Code Rule 56-5 for asbestos inspections. Abatement project design can only be performed by a certified Project Designer.



### IV. INSPECTION RESULTS

### Asbestos-Containing Materials (ACMs)

Based on laboratory analyses of bulk samples collected, the following material was determined to contain greater than 1% asbestos. However, the following table does not include all of the materials sampled during this inspection; for a full list of materials sampled see the Asbestos Bulk Sample Summary Table immediately following this report:

Type of Material	Typical Location <sup>1</sup>	Estimated Amount <sup>2</sup>	Friability	Condition
Brown Floor Tile and Associated Mastic	Rear Room	110 SF	Non-Friable	Good

### Floor Tile and Associated Mastic

Brown asbestos-containing floor tile and its associated asbestos-containing mastic are located at the rear of Unit 51. The floor tile and mastic are generally in good condition and cover an area of approximately 110 square feet.

### V. OBSERVATIONS AND CAUTIONARY STATEMENTS

### Potentially Hidden/Inaccessible ACMs

As stated earlier, collection of bulk samples of suspect ACMs was limited to those materials readily accessible. Although this inspection was conducted in a manner consistent with recognized professional practices, the potential does exist for additional ACMs to be inaccessible, hidden, and undiscovered in the area inspected.

Again, only the flooring was sampled. If other materials are to be impacted during this renovation project, the remaining portions of the building or tenant space should be inspected.

J:\Parkway Plaza LP\2190865 - Unit 51 Floor Tile Sampling\Reports\2190865 - Unit 51 Floor Tile Sampling.doc

<sup>&</sup>lt;sup>1</sup> Typical Location may not be inclusive of all material locations present at the subject structure.

For general reference only: Quantities reflect only those materials understood to be impacted by the project. Estimated amounts of confirmed ACM listed above were obtained through field observations made during site visits. Quantities are approximations and LaBella assumes no responsibility if used for bidding.

# Asbestos Bulk Sample Summary Table

#### Asbestos Bulk Sample Summary Table

#### Limited Pre-Renovation Asbestos-Containing Materials Inspection Unit 51 – Parkway Plaza LP

#### Items in Bold are Confirmed ACM

Sample #	Type of Material	Sample Location	Results % Asbestos
1A	Light Blue Floor Tile	Front Area	None Detected
1B	Light Blue Floor Tile	Front Area	None Detected
2A	Yellow Floor Tile With Black Mastic	Front Area (Second Layer)	None Detected
2B	Yellow Floor Tile With Black Mastic	Front Area (Second Layer)	None Detected
3A	Gray Floor Tile	Rear Area	None Detected
3B	Gray Floor Tile	Rear Area	None Detected
4A	Tan Floor Tile With Black Mastic	Office	None Detected
4B	Tan Floor Tile With Black Mastic	Office	None Detected
5A	Brown Spotted Floor Tile	Rear Area	25% Chrysotile
5B	<b>Brown Spotted Floor Tile</b>	Rear Area	Not Analyzed Stop Positive

# Appendix A<br/>Inspection Fact Sheet

#### **Inspection Fact Sheet**

Name and Address of Building/Structure
Unit 51 – Parkway Plaza
79 Eastern Boulevard
Canandaigua, New York 14424
Name and Address of Building/Structure Owner  Parkway Plaza LP
415 Park Avenue
Rochester, New York 14607
Name and Address of Owner's Agent
LaBella Associates, D.P.C.
300 State Street, Suite 201
Rochester, New York 14614
Name of the Firm & Person Conducting the Inspection
LaBella Associates, D.P.C.
Shawn Rucker (NYSDOL Cert. #17-27928)
Date(s) the Inspection Was Conducted  February 26th, 2019
10014417 20 12010

# Appendix B Laboratory Analytical Reports

#### BULK SAMPLE ASBESTOS ANALYTICAL REPORT

LABELLA ASSOCIATES, P. C. ANALYTICAL LABORATORY 300 STATE STREET ROCHESTER, NY 14614 (585) 454-6110 FAX(585) 454-3066

ADDRESS: 300 State Street

ELAP # 11184 AMA Lab TEM ELAP# 10920

14019 LBL JOB #

PLM Methods: 198.1, 198.4, & 198.6

RSD: 14.2%

LABELLA PROJECT #	2190865		

CLIENT: Labella Associates SAMPLE TYPE: PLM Bulk

Rochester, NY 14614 SAMPLE DATE: 02/26/2019

POLECT LOCATION 79 Eastern Blvd., Unit 51, Laundry Mat

OJECT LOCAT	LBL ID	method	ASBESTOS TYPE	%	OTHER FIBERS	%	MATRIX	%	COLOR / DESCRIPTION
						1		1	
1A	14019-1	T	ND		ND		MIN/VINYL	100	BLUE FLOOR TILE
1B	14019-2	T	ND		ND	ļ	MIN/VINYL	100	BLUE FLOOR TILE
2A	14019-3	Т	ND		ND		MIN/BINDER	100	YELLOW FLOOR TILE W/BLACK MASTI
2B	14019-4	Т	ND		ND		MIN/BINDER	100	YELLOW FLOOR TILE W/BLACK MASTI
3A	14019-5	G	ND		ND		MIN/VINYL	100	GRAY FLOOR TILE
3B	14019-6	G	ND		ND		MIN/VINYL	100	GRAY FLOOR TILE
4A	14019-7	T	ND		ND		MIN/VINYL	100	TAN FLOOR TILE W/BLACK MASTIC
4B	14019-8	Т	ND		ND		MIN/VINYL	100	TAN FLOOR TILE W/BLACK MASTIC
5A	14019-9	N	CHRYSOTILE	25	ND		MIN/VINYL	75	BROWN FLOOR TILE
	_								
			0.27.						
									*
						,	·—/ -		1 1

/ fatt Smith

ND - None Detected CELL-Cellulose JC - Joint Compound MIN - Mineral GLASS - Fiberglass <1 = Trace PLAS - Plaster

P - Friable PLM analytical result N - NOB PLM analytical result T - TEM analytical result IN - Inconclusive!

G - Gravimetric Matrix Reduction; Sample residue weight <1% of original sample weight, TEM not required. Vermiculite: Vermiculite is reported as an asbestos-containing mineral in accordance with NYSDOH determinations. See NYSDOH guidance, available upon request.

<sup>\*</sup> Please note: Due to interference from sample matrix components, results reported via PLM method ELAP 198.1 as negative or Trace (<1%) may be inaccurate and reported as a False Negative. It is recommended that additional analytical techniques such as gravimetric reduction. TEM and others be used to reduce obscuring effects of matrix components yielding more accurate results.

<sup>1 &</sup>quot;Polarized-light microscopy (PLM) is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. Quantitative 1 "Polarized-light microscopy (PLM) is not consistently remaine in detecting assesses in most considered to be non-assested containing." transmission electron microscopy (TEM) is currently the only method that can be used to determine if this material can be considered to be non-assested containing."

Page 1 of

## Appendix C Licenses and Certifications

#### New York State - Department of Labor

Division of Safety and Health License and Certificate Unit State Campus, Building 12 Albany, NY 12240

#### **ASBESTOS HANDLING LICENSE**

LaBella Associates, D.P.C. Suite 201 300 State Street

Rochester, NY 14614

FILE NUMBER: 99-1172 LICENSE NUMBER: 29278

LICENSE CLASS: RESTRICTED DATE OF ISSUE: 01/03/2019 EXPIRATION DATE: 01/31/2020

Duly Authorized Representative - Robert Pepe:

This license has been issued in accordance with applicable provisions of Article 30 of the Labor Law of New York State and of the New York State Codes, Rules and Regulations (12 NYCRR Part 56). It is subject to suspension or revocation for a (1) serious violation of state, federal or local laws with regard to the conduct of an asbestos project, or (2) demonstrated lack of responsibility in the conduct of any job involving asbestos or asbestos material.

This license is valid only for the contractor named above and this license or a photocopy must be prominently displayed at the asbestos project worksite. This license verifies that all persons employed by the licensee on an asbestos project in New York State have been issued an Asbestos Certificate, appropriate for the type of work they perform, by the New York State Department of Labor.

Eileen M. Franko, Director For the Commissioner of Labor

SH 432 (8/12)

#### NEW YORK STATE DEPARTMENT OF HEALTH WADSWORTH CENTER



Expires 12:01 AM April 01, 2019 Issued April 01, 2018

#### CERTIFICATE OF APPROVAL FOR LABORATORY SERVICE

Issued in accordance with and pursuant to section 502 Public Health Law of New York State

MR. MATTHEW SMITH LABELLA ASSOCIATES 300 STATE STREET SUITE 200 ROCHESTER, NY 14614 NY Lab Id No: 11184

is hereby APPROVED as an Environmental Laboratory for the category ENVIRONMENTAL ANALYSES SOLID AND HAZARDOUS WASTE All approved subcategories and/or analytes are listed below:

#### Miscellaneous

Asbestos in Friable Material

Item 198.1 of Manual

Asbestos in Non-Friable Material-PLM

Item 198.6 of Manual (NOB by PLM)

NEW YORK

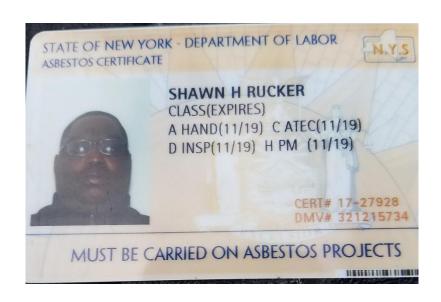
state department of

HEALTH

Serial No.: 57691

Property of the New York State Department of Health. Certificates are valid only at the address shown, must be conspicuously posted, and are printed on secure paper. Continued accreditation depends on successful ongoing participation in the Program. Consumers are urged to call (518) 485-5570 to verify the laboratory's accreditation status.





SMP Template: August 2015 Asbestos Air Monitoring and Abatement Completion Summary Letter prepared by LaBella Associates, D.P.C. dated April 16, 2019



April 16, 2019

Mr. Jeff Saeger Parkway Plaza LP 415 Park Avenue Rochester, NY 14607

RE: Asbestos Air Monitoring and Abatement Completion
Parkway Plaza Unit 51 – Brown 9"x9" Floor Tile Removal
LaBella Project 2190865

Dear Mr. Saeger:

Asbestos abatement has been successfully completed in the rear area of Parkway Plaza Unit 51 located at 79 Eastern Boulevard in Canandaigua, New York. LaBella provided Air and Project Monitoring Services as required during the abatement project completed by KA&S Contracting.

The project involved the clean-up and removal of asbestos-containing brown 9"x9" floor tile in response to an inspection conducted by LaBella on February 26, 2019. The Project Monitor completed a final visual clearance inspection to verify completion of abatement in compliance with Code Rule 56 and project specifications.

Asbestos abatement air monitoring has also been completed for the abatement project. Air monitoring was completed with clearance airs on April 5, 2019. Final air samples passed clearance standards before the containment was disassembled. Laboratory analytical reports are attached.

If you have any questions or need additional information, please feel free to contact me directly at 607-591-7516. Thank you for the opportunity to provide asbestos project and air monitoring services to Parkway Plaza LP. We hope you will consider LaBella Associates for your health, safety & environmental needs in the future.

LABELLA ASSOCIATES, D.P.C.

Cory Stamp

NYS Asbestos Project Monitor



## Laboratory Air Sample Results

#### PHASE CONTRAST MICROSCOPY **ANALYTICAL REPORT**

LABELLA ASSOCIATES, P.C. ANALYTICAL LABORATORY **300 STATE STREET** ROCHESTER, NY 14614 (585) 454-6110 FAX (585) 454-3066

21519 LBL JOB#

Page 1 of 1

ELAP # 11184

CLIENT: Labella Associates

LABELLA PROJECT #

2190865

ADDRESS: 300 State Street

Rochester, NY 14614

SAMPLE TYPE: Backgrounds

SAMPLE DATE: 03/29/2019

PROJECT LOCATION: Parkway Laundry & Dry Cleaning

FIELD ID	LBL ID	VOL/L	F/mm	F/cc	I/OWA	SAMPLE LOCATION
1	21519-1	1,200.0	12.2	0.004	OWA	ENTRANCE DOOR
2	21519-2	1,200.0	15.9	0.005	OWA	NORTHEAST WINDOW
3	21519-3	1,200.0	11.0	0.004	OWA	NORTHWEST WINDOW
4	21519-4	1,200.0	14.7	0.005	OWA	EXIT DOOR
5	21519-5	1,200.0	13.5	0.004	OWA	SOUTHEST
6	21519-6	1,200.0	19.6	0.006	IWA	EAST WALL
7	21519-7	1,200.0	23.3	0.007	IWA	SOUTH WALL
8	21519-8	1,200.0	18.4	0.006	IWA	WEST WALL
9	21519-9	1,200.0	22.0	0.007	IWA	CENTER #1
10	21519-10	1,200.0	24.5	0.008	IWA	CENTER #2
11	21519-11		<7			FIELD BLANK
12	21519-12		<7			FIELD BLANK

NIOSH 7400 METHOD, OLYMPUS CH2 MICROSCOPE (<) LESS THAN - INDICATES LOWER LIMIT OF DETECTION LAB RELATIVE STANDARD DEVIATION = 18.5%

Watt Smith DATE: 3/29/19

#### PHASE CONTRAST MICROSCOPY **ANALYTICAL REPORT**

LABELLA ASSOCIATES, P.C. ANALYTICAL LABORATORY **300 STATE STREET** ROCHESTER, NY 14614 (585) 454-6110 FAX (585) 454-3066

23019 LBL JOB#

Page 1 of 1

ELAP # 11184

CLIENT: Labella Associates

LABELLA PROJECT #

2190865

ADDRESS: 300 State Street

Rochester, NY 14614

SAMPLE TYPE: Finals

SAMPLE DATE: 04/05/2019

PROJECT LOCATION: Parkway Laundry & Dry Cleaning

FIELD ID	LBL ID	VOL/L	F/mm	F/cc	I/OWA	SAMPLE LOCATION
1	23019-1	1,200.0	19.6	0.006	IWA	NORTH
2	23019-2	1,200.0	15.9	0.005	IWA	EAST
3	23019-3	1,200.0	18,4	0.006	IWA	SOUTH
4	23019-4	1,200.0	12.2	0.004	OWA	DECON
5	23019-5	1,200.0	14.7	0.005	OWA	CRITICAL BARRIER 1
6	23019-6	1,200.0	17.1	0.005	OWA	CRITICAL BARRIER 2
7	23019-7		<7			FIELD BLANK
8	23019-8		<7			FIELD BLANK

NIOSH 7400 METHOD, OLYMPUS CH2 MICROSCOPE (<) LESS THAN - INDICATES LOWER LIMIT OF DETECTION LAB RELATIVE STANDARD DEVIATION = 18.5%

Matt Imillare: 4/5/19



### **Licenses & Certifications**

#### New York State - Department of Labor

Division of Safety and Health License and Certificate Unit State Campus, Building 12 Albany, NY 12240

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LaBella Associates, D.P.C. Suite 201 300 State Street

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FILE NUMBER: 99-1172 LICENSE NUMBER: 29278

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This license is valid only for the contractor named above and this license or a photocopy must be prominently displayed at the asbestos project worksite. This license verifies that all persons employed by the licensee on an asbestos project in New York State have been issued an Asbestos Certificate, appropriate for the type of work they perform, by the New York State Department of Labor.

Eileen M. Franko, Director For the Commissioner of Labor

SH 432 (8/12)

#### NEW YORK STATE DEPARTMENT OF HEALTH WADSWORTH CENTER



Expires 12:01 AM April 01, 2020 Issued April 01, 2019

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MR. MATTHEW SMITH LABELLA ASSOCIATES 300 STATE STREET SUITE 200 ROCHESTER, NY 14614 NY Lab Id No: 11184

is hereby APPROVED as an Environmental Laboratory for the category ENVIRONMENTAL ANALYSES SOLID AND HAZARDOUS WASTE All approved subcategories and/or analytes are listed below:

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Item 198.1 of Manual

Asbestos in Non-Friable Material-PLM

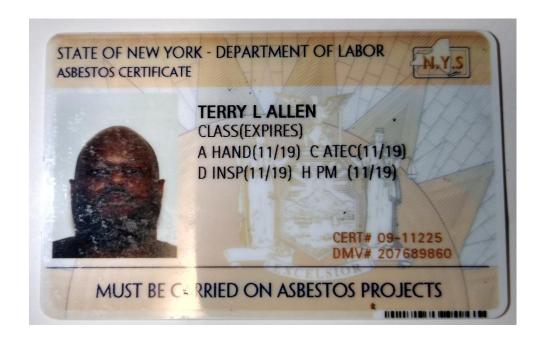
Item 198.6 of Manual (NOB by PLM)



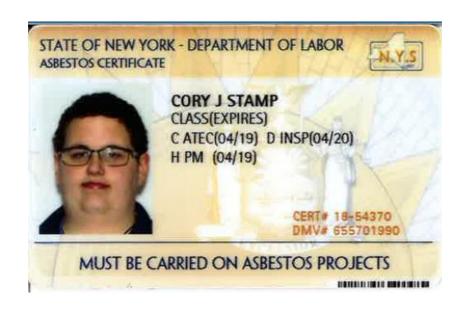
Serial No.: 59557

Property of the New York State Department of Health. Certificates are valid only at the address shown, must be conspicuously posted, and are printed on secure paper. Continued accreditation depends on successful ongoing participation in the Program. Consumers are urged to call (518) 485-5570 to verify the laboratory's accreditation status.









SMP Template: August 2015 Corrective Action Letter, prepared by DAY, dated July 19, 2019



July 19, 2019

Mr. Timothy Schneider, P.E. NYSDEC Project Manger 6274 East Avon-Lima Rd Avon, NY 14414

RE: Former Parkway Cleaners NYSDEC Site #: C835028 47 Eastern Boulevard Canandaigua, New York

Dear Mr. Schneider:

In accordance with the provisions of the Draft Interim Site Management Plan (ISMP) dated February 2019 for 47 Eastern Boulevard, 51 Eastern Boulevard, and 57 Eastern Boulevard, Canandaigua, New York (Site), Day Environmental, Inc. (DAY) prepared this letter on the behalf of Parkway Plaza Limited Partnership, LLP (the Owner). The purpose of this letter is to notify the New York State Department of Environmental Conservation (NYSDEC) of excavations breaching the cover (i.e., concrete building slab) that occurred at the Site, the proposed plan to address environmental-impact resulting from this breach and the restoration of the disturbed engineering control cap. Refer to Figure 1 for a project locus map.

#### **Site Cap Disturbance**

On-site July 11, 2019, a DAY representative observed a pile of covered soil and concrete debris located in the exterior portion of the Site adjacent to the south side of 51 Eastern Boulevard. This material was reportedly spoil generated during building renovations being conducted by a future tenant of the former Parkway Cleaners space. [Note: The future tenant did not notify DAY or the Owner that the slab of the building would be disturbed. Further, it was DAY's understanding that the future tenant would contact DAY after the space was cleared, to determine where slab excavations would be placed to determine if Sub-Slab Depressurization System (SSDS) piping could be placed in these excavations.]

The slab disturbance completed to date consists of removal of approximately 110 linear feet (ft.) of concrete (i.e., approximately 12-inches wide and 5 inches thick) and the excavation of soil below the concrete slab to a depth of about 1 to 1.25 ft. This excavation was completed for plumbing renovations required by the future tenant. Refer to Figure 2 for the approximate location of the excavation and the photo log included as Attachment A. As shown in the photographs included in Attachment A, 10-inch diameter PVC pipe was installed within the excavated trenches, and the trenches were partially backfilled with excavated soil. Based on the size/length of the trenches and the

Mr. Schneider July 19, 2019 Page 2

depth of the excavations, it is estimated that approximately 46 cubic feet of concrete and 110 cubic feet of soil was removed and stockpiled in the location depicted on Figure 2.

Based on the depth of the excavation, it is not anticipated that source-zone level material was encountered during the utility trench excavation. However, low-level chlorinated VOC-impact within the soil vapor and possibility with the soil matrix, especially in proximity to the space's southern wall, were likely encountered. Post-excavation screening completed by DAY on July 11, 2019 using a photoionization detect (PID) measured peak VOCs of 427 parts per million (ppm) above the soil pile but below the tarp covering the soil pile. Subsequent PID measurements collected on July 11, 2019 from the spoil pile ranged between 0 ppm and 50 ppm. Note: As a result of the unauthorized cap disturbance, renovations and access to the building have been suspended on July 11, 2019 until further notice.

#### **Waste Material Management**

As an initial response, a DAY representative with up-to-date 40-hour HAZWOPER training removed the concrete and soil generated during the utility excavation from the stockpile, and placed this material in ten steel, New York State Department of Transportation (NYSDOT)-approved 55-gallon drums with a closed top. These drums are located adjacent to the former stockpile area.

Subsequent to NYSDEC approval of this plan, waste characterization samples will be collected for analytical laboratory testing to determine disposal options. The disposal facility will be consulted to determine the tests and number of tests required. However, is anticipated the sample(s) collected will be tested for one or more of the following parameters: TCL VOCs, CP-51 SVOCs, RCRA metals, polychlorinated biphenyls and/or pesticides Upon receipt of the analytical laboratory data package, DAY will coordinate with the disposal facility for waste manifest generation, drum pick up and disposal. [Note: Additional excavation at the Site is anticipated during the installation of the vapor mitigation system. In the event that these disposal events can be piggybacked the NYSDEC will be consulted.] In accordance with Section D4 of the draft ISMP, a qualified environmental professional will be on-site to observe the load-out of the drummed material. In accordance with Section D5 of the ISMP, transport of drummed material will be performed by licensed haulers in accordance with appropriate local, State and Federal regulations. Actual disposal quantities and associated documentation will be reported to the NYSDEC in the final engineering report for the Site including, waste profiles, test results, facility acceptance letters, bills of lading and facility receipts.

#### **Cover System Restoration**

Prior to resuming building renovation activities, the Site's cover system will be restored in a manner that complies with the Site's draft ISMP. Specifically, it is anticipated that the utility excavations will be backfilled with a stone aggregate that meets the specifications presented in DER-10 section 5.4e(5) and covered with approximately 5 inches of concrete to restore the floor slab. Alternatively, backfill material will be submitted for analytical laboratory testing in accordance with DER-10 requirements and emerging contaminant testing. New concrete will then be placed within the backfilled excavation to restore the trench to the existing floor surface with a similar thickness of concrete as the remaining slab. A qualified environmental professional will approve the backfill material and observe the backfilling and concrete work.

Mr. Schneider July 19, 2019 Page 3

#### **Health and Safety**

The work activities described herein will be completed by up-to-date 40-hour HAZWOPER trained consultants and contractors. Contractors, consultants and agency representatives involved with the project will be responsible for their own safety while on-site and will be required to understand the information contained it the Site's HASP, dated September 2013 (Revised February 2019) and must follow the recommendations presented in the plan or obtain a NYSDEC-approved HASP of their own.

If there are questions, please do not hesitate to call.

Very truly yours,

Day Environmental, Inc.

Nathan E. Simon, P.E.

Project Engineer

Raymond L. Kampff

Principal

**Figures** 

Figure 1 – Project Locus Map

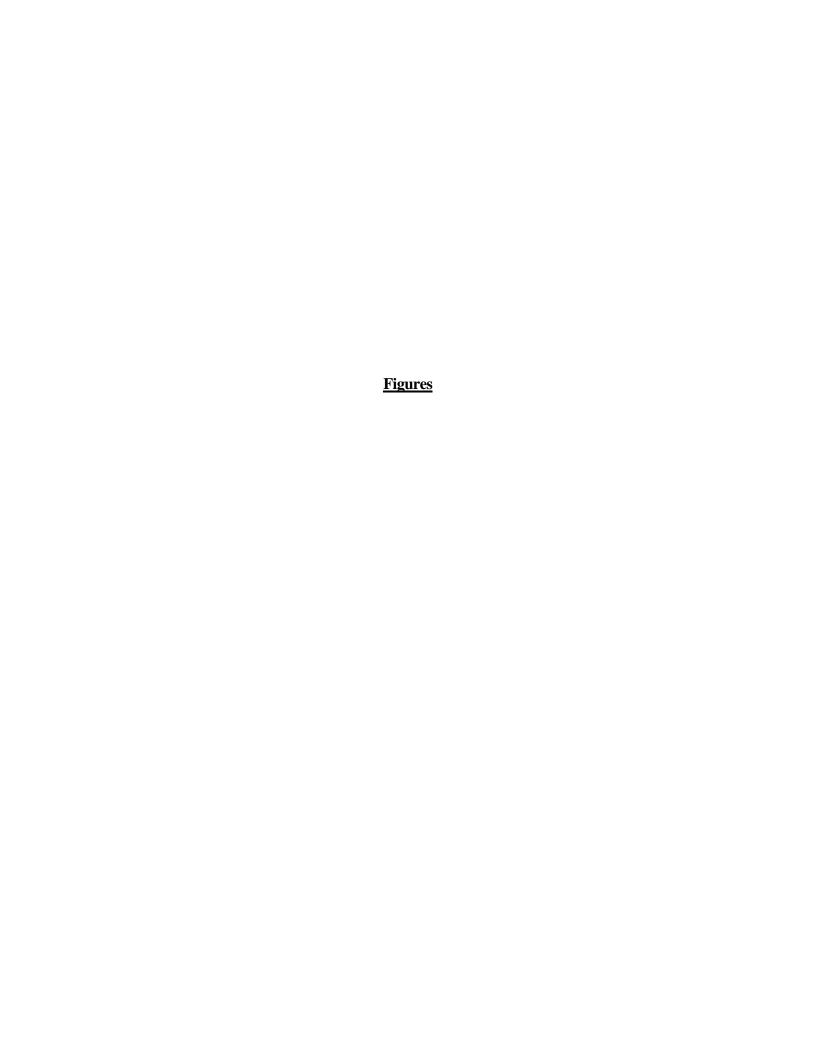
Figure 2 – Site Plan

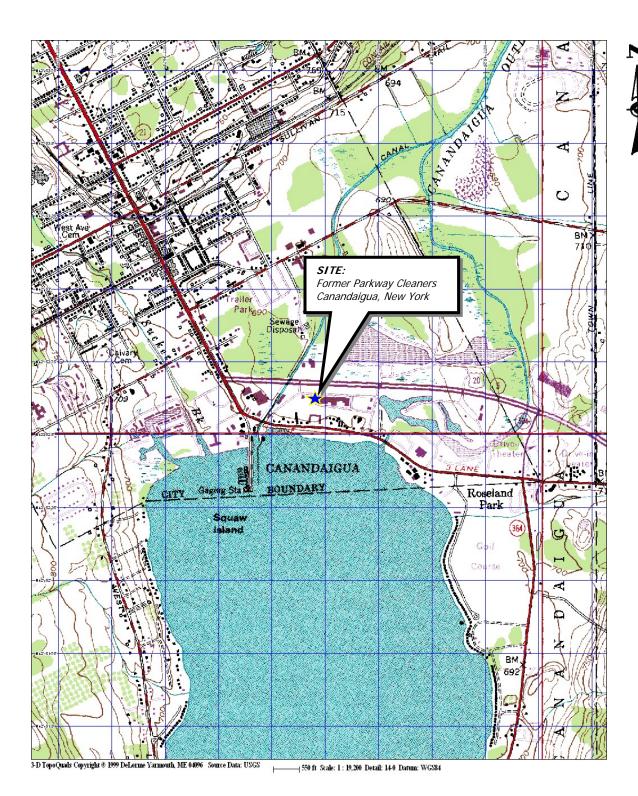
Attachments

Attachment A – Site Photographs

Cc: Andrew Bodewes – Parkway Plaza Limited Partnership

Nes1300





Drawing Produced From: 3-D TopoQuads, DeLorme Map Co., referencing USGS quad maps Canandaigua (NY) 1978 and Canandaigua Lake (NY) 1978. Site Lat/Long: N42° 52.6′ – W77° 16.0′

DATE 2/25/2019

DRAWN BY RJM

SCALE 1" = 2000' DAY ENGINEERING, P.C.
ENVIRONMENTAL CONSULTANTS

ENVIRONMENTAL CONSULTANTS ROCHESTER, NEW YORK 14614-1008 NEW YORK, NEW YORK 10165-1617 PROJECT TITLE
FORMER PARKWAY CLEANERS
BCP SITE NO. C835028
CANANDAIGUA, NEW YORK

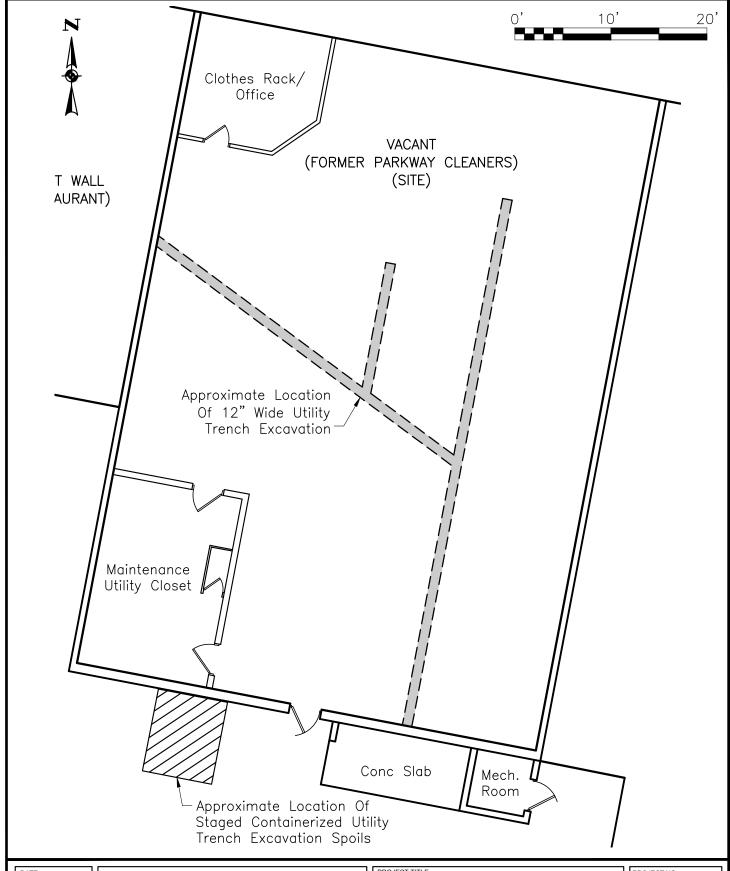
DRAWING TITLE PROJECT LOCUS MAP

PROJECT NO.

5188R-15

FIGURE 1

Ref3:



DATE 7-19-2019

DRAWN BY RJM

SCALE 1" = 10'

DAY ENGINEERING, P.C. **ENVIRONMENTAL ENGINEERING CONSULTANTS** ROCHESTER, NEW YORK 14606 NEW YORK, NEW YORK 10170

PROJECT TITLE
FORMER PARKWAY CLEANERS BCP SITE NO. C835028 CANANDAIGUA, NEW YORK

DRAWING TITLE

Utility Trench Excavation Sketch

PROJECT NO.

5188R-15

FIGURE 2

#### **Attachment A**

Site Photographs



Excavated plumbing utility trench with 10-inch diameter drain pipe installed, looking North.



Excavated plumbing utility trench with 10-inch diameter drain pipe installed, looking South.



Excavated plumbing utility trench with 10-inch diameter drain pipe installed, looking West.



Excavated plumbing utility trench.



Staged containerized utility trench excavation spoils in NYSDOT-approved 55-gallon steel drums.

SMP Template: August 2015

## APPENDIX E EXCAVATION WORK PLAN

SMP Template: August 2015

#### EXCAVATION WORK PLAN (EWP)

Note: This excavation work plan (EWP) describes the general procedures to be used for Site activities that may result in disturbance of subsurface soils, but for which a separate work plan has not been approved by the NYSDEC.

#### E-1 Notification

At least 15 days prior to the start of any activity that is anticipated to encounter remaining contamination, the site owner or their representative will notify the NYSDEC. Table E-1 includes contact information for the above notification. The information on this table will be updated as necessary to provide accurate contact information. A full listing of site-related contact information is provided in Appendix B.

Table D-1: Notifications\*

Timothy A. Schneider, P.E.	(585) 226-5480
NYSDEC Project Manager	timothy.schneider@dec.ny.gov
Bernette Schilling P.E.	(585) 226-5315
NYSDEC Regional HW Engineer	bernette.schilling@dec.ny.gov

<sup>\*</sup> Note: Notifications are subject to change and will be updated as necessary.

This notification will include:

- A detailed description of the work to be performed, including the location and areal extent of excavation, plans/drawings for site re-grading, intrusive elements or utilities to be installed below the soil cover, estimated volumes of contaminated soil to be excavated and any work that may impact an engineering control;
- A summary of environmental conditions anticipated to be encountered in the work areas, including the nature and concentration levels of contaminants of

concern, potential presence of grossly contaminated media, and plans for any pre-construction sampling;

- A schedule for the work, detailing the start and completion of all intrusive work;
- A summary of the applicable components of this EWP;
- A statement that the work will be performed in compliance with this EWP and 29 CFR 1910.120;
- A copy of the contractor's health and safety plan (HASP), in electronic format, if it differs from the HASP provided in Appendix F of this ISMP;
- Identification of disposal facilities for potential waste streams; and
- Identification of sources of any anticipated backfill, along with all required chemical testing results.

#### E-2 Soil Screening Methods

Visual, olfactory and instrument-based (e.g. photoionization detector) soil screening will be performed by a qualified environmental professional during all excavations into known or potentially contaminated material (remaining contamination). Soil screening will be performed when invasive work is done and will include all excavation and invasive work performed during development, such as excavations for foundations and utility work, after issuance of the COC.

Soils will be segregated based on previous environmental data and screening results into material that requires off-site disposal and material that requires testing to determine if the material can be reused on-site as soil beneath a cover or if the material can be used as cover soil. Further discussion of off-site disposal of materials and on-site reuse is provided in Section E-6 of this Appendix.

SMP Template: August 2015

#### E-3 Soil Staging Methods

Depending on the quantity of material excavated, impacted materials may be loaded directly into trucks for transport off-site for disposal, placed within roll-off containers and/or placed in a soil stockpile that is underlain and covered with a minimum 12 millimeters of poly plastic sheeting. As an alternative option, small volumes of soil/fill that are generated can be placed in New York State Department of Transportation (NYSDOT)-approved open head 55-gallon drums. Soil stockpiles will be continuously encircled with a berm and/or silt fence. Hay bales will be used as needed near catch basins, surface waters and other discharge points.

Stockpiles will be kept covered at all times with appropriately anchored tarps. Stockpiles will be routinely inspected and damaged tarp covers will be promptly replaced.

Stockpiles will be inspected at a minimum once each week and after every storm event.

Results of inspections will be recorded in a logbook and maintained at the Site and available for inspection by the NYSDEC.

#### E-4 Materials Excavation and Load-Out

A qualified environmental professional or person under their supervision will oversee all invasive work and the excavation and load-out of all excavated material.

The owner of the property and remedial party (if applicable) and its contractors are responsible for safe execution of all invasive and other work performed under this Plan.

The presence of utilities and easements on the Site will be investigated by the qualified environmental professional. It will be determined whether a risk or impediment to the planned work under this ISMP is posed by utilities or easements on the Site.

Loaded vehicles leaving the Site will be appropriately lined, tarped, securely covered, manifested, and placarded in accordance with appropriate Federal, State, local, and NYSDOT requirements (and all other applicable transportation requirements). Before leaving the Site, loaded and unloaded outbound trucks must be decontaminated (e.g., swept, scraped, washed off) to the extent deemed necessary to ensure Site materials (e.g., soil, fill, etc.) are not tracked off-site. In addition, truck tailgates must be inspected to ensure they are free of Site materials and adequately secured. If required based on the type and extent of invasive work proposed, a truck wash will be operated on-site, as appropriate. The qualified environmental professional will be responsible for ensuring that all outbound trucks will be washed at the truck wash before leaving the Site until the activities performed under this section are complete. Truck wash waters will be collected and disposed of off-site in an appropriate manner.

Locations where vehicles enter or exit the site shall be inspected daily for evidence of off-site soil tracking.

The qualified environmental professional will be responsible for ensuring that all egress points for truck and equipment transport from the Site are clean of dirt and other materials derived from the Site during intrusive excavation activities. Cleaning of the adjacent streets will be performed as needed to maintain a clean condition with respect to site-derived materials.

#### E-5 Materials Transport Off-Site

All transport of materials will be performed by licensed haulers in accordance with appropriate local, State, and Federal regulations, including 6 NYCRR Part 364. Haulers will be appropriately licensed and trucks properly placarded.

Material transported by trucks exiting the Site will be secured with tight-fitting covers. Loose-fitting canvas-type truck covers will be prohibited. If loads contain wet material capable of producing free liquid, truck liners will be used.

As necessary, trucks will be decontaminated (i.e., swept, scraped, washed off) prior to leaving the Site. Any resulting decontamination waste waters will be collected and handled in accordance with Section E-6 and E-7.

A map and directions from the Site via approved truck transport routes will be obtained by the transporter prior to transporting contaminated materials off-site. Trucks loaded with Site materials will exit the vicinity of the Site using only these approved truck routes. The most appropriate route takes into account: (a) limiting transport through residential areas and past sensitive sites; (b) use of city mapped truck routes; (c) prohibiting off-site queuing of trucks entering the facility; (d) limiting total distance to major highways; (e) promoting safety in access to highways; and (f) overall safety in transport; [(g) community input [where necessary].

Trucks will be prohibited from stopping and idling in the neighborhood outside the project Site.

Egress points for truck and equipment transport from the Site will be kept clean of dirt and other materials during site remediation and development.

Queuing of trucks will be performed on-site in order to minimize off-site disturbance. Off-site queuing will be prohibited.

# E-6 Materials Disposal Off-Site

All soil/fill/solid waste excavated and removed from the Site will be treated as contaminated and regulated material and will be transported and disposed in accordance with all local, State (including 6NYCRR Part 360) and Federal regulations. If disposal of material from this Site is proposed for unregulated off-site disposal (i.e. clean soil removed for development purposes), a formal request with an associated plan will be made to the NYSDEC. Unregulated off-site management of materials from this Site will not occur without formal NYSDEC approval.

Off-site disposal locations for excavated soils will be identified in the pre-excavation notification. This will include estimated quantities and a breakdown by class of disposal facility if appropriate (i.e. hazardous waste disposal facility, solid waste landfill, petroleum treatment facility, C/D recycling facility, etc.). Actual disposal quantities and associated documentation will be reported to the NYSDEC in the Periodic Review Report. This documentation will include: waste profiles, test results, facility acceptance letters, manifests, bills of lading and facility receipts.

Non-hazardous historic fill and contaminated soils taken off-site will be handled, at minimum, as a Municipal Solid Waste per 6NYCRR Part 360-1.2. Material that does not meet Unrestricted SCOs is prohibited from being taken to a New York State recycling facility (6NYCRR Part 360-16 Registration Facility).

# E-7 Materials Reuse On-Site

In the event that excavation activities at the Site encounter potentially contaminated materials, the materials may be re-used on-site in accordance with guidelines set forth in this ISMP. Chemical criteria for unrestricted on-site use or off-site reuse are presented below. The qualified environmental professional will ensure that procedures defined for materials reuse in this ISMP are followed and that unacceptable material does not remain on-site. This ISMP assumes that the Site may ultimately use a cover system as an engineering control and that contaminated on-site material, including historic fill and contaminated soil, that is acceptable for reuse on-site, does not require analytical testing and will be placed below: a) a demarcation layer and a minimum half foot of clean soil or stone; or b) an impervious surface. Unless the material is found to meet the criteria specified below, it will not be reused within a cover soil layer, within landscaping berms, or as backfill for subsurface utility lines.

In order to qualify for unrestricted on-site use (i.e., as cover material, within landscaping berms, backfill for subsurface utilities, etc.) or off-site reuse, the material must:

- Comply with the remedial action objectives identified in the remedial work plan.
- Be free of extraneous debris or solid waste.
- Consist of soil or other unregulated material as set forth in 6NYCRR Part 360.
- Meet Part 375 Unrestricted Use soil cleanup objectives for all compounds.
- Be tested at the rate outlined in Table E-7.

**Table E-7:** Required number of soil samples to determine reuse suitability of excavated on-site soils Contaminant VOCs SVOCs, Inorganics & PCBs/Pesticides Soil Discrete Composite Discrete Quantity (yd<sup>3</sup>) Samples Samples/Composite 0-50 1 1 2 50-100 1 3 1 100-200 3-5 discrete samples from different 4 1 200-300 location in the fill or soil be reused will to 300-400 4 2 comprise a composite 400-500 5 2 sample for analysis. 500-800 6 2 800-1000 7 2 >1000 Add an additional 2 VOC and 1 composite for each 1,0000 cubic yards, or consult with NYSDEC DER Project Manager

Based on the testing outcome, soil may be used in the following manner under this ISMP:

• Soil originating on the Site that complies with Unrestricted Use SCOs for all compounds set forth in 6NYCRR Part 375 Table 375-6.8(a) may be re-used

without restriction on, or off, the Site.

• Soil that meets the more stringent of Restricted Industrial Use SCOs or Protection of Groundwater SCOs for all compounds set forth in 6 NYCRR Part 375 Table 375-6.8(b) may be re-used on-site without restriction.

• Soil that exceeds Restricted Industrial Use SCOs or Protection of Groundwater SCOs [set forth in 6 NYCRR Part 375 Table 375-6.8(b) may be re-used on-site; however, it must be placed below:

 a demarcation layer and a minimum half foot of Site soil/fill that meets the more stringent of Restricted Industrial Use SCOs or Protection of Groundwater SCOs, or with imported soil/fill that meets the more stringent of Restricted Commercial Use SCOs or Protection of Groundwater SCOs; or

2) an impervious surface.

The location(s) where it is re-used must be documented so that it is addressed in the future in accordance with the components of the final remedy for the Site.

• Soil that exceeds Unrestricted Use SCOs set forth in 6 NYCRR Part 375 Table 375-6.8(a) may not be re-used off-site, unless first approved by the NYSDEC for re-use at a property with Institutional Control subject to a 6NYCRR Part 360 Beneficial Use Determination.

Demolition material proposed for reuse on-site will be sampled for asbestos and the results will be reported to the NYSDEC for acceptance. Concrete crushing or processing on-site will not be performed without prior NYSDEC approval. Organic matter (wood, roots, stumps, etc.) or other solid waste derived from clearing and grubbing of the Site will not be reused on-site.

# E-8 Fluids Management

Liquids to be removed from the Site, including but not limited to, excavation dewatering, decontamination waters and groundwater monitoring well purge and development waters, will be handled, transported and disposed in accordance with applicable local, State, and Federal regulations. Dewatering, purge and development fluids will not be recharged back to the land surface or subsurface of the Site, and will be managed off-site, unless prior approval is obtained from NYSDEC.

Discharge of water generated during large-scale construction activities to surface waters (i.e. a local pond, stream or river) will be performed under a SPDES permit.

# E-9 Cover System Restoration

After the completion of soil removal and any other invasive activities the cover system will be restored in a manner that complies with the applicable regulatory document. The existing cover system is comprised of asphalt pavement, concrete covered sidewalks, concrete building, and a small strip of vegetation covered soil immediately adjacent to the edge of asphalt paving the southern property boundary. In the event of soil excavation, a demarcation layer, (orange snow fencing material, white geotextile or equivalent material, etc.) will be placed to provide a visual reference to the top of the remaining contamination zone, the zone that requires adherence to special conditions for disturbance of remaining contaminated soils defined in this ISMP. If the type of cover system changes from that which exists prior to the excavation (i.e., asphalt is replaced by soil cover), this will constitute a modification of the cover element of the remedy and the upper surface of the remaining contamination. A figure showing the modified surface will be included in the subsequent Periodic Review Report and in an updated ISMP/SMP.

E-10 Backfill from Off-Site Sources

Materials proposed for import onto the Site will be approved by the qualified

environmental professional and will be in compliance with provisions in this ISMP prior

to receipt at the Site. A Request to Import/Reuse Fill or Soil form, which can be found at

http://www.dec.ny.gov/regulations/67386.html, will be prepared and submitted to the

NYSDEC project manager allowing a minimum of 5 business days for review.

Material from industrial sites, spill sites, or other environmental remediation sites or

potentially contaminated sites will not be imported to the Site.

Imported soils will meet the backfill and cover soil quality standards established in

6NYCRR 375-6.7(d). Based on an evaluation of the land use, protection of groundwater

and protection of ecological resources criteria, the resulting soil quality standards are

listed in 6NYCRR 375.6.8(b). Soils that meet 'exempt' fill requirements under 6 NYCRR

Part 360, but do not meet backfill or cover soil objectives for this Site, will not be

imported onto the Site without prior approval by NYSDEC. Solid waste will not be

imported onto the Site.

Trucks entering the Site with imported soils will be securely covered with tight fitting

covers. Imported soils will be stockpiled separately from excavated materials and covered

to prevent dust releases.

E-11 Stormwater Pollution Prevention

This section describes activities to be utilized during excavations activities, as needed to

control erosion and prevent off-site transport of sediments. As required:

• Barriers and hay bale checks will be installed and inspected once a week and

after every storm event. Results of inspections will be recorded in a logbook

and maintained at the Site and available for inspection by the NYSDEC. All

necessary repairs shall be made immediately.

 Accumulated sediments will be removed as required to keep the barrier and hay bale check functional.

- All undercutting or erosion of the silt fence toe anchor shall be repaired immediately with appropriate backfill materials.
- Manufacturer's recommendations will be followed for replacing silt fencing damaged due to weathering.
- Erosion and sediment control measures identified in the ISMP shall be observed to ensure that they are operating correctly. Where discharge locations or points are accessible, they shall be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to receiving waters.
- Silt fencing or hay bales will be installed around the entire perimeter of the construction area.

# E-12 Excavation Contingency Plan

If underground tanks or other previously unidentified contaminant sources are found during post-remedial subsurface excavations or development related construction, excavation activities will be suspended until sufficient equipment is mobilized to address the condition.

Sampling will be performed on product, sediment and surrounding soils, etc. as necessary to determine the nature of the material and proper disposal method. Chemical analysis will be performed for a full list of analytes (TAL metals; TCL volatiles and semi-volatiles, TCL pesticides and PCBs), unless the site history and previous sampling results provide a sufficient justification to limit the list of analytes. In this case, a reduced list of analytes will be proposed to the NYSDEC for approval prior to sampling.

Identification of unknown or unexpected contaminated media identified by screening during invasive site work will be promptly communicated by phone to NYSDEC's Project Manager. Reportable quantities of petroleum product will also be reported to the

NYSDEC spills hotline. These findings will be also included in the Periodic Review Report.

# E-13 Community Air Monitoring Plan

The Community Air Monitoring Program (CAMP) is included in the HASP developed for the Site (refer to Appendix F). CAMP continuous monitoring will be implemented for all ground activities. The locations of air sampling stations will be based on generally prevailing wind conditions, and also on where Site work is being performed. CAMP locations will be adjusted on a daily or more frequent basis dependent on actual wind directions to provide an upwind and at least one downwind monitoring station. In addition, fixed monitoring stations will be located at the Site perimeter next to residential areas in proximity to areas being worked at the Site, regardless of wind direction since they are considered sensitive receptors. Exceedances of action levels listed in the CAMP will be reported to NYSDEC and NYSDOH Project Managers.

# E-14 Odor Control Plan

This odor control plan is capable of controlling emissions of nuisance odors. Specific odor control methods to be used on a routine basis may include limiting extent of open excavations, the use of physical barriers or ventilation systems (i.e., in the event of interior excavations are required). If nuisance odors are identified at the site boundary, or if odor complaints are received, work will be halted and the source of odors will be identified and corrected. Work will not resume until all nuisance odors have been abated. NYSDEC and NYSDOH will be notified of all odor events and of any other complaints about the project. Implementation of all odor controls, including the halt of work, is the responsibility of the remedial party's Remediation Engineer, and any measures that are implemented will be discussed in the Periodic Review Report.

Necessary means will be employed to prevent on- and off-site nuisances. At a minimum, these measures will include: (a) limiting the area of open excavations and size of soil stockpiles; (b) shrouding open excavations with tarps and other covers; and (c) using

foams to cover exposed odorous soils. If odors develop and cannot be otherwise controlled, additional means to eliminate odor nuisances will include: (d) direct load-out of soils to trucks for off-site disposal; (e) use of chemical odorants in spray or misting systems; and, (f) use of staff to monitor odors in surrounding neighborhoods.

If nuisance odors develop during intrusive work that cannot be corrected, or where the control of nuisance odors cannot otherwise be achieved due to on-site conditions or close proximity to sensitive receptors, odor control will be achieved by sheltering the excavation and handling areas in a temporary containment structure equipped with appropriate air venting/filtering systems.

#### E-15 Dust Control Plan

A dust suppression plan that addresses dust management during invasive on-site work will include, at a minimum, the items listed below:

- Dust suppression will be achieved through the use of a dedicated on-site water truck for road wetting. The truck will be equipped with a water cannon capable of spraying water directly onto off-road areas including excavations and stockpiles.
- Clearing and grubbing of larger sites will be done in stages to limit the area of exposed, unvegetated soils vulnerable to dust production.
- Gravel will be used on roadways to provide a clean and dust-free road surface.
- On-site roads will be limited in total area to minimize the area required for water truck sprinkling.

#### E-16 Other Nuisances

As necessary, a plan for rodent control will be developed and utilized by the contractor prior to and during site clearing and site grubbing, and during all remedial work.

As necessary a plan will be developed and utilized by the contractor for all remedial work to ensure compliance with local noise control ordinances.

# APPENDIX F HEALTH AND SAFETY PLAN

# **HEALTH AND SAFETY PLAN**

FORMER PARKWAY CLEANERS
EASTERN BOULEVARD
PARKWAY PLAZA
CITY OF CANANDAIGUA, ONTARIO COUNTY, NEW YORK
NYSDEC SITE NUMBER: C835028

**Prepared For:** Parkway Plaza Limited Partnership

46 Prince Street

Rochester, New York 14607

**Prepared By:** Day Environmental, Inc.

1563 Lyell Avenue

Rochester, New York 14606

**Project No.:** 5188R-19

**Date:** September 2013

(Revised February 2019)

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## 1.0 INTRODUCTION

This Health and Safety Plan (HASP) outlines the policies and procedures necessary to protect workers and the public from potential environmental hazards posed during site evaluation and remediation activities conducted at the Site under the New York State Department of Environmental Conservation (NYSDEC) Brownfield Cleanup Program (BCP). As outlined in this HASP, the above activities shall be conducted in a manner to minimize the probability of injury, accident, or incident occurrence.

Although the HASP focuses on the specific work activities planned for this Site, it must remain flexible because of the nature of this work. Conditions may change and unforeseen situations can arise that require deviations from the original HASP.

The subject property (Site) consists of three tenant spaces (47 Eastern Boulevard, 51 Eastern Boulevard and 57 Eastern Boulevard) and associated parking areas within the Parkway Plaza (an approximate 0.5-acre portion of an approximately 12.78-acre commercial property located on the south side of Routes 5 & 20 (39 Eastern Boulevard), City of Canandaigua, Ontario County, New York. A project locus map is included as Figure 1.

The property addressed 47 Eastern Boulevard is currently operated as The Great Wall Restaurant. The property addressed 51 Eastern Boulevard is currently vacant and most recently contained a coin-operated laundromat (i.e., Parkway Laundry) and in the past (i.e., between about 1963 and 1991) dry-cleaning operations were performed at this location (i.e., the former Parkway Cleaners), and also the location in which the majority, if not all, the remedial activities will be completed. The property addressed 57 Eastern Boulevard is currently operated by Sakura Japanese Steak House and Sushi Bar. The Site is bound to the north, east and west by Parkway Plaza and to the south by currently vacant land that was a mobile home park until 2008 when the trailers were removed and redeveloped as a multi-tenant residential/commercial property. A Site Plan is included as Figure 2.

# 1.1 Site History and Previous Studies

Parkway Plaza was originally constructed in approximately 1957, and prior to construction of Parkway Plaza (including the Site), the property consisted of vacant undeveloped land. The former Parkway Cleaners began operations sometime between 1968 and 1978, and perchloroethene (a/k/a tetrachloroethene, or PCE) was used as a dry-cleaning solvent at this location until approximately 1991. The PCE used at the Site was stored in an approximate 100-gallon aboveground storage tank (AST), which was mounted on the roof of the former Parkway Cleaners building. [Note: This AST was removed as part of the soil removal IRM conducted in 2001.]

Based upon an interview conducted in May 2000 with a past manager of the former Parkway Cleaners, the following items were identified with respect to operations conducted at this facility.

- Bulk dry cleaning was performed at the Site and there were three dry cleaning machines that
  were located in the southern end of the building. The backs of the machines were located in
  the Alcove portion of the building and the front of the machines faced outward into the
  laundromat.
- PCE was the solvent used in the dry-cleaning machines and these machines were equipped
  with cooling systems that condensed the PCE vapors that were exhausted from the clothes as
  they dried. Some of the PCE would be lost either by staying on the clothes or through the
  exhaust. Reportedly, very little waste was generated and periodically the PCE in the drycleaning machines had to be replenished.
- Delivery and pickup of PCE solvent was conducted at the south end of the building (i.e., through the Alcove) and customer drop-off and pick-up was at the north end of the building.
- The PCE was stored in an aboveground tank that was located on the roof of the building above the dry-cleaning machines. A pipe came off the bottom of the tank, ran into the building behind the machines and it had a spigot on the end. The solvent was added to the machines by filling a bucket from the spigot and pouring it into the machines. PCE was not stored in other locations within the building.

Wastewater generated at the Parkway Plaza has been discharged to the municipal sanitary sewer system since the development of the property in 1957. As described above, the dry-cleaning equipment for the former Parkway Cleaners was located within an Alcove portion of the building that housed the former Parkway Cleaners. An exterior sediment trap/sump that was connected to the sanitary sewer line was located immediately adjacent to the south side of the Alcove portion of the building. A hole in the concrete block wall of the Alcove portion of the building (i.e., located between the former location of the dry-cleaning equipment and the exterior sediment trap/sump) suggests that the dry-cleaning equipment discharged into this sediment trap/sump. The walls of the sediment trap/sump were constructed of concrete block and this structure contained a soil bottom. The studies completed to date determined that the sediment trap/sump was a "source area" of the halogenated volatile organic compound (VOC) impact at the Site. A drawing showing relevant features of the former Parkway Cleaners facility is presented as Figure 3.

Test borings and wells were advanced on the Site and evidence of chlorinated VOC contamination was detected in soil and groundwater samples primarily south of the building (i.e., in proximity to the sediment trap/sump). Concentrations of VOCs detected in some of the soil and groundwater samples exceeded NYSDEC recommended soil cleanup objectives and/or groundwater standards.

The ground surface on exterior portions of the Site in the area of VOCs is paved with asphalt or concrete. Heterogeneous fill consisting primarily of reworked soil and trace amounts of brick underlies the asphalt and concrete. Some organics and wood were observed near the bottom of the fill, which may be indicative of the top of the former original ground surface prior to filling. The fill extends to depths up to approximately 8 feet below the ground surface. The indigenous

soil beneath the fill generally consists of mixtures of sand, cobbles and gravel underlain by gapgraded alternating layers of clay, silt, sand, or mixtures thereof. The apparent top of bedrock was not encountered during advancement of the test borings.

Analytical laboratory test data for groundwater samples collected from overburden groundwater monitoring wells during previous studies are included in Table 1. The locations from which the groundwater samples were collected are depicted on Figure 2.

# 1.2 Scope of Work

The following field activities are anticipated during remediation activities as part of the Brownfield Cleanup Program at this Site.

- Site Preparation and mobilization activities;
- Implementation of a Remedial Action Work Plan to treat the saturated soil and groundwater containing residual chlorinated VOCs that primarily consist of PCE and its associated breakdown products;
- Contingency for additional in-situ remediation, if warranted;
- Management of Study and Remediation derived wastes;
- Vapor Mitigation System monitoring;
- Site restoration and demobilization activities;
- Indoor air and sub-slab vapor testing; and
- Groundwater Monitoring to track remedy performance

This HASP can be modified to cover other site activities, when appropriate. The owner of the property, its contractors, and other site workers will be responsible for the development and/or implementation of health and safety provisions associated with normal construction activities or site activities.

## 2.0 KEY PERSONNEL AND MANAGEMENT

The Project Manager (PM), Designated Health and Safety Specialist (DHSS) and Site Safety Officer (SSO) are responsible for formulating and enforcing health and safety requirements, and implementing the HASP.

# 2.1 Designated Health and Safety Specialist

The DHSS is responsible for the contents of the HASP and ensures that the HASP complies with federal, state, and local health and safety requirements. If necessary, the DHSS can modify the HASP to adjust for on-site changes that affect safety. The DHSS will coordinate with the SSO on modifications to the HASP and will be available for consultation when required. The DHSS will not necessarily be on site during the field activities.

# 2.2 Project Manager

The PM has the overall responsibility for the project and to assure that the goals of the site evaluation and remediation program are attained in a manner consistent with the HASP requirements. The PM will coordinate with the SSO to ensure that the site evaluation and remediation program goals are completed in a manner consistent with the HASP.

# 2.3 Site Safety Officer

The SSO has responsibility for administering the HASP relative to site activities, and will be in the field full-time while site activities are in progress. The SSO's operational responsibilities will be monitoring, including personal and environmental monitoring, ensuring personal protective equipment maintenance, and assignment of protection levels. The SSO will be the main contact in any on-site emergency situation. The SSO will direct field activities involved with safety and be responsible for stopping work when unacceptable health or safety risks exist. The SSO is responsible for ensuring that on-site personnel understand and comply with safety requirements.

# 2.4 Employee Safety Responsibility

Each employee is responsible for personal safety as well as the safety of others in the area. The employee will use the equipment provided in a safe and responsible manner as directed by the SSO.

#### 2.5 OSHA Records

Required records are maintained at DAY's Rochester, New York office.

# 2.6 Key Safety Personnel

The following individuals are anticipated to share responsibility for health and safety at the site.

Designated Health and Safety Specialist Nick J. Harding

Project Manager Nathan E. Simon, P.E

Site Safety Officer Charles A. Hampton,

Thomas E. Roszak, or Heather McLennan

<sup>\*</sup> Mr. Harding has a Master's Degree in Industrial Hygiene from the University of Rochester, and has over 25 years of experience in occupational safety and industrial hygiene. A copy of Mr. Harding's resume is included in Attachment 1.

# 3.0 SAFETY RESPONSIBILITY

Contractors, consultants, state or local agencies, or other parties, and their employees, involved with this BCP project will be responsible for their own safety while on-site. Their employees will be required to understand the information contained in this HASP, and must follow the recommendations that are made in this document.

## 4.0 JOB HAZARD ANALYSIS

There are many hazards associated with site evaluation and remediation work on a site, and this HASP discusses some of the anticipated hazards for this Site. The hazards listed below deal specifically with those hazards associated with the management of the impacted media (i.e., soil and groundwater impacted with chlorinated VOCs).

#### 4.1 Chemical Hazards

Chemical substances can enter the unprotected body by inhalation, skin absorption, ingestion, or through a puncture wound (injection). A contaminant can cause damage to the point of contact or can act systemically, causing a toxic effect at a part of the body distant from the point of initial contact.

A list of selected site-specific chlorinated VOCs, that have been detected at the Site are presented below. The VOCs detected at the Site appear attributable to past dry-cleaning operations on the Site. This list also presents the permissible exposure limits (PELs) and levels that are considered immediately dangerous to life and health (IDLH) for the selected VOCs.

#### 4.1.1 List of Potential Chemical Hazards

CONSTITUENT	EXPOSURE LIMITS	IDLH	TARGET ORGANS	
Tetrachloroethene	100 ppm PEL 150 ppm		eyes, skin, respiratory system, liver, kidneys, CNS	
Trichloroethene	100 ppm PEL	1000 ppm	eyes, skin, respiratory system, heart, liver, CNS	
1,2-Dichloroethene (total)	2-Dichloroethene (total) 200 ppm PEL 10		eyes, respiratory system, CNS	
Vinyl Chloride	1 ppm PEL	Not determined	liver, CNS, blood, respiratory system, lymphatic system, liver cancer	

Notes: PEL = OSHA Permissible Exposure Limits (TWA for 8-hour day)

IDLH = Immediately Dangerous to Life or Health Concentrations

CNS = Central Nervous System

The potential routes of exposure for these analytes and chemicals include inhalation, ingestion, skin absorption and skin/eye contact. The potential for exposure through any one of these routes will depend on the activity conducted. The most likely routes of exposure for the activities that are performed during site evaluation and remediation of the Site include inhalation and skin contact.

If other chemicals are encountered during site evaluation and remediation activities, this HASP may need to be modified to include those chemicals.

## **4.1.2** Remediation Reagent Properties

Various chemicals and biologic agents will be used during the remediation process. Anyone using iron powder in vegetable oil, colloidal buffers, non-toxic microbes and/or emulsified vegetable oil should read and understand each element and section of the vendor's current Safety Data Sheet (SDS) for the materials to be used at the Site. A copy of EOS's SDS for EOSzvi, EOS Pro, BAC-9 and  $CoBupH_{Mg}$  is included in Attachment 2.

The attached SDS include specific sections for first aid measures, fire-fighting measures, accidental release measures, handling and storage measures, exposure controls and personal protection. Physical and chemical properties, stability and reactivity, toxicological information, ecological information, disposal considerations, transportation information and regulatory information are also included on the SDS.

# 4.2 Physical Hazards

There are physical hazards associated with this project, which might compound the chemical hazards. Hazard identification, training, adherence to the planned site evaluation and remediation measures, and careful housekeeping can prevent many problems or accidents arising from physical hazards. Potential physical hazards associated with this project and suggested preventative measures include:

- <u>Slip/Trip/Fall Hazards</u> Some areas may have wet surfaces that will greatly increase the possibility of inadvertent slips. Caution must be exercised when using steps and stairs due to slippery surfaces in conjunction with the fall hazard. Good housekeeping practices are essential to minimize the trip hazards.
- <u>Small Quantity Flammable Liquids</u> Small quantities of flammable liquids will be stored in "safety" cans and labeled according to contents.
- <u>Electrical Hazards</u> Electrical devices and equipment shall be de-energized prior to working near them. All extension cords will be kept out of water, protected from crushing, and inspected regularly to ensure structural integrity. Temporary electrical circuits will be protected with ground fault circuit interrupters. Only qualified electricians are authorized to work on electrical circuits. Heavy equipment (e.g., backhoe, drill rig) shall not be operated within 10 feet of high voltage lines, unless proper protection from the high voltage lines is provided by the appropriate utility company.
- <u>Noise</u> Work around large equipment often creates excessive noise. The effects of noise can include:
  - Workers being startled, annoyed, or distracted.
  - Physical damage to the ear resulting in pain, or temporary and/or permanent hearing

loss.

- Communication interference that may increase potential hazards due to the inability to warn of danger and proper safety precautions to be taken.

Proper hearing protection will be worn as deemed necessary. In general, feasible administrative or engineering controls shall be utilized when onsite personnel are subjected to noise exceeding an 8-hour time weighted average sound level of 90 d(B)A (decibels on the A-weighted scale). In addition, whenever employee noise exposures equal or exceed an 8-hour, time weighted average sound level of 85 d(B)A, employers shall administer a continuing, effective hearing conservation program as described in OSHA Regulation 29 CFR Part 1910.95.

- <u>Heavy Equipment</u> Each morning before start-up, heavy equipment will be inspected to ensure safety equipment and devices are operational and ready for immediate use.
- <u>Subsurface and Overhead Hazards</u> Before any excavation activity, efforts will be made to determine whether underground utilities and potential overhead hazards will be encountered. Underground utility clearance must be obtained prior to subsurface work.

#### 4.3 Environmental Hazards

Environmental factors such as weather, wild animals, insects, and irritant plants can pose a hazard when performing outdoor tasks. The SSO shall make every reasonable effort to alleviate these hazards should they arise.

#### 4.3.1 Heat Stress

The combination of warm ambient temperature and protective clothing increases the potential for heat stress. In particular:

- Heat rash
- Heat cramps
- Heat exhaustion
- Heat stroke

Site workers will be encouraged to increase consumption of water or electrolyte-containing beverages such as Gatorade<sup>®</sup> when the potential for heat stress exists. In addition, workers are encouraged to take rests whenever they feel any adverse effects that may be heat-related. The frequency of breaks may need to be increased upon worker recommendation to the SSO.

# 4.3.2 Exposure to Cold

With outdoor work in the winter months, the potential exists for hypothermia and frostbite. Protective clothing greatly reduces the possibility of hypothermia in workers. However, personnel

will be instructed to wear warm clothing and to stop work to obtain more clothing if they become too cold. Employees will also be advised to change into dry clothes if their clothing becomes we from perspiration or from exposure to precipitation.				they become becomes wet	

## 5.0 SITE CONTROLS

To prevent migration of contamination caused through tracking by personnel or equipment, work areas, and personal protective equipment staging/decontamination areas will be specified prior to beginning operations.

#### 5.1 Site Zones

When warranted and impacted materials present the potential for worker exposure, personnel entering the "exclusion zone" (EZ) must wear the mandated level of PPE. A "contaminant reduction zone" (CRZ) shall be established where personnel can begin personal and equipment decontamination procedures. This can reduce potential off-site migration of impacted media. Contaminated equipment or clothing will not be allowed outside the CRZ (e.g., on clean portions of the Site) unless properly containerized for disposal. Operational support facilities will be located outside the CRZ (i.e., in a "support zone"), and normal work clothing and support equipment are appropriate in this area. If possible, the support zone shall be located upwind of site investigation and remediation activities.

#### 5.2 General

The following items will be requirements to protect the health and safety of workers during implementation of construction activities that disturb VOC-contaminated material.

- Eating, drinking, chewing gum or tobacco, smoking, or any practice that increases the probability of hand to mouth transfer and ingestion of contamination shall not occur in the EZ and/or CRZ during disturbance of VOC-impacted soil or groundwater.
- Personnel admitted in the exclusion zone and contaminant reduction zone shall be properly trained in health and safety techniques and equipment usage in accordance with applicable OSHA Hazardous Waste Operations and Emergency Response (HAZWOPER) regulations referenced in 29 CFR 1910.120 and 29 CFR 1926.65.
- No personnel shall be admitted in the EZ without the proper safety equipment.
- Proper decontamination procedures shall be followed before leaving the Site.

# 6.0 PROTECTIVE EQUIPMENT

This section addresses the various levels of PPE, which are or may be required at this job site. Personnel entering the work zone and transition zone shall be trained in the use of the anticipated PPE to be utilized.

# **6.1** Anticipated Protection Levels

TASK	PROTECTION LEVEL	COMMENTS/MODIFICATIONS
Site mobilization	D	
Site prep/construction of engineering controls	D	
Extrusive work (e.g., surveying, etc.)	D	
Intrusive work (e.g., injection of remediation amendments and microbes, groundwater monitoring, SSDS monitoring, vapor monitoring, etc.)	C/Modified D/D	Based on air monitoring, and SSO discretion
CRZ- Decontamination	C/Modified D/D	Based on air monitoring, and SSO discretion
Support zone	D	
Site breakdown and demobilization	D	

It is anticipated that work conducted as part of this site evaluation and remediation project will be performed in Level D, modified Level D and possibly level C PPE. If conditions are encountered that require higher levels of PPE (e.g., Level B or A), the work will immediately be stopped. The appropriate government agencies (e.g., NYSDEC, NYSDOH, etc.) will be notified, and the proper health and safety measures will be implemented (e.g., develop and implement engineering controls, upgrade in PPE, etc.).

# **6.2** Protection Level Descriptions

This section lists the minimum requirements for each protection level. Modifications to these requirements can be made upon approval of the SSO. If Level A, Level B, and/or Level C PPE is required, Site personnel that enter the work zone and/or transition zone must be properly trained and certified in the use of those levels of PPE.

#### **6.2.1** Level D

Level D consists of the following:

- Safety glasses
- Hard hat when working with heavy equipment
- Steel-toed work boots
- Protective gloves during sampling or handling of potential VOC-contaminated media
- Work clothing as prescribed by weather

#### 6.2.2 Modified Level D

Modified Level D consists of the following:

- Safety glasses with side shields
- Hard hat
- Steel-toed work boots
- Work gloves
- Outer protective wear, such as Tyvek coverall [Tyveks (Sarans) and PVC acid gear will be required when workers have a potential to be exposed to impacted liquids or impacted particulates].

#### **6.2.3** Level C

Level C consists of the following:

- Air-purifying respirator with appropriate cartridges
- Outer protective wear, such as Tyvek coverall [Tyveks (Sarans) and PVC acid gear will be required when workers have a potential to be exposed to impacted liquids or particulates].
- Hard hat
- Steel-toed work boots
- Nitrile, neoprene, or PVC overboots, if appropriate
- Nitrile, neoprene, or PVC gloves, if appropriate
- Face shield (when projectiles or splashes pose a hazard)

#### **6.2.4** Level B

Level B protection consists of the items required for Level C protection with the exception that an air-supplied respirator is used in place of the air-purifying respirator. Level B PPE is not anticipated to be required during this site evaluation and remediation project. If the need for level B PPE becomes evident, all Site activities will be ceased until Site conditions are further evaluated, and any necessary modifications to the HASP have been approved by the Project Manager, DHSS or SSO. Subsequently, the appropriate safety measures (including Level B PPE) must be implemented prior to commencing site activities.

#### **6.2.5** Level A

Level A protection consists of the items required for Level B protection with the addition of a fully-

encapsulating, vapor-proof suit capable of maintaining positive pressure. Level A PPE is not anticipated to be required during this site evaluation and remediation project. If the need for level A PPE becomes evident, all Site activities will be ceased until Site conditions are further evaluated, and any necessary modifications to the HASP have been approved by the Project Manager, DHSS or SSO. Subsequently, the appropriate safety measures (including Level A PPE) must be implemented prior to commencing site activities.

# **6.3** Respiratory Protection

Any respirator used will meet the requirements of OSHA 29 CFR 1910.134. Both the respirator and cartridges specified shall be fit-tested prior to use in accordance with OSHA regulations (29 CFR 1910). Air purifying respirators shall not be worn if contaminant levels exceed designated use concentrations. The workers will wear respirators with approval for: organic vapors <1,000 parts per million (ppm); and dusts, fumes and mists with a TWA <0.05 mg/m<sup>3</sup>.

No personnel who have facial hair, which interferes with the respirator's sealing surface, will be permitted to wear a respirator and will not be permitted to work in areas requiring respirator use.

Only workers who have been certified by a physician as being physically capable of respirator usage shall be issued a respirator. Personnel unable to pass a respiratory fit test or without medical clearance for respirator use will not be permitted to enter or work in areas on-site that require respirator protection.

## 7.0 DECONTAMINATION PROCEDURES

This section describes the procedures necessary to ensure that both personnel and equipment are free from contamination when they leave the work Site.

## 7.1 Personnel Decontamination

Personnel involved with site evaluation and remediation activities that involve disturbing VOC-impacted media will follow the decontamination procedures described herein to ensure that material which workers may have contacted in the work zone and/or transition zone does not result in personal exposure and is not spread to clean areas of the Site. This sequence describes the general decontamination procedure. The specific stages can vary depending on the Site, the task, and the protection level, etc.

- 1. Leave EZ and go to CRZ
- 2. Remove soil/debris from boots and gloves
- 3. Remove boots
- 4. Remove gloves
- 5. Remove Tyvek suit and discard, if applicable
- 6. Remove and wash respirator, if applicable
- 7. Go to support zone

# **7.2** Equipment Decontamination

Contaminated equipment shall be decontaminated in the transition zone before leaving the Site. Decontamination procedures can vary depending upon the contaminant involved, but may include sweeping, wiping, scraping, hosing, or steam cleaning the exterior of the equipment. Personnel performing this task will wear the proper PPE.

# 7.3 Disposal

Disposable clothing will be treated as contaminated waste and be disposed of properly. Liquids (e.g., decontamination water, etc.) generated by site evaluation and remediation activities will be disposed of in accordance with applicable regulations.

## 8.0 AIR MONITORING

Air monitoring will be conducted in order to determine airborne particulate and contamination levels during activities that have the potential to disturb contaminated soil, fill material or dry remediation reagent. Air monitoring will be conducted in order to determine airborne contamination levels, but not particulates, during activities that have the potential to disturb contaminated groundwater. Additional air monitoring may be conducted at the discretion of the SSO. VOC and particulate readings will be recorded on daily air monitoring logs that are accompanied by a daily figure. This documentation will be available for NYSDEC and NYSDOH personnel to review.

The following chart describes the direct reading instrumentation that will be utilized and appropriate action levels.

<b>Monitoring Device</b>	Action level	Response/Level of PPE	
	< 25 ppm in breathing zone	<u>Level D</u>	
PID Volatile Organic Compound	25-100 ppm in breathing zone	Cease work, implement vapor suppression techniques such as application of BioSolve. If levels are not reduced below 25 ppm in the breathing zone, then upgrade PPE to <u>Level C</u> .	
Meter	>100 ppm in breathing zone	Level A. Stop work, evaluate the use of engineering controls, etc. If levels are not reduced below 100 ppm in the breathing zone, then upgrade PPE to Level A or Level B.	
	< 100 ug/m³ (i.e., < 0.1 mg/m³) over an integrated period not to exceed 15 minutes.	Continue working	
RTAM Particulate Meter	> 100 ug/m³ over an integrated period not to exceed 15 minutes.	Cease work, implement dust suppression, change in way work performed, etc. If levels are not reduced below 150 ug/m³, then upgrade PPE to <u>Level C</u> .	

PID = Photoionization detector

RTAM = Real Time Aerosol Monitor

 $ug/m^3 = microgram per meter cubed$ 

## 8.1 PARTICULATE MONITORING

During activities where contaminated materials (e.g., soil, fill, etc.) or remediation reagent may be disturbed, air monitoring will include real-time monitoring for particulates using a RTAM particulate meter at the perimeter of the exclusion zone in accordance with the Final DER-10 Technical Guidance for Site Investigation and Remediation dated May 2010. DER-10 uses an action level of 100 ug/m³ (0.10 mg/m³) over background conditions for an integrated period not to exceed 15 minutes. Levels of particulates will periodically be measured in the air at active work areas within the exclusion zone, and at the contaminant reduction zone when levels are detected above background in the exclusion zone. If the action level is exceeded, or if visible dust is

observed leaving the work site, then work shall be discontinued until corrective actions are implemented. Corrective actions may include dust suppression, change in the way work is performed, and/or upgrade of personal protective equipment.

## 8.2 VOLATILE ORGANIC COMPOUND MONITORING

During activities where contaminated materials may be disturbed, a PID will be used to monitor total VOCs in the ambient air. The PID will prove useful as a direct reading instrument to aid in determining if current respiratory protection is adequate or needs to be upgraded. The SSO will take background measurements before operations begin in an area to determine the amount of VOCs naturally occurring in the air. Levels of VOCs will periodically be measured in the air at active work areas within the exclusion zone, and at the contaminant reduction zone when levels are detected above background at the perimeter of the exclusion zone.

#### 8.3 COMMUNITY AIR MONITORING PLAN

During intrusive activities, activities that have the potential to disturb contaminated soil or fill material, and activities that have the potential for airborne releases of remediation reagents (e.g., pH buffer in the form of dust or particulates), this Community Air Monitoring Plan (CAMP) will be implemented. The CAMP includes real-time monitoring for VOCs and particulates (i.e., dust) at the downwind perimeter of each designated work area when activities with the potential to release VOCs or dust are being conducted at the Site. This CAMP is based on the NYSDOH Generic CAMP included as Appendix 1A of the NYSDEC document titled "DER-10, Technical Guidance for Site Investigation and Remediation" dated May 2010. The CAMP is not intended for use in establishing action levels for worker respiratory protection. Rather, its intent is to provide a measure of protection for the downwind community (i.e., off-site receptors including residences and businesses and on-site workers not directly involved with the subject work activities) from potential airborne contaminant releases as a direct result of project activities. An upwind background station will be established at the beginning of the day and monitored throughout the day to verify the location is upwind. In the event wind direction changes, a subsequent background location will be established and monitored, and the change in wind direction will be noted. The action levels specified herein require increased monitoring, corrective actions to abate emissions, and/or work shutdown. Additionally, the CAMP helps to confirm that work activities did not spread contamination off-site through the air. Reliance on the CAMP should not preclude simple, common sense measures to keep VOCs, dust, and odors at a minimum around, and downwind of, the work areas.

<u>Continuous monitoring</u> will be conducted during ground intrusive activities involving potentially contaminated soil, fill material or groundwater. Ground intrusive activities include advancement / installation of test borings or injection points.

**Periodic monitoring** for VOCs will be conducted during non-intrusive activities involving potentially contaminated soil, fill material or groundwater where deemed appropriate (e.g., during baseline monitoring, performance monitoring, cover system installation, management of IRM-derived wastes, long-term monitoring, etc.).

VOC and particulate 15-minute readings, and instantaneous readings (if collected), will be recorded on daily air monitoring logs that are accompanied by a daily figure. This documentation will be available for NYSDEC and NYSDOH personnel to review.

## 8.3.1 VOC Monitoring, Response Levels, and Actions

VOCs must be monitored at the downwind perimeter of the immediate work area (i.e., areas within the exclusion zone) on a continuous basis or as otherwise specified. Upwind concentrations should be measured at the start of each workday and periodically thereafter to establish background conditions. The monitoring work should be performed using equipment appropriate to measure the types of contaminants known or suspected to be present. The equipment should be calibrated at least daily for the contaminant(s) of concern or for an appropriate surrogate. The equipment should be capable of calculating 15-minute running average concentrations, which will be compared to the levels specified below.

- If the ambient air concentration of total organic vapors at the downwind perimeter of the work area or exclusion zone exceeds 5 ppm above background for the 15-minute average, work activities must be temporarily halted and monitoring must be continued. If the total organic vapor level readily decreases (per instantaneous readings) below 5 ppm over background, work activities can resume with continued monitoring.
- If total organic vapor levels at the downwind perimeter of the work area or exclusion zone persist at levels in excess of 5 ppm over background but less than 25 ppm, work activities must be halted, the source or vapors identified, corrective actions taken to abate emissions (e.g., application of BioSolve), and monitoring continued. After these steps, work activities can resume provided that the total organic vapor level 200 feet downwind of the exclusion zone or half the distance to the nearest potential receptor or residential/commercial structure, whichever is less (but in no case less than 20 feet), is below 5 ppm over background for the 15-minute average.
- If the organic vapor level is above 25 ppm at the perimeter of the Site, activities must be shutdown.

## 8.3.2 Particulate Monitoring, Response Levels, and Actions

Particulate concentrations must be monitored continuously at the upwind and downwind perimeters of the Site at temporary particulate monitoring stations. The particulate monitoring must be performed using real-time monitoring equipment capable of measuring particulate matter less than 10 micrometers in size (PM-10) and capable of integrating over a period of 15 minutes (or less) for comparison to the airborne particulate action level. The equipment must be equipped with an audible alarm to indicate exceedance of the action level. In addition, fugitive dust migration should be visually assessed during work activities.

• If the downwind PM-10 particulate level is 100 micrograms per cubic meter (ug/m³) greater than background (upwind perimeter) for the 15-minute period or if airborne dust is observed leaving the work area, then dust suppression techniques must be employed. Work may continue with dust suppression techniques provided that downwind PM-10 particulate levels do not exceed 150 ug/m³ above the upwind level and provided that no visible dust is

- migrating from the work area.
- If, after implementation of dust suppression techniques, downwind PM-10 particulate levels are greater than 150 ug/m³ above the upwind level, work must be stopped and a reevaluation of activities initiated. Work can resume provided that dust suppression measures and other controls are successful in reducing the downwind PM-10 particulate concentration to within 150 ug/m³ of the upwind level and in preventing visible dust migration.

The following chart summarizes the direct reading instrumentation and appropriate action levels that will be utilized during CAMP monitoring.

Monitoring Device	CAMP Action level	Response/Level of PPE	
	< 5 ppm at Site perimeter, over an integrated period not to exceed 15 minutes.	Continue work.	
PID Volatile Organic Compound Meter	5-25 ppm at Site perimeter over an integrated period not to exceed 15 minutes.	Stop work, identify vapor source, take corrective actions, and continue monitoring. Resume work if <5ppm for 15-minute average at 200 feet downwind or half the distance to the nearest potential receptor or residential/commercial structure, whichever is less (but in no case <20 feet).	
	>25 ppm at Site perimeter.	Stop work, further evaluate the use of engineering controls, etc.	
	< 100 ug/m³ over an integrated period not to exceed 15 minutes, and no observable dust leaving the work area.	Continue working.	
RTAM Particulate Meter	> 100 ug/m³ over an integrated period not to exceed 15 minutes, or if observable dust leaving the work area.	Cease work, implement dust suppression, change in way work performed, etc. Resume work if levels brought below 150 ug/m³ above background and no visible dust leaving the work area.	

# 9.0 EMERGENCY RESPONSE

To provide first-line assistance to field personnel in the case of illness or injury, the following items will be made immediately available on the Site:

- First-aid kit
- Portable emergency eye wash
- Supply of clean water

# **9.1** Emergency Telephone Numbers

The following telephone numbers are listed in case there is an emergency at the Site:

Fire/Police Department: 911

Poison Control Center: (800) 222-1222

NYSDEC Spill Hotline (800) 457-7362

NYSDEC Contact (585) 226-5480

Timothy Schneider

NYSDOH Contact (585) 402-7860

Julia Kenney

Day Environmental, Inc. (585) 454-0210 (x109)

Nathan E. Simon, P.E.

Parkway Plaza Limited Partnership (585) 434-5520

Andrew Bodewes

Nearest Hospital: F.F. Thompson Hospital

350 Parrish Street

Canandaigua, New York

Hospital Phone Number: (585) 396-6000

Directions to the Hospital Exit Site and turn left (west) onto Eastern

(refer to map included as Figure 4):

Boulevard (Rte. 5 & 20). Follow Rte. 5 & 20 west and turn right (north) onto South Main

Street. Follow South Main Street and turn left onto Parrish Street. F.F. Thompson Hospital is approximately 0.3 miles on the right.

Follow Emergency Room signs.

#### 9.2 Evacuation

Although unlikely, it is possible that a site emergency could require evacuating all personnel from the Site. If required, the SSO will give the appropriate signal for site evacuation (i.e., hand signals, alarms, etc.).

All personnel shall exit the site and shall congregate in an area designated by the SSO. The SSO shall ensure that all personnel are accounted for. If someone is missing, the SSO will alert emergency personnel. The appropriate government agencies will be notified as soon as possible regarding the evacuation, and any necessary measures that may be required to mitigate the reason for the evacuation.

## 9.3 Medical Emergency

In the event of a medical emergency involving illness or injury to one of the on-site personnel, the Site should be shut-down and immediately secured. The appropriate government agencies should be notified immediately. The area in which the injury or illness occurred should not be entered until the cause of the illness or injury is known. The nature of injury or illness should be assessed. If the victim appears to be critically injured, administer first aid and/or CPR as needed. Instantaneous real-time air monitoring should be done in accordance with air monitoring outlined in Section 8.0 of this HASP.

# 9.4 Contamination Emergency

It is unlikely that a contamination emergency will occur; however, if such an emergency does occur, the Site should be shut-down and immediately secured. If an emergency rescue is needed, notify, Police, Fire Department and EMS Units immediately. Advise them of the situation and request an expedient response. The appropriate government agencies should be notified immediately. The area in which the contamination occurred should not be entered until the arrival of trained personnel who are properly equipped with the appropriate PPE and monitoring instrumentation. (See also Section 8.0 of this HASP).

# 9.5 Fire Emergency

In the event of a fire on-site, the site should be shut-down and immediately secured. The area in which the fire occurred should not be entered until the cause can be determined. All non-essential site personnel should be evacuated from the Site to a safe, secure area. Notify the Fire Department immediately. Advise the Fire Department of the situation and the identify of any hazardous material involved. The appropriate government agencies should be notified as soon as possible.

The four classes of fire along with their constituents are as follows:

Class A: Wood, cloth, paper, rubber, many plastics, and ordinary combustible materials.

Class B: Flammable liquids, gases and greases.

Class C: Energized electrical equipment.

Class D: Combustible metals such as magnesium, titanium, sodium, potassium.

Small fires on-site may be actively extinguished; however, extreme care should be taken while in this operation. All approaches to the fire should be done from the upwind side if possible. Distance from on-site personnel to the fire should be close enough to ensure proper application of the extinguishing material, but far enough away to ensure that the personnel are safe. The proper extinguisher should be utilized for the Class(s) of fire present on the site. If possible, the fuel source should be cut off or separated from the fire. Care must be taken when performing operations involving the shut-off values and manifolds, if present.

Examples of proper extinguishing agent as follows:

Class A: Water

Water with 1% AFFF Foam (Wet Water)
Water with 6% AFFF or Fluorprotein Foam

**ABC Dry Chemical** 

Class B: ABC Dry Chemical

Purple K

Carbon Dioxide

Water with 6% AFFF Foam

Class C: ABC Dry Chemical

Carbon Dioxide

Class D: Metal-X Dry Powder

No attempt should be made against large fires. These should be handled by the Fire Department.

### 9.6 Spill or Air Release

In the event of a spill or air release of a hazardous material on-site, the Site should be shut-down and immediately secured. The area in which the spill or release occurred should not be entered until the cause can be determined and site safety can be evaluated. All non-essential site personnel should be evacuated from the Site to a safe, secure area. The appropriate government agencies should be notified as soon as possible. The spilled or released material should be immediately identified and appropriate containment measures should be implemented, if possible. Real-time air monitoring should be implemented as outlined in Section 8.0 of this HASP. If the material is unknown, Level B protection is mandatory. Samples of the material should be acquired to facilitate identification of the material.

#### 9.7 Locating Containerized Waste or Buried Tanks

In the event that containerized waste (e.g., drums) or buried tanks are located during site evaluation and remediation activities, the site should be shut-down and immediately secured. The area in which containerized wastes and/or tanks are discovered should not be entered until site safety can be

evaluated. All non-essential site personnel should be evacuated from the Site to a safe, secure area. The appropriate government agencies should be notified as soon as possible. The SSO shall monitor the area as outlined in Section 8.0 of this HASP.

Prior to any handling, containers and/or tanks will be visually assessed by the SSO to gain as much information as possible about their contents. As a precautionary measure, personnel shall assume that unlabelled containers contain hazardous materials until their contents are characterized. If the material is unknown, Level B protection is mandatory. To the extent possible based upon the nature of the containers encountered, actions may be taken to stabilize the area and prevent migration (e.g., placement of berms, etc.). Subsequent to initial visual assessment and any required stabilization, an environmental contractor will sample, test, remove, and dispose of any containers, tanks, and their contents.

#### 10.0 CONFINED SPACE ENTRY PROGRAM

Although unlikely, confined space entry may occur during this project. Confined spaces include excavation trenches, utility vaults, etc. The Contractor will be responsible for identifying confined spaces prior to anyone entering them. Entry procedures into confined spaces will be completed in accordance with the requirements of 29 CFR 1910.146 (OSHA Permit-Required Confined Space Regulation). Only properly trained individuals shall be allowed to participate in confined space entries.

As shown in 29 CFR 1910.146, a "Confined Space" is defined as:

- 1. a space "large enough and so configured that an employee can bodily enter and perform assigned work";
- 2. a space that "has limited or restricted means for entry or exit (e.g., tanks, vessels, silos, storage bins, hoppers, vaults, and pits)"; and
- 3. a space "not designed for continuous employee occupancy".

As shown in 29 CFR 1910.146, a "Permit-Required Confined Space" is defined as:

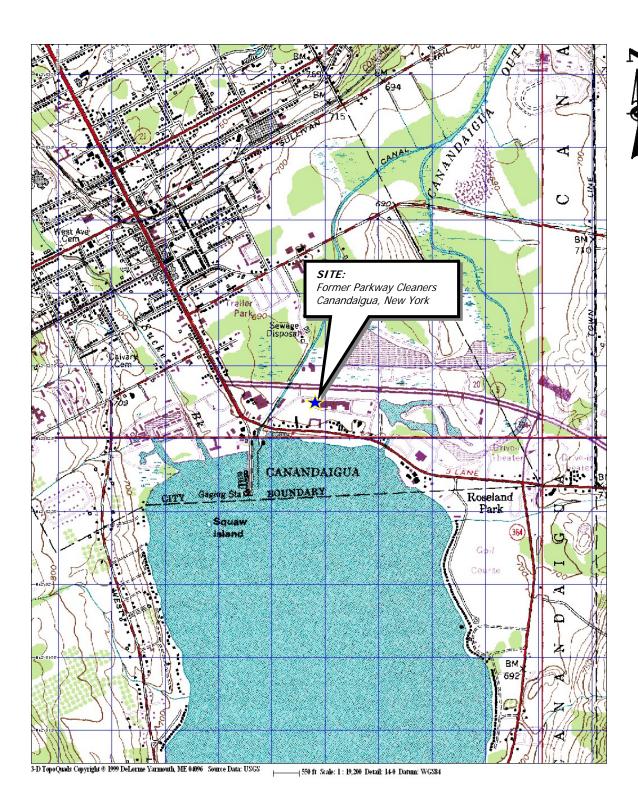
- 1. a space that "contains or has a potential to contain a hazardous atmosphere";
- 2. a space that "contains a material that has the potential for engulfing an entrant";
- 3. a space that "has an internal configuration such that an entrant could be trapped or asphyxiated by inwardly converging walls or by a floor which slopes downward and tapers to a smaller cross-section"; or
- 4. a space that "contains any other recognized serious safety and health hazards".

Permit-required confined space entry procedures do not need to be implemented if the four characteristics defining a permit-required confined space are eliminated (e.g., shore excavation walls, vent air in the confined space, etc.).

#### 11.0 TRAINING REQUIREMENTS

DAY personnel involved with site evaluation and remediation activities that have the potential to come into contact with VOC-impacted material are required to take a 40-hour training class. This training covers personal protective equipment, toxicological effects of various chemicals, handling of unknown tanks and drums, confined-space entry procedures, and electrical safety. This course is in compliance with OSHA requirements in 29 CFR 1910.120. In addition, employees receive annual 8-hour refresher training, and supervisory personnel receive an additional 8-hour training in handling hazardous waste operations. Personnel entering the work zone will be trained in the provisions of this HASP.

# **FIGURES**



Drawing Produced From: 3-D TopoQuads, DeLorme Map Co., referencing USGS quad maps Canandaigua (NY) 1978 and Canandaigua Lake (NY) 1978. Site Lat/Long: N42° 52.6′ – W77° 16.0′

DATE
2/25/2019

DRAWN BY
RJM

SCALE

1" = 2000'

DAY ENVIRONMENTAL, INC.
ENVIRONMENTAL CONSULTANTS
ROCHESTER, NEW YORK 14614-1008
NEW YORK, NEW YORK 10165-1617

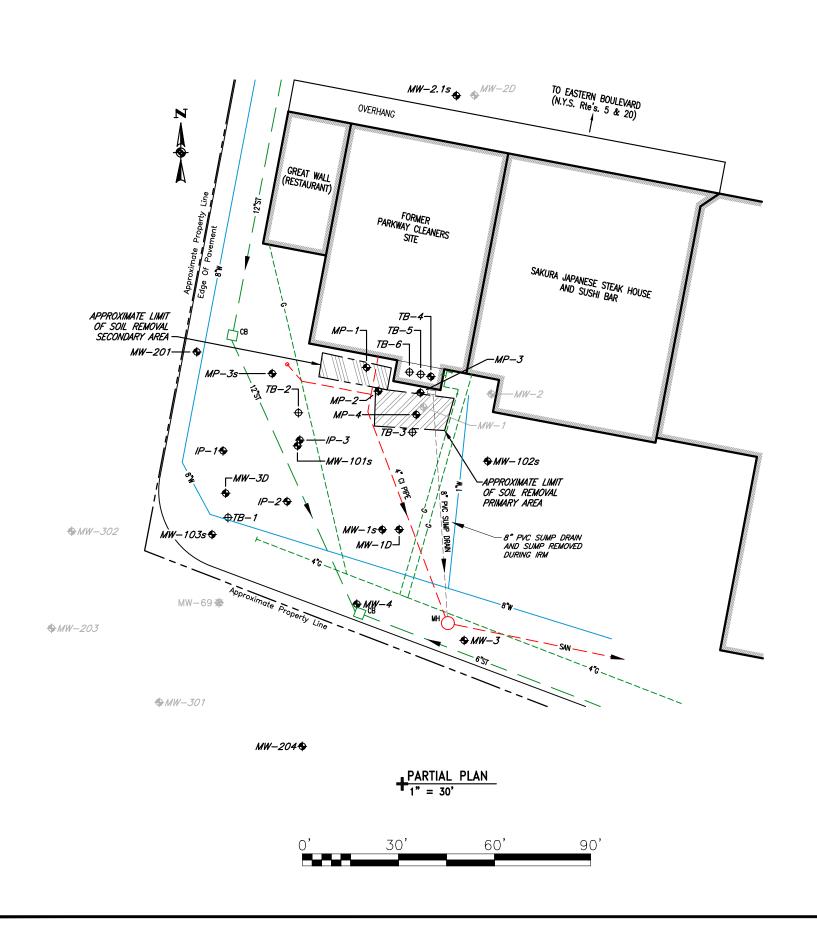
PROJECT TITLE
FORMER PARKWAY CLEANERS
BCP SITE NO. C835028
CANANDAIGUA, NEW YORK

DRAWING TITLE PROJECT LOCUS MAP

PROJECT NO.

5188R-15

FIGURE 1



#### NOTES:

- 1. Partial Plan Adapted From A Drawing By IVI Environmental, Inc, Entitled "Sample Location Map", Dated August 3, 1998 And By A Site Sketch Made By DAY Environmental, Inc. On November 5 & 6, 1998.
- 2. Groundwater Monitoring Well/Injection Point Locations Were Tape Measured Or Observed From Existing Site Structures And Should Be Considered Accurate To The Degree Implied By The Method Used.
- 3. Property Lines Shown Are From A Map Of An Instrument Survey By MRB Group, Entitled "Plan Of Land Owned By Parkway Plaza Limited Partnership In The City Of Canandaigua, Town Of Canandaigua, Ontario County, NY, Boundary Map", Dated June 22, 1988 And last Revised On December 6, 1988.

#### **LEGEND**

<b>♦</b> MW−1s	Groundwater Monitoring Well (MW), Monitoring Point (MP) Or Existing Former Injection Point (IP)
<b>♦</b> <i>MW</i> −2	Decommissioned/Destroyed Monitoring Well
<b>₩</b> MW-69	Approximate Location Of A Decommissioned/Destroyed Monitoring Well Installed In 2013 As Part Of Studies Completed By Stantec Consulting During Studies For

*⊕TB−1* Test Boring Location advanced May 2015 — with monitoring well installed in Test Boring TB-4

Project (BCP Site No. C835025)

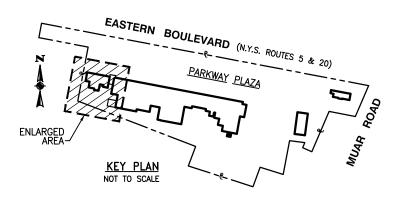
Approximate Location Of Sanitary Sewer

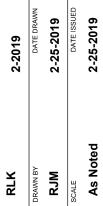
The Canandaigua Brownfield Site Redevelopment

Sanitary Sewer Manhole Storm Sewer With Size Of Pipe Noted CB Storm Sewer Catch Basin Water Main With Size Of Pipe Noted

> Inferred Location Of Natural Gas Main With Size Of Pipe Noted

Presumed Flow Direction





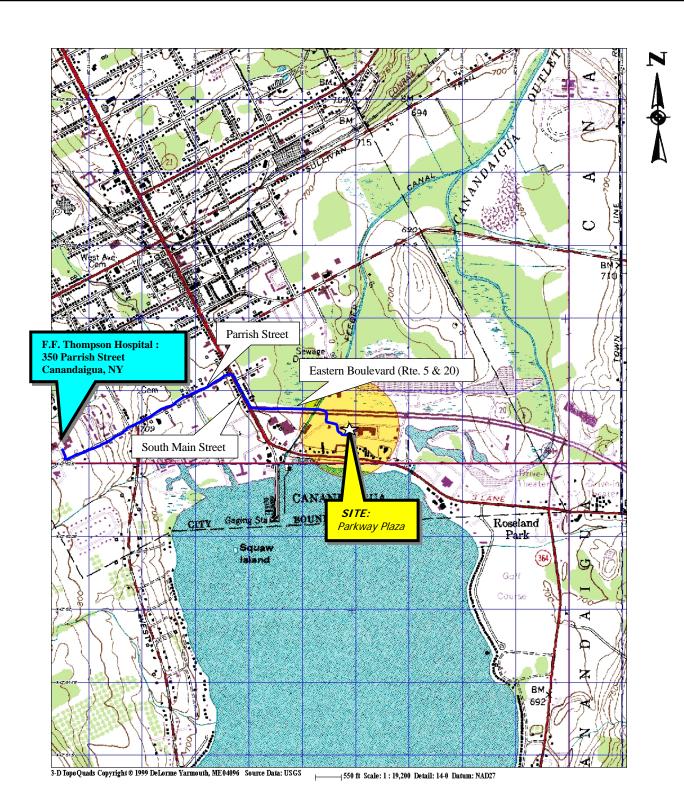
DAY ENVIRONMENTAL, INC. ENVIRONMENTAL CONSULTANTS ROCHESTER, NEW YORK 14606 NEW YORK, NEW YORK 10170

FORMER PARKWAY CLEANERS BCP SITE C835028 CANANDAIGUA, NEW YORK

5188R-15

Site Plan With Test Locations

FIGURE 2



Drawing Produced From: 3-D TopoQuads, DeLorme Map Co., referencing USGS quad maps Canandaigua (NY) 1978 and Canandaigua Lake (NY) 1978. Site Lat/Long: N42d-52.6' – W77d-16.0'

DATE 09-17-2013

DRAWN BY CAH

SCALE 1" = 2000'

DAY ENVIRONMENTAL, INC. ENVIRONMENTAL CONSULTANTS ROCHESTER, NEW YORK 14606

PROJECT TITLE
FORMER PARKWAY CLEANERS
CANANDAIGUA, NEW YORK

DRAWING TITLE
ROUTE TO HOSPITAL

PROJECT NO. 5188R-15

Figure 3

# **TABLE**

TABLE 1 Page 1 of 4

# FORMER PARKWAY CLEANERS PARKWAY PLAZA CANANDAIGUA, NEW YORK BCP Site No. C835028

# HISTORIC SUMMARY OF DETECTED VOLATILE ORGANIC COMPOUNDS OVERBURDEN GROUNDWATER MONITORING WELLS

DETECTED VOC (ug/l)	Groundwater Standard or Guidance Value <sup>(1)</sup>				MW	<i>I-</i> 1S							MW-	-2.1S			
	Odidance value	10/10/01	1/24/02	7/24/02	2/13/04	6/22/04	3/14/06	11/10/06	9/25/07	9/19/01	1/24/02	7/24/02	2/13/04	6/22/04	3/22/05*	11/10/06	9/24/07
PCE	5																
TCE	5																
Cis-1,2-DCE	5		2 J			2.2		2.3			2 J	4.6	1.5	3.8		1.5	
Trans-1,2-DCE	5			5													
1,1-DCE	5																
Vinyl Chloride	2			-		3.0							-			2.5	3.2 J

DETECTED VOC (ug/l)	Groundwater Standard or							MW-3S						
52.23.25 133 (ag.i)	Guidance Value <sup>(1)</sup>	9/19/01	1/24/02	7/24/02	2/13/04	6/22/04	3/14/06	11/10/06	9/25/07	5/8/08	8/21/08	2/11/09	5/27/09	6/21/11
PCE	5													
TCE	5						5.6							
Cis-1,2-DCE	5			8.8	3.7	12.0	590	13	610 D		103			2.49
Trans-1,2-DCE	5						5.2		2.6					
1,1-DCE	5													
Vinyl Chloride	2		1J	5.9	4.1	5.9	410	5.5	130	-	45.2		-	4.66

(1) New York State Department of Environmental Conservation (NYSDEC) June 1998 Division of Water Technical Operational and Guidance Series 1.1.1 (TOGS 1.1.1) Ambient Groundwater Standards and Guidance Values

-- "Not detected" (refer to analytical laboratory reports for detection limits utilized)

D = Compound concentration was obtained from a diluted analysis.

J Indicates an estimated value

\* Sample collected from a new (replacement) well

8.8 Bold - Denotes that the concentration exceeds the NYSDEC TOGS 1.1.1 groundwater standards/guidance values

# FORMER PARKWAY CLEANERS PARKWAY PLAZA CANANDAIGUA, NEW YORK BCP Site No. C835028

# HISTORIC SUMMARY OF DETECTED VOLATILE ORGANIC COMPOUNDS OVERBURDEN GROUNDWATER MONITORING WELLS

DETECTED VOC (ug/l)	Groundwater Standard or Guidance Value <sup>(1)</sup>					MW-101S											MW-	102\$						
	Cardanos Paras	2/13/04	6/22/04	3/22/05	7/26/05	3/14/06	11/10/06	9/25/07	5/8/08	8/21/08	2/13/04	6/22/04	3/22/05	7/26/05	3/14/06	11/10/06	9/25/07	5/8/08	8/21/08	2/11/09	5/27/09	1/7/10	5/24/11	5/26/15
PCE	5																							
TCE	5	5.4	9.2	3.8								1.8	3.5	1.8	3.9	2.7								
Cis-1,2-DCE	5	250	220	54	2.9	1.1	3.2	3.8 J			10	12	30	52	44	74	130	68.5	90.2	14.9	48.4	42.3	25.2	1.2
Trans-1,2-DCE	5	3.9	4.4				1.3				1.1	1.3	1.6	2.9	1.7	2.5	2.5 J		2.06					
1,1-DCE	5																							
Vinyl Chloride	2	27	31	11			3.7	14	-		10	4.8	14	28	17	31	51	24.3	35.5	23.4	34.5	23.7	20.9	12.5

DETECTED	Groundwater Standard or								MW-10	)3S							
VOC (ug/l)	Guidance Value <sup>(1)</sup>	9/20/04	12/15/04	3/22/05	7/26/05	3/14/06	11/10/06	9/25/07	5/8/08	8/22/08	2/11/09	5/27/09	1/7/10	7/23/10	5/24/11	5/20/13	5/27/15
PCE	5																
TCE	5																
Cis-1,2-DCE	5	390	48	210	180	37	47	47	70.8	240	163	328	676	940	1,050	657	2,130 D
Trans-1,2-DCE	5			2.9	2.0		1.3			3.62							7 J D
1,1-DCE	5																
Vinyl Chloride	2	130	9.8	61	66	19	37	32	101	177	138	255	349	425	646	413	1,240 D

(1) New York State Department of Environmental Conservation (NYSDEC) June 1998 Division of Water Technical Operational and Guidance Series 1.1.1 (TOGS

1.1.1) Ambient Groundwater Standards and Guidance Values

-- "Not detected" (refer to analytical laboratory reports for detection limits utilized)

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J Indicates an estimated value

\* Sample collected from a new (replacement) well

8.8 Bold - Denotes that the concentration exceeds the NYSDEC TOGS 1.1.1 groundwater standards/guidance values

TABLE 1 Page 3 of 4

# FORMER PARKWAY CLEANERS PARKWAY PLAZA CANANDAIGUA, NEW YORK BCP Site No. C835028

# HISTORIC SUMMARY OF DETECTED VOLATILE ORGANIC COMPOUNDS OVERBURDEN GROUNDWATER MONITORING WELLS

DETECTED VOC (ug/l)	Groundwater Standard or Guidance Value <sup>(1)</sup>			MF	P-1			MP-2					MI	<b>-</b> -3					MP-4
	or Gardanios Taras	3/14/06	11/10/06	9/25/07	1/7/10	5/24/11	5/26/15	11/10/06	3/14/06	11/10/06	9/25/07	5/8/08	8/21/08	2/11/09	5/27/09	1/7/10	5/24/11	5/26/15	11/10/06
PCE	5	19	8.2	270 D	40	122	100 D	39		25	14						40.6	65.8 D	18
TCE	5	22	2.5	110	33.4	34	77.8 D	42		51	44			32.5	26	57.7	69.3	104 D	16
Cis-1,2-DCE	5	610	280	930 D	179	91	560 D	520		460	1300 D	712	801	609	614	776	541	580 D	750
Trans-1,2-DCE	5		3.6	6.9 J	2.18		6.7 J D	6.7			5.9 J				-			3.3 J D	
1,1-DCE	5			3.2 J							3.4 J							3.6 J D	
Vinyl Chloride	2	120	75	23 J	12.9		20.6 D	90		270	300 D		291	42.0		-		74.6 D	200

DETECTED	Groundwater Standard			IP-1			IF	P-2	IF	<b>)</b> -3		MV	<b>V</b> -4				MW-201		
VOC (ug/l)	or Guidance Value <sup>(1)</sup>	8/28/09	2/11/09	5/27/09	6/21/11	5/27/15	6/21/11	5/26/15	6/21/11	5/27/15	2/11/09	5/27/09	1/7/10	5/24/11	9/24/07	5/8/08	8/22/08	2/11/09	5/27/09
PCE	5																		
TCE	5																		
Cis-1,2-DCE	5						5.78	0.2 J	10.2	2.4									
Trans-1,2-DCE	5																		
1,1-DCE	5																		
Vinyl Chloride	2		-	-					9.73	2						-		-	

(1) New York State Department of Environmental Conservation (NYSDEC) June 1998 Division of Water Technical Operational and Guidance Series 1.1.1 (TOGS

1.1.1) Ambient Groundwater Standards and Guidance Values

-- "Not detected" (refer to analytical laboratory reports for detection limits utilized)

D = Compound concentration was obtained from a diluted analysis.

J Indicates an estimated value

\* Sample collected from a new (replacement) well

8.8 Bold - Denotes that the concentration exceeds the NYSDEC TOGS 1.1.1 groundwater standards/guidance values

TABLE 1 Page 4 of 4

# FORMER PARKWAY CLEANERS PARKWAY PLAZA CANANDAIGUA, NEW YORK BCP Site No. C835028

# HISTORIC SUMMARY OF DETECTED VOLATILE ORGANIC COMPOUNDS OVERBURDEN GROUNDWATER MONITORING WELLS

DETECTED VOC (ug/l)	Groundwater Standard or Guidance Value	MW-69			MW	-203							MW-204						MW-301			MW	/-302	
	(1)	5/26/15	9/24/07	5/8/08	8/22/08	2/11/09	5/27/09	1/7/10	9/24/07	5/8/08	8/22/08	2/11/09	5/27/09	1/7/10	5/24/11	5/20/13	5/26/15	9/22/09	1/7/10	5/24/11	9/22/09	1/7/10	5/24/11	5/20/13
PCE	5																							
TCE	5	1.5															1.8							
Cis-1,2-DCE	5	83.3				-					8.68	4.41	5.71	2.14		3.76	6.2	16.7	12.4	9.04	-			
Trans-1,2-DCE	5																							
1,1-DCE	5																							
Vinyl Chloride	2	104 D								3.37	5.95	2.98	5.54	3.18		3.82	9.9	3.78	4.71					

DETECTED	Groundwater Standard or	MW-TB-4
VOC (ug/l)	Guidance Value	10/29/15
PCE	5	6910
TCE	5	3450
Cis-1,2-DCE	5	6820
Trans-1,2-DCE	5	
1,1-DCE	5	
Vinyl Chloride	2	610

(1) New York State Department of Environmental Conservation (NYSDEC) June 1998 Division of Water Technical Operational and Guidance Series 1.1.1 (TOGS 1.1.1) Ambient Groundwater Standards and Guidance Values

-- "Not detected" (refer to analytical laboratory reports for detection limits utilized)

 $\label{eq:D} D = Compound \ concentration \ was \ obtained \ from \ a \ diluted \ analysis.$ 

J Indicates an estimated value

\* Sample collected from a new (replacement) well

8.8 Bold - Denotes that the concentration exceeds the NYSDEC TOGS 1.1.1 groundwater standards/guidance values

# **ATTACHMENT 1**

#### **EXPERIENCE**

AREAS OF SPECIALIZATION

Day Environmental, Inc.: 2006 to present Years with Other Companies: 25+

- Health and Safety Management Systems
- Environmental Management Systems
- Environmental, Health and Safety Training

#### **EDUCATION**

University of Rochester, M.S. Industrial Hygiene, 1999 Rochester Institute of Technology, B.S. Environmental Engineering, 1979

#### REGISTRATION/AFFILIATIONS

40-Hour OSHA Hazardous Waste Site Worker Training
OSHA 30-Hour General Industry Outreach Trainer
American Society of Safety Engineers, member since 2000
New York Water Environment Association, Industrial Issues Committee, Past Chair

#### RESPONSIBILITIES AND PROJECT EXPERIENCE

Mr. Harding has over 25 years of technical and managerial experience working on various environmental, health and safety issues for industry and consulting firms, and he is currently a member of DAY's Industrial Compliance Group. Mr. Harding has been involved with a number of industrial clients providing services relating to conducting facility health and safety assessments and developing Corrective Action Plans; preparing comprehensive safety programs, including Hazard Communication, Hearing Conservation, Respiratory Protection, Emergency Response and Confined Space Entry; personal and area industrial hygiene monitoring, environmental compliance auditing; environmental and safety training, hazardous waste compliance assessments, etc. Some of his representative projects are described below.

As Project Manager with Day Environmental, Rochester, NY

- Corning NetOptix facility, Keene, NH this long-term project includes developing comprehensive environmental, health and safety policies and procedures to comply with Corporate and regulatory agency guidelines at this Diamond Turning facility of 120 employees. Programs developed include Contingency and Emergency Action Response, Bloodborne Pathogens, Hazardous Waste Management, Exotic Materials Exposure Control, EHS Inspections, and New Equipment/Process Safety Review.
- Bombardier Transportation, Bath, New York this long-term project includes conducting extensive indoor air quality and industrial hygiene monitoring at this 250-employee railcar refurbishing operation, including hexavalent chromium, lead, volatile organic compounds, sound energy levels, and particulates. Training programs developed and presented include New Employee Orientation, Respiratory Protecting, Bloodborne Pathogens, Job Safety Analysis, Fall Protection and others.
- Metro-North Railroad, New York, New York this client is a major transportation provider in the metro-New York area. Programs include 40-hour Hazardous Waste Operations and Emergency Response training, Chemical, Biological and Radiological Response training programs, Responding to Weapons of Mass Destruction training programs, and developing programs related to determining sound levels in locomotives and a wide variety of railroad right-of-way and maintenance shop activities.

Ten years as Manager, Health, Safety and Environment, Celltech Pharmaceuticals, Rochester, NY

- Developed and implemented programs that achieved consistent compliance with applicable occupational safety and health regulations relating to hazard communication, control of hazardous energy, personal protective equipment, respiratory protection, industrial vehicle safety, and contractor safety.
- Developed and implemented comprehensive programs that achieved consistent compliance with applicable
  environmental regulations relating to air emissions, wastewater discharges, solid and hazardous waste
  management, preventing and responding to spills and releases and stormwater management.
- Developed and delivered over 20 effective training programs for hundreds of manufacturing and laboratory personnel including Hazard Communication/Right-to-Know, Hazardous Energy Control (LOTO), Powered Industrial Vehicles, Chemical Hygiene, Hazardous Waste Management, and Confined Space Entry.
- Developed and implemented comprehensive Safety Clearance Inspection and Corrective Action Programs for manufacturing and laboratory environments that empowered workers to maintain a safe workplace.
- Developed and implemented a detailed Risk Assessment Program, to anticipate, recognize, evaluate and control occupational health and safety risk in over 15 job categories, including job hazard analyses, corrective action and rigorous follow-up, resulting in consistent reductions in personnel injury and illness.
- Coordinated a highly effective plant **Medical Emergency Response Team** that consistently responded to employee health emergencies in order to evaluate conditions and implement appropriate response measures.
- Oversaw the activities associated with an on-site NYS Department of Environmental Conservation Voluntary Cleanup Program, involving the design, installation and operation of a dual-phase extraction system to address the removal of chlorinated solvents in the groundwater.
- Maintained close liaison with Worker's Compensation Insurance carrier to foster clear understandings of incidents and appropriate follow-up, minimizing premium costs by 15% of 4 years.
- Performed **industrial hygiene monitoring** throughout the facility to determine exposure levels of over 25 contaminants in order to minimize risk to the workers and to protect the surrounding environment.

Over 13 years as Environmental Project Leader for environmental consulting companies.

- Worked with a variety of industrial and municipal clients on behalf of an international environmental
  engineering firm. Provided clients with comprehensive regulatory compliance programs, remedial
  investigations and development of health and safety-related programs.
- Prepared and negotiated hazardous waste management contracts; developed work plans and labor and materials budgets and managed projects through successful completion.
- Developed detailed **engineering reports and permit applications**, which were submitted to local, State and Federal regulatory agencies for issuance of applicable environmental permits.
- Developed Phase I and Phase II Environmental Site Assessment and Corporate Environmental Regulatory Auditing procedures that were adopted firm wide.
- Developed and coordinated health and safety training programs for use throughout the organization.

# **ATTACHMENT 2**



# **EOS**zvi

# **SAFETY DATA SHEET**

Section 1: Identification	
Product Name:	EOS ZVI
Chemical Description:	Mixture; carbonyl iron powder in vegetable oil
Manufacturer:	EOS Remediation
	1101 Nowell Road
	Raleigh, NC 27607
	(P): 919-873-2204
Recommended Use:	Groundwater Bioremediation (environmental applications)
Restricted Use:	Not for human consumption
24-Hour Emergency Contact:	ChemTel: United States
	(P): 800-255-3924
	ChemTel: International
	(P): 813-248-0585

Section 2: Hazard(s) Identific	ation
Hazard Classification:	Irritant (eye and skin)
Signal Word:	Warning
Hazard Statement(s):	Potential eye and skin irritant.
Pictograms:	<u>(1)</u>
Precautionary Statement(s):	Not for human consumption. Protect from freezing. Do not store near excessive heat or oxidizers. Avoid contact with eyes and skin. Wear protective gloves and eye protection.

Common Name(s)	CAS NO.	% by Weight
Soybean Oil	8001-22-7	40 - 45
Emulsifiers Frade Secret <sup>1,2</sup>	Proprietary	5 - 10
Stabilizers Frade Secret <sup>1,2</sup>	Proprietary	1 - 5
Carbonyl Iron	7439-89-6	45 - 55

<sup>1 –</sup> The precise composition of this product is proprietary information. A more complete disclosure will be provided to a physician in the event of a medical emergency.

<sup>2 –</sup> The soluble substrates and emulsifiers are generally recognized as safe.

Section 4: First-Aid Measures		
Routes of Exposure	Emergency First-Aid Procedures	
Inhalation	Remove to fresh air.	
Eye Contact	Flush with water for 15 minutes; if irritation persists see a physician.	
Dermal	Wash with mild soap and water.	
Ingestion	Product is non-toxic. If nausea occurs, induce vomiting and seek medical	
	attention.	

Section 5: Fire-Fighting Measures			
Extinguishing Media:	CO <sub>2</sub> , foam, dry chemical		
	Note: Water, fog and foam may cause frothing and spattering.		
Special Fire Fighting Procedures:	Wear self-contained breathing apparatus and chemical resistant clothing.		
	Use water spray to cool fire exposed containers.		
Fire Hazard(s):	Burning will cause oxides of carbon.		

Section 6: Accidental Release Measures			
Personal Precautions:	Avoid contact with eyes and skin. Do not consume.		
Emergency Procedures:	N/A		
Methods & Materials used for Containment:	Compatible granular absorbent		
Cleanup Procedures:	Spread compatible granular absorbent over spill area and sweep using broom and pan; dispose in appropriate receptacle. Clean area with water.		

Section 7: Handling and Storage			
Safe Handing & Storage:	Do not store near excessive heat (> 150°C) or oxidizers.		
Other Precautions:	Consumption of food and beverages should be prevented in work area where product is being used. After handling product, always wash hands and face thoroughly with soap and water before eating, drinking, or smoking.		

Section 8: Exposure Contro	ols/Personal		
Protection			
<b>Exposure Limits</b>			
OSHA PEL:	Vegetable Oil Mist	15 mg/m³ (total) 5 mg/m³ (respirable)	
ACGIH TLV:	NE	NE	
NIOSH REL:	Vegetable Oil Mist	10 mg/m³ (total) 5 mg/m³ (respirable)	
Personal Protective Measure	es		
Respiratory Protection:	Not normally requir	Not normally required. P95 respirator if aerosols might be generated.	



Hand Protection:	Protective gloves are recommended	
Eye Protection:	Recommended	
Engineering Measures:	Local exhaust ventilation if aerosols are generated	
Hygiene Measures:	Wash promptly with soap & water if skin becomes irritated from contact.	
Other Protection:	Wear appropriate clothing to prevent skin contact.	

NE – Not Established

Section 9: Physical and Chemical Properties				
Appearance:	Black	Explosive Limits:	NE	
Odor:	Vegetable Oil	Vapor Pressure:	NE	
Odor Threshold:	NE	Vapor Density:	Heavier than air	
pH:	NE	Relative Density:	1.5 – 1.7	
Melting Point/Freezing Point:	Liquid at room temperature	Solubility:	Easily soluble & dispersible	
Boiling Point:	N/A	Partition coefficient:	NE	
Flash Point:	>600°F (316°C)	Auto-ignition Temperature:	NE	
Evaporation Rate:	NE	Decomposition Temperature:	N/A	
Flammability (solid, gas):	NE	Viscosity:	2350 cP	

NE – Not Established N/A – Non-Applicable

Section 10: Stability and Reactivity		
Stability:	Stable	
Incompatibility:	Strong acids and oxidizers	
Hazardous Decomposition	Thermal decomposition may produce oxides of carbon	
Products:		
Hazardous	Will not occur	
Reactions/Polymerization:		
Conditions to Avoid:	Do not expose to temperatures above 150°C	

Section 11: Toxicological Information			
Likely Routes of Exposure:	Ingestion, dermal and eye contact		
Signs and Symptoms of Exposure:	None known		
Health Hazards			
Acute:	Potential eye and skin irritant		
Chronic:	None known		
Carcinogenicity			
NTP:	No		
IARC:	No		
OSHA:	No		

#### **Section 12: Ecological Information (non-mandatory)**

There is no data on the ecotoxicity of this product.

# **Section 13: Disposal Considerations (non-mandatory)**

Waste Disposal Methods:	Dispose of according to Federal and local regulations for non-hazardous		
	waste.		

## **Section 14: Transport Information (non-mandatory)**

The product is not covered by international regulation on the transport of dangerous goods.

No transport warning required.

## **Section 15: Regulatory Information (non-mandatory)**

N/A

Section	16: O	ther In	torma	tion

Date of Preparation:	2 June 2016
Last Modified Date:	2 June 2016

The information contained herein is based on available data and is believed to be correct. However, EOS Remediation, LLC makes no warranty, expressed or implied, regarding the accuracy of this data or the results to be obtained thereof. This information and product are furnished on the condition that the person receiving them shall make his/her own determination as to the suitability of the product for his/her particular purpose.





Section 1: Identification	
Product Name:	EOS Pro
Chemical Description:	Mixture; vegetable oil emulsion
Manufacturer:	EOS Remediation
	1101 Nowell Road
	Raleigh, NC 27607
	(P): 919-873-2204
	www.eosremediation.com
Recommended Use:	Groundwater bioremediation (environmental applications)
Restricted Use:	Not for human consumption.
24-Hour Emergency Contact:	ChemTel: United States
	(P): 800-255-3924
	ChemTel: International
	(P): 813-248-0585

Section 2: Hazard(s) Identification		
Hazard Classification:	Irritant (skin and eye)	
Signal Word:	Warning	
Hazard Statement(s):	Potential eye and skin irritant.	
Pictograms:	<u>!</u>	
Precautionary Statement(s):	Not for human consumption. Do not store near excessive heat or oxidizers. Avoid contact with eyes and skin. Wear protective gloves and eye protection.	

Section 3: Composition/Information on Ingredients		
Common Name(s)	CAS NO.	% by Weight
Soybean Oil	8001-22-7	59.8
Food Grade Emulsifiers Trade Secret <sup>1,2</sup>	Proprietary	10
Soluble Substrates Trade Secret <sup>1,2</sup>	Proprietary	4
Food Additives/Preservatives Trade Secret <sup>1</sup>	Proprietary	0.3
Nutrients/Extracts Trade Secret <sup>1,2</sup>	Proprietary	1
Water	7732-18-5	Balance

<sup>1 –</sup> The precise composition of this product is proprietary information. A more complete disclosure will be provided to a physician in the event of a medical emergency.

<sup>2 –</sup> The soluble substrates and emulsifiers are generally recognized as safe for food contact.

Section 4: First-Aid Meas	ures
Routes of Exposure	Emergency First-Aid Procedures
Inhalation	Remove to fresh air.
Eye Contact	Flush with water for 15 minutes; if irritation persists see a physician.
Skin Contact	Wash with mild soap and water.
Ingestion	Product is non-toxic. If nausea occurs, induce vomiting and seek medical attention.

Section 5: Fire-Fighting Measures		
Extinguishing Media:	CO <sub>2</sub> , foam, dry chemical	
	Note: Water, fog and foam may cause frothing and spattering.	
Special Fire Fighting Procedures:	Wear self-contained breathing apparatus and chemical resistant clothing.	
	Use water spray to cool fire exposed containers.	
Fire Hazard(s):	Burning will cause oxides of carbon.	

Section 6: Accidental Release Measures		
Personal Precautions:	Avoid contact with eyes and skin. Do not consume.	
Emergency Procedures:	N/A	
Methods & Materials used for	Compatible granular absorbent	
Containment:		
Cleanup Procedures:	Spread compatible granular absorbent over spill area and sweep using	
	broom and pan; dispose in appropriate receptacle. Clean area with water.	

Section 7: Handling and Storage		
Safe Handling & Storage:	Do not store near excessive heat or oxidizers.	
Other Precautions:	Consumption of food and beverages should be prevented in work area where product is being used. After handling product, always wash hands and face thoroughly with soap and water before eating, drinking, or smoking.	

Section 8: Exposure Controls/Personal Protection			
Exposure Limits			
OSHA PEL:	NE		
ACGIH TLV:	NE		
NIOSH REL:	NE		
Personal Protective Measures	Personal Protective Measures		
Respiratory Protection:	Not normally requir	Not normally required. P95 respirator if aerosols might be generated.	
Hand Protection:	Protective gloves ar	Protective gloves are recommended	
Eye Protection:	Recommended	Recommended	
Engineering Measures:	Local exhaust ventil	Local exhaust ventilation if aerosols are generated	
Hygiene Measures:	Wash promptly with	Wash promptly with soap & water if skin becomes irritated from contact.	
Other Protection:	Wear appropriate c	Wear appropriate clothing to prevent skin contact.	

Section 9: Physical and Chemical Properties			
Appearance:	White Liquid	Explosive Limits:	NE
Odor:	Vegetable Oil	Vapor Pressure:	NE
Odor Threshold:	NE	Vapor Density:	Heavier than air
pH:	Neutral	Relative Density:	0.96-0.98
Melting Point/Freezing Point:	Liquid at room	Solubility:	Dispersible
	temperature		
Boiling Point:	212°F (100°C)	Partition coefficient:	NE
Flash Point:	>300°F (149°C)	Auto-ignition Temperature:	NE
Evaporation Rate:	NE	Decomposition Temperature:	N/A
Flammability (solid, gas):	NE	Viscosity:	500-1500 cP

NE - Not Established

Section 10: Stability and Reactivity	
Stability:	Stable
Incompatibility:	Strong acids and oxidizers
Hazardous Decomposition	Thermal decomposition may produce oxides of carbon
Products:	
Hazardous	Will not occur
Reactions/Polymerization:	
Conditions to Avoid:	None known

Section 11: Toxicological Information			
Likely Routes of Exposure: Ingestion, dermal and eye contact			
Signs and Symptoms of Exposure:	None known		
Health Hazards	Health Hazards		
Acute:	Potential eye and skin irritant		
Chronic:	None known		
Carcinogenicity			
NTP:	No		
IARC:	No		
OSHA:	No		

# Section 12: Ecological Information (non-mandatory)

There is no data on the ecotoxicity of this product.

Section 13: Disposal Considerations (non-mandatory)	
Waste Disposal Methods:	Dispose of according to Federal and local regulations for non-hazardous
	waste. Recycle, if practical.

### **Section 14: Transport Information (non-mandatory)**

The product is not covered by international regulation on the transport of dangerous goods.

No transport warning required.

## Section 15: Regulatory Information (non-mandatory)

N/A

29 May 2014
5 September 2014
-

The information contained herein is based on available data and is believed to be correct. However, EOS Remediation, LLC makes no warranty, expressed or implied, regarding the accuracy of this data or the results to be obtained thereof. This information and product are furnished on the condition that the person receiving them shall make his/her own determination as to the suitability of the product for his/her particular purpose.



# $CoBupH_{\text{Mg}}$

# **SAFETY DATA SHEET**

Section 1: Identification		
Product Name:	СоВирНмд	
Chemical Description:	Mixture; colloidal buffer	
Manufacturer:	EOS Remediation	
	1101 Nowell Road	
	Raleigh, NC 27607	
	(P): 919-873-2204	
Recommended Use:	Groundwater pH adjustment (environmental applications)	
Restricted Use:	Not for human consumption.	
24-Hour Emergency Contact:	ChemTel: United States	
	(P): 800-255-3924	
	ChemTel: International	
	(P): 813-248-0585	

Section 2: Hazard(s) Identification	
Hazard Classification:	Potential Respiratory Tract Irritant; irritant (skin and eye)
Signal Word:	Warning
Hazard Statement(s):	Potential eye and skin irritant; Inhalation may aggravate any preexisting respiratory disease.
Pictograms:	
Precautionary Statement(s):	Prolonged/frequent skin contact may lead to dermatitis; Ingestion generally causes purging of the bowels. Keep from freezing. Keep below 100 F to avoid evaporation of free water, which could lead to increased viscosity.

Section 3: Composition/Information on Ingredients		
Common Name(s)	CAS NO.	% by Weight
Alkaline Buffer Patent Pending Trade Secret <sup>1</sup>	Proprietary	45-50
Dispersant Trade Secret <sup>1</sup>	Proprietary	1-2
Stabilizer Trade Secret <sup>1</sup>	Proprietary	0.5-1
Water	7732-18-5	47-53.5

<sup>1 –</sup> The precise composition of this product is proprietary information. A more complete disclosure will be provided to a physician in the event of a medical emergency.

Routes of Exposure	Emergency First-Aid Procedures
Inhalation	Remove to fresh air; as with exposure to any environment without adequate personal protection, inhalation may aggravate any preexisting respiratory disease.
Eye Contact	Flush with water for 15 minutes; if irritation persists see a physician.
Dermal	Wash with mild soap and water; prolonged/frequent skin contact may lead to dermatitis.
Ingestion	Product is non-toxic. If nausea occurs, induce vomiting and seek medical attention.

Section 5: Fire-Fighting Measures		
Extinguishing Media:	Use media appropriate to primary source of fire. Otherwise, use CO <sub>2</sub> , foam,	
	dry chemical. Note: Water, fog and foam may cause frothing and spattering.	
Special Fire Fighting Procedures:	Wear self-contained breathing apparatus and chemical resistant clothing.	
	Use water spray to cool fire exposed containers.	
Fire Hazard(s):	None known.	

Section 6: Accidental Release Measures		
Personal Precautions:	Avoid contact with eyes and skin. Do not consume.	
Emergency Procedures:	N/A	
Methods & Materials used for Containment:	Compatible granular absorbent	
Cleanup Procedures:	Spread compatible granular absorbent over spill area and sweep using broom and pan; dispose in appropriate receptacle. Clean area with water.	

Section 7: Handling and Storage		
Safe Handling & Storage:	Keep container closed when not in use. Avoid contact with eyes. Keep from freezing. Keep below 100 F to avoid evaporation of free water, which could lead to increased viscosity.	
Other Precautions:	Consumption of food and beverages should be prevented in work area where product is being used. After handling product, always wash hands and face thoroughly with soap and water before eating, drinking, or smoking.	

Section 8: Exposure Controls/Personal Protection		
Exposure Limits		
OSHA PEL:	NE	
ACGIH TLV:	NE	
NIOSH REL:	NE	

Personal Protective Measures		
Respiratory Protection:	Not normally required. N95 respirator if aerosols might be generated.	
Hand Protection:	Protective gloves are recommended	
Eye Protection:	Recommended	
Engineering Measures:	Local exhaust ventilation if aerosols are generated	
Hygiene Measures:	Wash promptly with soap & water following skin contact. After handling product, always wash hands and face thoroughly with soap and water before eating, drinking or smoking.	
Other Protection:	Wear appropriate clothing to prevent skin contact	

Section 9: Physical and Chemical Properties			
Appearance:	Milky white	Explosive Limits:	NE
	aqueous suspension		
Odor:	None	Vapor Pressure:	NE
Odor Threshold:	NE	Vapor Density:	N/A
pH:	10.5-11.5	Relative Density:	1.6
Melting Point/Freezing Point:	32° F (0°C)	Solubility:	Slightly Soluble
Boiling Point:	N/A	Partition coefficient:	NE
Flash Point:	Not flammable or combustible	Auto-ignition Temperature:	N/A
Evaporation Rate:	NE	Decomposition Temperature:	100-110°F (38°-43°
			C) (water will
			evaporate)
Flammability (solid, gas):	NE	Viscosity:	100-200 cP

NE – Not Established N/A - Not Applicable

Section 10: Stability and Reactivity		
Stability:	Stable	
Incompatibility:	ACID (Strong) - vigorous reaction, heat generated; MALEIC ANHYDRIDE - Alkali and other alkaline earth compounds, including magnesium compounds will cause explosive decomposition. PHOSPHORUS - when boiled with alkaline hydroxides yields mixed phosphine that may ignite spontaneously in air.	
Hazardous Decomposition	If container is left open at 100-110 F, water will evaporate causing product	
Products:	to become extremely viscous.	
Hazardous Reactions/Polymerization:	Will not occur	
Conditions to Avoid:	None known	

Section 11: Toxicological Information		
Likely Routes of Exposure:	Ingestion, dermal and eye contact	
Signs and Symptoms of Exposure:	Eye Contact: redness, tearing, conjunctivitis	
	Skin Contact: drying, chapping, dermatitis	
Health Hazards		
Acute:	Ingestion generally causes purging of the bowels; Swallowing large amounts may lead to bowel obstruction. Potential eye and skin irritant.	
Chronic:	None known	
Carcinogenicity		
NTP:	No	
IARC:	No	
OSHA:	No	

## Section 12: Ecological Information (non-mandatory)

There is no data on the ecotoxicity of this product.

Section 13: Disposal Considerations (non-mandatory)		
Waste Disposal Methods:	Dispose of according to Federal and local regulations for non-hazardous waste.	

#### Section 14: Transport Information (non-mandatory)

The product is not covered by international regulation on the transport of dangerous goods.

No transport warning required.

#### Section 15: Regulatory Information (non-mandatory)

N/A

Section 16: Other Information	
Date of Preparation:	29 May 2014
Last Modified Date:	5 September 2014

The information contained herein is based on available data and is believed to be correct. However, EOS Remediation, LLC makes no warranty, expressed or implied, regarding the accuracy of this data or the results to be obtained thereof. This information and product are furnished on the condition that the person receiving them shall make his/her own determination as to the suitability of the product for his/her particular purpose.





Section 1: Identification			
Product Name:	BAC-9		
Chemical Description:	Non-toxic, naturally occurring, non-pathogenic, non-genetically altered anaerobic microbes in a water-based medium		
Manufacturer:	CB&I		
	17 Princess Road		
	Lawrenceville, NJ 08648		
	609-895-5340		
Recommended Use:	Groundwater bioremediation (environmental applications)		
Restricted Use:	Not for human consumption.		
24-Hour Emergency Contact:	ChemTel: United States		
	(P): 800-255-3924		
	ChemTel: International		
	(P): 813-248-0585		

Section 2: Hazard(s) Identification				
Hazard Classification:	Irritant (skin and eye)			
Signal Word:	Warning			
Hazard Statement(s):	Potential eye and skin irritant in hypersensitive humans.			
Pictograms:				
Precautionary Statement(s):	Not for human consumption. Avoid contact with eyes and skin. Wear protective gloves and eye protection.			

Section 3: Composition/Information on Ingredients			
Common Name(s)	CAS NO.	% by Weight	
Microbial consortium in water (comprised of microorganism of the genus <i>Dehalococcoides</i> )	N/A	100	

Section 4: First-Aid Measures			
Routes of Exposure	Emergency First-Aid Procedures		
Inhalation	Get medical attention if allergic symptoms develop.		
Eye Contact	Flush eyes with plenty of water for at least 15 minutes Get medical attention if irritation occurs.		
Skin Contact	N/A		
Ingestion	Thoroughly rinse mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Get immediate medical attention.		

Section 5: Fire-Fighting Measures		
Extinguishing Media:	CO <sub>2</sub> , foam, dry chemical	
Special Fire Fighting Procedures:	None	
Fire Hazard(s):	None	

Section 6: Accidental Release Measures		
Personal Precautions:	Avoid contact with skin or eyes.	
Emergency Procedures:	N/A	
Methods & Materials used for Containment:	Compatible granular absorbent	
Cleanup Procedures:	Spread compatible granular absorbent over spill area and sweep using broom and pan; dispose in appropriate receptacle. Clean area with water.	

Section 7: Handling and Sto	
Safe Handling & Storage:	Use personal protective equipment recommended in Section 8.
	Keep containers tightly closed in a cool, well-ventilated area. The DHC
	microbial consortium can be supplied in stainless steel kegs designed for
	maximum working pressure of 130 psi and equipped with pressure relief
	valves. The kegs are pressurized with Nitrogen up 15 psi. Do not exceed
	pressure of 15 psi during transfer of DHC microbial consortium from kegs.
	Do not open keg if content of the keg is under pressure.
Other Precautions:	BAC-9 may be stored for up to 3 weeks at a temperature range of 2-4°C
	without aeration. Avoid freezing.

Section 8: Exposure Controls/Personal Protection				
Exposure Limits				
OSHA PEL:	NE			
ACGIH TLV:	NE			
NIOSH REL:	NE			
Personal Protective Measures				
Respiratory Protection:	Not normally requir	Not normally required. N95 respirator if aerosols might be generated.		
Hand Protection:	Protective gloves ar	Protective gloves are recommended.		
Eye Protection:	Recommended. An	Recommended. An eyewash station in the work area is recommended.		
Engineering Measures:	Local exhaust ventilation if aerosols are generated			
Hygiene Measures:	Wash promptly with	Wash promptly with soap & water following skin contact.		
Other Protection:	Wear appropriate c	Wear appropriate clothing to prevent skin contact.		

Section 9: Physical and Chemi	cal Properties		
Appearance:	Light greenish murky liquid	Explosive Limits:	N/A
Odor:	Musty	Vapor Pressure:	24 mm Hg
Odor Threshold:	N/A	Vapor Density:	N/A
pH:	6.0-8.0	Relative Density:	0.9-1.1
Melting Point/Freezing Point:	0°C	Solubility:	Soluble
Boiling Point:	100°C	Partition coefficient:	NE
Flash Point:	N/A	Auto-ignition Temperature:	N/A
Evaporation Rate:	0.9-1.1	Decomposition Temperature:	N/A
Flammability (solid, gas):	N/A	Viscosity:	NE

Section 10: Stability and Reactivity		
Stability:	Stable	
Incompatibility:	Water-reactive materials	
Hazardous Decomposition	None	
Products:		
Hazardous	None	
Reactions/Polymerization:		
Conditions to Avoid:	None	

Section 11: Toxicological Information		
Routes of Exposure:	Ingestion, Eye Contact	
Signs and Symptoms of Exposure:	Ingestion of large quantities may result in abdominal discomfort including nausea, vomiting, cramps, diarrhea, and fever.  Skin may become irritated upon prolonged contact. Hypersensitive individuals may experience allergic reactions.  May cause eye irritation unless immediately rinsed.	
Health Hazards		
Acute:	Irritation of the skin or eyes. Ingestion may result in abdominal discomfort.	
Chronic:	None	
Carcinogenicity		
NTP:	No	
IARC:	No	
OSHA:	No	

# Section 12: Ecological Information (non-mandatory)

Ecotoxicity: this material will degrade in the environment

Section 13: Disposal Considerations (non-mandatory)		
Waste Disposal Methods:	Dispose of according to Federal and local regulations for non-hazardous	
	waste. Recycle, if practical.	

## **Section 14: Transport Information (non-mandatory)**

The product is not covered by international regulation on the transport of dangerous goods.

No transport warning required.

# **Section 15: Regulatory Information (non-mandatory)**

N/A

Section 16: Other Information		
Date of Preparation:	15 August 2014	
Last Modified Date:	5 September 2014	

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SMP Template: August 2015

# APPENDIX G OPERATION AND MAINTENANCE MANUALS

SMP Template: August 2015

#### OPERATION AND MAINTENANCE MANUAL

#### 1.0 Introduction

This Operation and Maintenance (O&M) Manual describes the measures necessary to operate, monitor and maintain the mechanical components of the active engineering controls at the Site. Currently, the only active engineering control at the Site is the alcove sub-slab depressurization system (SSDS). This O&M manual will be updated for the pending SSDS upgrades subsequent to their installation. The SSDS O&M manual will be included in the Final SMP. As such, this O&M Plan:

- Includes the steps necessary to allow individuals unfamiliar with the Site to operate and maintain the SSDS;
- Includes an operation and maintenance contingency plan; and
- Will be revised on a periodic basis, as necessary, to keep the O&M Manual up to date, and to reflect any changes in equipment and/or system operations occurring over time. No significant changes to the process or equipment may be made without prior approval of NYSDEC and NYSDOH.

A copy of this O&M Manual, along with the complete Interim Site Management Plan (ISMP), will be kept at the Site. This O&M Plan is not to be used as a stand-alone document, but as a component document of the ISMP.

## 2.0 Engineering Control System Operation and Maintenance

The SSDS is intended to be operated indefinitely until such time as monitoring data indicates that the system is no longer required, and approval is received by NYSDEC and NYSDOH to discontinue system operations.

The SSDS consists of a suction point that was installed to induce a negative pressure beneath the former alcove portion of the building at the Site where elevated concentrations of chlorinated VOCs were previously reported. The purpose of the induced sub-slab negative pressure created by the SSDS is to prevent the migration of vapors into the building and to remove the VOC vapors from beneath the slab.

## 2.1 Inspections

The SSDS is designed for continuous, unmanned operation, and requires very little operation and maintenance labor. All components of this system are designed for years of uninterrupted service. Nonetheless, quarterly and annual system checks will be performed to confirm that all are operating as intended, and to identify the need for any maintenance. These monitoring activities will be completed as described in, and documented on, the attached SSDS Inspection Log form. Minimum static pressures indicated on this form represent 80% of the test values observed upon systems start-up, below which systems repair, maintenance and/or engineering evaluation will be required to confirm continued effectiveness.

### 2.2.1 System Start-Up and Testing

The only mechanical portion of the system is the exterior wall-mounted fan. Start-up of this fan from a shutdown condition requires only that power be restored the fan. It is expected that the fan will be continuously maintained in an operational condition, and the fans will not require any type of manual restart, so the fan will restart automatically once power is restored to the building or circuit. In the event that the fan is de-energized for work on the fan or associated ductwork, re-energizing of the fan will similarly re-enable that portion of the SSDS.

Manufacturer's cut sheets and equipment manuals for select system components are provided at the end of this O&M Manual.

#### 2.2.2 Routine Operation & Maintenance Procedures

As previously mentioned, the SSDS is designed for continuous unattended operation, and requires minimal operations oversight. There are no routine operating or maintenance procedures for this system, as the fans require no routine or preventative maintenance, and there are no consumable items in the system.

# 3.0 Performance Monitoring

Overall system performance of the SSDS engineering controls will be evaluated based on the ability of the system to maintain operating parameters within expected ranges. Monitoring of the engineering controls shall be completed as detailed in Section 2.1 to periodically confirm that the equipment operation and system effectiveness is maintained. It is not intended that the SSDS achieve any significant contaminant reduction within Site media (soils, soil vapor and/or groundwater), and as such, monitoring of Site media for remedial performance monitoring purposes (i.e. reduction of contaminants) does not apply to this remedial system.

MANUFACTURER'S CUT SHEETS AND EQUIPMENT MANUALS



# **HP SERIES**

FANS FOR RADON APPLICATIONS

WITH IMPROVED UV RESISTANCE!







# TRUST THE INDUSTRY STANDARD. HERE'S WHY:

Don't put your reputation at stake by installing a fan you know won't perform like a Fantech! For nearly twenty years, Fantech has manufactured quality ventilation equipment for Radon applications. Fantech is the fan

Radon contractors have turned to in over 1,000,000 successful Radon installations worldwide.



Fantech external rotor motor

# FANTECH HP SERIES FANS MEET THE CHALLENGES OF RADON APPLICATIONS:

### HOUSING

- UV resistant, UL Listed durable plastic
- UL Listed for use in commercial applications
- Factory sealed to prevent leakage
- Watertight electrical terminal box
- Approved for mounting in wet locations i.e. Outdoors

### MOTOR

- Totally enclosed for protection
- High efficiency EBM motorized impeller
- Automatic reset thermal overload protection
- Average life expectancy of 7-10 years under continuous load conditions

### RELIABILIT\

- Five Year Full Factory Warranty
- Over 1,000,000 successful radon installations worldwide



# HP Series Fans are Specially Designed with Higher Pressure Capabilities for Radon Mitigation Applications

MOST RADON MITIGATORS WHO PREVIOUSLY USED THE FANTECH FR SERIES FANS HAVE SWITCHED TO THE NEW HP SERIES.



# PERFORMANCE DATA

Fan	Volts	Wattage	Max.		CFM vs. Static Pressure in Inches W.G.							
Model	VOIIS	Range	Amps	0"	0.5"	0.75"	1.0"	1.25"	1.5"	1.75"	2.0"	Ps
HP2133	115	14 - 20	0.17	134	68	19	-	-	-	-	-	0.84
HP2190	115	60 - 85	0.78	163	126	104	81	58	35	15	-	1.93
HP175	115	44 - 65	0.57	151	112	91	70	40	12	-	-	1.66
HP190	115	60 - 85	0.78	157	123	106	89	67	45	18	1	2.01
HP220	115	85 - 152	1.30	344	260	226	193	166	137	102	58	2.46



# PERFORMANCE CURVES

Fantech provides you with independently tested performance specifications.

The performance curves shown in this brochure are representative of the actual test results recorded at Texas Engineering Experiment Station/Energy Systems Lab, a recognized testing authority for HVI. Testing was done in accordance with AMCA Standard 210-85 and HVI 916 Test Procedures. Performance graphs show air flow vs. static pressure.

Use of HP Series fans in low resistance applications such as bathroom venting will result in elevated sound levels. We suggest FR Series or other Fantech fans for such applications.

# HP FEATURES INCLUDE

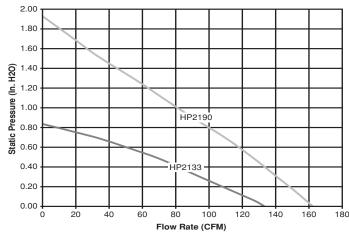
- Improved UV resistant housings approved for commercial applications.
- UL Approved for Wet Locations (Outdoors)
- Sealed housings and wiring boxes to prevent Radon leakage or water penetration
- Energy efficient permanent split capacitor motors
- External wiring box
- Full Five Year Factory Warranty



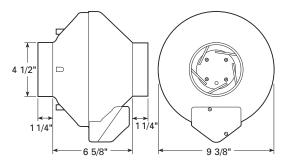
### NOTE

Installations that will result in condensate forming in the outlet ducting should have a condensate bypass installed to route the condensate outside of the fan housing. Conditions that are likely to produce condensate include but are not limited to: outdoor installations in cold climates, long lengths of outlet ducting, high moisture content in soil and thin wall or aluminum outlet ducting. Failure to install a proper condensate bypass may void any warranty claims.

## **HP2133 & HP2190 RADON MITIGATION FANS**



Tested with 4" ID duct and standard couplings.



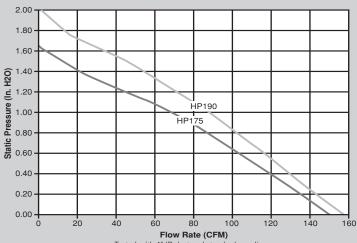
**HP2133** – For applications where lower pressure and flow are needed. Record low power consumption of 14-20 watts! Often used where there is good sub slab communication and lower Radon levels.

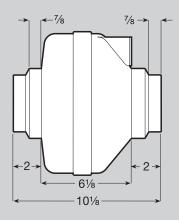
**HP2190** – Performance like the HP190 but in a smaller housing. Performance suitable for the majority of installations.

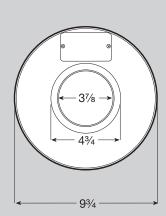
## Fans are attached to PVC pipe using flexible couplings.

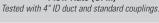
For 4" PVC pipe use Indiana Seals #156-44, Pipeconx PCX 56-44 or equivalent. For 3" PVC pipe use Indiana Seals #156-43, Pipeconx PCX 56-43 or equivalent.

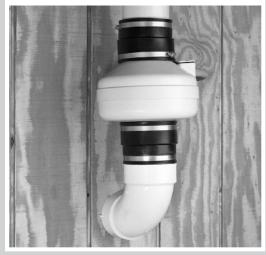
# **HP175 & HP190 RADON MITIGATION FANS**









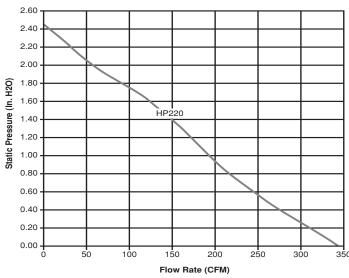


**HP175** – The economical choice where slightly less air flow is needed. Often used where there is good sub slab communication and lower Radon levels.

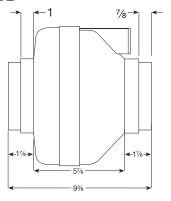
**HP190** – The standard for Radon Mitigation. Ideally tailored performance curve for a vast majority of your mitigations.

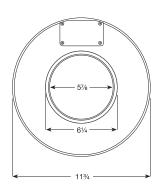
Fans are attached to PVC pipe using flexible couplings. For 4" PVC pipe use Indiana Seals #151-44, Pipeconx PCX 51-44 or equivalent. For 3" PVC pipe use Indiana Seals #156-43, Pipeconx PCX 56-43 or equivalent.

# **HP220 RADON MITIGATION FAN**



Tested with 6" ID duct and standard couplings.





HP 220 - Excellent choice for systems with elevated radon levels, poor communication, multiple suction points and large subslab footprint. Replaces FR 175.

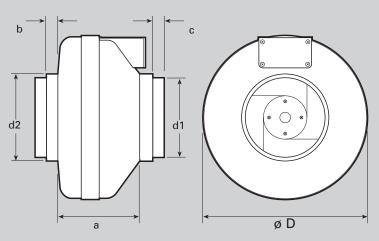
# Fans are attached to PVC pipe using flexible couplings.

For 4" PVC pipe use Indiana Seals #156-64, Pipeconx PCX 56-64 or equivalent. For 3" PVC pipe use Indiana Seals #156-63, Pipeconx PCX 56-63 or equivalent.



# **FR SERIES**

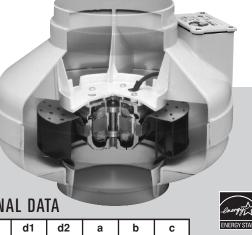
# THE ORIGINAL MITIGATOR





model	øD	d1	d2	а	b	С
FR100	9 1/2	3 7/8	4 7/8	6 1/8	7/8	7/8
FR110	9 1/2	3 7/8	4 7/8	6 1/8	7/8	7/8
FR125	9 1/2	-	4 7/8	6 1/8	7/8	_
FR140	11 3/4	5 7/8	6 1/4	5 7/8	1	7/8
FR150	11 3/4	5 7/8	6 1/4	5 7/8	1	7/8
FR160	11 3/4	5 7/8	6 1/4	6 3/8	1	7/8
FR200	13 1/4	7 7/8	9 7/8	6 1/4	1 1/2	1 1/2
FR225	13 1/4	7 7/8	9 7/8	6 1/4	1 1/2	1 1/2
FR250	13 1/4	_	9 7/8	6 1/4	_	1 1/2











# PERFORMANCE DATA

Fan	Energy	DDM	\/-lt-	Rated	Wattage	Max.		CFM vs	. Static	Pressure	in Inch	es W.G.		Max.	Duct
Model	Star	RPM	Volts	Watts	Range	Amps	0"	.2"	.4"	.6"	.8"	1.0"	1.5"	Ps	Dia.
FR100	<b>✓</b>	2950	120	21.2	13 - 22	0.18	137	110	83	60	21	-	-	0.90"	4"
FR125	<b>✓</b>	2950	115	18	15 - 18	0.18	148	120	88	47	-	-	-	0.79"	5"
FR150	<b>✓</b>	2750	120	71	54 - 72	0.67	263	230	198	167	136	106	17	1.58"	6"
FR160	-	2750	115	129	103 - 130	1.14	289	260	233	206	179	154	89	2.32"	6"
FR200	<b>✓</b>	2750	115	122	106 - 128	1.11	408	360	308	259	213	173	72	2.14"	8"
FR225	<b>✓</b>	3100	115	137	111 - 152	1.35	429	400	366	332	297	260	168	2.48"	8"
FR250*	-	2850	115	241	146 - 248	2.40	649	600	553	506	454	403	294	2.58"	10"

FR Series performance is shown with ducted outlet. Per HVI's Certified Ratings Program, charted air flow performance has been derated by a factor based on actual test results and the certified rate at .2 inches WG. \* Also available with 8" duct connection. Model FR 250-8. Special Order.

### NOTE:

Installations that will result in condensate forming in the outlet ducting should have a condensate bypass installed to route the condensate outside of the fan housing. Conditions that are likely to produce condensate include but are not limited to: outdoor installations in cold climates, long lengths of outlet ducting, high moisture content in soil and thin wall or aluminum outlet ducting. Failure to install a proper condensate bypass may void any warranty claims.



# FIVE DURING ENTIRE WARRANTY PERIOD:

FANTECH will replace any fan which has a factory defect in workmanship or material. Product may need to be returned to the Fantech factory, together with a WARRANTY copy of the bill of sale and identified with RMA number.

### FOR FACTORY RETURN YOU MUST:

- Have a Return Materials Authorization (RMA) number. This may be obtained by calling FANTECH either in the USA at 1.800.747.1762 or in CANADA at 1.800.565.3548. Please have bill of sale available.
- The RMA number must be clearly written on the outside of the carton, or the carton will be refused.
- All parts and/or product will be repaired/replaced and shipped back to buyer; no credit will be issued.

The Distributor may place an order for the warranty fan and is invoiced.

The Distributor will receive a credit equal to the invoice only after product is returned prepaid and veri-

FANTECH WARRANTY TERMS DO NOT PROVIDE FOR REPLACEMENT WITHOUT CHARGE PRIOR TO INSPECTION FOR A DEFECT. REPLACEMENTS ISSUED IN ADVANCE OF DEFECT INSPECTION ARE INVOICED, AND CREDIT IS PENDING INSPECTION OF RETURNED MATERIAL. DEFECTIVE MATERIAL RETURNED BY END USERS SHOULD NOT BE REPLACED BY THE DISTRIBUTOR WITHOUT CHARGE TO THE END USER, AS CREDIT TO DISTRIBUTOR'S ACCOUNT WILL BE PENDING INSPECTION AND VERIFI-CATION OF ACTUAL DEFECT BY FANTECH.

THE FOLLOWING WARRANTIES DO NOT APPLY:

• Damages from shipping, either concealed or visible. Claim must be filed with freight company

- Damages resulting from improper wiring or installation.
- Damages or failure caused by acts of God, or resulting from improper consumer procedures, such as:
- Improper maintenance
- 2. Misuse, abuse, abnormal use, or accident, and
- 3. Incorrect electrical voltage or current.
- Removal or any alteration made on the FANTECH label control number or date of manufacture.
- Any other warranty, expressed, implied or written, and to any consequential or incidental damages, loss or property, revenues, or profit, or costs of removal, installation or reinstallation, for any breach of warranty.

### WARRANTY VALIDATION

- The user must keep a copy of the bill of sale to verify purchase date.
- These warranties give you specific legal rights, and are subject to an applicable consumer protection legislation. You may have additional rights which vary from state to state.

# DISTRIBUTED BY:



# **HP/FR Series**

Inline Radon Fans



Canada Tel.: 800.565.3548

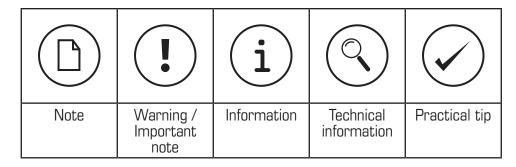






United States / États-Unis Tel.: 800.747.1762







DO NOT CONNECT POWER SUPPLY until fan is completely installed.

Make sure electrical service to the fan is in the locked "OFF" position.

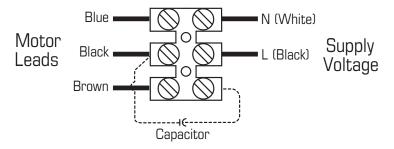
- 1. Suitable for use with solid-state speed control.
- 2. WARNING! TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK, OR INJURY TO PERSONS OBSERVE THE FOLLOWING:
  - a. Use this unit in the manner intended by the manufacturer. If you have any questions, contact your manufacturer's representative or contact us directly.
  - b. CAUTION: Before installation, servicing or cleaning unit, switch power off at service panel and lock the service disconnection means to prevent power from being switched on accidentally. When the service disconnection means cannot be locked, securely fasten a prominent warning device, such as tag, to the panel.
  - c. Installation work and electrical wiring must be done by qualified person(s) in accordance with all applicable codes and standards, including firerated construction.
  - d. The combustion airflow needed for safe operation of fuel burning equipment may be affected by this unit's operation. Follow the heating equipment manufacturer's guidelines and safety standards such as those published by the National Fire Protection Association (NFPA), the American Society of Heating, Refrigeration, and Air Conditioning Engineers (ASHRAE) and the local code authorities.
  - e. When cutting or drilling into wall and ceiling, do not damage electrical wiring and other hidden utilities.
  - f. Ducted fans must always be vented to the outdoors.
  - g. If this unit is to be installed over a tub or shower, it must be marked as appropriate for the application and be connected to a GFCI (Ground Fault Circuit Interrupter) protected branch circuit.
  - h. NEVER place a switch where it can be reached from a tub or shower.
- 3. WARNING! Check voltage at the fan to see if it corresponds to the motor name plate.

# GUARDS MUST BE INSTALLED WHEN FAN IS WITHIN REACH OF PERSONNEL OR WITHIN SEVEN (7) FEET OF WORKING LEVEL OR WHEN DEEMED ADVISABLE FOR SAFETY.



The ducting from this fan to the outside of the building has a strong effect on the air flow, noise and energy use of the fan. Use the shortest, straightest duct routing possible for best performance, and avoid installing the fan with smaller ducts than recommended. Insulation around the ducts can reduce energy loss and inhibit mold growth. Fans installed with existing ducts may not achieve their rated air flow.

# WIRING DIAGRAM





# WARRANTY

# **Five (5) Year Warranty**

# This warranty supersedes all prior warranties

### **DURING ENTIRE WARRANTY PERIOD:**

Fantech will repair or replace any part which has a factory defect in workmanship or material. Product may need to be returned to the Fantech factory, together with a copy of the bill of sale and identified with RMA number.

## FOR FACTORY RETURN YOU MUST:

- Have a Return Materials Authorization (RMA) number. This may be obtained by calling Fantech either in the USA at 1.800.747.1762 or in CANADA at 1.800.565.3548. Please have bill of sale available.
- The RMA number must be clearly written on the outside of the carton, or the carton will be refused.
- All parts and/or product will be repaired/replaced and shipped back to buyer; no credit will be issued.

### NR

The Distributor may place an order for the warranty part and/or product and is invoiced. The Distributor will receive a credit equal to the invoice only after product is returned prepaid and verified to be defective.

FANTECH WARRANTY TERMS DO NOT PROVIDE FOR REPLACEMENT WITHOUT CHARGE PRIOR TO INSPECTION FOR A DEFECT.
REPLACEMENTS ISSUED IN ADVANCE OF DEFECT INSPECTION ARE INVOICED, AND CREDIT IS PENDING INSPECTION OF RETURNED MATERIAL. DEFECTIVE MATERIAL RETURNED BY END USERS SHOULD NOT BE REPLACED BY THE DISTRIBUTOR WITHOUT CHARGE TO THE

END USER, AS CREDIT TO DISTRIBUTOR'S ACCOUNT WILL BE PENDING INSPECTION AND VERIFICATION OF ACTUAL DEFECT BY FANTECH.

### THE FOLLOWING WARRANTIES DO NOT APPLY:

- Damages from shipping, either concealed or visible. Claim must be filed with freight company.
- Damages resulting from improper wiring or installation.
- Damages or failure caused by acts of God, or resulting from improper consumer procedures, such as:
  - 1. Improper maintenance
  - 2. Misuse, abuse, abnormal use, or accident, and
  - 3. Incorrect electrical voltage or current.
- Removal or any alteration made on the Fantech label control number or date of manufacture.
- Any other warranty, expressed, implied or written, and to any consequential or incidental damages, loss or property, revenues, or profit, or costs of removal, installation or reinstallation, for any breach of warranty.

### WARRANTY VALIDATION

- The user must keep a copy of the bill of sale to verify purchase date.
- These warranties give you specific legal rights, and are subject to an applicable consumer protection legislation. You may have additional rights which vary from state to state.

# **Limitation of Warranty and Liability**

This warranty does not apply to any Fantech product or part which has failed as a result of faulty installation or abuse, incorrect electrical connections or alterations made by others, or use under abnormal operating conditions or misapplication of the product or parts. We will not approve for payment any repair not made by us or our authorized agent without prior written consent. The foregoing shall constitute our sole and exclusive warranty and our sole exclusive liability, and is in lieu of any other warranties, whether written, oral, implied or statutory. There are no warranties which extend beyond the description on the page hereof. In no event, whether as a result of breach of contract, or

warranty or alleged negligence, defect incorrect advice or other causes, shall Fantech be liable for special or consequential damages, including, but not limited to, loss of profits or revenue, loss of use of equipment or any other associated equipment, cost of capital, cost of substitute equipment, facilities or services, downtime costs, or claims of customers of purchase for such damages. Fantech neither assumes or authorizes any person to assume for it any other liability in connection with the sale of product(s) or part(s). Some jurisdictions do not allow the exclusion or limitation of incidental or consequential damages so the above limitations and exclusions may not apply to you.

# **Warning**

Fantech products are designed and manufactured to provide reliable performance, but they are not guaranteed to be 100% free from defects. Even reliable products will experience occasional failures and this possibility should be recognized by the user. If these products are

used in a life support ventilation system where failure could result in loss or injury, the user should provide adequate backup ventilation, supplementary natural ventilation, failure alarm system, or acknowledge willingness to accept the risk of such loss or injury.

Fantech reserves the right to make technical changes. For updated documentation please refer to www.fantech.net

Fantech®

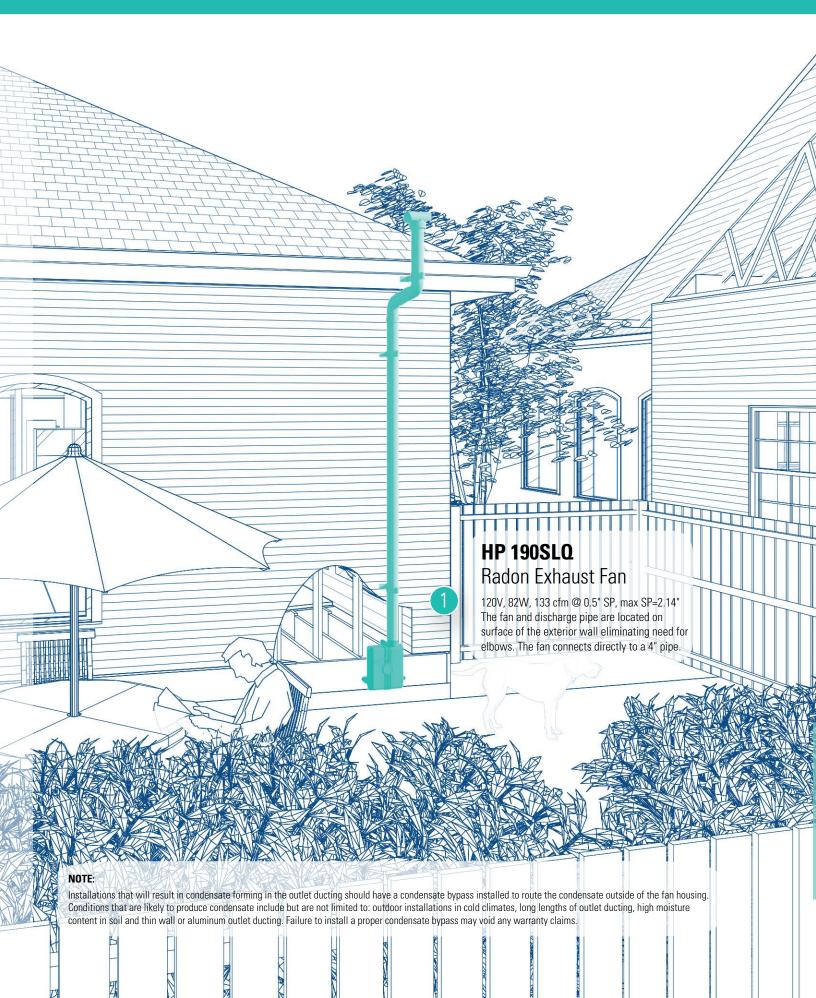


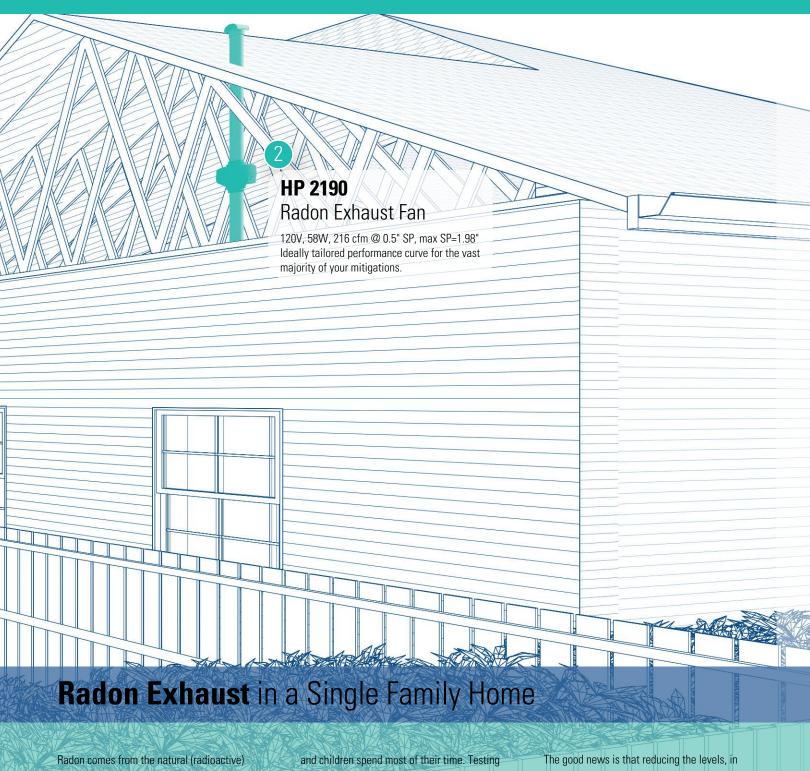


# **Ventilation Solutions**Radon Mitigation

# THE NEXT STEP IN RADON FAN EVOLUTION.







breakdown of uranium in soil, bedrock and water and mixes with the air you breathe. Radon exists everywhere and no building type is immune to the potential for unhealthy radon levels. The home is where we are most likely to become exposed to radon, since home is where adults

is the only way to know if you and your family are at risk. Testing is easy and inexpensive; most hardware stores carry Radon Test Kits. The EPA recommends that you mitigate your home if the radon level is above 4 Picocuries per liter (4pCi/L).

most cases, is not difficult but requires the technical knowledge of a qualified mitigator. Check with your state radon office for names of qualified or state certified radon contractors in your area



# **NEW DESIGN**

We moved things around to optimize airflow, reduce noise and vibration, and increase structural integrity.

# **GUARANTEED AIRTIGHT**

The only radon fan that uses a vibration weld to permanently join the housing into a single piece. No caulk or sealant means no leaks.

# FIT OPTIMIZED COLLAR

New collar is sized specifically to fit securely on a standard radon coupler.

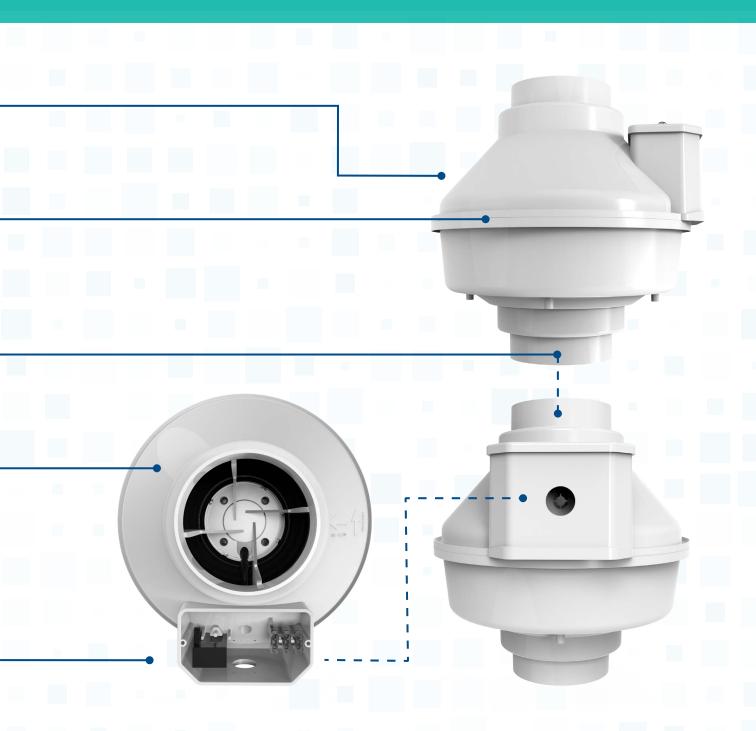
# **NEW HOUSING MATERIAL**

New high-impact, low viscosity, UV stabilized, flame retardant polycarbonate formula is 25% thicker and stronger.

# **LARGER ELECTRICAL BOX**

With 37% more internal space, it will make wiring and installation a whole lot easier.

# THE NEXT STEP IN RAD EVOLUTION.



# **Inline Radon Fans HP and FR Series**

# **Application**

HP & FR Series fans are specially designed with higher pressure capabilities for radon mitigation applications.

## How it works

Active radon mitigation systems employ specialized fans to exhaust radon gas from underneath building structures via a sealed pipe system. Such systems are designed to remove radon gas before it migrates to a building's interior.

# Design

The fans feature a fully sealed plastic housing. The housing is joined via a vibration welding process. The process uses transverse, reciprocating motion under pressure at the point of contact between the housing's inlet and outlet pieces. The friction produces heat that melts the thermoplastic material at the interface. The melted material quickly re-solidifies, resulting in a fused, singlepiece housing. The fused seam is inherently air tight, very strong and permanent. No screws or adhesive is used to join the housing pieces. An air-tight fan ensures that efficiency is not lost and contaminants are not spilled due to leakage.

The fan can be mounted both indoor, outdoor and in wet locations. These fans feature external rotor motors that have proven dependable year after year.

A large electrical wiring enclosure is designed into the fan housing, making electrical installation easier. Thermal overload protected with automatic reset.

# Certification





HP 2133

For applications where lower pressure and flow are needed. Low power consumption.

· UV resistant, UL Listed durable plastic · UL Listed for outdoor use

- Automatic reset thermal overload protection
- Vibration welded seam ensures leak proof housing



# Specification data

Model	Duct size	Rated power	Voltage / phase	Max. amps	0.5" P <sub>s</sub>	1.0" P <sub>s</sub>	1.25" P <sub>s</sub>	1.5" P <sub>s</sub>	1.75" P <sub>s</sub>	2.0" P <sub>s</sub>	Max P <sub>s</sub>	Shipping weight	Item #		
	inch	W	V / ~	А							in.wg	lbs		А	В
HP 190	4/5	56	120 / 1	0.54	137	94	73	50	23	2	2.01	7	411297	3 31/32	4 31/32
FR 150 (Radon)	6	66	120 / 1	0.59	222	120	77	34	-	-	1.70	8	56014	5 7/8	11 1/2
HP 220	6	128	120 / 1	1.20	285	183	155	125	90	57	2.34	8	411349	5 7/8	11 1/2
HP 2133	4 1/2	20	120 / 1	0.17	86	-	-	-	-	-	0.88	4	45044	4 15/32	10
HP 2190	4 1/2	58	120 / 1	0.58	216	102	79	51	26	-	1.98	7	45048	4 15/32	10

The performance shown in this brochure is representative of the actual test results recorded at Texas Engineering Experiment Station/Energy Systems Lab, a recognized testing authority for HVI. Testing was done in accordance with HVI 916 Test Procedures. Dimensions are shown in inches



# **Installation kits**

Kits include a pair of flexible white couplings with stainless steel

hose clamps, a U-tube manometer and radon system labels.



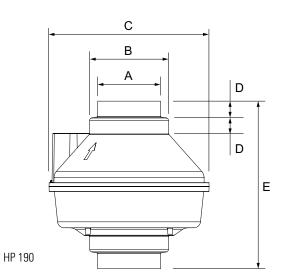
Model	Used with fan models	PVC pipe size	Item #
FRIK 190-3 / FRIK 190-4	HP 190	3"/4"	44960 / 44961
FRIK 2190-3 / FRIK 2190-4	HP 2133 & 2190	3"/ 4"	44962 / 44963
FRIK 220	FR 150 & HP 220	4"	44964

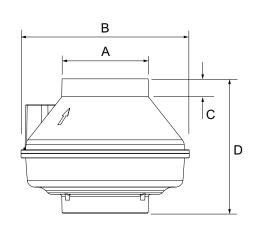


levels, poor communication, multiple suction points and large subslab footprint.



Dimensions	;	
С	D	Е
10	1	10 9/16
1/4	9 1/4	-
1/4	9 1/4	-
1/4	9 1/4	-
1/4	9 1/4	-





HP 2133, HP 2190 & HP 220 and FR150 (Radon)

# **FLEXIBLE COUPLING AND INTEGRATED CONDENSATE BYPASS**

Included coupling isolates vibration from the system pipe. Condensate bypasses the motor and drains out from the bottom of the housing.

# **NEW INSTALLATION METHOD**

Model is now fully secured in place by its connections to the pipe. The flexible couplings isolate the fan's housing from the pipe, and there is no direct attachment of the fan to the building. This "floating" installation results in reduced transfer of vibration to building materials and a much quieter operation.

# **TERMINAL BLOCK**

For easy wiring installation, the terminal block slides in (no screws). The rubber gasket around the terminal block compartment protects from moisture penetration.

# **CONDUIT CONNECTION**

Side conduit connection for easy installation and allows for aesthetically pleasing placement.

# **SLEEK HOUSING**

Manufactured from durable UV resistant polycarbonate - UL approved material for outdoor use. Factory sealed, no leak design. The unit's grey color closely matches the color of most utility and electrical boxes. Low profile design mounts close to the wall. Direct connection to the pipe in the wall reduces the amount of pipe fittings needed for installation.

# **EXTERNAL ROTOR-MOTOR**

External rotor-motor with backward curved impeller is in airstream thus giving the fan best in class performance, reliability and longevity.



# APPENDIX H QUALITY ASSURANCE PROJECT PLAN

# **QUALITY ASSURANCE PROJECT PLAN**

The objective of the QA/QC protocol and procedures is to ensure that the information, data, and decisions associated with this project are technically sound and properly documented. The QA/QC protocol and procedures pertain to the collection, evaluation, and review of activities and data that are part of this project.

# **EQUIPMENT DECONTAMINATION PROCEDURES**

In order to reduce the potential for cross-contamination of samples collected most of the materials used to assist in obtaining samples will be disposable one-time use materials (e.g., sampling containers, pump tubing, latex gloves, etc.). However, when equipment must be re-used (e.g., static water level indicator, split bladder pump, etc.), it will be decontaminated by the following method:

 Rough wash in tap water; wash in mixture of tap water and Alconox-type soap; double rinse with deionized or distilled water; and air dry and/or dry with clean paper towel.

The effectiveness of the equipment decontamination of non-dedicated sampling equipment such as the low flow bladder pump will be evaluated via analytical laboratory testing of field blanks (e.g., rinsate samples). Decontamination liquids and disposable equipment and PPE will be containerized and left on-site until a proper disposal method is determined.

# SAMPLE HANDLING AND CUSTODY REQUIREMENTS

During sampling activities, personnel will wear disposable latex or nitrile gloves. Between collection of samples, personnel performing the sampling will discard used latex gloves and put on new gloves to preclude cross-contamination between samples. As few personnel as possible will handle samples or be in charge of their custody prior to shipment to the analytical laboratory.

New laboratory-grade sample containers will be used to collect samples. Sufficient volume will be collected to ensure that the laboratory has adequate sample volume to perform the specified analyses. Samples with zero headspace will be collected when VOC analysis is going to be performed. Samples will be kept on ice in a cooler for shipment to the analytical laboratory.

Samples will be preserved as specified by the analytical laboratory for the type of parameters and matrices being tested. The required amount of preservatives will be added by the analytical laboratory to the sample containers prior to delivery to the Site. The sample preservation requirements and holding times will be in accordance with the NYSDEC ASP requirements.

# **CHAIN-OF-CUSTODY**

Samples that are collected for subsequent testing as part of this project will be handled using chain-of-custody control. Chain-of-custody documentation will accompany samples from their inception to their analysis, and copies of chain-of-custody documentation will be included with the laboratory's report. The chain-of-custody will include the date and time the sample was collected, the sample identity and sampling location, the requested analysis, and any request for accelerated turnaround time.

## SAMPLE LABELS

Sample labels for field samples and QC samples with adhesive backing will be placed on sample containers in order to identify the sample. Sample information will be clearly written on the sample labels using waterproof ink. Sufficient sample information will be provided on the label to allow for cross-reference with the field sampling records or sample logbook.

The following information will be provided on each sample label:

• Name of company;

• Initials of sampler;

• Date and time of collection;

• Sample identification;

• Intended analyses; and

• Preservation required.

Custody Seals

Custody seals are preprinted adhesive-backed seals that are designed to break if disturbed. Seals will be signed and dated before being placed on the shipping cooler. Seals will be placed on one or more location on each shipping cooler as necessary to ensure security. Shipping tape will be placed over the seals on the coolers to ensure that the seals are not accidentally broken during shipment. Sample receipt personnel at the laboratory will check and document whether the seals on the shipping coolers are intact when received.

# SAMPLE IDENTIFICATION

The following format will be used on the labels affixed to sample containers to identify samples:

IA-xx Indoor Air Sample

MW-Axx/xx/xx Groundwater sample with monitoring well letter

and month / day /year

TBxx/xx/xx- Trip Blank sample with month/day /year

FBxx/xx/xx- Field Blank sample (rinsate) with month/day /year

As an example, assuming the first project sample is a groundwater sample collected from a monitoring well MW-A on July 1, 2020, the sample will be designated as MW-A-07/01/20.

# TRANSPORTATION OF SAMPLES

Samples will be handled, packaged and shipped in accordance with applicable regulations, and in a manner that does not diminish their quality or integrity. Samples will be delivered to the laboratory within the holding times indicated for the specific analysis and sample media.

# ANALYTICAL LABORATORY QUALITY ASSURANCE/QUALITY CONTROL

The ELAP-certified analytical laboratory test results will be reported in NYSDEC Analytical Services Protocol (ASP) Category B deliverable reports. Analytical laboratory test results for soil samples will be reported on a dry-weight basis. The ELAP-certified analytical laboratory will make every effort to analyze the samples using the lowest practical quantitation limits (PQLs) possible for air and groundwater samples. In addition, analytical laboratory results will be provided to the NYSDEC using the NYSDEC's Equis Format.

The ELAP-certified analytical laboratory will provide internal QA/QC checks that are required by NYSDEC ASP protocol, such as analyses performed, spike blanks, internal standards, surrogate samples, calibration standards, and reference standards. Laboratory results will be compared to data quality indicators in accordance with the ELAP-certified analytical laboratory QAP/SOP and the NYSDEC ASP.

In order to provide control over the collection, analysis, review, and interpretation of analytical laboratory data, the following QA/QC samples will be included as part of this project.

• During each periodic groundwater monitoring event, one trip blank sample, one field blank sample (i.e., equipment rinsate sample) and one matrix spike/matrix spike duplicate (MS/MSD) sample will be collected and submitted under chain-

of-custody control and tested via ASP protocol for TCL VOCs plus TICS and TCL SVOCs plus TICs (except the trip blank, which would only be tested for TCL VOCs plus TICs).

# **DATA USABILITY SUMMARY REPORT**

A qualified data validator will be retained to complete a data usability summary report (DUSR) on the Category B deliverables analytical laboratory data that is generated as part of the long-term monitoring program. The DUSR will be conducted in accordance with the provisions set forth in Appendix 2B of *DER-10*, *Technical Guidance for Site Investigation and Remediation* dated May 2010. The findings of the DUSR will be incorporated in the periodic review report and will present the results of data validation, including a summary assessment of laboratory data packages, sample preservation and chain of custody procedures, and a summary assessment of precision, accuracy, representativeness, comparability, and completeness for each analytical method.

# APPENDIX I SITE MANAGEMENT FORMS

# Site-Wide Inspection Form Former Parkway Cleaners City of Canandaigua, New York NYSDEC Site Number: C835028

Date of Inspection Site Visit:
Personnel Performing Inspection Site Visit:
Affiliation of Personnel:
1. Check integrity of impermeable portions (e.g., concrete) of cover system, include whether any sloughing, cracks, settlement, damage, etc. Discuss observations and any corrective actions:
2. Check integrity of permeable portions (e.g., soil) of cover system, include whether any sloughing, cracks, settlement, damage, etc. Discuss observations and any corrective actions:
3. Check integrity of vegetative cover (e.g., grass), include whether any dead areas, erosion, etc. Discuss observations and any corrective actions:

4.	Check integrity of building floor slabs (e.g., ground floor and basement),
includ	e whether any sloughing, cracks, settlement, damage, etc. Discuss observations
and an	y corrective actions:
5. SSDS	Monitoring
a.	Fan #1 - Have pressure measurements been collected monthly, since last
	inspection? Y N
b.	Have the Annual Inspections for Fan #1 been completed?
	Y(date completed)
	N (anticipated inspection date)
Discuss of	oservations and any corrective actions:
D150055 00	oservations and any corrective actions.
( ggpg	
	Monitoring (Pending Installation)
a.	Fan #2 - Have pressure measurements been collected monthly, since last
	inspection? Y N
b.	Have the Annual Inspections for Fan #2 been completed?
	Y (date completed)
	N (anticipated inspection date)
Discuss of	oservations and any corrective actions:

7. Groundwater Monitoring Well Assessment Discuss observations and any corrective actions:

# SSDS Inspection Form Former Parkway Cleaners City of Canandaigua, New York

**NYSDEC Site Number: C835028** 

Date o	f SSDS	Inspection:
--------	--------	-------------

Personnel Performing Inspection Site Visit:

Affiliation of Personnel:

Fan Inlet	Operating	Pressure	Other Notes
	(Y/N)		
1			

# SSDS INSPECTION LOG FORM

Date					
Ingnactor					
Inspector					
Static Pressure					
Static Pressure Required*	>	in.	≥ in.	≥ in.	≥ in.
ANNUAL INSPECTION	F	an #1			
Date					
Inspector					
Fan Operation Confirmed					
Exhaust Point Free	of				
Obstruction					
Fan Checked for:					
Vibration/Noise					
Damage					
Secure Mounting					
Secure Power Connection					
secure rower connection					
Piping Checked for:  Damage					
Piping Checked for:					

<sup>\*</sup>Static pressures reading(s) below these values require systems repair, maintenance and/or engineering evaluation to confirm continued effectiveness.

# SSDS Inspection Form (*Pending Installation*) Former Parkway Cleaners City of Canandaigua, New York NYSDEC Site Number: C835028

Date of SSDS Inspection:

Personnel Performing Inspection Site Visit:

Affiliation of Personnel:

Fan Inlet	Operating	Pressure	Other Notes
	(Y/N)		
2			

# SSDS INSPECTION LOG FORM (Pending Installation)

# QUARTERLY INSPECTION Fan #2\_

Date				
Inspector				
Static Pressure				
Static Pressure Required*	≥ in.	≥ in.	≥ in.	 ≥ in.

# ANNUAL INSPECTION Fan #2

Date	
Inspector	
Fan Operation Confirmed	
Exhaust Point Free o	f
Obstruction	
Fan Checked for:	
Vibration/Noise	
Damage	
Secure Mounting	
Secure Power Connection	
Piping Checked for:	
Damage	
Secure Mounting	
Transition Seals Secure	

<sup>\*</sup>Static pressures reading(s) below these values require systems repair, maintenance and/or engineering evaluation to confirm continued effectiveness.

# **Summary of Green Remediation Metrics for Site Management**

Site Name:		Site Code:			
Address:					
State: Zip Code:					
Initial Report Period (S	Start Date of period covere	d by the Initial Repor	t submittal)		
Start Date:					
Current Reporting Peri	od				
Reporting Period From	1:	To:			
Contact Information					
Preparer's Name:		Phone No.:			
Preparer's Affiliation:					
	: Quantify the amount o from renewable energy so		ly on-site and the		
		Current Reporting	Total to Date		
		Period			
Fuel Type 1 (e.g. natur	al gas (cf))				
Fuel Type 2 (e.g. fuel o	oil, propane (gals))				
Electricity (kWh)					
Of that Electric usage,	provide quantity:				
Derived from renewa	able sources (e.g. solar,				
wind)					
Other energy source	s (e.g. geothermal, solar				
thermal (Btu))					

Provide a description of all energy usage reduction programs for the site in the space provided on Page 3.

**II. Solid Waste Generation:** Quantify the management of solid waste generated onsite.

	Current Reporting	Total	to	Date
	Period (tons)	(tons)		
Total waste generated on-site				
OM&M generated waste				
Of that total amount, provide quantity:				
Transported off-site to landfills				
Transported off-site to other disposal facilities				
Transported off-site for recycling/reuse				
Reused on-site				

Provide a description of any implemented waste reduction programs for the Site in the space provided on Page 3.

**III. Transportation/Shipping:** Quantify the distances travelled for delivery of supplies, shipping of laboratory samples, and the removal of waste.

	Current Reporting	Total to Da	ate
	Period (miles)	(miles)	
Standby Engineer/Contractor			
Laboratory Courier/Delivery Service			
Waste Removal/Hauling			

Provide a description of all mileage reduction programs for the site in the space provided on Page 3. Include specifically any local vendor/services utilized that are within 50 miles of the Site.

\

IV. Water Usage: Quantify the volume of water used on-site from various sources.

	Current Reporting	Total to Date
	Period (gallons)	(gallons)
Total quantity of water used on-site		
Of that total amount, provide quantity:		
Public potable water supply usage		
Surface water usage		
On-site groundwater usage		
Collected or diverted storm water usage		

Provide a description of any implemented water consumption reduction programs for the Site in the space provided on Page 3.

V. Land Use and Ecosystems: Quantify the amount of land and/or ecosystems disturbed and the area of land and/or ecosystems restored to a pre-development condition (i.e. Green Infrastructure).

	Current Reporting	Total	to	Date
	Period (acres)	(acres)		
Land disturbed				
Land restored				

Provide a description of any implemented land restoration/green infrastructure programs for the Site in the space provided on Page 3.

Description of green remediation programs reported above
(Attach additional sheets if needed)
Energy Usage:
Waste Generation:
Transportation/Shipping:
Water usage:
Land Use and Ecosystems:
Other:
CERTIFICATION BY CONTRACTOR
I, (Name) do hereby certify that I am
(Title) of the Company/Corporation herein referenced and

contractor for the work described in the foregoing application for payment. According to
my knowledge and belief, all items and amounts shown on the face of this application for
payment are correct, all work has been performed and/or materials supplied, the
foregoing is a true and correct statement of the contract account up to and including that
last day of the period covered by this application.
Date Contractor

# APPENDIX J FIELD SAMPLING PLAN

# **Well Development**

In the event that it is necessary to re-develop one or more of the existing and/or new replacement monitoring wells prior to completing a periodic groundwater monitoring event, the following procedure will be followed. Monitoring wells will be developed by utilizing either a new dedicated disposable bailer with dedicated cord, and/or a pump and dedicated disposable tubing depending on the field conditions. No fluids will be added to the wells during development without prior approval of the NYSDEC, and well development equipment will be decontaminated prior to development of each well.

The well development procedure is listed below:

- Obtain pre-development static water level and oil/water interface reading for presence of LNAPL or DNAPL using a Heron Model HO1.L oil/water interface probe or similar instrument;
- Calculate water/sediment volume in the well;
- Obtain initial field water quality measurements (e.g., pH, specific conductivity, turbidity, temperature, and PID readings). The pH, specific conductivity, turbidity and temperature readings will be obtained using Horiba U-22 water quality meter (or similar equipment);
- Select development method and set up equipment depending on method used;
- Alternate water agitation methods (e.g., moving a bailer or pump tubing up and down inside the screened interval) and water removal methods (e.g., pumping or bailing) in order to suspend and remove solids from the well;
- Obtain field water quality measurements for every two to five gallons of water removed. Record water quantities and rates removed;
- Stop development when the following water quality criteria are met and at least 10 well volumes have been removed;
  - Water is clear and free of sediment and turbidity is less than 50 nephelometric turbidity units (NTUs);
  - o pH is  $\pm 0.1$  standard unit between readings;
  - o Specific conductivity is  $\pm 3\%$  between readings, and;
  - o Temperature is  $\pm 10\%$  between readings.

Obtain post-development water level readings; and

Document development procedures, measurements, quantities, etc.

Pertinent information for each well will be recorded on well development logs

# **Groundwater Sampling Methodology**

• In order to minimize the potential re-suspension of solids in the bottom of the well, well depths will not be measured prior to or during low-flow purging and sampling. Well depth information will be obtained from: 1) measurements collected during well development; 2) from well logs; or 3) will be measured after sampling is completed.

- Subsequent to obtaining static water level measurements and monitoring the wells for LNAPL, the following low-flow purge and sample techniques will be used to collect a groundwater sample from each well:
  - A portable bladder pump connected to new disposable polyethylene tubing will be lowered and positioned at or slightly above the mid-point of the water column within the well screen when the screened interval is set in relatively homogeneous material. When the screened interval is set in heterogeneous materials, the pump will be positioned adjacent to the zone of highest hydraulic conductivity (as defined by geologic samples). Care will be taken to install and lower the bladder pump slowly in order to minimize disturbance of the water column.
  - The pump will be connected to a control box that is operated on compressed gas (nitrogen, air, etc.) and is capable of varying pumping rates. An in-line flow-through cell attached to a Horiba U-22 water quality meter (or similar equipment) will be connected to the bladder pump effluent tubing to measure water quality data.
  - The pump will be started at a pumping rate of 100 ml/min or less (for pumps that can not achieve a flow rate this low, the pump will be started at the lowest pump rate possible). The water level in the well will be measured and the

pump rate will be adjusted (i.e., increased or decreased) until the drawdown is stabilized. In order to establish the optimum flow-rate for purging and sampling, the water level in the well will be measured on a periodic basis (i.e., every one or two minutes) using an electronic water level meter or an oil/water interface meter. When the water level in the well has stabilized (i.e., use goal of <0.33 ft. of constant drawdown), the water level measurements will be collected less frequently.

- While purging the well at the stabilized water level, water quality indicator parameters will be monitored on a three to five-minute basis with the Horiba U-22 water quality meter (or similar equipment). Water quality indicator parameters will be considered stabilized when the parameter readings listed below are generally achieved after three consecutive readings:
  - pH(+0.1);
- specific conductance (+ 3%);
- dissolved oxygen (+ 10 %);
- oxidation-reduction potential (+ 10 mV);
- temperature (+10%); and
- turbidity (+ 10%, when turbidity is greater than 10 NTUs)
- be disconnected and a groundwater sample will be collected from the bladder pump effluent tubing. The pumping rate during sampling will remain at the established purging rate or it may be adjusted downward to minimize aeration, bubble formation, or turbulent filling of sample containers. A pumping rate below 250 ml/min will be used when collecting VOC samples.
- The procedures and equipment used during the purging and groundwater sampling, and the field measurement data obtained, will be documented in the field and recorded on Monitoring Well Sampling Logs.

o During sampling, the following parameters will be measured using a water quality

meter(s) and will later be presented on Monitoring Well Sampling Logs:

Dissolved Oxygen (DO)

Conductivity

Oxidation/Reduction Potential (redox)

- pH

Temperature

- Turbidity

The procedures and equipment used during the purging and groundwater sampling, and

the field measurement data obtained, will be documented in the field and recorded on

Monitoring Well Sampling Logs.

In addition to the samples collected from the long-term groundwater monitoring system,

one trip blank sample, one field blank sample and one MS/MSD sample may be collected

and submitted under chain-of-custody control to a NYSDOH ELAP-certified analytical

laboratory and tested via ASP protocol for the following:

• TCL VOCs plus TICS

• TCL SVOCs plus TICs

• Trip blank will only be tested for TCL VOCs plus TICs.

# APPENDIX K

# RESPONSIBILITIES of

OWNER and REMEDIAL PARTY

# Responsibilities

The responsibilities for implementing the Interim Site Management Plan ("ISMP") for the Former Parkway Cleaners site (the "Site"), number C835028, are divided between the site owner(s) and a Remedial Party, as defined below. The owner(s) is/are currently listed as:

Parkway Plaza Limited Partnership, 46 Prince Street, Rochester, New York (the "owner").

Solely for the purposes of this document and based upon the facts related to a particular site and the remedial program being carried out, the term Remedial Party ("RP") refers to any of the following: certificate of completion holder, volunteer, applicant, responsible party, and, in the event the New York State Department of Environmental Conservation ("NYSDEC") is carrying out remediation or site management, the NYSDEC and/or an agent acting on its behalf. The RP is:

Parkway Plaza Limited Partnership, 46 Prince Street, Rochester, New York

Nothing on this page shall supersede the provisions of an Environmental Easement, Consent Order, Consent Decree, agreement, or other legally binding document that affects rights and obligations relating to the Site.

# **Site Owner's Responsibilities**:

- 1) The owner shall follow the provisions of the ISMP as they relate to future construction and excavation at the Site.
- 2) In accordance with a periodic time frame determined by the NYSDEC, the owner shall periodically certify, in writing, that all Institutional Controls remain in place and continue to be complied with. The owner shall provide a written certification to the RP, upon the RP's request, in order to allow the RP to include the certification in the site's Periodic Review Report (PRR) certification to the NYSDEC.

3) The owner shall grant access to the Site to the RP and the NYSDEC and its agents for the purposes of performing activities required under the ISMP and assuring compliance with the ISMP.

- 4) The owner is responsible for assuring the security of the remedial components located on its property to the best of its ability. In the event that damage to the remedial components or vandalism is evident, the owner shall notify the site's RP and the NYSDEC in accordance with the timeframes indicated in Section 1.3-Notifications.
- 5) In the event some action or inaction by the owner adversely impacts the Site, the owner must notify the site's RP and the NYSDEC in accordance with the time frame indicated in [Section 1.3 Notifications and (ii) coordinate the performance of necessary corrective actions with the RP.
- 6) The owner must notify the RP and the NYSDEC of any change in ownership of the Site property (identifying the tax map numbers in any correspondence) and provide contact information for the new owner of the site property/ies. 6 NYCRR Part contains notification requirements applicable to any construction or activity changes and changes in ownership. Among the notification requirements is the following: Sixty days prior written notification must be made to the NYSDEC. Notification is to be submitted to the NYSDEC Division of Environmental Remediation's Site Control Section. A 60-Day Advance Notification Form and Instructions are found at <a href="http://www.dec.ny.gov/chemical/76250.html">http://www.dec.ny.gov/chemical/76250.html</a>.
- 11) In accordance with the tenant notification law, within 15 days of receipt, the owner must supply a copy of any vapor intrusion data, that is produced with respect to structures and that exceeds NYSDOH or OSHA guidelines on the Site, whether produced by the NYSDEC, RP, or owner, to the tenants on the property. The owner must otherwise comply with the tenant and occupant notification provisions of Environmental Conservation Law Article 27, Title 24.

# **Remedial Party Responsibilities**

1) The RP must follow the ISMP provisions regarding any construction and/or excavation it undertakes at the Site.

- 2) The RP shall report to the NYSDEC all activities required for remediation, operation, maintenance, monitoring, and reporting. Such reporting includes, but is not limited to, periodic review reports and certifications, electronic data deliverables, corrective action work plans and reports, and updated ISMPs.
- 3) Before accessing the Site property to undertake a specific activity, the RP shall provide the owner advance notification that shall include an explanation of the work expected to be completed. The RP shall provide to (i) the owner, upon the owner's request, (ii) the NYSDEC, and (iii) other entities, if required by the ISMP, a copy of any data generated during the site visit and/or any final report produced.
- 4) If the NYSDEC determines that an update of the ISMP is necessary, the RP shall update the ISMP and obtain final approval from the NYSDEC. Within 5 business days after NYSDEC approval, the RP shall submit a copy of the approved ISMP to the owner(s).
- 5) The RP shall notify the NYSDEC and the owner of any changes in RP ownership and/or control and of any changes in the party/entity responsible for the operation, maintenance, and monitoring of and reporting with respect to any remedial system (Engineering Controls). The RP shall provide contact information for the new party/entity. Such activity constitutes a Change of Use pursuant to 375-1.11(d) and requires 60-days prior notice to the NYSDEC. A 60-Day Advance Notification Form and Instructions are found at http://www.dec.ny.gov/chemical/76250.html.

6) The RP shall notify the NYSDEC of any damage to or modification of the systems as

required under Section 1.3- Notifications of the ISMP.

7) Prior to a change in use that impacts the remedial system or requirements and/or

responsibilities for implementing the ISMP, the RP shall submit to the NYSDEC for

approval an amended ISMP.

8) Any change in use, change in ownership, change in site classification (e.g., delisting),

reduction or expansion of remediation, and other significant changes related to the

Site may result in a change in responsibilities and, therefore, necessitate an update to

the ISMP and/or updated legal documents. The RP shall contact the Department to

discuss the need to update such documents.

Change in RP ownership and/or control and/or site ownership does not affect the RP's

obligations with respect to the Site unless a legally binding document executed by the

NYSDEC releases the RP of its obligations.

Future site owners and RPs and their successors and assigns are required to carry out the

activities set forth above.