# BAYVILLE VILLAGE CLEANERS SITE NUMBER: V00220 290 BAYVILLE AVENUE

**BAYVILLE, NASSAU COUNTY, NEW YORK 11709** 

# FINAL ENGINEERING REPORT

# Prepared for:

Thomas Ryan, Volunteer

Voluntary Cleanup Agreement: W1-0848-9903

# Prepared by:

CASHIN TECHNICAL SERVICES, INC. 1200 VETERANS MEMORIAL HIGHWAY HAUPPAUGE, NEW YORK 11788 (631) 348-7600

MAY 25, 2018

### **CERTIFICATIONS**

I, Francis Cashin, III, P.E., am currently a registered professional engineer licensed by the State of New York, I had primary direct responsibility for implementation of the remedial program activities, and I certify that the Remedial Action Work Plan was implemented and that all construction activities were completed in substantial conformance with the Department-approved Remedial Action Work Plan.

I certify that the data submitted to the Department with this Final Engineering Report demonstrates that the remediation requirements set forth in the Remedial Action Work Plan and in all applicable statutes and regulations have been or will be achieved in accordance with the time frames, if any, established in for the remedy.

I certify that all use restrictions, Institutional Controls, Engineering Controls, and/or any operation and maintenance requirements applicable to the Site are contained in an environmental easement created and recorded pursuant ECL 71-3605 and that all affected local governments, as defined in ECL 71-3603, have been notified that such easement has been recorded.

I certify that a Site Management Plan has been submitted for the continual and proper operation, maintenance, and monitoring of all Engineering Controls employed at the Site, including the proper maintenance of all remaining monitoring wells, and that such plan has been approved by Department.

I certify that all documents generated in support of this report have been submitted in accordance with the DER's electronic submission protocols and have been accepted by the Department.

I certify that all data generated in support of this report have been submitted in accordance with the Department's electronic data deliverable and have been accepted by the Department.

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, Francis Cashin, III of Cashin Technical Services, Inc. (CTS) located at 1200 Veterans Memorial Highway, Hauppauge, New York 11788, am certifying as Owner's Designated Site Representative to sign this Vertification for the site.

059254

May 25, 2018

NYS Professional Engineer #

Date

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# **LIST OF ACRONYMS**

| Acronym   | Definition  |
|-----------|---|
| AA        | Ambient Air   |
| ACGIH     | American Conference of Governmental Industrial Hygienists |
| AGC       | Annual Guideline Concentration                            |
| CAMP      | Community Air Monitoring Plan                             |
| CTS       | Cashin Technical Services, Inc.                           |
| DAR       | Division of Air Resources                                 |
| FER       | Final Engineering Report                                  |
| GAC       | Granular Activated Carbon                                 |
| HASP      | Health and Safety Plan                                    |
| ND        | Non-Detectable  |
| NYS       | New York State  |
| NYSDEC    | New York State Department of Environmental Conservation   |
| NYSDOH    | New York State Department of Health                       |
| PCE, PERC | Tetrachloroethylene                                       |
| PID       | Photo-Ionization Detector                                 |
| PP        | Permanent Soil Gas Sampling Point                         |
| PPB       | Parts Per Billion   |
| QA/QC     | Quality Assurance/Quality Control                         |
| QAPP      | Quality Assurance Project Plan                            |
| RAO       | Remedial Action Objectives                                |
| RAWP      | Remedial Action Work Plan                                 |
| RCA       | Recycled Concrete Aggregate                               |
| SCGs      | Standards, Criteria and Guidance Values                   |
| SCO       | Soil Cleanup Objective                                    |
| SGC       | Short-Term Guideline Concentration                        |
| SMP       | Site Management Plan                                      |
| SSDS      | Sub-Slab Depressurization System                          |
| STELs     | Short-Term Exposure Limits                                |
| TCE       | Trichloroethene   |
| TLV       | Threshold Limit Values                                    |
| Ug/m3     | Micrograms Per Cubic Meter of Air                         |
| USEPA     | United State Environmental Protection Agency              |
| VCA       | Voluntary Cleanup Agreement                               |
| VCP       | Voluntary Cleanup Program                                 |
| VOC       | Volatile Organic Compounds                                |

## FINAL ENGINEERING REPORT

### 1.0 BACKGROUND AND SITE DESCRIPTION

### 1.1 Introduction

Bayville Village Cleaners (Mr. Thomas Ryan, Volunteer) entered into a Voluntary Cleanup Agreement (VCA) with the New York State Department of Environmental Conservation (NYSDEC) in September 13, 1999 (Voluntary Cleanup Program #V00220-1; Voluntary Cleanup Agreement #W1-0848-9903), to investigate and remediate a 0.11-acre property located in the Village of Bayville, Nassau County, New York. It was determined that the long-term operation of dry cleaning equipment resulted in the discharge of tetrachloroethylene (PCE) contaminated machine exhaust condensate to the ground surface on the west side of the building. This uncontrolled release of PCE resulted in the contamination of subsurface soils and groundwater. Initial investigations and response actions were completed between 1995 and 1996, with removal of contaminated soils. Additionally, a sub-slab depressurization system (SSDS) was installed in September 2012 and is operating to prevent contaminated sub-slab soil vapors from entering the building and affecting the indoor air quality. The property was remediated to commercial use; and the property will continue to be used as an active commercial dry cleaner facility, although it no longer uses PCE.

The site is located in the County of Nassau, New York and is identified as Section 28, Block 20 and Lot 58 on the Nassau County Tax Map # Section 28, Block 20, Lot 58. The site is situated on an approximately 0.11-acre area bounded by Bayville Avenue to the north, residential homes to the south, Tri-County Installations, Inc. (commercial plumbing and heating business) to the east, and 17<sup>th</sup> Street to the west (see Figure 1). The boundaries of the site are fully described in Appendix A: Survey Map, Metes and Bounds.

An electronic copy of this FER with all supporting documentation is included as Appendix B.

### 1.2 Site Geology/Hydrogeology

Subsurface soils are composed mainly of an upper layer of fine, silty sand transitioning to coarse sand at a depth of approximately six feet below grade. The water table was encountered within approximately eight to ten feet below grade fluctuating in elevation on a seasonal basis. The site-specific groundwater flow direction was found to be to the north.

### 1.3 Site History

The following summarizes the extent of contamination for the Bayville Village Cleaners site, a NYSDEC Voluntary Cleanup Program site. The remedial program was chosen in accordance with the New York State Environmental Conservation Law and applicable guidance and described in the Decision Document dated August 2011.

The contaminant(s) of concern identified at this site are:

Tetrachloroethylene (PCE) Trichloroethene (TCE)

The contaminant(s) of concern which exceeded the applicable standards, criteria and guidance values (SCGs) prior to remediation are:

- groundwater
- soil
- soil vapor
- indoor air

The NYSDEC, in consultation with the New York State Department of Health (NYSDOH), has selected a SSDS as remedy for the above referenced site.

Nature and Extent of Contamination: The main contaminant of concern at the site is PCE. The impacted media are soil, groundwater, indoor air and soil gas. To a lesser extent, the degradation product trichloroethene (TCE) has been detected in groundwater and soil gas.

In May 1995, soil sampling conducted under the oversight of the Nassau County Department of Health (NCDH) found PCE concentrations as high as 36,000 parts per million (ppm) in surface soil (0-6 inches) collected by an evaporator pipe located outside the west side of the building. An additional 11 surface and subsurface soil samples were collected in 1996 under NCDH oversight which revealed PCE concentrations ranging from 0.130 ppm to 11,000 ppm. PCE concentrations generally diminished with depth. These sample results were compared to the recommended soil cleanup objective (SCO) for PCE of 1.4 ppm in TAGM #4046.

In 1996, prior to entering into the Voluntary Cleanup Program, the affected contaminated area of PCE containing soil materials (parking lot area located on the west side of the subject building) was excavated and 67.76 tons of contaminated soil was removed and disposed of off-site at a permitted disposal facility. 17 post excavation confirmatory soil samples were collected with residual PCE concentrations ranging from non-detect (ND) to 0.620 ppm. In February 2008, under the VCP, eight supplemental soil samples were collected from the former source area with PCE concentrations in the range of ND to 0.016 ppm in the former source area. The Protection of Groundwater SCO for PCE is 1.3 ppm and the commercial use SCO is 150 ppm. Based on this sampling, residual soil contamination is below the commercial use and protection of groundwater SCOs.

In 1996, groundwater samples were collected at the water table at eight on-site locations. PCE concentrations ranged from ND to 8,600 parts per billion (ppb). The NYS Groundwater Water Standard for PCE is 5 ppb. However, as a result of source removal, PCE levels in 2007 were found to have diminished significantly (ND to 6.4 ppb). In 2008, groundwater samples were collected at four on-site locations via a *Geoprobe* at 25' and 50' below grade. PCE was ND in all samples.

In 2009, PCE was detected in indoor air sampling at 65 micrograms per cubic meter of air (ug/m3). The NYSDOH action level for PCE in indoor air was 100 ug/m3. In September 2013 NYSDOH lowered their guideline for tetrachloroethene in ambient air from 100 micrograms per cubic meter (mcg/m3) to 30 mcg/m3 and their recommended

immediate action level from 1000 mcg/m3 to 300 mcg/m3. The air guideline identified in Table 3.1 of the "Final Guidance" document is no longer applicable. It should be noted that in 2009, the dry cleaners no longer used PCE in their dry cleaning processes.

Sub-slab soil gas was sampled twice, in 2008 and 2009, and revealed PCE levels at 2,500 ug/m3 and 2,200 ug/m3, respectively. The NYSDOH action level for mitigation of PCE in sub-slab soil gas is 1,000 ug/m3. Exterior soil gas was sampled at five locations outside the building and revealed PCE in the range of 880 ug/m3 to 2,000 ug/m3.

A comprehensive history of the Site, regarding past environmental activities and investigations that were completed from May 1995 through to May 2007 is presented in the "Revised Site Investigation Work Plan" compiled by Walden Environmental Engineering, PLLC (Walden), dated May 17, 2007.

A "Site Investigation Report," dated December 9, 2008, compiled by Walden, contains the soil, groundwater, air/vapor sampling results (February 2008) from samples collected throughout the Site as proposed within the NYSDEC approved "Revised Site Investigation Work Plan".

A "Site Investigation Report Addendum," dated September 16, 2009, compiled by Walden, containing the air/vapor sampling results collected in March 2009 to confirm the results of the February 2008 sampling event as per NYSDEC request within the "Site Investigation Report: December 2008" letter dated January 16, 2009.

A "Remedial Action Work Plan," dated June 4, 2010, prepared by Walden addressed the potential for soil vapor intrusion to impact the indoor air quality inside the building.

The NYSDEC issued a Decision Document on August 11, 2011 which selected sub-slab depressurization as the selected remedy for the site.

A "Revised Remedial Action Work Plan," dated April 2011, prepared by Walden addressed the potential for soil vapor intrusion to impact the indoor air quality inside the building.

CTS in conjunction with its contractor (East Coast GeoServices, LLC.) installed two (2) replacement permanent exterior soil vapor gas sampling points on November 7, 2014 as described in Section 3.0 below. CTS designated the new permanent exterior soil vapor gas sampling points PPB-1 and PPB-5. These new locations are located on the north and south side of the subject building, respectively. Additionally, CTS performed remediation performance baseline soil vapor sampling activities to evaluate the effectiveness of the SSDS as described in Section 4.4 below.

CTS in conjunction with its contractor (East Coast GeoServices, LLC.) installed one (1) replacement permanent exterior soil vapor gas sampling point on December 27, 2017 as described in Section 3.0 below. CTS designated the new permanent exterior soil vapor gas sampling point PPB-6. PPB-6 is located on the east side of the subject building along the adjacent commercial building driveway.

Additionally on December 27, 2017, CTS performed additional sampling of the groundwater, soil vapor, indoor air and cesspool per New York State Department of Health (NYSDOH) request to evaluate the current conditions on the site and to determine if there are any ongoing off-site concerns to the adjacent residential dwelling to the south or to the adjacent commercial plumbing business to the east. Sampling was conducted during the start of the 2017-2018 heating season as required by the November 15, 2017 letter by Mr. Walter Parish, P.E., of the New York State Department of Environmental Conservation (NYSDEC).

The sampling scope of work was based on the CTS Sampling Work Plan last revised December 18, 2017 and approved by the NYSDEC and NYSDOH on December 19, 2017. The scope of work performed at the subject property included the following as required by NYSDEC and NYSDOH: 1) Interior vacuum test points and VOC gas

measurements; 2) Sub-Slab Depressurization System (SSDS) air sampling; 3) Indoor and outdoor ambient air sampling; 4) Exterior subsurface soil vapor gas sampling; 5) Installation of a new exterior subsurface soil vapor gas sampling point (PP-6); 6) Groundwater monitoring and sampling of four, 4-inch diameter wells; and 7) Cesspool liquid and sludge sampling. Specifically, extracted soil vapors were monitored to evaluate the effectiveness of the SSDS and to check for carbon vessel breakthrough. Monitoring included screening the influent and effluent air sampling ports with a photoionization detector (PID) and collecting influent and effluent samples using six-liter Summa® canisters with eight hour regulators. Sampling results are included in Appendix G "Additional Sampling Report on Groundwater, Soil Vapor, Indoor Air and Cesspool".

On April 28, 2018, TetraSOLV Filtration replaced the granular activated carbon (GAC) associated with the SSDS. The exhausted GAC was properly recycled by TetraSOLV.

On May 3, 2018, CTS removed several one-gallon containers of dry cleaning spotting chemicals per NYSDEC and NYSDOH request. Chemical product names and quantities removed from the subject site are listed in Section 3.0 below.

On May 18, 2018, a licensed electrician replaced the active RadonAway Fan (Model GP501) with a larger RadonAway RPc Series Fan (Model RP265c) which draws 334 cubic feet per minute (CFM) of air through the SSDS. Upon installation, CTS measured interior vacuum test points for differential pressure beneath the building slab. Field measurements are included in Appendix G "Additional Sampling Report on Groundwater, Soil Vapor, Indoor Air and Cesspool".

A Final "Site Management Plan", dated May 25, 2018, prepared by Cashin Technical Services, Inc.

### 2.0 SUMMARY OF SITE REMEDY

### 2.1 Remedial Action Objectives

Based on the results of the Remedial Investigation, the following Remedial Action Objectives (RAOs) were identified for this site.

### 2.1.1 Groundwater RAOs

RAOs for Public Health Protection

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

RAOs for Environmental Protection

- Restore ground water aquifer, to the extent practicable, to pre-disposal/prerelease conditions.
- Remove the source of ground or surface water contamination.

### 2.1.2 Soil RAOs

RAOs for Public Health Protection

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

RAOs for Environmental Protection

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

### 2.1.3 Soil Vapor

### RAOs for Public Health Protection

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

### 2.2 Description of Selected Remedy

The SSDS, which was installed within the on-site building, is intended to mitigate impacts to indoor air by creating negative pressure below the building's slab thereby preventing contaminants in soil vapor from entering the building. The system was installed pursuant to the DEC approved remedial action work plan dated April 2011.

### 2.2.1 Summary of Human Exposure Pathways

This human exposure assessment identifies ways in which people may be exposed to site-related contaminants. Chemicals can enter the body through three major pathways (breathing, touching or swallowing). This is referred to as *exposure*.

People are not drinking or coming into contact with the groundwater because the area is served by a public water supply that is not contaminated by the site. Contact with residual soil contamination is not likely because the site is covered with pavement and a building. Volatile organic compounds in the soil may move into the soil vapor (air spaces within the soil) which in turn may move into overlying buildings and affect indoor air quality. This process, which is similar to the movement of radon gas from the subsurface into the indoor air of buildings, is referred to as soil vapor intrusion. The potential for soil vapor intrusion to affect indoor air quality of the on-site building exists. The SSD System was designed for installation in the on-site building. The SSD System will prevent indoor air quality from being affected by the contamination in soil vapor beneath the building; however, the potential exists for off-site soil vapor migration.

The factors considered during the selection of the remedy are those listed in 6NYCRR 375-1.8. The following are the components of the selected remedy:

### Engineering Controls (ECs):

- 1. Vapor Mitigation System: Based on an evaluation of the nature and concentrations of the contaminants detected below the building slab at the Site, it was determined that a SSD System be installed inside the subject building to reduce potential migration of volatile organic vapors into the building and thus reduce potential exposure to the sub-slab vapors detected at the Site. SSD Systems have been successful in reducing subsurface vapors at residential, commercial and industrial facilities. The purpose of an SSD System is to create a negative pressure field directly under a building and on the outside of the foundation (in relation to building ambient pressure). Underpressurization within a building (relative to ambient atmosphere) can create a significant negative pressure differential between the building air and the surrounding soil and induce the transport of vapor-phase contaminants towards and into the building. This negative pressure field becomes a "sink" for any gases present in the vicinity of the SSD system. Volatile Organic Compounds (VOC's) caught in this negative pressure field are collected and piped to an ambient air discharge point.
- 2. Other Engineering Controls: Sealing of the concrete floor The concrete floor was evaluated to eliminate any other sub-slab transport pathway (i.e. cracks in the building floor). All possible routes were sealed off to prevent the entrance of soil gas and to enhance the sub-slab negative pressure field of the SSD System.
- 3. Development and implementation of a Site Management Plan for long term management of remaining contamination as required by the declaration of covenants and restrictions (DCR), which includes plans for: (1) Institutional and Engineering Controls, (2) monitoring, (3) operation and maintenance and (4) reporting;
- 4. Periodic certification of the institutional and engineering controls listed above.

A copy of the Declaration of Covenants and Restrictions (DCR) and its recording page was recorded with the Nassau County Clerk's office on March 17, 2017 and is included in an Appendix of the SMP.

# 3.0 INTERIM REMEDIAL MEASURES, OPERABLE UNITS AND REMEDIAL CONTRACTS

The remedy for this site was performed as a single project, and no interim remedial measures, operable units or separate construction contracts were performed.

Although no interim remedial measures, operable units or separate construction contracts were performed during the installation of the SSDS, it should be noted that two of the permanent exterior soil vapor sampling points were destroyed during an inclement weather (snow) event in approximately February 2014. It appeared as though the exterior flush mounted soil vapor sampling covers at PP-1 and PP-5 were destroyed during snow plowing activities at the subject property and along the eastern adjacent commercial business driveway. To re-install these exterior soil vapor sampling points for continuous monitoring of soil vapor gas, Cashin Technical Services, Inc. (CTS) contracted East Coast Geoservices, LLC. to perform the construction activities. The soil vapor sampling points were installed utilizing a hydraulic driven *GeoProbe* and were constructed in accordance with the diagram depicted on Figure 4. These additional remedial work activities, including remediation performance baseline soil vapor sampling activities, were performed on November 7, 2014. Mr. Jamie Ascher of the NYSDEC was verbally informed of this additional remedial work and the locations of these new permanent exterior soil vapor sampling points (designated PPB-1 and PPB-5) are shown on Figure 2 – Site Sketch.

At the request of NYSDEC and NYSDOH, CTS in conjunction with its contractor (East Coast GeoServices, LLC.) installed another replacement permanent exterior soil vapor gas sampling point (PPB-6) on December 27, 2017. PPB-6 is located on the east side of the subject building along the adjacent commercial business driveway. Again, this soil vapor sampling point was constructed in accordance with the diagram depicted on Figure 4.

Additionally on December 27, 2017, CTS performed additional sampling of the groundwater, soil vapor, indoor air and cesspool per New York State Department of Health (NYSDOH) request to evaluate the current conditions on the site and to determine if there are any ongoing off-site concerns to the adjacent residential dwelling to the south or to the adjacent commercial plumbing business to the east. Sampling results are included in Appendix G "Additional Sampling Report on Groundwater, Soil Vapor, Indoor Air and Cesspool".

On April 28, 2018, TetraSOLV Filtration replaced the granular activated carbon (GAC) associated with the SSDS. The exhausted GAC was properly recycled by TetraSOLV.

On May 3, 2018, CTS removed the following containers of dry cleaning spotting chemicals to reduce the TCE concentration in the indoor air:

- Two-gallons of ADCO Supertan
- One-gallon of CALED Xtract
- One-gallon of Mulsolite
- One-gallon of Silk Spotter
- One-gallon of ADCO WetSpo
- One-gallon of CALED Cinch

These dry cleaning chemicals were properly disposed of by Thomas Ryan (VCA Owner) at the Town of Oyster Bay "Stop Throwing Out Pollutants" (STOP) event.

On May 18, 2018, a licensed electrician replaced the active RadonAway Fan (Model GP501) with a larger RadonAway RPc Series Fan (Model RP265c) which draws 334 cubic feet per minute (CFM) of air through the SSDS. Upon installation, CTS measured the interior vacuum test points for differential pressure beneath the building slab. Field measurement are included in the "Additional Sampling Report on Groundwater, Soil Vapor, Indoor Air and Cesspool", Appendix G.

### 4.0 DESCRIPTION OF REMEDIAL ACTIONS PERFORMED

Remedial activities completed at the Site were conducted in accordance with the NYSDEC-approved Remedial Action Work Plan (RAWP) for the Bayville Village Cleaners site, last revised April 2011. All deviations from the RAWP are noted below.

### 4.1 Governing Documents

Bayville Village Cleaners executed a Voluntary Cleanup Agreement (Site No. V00220, Index No. W1-0848-9903) on November 23, 1999 and was modified (Amendment No. 1) on June 20, 2013 (Index No.W1-0848-13-04) whereas, the NYSDEC agreed to modify the Agreement to enable closure of the VCP project for the Site, which requires, the development and implementation of a SMP, submission of this FER, recording of a DCR with the Nassau County Clerk's Office, and the NYSDEC's issuance of a release letter upon completion of the remedial program for the Site.

Additionally on August 24, 2016 the NYSDEC issued Amendment No. 2 to the VCA changing the "Contemplated Use" as described in the Specific Definitions Paragraph 1.E.1 of the Agreement to read as follows:

Contemplated Use: commercial use as defined in 6 NYCRR Section 375-1.8(g)(2)(iii), which allows for Industrial use as described in 6 NYCRR Part 375-1.8(g)(2)(iv).

NYSDEC also issued a "Decision Document" for the subject site on August 11, 2011 to present the selected remedy for the Site.

#### 4.1.1 Revised Remedial Work Plan

NYSDEC approved a "Revised Remedial Action Work Plan" for the Site prepared by Walden Associates dated April 2011, which proposed a remedy to "eliminate potential exposure to the sub-slab vapors detected at the Site by utilizing a sub-slab depressurization (SSD) system.

### 4.1.2 Site Specific Health & Safety Plan (HASP)

Walden completed a NYSDEC-approved site-specific HASP in September 2012. It outlined procedures to minimize risks to the health and safety of personnel involved in remedial construction activities at the site. The HASP was included as Appendix C of the Revised RAWP and approved by the NYSDEC.

All remedial work performed under this Remedial Action was in full compliance with governmental requirements, including Site and worker safety requirements mandated by Federal OSHA.

The Health and Safety Plan (HASP) was complied with for all remedial and invasive work performed at the Site.

# 4.1.3 Technical Specifications of the Sub-Surface Soil Depressurization System Components

The SSD System was developed in accordance with Section 4 of the NYSDOH "Guidance for Evaluating Soil Vapor Intrusion in the State of New York" (dated October, 2006). Walden personnel adhered to all technical specifications of the SSD System components. Technical specifications of the SSD System were outlined and included as Appendix B of the Revised RAWP and approved by the NYSDEC.

The SSD System was installed with the following components:

- A RadonAway fan (former Model GP501, newly installed Model RP265c)
  was installed to induce negative pressure to the sub-slab region beneath the
  one-story building. Technical specifications of the fan are included in
  Appendix C.
- The extraction point for PCE vapors was installed in the center of the building, beneath the building slab, to capture all vapors.

- Interconnecting piping consisting of three and four-inch diameter schedule 40 PVC was utilized to install the SSD System. Four-inch PVC piping was installed from the sub-slab extraction point, extending to above the suspended ceiling, and then connected to the fan (former Model GP501, newly installed Model RP265c) utilizing flexible couplings. The four-inch piping was then extended from the fan to the southern exterior wall. The piping then penetrates the wall whereby a reducer fitting extends three-inch PVC piping into a 55-gallon drum containing granular activated carbon (GAC). The GAC Vessel is located outside the building along the south side. The purpose of the GAC Vessel is to treat the effluent gas prior to discharge to the atmosphere through a three-inch exterior mounted stack pipe. Sampling/monitoring ports were installed on the extraction piping (influent side) and after the GAC vessel (effluent side) for monitoring vacuum, flow and contaminant concentrations.
- A warning alarm was installed to alert building occupants/personnel when the SSD System stops working properly. The warning alarm was placed above the RadonAway fan, along the ceiling, where it is easily seen and heard by occupants/personnel.
- The filter media (activated carbon) inside the VFD-55 Tetrasolv Filtration 55-gallon drum vessel will be replaced (as necessary) and the spent (old) media would be properly disposed of or if possible, recycled. The filter media will be replaced when contaminant breakthrough is detected on the outlet vacuum/exhaust port of the activated carbon filter media vessel through the use of a PID measurements during annual monitoring events. Specifically, when VOC gas measurements meet or exceed the inlet side vacuum/air sampling port, filter media will be considered exhausted and will be scheduled for replacement by a licensed contractor.

The subject property was also equipped with permanent exterior vapor sampling points to routinely monitor sub-surface soil vapor gas at the Site. Six permanent exterior

vapor sampling points are actively installed at the subject site as shown on Figure 2 "Site Sketch".

Four interior pressure monitoring points were also installed around the perimeter of the on-site building to ensure that negative vacuum is attained beneath the entire slab of the building.

A photo log of the as-built system components is provided in Appendix D.

An as-built layout of the SSD System including all of its components is shown on Figure 3.

### 4.1.4 Quality Assurance Project Plan (QAPP)

Walden completed a NYSDEC-approved QAPP in September 2012. It outlined company policies and procedures to ensure that all sample collection and all analyses meet a high degree of quality. Walden and CTS followed these policies and procedures during all remediation performance sampling events. The QAPP was included as Appendix C of the Revised RAWP and approved by the NYSDEC.

The QAPP describes the specific policies, objectives, organization, functional activities and quality assurance/ quality control activities designed to achieve the project data quality objectives.

### 4.1.5 DAR-1 AGC/SCG Values Table for Contaminants of Concern

The DAR-1 AGC/SCG Values Table for Contaminants of Concern was included as Appendix D of the Remedial Action Work Plan and approved by the NYSDEC.

### 4.1.6 Community Air Monitoring Plan (CAMP)

A CAMP was provided by Walden to monitor particulate dust and total VOC concentrations during remedial activities. The CAMP required continuous real-time monitoring during remedial work activities, utilizing an Aerosol Monitor and a Photoionization Detector (PID). Action levels and mitigation responses were established for both particulates and VOCs. The Community Air Monitoring Plan (CAMP) was included as Appendix F of the Revised RAWP and approved by the NYSDEC.

### 4.2 Remedial Program Elements

### 4.2.1 Contractors and Consultants

- Walden installed and performed construction oversight of the SSD System from September 19, 2012 through September 25, 2012.
- Walden was the certifying Engineering of Record responsible for inspection of the SSD System and all related remediation work.
- East Coast Geoservices, LLC. installed two replacement permanent exterior soil vapor gas sampling points labeled as PPB-1 and PPB-5 on November 7, 2014.
- CTS performed remediation performance baseline sampling activities of the SSD System and permanent exterior soil vapor gas sampling points on November 7, 2014.
- East Coast Geoservices, LLC. installed one replacement permanent exterior soil vapor gas sampling point labeled PPB-6 on the east side of the subject building on December 27, 2017.
- CTS performed additional sampling of the groundwater, soil vapor, indoor air and cesspool sampling on December 27, 2017.
- On April 28, 2018, TetraSOLV Filtration replaced the granular activated carbon (GAC) associated with the SSDS.
- On May 3, 2018, CTS removed several one-gallon containers of dry cleaning spotting chemicals per NYSDEC and NYSDOH request.

- On May 18, 2018, a licensed electrician replaced the active RadonAway Fan (Model GP501) with a larger RadonAway RPc Series Fan (Model RP265c).
- On May 18, 2018, CTS measured interior vacuum test points for differential pressure beneath the building slab.

### 4.2.2 Site Preparation

Field preparation, installation, and project management of the SSD System was performed by Walden from September 19, 2012 through September 25, 2012.

Documentation of agency approvals required by the Revised RAWP is included in Appendix E.

All SEQRA requirements and all substantive compliance requirements for attainment of applicable natural resource or other permits were achieved during this Remedial Action.

A NYSDEC-approved project sign was erected at the project entrance and remained in place during all phases of the Remedial Action.

### 4.2.3 General Site Controls

- Site security: The topography of the site is relatively flat and open. The subject property is developed with a one-story building with an associated asphalt paved parking lot. The building was locked during off peak hours and the installation of the SSD System was performed during normal work hours (7 a.m. through 5 p.m.). Free and clear secondary egress was provided to all personnel during the installation of the SSD System.
- No erosion control or stormwater protection equipment/materials were required to install the interior SSD System.
- No soils were removed or re-used at the job site during the installation of the SSD System.
- Job site record keeping: During the installation of the SSD System, daily field notes were recorded by Walden personnel, including the "Site Safety Plan Acknowledgement Form" located in Appendix I of the approved Site Specific HASP included in the Revised RAWP.

### 4.2.4 Nuisance Controls

No dust, odors, truck traffic or complaints were associated with the installation of the SSD System.

### 4.2.5 CAMP Results

Air monitoring, including particulate dust and total VOC concentrations) were most likely performed by Walden during the installation of the SSD System from September 19, 2012 through September 25, 2012. It is unlikely that action levels were exceeded during remedial activities; however, it is unknown. No copies of field data sheets were available at the time of this FER.

### 4.2.6 Reporting

Daily reports were most likely generated by Walden field personnel each day remedial work occurred at the Site. No daily reports were available at the time of this FER. The photo log of the installed SSD System (as required by the Revised RAWP) is included in Appendix D.

### 4.2.7 Permanent Exterior Soil Vapor Gas Sampling Points Installation

Two replacement permanent exterior soil vapor gas sampling points were installed on November 7, 2014 and designated PPB-1 and PPB-5. These new locations are located on the north and south side of the building, respectively. One replacement permanent exterior soil vapor gas sampling point was installed on December 27, 2017 and labeled PPB-6. PPB-6 is located on the east side of the subject building.

### 4.3 Contaminated Materials Removal

In 1996, prior to entering into the Voluntary Cleanup Program, the affected contaminated area of PCE containing soil materials (parking lot area located on the west side of the subject building) was excavated and 67.76 tons of contaminated soil was removed and disposed of off-site at a permitted disposal facility.

No contaminated soil materials were removed or disposed of from the subject property site during the installation of the SSD System. This selected remedy is classified as in-situ remediation.

### 4.4 Remedial Performance/Documentation Sampling

The effectiveness of the sub-slab depressurization system is determined by its ability to create negative pressure beneath the entire slab as verified by vacuum measurements collected on November 7, 2014. This baseline vapor gas sampling was conducted during system startup and was performed at the following locations as outlined in the April 2011 Revised RAWP.

- Ambient Air ("AA-1") Inside the subject building
- "Effluent Pipe" Along the SSD System
- "Influent Pipe" Along the SSD System
- "PPB-1" Newly installed exterior sub-surface permanent soil gas sampling point
- "PP-2" Exterior sub-surface permanent soil gas sampling point
- "PP-3" Exterior sub-surface permanent soil gas sampling point
- "PP-4" Exterior sub-surface permanent soil gas sampling point
- "PPB-5" Newly installed exterior sub-surface permanent soil gas sampling point

The extracted soil vapors were monitored to evaluate the effectiveness of the SSD System and to check for carbon vessel breakthrough. Monitoring included screening the influent and effluent air sampling ports with a photoionization detector (PID) and collecting influent and effluent samples using six-liter Summa® canisters. Vapor gas sampling was also performed on the six exterior sampling points utilizing six-liter Summa® canisters. Additionally, the vacuum at the extraction point, interior building

pressure monitoring points and on the effluent of the GSC vessel were all measured utilizing a Magnehelic Differential Pressure Gauge. VOC gas measurements were recording utilizing a PID meter on all influent and effluent monitoring points. All system PID screening and gauge readings were recorded for subsequent reporting as outlined in the Site Management Plan (SMP).

CTS utilized six-liter Summa® canisters with two hour regulators to collect the vapor gas samples. The two hour regulators were laboratory calibrated so that they did not exceed 0.2 liters per minute of air flow to minimize ambient air infiltration during sampling.

All vapor gas samples were analyzed for target dry cleaning VOCs (PCE, TCE and their chemical breakdown products) via USEPA Method TO-15.

The results of the baseline vapor gas sampling conducted during system startup is summarized below in Table 1.

<u>Table 1 – Vapor Gas Sampling Results</u>
Samples Collected on November 7, 2014

| Sample ID  | VOC Compounds               | Results<br>ug/m3 | NYSDOH<br>Air<br>Guideline<br>Values |
|--|-----------------------------|------------------|--------------------------------------|
|  |                             |                  | ug/m3                                |
| AA-1   | Trichloroethene (TCE)       | 141              | 2                                    |
|  | Tetrachloroethene (PCE)     | 9.02             | 30                                   |
| To the same of the | 1,1,1-Trichloroethane (TCA) | U <1.09          | 100                                  |
|  | 1,1,2-Trichloroethane (TCA) | U <1.09          | N/A                                  |
|  | 1,1-Dichloroethane (DCA)    | U <0.81          | N/A                                  |
|  | 1,2-Dichloroethylene (DCE)  | U <0.79          | 100                                  |
|  | Vinyl Chloride              | U <0.51          | 5                                    |

| Effluent | Trichloroethene             | 61.2     |  |
|----------|-----------------------------|----------|--|
|          | Tetrachloroethene           | 201      |  |
|          | 1,1,1-Trichloroethane (TCA) | U <1.09  |  |
|          | 1,1,2-Trichloroethane (TCA) | U <1.09  | N/A  |
|          | 1,1-Dichloroethane (DCA)    | U < 0.81 |  |
|          | 1,2-Dichloroethylene (DCE)  | U <0.81  | ;  |
|          | Vinyl Chloride              | U <0.51  |  |
| Influent | Trichloroethene (TCE)       | 150      |  |
|          | Tetrachloroethene (PCE)     | 465      |  |
|          | 1,1,1-Trichloroethane (TCA) | U <1.09  |  |
|          | 1,1,2-Trichloroethane (TCA) | U <1.09  | N/A  |
|          | 1,1-Dichloroethane (DCA)    | U <0.81  |  |
|          | 1,2-Dichloroethylene (DCE)  | U <0.81  |  |
|          | Vinyl Chloride              | U <0.51  |  |
| PPB-1    | Trichloroethene (TCE)       | 17.5     |  |
|          | Tetrachloroethene (PCE)     | 753      |  |
|          | 1,1,1-Trichloroethane (TCA) | U <1.09  |  |
|          | 1,1,2-Trichloroethane (TCA) | U <1.09  | N/A  |
|          | 1,1-Dichloroethane (DCA)    | U <0.81  |  |
|          | 1,2-Dichloroethylene (DCE)  | U <0.81  | **************************************         |
|          | Vinyl Chloride              | U <0.51  | **************************************         |
| PPB-5    | Trichloroethene (TCE)       | 16.9     |  |
|          | Tetrachloroethene (PCE)     | 108      | VOCATION 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 |
|          | 1,1,1-Trichloroethane (TCA) | U <1.09  |  |
|          | 1,1,2-Trichloroethane (TCA) | U <1.09  | N/A  |
|          | 1,1-Dichloroethane (DCA)    | U <0.81  |  |
|          | 1,2-Dichloroethylene (DCE)  | U <0.81  |  |
|          | Vinyl Chloride              | U <0.51  |  |
| PP-2     | Trichloroethene (TCE)       | 10.5     |  |
|          | Tetrachloroethene (PCE)     | 19.4     |  |
|          | 1,1,1-Trichloroethane (TCA) | U <1.09  |  |
|          | 1,1,2-Trichloroethane (TCA) | U <1.09  | N/A  |

|      | 1,1-Dichloroethane (DCA)    | U <0.81 |     |
|------|-----------------------------|---------|-----|
|      | 1,2-Dichloroethylene (DCE)  | U <0.81 |     |
|      | Vinyl Chloride              | U <0.51 |     |
| PP-3 | Trichloroethene (TCE)       | 17.2    |     |
|      | Tetrachloroethene (PCE)     | 1,330   |     |
|      | 1,1,1-Trichloroethane (TCA) | U <1.09 |     |
|      | 1,1,2-Trichloroethane (TCA) | U <1.09 | N/A |
|      | 1,1-Dichloroethane (DCA)    | U <0.81 |     |
|      | 1,2-Dichloroethylene (DCE)  | U <0.81 |     |
|      | Vinyl Chloride              | U <0.51 |     |
| PP-4 | Trichloroethene (TCE)       | 5.54    |     |
|      | Tetrachloroethene (PCE)     | 648     |     |
|      | 1,1,1-Trichloroethane (TCA) | U <1.09 |     |
|      | 1,1,2-Trichloroethane (TCA) | U <1.09 | N/A |
|      | 1,1-Dichloroethane (DCA)    | U <0.81 |     |
|      | 1,2-Dichloroethylene (DCE)  | U <0.81 |     |
|      | Vinyl Chloride              | U <0.51 |     |

### NOTES

- 1. All results are expressed in micrograms per cubic meter of air (ug/m³).
- 2. U= Less than analytical detection limit.
- 3. **Bold** result values indicate those compounds which exceed the NYSDOH Guideline values published in the "NYSDOH Guidance for Evaluating Soil Vapor Intrusion in the State of New York (2006)".
- 4. In September 2013 NYSDOH lowered their air guideline value for tetrachloroethene in ambient air from 100 micrograms per cubic meter (mcg/m3) to 30 mcg/m3 and in August 2015 NYSDOH lowered their air guideline value for trichloroethene in ambient air from 5 micrograms per cubic meter (mcg/m3) to 2 mcg/m3.

Locations of the sampling points are shown on Figure 2 – Site Sketch. Laboratory analytical data is provided in Appendix F.

Baseline measurements of the vacuum test points and VOC gas monitoring are presented below in Table 2.

<u>Table 2 - Interior Vacuum Test Points and VOC Gas Measurements</u>

Data Collected on November 7, 2014 by CTS

| Interior Vacuum<br>Test Points | Magnehelic<br>Differential<br>Pressure (PSI) |
|--------------------------------|--|
| TP-1                           | 04   |
| TP-2                           | -0.4   |
| TP-3                           | -0.3   |
| TP-4                           | 0.2  |
| Extraction Port                | -3.0   |

| SSD System Ports | PID Readings |
|------------------|--------------|
| Influent Port    | 0.5 PPM      |
| Extraction Port  | 0.0 PPM      |
| Effluent Port    | 0.0 PPM      |

Notes:

PPM = parts per million

PSI = pounds per square inch

### 4.4.1 Additional Remedial Performance Sampling

At the request of NYSDE and NYSDOH, CTS performed additional sampling of the groundwater, soil vapor, indoor air and cesspool on December 27, 2017. The scope of work performed at the subject property included the following as required by NYSDEC and NYSDOH: 1) Interior vacuum test points and VOC gas measurements; 2) Sub-Slab Depressurization System (SSDS) air sampling; 3) Indoor and outdoor ambient air sampling; 4) Exterior subsurface soil vapor gas sampling; 5) Installation of a new exterior subsurface soil vapor gas sampling point (PP-6); 6) Groundwater monitoring and sampling of four, 4-inch diameter wells; and 7) Cesspool liquid and sludge sampling. Specifically,

extracted soil vapors were monitored to evaluate the effectiveness of the SSDS and to check for carbon vessel breakthrough. Monitoring included screening the influent and effluent air sampling ports with a photoionization detector (PID) and collecting influent and effluent samples using six-liter Summa® canisters with eight hour regulators.

Sampling results are included in Appendix G "Additional Sampling Report on Groundwater, Soil Vapor, Indoor Air and Cesspool".

Due to no pressure differential in the four interior vacuum test point, the SSDS fan was replaced on May 18, 2018 to enhance the negative pressure beneath the building slab. Upon installation, CTS measured the interior vacuum test points for differential pressure beneath the building slab. Field measurements are also included in the Additional Sampling Report, Appendix G.

### 4.5 Imported Backfill

In 1996, prior to entering into the Voluntary Cleanup Program, the affected contaminated area of PCE containing soil materials (parking lot area located on the west side of the subject building) was excavated and 67.76 tons of contaminated soil was removed and disposed of off-site at a permitted disposal facility. The parking lot on the west side of the subject building was most likely backfilled with clean fill materials; however, no records exists as to the nature of the backfill material. No contaminated soil materials were removed or disposed of from the subject property site during the installation of the SSD System.

No imported backfill was delivered or used at the subject property for the installation of the SSD System.

### 4.6 Contamination Remaining at the site

In 1996, prior to entering into the Voluntary Cleanup Program, the affected contaminated area of PCE containing soil materials (parking lot area located on the west

side of the subject building) was excavated and 67.76 tons of contaminated soil was removed and disposed of off-site at a permitted disposal facility. As a result of this remedial action, the concentration of contaminants in groundwater has diminished; however, concentrations of TCE and PCE in subsurface soil vapor remain elevated as indicated in Table 1 (Vapor Gas Sampling Results) above.

The ambient air sample (AA-1) collected inside the subject building detected an elevated levels of TCE at 141 ug/m3 even though the building appears to be under negative pressure as shown in Table 2 above. The NYSDOH guideline value for TCE is 2 ug/m3. The PCE ambient air measurement was recorded as being below the NYSDOH guidance value further indicating that the building is under negative pressure and that the SSD system is operating effectively. The elevated level of TCE present in the indoor ambient air will be further evaluated during the implementation of the SMP, whereby annually testing of the indoor ambient air will be performed as part of the "Remedial System Monitoring Requirements". Additionally, a product inventory questionnaire ("Indoor Air Quality Questionnaire and Building Inventory" form from the NYSDOH 2006 Soil Vapor Intrusion Guidance document, Appendix B) will be completed to list what chemicals the operator of the facility is using and determine the source of elevated levels of TCE in indoor air.

Post-remediation performance vapor gas sampling results are summarized in Table 1 (Vapor Gas Sampling Results) above. Since soil vapor remains beneath the site after completion of the Remedial Action, Institutional and Engineering Controls are required to protect human health and the environment. These Engineering and Institutional Controls (ECs/ICs) are described in the following sections. Long-term management of these EC/ICs and monitoring of residual contamination will be performed under the Site Management Plan (SMP) approved by the NYSDEC.

### 4.7 Soil Cover [or Cap] System

No soil cover or cap system was implemented at the subject property.

### 4.8 Other Engineering Controls

Since remaining soil vapor exists beneath the site, Engineering Controls (EC) are required to protect human health and the environment. The site has the following primary Engineering Controls, as described in the following subsections.

### Sub-Slab Depressurization (SSD) System:

The SSDS was developed in accordance with Section 4 of the NYSDOH "Guidance for Evaluating Soil Vapor Intrusion in the State of New York" (dated October, 2006). Walden personnel adhered to all technical specifications of the SSD System components. Technical specifications of the SSD System were outlined and included as Appendix B of the Revised RAWP and approved by the NYSDEC.

### The SSD System was installed with the following components:

- A RadonAway fan (former Model GP501, newly installed Model RP265c)
  was installed to induce negative pressure to the sub-slab region beneath the
  one-story building. Technical specifications of the fan are included in
  Appendix C.
- The extraction point for PCE vapors was installed in the center of the building, beneath the building slab, to capture all vapors.
- Interconnecting piping consisting of three and four-inch diameter schedule 40 PVC was utilized to install the SSD System. Four-inch PVC piping was installed from the sub-slab extraction point, extending to above the suspended ceiling, and then connected to the fan utilizing flexible couplings. The four-inch piping was then extended from the fan to the southern exterior wall. The piping then penetrates the wall whereby a reducer fitting extends three-inch PVC piping into a 55-gallon drum containing granular activated carbon (GAC). The GAC Vessel is located outside the building along the south side. The purpose of the GAC Vessel is to treat the effluent gas prior to discharge to the atmosphere through a

three-inch exterior mounted stack pipe. Sampling/monitoring ports were installed on the extraction piping (influent side) and after the GAC vessel (effluent side) for monitoring vacuum, flow and contaminant concentrations. A photo log of the as-built system components is provided in Appendix D.

An as-built layout of the SSD System including all of its components is shown on Figure 3.

Manufacturing documentation sheets and operation and maintenance manual sheets of the SSD System fan (RadonAway) and the carbon adsorption media filter unit (TetraSol Filtration) are provided in Appendix C.

Other Engineering Controls: Sealing of the concrete floor - The concrete floor was evaluated to eliminate any other sub-slab transport pathway (i.e. cracks in the building floor). All possible routes were sealed off to prevent the entrance of soil gas and to enhance the sub-slab negative pressure field of the SSD System.

Procedures for monitoring, operating and maintaining the SSD System are provided in the Operation and Maintenance Plan in Section 4 of the Site Management Plan (SMP). The Monitoring Plan also addresses inspection procedures that must occur after any severe weather condition has taken place that may affect on-site ECs.

### 4.9 Institutional Controls

The site remedy requires that a Declaration of Covenants and Restrictions (DCR) be placed on the property to (1) implement, maintain and monitor the Engineering Controls; (2) prevent future exposure to remaining contamination by controlling disturbances of the subsurface contamination; and (3) permitted future uses (commercial

and industrial) must comply with 6 NYCRR 375-1.8(g)(2)(iii) for commercial uses; and 6 NYCRR 375-1.8(g)(2)(iv) for industrial uses.

A copy of the Declaration of Covenants and Restrictions (DCR) and its recording page was recorded with the Nassau County Clerk's office on March 17, 2017 and is included in an Appendix of the SMP.

### 4.10 Deviations from the Remedial Action Work Plan

No deviations from the "Revised Remedial Action Work Plan" dated April 2011 occurred at the subject property during remedial action activities. The SSD System was installed according to the specifications outlined in the Revised RAWP and continues to operate on a daily basis to mitigate sub-slab vapors.

Although no deviations from the "Revised Remedial Action Work Plan" occurred at the subject property, the installation of the exhaust pipe on the south side of the building was not properly installed in accordance with the approved Remedial Action Work Plan. The exhaust pipe should have been extended above the roof line and equipped with a rain/pest cap to prohibit rain and/or pests from entering it. CTS in conjunction with a general contractor properly extend the exhaust pipe above the roof line and installed a rain/pest cap as depicted on Figure 3 "As-Built SSDS Schematic". Additionally, due to no pressure differential measurements in the four interior vacuum test points during the Additional Sampling Event performed on December 27, 2017, the SSDS fan (former Model GP501, newly installed Model RP265c) was replaced by a licensed electrician on May 18, 2018 to enhance the negative pressure beneath the building slab.

# FIGURE 1 SITE LOCATION PLAN



FIGURE 1 SITE LOCATION PLAN

Bayville Village Cleaners 290 Bayville Avenue Bayville, New York

Cashin Associates, P.C.

# FIGURE 2 **SITE SKETCH**

### BAYVILLE AVENUE



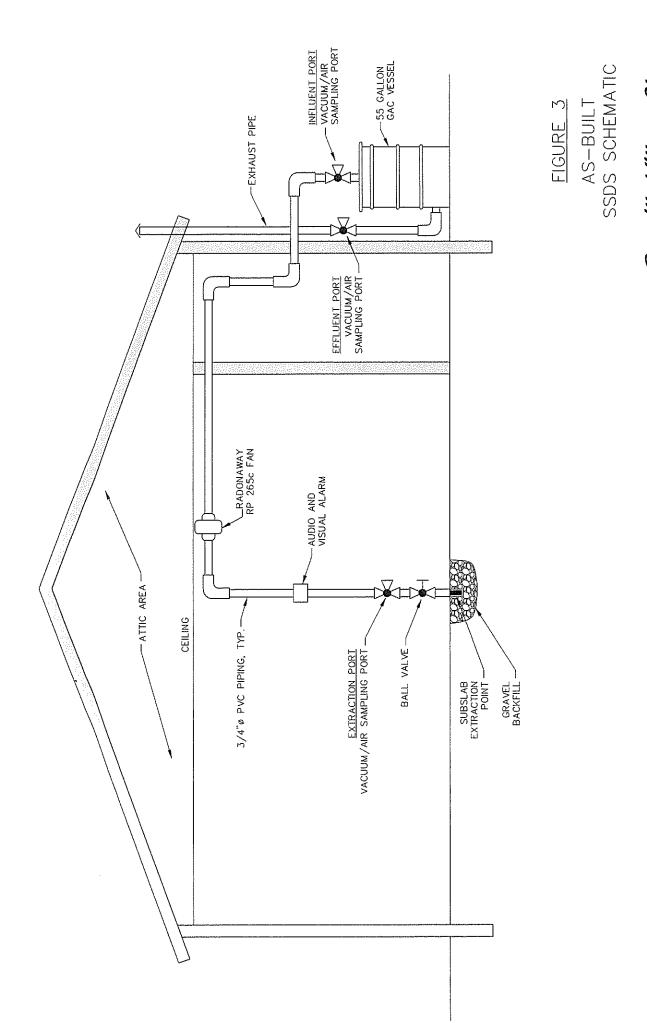
290 Bayville Avenue

Bayville, New York

NOT TO SCALE  $\oplus$ SIDEWALK MW-3 MW-4 PPB-5 PP-4 **♦** ◈ • **③** TP-2 TP-1 1-STORY COMMERCIAL PP-3  $\odot$ MW-21-STORY BAYVILLE VILLAGE CLEANERS OUTDOOR & ♦ PPB--6 EXTRACTION POINT 4" PVC PIPING (SCHEDULE 40) PP−2 � RADONAWAY FAN RP 265c INDOOR AMBIENT AIR MW-1 TP-30 **③** → PPB-1 55 GALLON GAC VESSEL ○ CP-1 CPL 2-STORY RESIDENTIAL KEY VACUUM TEST POINT MONITORING WELL FIGURE 2 PERMANANT SOIL GAS SAMPLING POINT SITE SKETCH STORM DRAIN Bayville Village Cleaners CESSPOOL AMBIENT AIR SAMPLING POINT

Cashin Associates, P.C.
ENGINEERING PLANNING CONSTRUCTION MANAGEMENT
13CTS.022 TASK 5

# FIGURE 3 **AS-BUILT SSD SYSTEM SCHEMATIC**

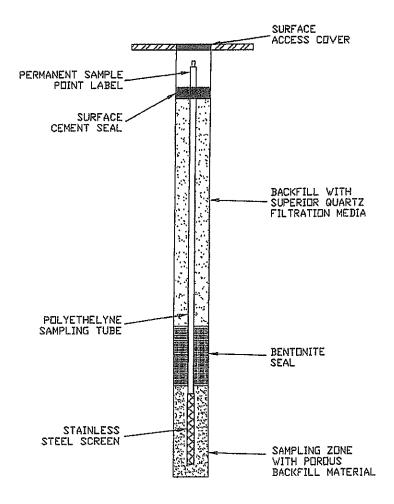


Bayville Village Cleaners 290 Bayville Avenue Bayville, New York

Cashin Associates, P.C.
ENGINEERING PLANNING CONSTRUCTION MANAGEMENT
13CTS.022 TASK 5

### FIGURE 4

# PERMANENT SOIL GAS SAMPLING POINT SCHEMATIC



### FIGURE 4

PERMANENT SOIL GAS SAMPLING POINT

Bayville Village Cleaners 290 Bayville Avenue Bayville, New York

Cashin Associates, P.C.
ENGINEERING PLANNING CONSTRUCTION MANAGEMENT

### APPENDIX A

# SURVEY MAP, METES AND BOUNDS DESCRIPTION AND TAX MAP

BAYVILLE AVENUE S.84°14.40 E. -50.15 102.60 ,(V 0/0 33 32 50.00 1,88°,50',50'W. O'Connor - Petito, LLC

LAND SURVEYING - CIVIL ENGINEERING
27 FOREST AVENUE, LOCUST VALLEY, NY 11560
OCONNORPETITO@VERIZON.NET TEL: 516-676-3260 FAX: 516-676-1514

"MAPB" MAP PINE ISLANO SCALE / = 20 DATE 4/19/16 SEC. 28 BLK. 20 LOT 58 LOCATION BAYVILLE NAS.CO. CERTIFIED

REVISIONS

1. 2. 3.

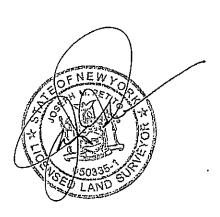


## DESCRIPTION 290 BAYVILLE AVENUE, BAYVILLE, NY TAX SECTION 28 BLOCK 20 LOT 58

BEGINNING at the point of intersection between the southerly side of Bayville Avenue and the easterly side of Seventeenth Street (17<sup>th</sup> Street), proceed along the following four (4) courses and distances:

S 84° 14' 40"E.
 S 1° 09' 10"W.
 N 88° 50' 50"W.
 S 0.15 feet;
 S 0.00 feet;

4. N 1° 09′ 10″E. 102.60 feet to the point of beginning.



4/19/16

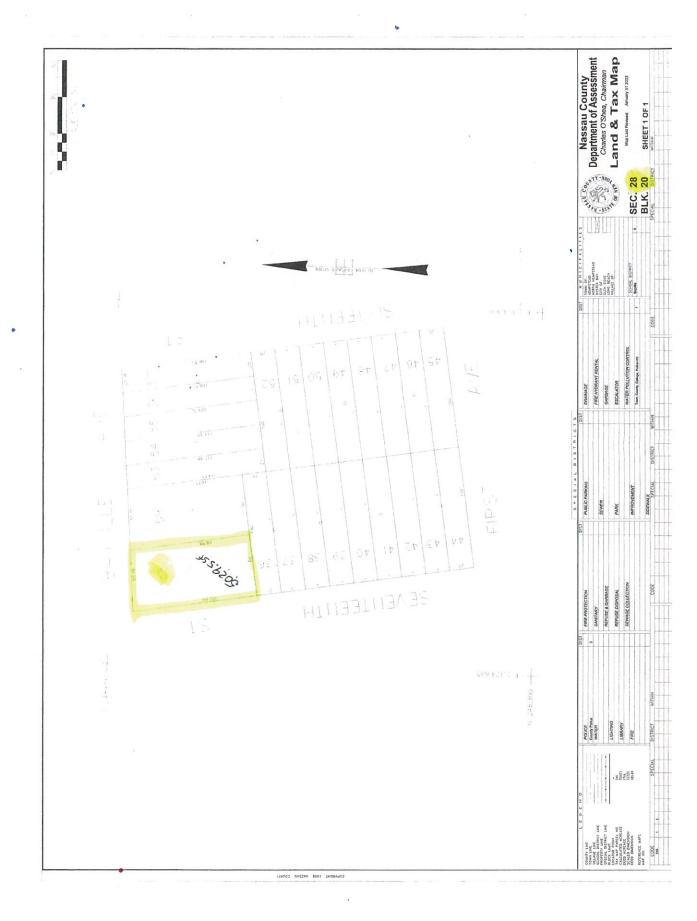
PLEASE RETURN TO

1:00 RY AN

19 TOS D DR.

19 TOS D DR.

SLEW HEAD NY. 11545



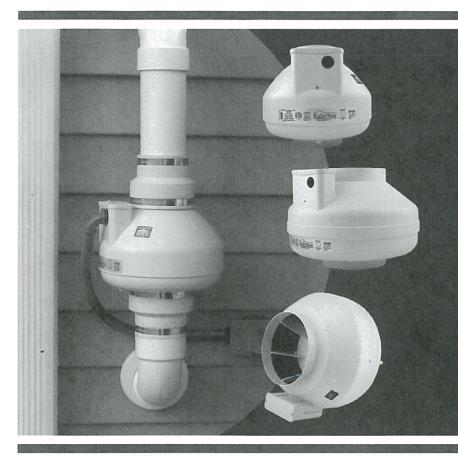
# APPENDIX B DIGITAL COPY OF THE FER (INCL. CD)

### APPENDIX C

# SSD SYSTEMS MANUFACTURING PRODUCT INFORMATION SHEETS



## **RPc Series**



### **Radon Mitigation Fan**

All RadonAway® fans are specifically designed for radon mitigation. RPc Series Fans provide superb performance, run ultra-quiet and are attractive. They are ideal for most sub-slab radon mitigation systems.

### **Features**

- · Energy efficient
- Ultra-quiet operation
- · Meets all electrical code requirements
- · Water-hardened motorized impeller
- · Seams sealed to inhibit radon leakage (RP140c & RP145c double snap sealed)
- ETL Listed for indoor or outdoor use
- Thermally protected motor
- Rated for commercial and residential use

|         |         | FAN DUCT |        | RECOM. MAX. OP. | TYPICAL CFM vs. STATIC PRESSURE W |     |      |      |      |
|---------|---------|----------|--------|-----------------|-----------------------------------|-----|------|------|------|
| MODEL   | P/N     | DIAMETER | WATTS  | PRESSURE "WC    | 0"                                | .5" | 1.0" | 1.5" | 2.0" |
| RP140c* | 23029-1 | 4"       | 15-21  | 0.7             | 135                               | 70  |      | -    | -    |
| RP145c  | 23030-1 | 4"       | 41-72  | 1.7             | 166                               | 126 | 82   | 41   | 3    |
| RP260c  | 23032-1 | 6"       | 47-65  | 1.3             | 251                               | 157 | 70   | -    | 1000 |
| RP265c  | 23033-1 | 6"       | 91-129 | 2.2             | 334                               | 247 | 176  | 116  | 52   |
| RP380   | 28208   | 8"       | 95-152 | 2.0             | 497                               | 353 | 220  | 130  | 38   |



Made in USA with U.S. and imported parts.





All RadonAway\* inline radon fans are covered by our 5-year, hassle-free warranty.





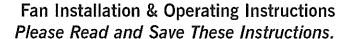
| Model  | Α    | В      | С      |
|--------|------|--------|--------|
| RP140c | 4.5" | 9.7"   | 8.5"   |
| RP145c | 4.5" | 9.7"   | 8.5"   |
| RP260c | 6"   | 11.75" | 8.6"   |
| RP265c | 6"   | 11.75" | 8.6"   |
| RP380  | 8"   | 13.41" | 10.53" |

For Further Information Contact Your Radon Professional:





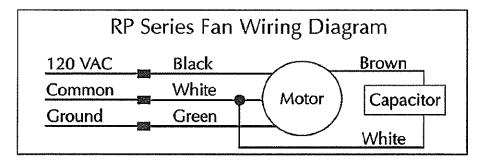
# RP / RPc Series Installation Instructions





## DO NOT CONNECT POWER SUPPLY UNTIL FAN IS COMPLETELY INSTALLED. MAKE SURE ELECTRICAL SERVICE TO FAN IS LOCKED IN "OFF" POSITION. DISCONNECT POWER BEFORE SERVICING FAN.

- 1. **WARNING!** For General Ventilating Use Only. Do Not Use to Exhaust Hazardous, Corrosive or Explosive Materials, Gases or Vapors. See Vapor Intrusion Application Note #ANO01 for important information on VI Applications. See RadonAway.com/vapor-intrusion.
- 2. NOTE: Fan is suitable for use with solid state speed controls; however, use of speed controls is not generally recommended.
- 2. WARNING! Check voltage at the fan to insure it corresponds with nameplate.
- 3. **WARNING!** Normal operation of this device may affect the combustion airflow needed for safe operation of fuel burning equipment. Check for possible backdraft conditions on all combustion devices after installation.
- 4. **NOTICE!** There are no user serviceable parts located inside the fan unit. **Do NOT attempt to open.** Return unit to the factory for service.
- 5. **WARNING!** Do not leave fan unit installed on system piping without electrical power for more than 48 hours. Fan failure could result from this non-operational storage.
- 6. WARNING! TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK, OR INJURY TO PERSONS, OBSERVE THE FOLLOWING:
  - a) Use this unit only in the manner intended by the manufacturer. If you have questions, contact the manufacturer.
  - b) Before servicing or cleaning unit, switch power off at service panel and lock the service disconnecting means to prevent power from being switched on accidentally. When the service disconnecting means cannot be locked, securely fasten a prominent warning device, such as a tag, to the service panel.
  - c) Installation work and electrical wiring must be done by qualified person(s) in accordance with all applicable codes and standards, including fire rated construction.
  - d) Sufficient air is needed for proper combustion and exhausting of gases through the flue (chimney) of fuel burning equipment to prevent backdrafting. Follow the heating equipment manufacturers' guidelines and safety standards such as those published by any National Fire Protection Association, and the American Society for Heating, Refrigerating and Air Conditioning Engineers (ASHRAE), and the local code authorities.
  - e) When cutting or drilling into a wall or ceiling, do not damage electrical wiring and other hidden utilities.
  - f) Ducted fans must always be vented to 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.





### Fan Installation & Operating Instructions

Fan Series

| RP140   P/N 28460 | RP140c   P/N 23029- |
|-------------------|---------------------|
| RP145   P/N 28461 | RP145c   P/N 23030- |
| RP260   P/N 28462 | RP260c   P/N 23032- |
| RP265   P/N 28463 | RP265c   P/N 23033- |
| RP380 İ P/N 28464 | •                   |

### 1.0 SYSTEM DESIGN CONSIDERATIONS

### 1.1 INTRODUCTION

The RP / RPc Series Radon Fans are intended for use by trained, professional, certified/licensed radon mitigators. The purpose of these instructions is to provide additional guidance for the most effective use of an RP / RPC Series Fans. These instructions should be considered supplemental to EPA/radon industry standard practices, state and local building codes and regulations. In the event of a conflict, those codes, practices and regulations take precedence over these instructions.

### 1.2 FAN SEALING

The RP / RPc Series Fans are factory sealed; no additional caulk or other materials are required to inhibit air leakage.

### 1.3 ENVIRONMENTALS

The RP / RPc Series Fans are designed to perform year-round in all but the harshest climates without additional concern for temperature or weather. For installations in an area of severe cold weather, please contact RadonAway for assistance. When not in operation, the fan should be stored in an area where the temperature is never less than 32 degrees F or more than 100 degrees F.

### 1.4 ACOUSTICS

The RP / RPc Series Fans, when installed properly, operate with little or no noticeable noise to the building occupants. The velocity of the outgoing air should be considered in the overall system design. In some cases the "rushing" sound of the outlet air may be disturbing. In these instances, the use of a RadonAway Exhaust Muffler is recommended.

[To ensure quiet operation of inline and remote fans, each fan shall be installed using sound attenuation techniques appropriate for the installation. For bathroom and general ventilation applications, at least 8 feet of insulated flexible duct shall be installed between the exhaust or supply grille(s) and the fan(s). RP / RPc Series Fans are not suitable for kitchen range hood remote ventilation applications.]

### 1.5 GROUND WATER

In the event that a temporary high water table results in water at or above slab level, water may be drawn into the riser pipes, thus blocking air flow to the RP / RPc Series Fan. The lack of cooling air may result in the fan cycling on and off as the internal temperature rises above the thermal cutoff and falls upon shutoff. Should this condition arise, it is recommended that the fan be turned off until the water recedes, allowing for return to normal operation.

### 1.6 SLAB COVERAGE

The RP / RPc Series Fans can provide coverage up to 2000+ sq. ft. per slab penetration. This will primarily depend on the sub-slab material in any particular installation. In general, the tighter the material, the smaller the area covered per penetration. Appropriate selection of the RP / RPc Series Fan best suited for the sub-slab material can improve the slab coverage. The RP140/140c and RP145/145c are best suited for general purpose use. The RP260/260c can be used where additional airflow is required, and the RP265/265c and RP380 are best suited for large slab, high airflow applications. Additional suction points can be added as required. It is recommended that a small pit (5 to 10 gallons in size) be created below the slab at each suction hole.

### 1.7 CONDENSATION & DRAINAGE

Condensation is formed in the piping of a mitigation system when the air in the piping is chilled below its dew point. This can occur at points where the system piping goes through unheated space such as an attic, garage or outside. The system design must provide a means for water to drain back to a slab hole to remove the condensation. The RP / RPc Series Fan MUST be mounted vertically plumb and level, with the outlet pointing up for proper drainage through the fan. Avoid mounting the fan in any orientation that will allow water to accumulate inside the fan housing. The RP / RPc Series Fans are NOT suitable for underground burial.

For RP / RPc Series Fan piping, the following table provides the minimum recommended pipe diameter and pitch under several system conditions.

| Pipe     | Minimum Rise per Ft of Run* |         |          |          |          |  |  |  |  |
|----------|-----------------------------|---------|----------|----------|----------|--|--|--|--|
| Diameter | @25 CFM                     | @50 CFM | @100 CFM | @200 CFM | @300 CFM |  |  |  |  |
| 6"       | -                           | 3/16    | 1/4      | 3/8      | 3/4      |  |  |  |  |
| 4"       | 1/8                         | 1/4     | 3/8      | 2 3/8    |          |  |  |  |  |
| 3"       | 1/4                         | 3/8     | 1 1/2    | -        | _        |  |  |  |  |

<sup>\*</sup>Typical RP/RPc (except RP380/RP380c) Series Fan operational flow rate is 25 - 90 CFM on 3" and 4" pipe. (For more precision, determine flow rate by measuring Static Pressure, in WC, and correlate pressure to flow in the performance chart in the addendum.)

### 1.8 SYSTEM MONITOR & LABEL

A System Monitor, such as a manometer (P/N 50017) or audible alarm (P/N 28001-2, 28001-4 or 28421), should be provided and is required to notify the occupants of a fan system malfunction. A System Label (provided with Manometer P/N 50017) with instructions for contacting the installing contractor for service and identifying the necessity for regular radon tests to be conducted by the building occupants must be conspicuously placed in a location where the occupants frequent and can see the label.

### 1.9 VENTILATION

If used as a ventilation fan, any type of ducting is acceptable; however, flexible nonmetallic ducting is recommended for easy installation and quieter operation. Insulated flexible ducting is highly recommended in cold climates to prevent the warm bathroom air, for example, from forming condensation in the ducting where it is exposed to colder attic air. The outlet of the fan should always be ducted to the outside. Avoid venting the outlet of the fan directly into an attic area. The excess moisture from the bathroom can cause damage to building structure and any items stored in the attic. Multiple venting points may be connected together using a "T" or "Y" fitting. Ideally, the duct should be arranged such that equal duct lengths are used between intake and "T" or "Y" fitting; this will result in equal flow rates in each intake branch. If adjustable intake grilles are used on multi-intake systems, then the opening on each grille should be equal in order to minimize noise and resistance. Straight smooth runs of rigid metal ducting will present the least resistance and maximize system performance. The Equivalent Length of Rigid Metal Ducting resulting in .2"WC pressure loss for each Fan Model is provided in the Specifications section of these instructions. Flexible ducting, if used, must always be as close to being fully extended as possible. Formed rigid metal duct elbows will present the least resistance and maximize system performance; recommended bend radius of elbow is at least 1.5 x duct diameter.

RP / RPc Series fans are not suitable for kitchen range hood remote ventilation applications. For quietest performance, the fan should be mounted farther away from the inlet duct, near the outside vent. A minimum distance of 8 feet is recommended between the fan or T/Y of a multi-intake system and intake grille(s).

Backdraft dampers allow airflow in only one direction, preventing cold/hot draughts from entering the vented area and minimizing possible condensation and icing within the system while the fan is not operating. Backdraft dampers are highly recommended at each intake grille for bathroom ventilation in all cold climate installations. Installation instructions are included with Spruce backdraft dampers.

### 1.10 ELECTRICAL WIRING

The RP / RPc Series Fans operate on standard 120V, 60Hz AC. All wiring must be performed in accordance with National Fire Protection (NFPA) National Electrical Code, Standard #70, current edition, for all commercial and industrial work, and state and local building codes. All wiring must be performed by a qualified and licensed electrician. Outdoor installations require the use of a UL Listed watertight conduit. Ensure that all exterior electrical boxes are outdoor rated and properly sealed to prevent water penetration into the box. A means, such as a weep hole, is recommended to drain the box.

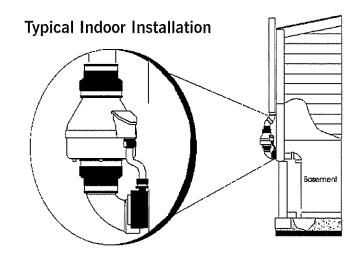
### 1.11 SPEED CONTROLS

The RP / RPc Series Fans are rated for use with electronic speed controls; however, speed controls are generally not recommended. If used, the recommended speed control is Pass & Seymour Solid State Speed Control.

### 2.0 INSTALLATION

The RP / RPc Series Fans can be mounted indoors or outdoors. (It is suggested that EPA and radon mitigation standards recommendations be followed in choosing the fan location.) The RP / RPc Series Fans may be mounted directly on the system piping or fastened to a supporting structure by means of an optional mounting bracket.

For the ENERGY STAR Labeled RP140 / RP140c , the ducting from the fan to the outside of the building has a strong effect on noise and fan energy use. 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 airflow.



### 2.1 MOUNTING

Mount the RP / RPc Series Fan vertically with outlet up. Ensure the unit is plumb and level. When mounting directly on the system piping assure that the fan does not contact any building surface to avoid vibration noise.

### 2.2 MOUNTING BRACKET (optional)

The RP / RPc Series Fan may be optionally secured with the RadonAway mounting bracket (P/N 25007 or 25033 for RP380 only). Foam or rubber grommets may also be used between the bracket and mounting surface for vibration isolation.

### 2.3 SYSTEM PIPING

Complete piping run using flexible couplings as a means of disconnect for servicing the unit and for vibration isolation. As the fan is typically outside of the building thermal boundary and is venting to the outside, installation of insulation around the fan is not required.

### 2.4 ELECTRICAL CONNECTION

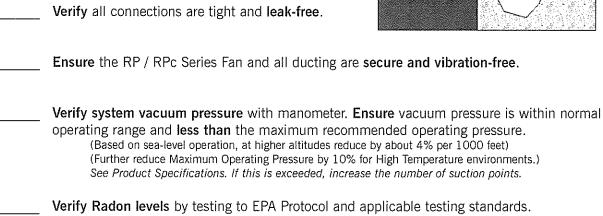
Connect wiring with wire nuts provided, observing proper connections (See Section 1.10). Note that the fan is not intended for connection to rigid metal conduit.

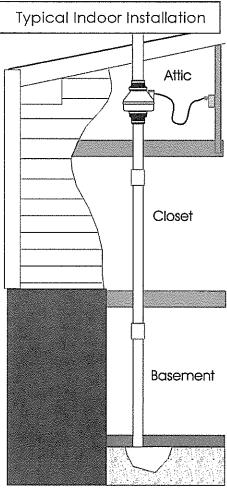
| Fan Wire | Connection |
|----------|------------|
| Green    | Ground     |
| Black    | AC Hot     |
| White    | AC Common  |

### 2.5 VENT MUFFLER (optional)

Install the muffler assembly in the selected location in the outlet ducting. Solvent weld all connections. The muffler is normally installed at the end of the vent pipe.

## 2.6 OPERATION CHECKS & ANNUAL SYSTEM MAINTENANCE





### RP / RPc Series Product Specifications

The following chart shows fan preformance for the RP / RPc Series Fans:

| Typical CFM Vs. Static Pressure "WC |     |      |     |      |      |       |      |       |      |
|-------------------------------------|-----|------|-----|------|------|-------|------|-------|------|
|                                     | 0"  | .25" | .5" | .75" | 1.0" | 1.25" | 1.5" | 1.75" | 2.0" |
| RP140/140c                          | 135 | 103  | 70  | 14   | -    | -     | -    | -     |      |
| RP145/145c                          | 166 | 146  | 126 | 104  | 82   | 61    | 41   | 21    | 3    |
| RP260/260c                          | 251 | 209  | 157 | 117  | 70   | 26    | _    | 02    | -    |
| RP265/265c                          | 334 | 291  | 247 | 210  | 176  | 142   | 116  | 87    | 52   |
| RP380                               | 531 | 490  | 415 | 340  | 268  | 200   | 139  | 84    | 41   |

| Model      | Power Consumption<br>120VAC, 60Hz, 1.5 Amp Maximum | Maximum Recommended Operation Pressure* (Sea Level Operation)** |
|------------|--|---|
| RP140/140c | 15 - 21 watts                                      | 0.7" WC   |
| RP145/145c | 41 - 72 watts                                      | 1.7" WC   |
| RP260/260c | 47-65 watts  | 1.4" WC   |
| RP265/265c | 91 - 129 watts                                     | 2.2" WC   |
| RP380      | 96 - 138 watts                                     | 2.2" WC   |

<sup>\*</sup>Reduce by 10% for High Temperature Operation \*\*Reduce by 4% per 1000 ft. of altitude.

| Model      | Size                  | Weight   | Inlet/Outlet                               | L.2 |
|------------|-----------------------|----------|--|-----|
| RP140/140c | 8.5"H x 9.7" Dia.     | 5.5 lbs  | 4.5"OD (4.0" PVC Sched 40 size compatible) | 25  |
| RP145/145c | 8.5"H x 9.7" Dia.     | 5.5 lbs  | 4,5" OD                                    | 15  |
| RP260/260c | 8.6"H x 11.75" Dia.   | 5.5 lbs  | 6.0" OD                                    | 48  |
| RP265/265c | 8.6"H x 11.75" Dia.   | 6.5 lbs  | 6.0" OD                                    | 30  |
| RP380      | 10.53"H x 13.41" Dia. | 11.5 lbs | 8.0" OD                                    | 57  |

L.2 = Estimated Equivalent Length of Rigid Metal Ducting resulting in .2" WC pressure loss for Duct Size listed. Longer Equivalent Lengths can be accommodated at Flows Lower than that at .2" WC pressure loss (see CFM Vs Static Pressure "WC Table).

Recommended Ducting: RP/RPc Series Fans (excluding RP380), 3" or 4" Schedule 20/40 PVC Pipe;

RP380, 6" Schedule 20/40 PVC Pipe

PVC Pipe Mounting: If used for Ventilation, use 4", 6" or 8" Rigid or Flexible Ducting.

Mount on the duct pipe or with optional mounting bracket.

LISTED

Electric Fan

Storage Temperature Range: 32-100 degrees F

Thermal Cutout:

| 0          |                |  |  |  |  |  |  |
|------------|----------------|--|--|--|--|--|--|
| RP140/140c | 130°C (266°F)  |  |  |  |  |  |  |
| RP145/145c | 150°C (302°F)  |  |  |  |  |  |  |
| RP260/260c | 150°C (302°F)  |  |  |  |  |  |  |
| RP265/265c | 150°C (302°F)  |  |  |  |  |  |  |
| RP380      | 150°C (302°F)) |  |  |  |  |  |  |

Continuous Duty

Class F Insulation (RP140/RP140c Class B)

Thermally Protected Auto Reset

3000 RPM

Rated for Indoor or Outdoor Use



Conforms to UL STD. 507 Certified to CAN/CSA STD. C22.2 No.113





### IMPORTANT INSTRUCTIONS TO INSTALLER

Inspect the RadonAway® RP/RPc, GP/GPc, XR/XRc, XP/XPc, XR and SF Series Fan for shipping damage within 15 days of receipt. **Notify RadonAway of any damages immediately.** RadonAway is not responsible for damages incurred during shipping. However, for your benefit, RadonAway does insure shipments.

There are no user serviceable parts inside the fan. **Do not attempt to open the housing.** Return unit to factory for service.

Install the RP/RPc, GP/GPc, XP/XPc, XR and SF Series Fan in accordance with all EPA, ANSI/AARST standard practices, and state and local building codes and regulations.

Provide a copy of this instruction or comparable radon system and testing information to the building occupants after completing system installation.

### Warranty

RadonAway® warrants that the RP/RPc, GP/GPc (excluding GP500), XP/XPc, XR, SF Series Fan (the "Fan") will be free from defects in materials and workmanship for a period of 12 months from the date of purchase or 18 months from the date of manufacture, whichever is sooner (the "Warranty Term").

RadonAway® will replace any fan which fails due to defects in materials or workmanship during the Warranty Term. This Warranty is contingent on installation of the Fan in accordance with the instructions provided. This Warranty does not apply where any repairs or alterations have been made or attempted by others, or if the unit has been abused or misused. Warranty does not cover damage in shipment unless the damage is due to the negligence of RadonAway®.

The Fan must be returned (at Owner's cost) to the RadonAway<sup>®</sup> factory. Any Fan returned to the factory will be discarded unless the Owner provides specific instructions along with the Fan when it is returned regardless of whether or not the Fan is actually replaced under this warranty. Proof of purchase must be supplied upon request for service under this Warranty.

### 5-YEAR EXTENDED WARRANTY WITH PROFESSIONAL INSTALLATION.

RadonAway® will extend the Warranty Term of the fan to 60 months (5 years) from date of purchase or 66 months from date of manufacture, whichever is sooner, provided that the fan is installed by a professional radon mitigation contractor. Proof of purchase and/or proof of professional installation may be required for service under this warranty. No extended warranty is offered outside the Continental United States and Canada beyond the standard 12 months from the date of purchase or 18 months from the date of manufacture, whichever is sooner.

RadonAway® is not responsible for installation, removal or delivery costs associated with this Warranty.

### LIMITATION OF WARRANTY

EXCEPT AS STATED ABOVE, THE RP/RPc, GP/GPc (excluding GP500), XP/XPc, XR, SF SERIES FANS ARE PROVIDED WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

IN NO EVENT SHALL RADONAWAY BE LIABLE FOR ANY DIRECT, INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES ARISING OUT OF, OR RELATING TO, THE FAN OR THE PERFORMANCE THEREOF. RADONAWAY'S AGGREGATE LIABILITY HEREUNDER SHALL NOT IN ANY EVENT EXCEED THE AMOUNT OF THE PURCHASE PRICE OF SAID PRODUCT. THE SOLE AND EXCLUSIVE REMEDY UNDER THIS WARRANTY SHALL BE THE REPAIR OR REPLACEMENT OF THE PRODUCT, TO THE EXTENT THE SAME DOES NOT MEET WITH RADONAWAY'S WARRANTY AS PROVIDED ABOVE.

For service under this Warranty, contact RadonAway for a Return Material Authorization (RMA) number and shipping information. No returns can be accepted without an RMA. If factory return is required, the customer assumes all shipping costs, including insurance, to and from factory.

RadonAway<sup>®</sup> 3 Saber Way Ward Hill, MA 01835 USA TEL (978) 521-3703 FAX (978) 521-3964 Email to: Returns@RadonAway.com

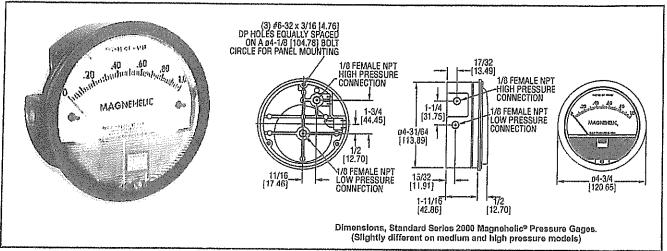
| Record the following information for your records: |                |   |  |  |  |  |
|--|----------------|---|--|--|--|--|
| Serial Number:                                     | Purchase Date: | - |  |  |  |  |



Series 2000

## **Magnehelic** \* Differential Pressure Gages

Indicate Positive, Negative or Differential, Accurate within 2%



Select the Dwyer® Magnehelic® gage for high accuracy – guaranteed within 2% of full scale — and for the wide choice of 81 models available to suit your needs precisely. Using Dwyer's simple, frictionless Magnehelic® gage movement, it quickly indicates low air or non-corrosive gas pressures — either positive, negative (vacuum) or differential. The design resists shock, vibration and over-pressures. No manometer fluid to evaporate, freeze or cause toxic or leveling problems. It's inexpensive, too.

The Magnehelic® gage is the industry standard to measure fan and blower pressures, filter resistance, air velocity, furnace draft, pressure drop across orifice plates, liquid levels with bubbler systems and pressures in fluid amplifier or fluidic systems. It also checks gas air ratio controls and automatic valves, and monitors blood and respiratory pressures in medical care equipment.

Note: May be used with Hydrogen. When ordering a Buna-N diaphragm pressures must be less than 35 psi.

### Mounting

A single case size is used for most models of Magnehelic® gages. They can be flush or surface mounted with standard hardware supplied. With the optional A-610 Pipe Mounting Kit they may be conveniently installed on horizontal or

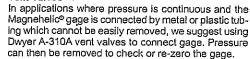






Flush...Surface... or Pipe Mounted

vertical 1-1/4" - 2" pipe. Although calibrated for vertical position, many ranges above 1" may be used at any angle by simply re-zeroing. However, for maximum accuracy, they must be calibrated in the same position in which they are used. These characteristics make Magnehelic® gages ideal for both stationary and portable applications. A 4-9/16" hole is required for flush panel mounting. Complete mounting and connection fittingsplus instructions are furnished with each instrument.





### High and Medium Pressure Models

Installation is similar to standard gages except that a 4-13/16" hole is needed for flush mounting. The medium pressure construction is rated for internal pressures up to 35 psig and the high pressure up to 80 psig. Available for all models. Because of larger case, the medium pressure and high pressure models will not fit in a portable case size. Installation of the A-321 safety relief valve on standard Magnehelic® gages often provides adequate protection against infrequent overpressure.

### **SPECIFICATIONS**

Service: Air and non-combustible, compatible gases. (Natural Gas option available.)

Wetted Materials: Consult factory.

Housing: Die cast aluminum cese and bezel, with acrylic cover. Exterior finish is coated gray to withstand 168 hour salt spray corrosion test.

Accuracy: ±2% of full scale (±3% on - 0, -100 Pa, -125 Pa, 10MM and ±4% On - 00, -60 Pa, -6MM ranges), throughout range at 70°F (21.1°C).

Pressure Limits: -20°Hg, to 15 psig.† (-0.677 bar to 1.034 bar); MP option: 35 psig (2.41 bar), HP option: 80 psig (5.52 bar).

Overpressure: Relief plug opens at approximately 25 psig (1.72 bar),

standard gages only.

Temperature Limits: 20 to 140°F.\* (-6.67 to 60°C). Size: 4" (101.6 mm) Dlameter dial face.

Mounting Orientation: Diaphragm in vertical position. Consult factory for other position orientations.

Process Connections: 1/8" female NPT duplicate high and low pressure taps

one pair side and one pair back.

Weight: 1 lb 2 oz (510 g), MP & HP 2 lb 2 oz (963 g).

Standard Accessories: Two 1/8" NPT plugs for duplicate pressure taps, two 1/8" pipe thread to rubber tubing adapter and three flush mounting adapters with screws. (Mounting and snap ring retainer substituted for 3 adapters in MP & HP gage accessories.)

\*Low lemperature models evailable as special option. †For applications with high cycle rate willtin gage total pressure rating, next higher rating is rec-ommended. See Medium and High pressure options at lower left.

### **OPTIONS AND ACCESSORIES**



Transparent Overlays Furnished in red and green to highlight and emphasize critical pressures.

Adjustable Signal Flag

Integral with plastic gage cover, Available for most mod-els except those with medium or high pressure con-struction. Can be ordered with gage or separate.



### .ED Setpoint Indicator

Bright red LED on right of scale shows when setpoint is reached. Field adjustable from gage face, unit operates on 12-24 VDC. Requires MP or HP style cover and



### A-432 Portable Kit

Combine carrying case with any Magnehelic gage of standard range, except high pressure connection. In-cludes 9 ft (2.7 m) of 3/16" I.D. rubber tubing, standhang bracket and terminal tube with holder.



A-605 Air Filter Gage Accessory Kit Adapts any standard Magnehelic® gage for use as an air filter gage. Includes aluminum surface mounting brack-et with screws, two 5 ft (1.5 m) lengths of 1/4" aluminum tubing two static pressure tips and two molded plastic vent valves, integral compression filtings on both tips

Quality design and construction features

Bezel provides flange for flush mounting in panel.

Clear plastic face is highly resistant to breakage. Provides undistorted viewing of pointer and scale.

Precision Iltho-printed scale is accurate and easy to

Red tipped pointer of heat treated aluminum tubing is easy to see. It is rigidly mounted on the helix shaft.

Pointer stops of molded rubber prevent pointer over-travel

"Wishbone" assembly provides mounting for helix, helix bearings and pointer shaft.

Jeweled bearings are shock-resistant mounted; provide virtually friction-free motion for helix. Motion damped with high viscosity slicone fluid.

Zero adjustment screw is conveniently located in the plastic cover, and is accessible without removing cover. O-ring seal provides pressure tightness.

Helix is precision made from an alloy of high magnetic permeability. Mounted in Jeweled bearings, it turns freely, following the magnetic field to move the pointer across the scale.

O-ring seal for cover assures pressure integrity of

Blowout plug of silicone rubber protects against overpressure on 15 psig rated models. Opens at approximately 25 psig.

Die cast aluminum case is precision made and iridite-dipped to withstand 168 hour salt spray corrosion test. Exterior finished in baked dark gray hammerloid. One case size is used for all standard pressure options, and for both surface and flush

Silicone rubber diaphragm with integrally molded O-ring is supported by front and rear plates, it is locked and sealed in position with a sealing plate and retaining ring. Diaphragm motion is restricted to prevent damage due to overpressures.

Calibrated range spring is flat spring steel. Small amplitude of motion assures consistency and long life. It reacts to pressure on diaphragm. Live length adjustable for calibration.

Samarium Cobalt magnet mounted at one end of range spring rotates hellx without mechanical linkages.

Series 2000 Magnehelic\* Gage — Models and Ranges
Page V shows examples of special models built for OEM customers. For special scales furnished in ounces per square inch, inches of mercury, metric units, square rcot scales for volumetric flow, etc., contact the factory.

| Model      | Range Inches  | Model          | Range<br>PSI   | Model &         | Range MM<br>of Water | Model          | Range,             | Dual Scale /<br>For use with | Air Velocity Units pilot lube  |
|------------|---------------|----------------|----------------|-----------------|----------------------|----------------|--------------------|------------------------------|--|
| 2000-00N7- |               | 2201           | 0-1            | 2000-6MM1-      | 0-6                  | 2000-0.5KPA    | kPa .              |                              | T  |
| 2000-001   | 025           | 2202           | 0-2            | 2000-10MM1-     | 0-10                 |                |                    | 1                            | ľ  |
| 2000-01-   | 050           | 2203           | 0-2            | 2000-15MM       | 0-10                 | 2000-1KPA      | 0-1                | 1                            | Range in W.C./   |
| 2001       | 0-1.0         | 2204           | 0-4            |                 |                      | 2000-1.5KPA    | 0-1.5              | Model                        | Velocity F.P.M.  |
| 2002       | 0-2.0         | 2205           |                | 2000-25MM       | 0-25                 | 2000-2KPA      | 0-2                | 2000-00AV†                   | 025/300-2000   |
| 2003       | 0-3.0         | 2210*          | 0-5            | 2000-30MM       | 0-30                 | 2000-2.5KPA    | 0-2.5              | 1000 00711                   | 0.2000.000   |
| 2003       | 0-3.0         |                | 0-10           | 2000-50MM       | 0-50                 | 2000-3KPA      | 0-3                | 2000-0AV1                    | 050/500-2800   |
|            |               | 2215*          | 0-15           | 2000-80MM       | 0-80                 | 2000-4KPA      | 0-4                | Programma 1 -                | 0-100/000-2000   |
| 2005       | 0-5.0         | 2220*          | 0-20           | 2000-100MM      | 0-100                | 2000-5KPA      | 0-5                | 2001AV                       | 0-1.0/500-4000   |
| 2006       | 0-6.0         | 2230**         | 0-30           | 2000-125MM      | 0-125                | 2000-8KPA      | 8-0                | EDOIMA                       | 0-1.0000-4000  |
| 2008       | 0-8-0         |                |                | 2000-150MM      | 0-150                | 2000-10KPA     | 0-10               | 2002AV                       | 0.0000000000000000000000000000000000000  |
| 2010       | 0-10          |                | Rango,         | 2000-200MM      | 0-200                | 2000-15KPA     | 0-15               | 2002AV                       | 0-2.0/1000-5600  |
| 2012       | 0-12          |                | CM of          | 2000-250MM      | 0-250                | 2000-20KPA     | 0-20               | Lancent                      | 2 5 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6  |
| 2015       | 0-15          | Model          | Water          | 2000-300MM      | 0.300                | 2000-25KPA     | 0-25               | 2005AV                       | 0-5.0/2000-8800  |
| 2020       | 0-20          | 2000-15CM      | 0-15           | Zero Ce         | nter Ranges          | 2000-30KPA     | 0-30               | 1                            |  |
| 2025       | 0-25          | 2000-20CM      | 0-20           | 2300-6MM†**     | 3-0-3                |                | onter Ranges       | -2010AV                      | 0-10/2000-12500  |
| 2030       | 0-30          | 2000-25CM      | 0-25           | 2300-10MM†      | 5-0-5                | 2300-1 KPA     | .5-05              | 1                            |  |
| 2040       | 0-40          | 2000-50CM      | 0-50           | 2300-20MM       | 10-0-10              | 2300-2KPA      | 1-0-1              | I                            | İ  |
| 2050       | 0-50          | 2000-80CM      | 0-80           | Model           | Range, Pa            | 2300-2.5KPA    | 1.25-0-1.25        | Ì                            |  |
| 2060       | 0-60          | 2000-100CM     | 0-100          | 2000-60NPA1     | 10-0-50              | 2300-3KPA      | 1.5-0-1.5          | 1 .                          | Estable of the   |
| 2080       | 0-80          | 2000-150CM     | 0-150          | 2000-60PA†      | 0-60                 |                |                    |                              | Service Control of the 
| 2100       | 0-100         | 2000-200CM     | 0-200          |                 |                      | Dual Scale El  | nglish/Metric Mode |                              | 1941.11  |
| 2120       | 0-120 .       | 2000-250CM     | 0-250          | 2000-100PA†•    | 0-100                | 1              | Range,             | R                            | ange,  |
| 2150       | 0-150         | 2000-200CM     | 0-300          | 2000-125PA†•    | 0-125                | Model          | In. W.C.           |                              | or kPa   |
| 2160       | 0-160         |                |                | 2000-250PA      | 0-250                | 2000-OOD 111   |                    |                              | 62 Pa  |
| 2180       | 0-180         | Zero Cen       | ter Ranges     | 2000-300PA      | 0-300                | 2000-OD†       | 0-0.5              |                              | 125 Pa   |
| 2250       | 0-750         | 2300-4CM       | 2-0-2          | 2000-500PA      | 0-500                | 2001D          | 0-1.0              | 0-                           | 250 Pa   |
|            |               | 2300-10CM      | 5-0-5          | 2000-750PA      | 0-750                | 2002D          | 0-2.0              | 0-                           | 500 Pa   |
|            | Center Ranges | 2300-30CM      | 15-0-15        | 2000-1000PA     | 0-100 x 10           | 2003D          | 0-3.0              | 0-                           | 750 Pa   |
| 2300-001   | 0.125-0-0.125 |                |                |                 | nter Ranges          | 2004D          | 0-4.0              | l ö-                         | 1.0 kPa  |
| 2300-0†    | .25-0-,25     |                |                | Model           | Range, Pa            | 2005D          | 0-5.0              |                              | 1,25 kPa   |
| 2301       | .5-05         | †These rang    | jes calibrated | 2300-60PA†**    | 30-0-30              | 2006D          | 0-6.0              |                              | 1.5 kPa  |
| 2302       | 1-0-1         | for vertical s | cale position. | 2300-100PA+     | 50-0-50              | 20080          | 0.8.0              |                              | 2.0 kPa  |
| 2304       | 2-0-2         | Accuracy -     | 1-3%           | 2300-120PA      | 60-0-60              | 2010D          | 0-10               |                              | 2.5 kPa  |
| 2310       | 5-0-5         | · · Accuracy   |                | 2300-200PA      | 100-0-100            | 2015D          | 0-15               |                              | 3.7 kPa  |
| 2320       | 10-0-10       | *MP option s   | landard        | 2300-250PA      | 125-0-125            | 20200          | 0-20               |                              | 5.7 kPa<br>5 kPa   |
| 2330       | 15-0-15       | **I-IP option  |                | 2300-300PA      | 150-0-150            | 2025D          | 0-25               |                              |  |
| -000       | 10-0-10       | FIE OPAUN      | arai indi d    | 2300-500PA      | 250-0-250            | 2050D          | 0-25               |                              | 6,2 kPa  |
| - 1        |               | ĺ              |                | 2300-300PA      | 500-0-500            | 2050D<br>2060D | 0-60               |                              | 12.4 kPa   |
|            | ~             | <del></del>    |                | I MANDOL-1000LW | 200-0-200            | Z000D          | U-5U               | j U-                         | 15 kPa   |

ACCESSORIES

ACCESSORIES
A-299, Surface Mounting Bracket
A-300, Flat Flush Mounting Bracket
A-310A, 3-Way Vent Valve
A-321, Safety Reliaf Valve
A-432, Portable Kit
A-448, 3-place magnet kit for mounting Magnehelic® gage directly to magnetic surface
A-605, Air Filter Kit
A-610, Pipe Mount Kit

OPTIONS — To order, add suffix: i.E. 2001-ASF ASF, Adjustable Signal Flag HP, High Pressure Option

LT, Low Temperatures to -20°F MP, Med. Pressure Option

SP, Setpoint Indicator Scale Overlays, Red, Green, Mirrored or Combination, Specify Locations

### Catalog

### Contents:

Liquid Filters

Vapor Filters

### VFD Series

- VFD-30
- VFD-55
- ∀FD-85
- e VFD-110

### VFV Series

- vFV-250
- VFV-500
- VFV-1000
- VFV-2000
- VFV 3000
- VFV-5000
- VFV-10000

### VF Series

- e VF-500
- VF 1000
- VF-2000
- VF 3000
- VF-5000
- ∀F 10000

### VR Series

- ∀R 140
- VR-170
- VR 225
- VR-400
- VR-700 VR-1600
- VR-2600

### Filtration Media

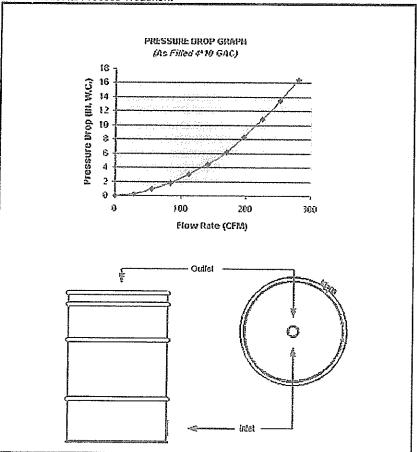
Special Products

### VFD SERIES FILTERS **MODEL VFD-55**

The VFD-55 filter is a media filter vessel designed to treat vapor streams. While the typical design application is a activated carbon adsorbtion unit, the filter can easily accommodate many medias. The sturdy construction makes these filter vessels ideal for long term treatment units. Some applications include:

- Soil Vapor Extraction Treatment
- Air Stripper Off Gas Treatment
- Odor Removal System
- Storage Tank Purge Vapor Treatment
- Pilot Study
- Industrial Process Treatment







| Overall Height                         | 2'10"   | Vessel/Internal Piping<br>Materials | CS/CS<br>(False Floor)       |
|--|---------|-------------------------------------|------------------------------|
| Diameter                               | 23"     | Internal Coating                    | Polyamide Epoxy<br>Resin     |
| Inlet / Outlet (FNPT)                  | 2"      | External Coating                    | Urethane Enamel              |
| Drain / Vent (FNPT)                    | ОРТ     | Maximum Pressure /<br>Temp          | 4 PSIG / 250° F              |
| GAC Fill (lbs)                         | 175     | Cross Sectional Bed<br>Area         | 2.8 FT <sup>2</sup>          |
| Shipping / Operational<br>Weight (lbs) | 225/300 | Bed Depth/Volume                    | 2.2 FT / 6.3 FT <sup>3</sup> |

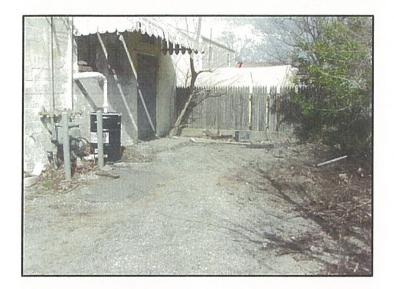
Our Company | News | Catalog | Services | RFQs | Contact

Tetrasolv Filtration, inc. • 1200 East 26th Street • Anderson, indiana 46016 • USA Toll Free: 800-441-4034 Telephone: 765-643-3941 • Fax: 765-643-3949 www.tetrasolv.com • info@letrasolv.com

# APPENDIX D PROJECT PHOTO LOG



Photograph #1 - View of the subject property and building located at 290 Bayville Road, Bayville, NY 11560.



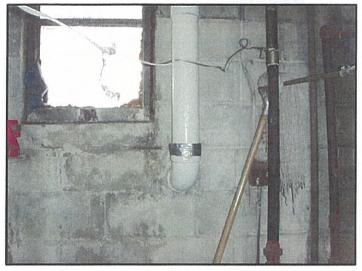
Photograph #2 – Rear view of subject property.



Photograph #3 - View of sub-slab depressurization (SSD) system extraction point with ball valve, located inside the center of the subject building.



**Photograph #4** - View of SSD System RadonAway Fan and associated alarm.



Photograph #5 - View of 4" PVC piping extending through the southern exterior wall in the boiler room.



Photograph #6 – View of 55-gallon drum containing granular activated carbon (GAC).



Photograph #7 – Typical view of sampling/monitoring parts of the SSD System.



Photograph #8 – Typical view of groundwater monitoring well.



**Photograph #9** – Typical view of permanent soil gas sampling point.



Photograph #10 – Typical view of interior vacuum test points.

# APPENDIX E AGENCY APPROVAL DOCUMENTS

## New York State Department of Environmental Conservation Division of Environmental Remediation, Region One

Stony Brook University

50 Circle Road, Stony Brook, New York 11790-3409 **Phone:** (631) 444-0240 • **Fax:** (631) 444-0248

Website: www.dec.ny.gov



October 27, 2009

Mr. Thomas Ryan 19 Todd Drive Glen Head, NY 11545

Re: Bayville Village Cleaners Site #V00220

Voluntary Cleanup Agreement Index #W1-0848-9903

Site Investigation Report: December 9, 2008

Site Investigation Report Addendum: August 3, 2009

Dear Mr. Ryan,

The New York State Department of Environmental Conservation has reviewed the referenced reports and has determined that they substantially address the requirements of the referenced voluntary cleanup agreement and the site investigation work plan dated May 17, 2007. The site investigation reports are hereby approved.

If you should have any questions, please feel free to contact me at (631) 444-0246.

Sincerely,

Jamie Ascher

Engineering Geologist 2

cc: C. Vasudevan

M. Lesser

W. Parish

S. Shearer

R. Ockerby

New York State Department of Environmental Conservation

Division of Environmental Remediation, Region Que

Stony Brook University

50 Circle Road, Stony Brook, New York 11790-3409 Phone: (631) 444-0240 • Fax: (631) 444-0248

Website: www.dec.ny.gov

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BVC0[06



January 6, 2010

Mr. Thomas Ryan 19 Todd Drive Glen Head, NY 11545

Re: Bayville Village Cleaners Site #V00220

Voluntary Cleanup Agreement Index #W1-0848-9903

Site Investigation Report: December 2008

Site Investigation Report Addendum: August 2009

Dear Mr. Ryan,

The New York State Department of Environmental Conservation and the New York State Department of Health have reviewed the referenced reports and concur with the recommendations presented in Section 9.0 of the August 2009 report. As such, please submit a remedial action work plan stamped and signed by a NYS licensed Professional Engineer for the construction of a vapor mitigation system.

Nothing contained herein represents a waiver by the Department of any rights held under the voluntary cleanup agreement (VCA) or applicable state and federal law or any rights held under the same or a release for any party from any obligations held under the VCA or those laws. If you should have any questions, please feel free to contact me at (631) 444-0246.

Sincerely,

Jamle Ascher

Engineering Geologist 2

cc: C. Vasudevan, NYSDEC

M. Lesser, NYSDEC

W. Parish, NYSDEC

S. Shearer, NYSDOH

R. Ockerby, NYSDOH

J. DeFranco, NCDH

P. Brighton, Walden Associates

### New York State Department of Environmental Conservation

Division of Environmental Remediation, Region One

Stony Brook University

50 Circle Road, Stony Brook, New York 11790-3409 Phone: (631) 444-0240 • Fax: (631) 444-0248

Website: www\_dec.ny gov



August 15, 2011

Mr. Joseph M. Heaney III, P.E. Walden Associates 16 Spring Street Oyster Bay, NY 11771

Re: Voluntary Cleanup Project
Remedial Action Work Plan: April 2011
Bayville Village Cleaners #V00220

Dear Mr. Heaney,

The Department has completed its review of the Remediation Work Plan for the subject site. Based upon the information and representations given in the Work Plan and previous investigation reports dated December 2006, December 2008 and August 2009, the Work Plan is hereby approved. The Work Plan consists of the Revised Remedial Action Work Plan dated April 2011 prepared by Walden Associates.

Please contact Mr. Jamie Ascher of my staff at (631) 444-0246 at your earliest convenience to discuss scheduling the field activities associated with the approved plan.

Sincerely, Waltuf Fanish

Walter J. Parish, P.E.

Regional Hazardous Waste Remediation Engineer

ec: J. Harrington, P.E., NYSDEC

A. Tamuno, Esq., NYSDEC

C. Bethoney, NYSDOH

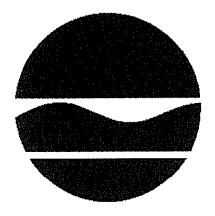
R. Ockerby, NYSDOH

J. Ascher, NYSDEC

P. Brighton, Walden Associates

## **DECISION DOCUMENT**

Bayville Village Cleaners
Voluntary Cleanup Program
Bayville, Nassau County
Site No. V00220
August 2011



Prepared by
Division of Environmental Remediation
New York State Department of Environmental Conservation

## **DECLARATION STATEMENT - DECISION DOCUMENT**

Bayville Village Cleaners Voluntary Cleanup Program Bayville, Nassau County Site No. V00220 August 2011

#### Statement of Purpose and Basis

This document presents the remedy for the Bayville Village Cleaners site, a voluntary cleanup site. The remedial program was chosen in accordance with the New York State Environmental Conservation Law and applicable guidance.

This decision is based on the Administrative Record of the New York State Department of Environmental Conservation (the Department) for the Bayville Village Cleaners site and the public's input to the proposed remedy presented by the Department.

#### **Description of Selected Remedy**

The elements of the remedy are as follows:

- 1) Installation of a sub-slab depressurization system within the facility building. A fan will be connected to one extraction point within the building. Four vacuum test points will be installed within the facility to ensure negative pressure is attained beneath the entire building slab. Additional extraction points can be added, if necessary. Five permanent exterior soil vapor points will be constructed outside the building to monitor the system's effectiveness in capturing/containing soil gas. Although no permit is required, a DAR-1 (Air Guide 1) analysis will be performed. Process exhaust will be routed through a vessel filled with granular activated carbon to remove contaminants prior to discharge to the atmosphere.
- 2) Imposition of an institutional control in the form of a deed restriction for the controlled property that:
- a. requires the remedial party or site owner to complete and submit to the Department a periodic certification of institutional and engineering controls in accordance with Part 375-1.8 (h)(3).
- b. allows the use and development of the controlled property for commercial and industrial uses as defined by Part 375-1.8(g), although land use is subject to local zoning laws;
- c. restricts the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by the NYSDOH or Nassau County DOH;
- d. prohibits agriculture or vegetable gardens on the controlled property; and

- e. requires compliance with the Department approved Site Management Plan;
- 3) A Site Management Plan is required, which includes the following:
- a) an Institutional and Engineering Control Plan that identifies all use restrictions and engineering controls for the site and details the steps and media-specific requirements necessary to ensure the following institutional and/or engineering controls remain in place and effective:

Institutional Controls: The Deed Restriction discussed in Paragraph 2 above.

Engineering Controls: The sub-slab depressurization system discussed in Paragraph 1 above.

This plan includes, but may not be limited to:

- i. an Excavation Plan which details the provisions for management of future excavations in areas of remaining contamination;
- ii. descriptions of the provisions of the deed restrictions including any land use, and/or groundwater and/or surface water use restrictions;
- iii. a provision for evaluation of the potential for soil vapor intrusion for any buildings developed on the site, including provision for implementing actions recommended to address exposures related to soil vapor intrusion.
- iv. provisions for the management and inspection of the identified engineering controls;
- v. maintaining site access controls and Department notification; and
- vi. the steps necessary for the periodic reviews and certification of the institutional and/or engineering controls;
- b) a Monitoring Plan to assess the performance and effectiveness of the remedy. The plan includes, but may not be limited to:
- i. monitoring of the subslab depressurization system to assess the performance and effectiveness of the remedy;
- ii. a schedule of monitoring and frequency of submittals to the Department;
- iii. monitoring for vapor intrusion for any additional buildings developed on the site, as may be required pursuant to item 1 above.
- 4) Green remediation principals and techniques will be implemented to the extent feasible in the site management of the remedy as per DER-31. The major green remediation components are as follows:

- i. Considering the environmental impacts of treatment technologies and remedy stewardship over the long term;
- ii. Reducing direct and indirect greenhouse gas and other emissions;
- iii. Increasing energy efficiency and minimizing use of non-renewable energy;
- iv. Conserving and efficiently managing resources and materials;
- v. Reducing waste, increasing recycling and increasing reuse of materials which would otherwise be considered a waste.

#### Declaration

The remedy conforms with promulgated standards and criteria that are directly applicable, or that are relevant and appropriate and takes into consideration Department guidance, as appropriate. The remedy is protective of public health and the environment.

August 11, 2011

Date

James B. Harrington, P.E., Director Remedial Bureau A

John St. Advis 77

#### **DECISION DOCUMENT**

Bayville Village Cleaners Bayville, Nassau County Site No. V00220 August 2011

#### **SECTION 1: SUMMARY AND PURPOSE**

The New York State Department of Environmental Conservation (the Department), in consultation with the New York State Department of Health (NYSDOH), has selected a remedy for the above referenced site. The disposal of contaminants at the site has resulted in threats to public health and the environment that would be addressed by the remedy. The disposal or release of contaminants at this site, as more fully described in this document, has contaminated various environmental media. Contaminants include hazardous waste and/or petroleum.

The Voluntary Cleanup Program (VCP) is a voluntary program. The goal of the VCP is to enhance private sector cleanup of brownfields by enabling parties to remediate sites using private rather than public funds and to reduce the development pressures on "greenfields." This document is a summary of the information that can be found in the site-related reports and documents.

#### SECTION 2: SITE DESCRIPTION AND HISTORY

Site Location: Bayville Village Dry Cleaners is located at the southeast corner of Bayville Avenue and 17th Street in the Village of Bayville, Town of Oyster Bay, Nassau County.

Site Features: The site is approximately 0.25 acres in size and consists of a single story masonry building that is 1,440 sq/ft in size. The facility is still being utilized as a commercial dry cleaner although it no longer uses tetrachloroethylene (PCE) as part of its dry cleaning process.

Current Zoning/Use(s): The parcel is zoned for commercial use. Surrounding land uses include mixed commercial and residential.

Historical Use(s) and Source(s) of Contamination: It is believed that repeated discharges of PCE contaminated condensate to the ground surface on the west side of the building led to the contamination of subsurface soil and groundwater. Prior to entering the Voluntary Cleanup Program, the affected area was excavated and 67.76 tons of contaminated soil was removed and disposed of off-site at a permitted disposal facility.

Site Geology/Hydrogeology: Subsurface soil is composed mainly of fine/silty sand transitioning to coarse sand 6' below grade. The water table is encountered approximately 8' to 10' below land surface, depending on seasonal fluctuation. The site specific groundwater flow direction is to the

north.

A site location map is attached as Figure 1.

#### SECTION 3: LAND USE AND PHYSICAL SETTING

The Department may consider the current, intended, and reasonably anticipated future land use of the site and its surroundings when evaluating a remedy for soil remediation. For this site, at a minimum, alternatives (or an alternative) that restrict(s) the use of the site to commercial use (which allows for industrial use) as described in DER-10, Technical Guidance for Site Investigation and Remediation were/was evaluated.

A comparison of the results of the Remedial Investigation (RI) to the appropriate standards, criteria and guidance values (SCGs) for the identified land use and the unrestricted use SCGs for the site contaminants is available in the RI Report.

#### **SECTION 4: ENFORCEMENT STATUS**

The voluntary cleanup agreement is with a responsible party. The agreement requires the party to address on-site and off-site contamination. Accordingly, no enforcement actions are necessary.

#### **SECTION 5: SITE CONTAMINATION**

#### 5.1: Summary of the Remedial Investigation

A remedial investigation (RI) serves as the mechanism for collecting data to:

- characterize site conditions:
- determine the nature of the contamination; and
- assess risk to human health and the environment.

The RI is intended to identify the nature (or type) of contamination which may be present at a site and the extent of that contamination in the environment on the site, or leaving the site. The RI reports on data gathered to determine if the soil, groundwater, soil vapor, indoor air, surface water or sediments may have been contaminated. Monitoring wells are installed to assess groundwater and soil borings or test pits are installed to sample soil and/or waste(s) identified. If other natural resources are present, such as surface water bodies or wetlands, the water and sediment may be sampled as well. Based on the presence of contaminants in soil and groundwater, soil vapor will also be sampled for the presence of contamination. Data collected in the RI influence the development of remedial alternatives. The RI report is available for review in the site document repository and the results are summarized in section 5.4.

#### 5.1.1: Standards, Criteria, and Guidance (SCGs)

The remedy must conform to promulgated standards and criteria that are directly applicable or

that are relevant and appropriate. The selection of a remedy must also take into consideration guidance, as appropriate. Standards, Criteria and Guidance are hereafter called SCGs.

To determine whether the contaminants identified in various media are present at levels of concern, the data from the RI were compared to media-specific SCGs. The Department has developed SCGs for groundwater, surface water, sediments, and soil. The NYSDOH has developed SCGs for drinking water and soil vapor intrusion. For a full listing of all SCGs see: http://www.dec.ny.gov/regulations/61794.html

#### 5.1.2: RI Information

The analytical data collected on this site includes data for:

- groundwater
- soil
- soil vapor
- indoor air

The data have identified contaminants of concern. A "contaminant of concern" is a contaminant that is sufficiently present in frequency and concentration in the environment to require evaluation for remedial action. Not all contaminants identified on the property are contaminants of concern. The nature and extent of contamination and environmental media requiring action are summarized below. Additionally, the RI Report contains a full discussion of the data. The contaminant(s) of concern identified at this site is/are:

tetrachloroethylene (pce)

trichloroethene (tce)

The contaminant(s) of concern exceed the applicable SCGs for:

- groundwater
- soil
- soil vapor
- indoor air

#### 5.2: Interim Remedial Measures

An interim remedial measure (IRM) is conducted at a site when a source of contamination or exposure pathway can be effectively addressed before issuance of the Decision Document.

There were no IRMs performed at this site during the RI.

#### 5.3: Summary of Human Exposure Pathways

This human exposure assessment identifies ways in which people may be exposed to site-related contaminants. Chemicals can enter the body through three major pathways (breathing, touching or swallowing). This is referred to as *exposure*.

People are not drinking or coming into contact with the contaminated groundwater because the area is served by a public water supply that is not contaminated by the site. Contact with residual soil contamination is not likely because the site is covered with pavement and a building. Volatile organic compounds in the soil may move into the soil vapor (air spaces within the soil) which in turn may move into overlying buildings and affect indoor air quality. This process, which is similar to the movement of radon gas from the subsurface into the indoor air of buildings, is referred to as soil vapor intrusion. The potential for soil vapor intrusion to affect indoor air quality of the on-site building exists. A sub-slab depressurization system (SSDS) is being designed for installation in the on-site building. The SSDS will prevent indoor air quality from being affected by the contamination in soil vapor beneath the building. The potential exists for off-site soil vapor migration.

#### 5.4: Summary of Environmental Assessment

This section summarizes the assessment of existing and potential future environmental impacts presented by the site. Environmental impacts may include existing and potential future exposure pathways to fish and wildlife receptors, wetlands, groundwater resources, and surface water. The RI report presents a detailed discussion of any existing and potential impacts from the site to fish and wildlife receptors.

Nature and Extent of Contamination: The main contaminant of concern at the site is tetrachloroethylene (PCE). The impacted media are soil, groundwater, indoor air and soil gas. To a lesser extent, the degradation product trichloroethene has been detected in groundwater and soil gas.

SCG soil exceedances exists for PCE in multiple sample locations. In May 1995, soil sampling conducted under the oversight of the Nassau County Department of Health (NCDH) found PCE concentrations as high 36,000 ppm in surface soil (0-6 inches) collected by an evaporator pipe located outside the west side of the building. An additional 11 surface and subsurface soil samples were collected in 1996 under NCDH oversight which revealed PCE concentrations ranging from 0.130 ppm to 11,000 ppm. PCE concentrations generally diminished with depth. These sample results were compared to the recommended soil cleanup objective for PCE of 1.4 ppm in TAGM #4046.

In 1996, prior to entering the Voluntary Cleanup Program, the affected area was excavated and 67.76 tons of contaminated soil was disposed of at a permitted disposal facility. 17 post excavation confirmatory soil samples were collected with residual PCE concentrations ranging from non-detect (ND) to 0.620 ppm. In February 2008, under the VCP, eight supplemental soil samples were collected from the former source area with PCE concentrations in the range of ND to 0.016 ppm in the former source area. The Protection of Groundwater SCO for PCE is 1.3 ppm.

In 1996, groundwater samples were collected at the water table at eight on-site locations. PCE concentrations ranged from ND to 8,600 ppb. The NYS Groundwater Water Standard for PCE is 5 ppb. However, as a result of source removal, PCE levels in 2007 were found to have

diminished significantly (ND to 6.4 ppb). In 2008, groundwater samples were collected at four on-site locations via geoprobe at 25' and 50' below grade. PCE was ND in all samples.

In 2009, PCE was detected in indoor air sampling at 65 ug/m3. The NYSDOH action level for PCE in indoor air is 100 ug/m3. The dry cleaners no longer uses PCE in their dry cleaning process.

Sub-slab soil gas was sampled twice, in 2008 and 2009, and revealed PCE levels at 2,500 ug/m3 and 2,200 ug/m3, respectively. The NYSDOH action level for mitigation of PCE in sub-slab soil gas is 1,000 ug/m3. Exterior soil gas was sampled at five locations outside the building and revealed PCE in the range of 880 ug/m3 to 2,000 ug/m3. Exterior soil gas will be evaluated when the mitigation system is operational to determine if any off-site soil vapor sampling is warranted.

#### SECTION 6: ELEMENTS OF THE SELECTED REMEDY

The alternatives developed for the site and evaluation of the remedial criteria are present in the Alternative Analysis. The remedy is selected pursuant to the remedy selection criteria set forth in DER-10, Technical Guidance for Site Investigation and Remediation.

The elements of the selected remedy, as shown in Figure 2, are as follows:

- 1) Installation of a sub-slab depressurization system within the facility building. A fan will be connected to one extraction point within the building. Four vacuum test points will be installed within the facility to ensure negative pressure is attained beneath the entire building slab. Additional extraction points can be added, if necessary. Five permanent exterior soil vapor points will be constructed outside the building to monitor the system's effectiveness in capturing/containing soil gas. Although no permit is required, a DAR-1 (Air Guide 1) analysis will be performed. Process exhaust will be routed through a vessel filled with granular activated carbon to remove contaminants prior to discharge to the atmosphere.
- 2) Imposition of an institutional control in the form of a deed restriction for the controlled property that:
- a. requires the remedial party or site owner to complete and submit to the Department a periodic certification of institutional and engineering controls in accordance with Part 375-1.8 (h)(3).
- b. allows the use and development of the controlled property for commercial and industrial uses as defined by Part 375-1.8(g), although land use is subject to local zoning laws;
- c. restricts the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by the NYSDOH or Nassau County DOH;
- d. prohibits agriculture or vegetable gardens on the controlled property; and
- e. requires compliance with the Department approved Site Management Plan;

- 3) A Site Management Plan is required, which includes the following:
- a) an Institutional and Engineering Control Plan that identifies all use restrictions and engineering controls for the site and details the steps and media-specific requirements necessary to ensure the following institutional and/or engineering controls remain in place and effective:

Institutional Controls: The Deed Restriction discussed in Paragraph 2 above.

Engineering Controls: The sub-slab depressurization system discussed in Paragraph 1 above.

This plan includes, but may not be limited to:

- i. an Excavation Plan which details the provisions for management of future excavations in areas of remaining contamination;
- ii. descriptions of the provisions of the deed restrictions including any land use, and/or groundwater and/or surface water use restrictions;
- iii. a provision for evaluation of the potential for soil vapor intrusion for any buildings developed on the site, including provision for implementing actions recommended to address exposures related to soil vapor intrusion.
- iv. provisions for the management and inspection of the identified engineering controls;
- v. maintaining site access controls and Department notification; and
- vi. the steps necessary for the periodic reviews and certification of the institutional and/or engineering controls;
- b) a Monitoring Plan to assess the performance and effectiveness of the remedy. The plan includes, but may not be limited to:
- i. monitoring of the subslab depressurization system to assess the performance and effectiveness of the remedy;
- ii. a schedule of monitoring and frequency of submittals to the Department;
- iii. monitoring for vapor intrusion for any additional buildings developed on the site, as may be required pursuant to item 1 above.
- 4) Green remediation principals and techniques will be implemented to the extent feasible in the site management of the remedy as per DER-31. The major green remediation components are as
- i. Considering the environmental impacts of treatment technologies and remedy stewardship over the long term;

- ii. Reducing direct and indirect greenhouse gas and other emissions;
- iii. Increasing energy efficiency and minimizing use of non-renewable energy;
- iv. Conserving and efficiently managing resources and materials;
- v. Reducing waste, increasing recycling and increasing reuse of materials which would otherwise be considered a waste.



#### New York State Department of Environmental Conservation

## **FACT SHEET**

#### Voluntary Cleanup Program

Bayville Village Cleaners #V00220 Bayville, NY April 2011

## Remedy Proposed for Voluntary Cleanup Program Site Contamination; Public Comment Period Announced

The public is invited to comment on a proposed remedy being reviewed by the New York State Department of Environmental Conservation (NYSDEC) to address contamination related to Bayville Village Cleaners ("site") located at 290 Bayville Road in Bayville, Nassau County. See map for site location.

The Proposed Remedy

The remedy proposed for the site includes the construction of a sub-slab depressurization system within the site building to capture soil vapors beneath the building. The volunteer and Walden Associates developed the proposed remedy after performing a detailed investigation of the site under New York's Voluntary Cleanup Program.

The proposed remedy is described in a draft cleanup plan called a "Remedial Action Work Plan." The document is available for review at the locations identified below under "Where to Find Information."

#### How to Comment

NYSDEC is accepting written public comments about the proposed remedy for 30 days, from May 4, 2011 through June 2, 2011.

Submit written comments to:

Voluntary Cleanup Program: New York's Voluntary Cleanup Program (VCP) was developed to encourage private sector volunteers to investigate and clean up contaminated properties and return these sites to productive use. Once cleaned up, the properties may be redeveloped for commercial, industrial, residential or public use.

For more information about the VCP, visit: www.doc.ny.gov/chemical/8442.html

Mr. Jamie Ascher
New York State Department of Environmental
Conservation
SUNY @ Stony Brook
50 Circle Road, Stony Brook NY 11790
junisher of gryndeg statengy to

#### Summary of the Proposed Remedy

Prior to entering the Voluntary Cleanup Program, the volunteer removed 68 tons of contaminated soil from

the site. This soil was disposed of at a permitted disposal facility. As a result of this remedial action, the concentration of contaminants in groundwater has diminished. However, concentrations of dry cleaning fluid in subsurface soil gas are at levels which, when compared to the New York State Department of Health's (NYSDOH) action levels, triggers the need for action. The volunteer is proposing to use a technology called "sub-slab depressurization" which has been successfully employed at many sites to mitigate soil vapor intrusion. A blower motor is used to vacuum soil vapors from the subsurface. When the system has been constructed, it will be tested to ensure that it is effective in capturing soil vapors. Contaminated soil vapors will pass through a carbon canister to remove pollutants before the air is returned to the atmosphere. After the remedy is constructed a site management plan will be prepared for the operation, maintenance and monitoring of the system.

#### Next Steps

NYSDEC will consider public comments, revise the plan as necessary, and approve the proposed remedy. The NYSDOH must concur with the proposed remedy. After approval, the proposed remedy becomes the selected remedy. The draft Remedial Action Work Plan that describes the proposed remedy is revised as needed to describe the selected remedy, and will be made available to the public (see "Where to Find Information" below). The volunteer may then perform the cleanup action to address the site contamination, with oversight by NYSDEC. NYSDEC will keep the public informed during the cleanup of the site.

#### Background

NYSDEC previously accepted an application from the volunteer to participate in the Voluntary Cleanup Program. The application proposes that the site will be used for commercial purposes. The site is approximately 0.25 acres in size and continues to be operated as a commercial dry cleaners. Under the Voluntary Cleanup Program, prior to the preparation of the draft Remedial Action Work Plan, a site investigation was performed which evaluated soil, soil gas, indoor air and groundwater quality.

#### FOR MORE INFORMATION

#### Where to Find Information

Project documents are available at the following locations to help the public stay informed. These documents include the draft cleanup plan (draft Remedial Action Work Plan).

Bayville Free Library
34 School Street
Bayville, NY 11709
(516) 628-2765
Monday-Thursday 10am-9pm
Friday 10am-5pm
Saturday 10am-1pm

NYSDEC-Region 1 SUNY @ Stony Brook 50 Circle Road Stony Brook, NY 11790 Monday-Friday 8:30am-4:45pm

#### Who to Contact

Comments and questions are always welcome and should be directed as follows:

Project Related Questions

Mr. Jamie Ascher
New York State Department of
Environmental Conservation
SUNY @ Stony Brook
50 Circle Road
(631) 444-0240
(xascheria gw.dec.state.ny.us

Site-Related Health Ouestions
Ms. Renata Ockerby
New York State Department of Health
Flanigan Square – 547 River Street
Troy, NY 12180
(518) 402-7880

reo()2/a/health.state.ny.us

We encourage you to share this fact sheet with neighbors and tenants, and/or post this fact sheet in a prominent area of your building for others to see.

#### Receive Site Fact Sheets by Email

Have site information such as this fact sheet sent right to your email inbox. NYSDEC invites you to sign up with one or more contaminated sites county email listservs available at the following web page: www.dec.ny.gov\_chemical\_61092.html . It's quick, it's free, and it will help keep you better informed.



As a listsery member, you will periodically receive site-related information/announcements for all contaminated sites in the county(ies) you select.

You may continue also to receive paper copies of site information for a time after you sign up with a county listsery, until the transition to electronic distribution is complete.

Note: Please disregard if you already have signed up and received this fact sheet electronically.



#### SITE LOCATION PLAN

Bayville Village Cleaners 290 Bayville Ave, Bayville, NY 11079 Figure 1

0 20 40 80 120 160 Feet



New York State Department of Environmental Conservation
Division of Environmental Enforcement
State Superfund and Voluntary Cleanup Bureau
Eastern Field Unit
200 White Plains Road, 5th Floor
Tarrytown, New York 10591-5805
Telephone: (914) 332-1835
Fax (914)332-5116 (not for service of process)



BEC - 3

December 1, 1999

Andrew Levitt, Esq. Farrell Fritz EAB Plaza Uniondale, NY 11556-0120

Re: Bayville Village Cleaners Index No. W1-0848-9903

Dear Mr. Levitt:

Enclosed is a fully executed voluntary agreement for the investigation of the site above referenced. Please forward the agreement to your client for implementation. Please feel free to contact me with any comments or questions you may have.

Thank you for your time and attention.

Very truly yours,

Edward F. Devine

Division of Environmental Enforcement

VCc: J. Ascher

#### NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

In the Matter of the Implementation of an Investigation of

**AGREEMENT** 

DEC

7

290 Bayville Avenue,

INDEX NUMBER: W1-0848-9903

Bayville Village Cleaners, Inc. Volunteer.

#### **DEFINITIONS**

by

For purposes of this Agreement, the following terms have the following definitions:

- A. "ECL": the Environmental Conservation Law.
- B. "Day": a calendar day unless otherwise specified.
- C. "Department": the New York State Department of Environmental Conservation.
- D. "Site": that property located at 290 Bayville Avenue, Village of Bayville, Town of Oyster Bay, County of Nassau, Long Island, New York, Sec. 28, Block 20, Tax lot #58. Exhibit "A" of this Agreement is a map of the Site showing its general location.
- E. "Volunteer": Bayville Village Cleaners, Inc. at 290 Bayville Avenue, Bayville, New York, the owner and operator of the Site.
- F. "Work Plan": the Department-approved investigative work plan pertaining to the Site that Volunteer shall implement and that is attached to this Agreement as Exhibit "B", as may be modified under the terms of this Agreement and is an enforceable part of this Agreement.

#### CONSIDERING,

- 1. The Department is responsible for enforcement of the ECL. This Agreement is entered into pursuant to the Department's authority under that law.
- 2. A. The Volunteer intends to continue to operate a dry cleaning facility at the Site.

- B. Volunteer represents, and for the purposes of this Agreement, the Department relies on those representations, that Volunteer's involvement with the Site and with the facility on that Site is limited to the following: Volunteer is the owner and operator of the Site and is responsible under law to remediate contamination existing at the Site and migrating from the Site as of the effective date of this Agreement.
- 3. The Department has the power, *inter alia*, to provide for the prevention and abatement of all water, land, and air pollution. ECL 3-0301.1.i.
- 4. Volunteer, desirous of implementing an investigation program acceptable to the Department, consents to the terms and conditions of this Agreement.
- 5. The Department and Volunteer agree that the goals of this Agreement are for Volunteer to,
  - A. implement the Work Plan; and
  - B. reimburse the State's administrative costs as provided in this Agreement.
- 6. Volunteer agrees to be bound by the terms of this Agreement. Volunteer consents to and agrees not to contest the authority or jurisdiction of the Department to issue or enforce this Agreement, and agrees not to contest the validity of this Agreement or its terms.

IN CONSIDERATION OF AND IN EXCHANGE FOR THE MUTUAL COVENANTS AND PROMISES SET FORTH BELOW, VOLUNTEER AGREES TO THE FOLLOWING:

#### I. Performance and Reporting of the Investigation Program

- A. Within 30 days after the effective date of this Agreement, Volunteer shall commence implementation of the Work Plan and shall carry it out in accordance with its terms.
- B. Volunteer shall notify the Department of any significant difficulties that may be encountered in implementing the Work Plan or any Department-approved modification to the Work Plan and shall not modify any obligation unless first approved by the Department.
- C. During implementation of all field activities identified in the Work Plan, Volunteer shall have on-Site a full-time representative who is qualified to supervise the work done.

- D. In accordance with the schedule contained in the Work Plan, Volunteer shall submit to the Department a final investigation report. The final investigation report shall:
- 1. include all data generated and all other information obtained during the investigation;
- 2. provide all of the assessments and evaluations identified in the Work Plan;
  - 3. identify any additional data that must be collected; and
- 4. include a certification by the individual or firm with primary responsibility for the day to day performance of the investigation that all activities that comprised the investigation were performed in full accordance with the approved Work Plan.

#### II. Progress Reports

- A. Volunteer shall submit to the parties identified in Subparagraph X.A.1 in the numbers specified therein copies of written monthly progress reports that:
- 1. describe the actions which have been taken toward achieving compliance with this Agreement during the previous month;
- 2. include all results of sampling and tests and all other data received or generated by Volunteer or Volunteer's contractors or agents in the previous month, including quality assurance/quality control information, whether conducted pursuant to this Agreement or conducted independently by Volunteer;
- 3. identify all reports and other deliverables required by this Agreement that were completed and submitted during the previous month;
- 4. describe all actions, including, but not limited to, data collection and implementation of the Work Plan, that are scheduled for the next month and provide other information relating to the progress at the Site;
- 5. include information regarding percentage of completion, unresolved delays encountered or anticipated that may affect the future schedule for implementation of Volunteer's obligations under the Agreement, and efforts made to mitigate those delays or anticipated delays; and
  - 6. include any modifications to the Work Plan that Volunteer has

of labor and materials, war, riot, obstruction or interference by adjoining landowners, or any other fact or circumstance beyond Volunteer's reasonable control ("force majeure event"). Volunteer shall, within five working days of when it obtains knowledge of any such force majeure event, notify the Department in writing. Volunteer shall include in such notice the measures taken and to be taken by Volunteer to prevent or minimize any delays and shall request an appropriate extension or modification of this Agreement. Volunteer shall have the burden of proving by a preponderance of the evidence that an event is a defense to compliance with this Agreement pursuant to this Subparagraph IV.B of this Agreement.

#### V. Entry upon Site

Volunteer hereby consents to the entry upon the Site or areas in the vicinity of the Site which may be under the control of Volunteer by any duly designated employee, consultant, contractor, or agent of the Department or any State agency having jurisdiction with respect to the Investigation Program for purposes of inspection, sampling, and testing and to ensure Volunteer's compliance with this Agreement. The Department shall abide by the health and safety rules in effect for work performed at the Site under the terms of this Agreement. Upon request, Volunteer shall provide the Department with suitable office space at the Site, including access to a telephone, and shall permit the Department full access to all records relating to matters addressed by this Agreement and to job meetings.

#### VI. Payment of State Costs

Within thirty days after receipt of an itemized invoice(s) from the Department, Volunteer shall pay to the Department a sum of money which shall represent reimbursement for the State's expenses including, but not limited to, direct labor, fringe benefits, indirect costs, travel, analytical costs, and contractor costs incurred by the State of New York for work performed at the Site to date, as well as for negotiating this Agreement, reviewing and revising submittals made pursuant to this Agreement, overseeing activities conducted pursuant to this Agreement, collecting and analyzing samples, and administrative costs associated with this Agreement. Each such payment shall be made by certified check payable to the Department of Environmental Conservation and shall be sent to:

Bureau of Program Management
Division of Environmental Remediation
New York State Department of Environmental Conservation
50 Wolf Road
Albany, NY 12233-7010

Personal service costs shall be documented by reports of Direct Personal Service, which

shall identify the employee name, title, biweekly salary, and time spent (in hours) on the project during the billing period, as identified by an assigned time and activity code. Approved agency fringe benefit and indirect cost rates shall be applied. Non-personal service costs shall be summarized by category of expense (e.g., supplies, materials, travel, contractual) and shall be documented by expenditure reports.

B. Notwithstanding anything to the contrary contained herein, Volunteer shall have no obligation to pay the Department a sum of money which, in the aggregate, exceeds Five Thousand (\$5,000.00) Dollars for the State's expenses incurred in connection with this Agreement.

#### VII. Department Reservation of Rights

- A. Except as provided in Subparagraph I.E of this Agreement, nothing contained in this Agreement shall be construed as barring, diminishing, adjudicating, or in any way affecting any of the Department's rights (including, but not limited to, nor exemplified by, the right to recover natural resources damages) with respect to any party, including Volunteer.
- B. Nothing contained in this Agreement shall prejudice any rights of the Department to take any investigatory or remedial action it may deem necessary.
- C. Nothing contained in this Agreement shall be construed to prohibit the Commissioner or his duly authorized representative from exercising any summary abatement powers.
- D. Nothing contained in this Agreement shall be construed to affect the Department's right to terminate this Agreement at any time during its implementation if Volunteer fails to comply substantially with this Agreement's terms and conditions.

#### VIII. Indemnification

Volunteer shall indemnify and hold the Department, the State of New York, and their representatives and employees harmless for all claims, suits, actions, damages, and costs of every name and description arising out of or resulting from the fulfillment or attempted fulfillment of this Agreement by Volunteer and/or any of Volunteer's directors, officers, employees, servants, agents, successors, and assigns. However, Volunteer shall not be required to indemnify the Department, the State of New York, and their representatives and employees regarding any liability arising as a result of the gross negligence or reckless, wanton or intentional misconduct by the Department, the State of New York, and their representatives and employees during the course of any activities conducted pursuant to this Agreement.

#### IX. Notice of Sale or Conveyance

- A. Within 30 days after the effective date of this Agreement, Volunteer shall
- 1. file the Notice of Agreement, which is attached to this Agreement as Exhibit "C," with the Nassau County Clerk to give all parties who may acquire any interest in the Site notice of this Agreement and
  - 2. provide the Department with evidence of such filing.
- B. If Volunteer proposes to convey the whole or any part of Volunteer's ownership interest in the Site, Volunteer shall, not fewer than 60 days before the date of conveyance, notify the Department in writing of the identity of the transferee and of the nature and proposed date of the conveyance and shall notify the transferee in writing, with a copy to the Department, of the applicability of this Agreement.

#### X. Communications

- A. All written communications required by this Agreement shall be transmitted by United States Postal Service, by private courier service, or hand delivered.
  - 1. Communication from Volunteer shall be sent to:

Jamie Ascher
Environmental Engineer
New York State Department of Environmental Conservation
Division of Environmental Remediation
SUNY, Building 40
Stony Brook, NY 11790-2356

#### with copies to:

G. Anders Carlson, Ph.D.
Director, Bureau of Environmental
Exposure Investigation
New York State Department of Health
Flanigan Square
Troy, New York 12180-2216

Jeanna E. Hussey, Esq.
New York State Department of Environmental Conservation
Division of Environmental Enforcement
200 White Plains Road, 5th Floor
Tarrytown, NY 10591-5805

Copies of work plans and reports shall be submitted as follows:

- Four copies (one unbound) to Jamie Ascher
- Two copies to Dr. Carlson
- 2. Communication to be made from the Department to Volunteer shall be sent to:

John V. Soderberg, Esq. Farrell Fritz, P.C. EAB Plaza, West Tower, 14th Fl Uniondale, New York 11556

P.W. Grosser Consulting 630 Johnson Avenue Suite 7 Bohemia, New York 11716-2618

B. The Department and Volunteer reserve the right to designate additional or different addressees for communication on written notice to the other given in accordance with this Paragraph X.

#### XI. Miscellaneous

- A. 1. By entering into this Agreement, Volunteer certifies that Volunteer has fully and accurately disclosed to the Department all information known to Volunteer and all information in the possession or control of Volunteer's employees, contractors, and agents which relates in any way to the contamination existing on the effective date of this Agreement, and to any past or potential future release of hazardous substances, pollutants, or contaminants, at or from the Site and to their application for this Agreement.
- 2. If the Department determines that information Volunteer provided and certifications made are not materially accurate and complete, this Agreement, within the sole discretion of the Department, shall be null and void *ab initio* except with respect to the provisions of Paragraphs VI and VIII and except with respect to the Department's right to enforce those obligations under this Agreement, and the Department shall reserve all rights that it may have.
- B. Volunteer shall retain professional consultants, contractors, laboratories, quality assurance/quality control personnel, and data validators acceptable to the Department to perform the technical, engineering, and analytical obligations required by this Agreement. The responsibility for the performance of the professionals retained by Volunteer shall rest solely with Volunteer.

- C. The Department shall have the right to obtain split samples, duplicate samples, or both, of all substances and materials sampled by Volunteer, and the Department also shall have the right to take its own samples. Volunteer shall make available to the Department the results of all sampling and/or tests or other data generated by Volunteer with respect to implementation of this Agreement and shall submit these results in the progress reports required by this Agreement.
- D. Volunteer shall notify the Department at least five working days in advance of any field activities to be conducted pursuant to this Agreement.
- E. 1. Subject to Subparagraph XI.E.2 of this Agreement, the Volunteer shall obtain all permits, easements, rights-of-way, rights-of-entry, approvals, or authorizations necessary to perform the Volunteer's obligations under this Agreement.
- 2. In carrying out the activities identified in the Work Plan, the Department may exempt Volunteer from the requirement to obtain any Department permit for any activity that is conducted on the Site and that satisfies all substantive technical requirements applicable to like activity conducted pursuant to a permit.
- F. Volunteer, Volunteer's agents, servants, and employees (in the performance of their designated duties on behalf of Volunteer), and Volunteer's lessees, successors, and assigns shall be bound by this Agreement. Any change in ownership of Volunteer including, but not limited to, any transfer of assets or real or personal property shall in no way alter Volunteer's responsibilities under this Agreement. Volunteer's employees, servants, and agents shall be obliged to comply with the relevant provisions of this Agreement in the performance of their designated duties on behalf of Volunteer.
- G. Volunteer shall provide a copy of this Agreement to each contractor hired to perform work required by this Agreement and to each person representing Volunteer with respect to the Site and shall condition all contracts entered into in order to carry out the obligations identified in this Agreement upon performance in conformity with the terms of this Agreement. Volunteer or Volunteer's contractors shall provide written notice of this Agreement to all subcontractors hired to perform any portion of the work required by this Agreement. Volunteer shall nonetheless be responsible for ensuring that Volunteer's contractors and subcontractors perform the work in satisfaction of the requirements of this Agreement.
- H. The paragraph headings set forth in this Agreement are included for convenience of reference only and shall be disregarded in the construction and interpretation of any of the provisions of this Agreement.

---

I. l. No term, condition, understanding, or agreement purporting to modify or vary any term of this Agreement shall be binding unless made in writing and

subscribed by the party to be bound. No informal advice, guidance, suggestion, or comment by the Department regarding any report, proposal, plan, specification, schedule, or any other submittal shall be construed as relieving Volunteer of Volunteer's obligation to obtain such formal approvals as may be required by this Agreement.

- 2. If Volunteer desires that any provision of this Agreement be changed, Volunteer shall make timely written application, signed by the Volunteer, to the Commissioner setting forth reasonable grounds for the relief sought. Copies of such written application shall be delivered or mailed to Mr. Ascher and to Ms. Hussey.
- J. This Agreement is not subject to review under the State Environmental Quality Review Act. 6 NYCRR 617.5(c)(18).
- K. The provisions of this Agreement do not constitute and shall not be deemed a waiver of any right Volunteer otherwise may have to seek and obtain contribution and/or indemnification from other potentially responsible parties or their insurers, or Volunteer's insurers, for payments made previously or in the future for response costs.
- L. Volunteer and Volunteer's officers, employees, servants, agents, lessees, successors, and assigns hereby affirmatively waive any right they had, have, or may have to make a claim pursuant to Article 12 of the Navigation Law with respect to the Site, and further release and hold harmless the New York State Environmental Protection and Spill Compensation Fund from any and all legal or equitable claims, suits, causes of action, or demands whatsoever that any of same has or may have as a result of Volunteer's entering into or fulfilling the terms of this Agreement with respect to the Site.
- M. The effective date of this Agreement shall be the date attorneys for Volunteer receive this Agreement, signed and as issued by the Commissioner or his designee and as served upon Volunteer's attorney by certified mail.

DATED: 11/23/11

H

JOHN P. CAHILL, COMMISSIONER NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

S. Cahill

#### CONSENT BY VOLUNTEER

Volunteer hereby consents to the issuing and entering of this Agreement, waives Volunteer's right to a hearing herein as provided by law, and agrees to be bound by this Agreement.

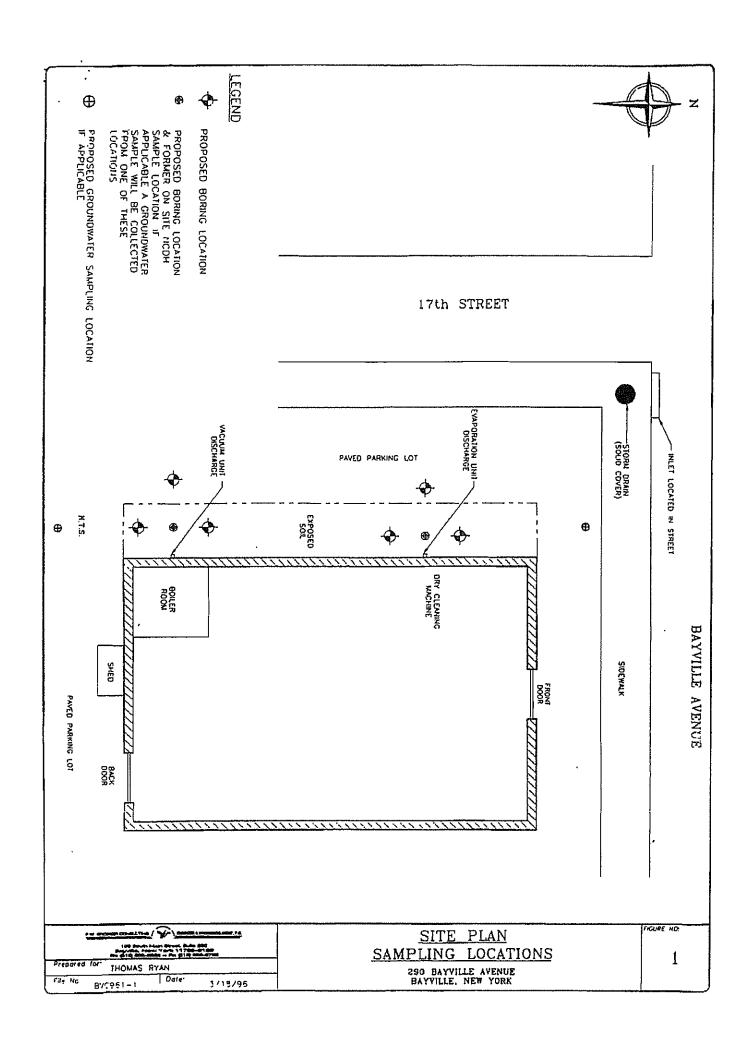
| Bayville Village Cleaners, Inc.  |
|--|
| By: Thomas Ryan, President   |
| Date:  |
|  |
| STATE OF NEW YORK )  |
| COUNTY OF MHLS HW )  |
| On this 13 day of Sylin W, 19 7 before me personally came THindhis Ruffa , to me known, who being duly sworn, did depose and say that he resides in GLEN MEND NY; that he is the 1 RESIDENT of   |
| BAUNICLE VILLAGE CLEANERS, the corporation described in and which executed the   |
| foregoing instrument; that he knew the seal of said corporation; that the seal affixed to said instrument was such corporate seal; that it was so affixed by the order of the Board of Trustees of said corporation and that he signed his name thereto by like order. |
| •  |

Notary Rublic

BETTY MEBRON
Note 1, Proceedings of New York
10 - 201857
Question in Newson County g U C (
M, Cummission Expires May 4.

## EXHIBIT "A"

## Map of Site



## EXHIBIT "B"

## Department-Approved Work Plan

## Exhibit "C"

#### NOTICE OF AGREEMENT

| This Notice is made as of the date Cleaners, Inc., the fee owner of a parcel of re Bayville, NY as more particularly described ("Property"); and  |                                |  |  |
|---|--------------------------------|--|--|
| WHEREAS, Bayville Village Cleaners, Inc., by authorized signature, entered into an agreement with the Department, Index #W1-0848-9903 (the "Agreement"), concerning the investigation of the Property, which Agreement was signed by the Commissioner of Environmental Conservation on; and |                                |  |  |
| WHEREAS, pursuant to the Agreement, Bayville Village Cleaners, Inc. agreed that it would give notice of the Agreement to all parties who may acquire any interest in the Property by filing this Notice with the Nassau County Clerk,   |                                |  |  |
| NOW, THEREFORE, Bayville Village Cleaners, Inc., for itself, its successors and its assigns, declares that:   |                                |  |  |
| 1. Notice of the Agreement is, hereby, given to all parties who may acquire any interest in the Property.   |                                |  |  |
| 2. This Notice shall terminate upon the filing by Bayville Village Cleaners, Inc., or its successors and assigns, of a termination of notice of Agreement.  |                                |  |  |
| IN WITNESS WHEREOF, has executed this Notice of Agreement by its duly authorized representative.  |                                |  |  |
| Ва  | ayville Village Cleaners, Inc. |  |  |
| Dated: By   | y:                             |  |  |
| Its   | 3:                             |  |  |

#### NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

In the Matter of the Implementation of a modification to a Voluntary Cleanup Agreement for: Bayville Village Cleaners, New York by: Bayville Village Cleaners, Inc., "Volunteer" Site #: V00220 Index #: W1-0848-13-04

WHEREAS, the New York State Department of Environmental Conservation (the "Department") and Bayville Village Cleaners. Inc. ("Volunteer") executed a Voluntary Cleanup Agreement for the investigation of the Bayville Village Cleaners. Site No. V00220, Index No. W1-0848-9903, dated November 23, 1999 (the "Agreement"). The Bayville Village Cleaners site is located at 290 Bayville Avenue, Village of Bayville, Town of Oyster Bay, Nassau County, New York (the "Site"). A copy of the Agreement is attached hereto as Exhibit "A"; and

WHEREAS, the Department is responsible for the enforcement of the ECL and the NL and such laws provide the Department authority to enter into this Agreement; and

WHEREAS, on August 11, 2011, the Departme it issued a decision document for the Site to present the selected remedy for the Site (the "Decision Document"). The elements of the selected remedy include the installation of a SSDS, use of an institutional control at the Site in the form of deed restrictions, and the development and the implementation of a Site Management Plan. The Decision Document is attached to this modification to the Agreement as Exhibit "B" and is incorporated as an enforceable part of this modification to the Agreement; and

WHEREAS, on August 15, 2011, the Department approved a "Revised Remedial Action Work Plan" for the Site prepared by Walden Associates dated April 2011, which proposed a remedy to "eliminate potential exposure to the sub-slab vapors detected at the Site by utilizing a sub-slab depressurization system" ("SSDS"); and

WHEREAS, in March 2013, the Volunteer sought modification of the Agreement to enable "closure on the Bayville Village Cleaners as my VCA contract did not provide for the proper work necessary for closure"; and

WHEREAS, the Department agreed to modify the Agreement to enable closure of the Voluntary Cleanup Program project for the Site, which requires, among other things, the development and implementation of a Site Management Plan, submission of a final engineering report, placement of deed restrictions, and the Departme 1's issuance of a release letter upon completion of the remedial program for the Site.

NOW, THEREFORE, IN CONSIDERATION OF AND IN EXCHANGE FOR THE MUTUAL COVENANTS AND PROMISES. THE PARTIES AGREE TO THE FOLLOWING:

1. Paragraph I of the Agreement is hereby modified to add new subparagraphs that read as follows:

#### E. Site Specific Definitions

Unless otherwise expressly provided herein, terms used in this modification to the Agreement are defined in the ECL Article 27 or in regulations promulgated thereunder shall have the meaning assigned to them under said statute or regulations, including amendments thereto. The following terms shall have the following meaning:

- 1. "Contemplated Use": restricted commercial use excluding day care, child care and medical care uses.
- 2. "Existing Contamination": Contamination of soil, soil gas and groundwater beneath and in the vicinity of the Site with tetrachlorothene as described in the "Continued Soil and Groundwater Investigation & Remedial Measure at Bayville Village Cleaners", dated December 1996, "Site Investigation Report", dated December 9, 2008 and "Site Investigation Report Addendum", dated August 3, 2009. The term also includes contamination identified during the implementation of this Agreement, the nature and extent of which were unknown or insufficiently characterized as of the effective date of this Agreement, but which shall have been fully characterized and addressed to the Department's satisfaction.
- 3. "Covered Contamination": the concentrations of Existing Contamination remaining on the Site on the date that the Department issues the Release and Covenant Not to Sue that is substantially similar to Exhibit "C" attached to this modification to the Agreement.

#### I. F. Submission/Implementation of Work Plans

- 1. A Site Management Plan ("SMP") whose objective is to identify and implement the institutional and engineering controls required for the Site, as well as any necessary monitoring and/or operation and maintenance ("OM&M") of the remedy, shall be submitted to the Department within sixty (60) Days after the effective date of this modification to the Agreement. The Department shall notify Volunteer in writing of its approval or disapproval of the SMP.
- 2. If the Department approves the SMP, Volunteer shall implement the SMP in accordance with its schedule and terms as approved. If the Department disapproves the SMP, it will notify Volunteer in writing and shall specify the reasons for its disapproval. Within 30 days after Volunteer receives written notice that the SMP has been disapproved, Volunteer shall submit a revised submittal that addresses and resolves all of the Department's stated reasons for disapproving the initial submittal. After receipt of the revised submittal, the Department shall in a timely manner notify Volunteer in writing of its approval or disapproval of the revised submittal and the stated reasons therefore. If the Department disapproves the revised submittal, Volunteer shall revise and submit a revised submittal in accordance with the Department's comments within 30 business days of the Department's notice unless an alternative time is agreed to by the Department. If the Department disapproves the revised submittal, the Agreement shall terminate upon the Department so informing Volunteer in writing, and both parties reserve whatever rights that they may have had before the execution of the Agreement respecting the Site's remediation. If the Department approves the revised submittal, Volunteer shall implement it in accordance with its schedule and terms, as

approved. The SMP or revised submittal, as approved, shall be incorporated into and become an enforceable part of this Agreement.

- 3. Volunteer may opt to propose one or more additional or supplemental Work Plans (including one or more IRM Work Plans) at any time, which the Department shall review for appropriateness and technical sufficiency. The additional or supplemental work plan, as approved, shall be incorporated into and become an enforceable part of this Agreement.
- 4. A Professional Engineer must stamp and sign all Work Plans other than a Site Characterization or Remedial Investigation/Feasibility Study Work Plans.
- 5. During all field activities, Volunteer shall have on-Site a representative who is qualified to supervise the activities undertaken. Such representative may be an employee or a consultant retained by Volunteer to perform such supervision.

#### G. Release and Covenant Not to Sue

Upon the Department's determination that (i) Volunteer is in compliance with the Agreement; (ii) no requirements other than those remedial actions, exclusive of OM&M activities, already conducted at the Site, if any, are necessary to assure that Site conditions are protective of the public health and the environment based upon the Contemplated Use; and (iii) Volunteer has complied, if required, with Paragraph IX.C (Declaration of Covenants and Restrictions) of the Agreement, the Department shall timely provide Volunteer with the Release and Covenant No to Sue that is substantially similar to Exhibit "C," subject to the terms and conditions stated therein.

#### H. Submission of Final Reports and Annual Reports

- 1. In accordance with the schedule contained in a Work Plan, Volunteer shall submit a final report as provided at 6 NYCRR 375-1.6(b) and a final engineering report as provided at 6 NYCRR 375-1.6(c).
- 2. Any final report or final engineering report that includes construction activities shall include "as built" drawings showing any changes made to the remedial design or the IRM.
- 3. In the event that the final engineering report for the Site requires Site management, Volunteer shall submit an annual report by the 1<sup>st</sup> Day of the month following the anniversary of the start of the Site management. Such annual report shall be signed by a Professional Engineer or by such other qualified environmental professional as the Department may find acceptable and shall contain a certification as provided at 6 NYCRR 375-1.8(h)(3). Volunteer may petition the Department for a determination that the institutional and/or engineering controls may be terminated. Such petition must be supported by a statement by a Professional Engineer that such controls are no longer necessary for the protection of public health and the environment. The Department shall not unreasonably withhold its approval of such petition.

2. Paragraph VI. of the Agreement is hereby modified to add a new Subparagraph that reads as follows:

#### C. Payment of State Costs

- 1. Within forty-five (45) Days after receipt of an itemized invoice from the Department, Volunteer shall pay to the Department a sum of money which shall represent reimbursement of expenses incurred by the State of New York for all work related to the Site from August 12, 2011, the State's expenses for negotiating this Agreement, and all costs associated with this Agreement, through and including the Termination Date.
- 2. Personal service costs shall be documented by reports of Direct Personal Service, which shall identify the employee name, title, biweekly salary, and time spent (in hours) on the project during the billing period, as identified by an assigned time and activity code. Approved agency fringe benefit and indirect cost rates shall be applied. Non-personal service costs shall be summarized by category of expense (e.g., supplies, materials, travel, contractual) and shall be documented by expenditure reports. The Department shall not be required to provide any other documentation of costs, provided however, that the Department's records shall be available consistent with, and in accordance with. Article 6 of the Public Officers Law.
  - 3. Such invoice shall be sent to the Volunteer at the following address:

Bayville Village Cleaners, Inc. c/o Thomas C. Ryan 19 Todd Drive Glen Head, NY 11545

- 4. Each such payment shall be made payable to the Department of Environmental Conservation and shall be sent to: Bureau of Program Management, Division of Environmental Remediation, New York State Department of Environmental Conservation, 625 Broadway, Albany, NY 12233-7010.
- 5. Each party shall provide written notification to the other within ninety (90) Days of any change in the foregoing addresses.
- VI.C(1) if it believes (i) the cost documentation contains elerical, mathematical, or accounting errors; (ii) the costs are not related to the State's activities reimbursable under this Agreement; or (iii) the Department is not otherwise legally entitled to such costs. If Volunteer objects to an invoiced cost, Volunteer shall pay all costs not objected to within the time frame set forth in Subparagraph VI.C(1) and shall, within thirty (30) Days of receipt of an invoice, identify in writing all costs objected to and identify the basis of the objection. This objection shall be filed with the BPM Director. The BPM Director or the BPM Director's designee shall have the authority to relieve Volunteer of the obligation to pay invalid costs. Within forty-five (45) Days of the Department's determination of the objection, Volunteer shall pay to the Department the amount which the BPM Director or the BPM Director's designee determines Volunteer is

obligated to pay or commence an action or proceeding seeking appropriate judicial relief.

- 7. In the event any instrument for the payment of any money due under this Agreement fails of collection, such failure of collection shall constitute a violation of this Agreement, provided (i) the Department gives Volunteer written notice of such failure of collection, and (ii) the Department does not receive from Volunteer a certified check or bank check within fourteen (14) Days after the date of the Department's written notification.
- 3. Subparagraph VII.A of the Agreement is modified to read as follows:
- A. Except as provided in this Agreement, nothing contained in this Agreement shall be construed as barring, diminishing, adjudicating, or in any way affecting any of the Department's rights or authorities (including, but not limited to, nor exemplified by, the right to recover natural resources damages) with respect to any party, including the Volunteer.
- 4. Paragraph IX of the Agreement is hereby modified to add new subparagraphs that read as follows:

#### C. Declaration of Covenants and Restrictions

- Volunteer shall submit to the Department for approval a Declaration of Covenants and Restrictions to run with the land which provides for covenants and restrictions consistent with the Work Plan, which relies upon one or more institutional controls. The submittal shall be substantially similar to Exhibit "D." Volunteer shall cause such instrument to be recorded with the County Clerk (or the City Register) in the county in which the Site is located within thirty (30) Days after the Department's approval of such instrument. Volunteer shall provide the Department with a copy of such instrument certified by the County Clerk (or the City Register) to be a true and faithful copy within thirty (30) Days of such recording (or such longer period of time as may be required to obtain a certified copy provided Volunteer advises the Department of the status of its efforts to obtain same within such 30 Day period).
- 2. Volunteer or the owner of the Site may petition the Department to modify or terminate the Declaration of Covenants and Restrictions filed pursuant to this Paragraph at such time as it can certify that the Site is protective of human health and the environment for residential uses without reliance upon the restrictions set forth in such instrument. Such certification shall be made by a Professional Engineer. The Department will not unreasonably withhold its consent.
- 5. Subparagraph XI.I.1. of the Agreement is hereby revised to read as follows:
- I. 1. The terms of this Agreement, including any modification thereof, shall constitute the complete and entire Agreement issued to Volunteer concerning the Site's investigation and remediation. No term, condition, understanding, or agreement purporting to modify or vary any term of this Agreement shall be binding unless made in writing and

subscribed by the party to be bound. No informal advice, guidance, suggestion, or comment by the Department regarding any report, proposal, plan, specification, schedule, or any other submittal shall be construed as relieving Volunteer of Volunteer's obligation to obtain such formal approvals as may be required by this Agreement.

- 6. This modification to the Agreement, and Agreement shall constitute the entire Agreement between the parties with all the terms and conditions of the Agreement, as herein modified, remaining in full force and effect.
- 7. The effective date of this modification to the Agreement shall be the date it is executed by the Commissioner or the Commissioner's designee.

DATED:

JUN 20 2013

JOSEPH MARTENS COMMISSIONER

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Ву:

Robert W. Schick, Director

Division of Environmental Remediation

#### CONSENT BY VOLUNTEER

Volunteer hereby consents to the issuing and entering of this Agreement, waives Participant's right to a hearing herein as provided by law, and agrees to be bound by this Agreement.

|                   |            | Bayville Village Cleaners, Inc. |  |  |
|-------------------|------------|---------------------------------|--|--|
|                   |            | Ву:                             |  |  |
|                   |            | Title: 1000 F                   |  |  |
|                   |            | Date: 4/3                       |  |  |
| STATE OF NEW YORK | `          |                                 |  |  |
| STATE OF NEW YORK | )<br>) ss: |                                 |  |  |
| COUNTY OF         | )          |                                 |  |  |

On the the day of little, in the year 2013, before me, the undersigned, personally appeared hank a. Rynd., personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.

Signature and Office of Individual

taking acknowledgment

JOHN J. JORDAN III
Notary Public, State Of New York
No. 01J06076100
Qualified In Nassau County
Commission Expires June 17, 20

#### EXHIBIT "A"

### Agreement

#### EXHIBIT "B"

## August 2011 Decision Document

#### EXHIBIT "C"

#### Release and Covenant Not to Sue

Unless otherwise specified in this letter, all terms used in this letter shall have the meaning assigned to them under the terms of the Voluntary Cleanup Agreement entered into between the New York State Department of Environmental Conservation (the "Department") and Bayville Village Cleaners, Inc. ("Volunteer"), Index No.W1-0848-9903 (the "Agreement").

The Department is pleased to report that the Department is satisfied that the Agreement's Work Plan(s) relative to the Site, located at 290 Bayville Avenue, Town of Oyster Bay, Nassau County, New York has been successfully implemented.

The Department, therefore, hereby releases and covenants not to sue, and shall forbear from bringing any action, proceeding, or suit pursuant to the Environmental Conservation Law, the NL or the State Finance Law, and from referring to the Attorney General any claim for recovery of costs incurred by the Department, against Volunteer and Volunteer's lessees and sublessees, grantees, successors, and assigns, and their respective secured creditors, for the further investigation and remediation of the Site, based upon the release or threatened release of Covered Contamination, provided that (a) timely payments of the amounts specified in Paragraph VI of the Agreement continue to be or have been made to the Department, (b) appropriate deed restrictions remain recorded in accordance with Paragraph X of the Agreement, and (c) Volunteer and/or its' lessees, sublessees, successors, or assigns promptly commence and diligently pursue to completion the Work Plan providing for OM&M, if any. Nonetheless, the Department hereby reserves all of its respective rights concerning, and such release and covenant not to sue shall not extend to natural resource damages or to any further investigation or remedial action the Department deems necessary:

- due to migration off-Site of contaminants resulting in impacts that are not inconsequential
  to environmental resources, to human health, or to other biota and to off-Site migration of
  petroleum;
- due to environmental conditions or information related to the Site which were unknown at the time this Release and Covenant Not to Sue was issued and which indicate that the Contemplated Use cannot be implemented with sufficient protection of human health and the environment;

- nothing contained in this letter shall be construed to prohibit the Commissioner or his duly authorized representative from exercising any summary abatement powers.
- nothing contained in this letter shall be construed to affect the Department's right to terminate the Agreement under the terms of the Agreement at any time during its implementation if Volunteer fails to comply substantially with the Agreement's terms and conditions.

In conclusion, the Department is pleased to be part of this effort to return the Site to productive use of benefit to the entire community.

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

| Ву:   | <br> | <br> | <br> | <br> |
|-------|------|------|------|------|
| Date: |      |      |      |      |

enter current use without the express written waiver of such prohibition by the Department or Relevant Agency.

Fifth, the owner of the Property shall prohibit the use of the groundwater underlying the Property without treatment rendering it safe for drinking water or industrial purposes, as appropriate, unless the user first obtains permission to do so from the Department or Relevant Agency.

Sixth, the owner of the Property shall provide a periodic certification, prepared and submitted by a professional engineer or environmental professional acceptable to the Department or Relevant Agency, which will certify that the institutional and engineering controls put in place are unchanged from the previous certification, comply with the SMP, and have not been impaired.

Seventh, the owner of the Property shall continue in full force and effect any institutional and engineering controls required for the Remedy and maintain such controls, unless the owner first obtains permission to discontinue such controls from the Department or Relevant Agency, in compliance with the approved SMP, which is incorporated and made enforceable hereto, subject to modifications as approved by the Department or Relevant Agency.

Eighth, this Declaration is and shall be deemed a covenant that shall run with the land and shall be binding upon all future owners of the Property, and shall provide that the owner and its successors and assigns consent to enforcement by the Department or Relevant Agency of the prohibitions and restrictions that the Choose Agreement Type requires to be recorded, and hereby covenant not to contest the authority of the Department or Relevant Agency to seek enforcement.

Ninth, any deed of conveyance of the Property, or any portion thereof, shall recite, unless the Department or Relevant Agency has consented to the termination of such covenants and restrictions, that said conveyance is subject to this Declaration of Covenants and Restrictions.

IN WITNESS WHEREOF, the undersigned has executed this instrument the day written below.

| ву:         |   |
|-------------|---|
| Print Name: | *************************************** |
| Title:      | Date:                                   |

#### Glossary of Terms

The following terms shall have the following meanings:

"BPM Director": the Director of the Bureau of Program Management within the Division of Environmental Remediation.

"CERCLA": the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended, 42 U.S.C. 9601 et seq.

"CPLR": the Civil Practice Law and Rules, as amended.

"Day": a calendar day unless expressly stated to be a working day. "Working Day" shall mean a day other than a Saturday, Sunday or State holiday. In computing any period of time under this Agreement, where the last day would fall on a Saturday, Sunday or State holiday, the period shall run until the close of business of the next working day.

"ECL": the Environmental Conservation Law, Chapter 43-B of the Consolidated Laws of New York, as amended.

"Force Majeure": an event which is brought on as a result of Acts of God, work stoppages due to labor disputes or strikes, explosions, epidemics, riots, war rebellion, sabotage or any other fact or circumstance beyond the reasonable control of the Volunteer.

"NL": the Navigation Law, as amended.

"OH&M": the Office of Hearings and Mediation Services.

"Spill Fund": the New York State Environmental Protection and Spill Compensation Fund as established by Article 12, Part 3 of the NL.

"State Costs": all the State's response expenses related to the Site, including, but not limited to, direct labor, fringe benefits, indirect costs, travel, analytical costs, and contractor costs incurred by the State of New York for negotiating, implementing, overseeing, and administering the Agreement, and any other response costs as defined under CERCLA. Approved agency fringe benefit and indirect cost rates will be applied.

"Termination Date": the date upon which (i) the Release (Exhibit "C") is issued or the Department approves the final report relative to the OM&M at the Site, whichever is later; or (ii) the Agreement terminates pursuant to Paragraph I.F(2) or VII.D or is nullified pursuant to Subparagraph XI.A.2.

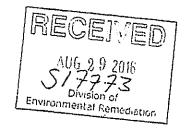
"USEPA": the United States Environmental Protection Agency.

#### NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Remediation, Office of the Director 625 Broadway, 12th Floor, Albany, New York 12233-7011 P: (518) 402-9706 F: [518] 402-9020

August 24, 2016

August 24, 2



Bayville Village Cleaners, Inc. c/o Mr. Thomas C. Ryan 19 Todd Drive Glen Head, NY 11545

Re: Site Name: Bayville Village Cleaners

Site No. V00220

Voluntary Cleanup Agreement Amendment No. 2

Changing the Contemplated Use

Dear Mr. Ryan:

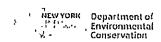
This letter is forwarded to your attention to conform the Voluntary Cleanup Agreement ("VCA" or "Agreement") for the property located at 290 Bayville Avenue, Village of Bayville, Town of Oyster Bay, Nassau County, New York (the "Site"), Index No. W1-0848-9903 dated November 23, 1999 as modified on June 20, 2013 (Index No. W1-0848-13-04, to approved work under the Agreement.

Based on its review of the December 9, 2008 Site Investigation Report, the August 3, 2009 Site Investigation Report Addendum, the April 2011 Remedial Action Work Plan for the Site, and other relevant documents regarding the Site, the New York State Department of Environmental Conservation (the "Department" or "DEC") determined that the remedial actions performed on the Site will allow for a commercial use as defined in 6 NYCRR Section 375-I.8(g) at the Site.

In reliance upon, and in furtherance of the Agreement and discussions and/or communications regarding this matter between Department staff and Bayville Village Cleaners, Inc.'s (the "Volunteer") representative to date, the "Contemplated Use" described in the Specific Definitions Paragraph I.E.1 of the Agreement is modified to read as follows:

Contemplated Use: commercial use as defined in 6 NYCRR Section 375-1.8(g)(2)(iii), which allows for Industrial use as described in 6 NYCRR Part 375-1.8(g)(2)(iv).

This modification to the Agreement is made in accordance with and subject to all of the terms and conditions of the Agreement and all applicable guidance, regulations and state laws applicable thereto. All other substantive and procedural terms of the Agreement will remain unchanged and in full force and effect regarding the Volunteer under the Agreement.



As such, the modification is hereby incorporated into and is enforceable pursuant to the subject Agreement. The correction is retroactive to the effective date of the Agreement.

Please have the Volunteer's duly authorized representative print, and counter-sign this letter Amendment to acknowledge acceptance of this Amendment. The <u>original</u> document with signature must be sent back to the Department at:

New York State Department of Environmental Conservation Attention: Robert W. Schick, P.E. - Director Division of Environmental Remediation 625 Broadway, 12<sup>th</sup> Floor Albany, New York 12233-7011

Please keep a copy of the countersigned letter as proof of the Amendment to the Agreement.

Nothing contained herein constitutes a waiver by the Department or the State of New York of any rights held in accordance with the Agreement or any applicable state and/or federal law or a release for any party from any obligations held under the Agreement or those same laws.

Please contact me if you have any questions in this regard. Thank you for your attention to this matter.

Sincerely.

Robert W. Schick, P.E.

1 4 8 1.31

Director

Division of Environmental Remediation

The following Volunteer. in signing this letter, hereby acknowledges and accepts the modification to the Agreement as set forth above.

Bayville Village Cleaners, Inc.

Signature

Name and Title (please print)

## APPENDIX F

# ANALYTICAL LABORATORY RAW DATA (INCL. CD)

## APPENDIX G

# ADDITIONAL SAMPLING REPORT ON THE GROUNDWATER, SOIL VAPOR, INDOOR AIR, AND CESSPOOL