

REMEDIAL INVESTIGATION REPORT

CASTLE CLEANERS SITE

221 HOFFMAN STREET

ELMIRA, NEW YORK

NYSDEC SITE NO. 808034

Prepared For:

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Prepared By:

GEOLOGIC NY, INC.

P.O. BOX 350

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PROJECT NO. 209053

Certification

I, Forrest Earl certify that I am currently a Qualified Environmental Professional as defined in 6 NYCRR Part 375 and that this Remedial Investigation Report was prepared in accordance with all applicable statutes and regulations, and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation dated May 2010 (DER-10).



Forrest C. Earl
Principal Hydrogeologist
GeoLogic NY, Inc.

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1 INTRODUCTION

1.1 PURPOSE AND SCOPE

The Castle Fast Dry Cleaners, Inc. (Castle Cleaners) was listed on the registry for Inactive Hazardous Waste Sites in 2009. Castle Cleaners entered into an Order on Consent and Administrative Settlement (Order) with New York State Department of Environmental Conservation (NYSDEC), Index #B8-0779-08-04, NYSDEC Site No. 808034. This Remedial Investigation (RI) report has been completed pursuant to the Order.

The purpose of the RI was to characterize the nature and extent of contamination occurring on, and emanating from, the project site.

1.2 PREVIOUS INVESTIGATIONS

Two previous subsurface evaluations have been performed near Castle Cleaners (Site), one at an adjacent gas station and one in the vicinity of the Site.

1.2.1 Adjacent Exxon Mobil Station (NYSDEC Spill #95-08876)

A subsurface evaluation was performed by Groundwater & Environmental Services (GES) at the adjacent Exxon Mobil Gas Station, address of 636 W. Church Street, as a result of a 1995 spill event. Eight monitoring wells were installed, and groundwater quality has been monitored. The data indicate that groundwater quality at the Exxon Mobil Gas Station has been impacted by petroleum contamination that exceeds TOGS 1.1.1 NYSDEC Ambient Water Quality Standards and Guidance Values for groundwater.

In a September 17, 2004 Request for Closure report, GES concluded that the petroleum contaminant plume had not migrated off-site, and that the identified groundwater plume was stable and shrinking. The spill remains open and groundwater continues to be monitored on a quarterly basis by GES.

1.2.2 Area Characterization Report

In 2006, a Site Characterization (SC) was completed at properties to the east, west and south of the Site by MACTEC for NYSDEC following the detection of tetrachloroethene in the City of Elmira Water Supply Well No. 42. The purpose of the SC was to gather information in order to evaluate whether environmental problems existed at Castle Cleaners.

The scope of the field investigation included the following major tasks:

- Performed a site history that included a review of historic maps and Elmira City Directories.
- Collected groundwater samples from four existing monitoring wells that were present on the adjacent Exxon Mobil Gas Station property. These wells had been installed as part of an evaluation for NYSDEC Spill #95-08876.
- Collected a groundwater sample from monitoring well PS-1 located on the City of Elmira property.
- Completed a subsurface evaluation with the installation of five micro-wells, and the analysis of soil and groundwater samples.
- Collected a surface water sample from the sump drain in the basement of an adjacent Liquor Store (201 Hoffman Street).
- Collected three soil gas samples from around the Site.

The following is a brief summary of the findings:

- No samples were collected from the Castle Cleaners property.
- Direction of groundwater flow was determined to be to the south toward the Chemung River.

- Tetrachloroethene and its transformation products were detected in groundwater samples collected downgradient of Castle Cleaners at levels that exceeded NYS Standards, Criteria and Guidance values for groundwater (SCGs).
- Tetrachloroethene and its breakdown transformation products were not detected in groundwater samples collected upgradient or cross-gradient of Castle Cleaners.
- Petroleum-related compounds were detected in groundwater samples collected on the east and west sides of Hoffman Street between W. Church Street and W. Gray Street. The Exxon Mobil station located east of Castle Cleaners was presumed to be the source of this contamination.
- No chlorinated solvents were detected in soil samples collected at five locations.
- Soil-gas samples were collected at three locations. Tetrachloroethene and its transformation products were detected at concentrations above the method detection limits at all three locations.
- No contaminants above the method detection limits were reported in the surface water sample collected from the sump in the 201 Hoffman Street basement.
- Tetrachloroethene and two transformation products were detected in the three soil gas samples collected as part of this study. Two soil gas samples were collected west of Castle Cleaners, and one sample was collected southeast of Castle Cleaners. The concentrations of tetrachloroethene ranged from 27 to 2,321 ug/m³.

MACTEC concluded that the Site is the likely source of the tetrachloroethene that was detected in Elmira City supply Well No. 42.

1.3 SITE BACKGROUND

1.3.1 Site Description

Castle Cleaners is located at 221 Hoffman Street in a mixed use (residential /commercial) area of the City of Elmira, New York (see Drawing Nos. 1 & 2, Appendix B). Historically, the address of 219-225 Hoffman Street was changed as part of a re-address associated with emergency planning. Castle Cleaners consists of a 0.1-acre rectangular parcel located within a block of commercial buildings. There is one 1-story masonry and metal-framed building on the parcel with two units.

The Site is bordered by commercial properties to the north and south with common masonry walls with the two adjacent buildings. There is a paved parking area to the west of the Site with residences further west. There is a multi-unit apartment building and a professional medical office further north of the Site across West Church Street. An Exxon Mobil convenience store and fuel dispensing station and a funeral home are located east of the Site across Hoffman Street.

1.3.2 Site History

A commercial building has occupied the Site since at least 1944. Castle Cleaners first appeared in the Elmira City directories at the Site in 1958. Other occupants of the Site building in the 1940's and 1950's include the Grand Union and Saprano's Foodland Market. On the 1931 Sanborn Map, two residential dwellings are present on the Site.

The Site building is currently occupied by a dry cleaning operation and a former tavern (currently vacant). The Site building shares common walls with the buildings to the north and to the south.

It was noted in the Elmira City directories that from at least 1935 to 1960, West Side Dyers & Cleaners, Rex Cleaners, Cash & Carry Cleaners and Holiday Hobby & Dry Cleaning Shop occupied 209 (aka 205 ½) Hoffman Street. This address was most recently occupied by The Frame Shop.

1.3.3 Site Operations

The current dry cleaner uses tetrachloroethene in its dry cleaning services and operates as a certified facility under NYSDEC. The dry cleaning machine is housed in an enclosure inside the Site building that is vented to the outside on the west side of the building. A NYSDEC registered compliance inspector completes the NYCRR Part 232 Dry Cleaning Compliance Inspection Form on a yearly basis. No violations have been noted in the inspection.

1.3.4 City of Elmira Water Supply Wells

The City of Elmira has three water supply wells located on Foster Island within the Chemung River channel known as the 'Foster Island Wellfield'. As noted above, tetrachloroethene had been detected in Well No. 42; that well was subsequently taken out-of-service. There are two other water supply wells located on Foster Island, No. 40 and No. 41, which are currently in production as a source of water for the City of Elmira.

The City of Elmira Water Board collects samples on a periodic basis from all three Foster Island water supply wells and submits the samples for volatile organic analyses by EPA Method 524.2. The Chemung County Health Department (CCHD) provided a chart summarizing the analytical results for total tetrachloroethene concentrations for all three wells (see Appendix E). The information provided indicates that the concentrations of tetrachloroethene reported at Well No. 42 have not exceeded SCG of 5 ug/L (ppb) during the sampling events between 2003 and 2012. Tetrachloroethene has also been detected in Well No. 41 at levels below the SCG. CCHD indicated that tetrachloroethene has not been detected in Well No. 40. The CCHD indicated to GeoLogic that Well No. 42 was removed from service due to the concentrations of tetrachloroethene in that well.

Elmira Water Board 2011 Annual Water Quality Report states that all raw water from the river, wells and reservoirs are blended and then pumped to their treatment facility where it undergoes settlement, filtration and disinfection processes. The report indicates that the Foster Island Wellfield Wells No. 40 and No. 41 are in use and contributed approximately 10% of 2011's source water.

2 INVESTIGATION SCOPE

The scope of work completed was generally consistent with that outlined in the NYSDEC-approved April 2010 Site Characterization and Remedial Investigation (SC/RI) Work Plan.

The purpose of the SC/RI was to determine the nature and extent of contamination associated with the areas of environmental concern. To accomplish these goals, the following tasks were completed during the site characterization and field investigations.

- Completion of soil probes on the Site including inside the Site building, and collection of continuous soils samples for chemical characterization.
- Completion of soil probes and soil borings at locations adjacent to and downgradient of the Site and the collection of soil and groundwater samples for chemical analyses.
- Installation, development and sampling of groundwater monitoring wells to determine groundwater flow direction and gradient, as well as the collection and chemical analyses of groundwater samples.
- Completion of in-situ hydraulic conductivity tests at the monitoring wells to allow hydrogeologic characteristics to be assigned to soils.
- Completion of a soil vapor intrusion investigation through the collection and chemical analyses of sub-slab soil vapor, indoor air, and outside ambient air.
- Completion of data validation.
- Completion of a horizontal and vertical survey by a licensed land surveyor to provide coordinates and elevations of all monitoring wells that were monitored and/or installed during this SC/RI.

3 AREA AND CONTAMINANTS OF CONCERN

The areas of concern identified during the previous evaluation and those identified during the completion of the SC/RI are:

- Impacted soil from potential sources at the Site.

- Groundwater quality at the Site.
- Groundwater quality hydraulically downgradient of the Site.
- Potential vapor migration into the Site building and adjacent structures.

The contaminants of concern (COCs) are chlorinated solvents, specifically Tetrachloroethene (PCE) and its transformation products, Trichloroethene (TCE), *cis* and *trans*-1,2-Dichloroethene (DCE), 1,1-Dichloroethene (1,1-DCE), Vinyl Chloride (VC), 1,1,1-Trichloroethane (1,1,1-TCA), 1,1-Dichloroethane (1,1-DCA), 1,2-Dichloroethane (1,2-DCA), and Chloroethane (CA).

Contamination associated with petroleum has been identified and encountered during the completion of the scope of work for the SC/RI. This contamination is not associated with the Site; the contamination is associated with the Exxon Mobil Gas Station located east and adjacent to the Site.

4 SUMMARY OF WORK

The following subsections describe the scope of field activities implemented during the SC/RI. The methods employed during the execution of the field tasks as well as the procedures implemented to ensure the quality of the resulting field and laboratory data were in accordance with those outlined in the NYSDEC approved SC/RI Work Plan.

4.1 Source Area Subsurface Evaluation

Potential source areas were suspected to be immediately behind the Site building (west side), and possibly under the Site building.

GeoLogic completed direct push soil borings in July 2010 at eight locations (5 exterior and 4 interior). The interior borings were designated CCIN 10.1 through 10.5, and the exterior borings were designated CCEX 10.1 through 10.4.

The interior borings were advanced using an electric jackhammer to advance a macro-core sampler to refusal at locations to provide spacial coverage of the below-slab conditions (see Appendix B, Drawing No. 3). Continuous soil samples were obtained at all boring locations until groundwater or equipment refusal was encountered.

Soils encountered at the interior boring locations were silty sand and gravel with coal and ash. Equipment refusal was encountered above the groundwater table at three boring locations, CCIN 10.3, 10.4 and 10.5. Refusal was encountered at similar depths at these three locations, approximately 7.5 feet below grade, and concrete was observed within the sampler. Equipment refusal was encountered below the concrete floor at boring CCIN 10.2. Boring CCIN 10.1 was advanced to 13 feet below grade, and a groundwater sample was obtained for analysis.

No soil or groundwater samples were submitted from boring CCIN 10.2; the equipment refusal depth was 0.9 feet. At borings CCIN 10.3, CCIN 10.4 and CCIN 10.5, four rather than five soil samples were submitted for analysis because the termination depths were shallower than anticipated. At CCIN 10.1, six rather than five soil samples were submitted for analysis because the termination depth was deeper than anticipated.

The number of water samples submitted and analyzed from the interior borings differed from the number proposed in the Work Plan. Only one (CCIN 10.1) of the five interior borings terminated in groundwater; equipment refusal was encountered at the other four boring locations prior to encountering groundwater.

The matrix of sample numbering and analyses completed are provided on the following table for the interior borings.

Table 4-1
Analytical Testing Summary
Interior Source Area
July 2010

Sample Location	Sample Matrix and Depth	TCL Volatile Analyses	TCL Semi-Volatile Analyses	PCB	TAL Metals	Cyanide
CCIN 10.1	Soil. 0'-2'	X				
CCIN 10.1	Soil. 2'-4'	X				
CCIN 10.1	Soil. 4'-6'	X				
CCIN 10.1	Soil. 6'-8'	X				
CCIN 10.1	Soil. 8'-10'	X				
CCIN 10.1	Soil. 10'-12'	X				
CCIN 10.1	Soil. 2'-8'		X	X	X	X
CCIN 10.1	Water. 11'-13'	X				
CCIN 10.3	Soil. 0'-2'	X				
CCIN 10.3	Soil. 2'-4'	X				
CCIN 10.3	Soil. 4'-6'	X				

Table 4-1
Analytical Testing Summary
Interior Source Area
July 2010

Sample Location	Sample Matrix and Depth	TCL Volatile Analyses	TCL Semi-Volatile Analyses	PCB	TAL Metals	Cyanide
CCIN 10.3	Soil. 6'-7.5'	X				
CCIN 10.3	Soil. 2'-7.5'		X	X	X	X
CCIN 10.4	Soil. 0-2'	X				
CCIN 10.4	Soil. 2'-4'	X				
CCIN 10.4	Soil. 4'-6'	X				
CCIN 10.4	Soil. 6'-7.5'	X				
CCIN 10.4	Soil. 0-7.5'		X	X	X	X
CCIN 10.5	Soil. 1.5'-2'	X				
CCIN 10.5	Soil. 2'-4'	X				
CCIN 10.5	Soil. 4'-6'	X				
CCIN 10.5	Soil. 6'-7.8'	X				
CCIN 10.5	Soil. 2'-7.8'		X	X	X	X

The four exterior soil borings (CCEX 10.1 through CCEX 10.4) were advanced utilizing a Geoprobe®. The exterior borings were spaced within the paved section on the west side of the building. Continuous soil samples were obtained at all boring locations until groundwater or equipment refusal was encountered.

Soils encountered at the exterior boring locations were sand and gravel with variable silt content. At boring CCEX 10.4, fill soils with ash and cinders were encountered to a depth of approximately 9 feet below ground surface (bgs). Depth to groundwater generally ranged between 10 and 12 feet bgs. Boring CCEX 10.3 was advanced to a depth of approximately 44 feet bgs where a possible confining layer was encountered, but not penetrated, at approximately 43 feet bgs. A 1-inch diameter PVC monitoring well was installed at boring location CCEX 10.1 with a screened section between 7 and 17 feet bgs.

Groundwater samples were obtained from each of the exterior borings. The soil samples exhibiting the highest PID reading at each boring location were submitted for analyses. The number of water samples submitted and analyzed from the exterior borings differed from the number proposed in the Work Plan. At boring CCEX 10.3, four rather than five groundwater samples were collected approximately every 10-feet to the termination depth,

the termination depth was shallower than originally anticipated.

A matrix of sample numbering and analyses for the exterior borings are provided on the following table.

Table 4-2
Analytical Testing Summary
Exterior Source Area
July 2010

Sample Location	Sample Matrix and Depth	TCL Volatile Analyses	TCL Semi-Volatile Analyses	PCB	TAL Metals	Cyanide
CCEX 10.1	Soil, 2'-4'	X				
CCEX 10.1	Soil, 4'-6'	X				
CCEX 10.1	Soil, 6'-8"	X				
CCEX 10.1	Soil, 8'-10'	X				
CCEX 10.1	Soil, 10'-12'	X				
CCEX 10.1	Soil, 2'-6'		X	X	X	X
CCEX 10.1	Water, Well	X	X	X	X	X
CCEX 10.2	Soil, 0-2"	X				
CCEX 10.2	Soil, 4'-6'	X				
CCEX 10.2	Soil, 6'-8'	X				
CCEX 10.2	Soil, 8'-10'	X				
CCEX 10.2	Soil, 10'-12'	X				
CCEX 10.2	Soil, 4'-10'		X	X	X	X
CCEX 10.2	Water, 10.5'-12.5'	X				
CCEX 10.3	Soil, 0-2'	X				
CCEX 10.3	Soil, 2'-4'	X	X	X	X	X
CCEX 10.3	Soil, 4'-6'	X				
CCEX 10.3	Soil, 6'-8'	X				
CCEX 10.3	Soil, 8'-10'	X				
CCEX 10.3	Water, 10'-12.5'	X	X	X	X	X
CCEX 10.3	Water, 20'-24'	X				
CCEX 10.3	Water, 28'-32'	X				
CCEX 10.3	Water, 40'-43'	X				
CCEX 10.4	Soil, 2'-4'	X				
CCEX 10.4	Soil, 4'-6'	X				
CCEX 10.4	Soil, 6'-8'	X				
CCEX 10.4	Soil, 8'-10'	X				
CCEX 10.4	Soil, 10'-12'	X				
CCEX 10.4	Soil, 8'-12'		X	X	X	X
CCEX 10.4	Water, 10'-14'	X				

A complete analytical summary of the samples collected from these borings is included in Appendix A, Table 1.

4.1.1 Confirmatory Sampling

GeoLogic located four existing monitoring wells (GW-2, GW-4, GW-8, and GW-11) that were installed as part of the MACTEC study in 2006 and one monitoring well, PS-1, located on the Elmira Water Board property. Monitoring well GW-1 could not be located; therefore, a new well was installed at the location. Groundwater samples were collected and analyzed from these wells on November 17, 2010 and January 4, 2012.

The existing monitoring wells, except for PS-1, are screened at the intersection of the water table within the upper silty sand and gravel deposit. Well PS-1 is approximately 45 feet deep. Based on the geology observed at a nearby boring, OFDP 10.19, well PS-1 likely terminates within a fine-grain sand and silt deposit.

Monitoring wells (MW-13, MW-14 and MW-15) that were installed in 2004 as part of a groundwater evaluation performed by GES for the Exxon Mobil Station located adjacent and east of Castle Cleaners were not located.

4.1.2 Off-Site Subsurface Evaluation and Monitoring Well Installations

GeoLogic advanced forty (40) soil borings in November 2010, April 2011 and November/December 2011 at off-site locations (see Drawing No. 4). The borings are designated OFDP 10.1 through OFDP 10.22, and GW-1, GW-2, GW-8 and GW-12 through GW-20. Some borings with the 'GW' designation were further identified with 'S' and 'D' for 'shallow' and 'deep'. Seven of these borings were advanced at previous boring locations, GW-1, GW-2, GW-5 (OFDP 10.3), GW-6 (OFDP 10.1), GW-7 (OFDP 10.6), GW-9 (OFDP 10.4), GW-10 (OFDP 10.2) to confirm soil profile data and the 2006 (MACTEC, 2006) analytical results. At twenty-two boring locations, 1 or 2-inch diameter PVC monitoring wells were installed.

The borings and monitoring well installations were completed either with a Geoprobe® using direct-pushed macro-core sampling techniques, or with a conventional drill rig employing hollow stem-augers and split-spoon sampling procedures.

Continuous soil samples were collected at the boring locations to depths ranging from 15 to 72 feet bgs. An upper silty sand and gravel unit was encountered underlain by deposits with variable clay, silt, and medium to fine sand content. A definitive silt and clay deposit was not encountered at borings OFDP 10.6, OFDP 10.15, OFDP 10.16, GW-12D or GW-15D. Boring GW-15D was terminated at a depth of 72 feet bgs, at equipment refusal, possibly on bedrock. Several borings terminated within a dense silty sand and gravel unit (see Cross Sections A-A' and B-B', Appendix B, Drawing Nos. 5 and 6).

Groundwater was encountered in the brown silty sand and gravel deposits at depths ranging approximately between 8 and 16 feet bgs. No field evidence of contamination (olfactory, visual, elevated PID readings) was observed in either the soil or groundwater samples obtained at these off-site borings with the following exceptions: elevated PID readings (>5 ppm) were observed in soils collected from boring OFDP 10.8 and GW-8D.

The 1-inch diameter PVC monitoring wells were installed with the Geoprobe® using flush-joint casing to stabilize the borehole during well construction. The 2-inch diameter PVC wells were installed with the drill rig utilizing hollow stem augers.

The screened intervals were either within the upper silty sand and gravel deposit at the intersection of the water table (shallow) or in the upper portion of the finer-grained silt with variable sand, gravel and clay content (deep) that underlies the silty sand and gravel, when encountered. At boring GW-15D, no definitive fine-grained confining layer was encountered to a depth of 72 feet bgs; the 5-foot screen was set at 72 feet bgs.

During the installation of the monitoring wells, auger cuttings and decontamination water were containerized and disposed of at off-site facilities. The soils were transported by Casella Waste Services and disposed of at the Chemung County Landfill. The liquid was transported by Gary Dyer, Inc. and disposed of at Industrial Oil Tank Services (see Appendix D, Disposal Records).

A summary of the monitoring wells that were installed are presented on the following table.

Table 4-3
Summary of Monitoring Wells Installation Details

Well Designation	Well Diameter (inches)	Boring Depth (feet)	Screened Interval (feet)
GW-1S	1	44	8-18
GW-1D	2	28	22-27
GW-8D	2	41	34-39
GW-11	1	20	9.8-19.8
GW-12S	2	15	5-15
GW-12D	2	40	35-40
GW-13S	1	16	5-15
GW-14S	1	17	7-17
GW-15S	2	18	8-18
GW-15D	2	72	67-72
GW-16S	2	19.8	9.5-19.5
GW-17S	2	23	12-22
GW-17D	2	34	29-34
GW-18S	2	15	5-15
GW-18D	2	26	20-25
GW-19S	2	18	8-18
GW-20S	2	18	8-18
GW-20D	2	30	24-29
OFDP-10.1	1	50	5-15
OFDP-10.2	1	43	7-17
OFDP-10.5	1	49	8-18
OFDP-10.7	1	47	7-17
OFDP-10.8	1	48	8-18

Shallow (water table interface) and deeper groundwater samples were collected at the OFDP-designated boring locations to better define the vertical and lateral extent of potential COCs in groundwater. Groundwater samples were also collected from the five existing monitoring wells and the twenty-three newly installed wells. The groundwater parameters recorded during sample collection are summarized on Table 4, Appendix A. Based on the results of the on-site evaluation; chemical analyses for off-site groundwater samples were limited to the volatile organic compounds on the TCL.

A matrix of sample numbering, the sample interval for those samples collected from the borings and the dates of sample collection for all off-site borings and monitoring wells are provided on the following table.

Table 4-4
Analytical Testing Summary
Groundwater Samples

Boring/Well Designation	TCL Volatile Analyses	
	November 2010	January 2012
<i>Boring Locations</i>		
GW-1 (40-44 ft)	X	
OFDP-10.1 (25-28 ft)	X	
OFDP-10.1 (46-50 ft)	X	
OFDP-10.2 (37-41 ft)	X	
OFDP-10.3 (14-18 ft)	X	
OFDP-10.3 (24-28 ft)	X	
OFDP-10.3 (36-40 ft)	X	
OFDP-10.4 (11-15 ft)	X	
OFDP-10.4 (26-30 ft)	X	
OFDP-10.5 (46-50 ft)	X	
OFDP-10.6 (11.5-15.5 ft)	X	
OFDP-10.6 (37-41 ft)	X	
OFDP-10.7 (43-47 ft)	X	
OFDP-10.8 (20-24 ft)	X	
OFDP-10.8 (44-48 ft)	X	
OFDP-10.9 (12-16 ft)	X	
OFDP-10.9 (45-49 ft)	X	
OFDP-10.10 (12-16 ft)	X	
OFDP-10.10 (44-48 ft)	X	
OFDP-10.11 (12-16 ft)	X	
OFDP-10.11 (36-40 ft)	X	
OFDP-10.12 (15-19 ft)	X	
OFDP-10.12 (40-44 ft)	X	
OFDP-10.13 (15-19 ft) ¹	X	
OFDP-10.13 (26-30 ft)	X	
OFDP-10.14 (15-19 ft)	X	
OFDP-10.14 (45-49 ft)	X	
OFDP-10.15 (13-17 ft)	X	
OFDP-10.15 (32-36 ft)	X	

Table 4-4
Analytical Testing Summary
Groundwater Samples

Boring/Well Designation	TCL Volatile Analyses	
	November 2010	January 2012
OFDP-10.16 (15-19 ft)	X	
OFDP-10.16 (45-49 ft)	X	
OFDP-10.17 (12-16 ft)	X	
OFDP-10.17 (28-32 ft)	X	
OFDP-10.18 (12-16 ft)	X	
OFDP-10.18 (17-21 ft)	X	
OFDP-10.19 (12-14 ft)	X	
OFDP-10.19 (46-48 ft)	X	
OFDP-10.20 (14-16 ft)	X	
OFDP-10.20 (38-40 ft)	X	
OFDP-10.21(12-16 ft)	X	
OFDP-10.21 (24-28 ft)	X	
OFDP-10.22 (12-16 ft)	X	
OFDP-10.22 (26-30 ft)	X	
Monitoring Well Location		
OFDP-10.1 (5-15 ft) ²	X	X
OFDP-10.2 (7-17 ft)	X	X
OFDP-10.5 (8-18 ft)	X	X
OFDP-10.7 (7-17 ft)	X	X
OFDP-10.8 (8-18 ft)	X	X
GW-1S (8-18 ft)	X	X
GW-1D (22-27 ft)		X
GW-2 (6.3-16.3 ft)	X	X
GW-4 (5.9-15.9 ft)	X	X
GW-8S (9.8-19.8 ft)	X	X
GW-8D (34-39 ft)		X
GW-11 (9.8-19.8 ft)	X	X
GW-12S (5-15 ft)		X
GW-12D (35-40 ft)		X
GW-13S (5-15 ft)		X
GW-14S (7-17 ft)		X
GW-15S (8-18 ft)		X
GW-15D 67-72 ft)		X
GW-16S (9.5-19.5 ft)		X

Table 4-4
Analytical Testing Summary
Groundwater Samples

Boring/Well Designation	TCL Volatile Analyses	
	November 2010	January 2012
GW-17S (12-22 ft)		X
GW-17D (29-34 ft)		X
GW-18S (5-15 ft)		X
GW-18D (20-25 ft)		X
GW-19S (8-18 ft)		X
PS-1	X	X
GW-20S (7-17 ft)		X
GW-20D (24-29 ft)		X

1 - Sample interval in boring below ground surface

2 - Well screen interval below ground surface

Depths to groundwater and field parameters (pH, temperature, conductivity and turbidity) were recorded during the monitoring well sampling events in November 2010 and January 2012. Depths to groundwater were also measured during well development activities in December 2011 and hydraulic conductivity testing in February/March 2012 (see Section 4.1.4).

A Water Table Map was developed using the February 2012 data from the shallow monitoring wells (see Appendix B, Drawing No. 7). Since the screened sections of the deeper piezometric wells were set at various elevations and within different geologic units (see Drawing No. 5 and 6), a deep piezometric contour map was not developed.

4.1.3 Soil Vapor Intrusion Investigation

The potential for soil vapor intrusion resulting from the presence of site-related COCs in soil and groundwater was evaluated. A total of 32 locations were offered the opportunity to participate and of these, 16 volunteered to participate.

Sub-slab soil gas underlying buildings and indoor and outdoor air samples were collected in March/April 2011. Soil gas and air samples were collected from those properties that granted access to GeoLogic within the Target Area (Drawing No. 9, Appendix B). Soil vapor intrusion evaluations were performed within the Site building's vacant unit, five commercial

businesses and two residential houses. Outdoor air samples were also collected as part of the soil vapor intrusion evaluation (see Table 6, Appendix A).

Sub-slab soil gas samples beneath the lowest living space (basement floor or grade level slab) and air samples were collected inside the lowest living space and basement, as applicable. Samples were collected and analyzed for volatile compounds using EPA Method TO-15. One commercial property was re-sampled after the receipt of the analytical results to confirm those results.

A summary of the properties that have been identified as “Property 1 through Property 9”;

In March 2012, indoor air was evaluated at seven additional properties and two properties within the original Target Area were re-evaluated. The seven additional properties have been identified as “Property 10 through Property 16” and included three commercial businesses and four residential houses. Outdoor air samples were also collected as part of the soil vapor intrusion evaluation (see Table 6, Appendix A).

The concentration ranges of tetrachloroethene and trichloroethene in the samples are presented on the following table.

Table 4-5
Analytical Testing Summary
Outdoor Air, Indoor Air and Sub-Slab Soil Gas

Detected Constituent	Outdoor Air Concentrations Range Detected (ug/m³)	Indoor Air Concentration Range Detected (ug/m³)	Sub-Slab Soil Gas Concentration Range (ug/m³)
Tetrachloroethene*	1.4UJ to 190	1.4U to 2,000	4.2 to 1,400
Trichloroethene	0.22U to 4.7	0.22U to 10J	0.22U to 500

Note: *-Tetrachloroethene is currently being used in the dry cleaning process at Castle Cleaners. The concentrations noted in outdoor air are influenced by the dry cleaner. Trichloroethene is a transformation product of tetrachloroethene.

Table 8 (Appendix A) is a summary of all constituents detected in the samples collected for the vapor intrusion investigation.

4.1.4 Hydraulic Conductivity

GeoLogic completed slug tests on March 14, 2012. The objective of the slug testing was to determine a range of hydraulic conductivity (K) values for the deposits screened by selected wells. The mechanics of slug testing involved inducing a sudden change in the water level (head) within a well and measuring the return to static water level conditions. Multiple slug tests were conducted at each well that both depressed and elevated the static water in the well. An In-situ Level TROLL instrument equipped with a vented pressure sensor recorded all pressure forces detected by the strain gauge as well as temperatures. The sensor was set to record at 5 to 10-second intervals throughout the test on mobile field readers.

The eight wells selected for testing are located within the chlorinated plume (OFDP-10.1, GW-8D, GW-16S and GW-19S) and outside of the chlorinated plume (GW-17S, GW-17D, GW-12S and GW-12D). The wells were also selected to gather data on the shallow and deep deposits within the aquifer.

The slug testing consisted of recording the static depth to water level in the well; and deploying an In-Situ Level TROLL 700 datalogger into the well to record the changes in water levels over time when inserting and removing a slug. The slug consisted of a PVC pipe filled with sand.

The time and change in water levels recorded by the dataloggers were analyzed using the Aqtesolv for Windows program by HydroSOLVE, Inc. The input parameters of the program include the saturated thickness of the aquifer, monitoring well construction details, and an assumed porosity of 0.25 for the sand pack surrounding the well screen. The saturated thickness was assumed to be 72 feet, which is the deepest point that a monitoring well was installed for this project (well GW-15D).

The slug test data collected at well OFDP-10.1 was not usable due to the small diameter of the well casing (one inch) and the corresponding small displacement of water within the well when the slug was inserted and removed.

The Bouwer and Rice solution was used to evaluate the data. Selected model output data are presented in Appendix F. The estimated hydraulic conductivity values are presented on the following table.

Table 4-6
Estimated Hydraulic Conductivity

Well ID	Hydraulic Conductivity K (cm/sec)
GW-8D	2.4×10^{-2}
GW-12S	1.3×10^{-2}
GW-12D	5.6×10^{-3}
GW-16S	2.7×10^{-3}
GW-17S	2.2×10^{-4}
GW-17D	3.9×10^{-2}
GW-19S	8.2×10^{-3}

These hydraulic conductivity values are consistent with the published range of values for similar geologic deposits.

4.1.5 Sample Analysis and Validation

4.1.5.1 Laboratory Analysis

Upstate Laboratories, Inc. (Upstate) and Enalytic, LLC performed the chemical analyses of all samples collected during the RI. Upstate and Enalytic were accredited under the New York State Environmental Laboratory Approval Program (ELAP) Contract Laboratory Program (CLP). All samples collected during the RI were analyzed using applicable methods prescribed by NYSDEC Analytical Services Protocol (ASP), June 2000. Category B deliverables were generated for all samples, except for waste profile samples. The target analytes for the project are identified and summarized on the enclosed tables (see Appendix A).

4.1.5.2 Quality Assurance/Quality Control Samples

In addition to field samples, Quality Assurance/Quality Control (QA/QC) samples were collected to evaluate the effectiveness of the QA/QC procedures implemented during the field and laboratory activities associated with the project. These QA/QC samples were collected and analyzed in accordance with the April 2010 SC/RI Work Plan. The QA/QC samples included field duplicates, matrix spikes, matrix spike duplicates, and trip blanks.

4.1.5.3 Data Validation

The laboratory analytical packages for the SC/RI samples prepared by Upstate and Enalytic were reviewed by independent validators to assess the compliance with the analytical method protocols described in NYSDEC ASP. The Data Usability Summary Reports (DUSRs) were prepared for each sample set that compares the quality of the performance of the laboratories analyses to that described in the ASP. The DUSRs are included in the electronic data summary submission. All analytical results from the SC/RI have been validated and the analytical results summary tables incorporate the results of the data validation efforts.

4.1.6 Survey

Keystone Associates surveyed the locations, the ground surface elevations and the top of well casing elevations for all monitoring wells.

The locations and elevations of permanent monitoring points were established by Keystone Associates. Horizontal locations were referenced to the New York State Plane Coordinate System using North American Datum (NAD) 83. Vertical elevations were referenced to North Atlantic Vertical Datum (NAVD) 88. Monitoring well reference points (top of well casing) are included on Table 5 (Appendix A), and the latitudes and longitudes are presented on Drawing No. 4 (Appendix B).

5 NATURE AND EXTENT OF CONTAMINATION

The following sections summarize and discuss the analytical results generated during the SC/RI. Soil, groundwater and soil vapor intrusion samples were collected to characterize the nature and extent of contamination. Tables have been prepared that summarize the analytical results for all soil, water and soil vapor samples collected during the SC/RI (see Appendix A).

The concentrations of COCs in groundwater exceeds the SCGs, therefore the NYCRR Part 375 Unrestricted Use Soil Cleanup Objectives (Unrestricted SCOs) for the COCs will be used. The SCOs for semi-volatile, metals and PCB will be NYCRR Part 375 Restricted Commercial Use Soil Cleanup Objectives for the Protection of Public Health (Commercial SCOs).

5.1 On-Site Soil and Groundwater

5.1.1 Confirmatory Sampling

Three of the five borings that were advanced inside the Site building evaluated the fill material used to backfill the former basement level of the Site building. Only one boring, CCIN 10.1, achieved a depth that was likely below the former basement floor level. A water sample was collected from this soil boring at an interval of 11 to 13 feet bg.

The concentrations of volatile compounds, semi-volatile compounds and PCBs reported in the soil samples collected from the interior borings do not exceed the Restricted SCOs for both Commercial Use and the Protection of Groundwater. The concentrations of iron, magnesium, and/or calcium in the soil samples exceed the Restricted SCOs for both Commercial Use and for the Protection of Groundwater. The concentration of cadmium in one soil sample (7.53 ppm) exceeds the Restricted SCO for the Protection of Groundwater (7.5 ppm), but was below the Restricted SCO for Commercial Use. These metals are not typically associated with dry cleaning operations. The soils that exhibited the highest concentrations of COCs were observed at the 6 to 8 foot interval below the building.

The results of the volatile analysis for the one water sample collected from CCIN 10.1 located within the Site building reports concentrations of *cis*-1,2-dichloroethene (410 ug/L), trichloroethene (48 ug/L) and tetrachloroethene (25 ug/L) at levels that exceed SCGs of 5 ug/L for all three compounds.

The following table summarizes the results of the total COC concentrations reported in soil and groundwater samples collected from below the Site building. A complete summary of all analyses are presented on Tables 1 and 2, Appendix A.

Table 5-1
Analytical Testing Summary of Total COCs
Interior Borings

Sample Location	Sample Matrix and Depth	Total COCs Concentration [ppb]
CCIN 10.1	Soil, 0'-2'	10
CCIN 10.1	Soil, 2'-4'	14
CCIN 10.1	Soil, 4'-6'	1100
CCIN 10.1	Soil, 6'-8'	15
CCIN 10.1	Soil, 8'-10'	75
CCIN 10.1	Soil, 10'-12'	483D
CCIN 10.3	Soil, 0'-2'	4J
CCIN 10.3	Soil, 2'-4'	5J
CCIN 10.3	Soil, 4'-6'	6J
CCIN 10.3	Soil, 6'-7.5'	1100
CCIN 10.4	Soil, 0'-2'	23
CCIN 10.4	Soil, 2'-4'	5J
CCIN 10.4	Soil, 4'-6'	8
CCIN 10.4	Soil, 6'-7.5'	36
CCIN 10.5	Soil, 1.5'-2'	6
CCIN 10.5	Soil, 2'-4'	8
CCIN 10.5	Soil, 4'-6'	5J
CCIN 10.5	Soil, 6'-7.8'	13
CCIN 10.1	Water, 11'-13'	483D

D – Compounds quantified using secondary dilution

J – Indicates that the associated numerical value is an estimated concentration

5.1.2 On-Site Exterior Borings

The only COC that was detected in the soil samples submitted for analyses from the four exterior boring locations was tetrachloroethene, ranging in concentration from 3J ppb to 1,900 ppb. The Restricted SCO for the Protection of Groundwater for tetrachloroethene is 1,300 ppb. The highest tetrachloroethene concentrations were observed at borings CCEX 10.1 and CCEX 10.4 located on the west side of the Site building in soils in the capillary

fringe and at the water table. The sample collected from a depth of 8 to 10 feet bgs at CCEX.10.1 reported a concentration of tetrachloroethene of 1,500 ppb. The sample collected at boring CCEX.10.4 at depth of 10 to 12 feet bgs reported a concentration of 1,900 ppb. Concentration gradients do not suggest an increasing or decreasing trend with depth.

Semi-volatile compounds were detected in soil samples collected from CCEX 10.1 (fluoranthene at 500JD ppb) and CCEX 10.3 (phenanthrene at 530JD ppb and pyrene at 700JD ppb). These concentrations are below both the Restricted SCOs for the Protection of Groundwater and for Commercial Use. These compounds are not associated with dry cleaning solvents, and are likely associated with the ash that was observed in soils underlying the building.

Iron was detected in samples analyzed from all four exterior borings at concentrations that ranged from 12,700 to 15,200 ppm. The Restricted SCO for both the Protection of Groundwater and for Commercial Use for iron is 10,000 ppm. The similarity in iron concentrations suggests that these represent background concentrations. Calcium was detected at a concentration of 19,700 ppm at one boring location, CCEX 10.4. The Restricted SCO for both the Protection of Groundwater and for Commercial Use for calcium is 10,000 ppm. Neither, iron or calcium is associated with dry cleaning solvents.

All groundwater samples that were analyzed for volatile organic compounds report concentrations that exceed the SCGs for the COCs. Tetrachloroethene was detected in all groundwater samples ranging in concentration of 30J ug/L to 3,800 ug/L. Although no transformation products of tetrachloroethene were detected in the soil samples, transformation products were detected in groundwater samples at three of the four locations. The COC concentrations in groundwater at boring CCEX 10.3, where groundwater samples were collected at approximately 8 to 10-foot intervals, suggest a decrease in COC concentrations with depth (see Appendix A, Table 2).

Boring CCEX 10.1 with the highest COC concentrations in soil also exhibited the highest COC concentrations in groundwater.

The following table summarizes the results of the TCL volatile analyses for the soils and groundwater samples collected from the exterior borings on the Site. A complete summary of all analyses are presented on Tables 1 and 2, Appendix A.

Table 5-2
Analytical Testing Summary of Total COCs
Exterior Borings

Sample Location	Sample Matrix and Depth	Total COCs Concentration [ppb]
CCEX 10.1	Soil, 2'-4'	1,200J
CCEX 10.1	Soil, 4'-6'	20J
CCEX 10.1	Soil, 6'-8"	800J
CCEX 10.1	Soil, 8'-10'	8J
CCEX 10.1	Soil, 10'-12'	1,500J
CCEX 10.2	Soil, 0-2'	36J
CCEX 10.2	Soil, 4'-6'	100J
CCEX 10.2	Soil, 6'-8'	3J
CCEX 10.2	Soil, 8'-10'	17J
CCEX 10.2	Soil, 10'-12'	28J
CCEX 10.3	Soil, 0-2'	130J
CCEX 10.3	Soil, 2'-4'	290J
CCEX 10.3	Soil, 4'-6'	5J
CCEX 10.3	Soil 6'-8'	5J
CCEX 10.3	Soil, 8'-10'	180J
CCEX 10.4	Soil, 2'-4'	1,100
CCEX 10.4	Soil, 4'-6'	23
CCEX 10.4	Soil, 6'-8'	9
CCEX 10.4	Soil, 8'-10'	1900
CCEX 10.4	Soil, 10'-12'	394
CCEX 10.1	Water, Well, 7'-17'	830D
CCEX 10.2	Water 10.5'-12.5'	33J
CCEX 10.3	Water, 10'-12.5'	1,240JD
CCEX 10.3	Water, 20'-24'	See Note
CCEX 10.3	Water, 28'-32'	146J
CCEX 10.3	Water, 40'-43'	42J
CCEX 10.4	Water, 10'-14'	6,834JD

Note: Data for this sample was rejected by validator.

D – Compounds quantified using secondary dilution

J – Indicates that the associated numerical value is an estimated concentration

The number of samples analyzed, the range in COC concentrations observed, and the number of samples that exceeded the SCG or SCOs have been summarized on the following two tables for the on-site evaluation.

Table 5-3
Soil Contaminant Concentration Summary
On-Site Borings

Contaminant	Concentration Range Detected [ppm]	Commercial SCO ¹ [ppm]	Restricted SCO ² [ppm]	No. of Excursions	No. Exceeding Restricted SCO ²
COCs					
<i>Tetrachloroethene</i>	0.004J to 1.900	150	1.3	39	2
<i>Trichloroethene</i>	0.0054U to 0.014	200	0.470	39	0
<i>cis-1,2-Dichloroethene</i>	0.0053U to 0.010J	500	0.250	39	0

1 - SCO – Part 375-6.8 (b) Restricted Soil Cleanup Objective for Commercial Use

2 -SCO – Part 375-6.8 (b) Restricted Soil Cleanup Objective for the Protection of Groundwater

Table 5-4
Groundwater Contaminant Summary
On-Site Borings

Contaminant	Concentration Range [ppb]	SCG [ppb]	No. of Excursions	No. Exceeding SCG
COCs				
<i>Tetrachloroethene</i>	25D to 3,800	5	7	7
<i>Trichloroethene</i>	2J to 680D	5	7	3
<i>cis-1,2-Dichloroethene</i>	1J to 2,300D	5	7	3
<i>trans-1,2-Dichloroethene</i>	5.0U to 20 JD	5	7	1
<i>Vinyl Chloride</i>	5.0U to 24JD	2	7	1

5.1.3 Off-Site Groundwater

Groundwater samples collected from monitoring wells and from soil borings in November 2010, April 2011 and January 2012 indicated the presence of COCs extending from the Site south to Winsor Street. Other volatile compounds associated with petroleum fuels were also detected in groundwater from the Exxon Mobil Gas Station south to West Water Street. The petroleum-related compounds are likely associated with a past petroleum release(s) at the Exxon Mobil Gas Station (NYSDEC Spill #95-08867) located on the southeast corner of Hoffman and W. Church Streets. The concentrations of both the COCs and petroleum-related compounds observed in the groundwater samples collected within

the upper silty sand and gravel deposit on November 2010 and January 2012 are depicted on Drawing Nos. 10 and 11 (See Appendix B).

The analytical data is summarized on Table 3, Appendix A. The following is a general summary of total contaminant concentrations for both COCs and other VOCs for work completed in November 2010 and April 2011, and January 2012.

Table No. 5-5
Off-Site Groundwater Contaminant Concentrations Summary

Location	COCs [ppb]		Other VOCs [ppb]	
	November 2010/ April 2011	January 2012	November 2010/ April 2011	January 2012
Boring				
GW-1 (40-44 ft)	ND		ND	
OFDP-10.1 (25-28 ft)	ND		ND	
OFDP-10.1 (46-50 ft)	ND		7	
OFDP-10.2 (37-41 ft)	3		ND	
OFDP-10.3 (14-18 ft)	89		19	
OFDP-10.3 (24-28 ft)	629		89	
OFDP-10.3 (36-40 ft)	7		ND	
OFDP-10.4 (11-15 ft)	12		6	
OFDP-10.4 (26-30 ft)	135		28	
OFDP-10.5 (46-50 ft)	ND		ND	
OFDP-10.6 (11.5-15.5 ft)	8		ND	
OFDP-10.6 (37-41 ft)	ND		6	
OFDP-10.7 (43-47 ft)	ND		ND	
OFDP-10.8 (20-24 ft)	20		3,699	
OFDP-10.8 (44-48 ft)	ND		2,513	
OFDP-10.9 (12-16 ft)	18		ND	
OFDP-10.9 (45-49 ft)	3		ND	
OFDP-10.10 (12-16 ft)	ND		22	
OFDP-10.10 (44-48 ft)	ND		ND	
OFDP-10.11 (12-16 ft)	154		32	
OFDP-10.11 (36-40 ft)	ND		ND	
OFDP-10.12 (15-19 ft)	120		ND	
OFDP-10.12 (40-44 ft)	ND		ND	
OFDP-10.13 (15-19 ft)	15		10	
OFDP-10.13 (26-30 ft)	46		ND	
OFDP-10.14 (15-19 ft)	108		12	

Table No. 5-5
Off-Site Groundwater Contaminant Concentrations Summary

<i>Location</i>	<i>COCs [ppb]</i>		<i>Other VOCs [ppb]</i>	
	<i>November 2010/ April 2011</i>	<i>January 2012</i>	<i>November 2010/ April 2011</i>	<i>January 2012</i>
OFDP-10.14 (45-49 ft)	ND		ND	
OFDP-10.15 (13-17 ft)	32		10	
OFDP-10.15 (32-36 ft)	10		20	
OFDP-10.16 (15-19 ft)	20		ND	
OFDP-10.16 (45-49 ft)	3		ND	
OFDP-10.17 (12-16 ft)	46		ND	
OFDP-10.17 (28-32 ft)	3		ND	
OFDP-10.18 (12-16 ft)	47		ND	
OFDP-10.18 (17-21 ft)	35		ND	
OFDP-10.19 (12-14 ft)	7		2	
OFDP-10.19 (46-48 ft)	4		ND	
OFDP-10.20 (14-16 ft)	5		2	
OFDP-10.20 (38-40 ft)	ND		ND	
OFDP-10.21(12-16 ft)	ND		ND	
OFDP-10.21 (24-28 ft)	2		ND	
OFDP-10.22 (12-16 ft)	5		2	
OFDP-10.22 (26-30 ft)	27		ND	
Monitoring Well				
OFDP-10.1 (5-15 ft) ²	6	29	ND	ND
OFDP-10.2 (7-17 ft)	153	41	ND	ND
OFDP-10.5 (8-18 ft)	ND	ND	ND	51
OFDP-10.7 (7-17 ft)	ND	ND	21	61
OFDP-10.8 (8-18 ft)	ND	ND	8,640	4,277
GW-1S (8-18 ft)	ND	ND	ND	ND
GW-1D (22-27 ft)		ND		ND
GW-2 (6.3-16.3 ft)	ND	ND	ND	ND
GW-4 (5.9-15.9 ft)	223	41	ND	ND
GW-8S (9.8-19.8 ft)	465	986	ND	ND
GW-8D (34-39 ft)		ND		ND
GW-11 (9.8-19.8 ft)	90	94	11	14
GW-12S (5-15 ft)		ND		ND
GW-12D (35-40 ft)		ND		ND
GW-13S (5-15 ft)		164		ND
GW-14S (7-17 ft)		194		ND

Table No. 5-5
Off-Site Groundwater Contaminant Concentrations Summary

Location	COCs [ppb]		Other VOCs [ppb]	
	November 2010/ April 2011	January 2012	November 2010/ April 2011	January 2012
GW-15S (8-18 ft)		9		ND
GW-15D 67-72 ft)		ND		ND
GW-16S (9.5-19.5 ft)		129		ND
GW-17S (12-22 ft)		ND		ND
GW-17D (29-34 ft)		24		ND
GW-18S (5-15 ft)		27		ND
GW-18D (20-25 ft)		25		ND
GW-19S (8-18 ft)		68		ND
PS-1	4	27	ND	ND
GW-20S (7-17 ft)		3		3
GW-20D (24-29 ft)		4		ND

Contaminants of Concern – PCE, TCE, DCE, VC, 1,1,1-TCA, 1,1-DCE, 1,1-DCA, 1,2-DCA and CA
 Other VOC consist of petroleum-related compounds
 ND – Not detected at the reporting limits

A summary of COCs in groundwater at the Site and at locations hydraulically upgradient and downgradient of the Site are summarized on the following tables.

Table 5-6
Off-Site Groundwater Contaminant Concentration Summary

Off-Site Borings/Monitoring Wells – Upgradient:

Contaminant	Concentration Range [ppb]	SCG [ppb]	No. of Excursions	No. Exceeding SCG
COCs				
<i>Tetrachloroethene</i>	5.0 UJ	5	9	0
<i>Trichloroethene</i>	5.0 UJ	5	9	0
<i>cis-1,2-Dichloroethene</i>	5.0 UJ	5	9	0
<i>trans-1,2-Dichloroethene</i>	5.0 UJ	5	9	0
<i>Vinyl Chloride</i>	5.0 UJ	2	9	0

Off-Site Borings/Monitoring Wells – Downgradient:

Contaminant	Concentration Range [ppb]	SCG [ppb]	No. of Excursions	No. Exceeding SCG
COCs				
<i>Tetrachloroethene</i>	5.0U to 310	5	101	36
<i>Trichloroethene</i>	5.0U to 55	5	101	14
<i>cis-1,2-Dichloroethene</i>	4.5J to 400	5	101	24
<i>trans-1,2-Dichloroethene</i>	5.0U	5	101	0
<i>Vinyl Chloride</i>	5.0U	2	101	0

5.1.4 Soil Vapor and Air

When considering vapor intrusion into residential properties as a result of migrating soil vapors, the NYSDOH has established decision-based matrices and air guideline values in its Soil Vapor Intrusion Guidance (NYSDOH 2006) that apply to specific chemicals. These matrices are used to determine if taking reasonable measures to reduce exposure, further monitoring, or mitigation are required based on the action level of 5.0 ug/m³ for trichloroethene and 100 ug/m³ for tetrachloroethene in indoor air, as well as taking into account sub-slab soil vapor concentrations. COCs were observed in soil vapor at downgradient properties that exceed NYSDOH Soil Vapor Intrusion guidelines.

6 QUALITATIVE HUMAN HEALTH EXPOSURE ASSESSMENT

In order to assess any actual or potential exposure pathways associated with contaminants present at the Site and in the vicinity of the site, a qualitative human health exposure assessment (QHHEA) has been completed. The QHHEA was completed in general accordance with the guidance presented in DER-10 Technical Guidance for Site Investigation and Remediation dated May 2010 (NYSDEC 2010).

Castle Cleaners uses tetrachloroethene as its dry cleaning solvent; therefore, COCs exposure to Castle Cleaners employees is not part of this QHHEA.

6.1 Potential Exposure Pathways

In evaluating the potential for human exposure, a first step is to identify the potential for the existence of complete exposure pathways. An exposure pathway describes the mechanism

in which an individual or population could be exposed to a chemical(s). A complete exposure pathway consists of five elements:

1. Contaminant Source
2. Contaminant Release and Transport Mechanisms
3. A Point of Exposure
4. A Route of Exposure
5. A Receptor Population

The absence of any one of these five factors results in an incomplete exposure pathway.

A direct exposure pathway is where the point of exposure is at the source, without a release to any other medium and without an intermediate biological transfer step. If the exposure is not at the source, then a transport or exposure medium or both must be present.

Typical exposure pathways include inhalation, ingestion, and dermal contact.

There is currently one identified contaminant source (Castle Cleaners) and one class of contaminants of concern (chlorinated volatile organic compounds) that will be evaluated in this QHHEA.

6.2 Evaluation for COCs at Castle Cleaners

6.2.1 Potential Exposure Pathways for Community

Potential exposure pathways from the contaminants identified at Castle Cleaners to the community include dermal exposure to, and inhalation and/or ingestion of, soils and groundwater.

6.2.1.1 Exposure Pathway - Inhalation

To evaluate the potential exposure pathways for the community including commercial property occupants in the vicinity of the Site and at the Site, a sub-slab soil vapor and air evaluation was completed under the RI. COCs were observed in

soil vapor at downgradient properties that exceed NYSDOH Guidance for Evaluating Soil vapor Intrusion in New York State, October 2006.

The NYSDOH Guidance recognizes “predicting the extent of soil vapor contamination is complicated by environmental and building factors that affect migration and intrusion”. The additional factor of tetrachloroethene still being used at the dry cleaner also complicates the evaluation of indoor air quality. Regardless, the exposure of COC through inhalation is considered a complete exposure pathway.

6.2.1.2 Exposure Pathway - Surface Soils

The Castle Cleaners building occupies a substantial portion of the Site. The remaining portion of the Site is covered with asphalt pavement and sidewalk. No open areas with exposed surface soils with a tendency to generate airborne soil particulate exist at the Site.

Community exposure to surface soils, either through direct ingestion through hand-mouthing of soils or through the ingestion of airborne soil particulates from the Site is non-existent, given the current Site conditions. There is an incomplete exposure pathway for contaminated surface soils.

6.2.1.3 Exposure Pathway – Subsurface Soils

There are no known exposure pathways to subsurface soils at Castle Cleaners to the community. The soils that have exhibited the highest COC concentrations are under the Site building, under asphalt pavement, and/or at depths generally 8 feet or greater below ground surface. There is an incomplete exposure pathway to the community to impacted subsurface soils.

6.2.1.4 Exposure Pathway – Groundwater

Groundwater at the Site has been impacted by COCs at levels above NYSDEC SCGs. Given the depth to groundwater at the Site and at the locations evaluated downgradient of the Site (approximately 8 to 10 feet below grade), direct dermal

exposure to impacted groundwater is not considered a complete exposure pathway.

Direct ingestion of impacted groundwater is considered a complete exposure pathway for the community. It is GeoLogic's understanding that all properties located within the vicinity of Site, including the Site, are connected to the municipal water supply system completing the exposure pathway to impacted groundwater.

The Foster Island Wellfield located south of the site has three (3) water supply wells. As noted previously, the Foster Island wells are monitored by the Chemung County Health Department. In 2006, Well No. 42 was taken out-of-service due to the detection of tetrachloroethene in a periodic sample collected for analysis. The concentrations of tetrachloroethene reported by the Chemung County Health Department in Well No. 42 have not exceeded, to date, NYSDEC Drinking Water Standards. There are two (2) other water supply wells located on Foster Island, Well No. 40 and Well No. 41 that are currently in production as a source of water for the City of Elmira. Well No. 41 has also reported detectable concentrations of tetrachloroethene at levels below the NYSDEC Drinking Water Standards.

The public water supply uses groundwater in the area as its source. Even though, the water is blended and tested by the Elmira Water Board on a routine basis to verify that it meets drinking water standards prior to the distribution to area consumers, the presence of the COCs at levels below SCG at the well head is considered a complete exposure pathway.

6.2.2 Potential Exposure Pathways for Occupants of the Site

The Site building has two units, one unit is occupied by Castle Cleaners and the other unit is currently vacant. Castle Cleaners uses tetrachloroethene in its dry cleaning operations, and the dry cleaning unit is vented to the outside through two vents on the west side of the Site building. There is a complete exposure pathway to the workers and customers of the Castle Cleaners that will not be address as part of this QHHEA.

6.2.2.1 Exposure Pathway - Inhalation

The preliminary sub-slab soil vapor intrusion and air evaluation that was completed at the Site building was inconclusive with regards to impact to indoor air quality from contaminant intrusion via soil vapor. Castle Cleaners uses tetrachloroethene as its dry cleaning solvent, and discharges emissions from their dry cleaning equipment to the outside air.

The source of elevated COCs that were observed in the indoor air inside the Site building's vacant unit is likely associated with Castle Cleaners air emissions, and not from soil vapor intrusion.

6.2.2.2 Exposure Pathway - Surface and Subsurface Soils

As indicated previously, the Castle Cleaners' building occupies a substantial portion of the Site. The remaining portion of the Site is covered with asphalt pavement and sidewalk. No open areas with exposed surface soils with a tendency to generate airborne soil particulate exist at the Site.

Exposure to surface or subsurface soils, either through direct ingestion through hand-mouthing of soils or through the ingestion of airborne soil particulates from the Site is non-existent, under normal occupancy conditions at the Site. Therefore, there is an incomplete exposure pathway for contaminated surface soils.

Any remodeling work at the Site that would expose the soils underlying the concrete floors or the asphalt pavement would be performed under conditions to prevent exposure to building occupants either through hand-mouthing or ingestion of airborne soil particulates, or dermal contact.

6.2.2.3 Exposure Pathway – Groundwater

The potential exposure to impacted groundwater for Site occupants are the same as those associated with off-site residences and commercial building occupants.

6.2.3 Potential Exposure Pathways for Others

In general, municipal workers, utility workers, building contractors and environmental drilling contractors, as a group, have the potential of exposure to subsurface soils, groundwater and soil vapor, with the drilling contractors having the greatest potential for exposure.

Buried utilities at the Site and within the study areas include water, sanitary sewer, storm sewer and natural gas. Utility trenches are typically between 2 and 6 feet below ground surface when the topography is relatively flat. Groundwater at the Site and within the study areas have historically been encountered approximately 8 to 10 feet below ground surface, well below most utility trenches in the vicinity of the Site. Direct exposure to contaminated groundwater by utility or municipal workers is possible given the depths (8 to 9 feet bgs) of the combined storm and sanitary sewer lines and trenches along Hoffman Street. The potential exposure pathway for municipal and utility workers is considered complete.

Elevated COCs in soils outside the building footprint have been identified. The depths of soils with reported and/or potential elevated COCs are generally within those work depths (2 to 6 feet below grade) for utility and municipal workers. Thus, the potential exposure pathway for municipal and utility workers is considered complete.

Workers conducting environmental drilling and sampling activities at the Site are likely to encounter the on-site contamination both in the subsurface soils, groundwater and soil vapor. While this represents a potential exposure pathway, this group would be the most aware of the potential for exposure, and apply appropriate action to minimize or eliminate the exposure.

7 SUMMARY

7.1 Overview

The Remedial Investigation for Castle Cleaners has included evaluations of soil, groundwater, soil vapor, indoor air and outdoor air. A total of forty (40) soil borings were completed; nine (9) on the Castle Cleaner site and thirty-one (31) off-site borings. Twenty-seven (27) monitoring wells were installed and sampled; additional samples were collected from four monitoring wells installed during a previous NYSDEC evaluation. Over fifty (50) soil and groundwater samples

from the Castle Cleaner site and 118 off-site groundwater samples were analyzed as part of this evaluation. Additionally, sixty-six soil vapor and air samples were collected at off-site properties. The primary objectives of this work were to characterize the nature and extent of site-related impacts to the environment and to evaluate the risk posed to human health and the environment by those impacts. The information gathered will enable an evaluation of remedial alternatives for the site.

This section summarizes the findings of the RI and presents relevant conclusions.

7.2 Site Location and History

The Castle Cleaner site is located within a commercial block of buildings on Hoffman Street between West Church Street and West Gray Street. Castle Cleaner is approximately 1,300 feet north of the Chemung River and 250 feet west of Hoffman Creek. The Castle Cleaner property is largely encompassed by the 2-unit building. There is an asphalt-covered area on the west side of the property that is approximately 10 feet wide and extends the complete width of the site building. There is a public sidewalk on the east side of the site building that extends to the Hoffman Street limits.

The Castle Fast Dry Cleaner and a tavern occupy the Castle Cleaner site.

The study area extends approximately 1,200 feet in a north-south direction from West Church Street located north of the Castle Cleaner site, south to within 250 feet of the Chemung River channel. Within the Chemung River channel south of the study area is Foster Island where there are three City of Elmira water supply wells, No. 40, No. 41 and No. 42.

7.3 Geology/Hydrogeology

The study area is generally underlain by three primary geologic units. They consist of a silty sand and gravel underlain by lacustrine sands, silt and clay. Below the lacustrine deposit, a dense clayey silt, sand and gravel glacial till was encountered. The water table resides in the silty sand and gravel unit at depths ranging between 8 and 16 feet. Groundwater beneath the study area moves southward, discharging into the Chemung River.

7.4 Soil Quality Evaluation

The quality of soils beneath the Castle Cleaner site was evaluated by comparing the analytical results to both Restricted SCOs for Commercial Use and for the Protection of Groundwater. These comparisons found that the only VOC constituent that exceeded the Restricted SCOs for the Protection of Groundwater was tetrachloroethene; these concentrations were below the Restricted SCO for Commercial Use. The soils that exhibited the elevated levels were observed outside the building footprint at depths of 8 to 10 feet bgs and 10 to 12 feet bgs. Soils immediately above and below these depths did not exceed the Restricted SCO for tetrachloroethene.

Soil quality beneath the Castle Cleaner site was also evaluated by comparing the semi-volatile, metals and PCB results to Restricted SCOs for both the Commercial Use and for Protection of Groundwater. These comparisons found that the concentrations of the semi-volatile compounds and PCBs were below the Restricted SCOs values. Concentrations of iron and calcium were observed in several of the soil sample that exceeded the Restricted SCOs for the Protection of Groundwater and for Commercial Use. The concentration of cadmium in one soil sample was slightly elevated above the Restricted SCOs.

7.5 Groundwater Quality Evaluation

Twenty-six (26) monitoring wells including six couplets were installed as part of this RI from locations hydraulically upgradient of the Site, downgradient to the City of Elmira Water Board property. Twenty of these monitoring wells were installed with the screened section straddling the water table, and six deeper piezometric wells were installed with the screened section placed at or into a confining layer with one installed at the probable top of bedrock.

Groundwater samples collected on-site were submitted for VOCs, SVOCs, metals and PBCs with approval from NYSDEC; the analytical scope was reduced to VOC analysis for off-site samples.

The groundwater sampling results indicate that the primary COCs are tetrachloroethene and its transformation products trichloroethene and dichloroethene. Contaminant concentrations in groundwater both on-site and off-site are elevated above SCGs for Groundwater. The

groundwater VOC plume extends from the Site to the Chemung River and the City of Elmira Public Supply Wells No. 40, No. 41 and No. 42.

7.6 Vapor Intrusion Evaluation

The evaluation of the potential for soil vapor intrusion resulting from the presence of site-related COCs in groundwater was investigated by sampling sub-slab soil vapor under structures, indoor air inside the structures, and ambient outdoor air.

The soil vapor intrusion sampling was conducted during the 2011 and 2012 heating seasons and included 16 structures. For each structure sub-slab soil vapor (if a concrete floor was present in the lowest portion of the structure) and indoor air samples were collected to assess the potential for exposure via soil vapor intrusion. Outdoor air samples were collected concurrently to evaluate outdoor air quality in the vicinity of the study area. The results of the soil vapor intrusion primarily indicated tetrachloroethene and trichloroethene were found in sub-slab vapors and indoor air at structures both on-site and off-site.

7.7 QHHEA

GeoLogic performed a risk evaluation by considering various site characteristics and reviewing data collected during the RI and previous site investigations. The risk evaluation consisted of a qualitative HHEE.

The data collected at the Site indicates that COCs are not present in subsurface soils at concentrations exceeding the applicable SCO's for restricted commercial site use. Concentrations of COC in groundwater at the Site and downgradient of the Site exceed SGCs.

There are no points of exposure identified for direct dermal contact and ingestion with the impacted soil at the Site under current conditions either to Site occupants or to the community.

Exposure to the COCs in the subsurface soils is most likely limited to construction workers engaged in below floor slab activities at the Site and utility workers outside the Site's building footprint.

Exposure by direct dermal contact to COCs in groundwater for Site occupants, and the community are also considered incomplete. Groundwater is not expected to be encountered during typical construction activities due to the recorded depths to groundwater at the Site. Given the depth of the combined sanitary and storm sewer system along Hoffman Street, there is potential exposure to impacted groundwater during utility work.

The concentrations present at the No. 42 wellhead are below the applicable groundwater standards; however, the Elmira Water Board chooses not to use this well for active production in order to avoid the required reporting of an impacted municipal water source. The presence of PCE, even at low levels, has effectively removed Well No. 42 from production and reduces the service capacity of the Elmira Water Board. Well No. 42 has been removed from service out of a conservative decision to protect users. The presence of PCE in groundwater at the observed concentrations, indicate both a complete exposure pathway and a potential threat to human health and the environment.

The potential for exposure to the community to the COCs is via soil vapor intrusion. This is considered a complete exposure pathway.

8 REFERENCES

- MACTEC Engineering and Consulting, P.C. 2006. Site Characterization Report, Region 8 Dry Cleaning Sites, Castle Cleaners Site, Elmira, NY. Work Assignment No. D003826-20 for NYSDEC. MACTEC No. 3612052036.
- GeoLogic NY, Inc. April 2010. Site Characterization/Remedial Investigation Work Plan. Castle's Fast Dry Cleaners Inc., 221 Hoffman Street, Elmira, NY, NYSDEC Site No. 8-08-034
- NYSDEC 1998. Division of Water Technical and Operational Guidance Series (1.1.1): *Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations*. June 1998 (TOGS 1.1.1).
- NYSDEC 2010. *DER-10 Technical Guidance for Site Investigation and Remediation*. May 3, 2010.
- NYSDEC 2007. *DER-15 Presumptive/Proven Remedial Technologies*. February 27, 2007.
- NYSDEC 2006. *6 NYCRR Part 375*. December 14, 2006.
- NYSDOH 2006. *Guidance for Evaluating Soil Vapor Intrusion in New York State*, October 2006.

Miller, Ted S. and R.V Allen. *Geohydrology of Valley-Fill Aquifer in the Elmira Area, Chemung County, New York*. Open File Report 82-110. 1982.

Environmental Data Resources, Inc. *Sanborn Fire Insurance Rate Map*. 1931, 1950, 1988 and 1990.

Elmira Water Board, Annual Drinking Water Quality Report, 2010, 2011 and 2012.

Elmira City Directories, R.L. Polk & Co. Publishers available at Steele Memorial Library, Elmira, NY.

APPENDIX A

TABLES

CASTLE CLEANERS SITE
TABLE 1
SOURCE AREA EVALUATION
SOIL DATA SUMMARY
July 2010
NYSDEC Site No. 808034

Sample Location	6NYCRR	6NYCRR	CCEX 10.1	CCEX 10.1	CCEX 10.1	CCEX 10.1	CCEX 10.1	CCEX 10.1	CCEX 10.2	CCEX 10.2	CCEX 10.2
	Part 375 SCO	Part 375 SCO	2'-4'	4'-6'	6'-8'	2'-6'	8'-10'	10'-12'	0-2'	4'-6'	6'-8'
Parameter	Commercial	Restricted**	7/7/2010	7/7/2010	7/7/2010	7/7/2010	7/7/2010	7/7/2010	7/6/2010	7/6/2010	7/6/2010
TAL Metals											
Unit	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Mercury	2.8	0.73				0.177					
Aluminum	10,000	10,000				7,790					
Antimony	10,000	10,000				11.5 U					
Arsenic	16	13				11.5 U					
Barium	400	820				117					
Beryllium	590	47				0.691 U					
Cadmium	9.3	7.5				6.09					
Calcium	10,000	10,000				2,850					
Chromium	400	19				10.1					
Cobalt	10,000	10,000				5.97					
Copper	270	1,720				34.7 J					
Iron	10,000	10,000				13,800					
Lead	1,000	450				148					
Magnesium	10,000	10,000				2420 J					
Manganese	10,000	2,000				604					
Nickel	310	130				15.2					
Potassium	10,000	10,000				664					
Selenium	1,500	4				6.91 U					
Silver	1,500	8.3				2.30 U					
Sodium	10,000	10,000				576 U					
Thallium	10,000	10,000				6.91 U					
Vanadium	10,000	10,000				10.6					
Zinc	10,000	2480				20.6 J					
Cyanide	27	40				1.15 UJ					

PCBs											
Unit	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
Aroclor 1016	1,000	3,200				38 UJ					
Aroclor 1221	1,000	3,200				38 UJ					
Aroclor 1232	1,000	3,200				38 UJ					
Aroclor 1242	1,000	3,200				38 UJ					
Aroclor 1248	1,000	3,200				38 UJ					
Aroclor 1254	1,000	3,200				38 UJ					
Aroclor 1260	1,000	3,200				38 UJ					

Notes:
Highlighted value exceeds NYS Water Quality Standards and Guidance Values for GA - Source of Drinking Water, 1998 with April 2000 Addendum or
6NYCRR Part 375 Soil Cleanup Objective (SCO) for Unrestricted Use
TIC's - Tentatively Identified Compounds; ND - Not detected above reported detection limits
U - Constituent not detected at a concentration above the reported detection limit
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CASTLE CLEANERS SITE

T A B L E 1

SOURCE AREA EVALUATION

SOIL DATA SUMMARY

July 2010

NYSDEC Site No. 808034

Sample Location	6NYCRR	6NYCRR	CCEX 10.2	CCEX 10.2	CCEX 10.2	CCEX 10.3	CCEX 10.3	CCEX 10.3	CCEX 10.3	CCEX 10.3	CCEX 10.4
	Part 375 SCO	Part 375 SCO	8'-10'	10'-12'	4'-10'	0-2'	2'-4'	4'-6'	6'-8'	8'-10'	2'-4'
Parameter	Commercial	Restricted**	7/6/2010	7/6/2010	7/6/2010	7/6/2010	7/6/2010	7/6/2010	7/6/2010	7/6/2010	7/8/2010
TAL Metals											
Unit	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Mercury	2.8	0.73			0.143			0.0895			
Aluminum	10,000	10,000			8130			7050			
Antimony	10,000	10,000			11.8 U			12.3 U			
Arsenic	16	13			11.8 U			12.3 U			
Barium	400	820			11.8 U			114			
Beryllium	590	47			0.705 U			0.738 U			
Cadmium	9.3	7.5			7.26			7.05			
Calcium	10,000	10,000			4340			2480			
Chromium	400	19			18.8			8.46			
Cobalt	10,000	10,000			6.62			4.92 U			
Copper	270	1,720			27.5 J			19 J			
Iron	10,000	10,000			15,200			12,700			
Lead	1,000	450			68			21.6			
Magnesium	10,000	10,000			3100			1830			
Manganese	10,000	2,000			564 J			292 J			
Nickel	310	130			17			12.5			
Potassium	10,000	10,000			636			615 U			
Selenium	1,500	4			7.05 U			7.38 U			
Silver	1,500	8.3			2.35 U			2.46 U			
Sodium	10,000	10,000			588 U			615 U			
Thallium	10,000	10,000			7.05 U			7.38 U			
Vanadium	10,000	10,000			11.5			8.79			
Zinc	10,000	2480			40.1 J			17.8 J			
Cyanide	27	40			1.18 UJ			1.23 UJ			

PCBs											
Unit	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
Aroclor 1016	1,000	3,200			39 UJ			41 UJ			
Aroclor 1221	1,000	3,200			39 UJ			41 UJ			
Aroclor 1232	1,000	3,200			39 UJ			41 UJ			
Aroclor 1242	1,000	3,200			39 UJ			41 UJ			
Aroclor 1248	1,000	3,200			39 UJ			41 UJ			
Aroclor 1254	1,000	3,200			39 UJ			41 UJ			
Aroclor 1260	1,000	3,200			39 UJ			41 UJ			

Notes:

Highlighed value exceeds NYS Water Quality Standards and Guidance Values for GA - Source of Drinking Water, 1998 with April 2000 Addendum or

6NYCRR Part 375 Soil Cleanup Objective for Restricted, Commercial Use

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CASTLE CLEANERS SITE
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SOIL DATA SUMMARY
July 2010
NYSDEC Site No. 808034

Sample Location	6NYCRR	6NYCRR	CCEX 10.4	CCEX 10.4	CCEX 10.4	CCEX 10.4	CCEX 10.4	CCIN 10.1	CCIN 10.1	CCIN 10.1	CCIN 10.1
	Part 375 SCO	Part 375 SCO	4'-6'	6'-8'	6'-8'	10'-12'	8'-12'	0-2'	2'-4'	4'-6'	6'-8'
Parameter	Commercial	Restricted**	7/8/2010	7/8/2010	7/8/2010	7/8/2010	7/8/2010	7/8/2010	7/8/2010	7/8/2010	7/8/2010
TAL Metals											
Unit	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Mercury	2.8	0.73					0.203				
Aluminum	10,000	10,000					7,220				
Antimony	10,000	10,000					11.4 U				
Arsenic	16	13					11.4 U				
Barium	400	820					127				
Beryllium	590	47					0.683 U				
Cadmium	9.3	7.5					6.76				
Calcium	10,000	10,000					19,700				
Chromium	400	19					10.4				
Cobalt	10,000	10,000					6.09				
Copper	270	1,720					20.4 J				
Iron	10,000	10,000					13,600				
Lead	1,000	450					49.2				
Magnesium	10,000	10,000					4,980				
Manganese	10,000	2,000					551 J				
Nickel	310	130					15.2				
Potassium	10,000	10,000					845				
Selenium	1,500	4					6.83 U				
Silver	1,500	8.3					2.28 U				
Sodium	10,000	10,000					569 U				
Thallium	10,000	10,000					6.83 U				
Vanadium	10,000	10,000					9.84				
Zinc	10,000	2480					22.4 J				
Cyanide	27	40					11.4 UJ				

PCBs											
Unit	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
Aroclor 1016	1,000	3,200					38 U				
Aroclor 1221	1,000	3,200					38 U				
Aroclor 1232	1,000	3,200					38 U				
Aroclor 1242	1,000	3,200					38 U				
Aroclor 1248	1,000	3,200					38 U				
Aroclor 1254	1,000	3,200					38 U				
Aroclor 1260	1,000	3,200					38 U				

Notes:
Highlighted value exceeds NYS Water Quality Standards and Guidance Values for GA - Source of Drinking Water, 1998 with April 2000 Addendum or
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CASTLE CLEANERS SITE

T A B L E 1

SOURCE AREA EVALUATION

SOIL DATA SUMMARY

July 2010

NYSDEC Site No. 808034

Sample Location	6NYCRR	6NYCRR	CCIN 10.1	CCIN 10.1	CCIN 10.1	CCIN 10.3	CCIN 10.3	CCIN 10.3	CCIN 10.3	CCIN 10.3	CCIN 10.4
	Part 375 SCO	Part 375 SCO	8'-10'	10'-12'	2'-8'	0-2'	2'-4'	4'-6'	6'-7.5'	2'-7.5'	0-2'
Parameter	Commercial	Restricted**	7/8/2010	7/8/2010	7/8/2010	7/9/2010	7/9/2010	7/9/2010	7/9/2010	7/9/2010	7/9/2010
TAL Metals											
Unit	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Mercury	2.8	0.73			0.0565					0.0539 U	
Aluminum	10,000	10,000			7780					6560	
Antimony	10,000	10,000			10.9 U					10.8 U	
Arsenic	16	13			10.9 U					10.8 U	
Barium	400	820			102					86.8	
Beryllium	590	47			0.652 U					0.646 U	
Cadmium	9.3	7.5			8.02					6.36	
Calcium	10,000	10,000			22,800					39,300	
Chromium	400	19			9.21					8.84	
Cobalt	10,000	10,000			6.07					6.07	
Copper	270	1,720			23.4 J					21.4 J	
Iron	10,000	10,000			16,000					13,400	
Lead	1,000	450			23.2					10.9	
Magnesium	10,000	10,000			4,730					10,300	
Manganese	10,000	2,000			432 J					458 J	
Nickel	310	130			16.1					16.6	
Potassium	10,000	10,000			892					861	
Selenium	1,500	4			6.52 U					6.46 U	
Silver	1,500	8.3			2.17 U					2.15 U	
Sodium	10,000	10,000			543 U					539 U	
Thallium	10,000	10,000			6.52 U					6.46 U	
Vanadium	10,000	10,000			9.18					8.33	
Zinc	10,000	2480			19.9 J					19.2 J	
Cyanide	27	40			10.9 UJ					10.8 UJ	

PCBs											
Unit	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
Aroclor 1016	1,000	3,200			180 U					180 U	
Aroclor 1221	1,000	3,200			180 U					180 U	
Aroclor 1232	1,000	3,200			180 U					180 U	
Aroclor 1242	1,000	3,200			180 U					180 U	
Aroclor 1248	1,000	3,200			100 J					440 J	
Aroclor 1254	1,000	3,200			180 U					180 U	
Aroclor 1260	1,000	3,200			180 U					180 U	

Notes:

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July 2010
NYSDEC Site No. 808034

Sample Location	6NYCRR	6NYCRR	CCIN 10.4	CCIN 10.4	CCIN 10.4	CCIN 10.4	CCIN 10.5	CCIN 10.5	CCIN 10.5	CCIN 10.5	CCIN 10.5
	Part 375 SCO	Part 375 SCO	2'-4'	4'-6'	0-7.5'	6'-7.5'	1.5'-2'	2'-4'	4'-6'	6'-7.8'	2'-7.8'
Parameter	Commercial	Restricted**	7/9/2010	7/9/2010	7/9/2010	7/9/2010	7/8/2010	7/8/2010	7/8/2010	7/8/2010	7/8/2010
TAL Metals											
Unit	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Mercury	2.8	0.73			0.0548 U						0.0553 U
Aluminum	10,000	10,000			6480						6340
Antimony	10,000	10,000			11.0 U						11.1 U
Arsenic	16	13			11.0 U						11.1 U
Barium	400	820			200						92.5
Beryllium	590	47			0.657 U						0.664 U
Cadmium	9.3	7.5			7.53						5.98
Calcium	10,000	10,000			50,600						32,400
Chromium	400	19			8.34						7.46
Cobalt	10,000	10,000			6.01						5.83
Copper	270	1,720			23.2 J						104 J
Iron	10,000	10,000			13,400						13,200
Lead	1,000	450			12.5						14.2
Magnesium	10,000	10,000			6650						8240
Manganese	10,000	2,000			479 J						483 J
Nickel	310	130			15.5						14.8
Potassium	10,000	10,000			904						781
Selenium	1,500	4			6.57 U						6.64 U
Silver	1,500	8.3			2.19 U						2.21 U
Sodium	10,000	10,000			548 U						553 U
Thallium	10,000	10,000			6.57 U						6.64 U
Vanadium	10,000	10,000			8.34						8.07
Zinc	10,000	2480			17.7 J						15.8 J
Cyanide	27	40			11.0 UJ						11.1 UJ

PCBs											
Unit	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
Aroclor 1016	1,000	3,200			900 U						180 U
Aroclor 1221	1,000	3,200			900 U						180 U
Aroclor 1232	1,000	3,200			900 U						180 U
Aroclor 1242	1,000	3,200			900 U						180 U
Aroclor 1248	1,000	3,200			900 U						720 J
Aroclor 1254	1,000	3,200			900 U						180 U
Aroclor 1260	1,000	3,200			900 U						180 U

Notes:
** - 6NYCRR Part 375 Restricted Use Soil Cleanup Objected for the Protection of Groundwater
Highlighed value exceeds NYS Water Quality Standards and Guidance Values for GA - Source of Drinking Water, 1998 with April 2000 Addendum or
6NYCRR Part 375 Soil Cleanup Objective for Restricted Use
TIC's - Tentatively Identified Compounds; ND - Not detected above reported detection limits
U - Constituent not detected at a concentration above the reported detection limit
D - Compound quantitated using a secondary dilution
J - Indicates that the associated numerical value is an estimated concentration
R - Data was rejected due to a deficiency in the data generation process

CASTLE CLEANERS SITE
TABLE 2
SOURCE AREA EVALUATION
GROUNDWATER DATA SUMMARY
 July 2010
 NYSDEC Site No. 808034

	*NYS	CCIN 10.1	CCEX 10.1	CCEX 10.2	CCEX 10.3	CCEX 10.3	CCEX 10.3	CCEX 10.3	CCEX 10.4
Sample Location	Standard	11'-13'	Well	10.5'-12.5'	10'-12.5'	20'-24'	28'-32'	40'-43'	10'-14'
Parameter	Water	7/8/2010	7/8/2010	7/6/2010	7/6/2010	7/6/2010	7/6/2010	7/7/2010	7/8/2010
Volatiles Target Compound List (TCL)									
Unit	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
1,2,3-Trichlorobenzene	5	25 UJ	50 UJ	5.0 UJ	50 UJ	R	5.0 UJ	5.0 UJ	100 UJ
1,2,4-Trichlorobenzene	5	25 U	50 U	5.0 UJ	50 UJ	R	5.0 UJ	5.0 UJ	100 U
1,2,4-Trimethylbenzene	5	25 U	50 U	5.0 UJ	50 UJ	R	5.0 UJ	5.0 UJ	100 U
1,2-Dibromo-3-chloropropane	4	25 U	50 U	5.0 UJ	50 UJ	R	5.0 UJ	5.0 UJ	100 U
1,2-Dibromomethane	5	25 U	50 U	5.0 UJ	50 UJ	R	5.0 UJ	5.0 UJ	100 U
1,2-Dichlorobenzene	4.7	25 U	50 U	5.0 UJ	50 UJ	R	5.0 UJ	5.0 UJ	100 U
1,3,5-trimethylbenzene	5	25 U	50 U	5.0 UJ	50 UJ	R	5.0 UJ	5.0 UJ	100 U
1,3-Dichlorobenzene	5	25 U	50 U	5.0 UJ	50 UJ	R	5.0 UJ	5.0 UJ	100 U
1,4-Dichlorobenzene	5	25 U	50 U	5.0 UJ	50 UJ	R	5.0 UJ	5.0 UJ	100 U
1,4-Dioxane	---	R	R	R	R	R	R	R	R
Bromochloromethane	50	25 U	50 U	5.0 UJ	50 UJ	R	5.0 UJ	5.0 UJ	100 U
Cyclohexane	---	25 U	50 U	5.0 UJ	50 UJ	R	5.0 UJ	5.0 UJ	100 U
Dichlorodifluoromethane	5	25 U	50 U	5.0 UJ	50 UJ	R	5.0 UJ	5.0 UJ	100 U
Freon-113	5	25 U	50 U	5.0 UJ	50 UJ	R	5.0 UJ	5.0 UJ	100 U
Isopropylbenzene	5	25 U	50 U	5.0 UJ	50 UJ	R	5.0 UJ	5.0 UJ	100 U
Methyl acetate	---	25 U	50 U	5.0 UJ	50 UJ	R	5.0 UJ	5.0 UJ	100 U
methyl tert-butyl ether	10	25 U	50 U	5.0 UJ	50 UJ	R	5.0 UJ	5.0 UJ	100 U
Methylcyclohexane	---	25 U	50 U	5.0 UJ	50 UJ	R	5.0 UJ	5.0 UJ	100 U
n-Butylbenzene	5	25 U	50 U	5.0 UJ	50 UJ	R	5.0 UJ	5.0 UJ	100 U
n-Propylbenzene	5	25 U	50 U	5.0 UJ	50 UJ	R	5.0 UJ	5.0 UJ	100 U
sec-Butylbenzene	5	25 U	50 U	5.0 UJ	50 UJ	R	5.0 UJ	5.0 UJ	100 U
tert-Butylbenzene	5	25 U	50 U	5.0 UJ	50 UJ	R	5.0 UJ	5.0 UJ	100 U
Trichlorofluoromethane	5	25 U	50 U	5.0 UJ	50 UJ	R	5.0 UJ	5.0 UJ	100 U
Chloromethane	5	25 U	50 U	5.0 UJ	50 UJ	R	5.0 UJ	5.0 UJ	100 U
Vinyl chloride	2	25 U	50 U	5.0 UJ	50 UJ	R	5.0 UJ	5.0 UJ	24 JD
Bromomethane	5	25 U	50 U	5.0 UJ	50 UJ	R	5.0 UJ	5.0 UJ	100 U
Chloroethane	5	25 U	50 U	5.0 UJ	50 UJ	R	5.0 UJ	5.0 UJ	100 U
Acetone	50	50 U	100 U	10 UJ	100 UJ	R	10 UJ	10 UJ	200 U
1,1-Dichloroethene	5	25 U	50 U	5.0 UJ	50 UJ	R	5.0 UJ	5.0 UJ	100 U
Carbon disulfide	60	25 U	50 U	5.0 UJ	50 UJ	R	5.0 UJ	5.0 UJ	100 U
Methylene chloride	5	25 U	50 U	5.0 UJ	50 UJ	R	5.0 UJ	5.0 UJ	100 U
trans-1,2-Dichloroethene	5	25 U	50 U	5.0 UJ	50 UJ	R	5.0 UJ	5.0 UJ	30 JD
1,1-Dichloroethane	5	25 U	50 U	5.0 UJ	50 UJ	R	5.0 UJ	5.0 UJ	100 U
2-Butanone (MEK)	50	50 U	100 U	10 UJ	100 UJ	R	10 UJ	10 UJ	200 U
cis-1,2-Dichloroethene	5	410 D	50 U	1 J	20 JD	R	2 J	1 J	2,300 D
Chloroform	7	25 U	50 U	5.0 UJ	50 UJ	R	5.0 UJ	5.0 UJ	100 U
1,1,1-Trichloroethane	5	25 U	50 U	5.0 UJ	50 UJ	R	5.0 UJ	5.0 UJ	100 U
Carbon tetrachloride	5	25 U	50 U	5.0 UJ	50 UJ	R	5.0 UJ	5.0 UJ	100 U
Benzene	1	25 U	50 U	5.0 UJ	50 UJ	R	5.0 UJ	5.0 UJ	100 U
1,2-Dichloroethane	5	25 U	50 U	5.0 UJ	50 UJ	R	5.0 UJ	5.0 UJ	100 U
Trichloroethene	5	48 D	50 U	2 J	20 JD	R	4 J	2 J	680 D
1,2-Dichloropropane	1	25 U	50 U	5.0 UJ	50 UJ	R	5.0 UJ	5.0 UJ	100 U
Bromodichloromethane	50	25 U	50 U	5.0 UJ	50 UJ	R	5.0 UJ	5.0 UJ	100 U
4-Methyl-2-pentanone	---	50 U	100 U	10 UJ	100 UJ	R	10 UJ	10 UJ	200 U
cis-1,3-Dichloropropene	0.4	25 U	50 U	5.0 UJ	50 UJ	R	5.0 UJ	5.0 UJ	100 U
Toluene	5	25 U	50 U	5.0 UJ	50 UJ	R	5.0 UJ	5.0 UJ	100 U
trans-1,3-Dichloropropene	0.4	25 U	50 U	5.0 UJ	50 UJ	R	5.0 UJ	5.0 UJ	100 U
1,1,2-Trichloroethane	1	25 U	50 U	5.0 UJ	50 UJ	R	5.0 UJ	5.0 UJ	100 U
2-Hexanone	50	50 U	100 U	10 UJ	100 UJ	R	10 UJ	10 UJ	200 U
Tetrachloroethene	5	25 D	830 D	30 J	1,200 JD	R	140 J	39 J	3,800 D
Dibromochloromethane	50	25 U	50 U	5.0 UJ	50 UJ	R	5.0 UJ	5.0 UJ	100 U
Chlorobenzene	5	25 U	50 U	5.0 UJ	50 UJ	R	5.0 UJ	5.0 UJ	100 U
Ethylbenzene	5	25 U	50 U	5.0 UJ	50 UJ	R	5.0 UJ	5.0 UJ	100 U
m,p-Xylenes	5	25 U	50 U	5.0 UJ	50 UJ	R	5.0 UJ	5.0 UJ	100 U
o-Xylene	5	25 U	50 U	5.0 UJ	50 UJ	R	5.0 UJ	5.0 UJ	100 U
Styrene	5	25 U	50 U	5.0 UJ	50 UJ	R	5.0 UJ	5.0 UJ	100 U
Bromoform	50	25 U	50 U	5.0 UJ	50 UJ	R	5.0 UJ	5.0 UJ	100 U
1,1,2,2-Tetrachloroethane	5	25 U	50 U	5.0 UJ	50 UJ	R	5.0 UJ	5.0 UJ	100 U
TIC's		ND	ND	ND	ND	ND	ND	ND	ND

CASTLE CLEANERS SITE
TABLE 2
SOURCE AREA EVALUATION
GROUNDWATER DATA SUMMARY
 July 2010
 NYSDEC Site No. 808034

	*NYS	CCIN 10.1	CCEX 10.1	CCEX 10.2	CCEX 10.3	CCEX 10.3	CCEX 10.3	CCEX 10.3	CCEX 10.4
Sample Location	Standard	11'-13'	Well	10.5'-12.5'	10'-12.5'	20'-24'	28'-32'	40'-43'	10'-14'
Parameter	Water	8/7/2010	7/8/2010	7/6/2010	7/6/2010	7/6/2010	7/6/2010	7/7/2010	7/7/2010
Semi-Volatile Target Compound List (TCL)									
Unit	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
bis(2-Chloroethyl)ether	1		5.0 U		5.0 UJ				
1,1-Biphenyl	5		5.0 U		5.0 UJ				
2-Chlorophenol	50		5.0 U		5.0 UJ				
1,3-Dichlorobenzene	3		5.0 U		5.0 UJ				
1,4-Dichlorobenzene	3		5.0 U		5.0 UJ				
1,2-Dichlorobenzene	3		5.0 U		5.0 UJ				
2-Methylphenol	5		5.0 U		5.0 UJ				
N-Nitroso-di-N-propylamine	--		5.0 U		5.0 UJ				
Hexachloroethane	5		5.0 U		5.0 UJ				
Nitrobenzene	0.4		5.0 U		5.0 UJ				
Isophorone	50		5.0 U		5.0 UJ				
2-Nitrophenol	3		5.0 U		5.0 UJ				
2,4-Dimethylphenol	50		5.0 U		5.0 UJ				
bis(2-Chloroethoxy)methane	5		5.0 U		5.0 UJ				
2,4-Dichlorophenol	1		5.0 U		5.0 UJ				
1,2,4-Trichlorobenzene	5		5.0 U		5.0 UJ				
Naphthalene	10		5.0 U		5.0 UJ				
4-Chloroaniline	5		5.0 U		5.0 UJ				
Hexachlorobutadiene	0.5		5.0 U		5.0 UJ				
4-Chloro-3-methylphenol	5		5.0 U		5.0 UJ				
2-Methylnaphthalene	42		5.0 U		5.0 UJ				
Hexachlorocyclopentadiene	5		5.0 U		5.0 UJ				
2,4,6-Trichlorophenol	--		5.0 U		5.0 UJ				
2,4,5-Trichlorophenol	--		10.0 U		10.0 UJ				
2-Chloronaphthalene	10		5.0 U		5.0 UJ				
2-Nitroaniline	5		10.0 U		10.0 UJ				
Dimethylphthalate	50		5.0 U		5.0 UJ				
Acenaphthylene	20		5.0 U		5.0 UJ				
2,6-Dinitrotoluene	5		5.0 U		5.0 UJ				
3-Nitroaniline	5		10.0 U		10.0 UJ				
Acenaphthene	20		5.0 U		5.0 UJ				
2,4-Dinitrophenol	5		10.0 U		10.0 UJ				
4-Nitrophenol	5		10.0 U		10.0 UJ				
Dibenzofuran	--		5.0 U		5.0 UJ				
2,4-Dinitrotoluene	5		5.0 U		5.0 UJ				
Diethylphthalate	50		5.0 U		5.0 UJ				
4-Chlorophenyl-phenylether	--		5.0 U		5.0 UJ				
Fluorene	50		5.0 U		5.0 UJ				
4-Nitroaniline	5		10.0 U		10.0 UJ				
2,6-Dinitro-2-methylphenol	--		10.0 U		10.0 UJ				
N-Nitrosodiphenylamine	50		5.0 U		5.0 UJ				
4-Bromophenyl-phenylether	--		5.0 U		5.0 UJ				
Hexachlorobenzene	0.04		5.0 U		5.0 UJ				
Pentachlorophenol	1		10.0 UJ		10.0 UJ				
Phenanthrene	50		5.0 U		5.0 UJ				
Anthracene	50		5.0 U		5.0 UJ				
Carbazole	--		5.0 U		5.0 UJ				
Di-n-butyl phthalate	50		5.0 U		5.0 UJ				
Fluoranthene	50		5.0 U		5.0 UJ				
Pyrene	50		5.0 UJ		5.0 UJ				
Butyl benzyl phthalate	50		5.0 U		5.0 UJ				
3,3'-Dichlorobenzidine	5		5.0 U		5.0 UJ				
Benz[a]anthracene	0.002		5.0 U		5.0 UJ				
Chrysene	0.002		5.0 U		5.0 UJ				
bis(2-Ethylhexyl)phthalate	5		5.0 U		5.0 U				
Di-n-octyl phthalate	50		5.0 U		5.0 UJ				
Benzo[b]fluoranthene	0.002		5.0 U		5.0 UJ				
Benzo[k]fluoranthene	0.002		5.0 U		5.0 UJ				
Benzo[a]pyrene	0.002		5.0 U		5.0 UJ				
Indeno(1,2,3-cd)pyrene	0.002		5.0 UJ		5.0 UJ				
Dibenz[a,h]anthracene	--		5.0 U		5.0 UJ				
Benzo[g,h,i]perylene	5		5.0 U		5.0 UJ				
(3+4)-Methylphenol			5.0 U		5.0 UJ				
bis(2-Chloroisopropyl)ether	--		5.0 U		5.0 UJ				
Atrazine	7.5		5.0 U		5.0 UJ				
Benzaldehyde	--		5.0 U		5.0 U				
Biphenyl	5		5.0 U		5.0 UJ				
Acetophenone	--		5.0 U		5.0 UJ				
1,2,4,5-Tetrachlorobenzene	5		5.0 U		5.0 UJ				
Caprolactam	--		5.0 U		4 J				
TIC's			ND		Yes				

CASTLE CLEANERS SITE
TABLE 2
SOURCE AREA EVALUATION
GROUNDWATER DATA SUMMARY
 July 2010
 NYSDEC Site No. 808034

Sample Location	*NYS	CCIN 10.1	CCEX 10.1	CCEX 10.2	CCEX 10.3	CCEX 10.3	CCEX 10.3	CCEX 10.3	CCEX 10.4
Parameter	Standard	11'-13'	Well	10.5'-12.5'	10'-12.5'	20'-24'	28'-32'	40'-43'	10'-14'
	Water	8/7/2010	7/8/2010	7/6/2010	7/6/2010	7/6/2010	7/6/2010	7/7/2010	7/7/2010
TAL Metals									
Unit	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Mercury	0.7		0.272 J		0.397 J				
Aluminum	100		27,700 J		38,300 J				
Antimony	3		5.0 U		5.0 U				
Arsenic	25		5.0 U		5.7				
Barium	100		571		768				
Beryllium	30		3.00 U		3.00 U				
Cadmium	5		26.1		25.9				
Calcium	--		84,300		80,100				
Chromium	50		32.3		39.4				
Cobalt	5		20.0 U		20.9				
Copper	200		80.4		101				
Iron	300		35,200 J		45,500 J				
Lead	25		34		47				
Magnesium	35,000		21,700		16,000				
Manganese	300		6,400 J		3,710 J				
Nickel	100		41.8		62.2				
Potassium	--		11,000		15,900				
Selenium	10		3.5		9.5				
Silver	50		R		R				
Sodium	--		180,000		341,000				
Thallium	5		3.0 U		3.0 U				
Vanadium	14		36.6		40.9				
Zinc	2,000		112 J		170 J				
Cyanide	200		10.0 U		10.0 U				

PCBs									
Unit	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Aroclor 1016	100		1.0 U		1.0 UJ				
Aroclor 1221	100		1.0 U		1.0 UJ				
Aroclor 1232	100		1.0 U		1.0 UJ				
Aroclor 1242	100		1.0 U		1.0 UJ				
Aroclor 1248	100		1.0 U		1.0 UJ				
Aroclor 1254	100		1.0 U		1.0 UJ				
Aroclor 1260	100		1.0 U		1.0 UJ				

Notes:
 Highlighted value exceedsS NYS Water Quality Standards and Guidance Values for GA - Source of Drinking Water, 1998 with April 2000 Addendum
 TIC's - Tentatively Identified Compounds; ND - Not detected above reported detection limits
 U - Constituent not detected at a concentration above the reported detection limit
 D - Compound quantitated using a secondary dilution
 J - Indicates that the associated numerical value is an estimated concentration
 R - Data was rejected due to a deficiency in the data generation process

CASTLE CLEANERS SITE
TABLE 3
GROUNDWATER DATA SUMMARY
November 2010/April 2011/January 2012
NYSDEC Site No. 808034

	*NYS	GW-1	OFDP 10.1	OFDP 10.1	OFDP 10.2	OFDP 10.3	OFDP 10.3	OFDP 10.3	OFDP 10.4	OFDP 10.4
Sample Location	Standard	40'-44'	25'-28'	46'-50'	37'-41'	14'-18'	24'-28'	36'-40'	11'-15'	26'-30'
	Water	11/3/2010	11/4/2010	11/4/2010	11/5/2010	11/8/2010	11/8/2010	11/8/2010	11/8/2010	11/8/2010
Parameter										
Volatile Target Compound List (TCL)										
Unit	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
1,2,3-Trichlorobenzene	5	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U	5.0 UJ	5.0 U
1,2,4-Trichlorobenzene	5	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U	5.0 UJ	5.0 U
1,2,4-Trimethylbenzene	5	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U	5.0 UJ	5.0 U
1,2-Dibromo-3-	4	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U	5.0 UJ	5.0 U
1,2-Dibromomethane	5	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U	5.0 UJ	5.0 U
1,2-Dichlorobenzene	4.7	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U	5.0 UJ	5.0 U
1,3,5-Trimethylbenzene	5	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U	5.0 UJ	5.0 U
1,3-Dichlorobenzene	5	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U	5.0 UJ	5.0 U
1,4-Dichlorobenzene	5	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U	5.0 UJ	5.0 U
1,4-Dioxane	---	100 UJ	100 UJ	100 UJ	100 UJ	100 UJ	100 UJ	100 U	100 UJ	100 U
Bromochloromethane	50	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U	5.0 UJ	5.0 U
Cyclohexane	---	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U	5.0 UJ	5.0 U
Dichlorodifluoromethane	5	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U	5.0 UJ	5.0 U
Freon-113	5	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U	5.0 UJ	5.0 U
Isopropylbenzene	5	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U	5.0 UJ	5.0 U
Methyl acetate	---	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U	5.0 UJ	5.0 U
methyl tert-butyl ether	10	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	19 J	89 J	2 J	6.0 J	28
Methylcyclohexane	---	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U	5.0 UJ	5.0 U
n-Butylbenzene	5	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U	5.0 UJ	5.0 U
n-Propylbenzene	5	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U	5.0 UJ	5.0 U
sec-Butylbenzene	5	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U	5.0 UJ	5.0 U
tert-Butylbenzene	5	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U	5.0 UJ	5.0 U
Trichlorofluoromethane	5	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U	5.0 UJ	5.0 U
Chloromethane	5	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U	5.0 UJ	5.0 U
Vinyl chloride	2	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	10 J	5.0 U	5.0 UJ	5.0 U
Bromomethane	5	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U	5.0 UJ	5.0 U
Chloroethane	5	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U	5.0 UJ	5.0 U
Acetone	50	10 UJ	10 UJ	13 J	10 UJ	10 UJ	10 UJ	10 U	10 UJ	10 U
1,1-Dichloroethene	5	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U	5.0 UJ	5.0 U
Carbon disulfide	60	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U	5.0 UJ	5.0 U
Methylene chloride	5	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U	5.0 UJ	5.0 U
trans-1,2-Dichloroethene	5	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U	5.0 UJ	5.0 U
1,1-Dichloroethane	5	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U	5.0 UJ	5.0 U
2-Butanone (MEK)	50	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 U	10 UJ	10 U
cis-1,2-Dichloroethene	5	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	28 J	400 DJ	2 J	5 J	30
Chloroform	7	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U	5.0 UJ	5.0 U
1,1,1-Trichloroethane	5	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U	5.0 UJ	5.0 U
Carbon tetrachloride	5	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U	5.0 UJ	5.0 U
Benzene	1	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	4 J	5.0 U	5.0 UJ	5.0 U
1,2-Dichloroethane	5	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U	5.0 UJ	5.0 U
Trichloroethene	5	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	6.6 J	49 J	5.0 U	5.0 UJ	6.8
1,2-Dichloropropane	1	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U	5.0 UJ	5.0 U
Bromodichloromethane	50	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U	5.0 UJ	5.0 U
4-Methyl-2-pentanone	---	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 U	10 UJ	10 U
cis-1,3-Dichloropropene	0.4	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U	5.0 UJ	5.0 U
Toluene	5	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U	5.0 UJ	5.0 U
trans-1,3-Dichloropropene	0.4	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U	5.0 UJ	5.0 U
1,1,2-Trichloroethane	1	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U	5.0 UJ	5.0 U
2-Hexanone	50	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 U	10 UJ	10 J
Tetrachloroethene	5	5.0 UJ	5.0 UJ	5.0 UJ	3 J	54 J	170 J	5.0	6.9 J	98
Dibromochloromethane	50	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U	5.0 UJ	5.0 U
Chlorobenzene	5	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U	5.0 UJ	5.0 U
Ethylbenzene	5	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U	5.0 UJ	5.0 U
m,p-Xylenes	5	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U	5.0 UJ	5.0 U
o-Xylene	5	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U	5.0 UJ	5.0 U
Styrene	5	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U	5.0 UJ	5.0 U
Bromoform	50	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U	5.0 UJ	5.0 U
1,1,2,2-Tetrachloroethane	5	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U	5.0 UJ	5.0 U
TIC's		ND	ND	Yes	ND	ND	ND	ND	ND	ND

CASTLE CLEANERS SITE
T A B L E 3
GROUNDWATER DATA SUMMARY
November 2010/April 2011/January 2012
NYSDEC Site No. 808034

	*NYS	OFDP 10.5	OFDP 10.6	OFDP 10.6	OFDP 10.7	OFDP 10.7	OFDP 10.8	OFDP 10.8	OFDP 10.9	OFDP 10.9
Sample Location	Standard	46'-50'	11.5'-15.5'	37'-41'	43'-47'	43'-47'	20'-24'	44'-48'	12'-16'	45'-49'
	Water	11/10/2010	11/10/2010	11/10/2010	11/10/2010	11/10/2010	11/10/2010	11/10/2010	10/11/2010	11/10/2010
Parameter						Duplicate				
Volatile Target Compound List (TCL)										
Unit	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
1,2,3-Trichlorobenzene	5	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	50 UJ	50 UJ	5.0 UJ	5.0 UJ
1,2,4-Trichlorobenzene	5	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	50 UJ	50 UJ	5.0 UJ	5.0 UJ
1,2,4-Trimethylbenzene	5	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	910 DJ	730 DJ	5.0 UJ	5.0 UJ
1,2-Dibromo-3-	4	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	50 UJ	50 UJ	5.0 UJ	5.0 UJ
1,2-Dibromomethane	5	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	50 UJ	50 UJ	5.0 UJ	5.0 UJ
1,2-Dichlorobenzene	4.7	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	50 UJ	50 UJ	5.0 UJ	5.0 UJ
1,3,5-Trimethylbenzene	5	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	280 DJ	220 DJ	5.0 UJ	5.0 UJ
1,3-Dichlorobenzene	5	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	50 UJ	50 UJ	5.0 UJ	5.0 UJ
1,4-Dichlorobenzene	5	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	50 UJ	50 UJ	5.0 UJ	5.0 UJ
1,4-Dioxane	---	100 UJ	100 U	100 UJ	100 U	100 U	1000 UJ	1000 UJ	100 UJ	100 UJ
Bromochloromethane	50	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	50 UJ	50 UJ	5.0 UJ	5.0 UJ
Cyclohexane	---	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	91 DJ	44 DJ	5.0 UJ	5.0 UJ
Dichlorodifluoromethane	5	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	50 UJ	50 UJ	5.0 UJ	5.0 UJ
Freon-113	5	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	50 UJ	50 UJ	5.0 UJ	5.0 UJ
Isopropylbenzene	5	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	50 UJ	33 DJ	5.0 UJ	5.0 UJ
Methyl acetate	---	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	50 UJ	50 UJ	5.0 UJ	5.0 UJ
methyl tert-butyl ether	10	5.0 UJ	5.0 J	6.3 J	3 J	5.0 U	50 UJ	50 UJ	5.0 UJ	5.0 UJ
Methylcyclohexane	---	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	130 DJ	50 UJ	5.0 UJ	5.0 UJ
n-Butylbenzene	5	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	50 UD	50 UJ	5.0 UJ	5.0 UJ
n-Propylbenzene	5	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	120 DJ	93 DJ	5.0 UJ	5.0 UJ
sec-Butylbenzene	5	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	50 UJ	50 UJ	5.0 UJ	5.0 UJ
tert-Butylbenzene	5	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	50 UJ	50 UJ	5.0 UJ	5.0 UJ
Trichlorofluoromethane	5	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	50 UJ	50 UJ	5.0 UJ	5.0 UJ
Chloromethane	5	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	50 UJ	50 UJ	5.0 UJ	5.0 UJ
Vinyl chloride	2	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	50 UJ	50 UJ	5.0 UJ	5.0 UJ
Bromomethane	5	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	50 UJ	50 UJ	5.0 UJ	5.0 UJ
Chloroethane	5	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	50 UJ	50 UJ	5.0 UJ	5.0 UJ
Acetone	50	5.0 UJ	10 U	13 J	10 U	10 U	100 U	100 U	5.0 UJ	5.0 UJ
1,1-Dichloroethene	5	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	50 UJ	50 UJ	5.0 UJ	5.0 UJ
Carbon disulfide	60	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	50 UJ	50 UJ	5.0 UJ	5.0 UJ
Methylene chloride	5	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	50 UJ	50 UJ	5.0 UJ	5.0 UJ
trans-1,2-Dichloroethene	5	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	50 UJ	50 UJ	5.0 UJ	5.0 UJ
1,1-Dichloroethane	5	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	50 UJ	50 UJ	5.0 UJ	5.0 UJ
2-Butanone (MEK)	50	10 UJ	10 U	10 UJ	10 U	10 U	100 U	100 U	10 UJ	10 UJ
cis-1,2-Dichloroethene	5	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	50 UJ	50 UJ	5.0 UJ	5.0 UJ
Chloroform	7	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	50 UJ	50 UJ	5.0 UJ	5.0 UJ
1,1,1-Trichloroethane	5	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	50 UJ	50 UJ	5.0 UJ	5.0 UJ
Carbon tetrachloride	5	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	50 UJ	50 UJ	5.0 UJ	5.0 UJ
Benzene	1	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	50 UJ	50 UJ	5.0 UJ	5.0 UJ
1,2-Dichloroethane	5	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	50 UJ	50 UJ	5.0 UJ	5.0 UJ
Trichloroethene	5	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	50 UJ	50 UJ	5.0 UJ	5.0 UJ
1,2-Dichloropropane	1	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	50 UJ	50 UJ	5.0 UJ	5.0 UJ
Bromodichloromethane	50	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	50 UJ	50 UJ	5.0 UJ	5.0 UJ
4-Methyl-2-pentanone	---	10 UJ	10 U	10 UJ	10 U	10 U	100 UJ	100 UJ	10 UJ	10 UJ
cis-1,3-Dichloropropene	0.4	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	50 UJ	50 UJ	5.0 UJ	5.0 UJ
Toluene	5	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	50 UJ	50 UJ	5.0 UJ	5.0 UJ
trans-1,3-Dichloropropene	0.4	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	50 UJ	50 UJ	5.0 UJ	5.0 UJ
1,1,2-Trichloroethane	1	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	50 UJ	50 UJ	5.0 UJ	5.0 UJ
2-Hexanone	50	10 UJ	10 U	10 UJ	10 U	10 U	100 UJ	100 UJ	10 UJ	10 UJ
Tetrachloroethene	5	5.0 UJ	7.7	5.0 UJ	5.0 U	5.0 U	50 UJ	50 UJ	18 J	3 J
Dibromochloromethane	50	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	50 UJ	50 UJ	5.0 UJ	5.0 UJ
Chlorobenzene	5	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	50 UJ	50 UJ	5.0 UJ	5.0 UJ
Ethylbenzene	5	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	460 DJ	320 DJ	5.0 UJ	5.0 UJ
m,p-Xylenes	5	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	1500 DJ	1000 DJ	5.0 UJ	5.0 UJ
o-Xylene	5	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	30 DJ	20 DJ	5.0 UJ	5.0 UJ
Styrene	5	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	50 UJ	50 UJ	5.0 UJ	5.0 UJ
Bromoform	50	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	50 UJ	50 UJ	5.0 UJ	5.0 UJ
1,1,2,2-Tetrachloroethane	5	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	50 UJ	50 UJ	5.0 UJ	5.0 UJ
TIC's		ND	ND	ND	ND	ND	Yes	Yes	ND	ND

CASTLE CLEANERS SITE
T A B L E 3
GROUNDWATER DATA SUMMARY
November 2010/April 2011/January 2012
NYSDEC Site No. 808034

	*NYS	OFDP 10.10	OFDP 10.10	OFDP 10.11	OFDP 10.11	OFDP 10.12	OFDP 10.12	OFDP 10.13	OFDP 10.13	OFDP 10.14
Sample Location	Standard	12'-16'	44'-48'	12'-14'	36'-40'	15'-19'	40'-44'	15'-19'	26'-30'	15'-19'
	Water	11/12/2010	11/12/2010	11/12/2010	11/12/2010	11/15/2010	11/15/2010	11/15/2010	11/15/2010	11/16/2010
Parameter										
Volatile Target Compound List (TCL)										
Unit	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
1,2,3-Trichlorobenzene	5	5.0 UJ	10 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
1,2,4-Trichlorobenzene	5	5.0 UJ	10 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
1,2,4-Trimethylbenzene	5	5.0 UJ	10 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
1,2-Dibromo-3-	4	5.0 UJ	10 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
1,2-Dibromomethane	5	5.0 UJ	10 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
1,2-Dichlorobenzene	4.7	5.0 UJ	10 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
1,3,5-Trimethylbenzene	5	5.0 UJ	10 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
1,3-Dichlorobenzene	5	5.0 UJ	10 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
1,4-Dichlorobenzene	5	5.0 UJ	10 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
1,4-Dioxane	---	100 UJ	200 UJ	100 UJ	100 UJ	100 UJ	100 UJ	100 UJ	100 UJ	100 U
Bromochloromethane	50	5.0 UJ	10 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
Cyclohexane	---	5.0 UJ	10 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
Dichlorodifluoromethane	5	5.0 UJ	10 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
Freon-113	5	5.0 UJ	10 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
Isopropylbenzene	5	5.0 UJ	10 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
Methyl acetate	---	5.0 UJ	10 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
methyl tert-butyl ether	10	12 J	10 UJ	32 J	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
Methylcyclohexane	---	5.0 UJ	10 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
n-Butylbenzene	5	5.0 UJ	10 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
n-Propylbenzene	5	5.0 UJ	10 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
sec-Butylbenzene	5	5.0 UJ	10 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
tert-Butylbenzene	5	5.0 UJ	10 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
Trichlorofluoromethane	5	5.0 UJ	10 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
Chloromethane	5	5.0 UJ	10 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
Vinyl chloride	2	5.0 UJ	10 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
Bromomethane	5	5.0 UJ	10 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
Chloroethane	5	5.0 UJ	10 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
Acetone	50	10 J	20 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	10 J	5.0 UJ	12 J
1,1-Dichloroethene	5	5.0 UJ	10 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
Carbon disulfide	60	5.0 UJ	10 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
Methylene chloride	5	5.0 UJ	10 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
trans-1,2-Dichloroethene	5	5.0 UJ	10 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
1,1-Dichloroethane	5	5.0 UJ	10 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
2-Butanone (MEK)	50	10 UJ	20 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 U
cis-1,2-Dichloroethene	5	5.0 UJ	10 UJ	32 J	5.0 UJ	21 J	5.0 UJ	5.0 UJ	6.8 J	23
Chloroform	7	5.0 UJ	10 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
1,1,1-Trichloroethane	5	5.0 UJ	10 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
Carbon tetrachloride	5	5.0 UJ	10 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
Benzene	1	5.0 UJ	10 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
1,2-Dichloroethane	5	5.0 UJ	10 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
Trichloroethene	5	5.0 UJ	10 UJ	12 J	5.0 UJ	11 J	5.0 UJ	5.0 UJ	3 J	8.1
1,2-Dichloropropane	1	5.0 UJ	10 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
Bromodichloromethane	50	5.0 UJ	10 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
4-Methyl-2-pentanone	---	10 UJ	20 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 U
cis-1,3-Dichloropropene	0.4	5.0 UJ	10 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
Toluene	5	5.0 UJ	10 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
trans-1,3-Dichloropropene	0.4	5.0 UJ	10 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
1,1,2-Trichloroethane	1	5.0 UJ	10 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
2-Hexanone	50	10 UJ	20 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 U
Tetrachloroethene	5	5.0 UJ	10 UJ	110 J	5.0 UJ	88 J	5.0 UJ	15 J	36 J	77
Dibromochloromethane	50	5.0 UJ	10 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
Chlorobenzene	5	5.0 UJ	10 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
Ethylbenzene	5	5.0 UJ	10 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
m,p-Xylenes	5	5.0 UJ	10 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
o-Xylene	5	5.0 UJ	10 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
Styrene	5	5.0 UJ	10 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
Bromoform	50	5.0 UJ	10 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
1,1,2,2-Tetrachloroethane	5	5.0 UJ	10 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
TIC's		ND	ND	ND	ND	ND	ND	ND	ND	ND

CASTLE CLEANERS SITE
T A B L E 3
GROUNDWATER DATA SUMMARY
November 2010/April 2011/January 2012
NYSDEC Site No. 808034

	*NYS	OFDP 10.14	OFDP 10.15	OFDP 10.15	OFDP 10.16	OFDP 10.16	GW-1	GW-1	GW-2	GW-4
Sample Location	Standard	45'-49'	13'-17'	32'-36'	15'-19'	45'-49'	Well	Well	Well	Well
	Water	11/16/2010	11/16/20101	11/16/2010	11/16/2010	11/16/2010	11/17/2010	11/17/2010	11/17/20101	11/17/2010
Parameter								Duplicate		
Volatile Target Compound List (TCL)										
Unit	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
1,2,3-Trichlorobenzene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2,4-Trichlorobenzene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2,4-Trimethylbenzene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dibromo-3-	4	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dibromomethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichlorobenzene	4.7	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,3,5-Trimethylbenzene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,3-Dichlorobenzene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,4-Dichlorobenzene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,4-Dioxane	---	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U
Bromochloromethane	50	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Cyclohexane	---	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dichlorodifluoromethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Freon-113	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Isopropylbenzene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methyl acetate	---	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
methyl tert-butyl ether	10	5.0 U	9.9	20	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methylcyclohexane	---	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
n-Butylbenzene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
n-Propylbenzene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
sec-Butylbenzene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
tert-Butylbenzene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Trichlorofluoromethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloromethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl chloride	2	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromomethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acetone	50	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon disulfide	60	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methylene chloride	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,2-Dichloroethene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Butanone (MEK)	50	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
cis-1,2-Dichloroethene	5	5.0 U	7.6	2 J	5.6	5.0 U	5.0 U	5.0 U	5.0 U	110
Chloroform	7	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,1-Trichloroethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzene	1	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloroethane	5	5.0 U	3 J	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Trichloroethene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	18
1,2-Dichloropropane	1	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromodichloromethane	50	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Methyl-2-pentanone	---	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
cis-1,3-Dichloropropene	0.4	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Toluene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,3-Dichloropropene	0.4	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2-Trichloroethane	1	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Hexanone	50	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Tetrachloroethene	5	5.0 U	21	8.3	14	3 J	5.0 U	5.0 U	5.0 U	95
Dibromochloromethane	50	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chlorobenzene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Ethylbenzene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
m,p-Xylenes	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
o-Xylene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromoform	50	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
TIC's		ND	ND	ND	ND	ND	ND	ND	ND	Yes

CASTLE CLEANERS SITE
TABLE 3
GROUNDWATER DATA SUMMARY
November 2010/April 2011/January 2012
NYSDEC Site No. 808034

	*NYS	OFDP 10.1	OFDP 10.2	OFDP 10.5	OFDP 10.7	OFDP 10.8	GW-8	GW-11	PS-1	PS-1
Sample Location	Standard	Well	Well	Well	Well	Well	Well	Well	Well	Well
	Water	11/17/2010	11/17/2010	11/17/2010	11/17/2010	11/17/2010	11/17/2010	11/17/2010	11/17/2010	11/17/2010
Parameter										Duplicate
Volatile Target Compound List (TCL)										
Unit	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
1,2,3-Trichlorobenzene	5	5.0 U	5.0 U	5.0 U	5.0 U	100 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2,4-Trichlorobenzene	5	5.0 U	5.0 U	5.0 U	5.0 U	100 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2,4-Trimethylbenzene	5	5.0 U	5.0 U	5.0 U	5.0 U	2000	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dibromo-3-	4	5.0 U	5.0 U	5.0 U	5.0 U	100 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dibromomethane	5	5.0 U	5.0 U	5.0 U	5.0 U	100 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichlorobenzene	4.7	5.0 U	5.0 U	5.0 U	5.0 U	100 U	5.0 U	5.0 U	5.0 U	5.0 U
1,3,5-Trimethylbenzene	5	5.0 U	5.0 U	5.0 U	5.0 U	100 U	5.0 U	5.0 U	5.0 U	5.0 U
1,3-Dichlorobenzene	5	5.0 U	5.0 U	5.0 U	5.0 U	100 U	5.0 U	5.0 U	5.0 U	5.0 U
1,4-Dichlorobenzene	5	5.0 U	5.0 U	5.0 U	5.0 U	100 U	5.0 U	5.0 U	5.0 U	5.0 U
1,4-Dioxane	---	100 U	100 U	100 U	100 U	2000 U	100 U	100 U	100 U	100 U
Bromochloromethane	50	5.0 U	5.0 U	5.0 U	5.0 U	100 U	5.0 U	5.0 U	5.0 U	5.0 U
Cyclohexane	---	5.0 U	5.0 U	5.0 U	5.0 U	270	5.0 U	5.0 U	5.0 U	5.0 U
Dichlorodifluoromethane	5	5.0 U	5.0 U	5.0 U	5.0 U	100 U	5.0 U	5.0 U	5.0 U	5.0 U
Freon-113	5	5.0 U	5.0 U	5.0 U	5.0 U	100 U	5.0 U	5.0 U	5.0 U	5.0 U
Isopropylbenzene	5	5.0 U	5.0 U	5.0 U	5.0 U	95 J	5.0 U	5.0 U	5.0 U	5.0 U
Methyl acetate	---	5.0 U	5.0 U	5.0 U	5.0 U	100 U	5.0 U	5.0 U	5.0 U	5.0 U
methyl tert-butyl ether	10	5.0 U	5.0 U	5.0 U	21	100 U	5.0 U	11	5.0 U	5.0 U
Methylcyclohexane	---	5.0 U	5.0 U	5.0 U	5.0 U	100 U	5.0 U	5.0 U	5.0 U	5.0 U
n-Butylbenzene	5	5.0 U	5.0 U	5.0 U	5.0 U	100 U	5.0 U	5.0 U	5.0 U	5.0 U
n-Propylbenzene	5	5.0 U	5.0 U	5.0 U	5.0 U	260	5.0 U	5.0 U	5.0 U	5.0 U
sec-Butylbenzene	5	5.0 U	5.0 U	5.0 U	5.0 U	100 U	5.0 U	5.0 U	5.0 U	5.0 U
tert-Butylbenzene	5	5.0 U	5.0 U	5.0 U	5.0 U	100 U	5.0 U	5.0 U	5.0 U	5.0 U
Trichlorofluoromethane	5	5.0 U	5.0 U	5.0 U	5.0 U	100 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloromethane	5	5.0 U	5.0 U	5.0 U	5.0 U	100 U	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl chloride	2	5.0 U	5.0 U	5.0 U	5.0 U	100 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromomethane	5	5.0 U	5.0 U	5.0 U	5.0 U	100 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroethane	5	5.0 U	5.0 U	5.0 U	5.0 U	100 U	5.0 U	5.0 U	5.0 U	5.0 U
Acetone	50	10 U	10 U	10 U	10 U	200 U	10 U	10 U	10 U	10 U
1,1-Dichloroethene	5	5.0 U	5.0 U	5.0 U	5.0 U	100 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon disulfide	60	5.0 U	5.0 U	5.0 U	5.0 U	100 U	5.0 U	5.0 U	5.0 U	5.0 U
Methylene chloride	5	5.0 U	5.0 U	5.0 U	5.0 U	100 U	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,2-Dichloroethene	5	5.0 U	5.0 U	5.0 U	5.0 U	100 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethane	5	5.0 U	5.0 U	5.0 U	5.0 U	100 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Butanone (MEK)	50	10 U	10 U	10 U	10 U	200 U	10 U	10 U	10 U	10 U
cis-1,2-Dichloroethene	5	5.0 U	6.2	5.0 U	5.0 U	100 U	100 D	20	5.0 U	5.0 U
Chloroform	7	5.0 U	5.0 U	5.0 U	5.0 U	100 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,1-Trichloroethane	5	5.0 U	5.0 U	5.0 U	5.0 U	100 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	5	5.0 U	5.0 U	5.0 U	5.0 U	100 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzene	1	5.0 U	5.0 U	5.0 U	5.0 U	90 JD	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloroethane	5	5.0 U	5.0 U	5.0 U	5.0 U	100 U	5.0 U	5.0 U	5.0 U	5.0 U
Trichloroethene	5	5.0 U	6.7	5.0 U	5.0 U	100 U	55 D	6.3	5.0 U	5.0 U
1,2-Dichloropropane	1	5.0 U	5.0 U	5.0 U	5.0 U	100 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromodichloromethane	50	5.0 U	5.0 U	5.0 U	5.0 U	100 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Methyl-2-pentanone	---	10 U	10 U	10 U	10 U	200 U	10 U	10 U	10 U	10 U
cis-1,3-Dichloropropene	0.4	5.0 U	5.0 U	5.0 U	5.0 U	100 U	5.0 U	5.0 U	5.0 U	5.0 U
Toluene	5	5.0 U	5.0 U	5.0 U	5.0 U	40 J	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,3-Dichloropropene	0.4	5.0 U	5.0 U	5.0 U	5.0 U	100 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2-Trichloroethane	1	5.0 U	5.0 U	5.0 U	5.0 U	100 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Hexanone	50	10 U	10 U	10 U	10 U	200 U	10 U	10 U	10 U	10 U
Tetrachloroethene	5	5.5	140	5.0 U	5.0 U	100 U	310 D	64	4 J	4 J
Dibromochloromethane	50	5.0 U	5.0 U	5.0 U	5.0 U	100 U	5.0 U	5.0 U	5.0 U	5.0 U
Chlorobenzene	5	5.0 U	5.0 U	5.0 U	5.0 U	100 U	5.0 U	5.0 U	5.0 U	5.0 U
Ethylbenzene	5	5.0 U	5.0 U	5.0 U	5.0 U	1400	5.0 U	5.0 U	5.0 U	5.0 U
m,p-Xylenes	5	5.0 U	5.0 U	5.0 U	5.0 U	3700	5.0 U	5.0 U	5.0 U	5.0 U
o-Xylene	5	5.0 U	5.0 U	5.0 U	5.0 U	90 J	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	5	5.0 U	5.0 U	5.0 U	5.0 U	100 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromoform	50	5.0 U	5.0 U	5.0 U	5.0 U	100 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	5	5.0 U	5.0 U	5.0 U	5.0 U	100 U	5.0 U	5.0 U	5.0 U	5.0 U
TIC's		ND	ND	ND	ND	Yes	ND	ND	ND	ND

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	*NYS	OFDP 10.17	OFDP 10.17	OFDP 10.18	OFDP 10.18	OFDP 10.19	OFDP 10.19	OFDP 10.20	OFDP 10.20	OFDP 10.21
Sample Location	Standard	12'-16'	28'-32'	12'-16'	17'-21'	12'-14'	46'-48'	14'-16'	38'-40'	12'-16'
	Water	4/27/2011	4/27/2011	4/27/2011	4/27/2011	4/25/2011	4/25/2011	4/26/2011	4/26/2011	4/27/2011
Parameter										
Volatile Target Compound List (TCL)										
Unit	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
1,2,3-Trichlorobenzene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
1,2,4-Trichlorobenzene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
1,2,4-Trimethylbenzene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
1,2-Dibromo-3-	4	5.0 U	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
1,2-Dibromomethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
1,2-Dichlorobenzene	4.7	5.0 U	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
1,3,5-Trimethylbenzene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
1,3-Dichlorobenzene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
1,4-Dichlorobenzene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
1,4-Dioxane	---	R	R	R	R	R	R	R	R	R
Bromochloromethane	50	5.0 U	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
Cyclohexane	---	5.0 U	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
Dichlorodifluoromethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
Freon-113	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
Isopropylbenzene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
Methyl acetate	---	5.0 U	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
methyl tert-butyl ether	10	5.0 U	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
Methylcyclohexane	---	5.0 U	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
n-Butylbenzene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
n-Propylbenzene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
sec-Butylbenzene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
tert-Butylbenzene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
Trichlorofluoromethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
Chloromethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
Vinyl chloride	2	5.0 U	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
Bromomethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
Chloroethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
Acetone	50	10 U	10 U	10 U	10 U	10 UJ	10 UJ	10 UJ	10 UJ	10 U
1,1-Dichloroethene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
Carbon disulfide	60	5.0 U	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
Methylene chloride	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
trans-1,2-Dichloroethene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
1,1-Dichloroethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
2-Butanone (MEK)	50	10 U	10 U	10 U	10 U	10 UJ	10 UJ	10 UJ	10 UJ	10 U
cis-1,2-Dichloroethene	5	3 J	5.0 U	15	15	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
Chloroform	7	5.0 U	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
1,1,1-Trichloroethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
Carbon tetrachloride	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
Benzene	1	5.0 U	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
1,2-Dichloroethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
Trichloroethene	5	2 J	5.0 U	5 J	4 J	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
1,2-Dichloropropane	1	5.0 U	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
Bromodichloromethane	50	5.0 U	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
4-Methyl-2-pentanone	---	10 U	10 U	10 U	10 U	10 UJ	10 UJ	10 UJ	10 UJ	10 U
cis-1,3-Dichloropropene	0.4	5.0 U	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
Toluene	5	5.0 U	5.0 U	5.0 U	5.0 U	2 J	5.0 UJ	2 J	5.0 UJ	5.0 U
trans-1,3-Dichloropropene	0.4	5.0 U	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
1,1,2-Trichloroethane	1	5.0 U	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
2-Hexanone	50	10 U	10 U	10 U	10 U	10 UJ	10 UJ	10 UJ	10 UJ	10 U
Tetrachloroethene	5	41	3 J	27	16	6.7 J	4 J	5 J	5.0 UJ	5.0 U
Dibromochloromethane	50	5.0 U	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
Chlorobenzene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
Ethylbenzene	5	10 U	10 U	10 U	10 U	10 UJ	10 UJ	10 UJ	10 UJ	10 U
m,p-Xylenes	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
o-Xylene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
Styrene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
Bromoform	50	5.0 U	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
1,1,2,2-Tetrachloroethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
TIC's		ND	ND	ND	ND	ND	ND	ND	ND	ND

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	*NYS	OFDP 10.21	OFDP 10.22	OFDP 10.22
Sample Location	Standard	24'-28'	12'-16'	26'-30'
	Water	4/27/2011	4/26/2011	4/27/2011
Parameter				
Volatile Target Compound List (TCL)				
Unit	ug/L	ug/L	ug/L	ug/L
1,2,3-Trichlorobenzene	5	5.0 U	5.0 UJ	5.0 U
1,2,4-Trichlorobenzene	5	5.0 U	5.0 UJ	5.0 U
1,2,4-Trimethylbenzene	5	5.0 U	5.0 UJ	5.0 U
1,2-Dibromo-3-	4	5.0 U	5.0 UJ	5.0 U
1,2-Dibromomethane	5	5.0 U	5.0 UJ	5.0 U
1,2-Dichlorobenzene	4.7	5.0 U	5.0 UJ	5.0 U
1,3,5-Trimethylbenzene	5	5.0 U	5.0 UJ	5.0 U
1,3-Dichlorobenzene	5	5.0 U	5.0 UJ	5.0 U
1,4-Dichlorobenzene	5	5.0 U	5.0 UJ	5.0 U
1,4-Dioxane	---	R	R	R
Bromochloromethane	50	5.0 U	5.0 UJ	5.0 U
Cyclohexane	---	5.0 U	5.0 UJ	5.0 U
Dichlorodifluoromethane	5	5.0 U	5.0 UJ	5.0 U
Freon-113	5	5.0 U	5.0 UJ	5.0 U
Isopropylbenzene	5	5.0 U	5.0 UJ	5.0 U
Methyl acetate	---	5.0 U	5.0 UJ	5.0 U
methyl tert-butyl ether	10	5.0 U	5.0 UJ	5.0 U
Methylcyclohexane	---	5.0 U	5.0 UJ	5.0 U
n-Butylbenzene	5	5.0 U	5.0 UJ	5.0 U
n-Propylbenzene	5	5.0 U	5.0 UJ	5.0 U
sec-Butylbenzene	5	5.0 U	5.0 UJ	5.0 U
tert-Butylbenzene	5	5.0 U	5.0 UJ	5.0 U
Trichlorofluoromethane	5	5.0 U	5.0 UJ	5.0 U
Chloromethane	5	5.0 U	5.0 UJ	5.0 U
Vinyl chloride	2	5.0 U	5.0 UJ	5.0 U
Bromomethane	5	5.0 U	5.0 UJ	5.0 U
Chloroethane	5	5.0 U	5.0 UJ	5.0 U
Acetone	50	10 U	10 UJ	10 U
1,1-Dichloroethene	5	5.0 U	5.0 UJ	5.0 U
Carbon disulfide	60	5.0 U	5.0 UJ	5.0 U
Methylene chloride	5	5.0 U	5.0 UJ	5.0 U
trans-1,2-Dichloroethene	5	5.0 U	5.0 UJ	5.0 U
1,1-Dichloroethane	5	5.0 U	5.0 UJ	5.0 U
2-Butanone (MEK)	50	10 U	10 UJ	10 U
cis-1,2-Dichloroethene	5	5.0 U	5.0 UJ	15
Chloroform	7	5.0 U	5.0 UJ	5.0 U
1,1,1-Trichloroethane	5	5.0 U	5.0 UJ	5.0 U
Carbon tetrachloride	5	5.0 U	5.0 UJ	5.0 U
Benzene	1	5.0 U	5.0 UJ	5.0 U
1,2-Dichloroethane	5	5.0 U	5.0 UJ	5.0 U
Trichloroethene	5	5.0 U	5.0 UJ	5 J
1,2-Dichloropropane	1	5.0 U	5.0 UJ	5.0 U
Bromodichloromethane	50	5.0 U	5.0 UJ	5.0 U
4-Methyl-2-pentanone	---	10 U	10 UJ	10 U
cis-1,3-Dichloropropene	0.4	5.0 U	5.0 UJ	5.0 U
Toluene	5	5.0 U	2 J	5.0 U
trans-1,3-Dichloropropene	0.4	5.0 U	5.0 UJ	5.0 U
1,1,2-Trichloroethane	1	5.0 U	5.0 UJ	5.0 U
2-Hexanone	50	10 U	10 UJ	10 U
Tetrachloroethene	5	2 J	5.4 J	27
Dibromochloromethane	50	5.0 U	5.0 UJ	5.0 U
Chlorobenzene	5	5.0 U	5.0 UJ	5.0 U
Ethylbenzene	5	10 U	10 UJ	10 U
m,p-Xylenes	5	5.0 U	5.0 UJ	5.0 U
o-Xylene	5	5.0 U	5.0 UJ	5.0 U
Styrene	5	5.0 U	5.0 UJ	5.0 U
Bromoform	50	5.0 U	5.0 UJ	5.0 U
1,1,2,2-Tetrachloroethane	5	5.0 U	5.0 UJ	5.0 U
TIC's		ND	ND	ND

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	*NYS	GW-1S	GW-1D	GW-2	GW-4	GW-8S	GW-8D	GW-11	GW-12S	GW-12D
Sample Location	Standard									
	Water	1/4/2012	1/4/2012	1/4/2012	1/4/2012	1/6/2012	1/6/2012	1/4/2012	1/6/2012	1/6/2012
Parameter										
Volatile Target Compound List (TCL)										
Unit	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
1,2,3-Trichlorobenzene	5	5.0 U	5.0 U	5.0 U	5.0 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2,4-Trichlorobenzene	5	5.0 U	5.0 U	5.0 U	5.0 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2,4-Trimethylbenzene	5	5.0 U	5.0 U	5.0 U	5.0 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dibromo-3-	4	5.0 U	5.0 U	5.0 U	5.0 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dibromomethane	5	5.0 U	5.0 U	5.0 U	5.0 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichlorobenzene	4.7	5.0 U	5.0 U	5.0 U	5.0 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U
1,3,5-Trimethylbenzene	5	5.0 U	5.0 U	5.0 U	5.0 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U
1,3-Dichlorobenzene	5	5.0 U	5.0 U	5.0 U	5.0 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U
1,4-Dichlorobenzene	5	5.0 U	5.0 U	5.0 U	5.0 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U
1,4-Dioxane	---	100 UJ	100 UJ	100 UJ	100 UJ	500 UJ	100 UJ	100 UJ	100 UJ	100 UJ
Bromochloromethane	50	5.0 U	5.0 U	5.0 U	5.0 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U
Cyclohexane	---	5.0 U	5.0 U	5.0 U	5.0 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U
Dichlorodifluoromethane	5	5.0 U	5.0 U	5.0 U	5.0 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U
Freon-113	5	5.0 U	5.0 U	5.0 U	5.0 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U
Isopropylbenzene	5	5.0 U	5.0 U	5.0 U	5.0 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U
Methyl acetate	---	5.0 U	5.0 U	5.0 U	5.0 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U
methyl tert-butyl ether	10	5.0 U	5.0 U	5.0 U	5.0 U	25 U	5.0 U	14	5.0 U	5.0 U
Methylcyclohexane	---	5.0 U	5.0 U	5.0 U	5.0 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U
n-Butylbenzene	5	5.0 U	5.0 U	5.0 U	5.0 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U
n-Propylbenzene	5	5.0 U	5.0 U	5.0 U	5.0 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U
sec-Butylbenzene	5	5.0 U	5.0 U	5.0 U	5.0 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U
tert-Butylbenzene	5	5.0 U	5.0 U	5.0 U	5.0 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U
Trichlorofluoromethane	5	5.0 U	5.0 U	5.0 U	5.0 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloromethane	5	5.0 U	5.0 U	5.0 U	5.0 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl chloride	2	5.0 U	5.0 U	5.0 U	5.0 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromomethane	5	5.0 U	5.0 U	5.0 U	5.0 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroethane	5	5.0 U	5.0 U	5.0 U	5.0 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U
Acetone	50	10 U	10 U	10 U	10 U	50 U	10 U	10 U	10 U	10 U
1,1-Dichloroethene	5	5.0 U	5.0 U	5.0 U	5.0 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon disulfide	60	5.0 U	5.0 U	5.0 U	5.0 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U
Methylene chloride	5	5.0 U	5.0 U	5.0 U	5.0 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,2-Dichloroethene	5	5.0 U	5.0 U	5.0 U	5.0 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethane	5	5.0 U	5.0 U	5.0 U	5.0 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Butanone (MEK)	50	10 U	10 U	10 U	10 U	50 U	10 U	10 U	10 U	10 U
cis-1,2-Dichloroethene	5	5.0 U	5.0 U	5.0 U	5.0 U	40	5.0 U	10	5.0 U	5.0 U
Chloroform	7	5.0 U	5.0 U	5.0 U	5.0 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,1-Trichloroethane	5	5.0 U	5.0 U	5.0 U	5.0 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	5	5.0 U	5.0 U	5.0 U	5.0 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzene	1	5.0 U	5.0 U	5.0 U	5.0 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloroethane	5	5.0 U	5.0 U	5.0 U	5.0 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U
Trichloroethene	5	5.0 U	5.0 U	5.0 U	5.0 U	36	5.0 U	5.4	5.0 U	5.0 U
1,2-Dichloropropane	1	5.0 U	5.0 U	5.0 U	5.0 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromodichloromethane	50	5.0 U	5.0 U	5.0 U	5.0 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Methyl-2-pentanone	---	10 U	10 U	10 U	10 U	50 U	10 U	10 U	10 U	10 U
cis-1,3-Dichloropropene	0.4	5.0 U	5.0 U	5.0 U	5.0 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U
Toluene	5	5.0 U	5.0 U	5.0 U	5.0 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,3-Dichloropropene	0.4	5.0 U	5.0 U	5.0 U	5.0 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2-Trichloroethane	1	5.0 U	5.0 U	5.0 U	5.0 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Hexanone	50	10 U	10 U	10 U	10 U	50 U	10 U	10 U	10 U	10 U
Tetrachloroethene	5	5.0 U	5.0 U	5.0 U	41	910	5.0 U	80	5.0 U	5.0 U
Dibromochloromethane	50	5.0 U	5.0 U	5.0 U	5.0 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U
Chlorobenzene	5	5.0 U	5.0 U	5.0 U	5.0 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U
Ethylbenzene	5	10 U	10 U	10 U	10 U	50 U	10 U	10 U	10 U	10 U
m,p-Xylenes	5	5.0 U	5.0 U	5.0 U	5.0 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U
o-Xylene	5	5.0 U	5.0 U	5.0 U	5.0 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	5	5.0 U	5.0 U	5.0 U	5.0 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromoform	50	5.0 U	5.0 U	5.0 U	5.0 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	5	5.0 U	5.0 U	5.0 U	5.0 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U
TIC's		ND	ND	ND	ND	ND	ND	ND	ND	ND

CASTLE CLEANERS SITE
TABLE 3
GROUNDWATER DATA SUMMARY
November 2010/April 2011/January 2012
NYSDEC Site No. 808034

	*NYS	GW-13	GW-14S	GW-15S	GW-15D	GW-15D	GW-16S	GW-17S	GW-17D	GW-18S
Sample Location	Standard					Duplicate				
	Water	1/4/2012	1/4/2012	1/5/2012	1/5/2012	1/5/2012	1/6/2012	1/6/2012	1/6/2012	1/5/2012
Parameter										
Volatile Target Compound List (TCL)										
Unit	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
1,2,3-Trichlorobenzene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2,4-Trichlorobenzene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2,4-Trimethylbenzene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dibromo-3-	4	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dibromomethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichlorobenzene	4.7	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,3,5-Trimethylbenzene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,3-Dichlorobenzene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,4-Dichlorobenzene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,4-Dioxane	---	100 UJ	100 UJ	100 UJ	100 UJ	100 UJ	100 UJ	100 UJ	100 UJ	100 UJ
Bromochloromethane	50	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Cyclohexane	---	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dichlorodifluoromethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Freon-113	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Isopropylbenzene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methyl acetate	---	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
methyl tert-butyl ether	10	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methylcyclohexane	---	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
n-Butylbenzene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
n-Propylbenzene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
sec-Butylbenzene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
tert-Butylbenzene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Trichlorofluoromethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloromethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl chloride	2	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromomethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acetone	50	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon disulfide	60	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methylene chloride	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,2-Dichloroethene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Butanone (MEK)	50	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
cis-1,2-Dichloroethene	5	38	32	5.0 U	5.0 U	5.0 U	21	5.0 U	5.0 U	8.9
Chloroform	7	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,1-Trichloroethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzene	1	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloroethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Trichloroethene	5	6.2	12	5.0 U	5.0 U	5.0 U	13	5.0 U	5.0 U	5.0 U
1,2-Dichloropropane	1	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromodichloromethane	50	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Methyl-2-pentanone	---	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
cis-1,3-Dichloropropene	0.4	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Toluene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,3-Dichloropropene	0.4	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2-Trichloroethane	1	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Hexanone	50	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Tetrachloroethene	5	120	150	9.0	5.0 U	5.0 U	95	5.0 U	24	18
Dibromochloromethane	50	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chlorobenzene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Ethylbenzene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
m,p-Xylenes	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
o-Xylene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromoform	50	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
TIC's		ND	ND	ND	ND	ND	ND	ND	ND	ND

CASTLE CLEANERS SITE
T A B L E 3
GROUNDWATER DATA SUMMARY
November 2010/April 2011/January 2012
NYSDEC Site No. 808034

	*NYS	GW-18D	GW-19S	PS-1	GW-20S	GW-20D	OFDP 10.1	OFDP 10.2	OFDP 10.5	OFDP 10.7	OFDP 10.8
Sample Location	Standard										
	Water	1/5/2012	1/5/2012	1/5/2012	1/5/2012	1/5/2012	1/4/2012	1/4/2012	1/4/2012	1/4/2012	1/4/2012
Parameter											
Volatile Target Compound List (TCL)											
Unit	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
1,2,3-Trichlorobenzene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U
1,2,4-Trichlorobenzene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U
1,2,4-Trimethylbenzene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1900
1,2-Dibromo-3-	4	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U
1,2-Dibromomethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U
1,2-Dichlorobenzene	4.7	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U
1,3,5-Trimethylbenzene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U
1,3-Dichlorobenzene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U
1,4-Dichlorobenzene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U
1,4-Dioxane	---	100 UJ	100 UJ	100 UJ	100 UJ	100 UJ	100 UJ	100 UJ	100 UJ	100 UJ	1000 UJ
Bromochloromethane	50	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U
Cyclohexane	---	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	240
Dichlorodifluoromethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U
Freon-113	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U
Isopropylbenzene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	67
Methyl acetate	---	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U
methyl tert-butyl ether	10	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	51	57	50 U
Methylcyclohexane	---	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	260
n-Butylbenzene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U
n-Propylbenzene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	240
sec-Butylbenzene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U
tert-Butylbenzene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U
Trichlorofluoromethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U
Chloromethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U
Vinyl chloride	2	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U
Bromomethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U
Chloroethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U
Acetone	50	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	100 U
1,1-Dichloroethene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U
Carbon disulfide	60	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U
Methylene chloride	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U
trans-1,2-Dichloroethene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U
1,1-Dichloroethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U
2-Butanone (MEK)	50	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	100 U
cis-1,2-Dichloroethene	5	7.9	11	3.4 J	6.6	5.0 U	5.0 U	4.5 J	5.0 U	5.0 U	50 U
Chloroform	7	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	4.0 J	50 U
1,1,1-Trichloroethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U
Carbon tetrachloride	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U
Benzene	1	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U
1,2-Dichloroethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U
Trichloroethene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U
1,2-Dichloropropane	1	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U
Bromodichloromethane	50	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U
4-Methyl-2-pentanone	---	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	100 U
cis-1,3-Dichloropropene	0.4	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U
Toluene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U
trans-1,3-Dichloropropene	0.4	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U
1,1,2-Trichloroethane	1	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U
2-Hexanone	50	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	100 U
Tetrachloroethene	5	17	51	3.4 J	20	4.0 J	29	36	5.0 U	5.0 U	50 U
Dibromochloromethane	50	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U
Chlorobenzene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U
Ethylbenzene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	880
m,p-Xylenes	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	690
o-Xylene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U
Styrene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U
Bromoform	50	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U
1,1,2,2-Tetrachloroethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U
TIC's		ND	ND	ND	ND	ND	ND	ND	ND	ND	Yes

Notes:

Highlighted value exceeds NYS Water Quality Standards and Guidance Values for GA - Source of Drinking Water, 1998 with April 2000 Addendum

TIC's - Tentatively Identified Compounds; ND - Not detected above reported detection limits

U - Constituent not detected at a concentration above the reported detection limit

D - Compound quantitated using a secondary dilution

J - Indicates that the associated numerical value is an estimated concentration

R - Data was rejected due to a deficiency in the data generation process

CASTLE CLEANERS SITE

TABLE 4

GROUNDWATER PARAMETERS AT MONITORING WELLS

November 2010 and January 2012

NYSDEC Site No.808034

Sample Location	Well Depth (feet)	Depth to Water (feet)	Purging	Amount Purged (gal.)	Temp. (°C)	pH (SU)	Turbidity (NTU)	Conductivity (µmS/cm)
November 2010								
GW-1S	15.7	10.22	Before		12.0	7.0	117	2530
			After	1.0	13.8	6.9	62.4	2438
GW-2	16.3	8.42	Before		11.4	7.3	116	1767
			After	1.0	13.0	6.9	8.9	1789
GW-4S	15.6	8.83	Before		13.7	8.5	176	861
			After	1.0	15.7	7.4	11.4	787
GW-8S	19.5	10.20	Before		11.7	7.8	99	1253
			After	1.0	12.4	7.3	347	1768
GW-11	19.8	10.89	Before		10.9	8.0	139	567
			After	1.0	12.7	7.8	38.3	589
PS-1	45.0	14.90	Before		11.0	7.8	23.9	566
			After	18	10.6	7.9	27.2	575
OFDP-10.1	15.0	8.88	Before		12.3	7.3	216	2737
			After	1.0	13.5	7.1	63.1	2860
OFDP-10.2	17.0	9.68	Before		13.9	8.0	10.2	595
			After	1.3	13.9	8.0	218	1321
OFDP-10.5	17.8	10.16	Before		12.7	7.5	339	386
			After	1.5	13.7	7.3	94.6	373
OFDP-10.7	16.5	11.50	Before		12.1	7.8	138	710
			After	1.0	13.4	7.4	335	551
OFDP-10.8	18.0	8.30	Before		12.4	7.0	29.0	1288
			After	1.0	13.7	7.3	94.6	373

CASTLE CLEANERS SITE

TABLE 4

GROUNDWATER PARAMETERS AT MONITORING WELLS

November 2010 and January 2012

NYSDEC Site No.808034

Sample Location	Well Depth (feet)	Depth to Water (feet)	Purging	Amount Purged (gal.)	Temp. (°C)	pH (SU)	Turbidity (NTU)	Conductivity (µmS/cm)
January 2012								
GW-1S	15.7	10.00	Before		10.3	7.1	>500	1526
			After	0.5	10.1	7.1	325	1538
GW-1D	27.0	9.34	Before		9.9	7.7	211	568
			After	6.0	11.0	7.5	72	578
GW-2	16.3	8.36	Before		10.6	7.8	>500	936
			After	0.5	9.1	7.4	173	1071
GW-4	15.6	9.21	Before		10.3	7.5	>500	834
			After	0.3	9.5	7.5	275	827
GW-8S	19.5	10.12	Before		11.8	8.3	>500	668
			After	0.4	11.7	8.0	>500	688
GW-8D	39.0	9.40	Before		11.7	7.9	>500	566
			After	12.0	12.8	7.8	375	560
GW-11	19.8	10.44	Before		13.8	7.6	>500	542
			After	0.4	11.8	7.6	>500	551
GW-12S	15.0	9.60	Before		12.5	7.8	>500	681
			After	3.0	11.7	7.6	247	676
GW-12D	40.0	10.03	Before		11.9	8.2	>500	628
			After	12.0	10.9	8.2	140	637
GW-13S	15.0	9.88	Before		11.6	7.5	>500	866
			After	0.4	11.4	7.3	>500	871
GW-14S	17.0	11.43	Before		13.2	7.7	>500	1092
			After	0.3	11.2	7.5	>500	1192
GW-15S	18.0	12.12	Before		11.6	7.5	>500	777
			After	3.0	10.9	7.6	>500	780
GW-15D	72.0		Before		9.9	7.9	>500	609
			After	12.0	11.0	8.2	310	635
GW-16S	19.5	12.36	Before		12.0	7.4	>500	1323
			After	3.5	12.2	7.3	219	1491

CASTLE CLEANERS SITE

TABLE 4

GROUNDWATER PARAMETERS AT MONITORING WELLS

November 2010 and January 2012

NYSDEC Site No.808034

Sample Location	Well Depth (feet)	Depth to Water (feet)	Purging	Amount Purged (gal.)	Temp. (°C)	pH (SU)	Turbidity (NTU)	Conductivity (µmS/cm)
January 2012								
GW-17S	22.0	15.87	Before		12.9	7.9	>500	783
			After	3.5	10.3	7.9	351	797
GW-17D	34.0	15.97	Before		11.2	7.9	>500	640
			After	9.0	12.7	7.7	189	676
GW-18S	15.0	9.55	Before		11.5	7.7	265	767
			After	3.0	10.0	7.5	97	797
GW-18D			Before		10.9	7.7	369	816
			After	6.0	10.9	7.7	223	844
GW-19S	18.0	10.73	Before		10.9	7.4	159	913
			After	3.5	11.0	7.3	88	890
PS-1	45.0	13.79	Before		10.9	7.9	129	542
			After	15	10.9	7.8	49	623
GW-20S	17.0	10.94	Before		11.8	7.7	>500	802
			After	3.0	10.6	7.6	>500	790
GW-20D	29.0	11.04	Before		10.0	7.8	110	597
			After	9.0	11.9	7.9	915	586
OFDP-10.1	15.0	8.76	Before		10.8	7.3	>500	1738
			After	0.5	10.8	7.2	>500	1900
OFDP-10.2	17.0	9.19	Before		11.9	7.8	>500	2037
			After	0.5	10.5	7.8	33.4	1945
OFDP-10.5	17.8	9.90	Before		12.2	7.8	>500	532
			After	1.5	10.1	7.7	325	546
OFDP-10.7	16.5	11.13	Before		10.5	7.7	278	511
			After	0.3	10.9	7.5	211	510
OFDP-10.8	18.0	7.80	Before		10.2	7.0	133.0	1063
			After	0.4	10.1	6.9	88	1099

Notes:

Purged with dedicated tubing and peristaltic pump

pH reported in Standard Units (SU)

Specific conductivity recorded in miliSiemens per centimeter(µS/cm)

Turbidity recorded in Nephelometric Turbidity Units (NTU)

CASTLE CLEANERS SITE
TABLE 5
WATER TABLE ELEVATIONS
NYSDEC Site No. 808034

Location	Reference Point	Depth to Groundwater (feet below reference)				Groundwater Elevation			
	Elevation	11/17/2010	12/6/2011& 12/7/2011	1/4 through 1/6/2012	2/7 through 2/9/2012	11/17/2010	12/6/2011& 12/7/2011	1/4 through 1/6/2012	2/7 through 2/9/2012
GW-1S	858.82	10.22		10.00	10.19	848.60		848.82	848.63
GW-1D	859.32		7.90	9.34	9.40		851.42	849.98	849.92
GW-2	858.82	8.43		8.36	8.48	850.39		850.46	850.34
GW-4	858.45	8.83		9.21	9.51	849.62		849.24	848.94
GW-8S	858.02	10.20		10.12	10.31	847.82		847.90	847.71
GW-8D	857.83		9.56	9.40	9.56		848.27	848.43	848.27
GW-11	857.84	10.89		10.44	10.96	846.95		847.40	846.88
GW-12S	858.23		9.68	9.60	9.70		848.55	848.63	848.53
GW-12D	858.21		10.70	10.03	9.99		847.51	848.18	848.22
GW-13S	858.08		10.00	9.88	10.09		848.08	848.20	847.99
GW-14S	858.52		11.59	11.43	11.77		846.93	847.09	846.75
GW-15S	858.66		12.19	12.12	12.28		846.47	846.54	846.38
GW-15D	858.82		9.57	15.80	15.21		849.25	843.02	843.61
GW-16S	858.66		12.34	12.36	12.47		846.32	846.30	846.19
GW-17S	861.08		15.82	15.87	16.21		845.26	845.21	844.87
GW-17D	861.00		15.95	15.97	16.19		845.05	845.03	844.81
GW-18S	854.96		9.50	9.55	10.18		845.46	845.41	844.78
GW-18D	855.01		9.61	10.01	9.80		845.40	845.00	845.21
GW-19S	856.05		10.67	10.73	10.96		845.38	845.32	845.09
PS-1	858.84	14.90		13.79	13.97	843.94		845.05	844.87
GW-20S	856.24		11.02	10.94	11.10		845.22	845.30	845.14
GW-20D	856.27		10.94	11.04	11.22		845.33	845.23	845.05
OFDP-10.1	858.30	8.88		8.76	8.91	849.42		849.54	849.39
OFDP-10.2	857.71	9.68		9.19	9.34	848.03		848.52	848.37
OFDP-10.5	857.95	10.16		9.90	10.04	847.79		848.05	847.91
OFDP-10.7	858.71	11.50		11.13	10.31	847.21		847.58	848.40
OFDP-10.8	858.25	8.30		7.78	8.02	849.95		850.47	850.23

CASTLE CLEANERS SITE
TABLE 6
SAMPLE LOCATION SUMMARY
SOIL VAPOR INTRUSION SUMMARY
NYSDEC Site No. 808034

Property ID	Sample Identification
<i>Property 1</i>	AIN.10.1 - Basement AIN.10.2 – 1st Level AMA.10.1 - Outdoor
<i>Property 2</i>	AIN.10.21 – 1 st Level ASS.10.9 – Sub-slab AMA.10.5 – Outdoor
<i>Property 3</i>	AIN.10.3 – Basement (north) AIN.10.4 – Basement (south) AIN.10.5 – 1 st Level Pharmacy AMA.10.1 – Outdoor
<i>Property 4</i>	ASS.10.1 – Sub-slab AIN.10.6 - 1 st Level AMA.10.1 - Outdoor
<i>Property 5</i>	AIN.10.7 – 1 st Level ASS.10.2 – Sub-slab AMA.10.1 - Outdoor
<i>Property 6</i>	ASS.10.5 – Sub-slab AIN.10.12 – Basement AIN. 10.13 – 1 st Level AMA.10.2 – Outdoor <i>[Re-Sampled March 2012]</i> ASS.12.1 – Sub-slab AIN.12.1 – Basement AMA.12.1 – Outdoor
<i>Property 7</i>	ASS.10.6 – Sub-slab AIN.10.14 – Basement AIN.10.15 – 1 st Level AMA.10.2 - Outdoor <i>[Re-Sampled]</i> AIN.10.16 – Basement ASS.10.6(A) – Sub-slab AMA.10.3 – Outdoor
<i>Property 8</i>	ASS.10.3 – Sub-slab (north basement) AIN.10.8 – Basement (north basement) ASS.10.4 – Sub-slab (south basement) AIN.10.9 – Basement (south basement) AIN.10.10 – Basement (south basement) Duplicate AIN.10.11 – 1 st Level (south apartment) AMA.10.2 – Outdoor <i>[Re-Sampled March 2012]</i> ASS. 12.3 – Sub-Slab (north basement) AIN. 12.3 – Basement (north basement) AMA.12.3 – Outdoor ASS.12.4 – Sub-slab (south basement) AIN.12.4 – Basement (south basement) AIN.12.5 – Basement, duplicate (south basement)
<i>Property 9</i>	AIN.10.17 – Basement (north basement) ASS.10.7 – Sub-slab (north basement) AIN.10.18 – Basement (south basement) AIN.10.19 – Basement (south basement) Duplicate ASS.10.8 – Sub-slab (south basement) AIN.10.20 – 1 st Level AMA.10.4 - Outdoor

CASTLE CLEANERS SITE
TABLE 6
SAMPLE LOCATION SUMMARY
SOIL VAPOR INTRUSION SUMMARY
NYSDEC Site No. 808034

<i>Property 10</i>	ASS.12.2 – Sub-slab AIN.12.2 – 1 st Floor AMA.12.2 - Outdoor
<i>Property 11</i>	ASS.12.5 – Sub-slab AIN.12.6 – Basement AMA.12.4 – Outdoor
<i>Property 12</i>	AIN.12.7 – Basement AMA.12.5 - Outdoor
<i>Property 13</i>	AIN.12.8 – Basement AIN.12.9 – Basement AMA.12.6 - Outdoor
<i>Property 14</i>	ASS.12.6 – Sub-Slab AIN.12.10 – Basement AIN.12.11 – Basement (Duplicate) AMA.12.7 – Outdoor
<i>Property 15</i>	AIN.12.12 – 1 st Floor AMA.12.8 - Outdoor
<i>Property 16</i>	ASS.12.7 – Sub-slab AIN.12.13 – 1 st Floor AMA.12.9 - Outdoor

CASTLE CLEANERS SITE
TABLE 7
SUMMARY OF CONTAMINANTS OF CONCERN
SOIL VAPOR INTRUSION INVESTIGATION
NYSDEC Site No. 808034

PROPERTY	Concentrations (ug/m ³)*									
	PCE	TCE	<i>cis</i> -DCE	<i>trans</i> -DCE	VC	1,1,1-TCA	1,1-DCE	1,1-DCA	1,2-DCA	CA
Property 1										
Basement	140	1.5	0.81 U	0.81 U	0.52 U	1.10 U	0.81 U	0.82 U	0.82 U	0.54 U
1st Level	140	1.0	0.81 U	0.81 U	0.52 U	1.10 U	0.81 U	0.82 U	0.82 U	0.54 U
Outdoors	190	0.22 U	0.81 U	0.81 U	0.52 U	1.10 U	0.81 U	0.82 U	0.82 U	0.54 U
Property 2										
Sub-Slab	260	7.9	7.5	0.81 U	0.52 U	1.10 U	0.81 U	0.82 U	0.82 U	0.54 U
1st Level	2000	10 J	0.81 U	0.81 U	0.52 U	1.10 U	0.81 U	0.82 U	0.82 U	0.54 U
Outdoor	140 J	0.22 UJ	0.81 U	0.81 U	0.52 U	1.10 U	0.81 U	0.82 U	0.82 U	0.54 U
Property 3										
Basement (north)	120	2.6	3.3	0.81 U	0.52 U	1.10 U	0.81 U	0.82 U	0.82 U	0.54 U
Basement (south)	140	2.7	3.4	0.81 U	0.52 U	1.10 U	0.81 U	0.82 U	0.82 U	0.54 U
1st Level Pharmacy	96	2.5	2.7	0.81 U	0.52 U	1.10 U	0.81 U	0.82 U	0.82 U	0.54 U
Outdoors	190	0.22 U	0.81 U	0.81 U	0.52 U	1.10 U	0.81 U	0.82 U	0.82 U	0.54 U
Property 4										
Sub-Slab	66	2.7	2.3	0.81 U	0.52 U	1.10 U	0.81 U	0.82 U	0.82 U	0.54 U
1st Level	91	3.1	2.5	0.81 U	0.52 U	1.10 U	0.81 U	0.82 U	0.82 U	0.54 U
Outdoors	190	0.22 U	0.81 U	0.81 U	0.52 U	1.10 U	0.81 U	0.82 U	0.82 U	0.54 U
Property 5										
Sub-Slab	40	3.9	2.4	0.81 U	0.52 U	1.10 U	0.81 U	0.82 U	0.82 U	0.54 U
1st Level	32	1.8	1.1	0.81 U	0.52 U	2.3	0.81 U	0.82 U	0.82 U	0.54 U
Outdoors	190	0.22 U	0.81 U	0.81 U	0.52 U	1.10 U	0.81 U	0.82 U	0.82 U	0.54 U
Property 6										
Basement	1.4 U	0.22 U	0.97	0.81 U	0.52 U	1.10 U	0.81 U	0.82 U	0.82 U	0.54 U
Sub-Slab	63	26	77	0.81 U	0.52 U	1.10 U	0.81 U	0.82 U	0.82 U	0.54 U
1st Level	25	1.5	1.7	0.81 U	0.52 U	1.10 U	0.81 U	0.82 U	2.3	0.54 U
Outdoor	28	0.22 U	0.81 U	0.81 U	0.52 U	1.10 U	0.81 U	0.82 U	0.82 U	0.54 U
Basement	4.3	0.27	0.4 J	0.81 U	0.52 U	1.10 U	0.81 U	0.82 U	0.5 J	0.54 U
Sub-Slab	110	29	100	0.81 U	0.52 U	1.10 U	0.81 U	0.82 U	0.82 U	0.54 U
Outdoor	1.4 U	0.22 U	0.81 U	0.81 U	0.52 U	1.10 U	0.81 U	0.82 U	0.82 U	0.54 U

CASTLE CLEANERS SITE
TABLE 7
SUMMARY OF CONTAMINANTS OF CONCERN
SOIL VAPOR INTRUSION INVESTIGATION
NYSDEC Site No. 808034

PROPERTY	Concentrations (ug/m ³)*									
	PCE	TCE	cis -DCE	trans -DCE	VC	1,1,1-TCA	1,1-DCE	1,1-DCA	1,2-DCA	CA
Property 7										
Basement	8.0	3.5	5.8	0.81 U	0.52 U	1.10 U	0.81 U	0.82 U	0.82 U	0.54 U
Sub-Slab	620	270	350	0.81 U	0.52 U	1.10 U	0.81 U	0.82 U	0.82 U	0.54 U
1st Level	23	0.22 U	0.81 U	0.81 U	0.52 U	1.10 U	0.81 U	0.82 U	0.82 U	0.54 U
Outdoor	28	0.22 U	0.81 U	0.81 U	0.52 U	1.10 U	0.81 U	0.82 U	0.82 U	0.54 U
Basement	10	1.1	1.3	0.81 U	0.52 U	1.10 U	0.81 U	0.82 U	0.82 U	0.54 U
Sub-Slab	1400	500	430	8.3	2.4	1.10 U	0.81 U	0.82 U	0.82 U	0.54 U
Outdoor	41	4.7	6.5	0.81 U	0.52 U	1.10 U	0.81 U	0.82 U	0.82 U	0.54 U
Property 8										
Basement (north)	12	0.33	0.81 U	0.81 U	0.52 U	1.10 U	0.81 U	0.82 U	0.82 U	0.54 U
Sub-Slab (north)	40	0.22 U	0.81 U	0.81 U	0.52 U	1.10 U	0.81 U	0.82 U	0.82 U	0.54 U
Basement (south)	10	0.22 U	0.81 U	0.81 U	0.52 U	1.10 U	0.81 U	0.82 U	0.82 U	0.54 U
Basement (south) Duplicate	9.0	0.22 U	0.81 U	0.81 U	0.52 U	1.10 U	0.81 U	0.82 U	0.82 U	0.54 U
Sub-Slab (south)	180	1.5	0.81 U	0.81 U	0.52 U	1.10 U	0.81 U	0.82 U	0.82 U	0.54 U
1st Level (south)	8.2	0.22 U	0.81 U	0.81 U	0.52 U	1.10 U	0.81 U	0.82 U	0.82 U	0.54 U
Outdoor	28	0.22 U	0.81 U	0.81 U	0.52 U	1.10 U	0.81 U	0.82 U	0.82 U	0.54 U
Basement (north)	1.4 U	0.22 U	0.81 U	0.81 U	0.52 U	1.10 U	0.81 U	0.82 U	0.82 U	0.54 U
Sub-Slab (north)	30	1.4	0.81 U	0.81 U	0.52 U	1.10 U	0.81 U	0.82 U	0.82 U	0.54 U
Basement (south)	4.3	0.55	0.81 U	0.81 U	0.52 U	1.10 U	0.81 U	0.82 U	0.82 U	0.54 U
Basement (south) Duplicate	2.0	0.22 U	0.81 U	0.81 U	0.52 U	1.10 U	0.81 U	0.82 U	0.82 U	0.54 U
Sub-Slab (south)	29	1.1 U	0.81 U	0.81 U	0.52 U	1.10 U	0.81 U	0.82 U	0.82 U	0.54 U
Outdoor	1.4 U	0.22 U	0.81 U	0.81 U	0.52 U	1.10 U	0.81 U	0.82 U	0.82 U	0.54 U
Property 9										
Basement (north)	12 J	2.0 J	2.3 J	0.81 U	0.52 U	1.10 U	0.81 U	0.82 U	0.82 U	0.54 U
Sub-Slab (north)	180 J	35 J	23 J	0.81 U	0.52 U	1.10 U	0.81 U	0.82 U	0.82 U	0.54 U
Basement (south)	9.3 J	1.9 J	1.8 J	0.81 U	0.52 U	1.10 U	0.81 U	0.82 U	0.82 U	0.54 U
Basement (south) Duplicate	6.8 J	1.4 J	1.4 J	0.81 U	0.52 U	1.10 U	0.81 U	0.82 U	0.82 U	0.54 U
Sub-Slab (south)	1100 J	470 J	410 J	1.8	0.52 U	1.10 U	0.81 U	0.82 U	0.82 U	0.54 U
1st Level (south)	28 J	6.4 J	9.0 J	0.81 U	0.52 U	1.10 U	0.81 U	0.82 U	0.82 U	0.54 U
Outdoor	1.7 J	0.22 UJ	0.81 U	0.81 U	0.52 U	1.10 U	0.81 U	0.82 U	0.82 U	0.54 U
Property 10										
Sub-Slab	77	6.4	0.6 J	0.81 U	0.52 U	1.10 U	0.81 U	0.82 U	0.82 U	0.54 U
1st Level	9.9	0.49	0.81 U	0.81 U	0.52 U	1.10 U	0.81 U	0.82 U	0.82 U	0.54 U
Outdoor	1.4 U	2.8	0.81 U	0.81 U	0.52 U	1.10 U	0.81 U	0.82 U	0.82 U	0.54 U

CASTLE CLEANERS SITE
TABLE 7
SUMMARY OF CONTAMINANTS OF CONCERN
SOIL VAPOR INTRUSION INVESTIGATION
NYSDEC Site No. 808034

PROPERTY	Concentrations (ug/m ³)*									
	PCE	TCE	<i>cis</i> -DCE	<i>trans</i> -DCE	VC	1,1,1-TCA	1,1-DCE	1,1-DCA	1,2-DCA	CA
Property 11										
Basement	4.1	0.33	0.81 U	0.81 U	0.52 U	1.10 U	0.81 U	0.82 U	0.82 U	0.54 U
Sub-Slab	7.0	3.3	2.2	0.81 U	0.52 U	1.10 U	0.81 U	0.82 U	0.82 U	0.54 U
Outdoor	1.4 U	0.22 U	0.81 U	0.81 U	0.52 U	1.10 U	0.81 U	0.82 U	0.82 U	0.54 U
Property 12										
Basement	1.4 U	0.22 U	0.81 U	0.81 U	0.52 U	1.10 U	0.81 U	0.82 U	0.82 U	0.54 U
Outdoor	1.4 U	0.22 U	0.81 U	0.81 U	0.52 U	1.10 U	0.81 U	0.82 U	0.82 U	0.54 U
Property 13										
Basement	3.7	0.33	0.81 U	0.81 U	0.52 U	1.10 U	0.81 U	0.82 U	0.82 U	0.54 U
Basement	3.6	0.93	1.1	0.81 U	0.52 U	1.10 U	0.81 U	0.82 U	0.82 U	0.54 U
Outdoor	1.4 U	0.22 U	0.81 U	0.81 U	0.52 U	1.10 U	0.81 U	0.82 U	0.82 U	0.54 U
Property 14										
Basement	15	0.49	0.4 J	0.81 U	0.52 U	1.10 U	0.81 U	0.82 U	0.82 U	0.54 U
Basement	17	0.49	0.81 U	0.81 U	0.52 U	1.10 U	0.81 U	0.82 U	0.82 U	0.54 U
Sub-Slab	10	3.7	1.9	0.81 U	0.52 U	1.10 U	0.81 U	0.82 U	0.82 U	0.54 U
Outdoor	1.4 U	0.22	0.81 U	0.81 U	0.52 U	1.10 U	0.81 U	0.82 U	0.82 U	0.54 U
Property 15										
1st Floor	5.4	0.22 U	0.81 U	0.81 U	0.52 U	1.10 U	0.81 U	0.82 U	0.82 U	0.54 U
Outdoor	5	0.22 U	0.81 U	0.81 U	0.52 U	1.10 U	0.81 U	0.82 U	0.82 U	0.54 U
Property 16										
1st Floor	1.4 U	0.22 U	0.81 U	0.81 U	0.52 U	1.10 U	0.81 U	0.82 U	0.82 U	0.54 U
Sub-Slab	4.2	1.1 U	0.81 U	0.81 U	0.52 U	1.10 U	0.81 U	0.82 U	0.82 U	0.54 U
Outdoor	1.4 U	0.22 U	0.81 U	0.81 U	0.52 U	1.10 U	0.81 U	0.82 U	0.82 U	0.54 U

* Data Usability Summary Reports (DUSR) E1103003 and E1103005 summary data.

PCE-tetrachloroethene; TCE - trichloroethene; DCE-dichloroethene; VC - vinyl chloride; TCA - trichloroethane; DCA - dichloroethane; CA - chloroethane

U - Constituent not detected at a concentration above the reported detection limit

J - Indicates the associated numerical value is an estimated concentration

CASTLE CLEANERS SITE
TABLE 8
SUMMARY OF SOIL VAPOR AND AIR CONCENTRATIONS
SOIL VAPOR INTRUSION INVESTIGATION
NYSDEC Site No. 808034

Sample Location	AIN.10.1	AIN.10.2	AIN.10.3	AIN.10.4	AIN.10.5	ASS.10.1	AIN.10.6	AIN.10.7	ASS.10.2	AMA.10.1
	Basement	1st Floor	Basement	Basement	1st Floor	Subslab	1st Floor	1st Floor	Subslab	Outdoor
Sample Date	2/28/11	2/28/11	2/28/11	2/28/11	2/28/11	2/28/11	2/28/11	2/28/11	2/28/11	2/28/11
Parameter										
Polar and Non-Polar Compounds										
Method EPA TO-15										
[Unit - ug/m3]										
1,1,1-Trichloroethane	1.10 U	1.10 U	1.10 U	1.10 U	1.10 U	1.10 U	1.10 U	2.3	1.10 U	1.10 U
1,1,2,2-Tetrachloroethane	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
1,1,2-Trichloroethane	1.10 U	1.10 U	1.10 U	1.10 U	1.10 U	1.10 U	1.10 U	1.10 U	1.10 U	1.10 U
Freon 113	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U
1,1-Dichloroethane	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U
1,1-Dichloroethene	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U
1,2,4-Trichlorobenzene	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U
1,2,4-Trimethylbenzene	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	3.6	1.50 U	1.6	3.5	1.50 U
1,2-Dibromomethane	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U
Freon 114	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
1,2-Dichlorobenzene	1.20 U	1.20 U	1.20 U	1.20 U	1.20 U	1.20 U	1.20 U	1.3	1.20 U	1.20 U
1,2-Dichloroethane	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U	2.5	0.82 U	0.82 U	0.82 U	0.82 U
1,2-Dichloropropane	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U
1,3,5-Trimethylbenzene	1.00 U	2.7	1.1	1.3	2.7	18	1.9	3.3	17	1.00 U
1,3-Butadiene	0.45 UJ	0.45 UJ	0.45 UJ	0.45 UJ	0.45 UJ	0.45 UJ	0.45 UJ	0.45 UJ	0.45 UJ	0.45 UJ
1,3-Dichlorobenzene	1.20 U	1.20 U	1.20 U	1.20 U	1.20 U	1.20 U	1.20 U	1.3	1.20 U	1.20 U
1,4-Dichlorobenzene	1.20 U	1.20 U	1.20 U	1.20 U	1.20 U	1.20 U	1.20 U	1.20 U	1.20 U	1.20 U
1,4-Dioxane	1.50 UJ	1.50 UJ	1.50 UJ	1.50 UJ	1.50 UJ	0.40 UJ	1.50 UJ	1.50 UJ	0.40 UJ	1.50 UJ
2-Butanone	1.9	5.5	1.5	1.5	4.0	7.1	0.60 U	2.5	9.3	0.81
2-Hexanone	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U
4-Ethyltoluene	1.2	1.00 U	1.00 U	1.00 U	1.7	24	1.4	2.3	25	1.00 U
4-Methyl-2-pentanone	0.83 UJ	0.83 UJ	0.83 UJ	1.5 J	4.2 J	2.0 J	3.2 J	1.3 J	0.83 UJ	0.83 UJ
Acetone	18	53	60	48	89	140	78	35	53	11
Benzene	1.2	1.3	0.91	0.91	1.3	13	1.0	1.4	23	0.78
Benzyl chloride	1.10 U	1.10 U	1.10 U	1.10 U	1.10 U	1.10 U	1.10 U	1.10 U	1.10 U	1.10 U
Bromodichloromethane	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
Bromoform	2.10 UJ	2.10 UJ	2.10 UJ	2.10 UJ	2.10 UJ	2.10 UJ	2.10 UJ	2.10 UJ	2.10 UJ	2.10 UJ
Bromomethane	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U
Carbon disulfide	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.70	3.0	0.63 U
Carbon tetrachloride	1.2	0.26 U	0.64	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
Chlorobenzene	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U
Chloroethane	0.54 U	0.54 U	0.54 U	0.54 U	0.54 U	0.54 U	0.54 U	0.54 U	0.54 U	0.54 U
Chloroform	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U
Chloromethane	1.8	1.2	0.94	0.42 U	1.4	0.42 U	1.3	1.6	0.42 U	0.97
cis-1,2-Dichloroethene	0.81 U	0.81 U	3.3	3.4	2.7	2.3	2.5	1.1	2.4	0.81 U
cis-1,3-Dichloropropene	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U
Cyclohexane	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	7.4	0.70 U	1.3	23	0.70 U
Dibromochloromethane	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U
Freon 12	2.8	2.3	2.4	2.5	3.2	3.5	2.8	11	12	2.2
Ethylbenzene	0.88 U	0.88 U	0.88 U	0.88 U	0.97	21	0.88 U	2.3	29	0.88 U
Hexachlorobutadiene	2.20 U	2.20 U	2.20 U	2.20 U	2.20 U	2.20 U	2.20 U	2.20 U	2.20 U	2.20 U
Hexane	1.3	0.90	0.90	0.72 U	0.72 U	260	1.2	1.2	270	0.72 U
Isopropanol	32	30	230	330 EJ	1100	420	790	120	5.00 U	3 J
m,p-Xylene	2.60 U	2.60 U	2.60 U	2.60 U	3.0	76	2.60 U	6.1	100	2.60 U
Methyl tert-butyl ether	0.73 U	0.73 U	0.73 U	0.73 U	0.73 U	0.73 U	0.73 U	0.73 U	0.73 U	0.73 U
Methylene chloride	1.5	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	1.7	0.71U	0.71U	0.71U
n-Heptane	1.0	0.83 U	0.83 U	0.83 U	0.83 U	19	0.96	2.3	47	0.83 U
o-Xylene	1.1	0.88 U	0.88 U	0.88 U	1.1	18	1.0	2.0	21	0.83 U
Styrene	1.30 U	1.30 U	1.30 U	1.30 U	1.30 U	4.9	1.30 U	1.3	1.30 U	1.30 U
Tetrachloroethene	140	140	120	140	96	66	91	32	40	190
Tetrahydrofuran	0.63	0.60 U	0.60 U	0.60 U	2.4	4.6	1.4	0.87	6.2	0.60 U
Toluene	2.3	2.6	3.9	3.7	8.9	110	11	9.9	460	1.1
trans-1,2-Dichloroethene	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U
trans-1,3-Dichloropropene	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U
Trichloroethene	1.5	1.0	2.6	2.7	2.5	2.7	3.1	1.8	3.9	0.22 U
Freon 11	1.10 U	1.4	1.4	1.4	1.7	1.4	1.4	2.6	1.9	1.10 U
Vinyl acetate	0.72 UJ	0.72 UJ	0.72 UJ	0.72 UJ	0.72 UJ	0.72 UJ	0.72 UJ	0.72 UJ	0.72 UJ	0.72 UJ
Vinyl chloride	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U

Notes:
U - Constituent not detected at a concentration above the reported detection limit
J - Indicates that the associated numerical value is an estimated concentration

CASTLE CLEANERS SITE
TABLE 8
SUMMARY OF SOIL VAPOR AND AIR CONCENTRATIONS
SOIL VAPOR INTRUSION INVESTIGATION
NYSDEC Site No. 808034

Sample Location	ASS.10.3	AIN.10.8	ASS.10.4	AIN.10.9	AIN.10.10	AIN.10.11	ASS.10.5	AIN.10.12	AIN.10.13	ASS.10.6
	Subslab	Basement	Subslab	Basement	Basement	1st Floor	Subslab	Basement	1st Floor	Subslab
					Duplicate					
Sample Date	3/1/11	3/1/11	3/1/11	3/1/11	3/1/11	3/1/11	3/1/11	3/1/11	3/1/11	3/1/11
Parameter										
Polar and Non-Polar Compounds										
Method EPA TO-15										
[Unit - ug/m3]										
1,1,1-Trichloroethane	1.10 U	1.10 U	1.10 U	1.10 U	1.10 U	1.10 U	1.10 U	1.10 U	1.10 U	1.10 U
1,1,2,2-Tetrachloroethane	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
1,1,2-Trichloroethane	1.10 U	1.10 U	1.10 U	1.10 U	1.10 U	1.10 U	1.10 U	1.10 U	1.10 U	1.10 U
Freon 113	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U
1,1-Dichloroethane	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U
1,1-Dichloroethene	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U
1,2,4-Trichlorobenzene	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U
1,2,4-Trimethylbenzene	3.3	1.50 U	5.5	1.50 U	1.50 U	1.50 U	5.0	1.50 U	1.50 U	4.8
1,2-Dibromomethane	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U
Freon 114	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
1,2-Dichlorobenzene	1.20 U	1.20 U	1.20 U	1.20 U	1.20 U	1.20 U	1.20 U	1.20 U	1.20 U	1.20 U
1,2-Dichloroethane	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U	2.3	0.82 U
1,2-Dichloropropane	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U
1,3,5-Trimethylbenzene	15	1.1	25	1.0	1.00 U	1.2	21	1.00 U	1.4	18
1,3-Butadiene	0.45 UJ	0.45 UJ	0.45 UJ	0.45 UJ	0.45 UJ	0.45 UJ	0.45 UJ	0.45 UJ	0.45 UJ	0.45 UJ
1,3-Dichlorobenzene	1.20 U	1.20 U	1.20 U	1.20 U	1.20 U	1.20 U	1.20 U	1.20 U	1.20 U	1.20 U
1,4-Dichlorobenzene	1.20 U	1.20 U	1.20 U	1.20 U	1.20 U	1.20 U	1.20 U	1.20 U	1.20 U	1.20 U
1,4-Dioxane	0.40 UJ	1.50 UJ	0.40 UJ	1.50 UJ	1.50 UJ	1.50 UJ	0.40 UJ	1.50 UJ	1.50 UJ	0.40 UJ
2-Butanone	2.6	3.1	6.1	0.66	1.5	3.9	6.2	1.0	3.7	0.60 U
2-Hexanone	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U
4-Ethyltoluene	23	1.00 U	29	1.00 U	1.00 U	1.00 U	29	1.00 U	1.00 U	25
4-Methyl-2-pentanone	0.83 UJ	1.2 J	0.83 UJ	0.83 UJ	0.83 UJ	0.83 UJ	0.83 UJ	0.83 UJ	0.83 UJ	0.83 UJ
Acetone	16	15	15	5 J	8.7	14	770	880	1700	300
Benzene	9.5	1.6	2.6	1.5	1.4	1.5	13	0.65 U	2.0	11
Benzyl chloride	1.10 U	1.10 U	1.10 U	1.10 U	1.10 U	1.10 U	1.10 U	1.10 U	1.10 U	1.10 U
Bromodichloromethane	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
Bromoform	2.10 UJ	2.10 UJ	2.10 UJ	2.10 UJ	2.10 UJ	2.10 UJ	2.10 UJ	2.10 UJ	2.10 UJ	2.10 UJ
Bromomethane	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U
Carbon disulfide	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	2.1	0.63 U	0.63 U	11
Carbon tetrachloride	0.26 U	0.26 U	0.26 U	0.26 U	0.64	0.94 U	0.94 U	0.26 U	0.26 U	0.26 U
Chlorobenzene	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.54 U	0.54 U	0.94 U	0.94 U	0.94 U
Chloroethane	0.54 U	0.54 U	0.54 U	0.54 U	0.54 U	0.99 U	0.99 U	0.54 U	0.54 U	0.54 U
Chloroform	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U	12
Chloromethane	0.42 U	1.4	0.42 U	1.3	1.2	1.4	0.42 U	0.42 U	0.42 U	0.42 U
cis-1,2-Dichloroethene	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	77	0.97	1.7	350
cis-1,3-Dichloropropene	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U
Cyclohexane	4.0	0.70 U	1.3	0.70 U	0.70 U	0.70 U	3.9	0.70 U	0.70 U	0.70 U
Dibromochloromethane	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U
Freon 12	2.1	2.2	2.3	2.3	2.3	2.3	4.4	3.2	1.00 U	3.2
Ethylbenzene	26	1.1	12	0.88 U	0.88 U	0.88 U	26	0.88 U	1.7	22
Hexachlorobutadiene	2.20 U	2.20 U	2.20 U	2.20 U	2.20 U	2.20 U	2.20 U	2.20 U	2.20 U	2.20 U
Hexane	19	1.0	4.0	0.97	0.93	0.93	26	0.72 U	2.2	98
Isopropanol	14	4 J	7.5	5.00 U	4 J	5.00 U	92	39	240	26
m,p-Xylene	95	3.2	62	2.60 U	2.60 U	2.60 U	100	2.60 U	5.3	85
Methyl tert-butyl ether	0.73 U	0.73 U	0.73 U	0.73 U	0.73 U	0.73 U	0.73 U	0.73 U	0.73 U	0.73 U
Methylene chloride	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U
n-Heptane	14	0.83 U	4.2	0.83 U	0.83 U	0.83 U	18	0.83 U	1.3	150
o-Xylene	21	1.1	18	0.93	0.88 U	0.97	27	0.88 U	1.9	24
Styrene	1.30 U	1.30 U	1.3	1.30 U	1.30 U	1.30 U	1.30 U	1.30 U	1.30 U	1.30 U
Tetrachloroethene	40	12	180	10	9.0	8.2	63	1.40 U	25	620
Tetrahydrofuran	2.2	0.60 U	0.60 U	0.60 U	0.60 U	0.60 U	4.0	1.3	1.9	0.60 U
Toluene	110	4.2	33	3.1	2.6	4.3	130	1.2	6.7	99
trans-1,2-Dichloroethene	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	1.0	0.81 U	0.81 U	0.81 U
trans-1,3-Dichloropropene	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U
Trichloroethene	0.22 U	0.33	1.5	0.22 U	0.22 U	0.22 U	26	0.22 U	1.5	270
Freon 11	1.3	1.3	1.4	1.4	1.6	1.10 U	1.9	1.5	1.8	1.10 U
Vinyl acetate	0.72 UJ	0.72 UJ	0.72 UJ	0.72 UJ	0.72 UJ	0.72 UJ	0.72 UJ	0.72 UJ	0.72 UJ	0.72 UJ
Vinyl chloride	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U

Notes:
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J - Indicates that the associated numerical value is an estimated concentration

CASTLE CLEANERS SITE
TABLE 8
SUMMARY OF SOIL VAPOR AND AIR CONCENTRATIONS
SOIL VAPOR INTRUSION INVESTIGATION
NYSDEC Site No. 808034

Sample Location	AIN.10.14	AIN.10.15	AMA.10.2	AIN.10.16	ASS.10.6A	AMA.10.3	AIN.10.17	ASS.10.7	AIN.10.18
	Basement	1st Floor	Outdoor	Basement	Subslab	Outdoor	1st Floor	Subslab	1st Floor
Sample Date	3/1/11	3/1/11	3/1/11	3/22/11	3/22/11	3/22/11	3/22/11	3/22/11	3/22/11
Parameter									
Polar and Non-Polar Compounds									
Method EPA TO-15									
[Unit - ug/m3]									
1,1,1-Trichloroethane	1.10 U	1.10 U	1.10 U	1.10 U	1.10 U	1.10 U	1.10 U	1.10 U	1.10 U
1,1,2,2-Tetrachloroethane	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
1,1,2-Trichloroethane	1.10 U	1.10 U	1.10 U	1.10 UJ	1.10 UJ	1.10 UJ	1.10 UJ	1.10 UJ	1.10 UJ
Freon 113	1.60 U	1.60 U	1.60 U	1.6	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U
1,1-Dichloroethane	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U
1,1-Dichloroethene	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U
1,2,4-Trichlorobenzene	1.50 U	1.50 U	1.50 U	1.50 UJ	1.50 UJ	1.50 UJ	1.50 UJ	1.50 UJ	1.50 UJ
1,2,4-Trimethylbenzene	1.50 U	1.50 U	1.50 U	1.50 U	5.4	1.50 U	1.50 U	4.9	1.50 U
1,2-Dibromomethane	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U
Freon 114	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
1,2-Dichlorobenzene	1.20 U	1.20 U	1.20 U	1.20 UJ	1.20 UJ	1.20 UJ	1.20 UJ	1.20 UJ	1.20 UJ
1,2-Dichloroethane	0.82 U	0.82 U	0.82 U	0.95	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U
1,2-Dichloropropane	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U
1,3,5-Trimethylbenzene	1.00 U	1.4	1.00 U	1.7	19	1.00 U	1.00 U	18	1.3
1,3-Butadiene	0.45 UJ	0.45 UJ	0.45 UJ	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U
1,3-Dichlorobenzene	1.20 U	1.20 U	1.20 U	1.20 UJ	1.20 UJ	1.20 UJ	1.20 UJ	1.20 UJ	1.20 UJ
1,4-Dichlorobenzene	1.20 U	1.20 U	1.20 U	1.2 J	1.20 UJ	1.20 UJ	1.20 UJ	1.20 UJ	1.20 UJ
1,4-Dioxane	1.50 UJ	1.50 UJ	1.50 UJ	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U
2-Butanone	1.2	3.1	1.4	3.1	3.5	0.84	1.5	4.0	2.5
2-Hexanone	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U
4-Ethyltoluene	1.00 U	1.00 U	1.00 U	1.4	15	1.00 U	1.00 U	16	1.00 U
4-Methyl-2-pentanone	0.83 UJ	0.83 UJ	0.83 UJ	0.83 U	0.83 UJ	0.83 UJ	0.83 UJ	0.83 UJ	0.83 UJ
Acetone	1000	1600	31	200 J	34 J	7.7 J	9.5 J	17 J	14 J
Benzene	0.65	1.7	1.7	1.3	2.0	0.94	1.1	1.4	1.4
Benzyl chloride	1.10 U	1.10 U	1.10 U	1.10 U	1.10 U	1.10 U	1.10 U	1.10 U	1.10 U
Bromodichloromethane	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
Bromoform	2.10 UJ	2.10 UJ	2.10 UJ	2.10 U	2.10 U	2.10 U	2.10 U	2.10 U	2.10 U
Bromomethane	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U
Carbon disulfide	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U
Carbon tetrachloride	0.26 U	0.26 U	0.26 U	1.3	11	0.26 U	0.26 U	0.26 U	0.26 U
Chlorobenzene	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U
Chloroethane	0.54 U	0.54 U	0.54 U	0.54 U	0.54 U	0.54 U	0.54 U	0.54 U	0.54 U
Chloroform	0.99 U	0.99 U	0.99 U	0.99 U	12	0.99 U	0.99 U	0.99 U	0.99 U
Chloromethane	0.42 U	0.42 U	1.4	0.42 U	0.42 U	1.3	1.3	0.42 U	1.3
cis-1,2-Dichloroethene	5.8	0.81 U	0.81 U	1.3 J	430 J	6.5 J	2.3 J	23 J	1.8 J
cis-1,3-Dichloropropene	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U
Cyclohexane	0.70 U	0.70 U	0.70 U	0.77	3.6	0.70 U	0.70 U	2.9	0.70 U
Dibromochloromethane	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U
Freon 12	5.9	12	2.8	7.4	4.1	2.6	2.6	2.6	2.6
Ethylbenzene	0.88 U	2.4	0.88	1.9	5.0	0.88 U	0.88 U	8.2	0.97
Hexachlorobutadiene	2.20 U	2.20 U	2.20 U	2.20 UJ	2.20 UJ	2.20 UJ	2.20 UJ	2.20 UJ	2.20 UJ
Hexane	1.1	1.5	0.72 U	0.72 U	17 J	0.72 U	0.72 U	8.4 J	0.72 U
Isopropanol	46	130	5.00 U	49 J	10 J	2 J	9.0 J	5.00 U	11 J
m,p-Xylene	2.60 U	7.7	2.60 U	5.6 J	21 J	2.60 U	2.60 U	31 J	2.60 U
Methyl tert-butyl ether	0.73 U	0.73 U	0.73 U	0.73 U	0.73 U	0.73 U	0.73 U	0.73 U	0.73 U
Methylene chloride	0.71 U	0.71 U	0.71 U	0.88 U	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U
n-Heptane	1.6	1.9	0.83 U	1.6	5.0	0.83 U	0.83 U	6.1	0.83 U
o-Xylene	0.88 U	2.5	0.88 U	2.1 J	12 J	0.88 U	0.88 U	14 J	1.1 J
Styrene	1.30 U	1.30 U	1.30 U	1.30 U	1.30 U	1.30 U	1.30 U	1.30 U	1.30 U
Tetrachloroethene	8.0	23	28	10 J	1400 J	41 J	12 J	180 J	9.3 J
Tetrahydrofuran	0.60 U	0.60 U	0.60 U	3.8	0.63	0.60 U	0.60 U	0.60 U	0.60 U
Toluene	1.5	35	2.9	17 J	22 J	1.5 J	2.1 J	24 J	2.3 J
trans-1,2-Dichloroethene	0.81 U	0.81 U	0.81 U	0.81 U	8.3	0.81 U	0.81 U	0.81 U	0.81 U
trans-1,3-Dichloropropene	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U
Trichloroethene	3.5	0.22 U	0.22 U	1.1 J	500 J	4.7 J	2.0 J	35 J	1.9 J
Freon 11	1.4	1.7	1.7	2.1	1.7	1.6	1.6	1.7	1.7
Vinyl acetate	0.72 UJ	0.72 UJ	0.72 UJ	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U
Vinyl chloride	0.52 U	0.52 U	0.52 U	0.52 U	2.4	0.52 U	0.52 U	0.52 U	0.52 U

Notes:

U - Constituent not detected at a concentration above the reported detection limit
J - Indicates that the associated numerical value is an estimated concentration

CASTLE CLEANERS SITE
TABLE 8
SUMMARY OF SOIL VAPOR AND AIR CONCENTRATIONS
SOIL VAPOR INTRUSION INVESTIGATION
NYSDEC Site No. 808034

Sample Location	AIN.10.19	ASS.10.8	AIN.10.20	AMA.10.4	AMA.10.5	AIN.10.21	ASS.10.9	ASS.12.1	AIN.12.1	AMA.12.1
	1st Floor	Subslab	1st Floor	Outdoor	Outdoor	1st Floor	Subslab	Subslab	Basement	Outdoor
Sample Date	3/22/11	3/22/11	3/22/11	3/22/11	3/22/11	3/22/11	3/22/11	3/2/12	3/2/12	3/2/12
Parameter										
Polar and Non-Polar Compounds										
Method EPA TO-15										
[Unit - ug/m3]										
1,1,1-Trichloroethane	1.10 U	1.10 U	1.10 U	1.10 U	1.10 U	1.10 U	1.10 U	1.10 U	1.10 U	1.10 U
1,1,2,2-Tetrachloroethane	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
1,1,2-Trichloroethane	1.10 UJ	1.10 UJ	1.10 UJ	1.10 UJ	1.10 UJ	1.10 UJ	1.10 UJ	1.10 UJ	1.10 UJ	1.10 UJ
Freon 113	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U
1,1-Dichloroethane	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U
1,1-Dichloroethene	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U
1,2,4-Trichlorobenzene	1.50 UJ	1.50 UJ	1.50 UJ	1.50 UJ	1.50 UJ	1.50 UJ	1.50 UJ	1.50 UJ	1.50 UJ	1.50 UJ
1,2,4-Trimethylbenzene	1.50 U	3.9	1.50 U	1.50 U	1.50 U	1.50 U	4.4	8.6	1.00 U	1.00 U
1,2-Dibromomethane	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 UJ	1.60 UJ	1.60 UJ
Freon 114	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 UJ	1.40 UJ	1.40 UJ
1,2-Dichlorobenzene	1.20 UJ	1.20 UJ	1.20 UJ	1.20 UJ	1.20 UJ	1.20 UJ	1.20 UJ	1.20 U	1.20 U	1.20 U
1,2-Dichloroethane	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U	0.5 J	0.82 UJ
1,2-Dichloropropane	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U
1,3,5-Trimethylbenzene	1.00 U	13	1.8	1.00 U	1.00 U	1.0	15	26	1.00 U	1.00 U
1,3-Butadiene	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 UJ	0.45 UJ	0.45 UJ
1,3-Dichlorobenzene	1.20 UJ	1.20 UJ	1.20 UJ	1.20 UJ	1.20 UJ	1.20 UJ	1.20 UJ	1.20 U	1.20 U	1.20 U
1,4-Dichlorobenzene	1.20 UJ	1.20 UJ	1.20 UJ	1.20 UJ	1.20 UJ	1.20 UJ	1.20 UJ	1.20 U	1.20 U	1.20 U
1,4-Dioxane	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	0.73 U	0.73 U	0.73 U
2-Butanone	1.7	4.5	1.4	1.9	1.8	0.60 U	3.5	4.0	3.5	1.1
2-Hexanone	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U	0.83 UJ	0.83 UJ	0.83 UJ
4-Ethyltoluene	1.00 U	12	1.00 U	1.00 U	1.00 U	1.00 U	15	28	1.00 U	1.00 U
4-Methyl-2-pentanone	0.83 UJ	0.83 UJ	0.83 UJ	0.83 UJ	0.83 UJ	0.83 UJ	0.83 UJ	0.83 UJ	0.83 UJ	0.83 UJ
Acetone	10 J	31 J	22 J	11 J	13 J	11 J	30 J	76	110	11
Benzene	1.0	3.5	1.3	0.94	1.1	2.3	0.91	6.8	1.0	0.91
Benzyl chloride	1.10 U	1.10 U	1.10 U	1.10 U	1.10 U	1.10 U	1.10 U	1.10 U	1.10 U	1.10 U
Bromodichloromethane	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
Bromoform	2.10 U	2.10 U	2.10 U	2.10 U	2.10 U	2.10 U	2.10 U	2.10 U	2.10 U	2.10 U
Bromomethane	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U
Carbon disulfide	0.63 U	0.76	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	3.4	0.63 U	0.63 U
Carbon tetrachloride	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	1.3 U	0.51	0.51
Chlorobenzene	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 UJ	0.94 UJ	0.94 UJ
Chloroethane	0.54 U	0.54 U	0.54 U	0.54 U	0.54 U	0.54 U	0.54 U	0.54 U	0.54 U	0.54 U
Chloroform	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U	2.6	0.99 U	0.99 U
Chloromethane	0.42 U	0.42 U	0.42 U	1.0	1.2	0.42 J	0.42 J	0.42 U	0.42 U	1.3
cis-1,2-Dichloroethene	1.4 J	410 J	9.0 J	0.81 U	0.81 U	0.81 U	7.5 J	110	0.4 J	0.81 U
cis-1,3-Dichloropropene	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U
Cyclohexane	0.70 U	8.9	0.70 U	0.70 U	0.70 U	0.70 U	1.1	0.7 U	0.70 U	0.70 U
Dibromochloromethane	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 UJ	1.70 UJ	1.70 UJ
Freon 12	2.5	2.7	2.6	2.3	2.4	1.00 U	1.00 U	6.2	4.1	2.7
Ethylbenzene	0.88 U	7.7	0.88	0.88 U	0.88 U	0.88 U	0.88 U	16	0.7 J	0.88 U
Hexachlorobutadiene	2.20 UJ	2.20 UJ	2.20 UJ	2.20 UJ	2.20 UJ	2.20 UJ	2.20 UJ	2.20 U	2.20 U	2.20 U
Hexane	0.72 U	14 J	0.72 U	0.72 U	0.79	0.72 U	19	0.72 U	0.72 U	0.72 U
Isopropanol	8.7 J	5.00 U	47 J	5.0 J	5.7 J	11 J	6.3 J	54 J	49 J	7.0 J
m,p-Xylene	2.60 U	27 J	2.60 U	2.60 U	2.60 U	2.60 U	34 J	49	1.8	1.80 U
Methyl tert-butyl ether	0.73 U	0.73 U	0.73 U	0.73 U	0.73 U	0.73 U	0.73 U	0.73 U	0.73 U	0.73 U
Methylene chloride	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	0.74	0.71 U	0.71 U	0.71 U
n-Heptane	0.83 U	14	0.83 U	0.83 U	0.83 U	0.83 U	4.0	0.83 U	0.83 U	0.83 U
o-Xylene	0.88 U	12 J	1.0 J	0.88 U	0.88 U	0.88 U	17J	20	0.7 J	0.88 U
Styrene	1.5 J	1.30 U	1.30 U	1.30 U	1.30 U	1.30 U	1.30 U	2.5	0.87 U	0.87 U
Tetrachloroethene	6.8 J	1100 J	28 J	1.7 J	140 J	2000 J	260 J	110	4.3	1.4 U
Tetrahydrofuran	0.60 U	0.60 U	0.60 U	0.60 U	0.60 U	0.60 U	0.60 U	0.60 U	2.1	0.60 U
Toluene	1.8 J	26 J	2.3 J	2.1 J	2.0 J	2.5 J	52 J	57	4.3	1.3
trans-1,2-Dichloroethene	0.81 U	1.8	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.93	0.81 U	0.81 U
trans-1,3-Dichloropropene	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U
Trichloroethene	1.4 J	470 J	6.4 J	0.22 UJ	0.22 UJ	10 J	7.9 J	29 J	0.27J	0.22 UJ
Freon 11	1.10 U	1.8	1.7	1.3	1.10 U	8.3	2.9	1.9	1.5	1.4
Vinyl acetate	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U
Vinyl chloride	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U

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CASTLE CLEANERS SITE
TABLE 8
SUMMARY OF SOIL VAPOR AND AIR CONCENTRATIONS
SOIL VAPOR INTRUSION INVESTIGATION
NYSDEC Site No. 808034

Sample Location	ASS.12.2	AIN.12.2	AMA.12.2	ASS.12.3	AIN.12.3	AMA.12.3	ASS.12.4	AIN.12.4	AIN.12.5
	Subslab	Basement	Outdoor	Subslab	Basement	Outdoor	Subslab	Basement	Basement
Sample Date	3/2/12	3/2/12	3/2/12	3/2/12	3/2/12	3/2/12	3/2/12	3/2/12	3/2/12
Parameter									
Polar and Non-Polar Compounds									
Method EPA TO-15									
[Unit - ug/m3]									
1,1,1-Trichloroethane	1.10 U	1.10 U	1.10 U	1.10 U	1.10 U	1.10 U	1.10 U	1.10 U	1.10 U
1,1,2,2-Tetrachloroethane	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
1,1,2-Trichloroethane	1.10 UJ	1.10 UJ	1.10 UJ	1.10 UJ	1.10 U	1.10 U	1.10 U	1.10 U	1.10 UJ
Freon 113	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U
1,1-Dichloroethane	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U
1,1-Dichloroethene	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U
1,2,4-Trichlorobenzene	1.50 UJ	1.50 UJ	1.50 UJ	1.50 UJ	1.50 UJ	1.50 UJ	1.50 UJ	1.50 UJ	1.50 UJ
1,2,4-Trimethylbenzene	5.8	0.6 J	1.00 U	9.5	1.00 U	1.00 U	6.4	1.00 U	1.00 U
1,2-Dibromomethane	1.60 UJ	1.60 UJ	1.60 UJ	1.60 UJ	1.60 U	1.60 U	1.60 U	1.60 UJ	1.60 UJ
Freon 114	1.40 UJ	1.40 UJ	1.40 UJ	1.40 UJ	1.40 U	1.40 U	1.40 U	1.40 UJ	1.40 UJ
1,2-Dichlorobenzene	1.20 U	1.20 U	1.20 U	1.20 U	1.20 U	1.20 U	1.20 U	1.20 U	1.20 U
1,2-Dichloroethane	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U
1,2-Dichloropropane	0.94 U	0.94 U	0.94 U	1.6	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U
1,3,5-Trimethylbenzene	22	1.8	1.00 U	29	1.00 U	1.00 U	23	0.5 J	1.00 U
1,3-Butadiene	0.45 UJ	0.45 UJ	0.45 UJ	0.45 UJ	0.45 U	0.45 U	0.45 U	0.45 UJ	0.45 UJ
1,3-Dichlorobenzene	1.20 U	1.20 U	1.20 U	1.20 U	1.20 U	1.20 U	1.20 U	1.20 U	1.20 U
1,4-Dichlorobenzene	1.20 U	1.20 U	1.20 U	1.20 U	1.20 U	1.20 U	1.20 U	1.20 U	1.20 U
1,4-Dioxane	0.73 U	0.73 U	0.73 U	0.73 U	0.73 U	0.73 U	0.73 U	0.73 U	0.73 U
2-Butanone	3.0	5.3	1.2	13	0.5 J	1.5	3.5	2.0	1.8
2-Hexanone	0.83 UJ	0.83 UJ	0.83 UJ	0.83 UJ	0.83 U	0.83 U	0.83 U	0.83 UJ	0.83 UJ
4-Ethyltoluene	26	1.9	1.00 U	41	1.00 U	1.00 U	27	0.5 J	1.00 U
4-Methyl-2-pentanone	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U	0.83 UJ	0.83 UJ
Acetone	35	34	11	48	9.0	9.2	13	20	14
Benzene	10	3.1	0.88	16	0.65 U	1.1	9.2	1.1	1.0
Benzyl chloride	1.10 U	1.10 U	1.10 U	1.10 U	1.10 U	1.10 U	1.10 U	1.10 U	1.10 U
Bromodichloromethane	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
Bromoform	2.10 U	2.10 U	2.10 U	2.10 U	2.10 U	2.10 U	2.10 U	2.10 U	2.10 U
Bromomethane	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U
Carbon disulfide	0.63 U	0.63 U	0.63 U	0.4 J	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U
Carbon tetrachloride	1.3 U	0.83	0.51	1.3 U	0.26 U	0.51	1.3 U	0.51	0.51
Chlorobenzene	0.94 UJ	0.94 UJ	0.94 UJ	0.94 UJ	0.94 U	0.94 U	0.94 U	0.94 UJ	0.94 UJ
Chloroethane	0.54 U	0.54 U	0.54 U	0.54 U	0.54 U	0.54 U	0.54 U	0.54 U	0.54 U
Chloroform	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U
Chloromethane	0.42 U	0.42 U	1.2	0.42 U	1.3	1.1	0.42 U	1.3	1.3
cis-1,2-Dichloroethene	0.6 J	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U
cis-1,3-Dichloropropene	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U
Cyclohexane	0.7 U	0.70 U	0.70 U	0.7 U	0.70 U	0.70 U	0.7 U	0.70 U	0.70 U
Dibromochloromethane	1.70 UJ	1.70 UJ	1.70 UJ	1.70 UJ	1.70 U	1.70 U	1.70 U	1.70 UJ	1.70 UJ
Freon 12	2.8	2.9	2.7	2.7	2.4	2.4	2.4	2.7	2.8
Ethylbenzene	20	1..8	0.88 U	48	0.88 U	0.88 U	19	0.5 J	0.88 U
Hexachlorobutadiene	2.20 U	2.20 U	2.20 U	2.20 U	2.20 U	2.20 U	2.20 U	2.20 U	2.20 U
Hexane	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	11	0.93	0.72 U
Isopropanol	14 J	20 J	15 J	280 E	5.4	5.00 U	5.00 U	40 J	15 J
m,p-Xylene	69	5.9	1.80 U	110	1.80 U	0.9 J	71	1.0 J	1.0 J
Methyl tert-butyl ether	0.73 U	0.73 U	0.73 U	0.73 U	0.73 U	0.73 U	0.73 U	0.73 U	0.73 U
Methylene chloride	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U
n-Heptane	0.83 U	0.83 U	0.83 U	64	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U
o-Xylene	24	2.2	0.88 U	58	0.88 U	0.88 U	24	0.5 J	0.4 J
Styrene	0.87 U	0.87 U	0.87 U	3.5	0.87 U	0.87 U	0.87 U	0.5 J	0.87 U
Tetrachloroethene	77	9.9	1.4 U	30	1.4 U	1.4 U	29	4.3	2.0
Tetrahydrofuran	1.6	0.60 U	0.60 U	0.60 U	0.60 U	0.60 U	0.60 U	0.60 U	0.60 U
Toluene	90	13	1.2	96	0.77 U	1.6	80	2.3	2.0
trans-1,2-Dichloroethene	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.93	0.81 U	0.81 U
trans-1,3-Dichloropropene	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U
Trichloroethene	6.4 J	0.49 J	2.8 J	1.1 J	0.22 U	0.22 U	1.1 U	0.55 J	0.22 J
Freon 11	1.8	1.5	1.5	1.5	1.3	1.2	1.2	1.5	1.7 J
Vinyl acetate	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U
Vinyl chloride	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U

Notes:

U - Constituent not detected at a concentration above the reported detection limit

J - Indicates that the associated numerical value is an estimated concentration

CASTLE CLEANERS SITE
TABLE 8
SUMMARY OF SOIL VAPOR AND AIR CONCENTRATIONS
SOIL VAPOR INTRUSION INVESTIGATION
NYSDEC Site No. 808034

Sample Location	AMA.12.4	ASS.12.5	AIN.12.6	AIN.12.7	AMA.12.5	AIN.12.8	AIN.12.9	AMA.12.6	AIN.12.10
	Outdoor	Subslab	Basement	Basement	Outdoor	Basement	Basement	Outdoor	Basement
Sample Date	3/7/12	3/7/12	3/7/12	3/7/12	3/7/12	3/7/12	3/7/12	3/7/12	3/8/12
Parameter									
Polar and Non-Polar Compounds									
Method EPA TO-15									
[Unit - ug/m3]									
1,1,1-Trichloroethane	1.10 U	1.10 U	1.10 U	1.10 U	1.10 U	1.10 U	1.10 U	1.10 U	1.10 U
1,1,2,2-Tetrachloroethane	1.40 UJ	1.40 UJ	1.40 UJ	1.40 UJ	1.40 UJ	1.40 U	1.40 U	1.40 U	1.40 U
1,1,2-Trichloroethane	1.10 U	1.10 U	1.10 U	1.10 U	1.10 U	1.10 UJ	1.10 UJ	1.10 UJ	1.10 UJ
Freon 113	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U
1,1-Dichloroethane	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U
1,1-Dichloroethene	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U
1,2,4-Trichlorobenzene	1.50 UJ	1.50 UJ	1.50 UJ	1.50 UJ	1.50 UJ	1.50 UJ	1.50 UJ	1.50 UJ	1.50 UJ
1,2,4-Trimethylbenzene	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U
1,2-Dibromomethane	1.60 UJ	1.60 UJ	1.60 UJ	1.60 UJ	1.60 UJ	1.60 UJ	1.60 UJ	1.60 UJ	1.60 UJ
Freon 114	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 UJ	1.40 UJ	1.40 U	1.40 UJ
1,2-Dichlorobenzene	1.20 UJ	1.20 UJ	1.20 UJ	1.20 UJ	1.20 UJ	1.20 U	1.20 U	1.20 U	1.20 U
1,2-Dichloroethane	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U
1,2-Dichloropropane	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U
1,3,5-Trimethylbenzene	1.00 U	0.9 J	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.3
1,3-Butadiene	0.45 UJ	0.45 UJ	0.45 UJ	0.45 UJ	0.45 UJ	0.45 UJ	0.45 UJ	0.45 UJ	0.45 UJ
1,3-Dichlorobenzene	1.20 UJ	1.20 UJ	1.20 UJ	1.20 UJ	1.20 UJ	1.20 U	1.20 U	1.20 U	1.20 U
1,4-Dichlorobenzene	1.20 U	1.20 U	1.20 U	1.20 U	1.20 U	1.20 U	1.20 U	1.20 U	1.20 U
1,4-Dioxane	0.73 UJ	0.73 UJ	0.73 UJ	0.73 UJ	0.45 UJ	0.45 U	0.73 U	0.73 U	0.73 U
2-Butanone	0.87	4.6	2.0	1.0	0.84	1.6	0.96	0.5 J	1.5
2-Hexanone	0.83 UJ	0.83 UJ	0.83 UJ	0.83 UJ	0.83 UJ	0.83 UJ	0.83 UJ	0.83 UJ	0.83 UJ
4-Ethyltoluene	1.00 U	0.6 J	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.2
4-Methyl-2-pentanone	0.83 UJ	0.83 UJ	0.83 UJ	0.83 UJ	0.83 UJ	0.83 UJ	0.83 UJ	0.83 UJ	0.83 UJ
Acetone	9.2	46	8.9	7.4	9.5	7.2	9.3	7.8	12
Benzene	0.75	0.81	0.78	0.84	0.84	0.94	0.88	0.97	1.1
Benzyl chloride	1.10 U	1.10 U	1.10 U	1.10 U	1.10 U	1.10 U	1.10 U	1.10 U	1.10 U
Bromodichloromethane	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
Bromoform	2.10 U	2.10 U	2.10 U	2.10 U	2.10 U	2.10 U	2.10 U	2.10 U	2.10 U
Bromomethane	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U
Carbon disulfide	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U
Carbon tetrachloride	0.51	1.3 U	0.51	0.51	0.51	0.51	0.51	0.51	0.51
Chlorobenzene	0.94 UJ	0.94 UJ	0.94 UJ	0.94 UJ	0.94 UJ	0.94 UJ	0.94 UJ	0.94 UJ	0.94 UJ
Chloroethane	0.54 U	0.54 U	0.54 U	0.54 U	0.54 U	0.54 U	0.54 U	0.54 U	0.54 U
Chloroform	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U
Chloromethane	1.2	0.57	1.0	1.1	1.3	1.2	1.0	1.4	1.3
cis-1,2-Dichloroethene	0.81 U	2.2	0.81 U	0.81 U	0.81 U	0.81 U	1.1	0.81 U	0.4 J
cis-1,3-Dichloropropene	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U
Cyclohexane	0.70 U	0.7 U	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U
Dibromochloromethane	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 UJ	1.70 UJ	1.70 UJ	1.70 UJ
Freon 12	2.6	2.6	2.7	2.6	2.7	2.6	2.7	2.6	2.7
Ethylbenzene	0.88 U	0.7 J	0.88 U	0.88 U	0.88 U	0.5	0.88 U	0.88 U	0.5 J
Hexachlorobutadiene	2.20 U	2.20 U	2.20 U	2.20 U	2.20 U	2.20 U	2.20 U	2.20 U	2.20 U
Hexane	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U
Isopropanol	5.1 J	13 J	9.5 J	55 J	5.8 J	5.1 J	8.0 J	5.0 UJ	14 J
m,p-Xylene	1.80 UJ	1.80 UJ	1.80 UJ	1.80 UJ	1.80 UJ	1.0 J	1.0 J	1.0 J	2.0 J
Methyl tert-butyl ether	0.73 U	0.73 U	0.73 U	0.73 U	0.73 U	0.73 U	0.73 U	0.73 U	0.73 U
Methylene chloride	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U
n-Heptane	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U
o-Xylene	0.88 U	0.8 J	0.88 U	0.88 U	0.88 U	0.5 J	0.88 U	0.5 J	0.8 J
Styrene	0.87 UJ	0.87 UJ	0.87 UJ	0.87 UJ	0.87 UJ	0.87 U	0.87 U	0.87 U	0.87 U
Tetrachloroethene	1.4 U	7.0	4.1	1.4 U	1.4 U	3.7	3.6	1.4 U	15
Tetrahydrofuran	0.60 U	2.3	0.60 U	0.60 U	0.60 U	0.60 U	0.60 U	0.60 U	0.60 U
Toluene	1.2	3.5	2.8	1.6	1.4	1.8	1.7	2.0	2.8
trans-1,2-Dichloroethene	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U
trans-1,3-Dichloropropene	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U
Trichloroethene	0.22 UJ	3.3 J	0.33 J	0.22 UJ	0.22 UJ	0.33 J	0.93 J	0.22 UJ	0.49 J
Freon 11	1.3	1.3	1.5	1.4	1.4	1.4	1.4	1.3	1.6
Vinyl acetate	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U
Vinyl chloride	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U

Notes:
U - Constituent not detected at a concentration above the reported detection limit
J - Indicates that the associated numerical value is an estimated concentration

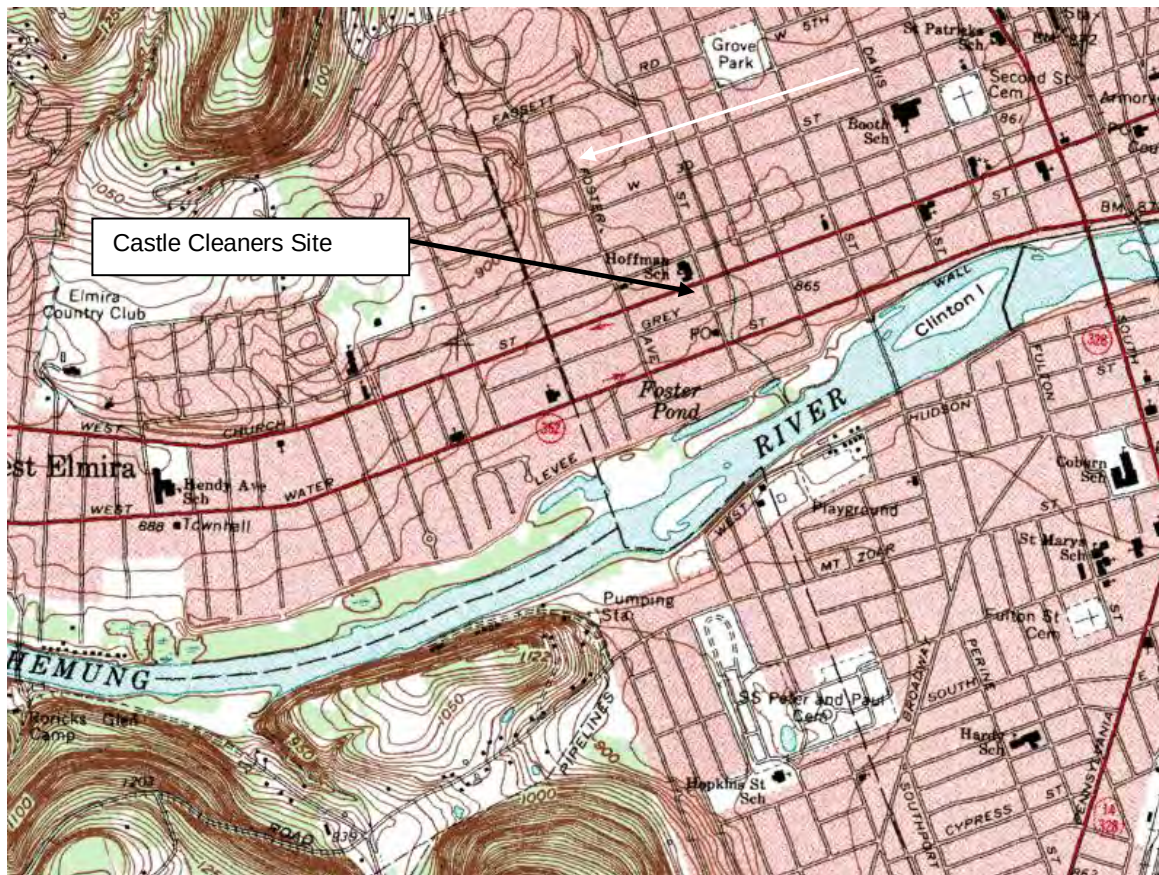
CASTLE CLEANERS SITE
TABLE 8
SUMMARY OF SOIL VAPOR AND AIR CONCENTRATIONS
SOIL VAPOR INTRUSION INVESTIGATION
NYSDEC Site No. 808034

Sample Location	AIN.12.11	ASS.12.6	AMA.12.7	AIN.12.12	AMA.12.8	AIN.12.13	ASS.12.7	AMA.12.9
	Basement	Subslab	Outdoor	Basement	Outdoor	Basement	Subslab	Outdoor
Sample Date	3/8/12	3/8/12	3/8/12	3/8/12	3/8/12	3/8/12	3/8/12	3/8/12
Parameter								
Polar and Non-Polar Compounds								
Method EPA TO-15								
[Unit - ug/m3]								
1,1,1-Trichloroethane	1.10 U	1.10 U	1.10 U	1.10 U	1.10 U	1.10 U	1.10 U	1.10 U
1,1,2,2-Tetrachloroethane	1.40 U	1.40 U	1.40 U	1.40 U	1.40 UJ	1.40 UJ	1.40 UJ	1.40 UJ
1,1,2-Trichloroethane	1.10 UJ	1.10 UJ	1.10 UJ	1.10 UJ	1.10 U	1.10 U	1.10 U	1.10 U
Freon 113	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U
1,1-Dichloroethane	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U
1,1-Dichloroethene	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U
1,2,4-Trichlorobenzene	1.50 UJ	1.50 UJ	1.50 UJ	1.50 UJ	1.50 UJ	1.50 UJ	1.50 UJ	1.50 UJ
1,2,4-Trimethylbenzene	1.00 U	0.6 J	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U
1,2-Dibromomethane	1.60 UJ	1.60 UJ	1.60 UJ	1.60 UJ	1.60 UJ	1.60 UJ	1.60 UJ	1.60 UJ
Freon 114	1.40 UJ	1.40 UJ	1.40 UJ	1.40 UJ	1.40 U	1.40 U	1.40 U	1.40 U
1,2-Dichlorobenzene	1.20 U	1.20 U	1.20 U	1.20 U	1.20 UJ	1.20 UJ	1.20 UJ	1.20 UJ
1,2-Dichloroethane	0.82 U	0.82 U	0.82 U	0.7 J	0.82 U	0.82 U	0.82 U	0.82 U
1,2-Dichloropropane	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U
1,3,5-Trimethylbenzene	1.0	1.4	1.00 U	0.7 J	1.00 U	1.00 U	0.6 J	1.00 U
1,3-Butadiene	0.45 UJ	0.45 UJ	0.45 UJ	0.45 UJ	0.45 UJ	0.45 UJ	0.45 UJ	0.45 UJ
1,3-Dichlorobenzene	1.20 U	1.20 U	1.20 U	1.20 U	1.20 UJ	1.20 UJ	1.20 UJ	1.20 UJ
1,4-Dichlorobenzene	1.20 U	1.20 U	1.20 U	1.20 U	1.20 U	1.20 U	1.20 U	1.20 U
1,4-Dioxane	0.73 U	0.73 U	0.73 U	0.73 U	0.73 UJ	0.73 UJ	0.73 UJ	0.73 UJ
2-Butanone	1.6	15	1.4	3.0	1.6	0.5 J	7.4	0.99
2-Hexanone	0.83 UJ	0.83 UJ	0.83 UJ	0.83 UJ	0.83 UJ	0.83 UJ	0.83 UJ	0.83 UJ
4-Ethyltoluene	1.0	1.1	1.00 U	0.6 J	1.00 U	1.00 U	1.00 U	1.00 U
4-Methyl-2-pentanone	0.83 UJ	0.83 UJ	0.83 UJ	0.83 UJ	0.83 UJ	0.83 UJ	0.83 UJ	0.83 UJ
Acetone	13	59	11	120	16	8.9	33	9.4
Benzene	1.1	3.2	0.81	0.88	0.68	0.65 U	2.2	0.6 J
Benzyl chloride	1.10 U	1.10 U	1.10 U	1.10 U	1.10 U	1.10 U	1.10 U	1.10 U
Bromodichloromethane	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
Bromoform	2.10 U	2.10 U	2.10 U	2.10 U	2.10 U	2.10 U	2.10 U	2.10 U
Bromomethane	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U
Carbon disulfide	0.63 U	0.5 J	0.63 U	0.5 J	0.63 U	0.63 U	0.3 J	0.63 U
Carbon tetrachloride	0.51	1.3 U	0.51	0.58	0.51	0.32	1.3 U	0.51
Chlorobenzene	0.94 UJ	0.94 UJ	0.94 UJ	0.94 UJ	0.94 UJ	0.94 UJ	0.94 UJ	0.94 UJ
Chloroethane	0.54 U	0.54 U	0.54 U	0.54 U	0.54 U	0.54 U	0.54 U	0.54 U
Chloroform	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U
Chloromethane	1.3	0.42 U	1.2	0.42 U	1.2	1.1	0.42 U	1.2
cis-1,2-Dichloroethene	0.81 U	1.9	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U
cis-1,3-Dichloropropene	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U
Cyclohexane	0.70 U	0.7 U	0.70 U	0.70 U	0.70 U	0.70 U	0.7 U	0.70 U
Dibromochloromethane	1.70 UJ	1.70 UJ	1.70 UJ	1.70 UJ	1.70 U	1.70 U	1.70 U	1.70 U
Freon 12	2.6	2.6	2.6	8.1	2.7	2.6	2.6	2.6
Ethylbenzene	0.6 J	0.8 J	0.88 U	0.5 J	0.88 U	0.88 U	0.7 J	0.88 U
Hexachlorobutadiene	2.20 U	2.20 U	2.20 U	2.20 U	2.20 U	2.20 U	2.20 U	2.20 U
Hexane	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U
Isopropanol	16 J	680 J	9.4J	17000 J	20 J	5.0 UJ	360 J	5.0 UJ
m,p-Xylene	1.9	2.3	0.9 J	1.0 J	1.8 UJ	1.8 UJ	1.8 UJ	1.8 UJ
Methyl tert-butyl ether	0.73 U	0.73 U	0.73 U	0.73 U	0.73 U	0.73 U	0.73 U	0.73 U
Methylene chloride	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	0.5 J
n-Heptane	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U
o-Xylene	0.8 J	0.93	0.88 U	0.6 J	0.88 U	0.88 U	0.8 J	0.88 U
Styrene	0.87 U	0.87 U	0.87 U	0.6 J	0.87 UJ	0.87 UJ	0.87 UJ	0.87 UJ
Tetrachloroethene	15	10	1.4 U	5.4	5.0	1.4 U	4.2	1.4 U
Tetrahydrofuran	0.60 U	0.60 U	0.60 U	0.60 U	0.60 U	0.60 U	0.60 U	0.60 U
Toluene	2.7	7.5	1.7	3.6	1.1	0.77 U	7.0	0.88
trans-1,2-Dichloroethene	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U
trans-1,3-Dichloropropene	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U
Trichloroethene	0.49 J	3.7 J	0.22 UJ	0.22 UJ	0.22 UJ	0.22 UJ	1.1 UJ	0.22 UJ
Freon 11	1.6	1.4	1.3	2.0	1.4	1.3	1.3	1.4
Vinyl acetate	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U
Vinyl chloride	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U

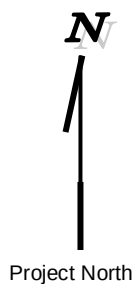
Notes:
U - Constituent not detected at a concentration above the reported detection limit
J - Indicates that the associated numerical value is an estimated concentration

APPENDIX B

DRAWINGS



Source: USGS Topographic Map, Elmira Quadrangle, 1976

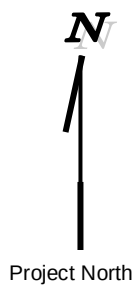


GeoLogic

GeoLogic NY, Inc.

**SITE LOCATION PLAN
CASTLE CLEANERS SITE
221 HOFFMAN STREET
ELMIRA, NEW YORK**

DRAWN BY:	SCALE:	PROJECT NO:
SC	1:24,000	209053
REVIEWED BY:	DATE:	DRAWING NO:
FCE	Feb. 2012	1

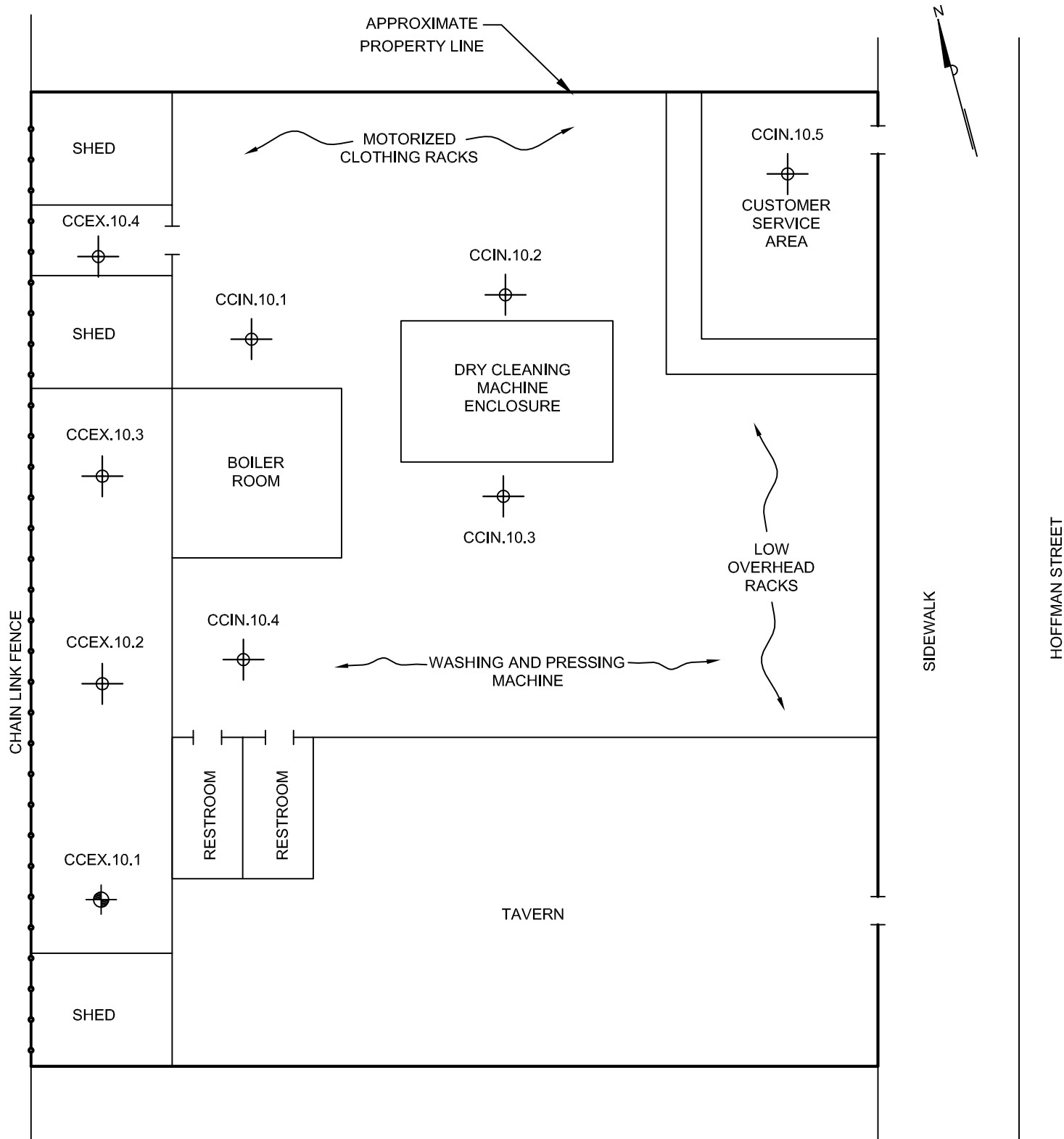


GeoLogic

GeoLogic NY, Inc.

**VICINITY PLAN
CASTLE CLEANERS SITE
221 HOFFMAN STREET
ELMIRA, NEW YORK**

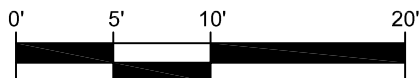
DRAWN BY:	SCALE:	PROJECT NO:
SC	1:24,000	209053
REVIEWED BY:	DATE:	DRAWING NO:
FCE	Feb. 2012	2



LEGEND:

-  DIRECT PUSH (DP) BORING LOCATION
-  DIRECT PUSH BORING LOCATION AND MONITORING WELL

APPROXIMATE SCALE:



L:\209053\TECH\SITE BASE MAP.DWG

GeoLogic

GeoLogic NY, Inc., Homer, New York

ON-SITE BORING LOCATION PLAN
CASTLE CLEANERS SITE
221 HOFFMAN STREET
ELMIRA, NEW YORK

DRAWN BY:	SCALE:	PROJECT NO.:
FCE/SDW	AS SHOWN	209053
REVIEWED BY:	DATE:	DRAWING NO.:
	AUG. 2010	3



N

LEGEND:

BORING LOCATION

MONITORING WELL LOCATION

ELMIRA MUNICIPAL WATER SUPPLY WELL LOCATION

MONITORING WELL NO.	LATITUDE	LONGITUDE	ELEVATION
GW-1D	42.085294	-76.823459	859.32
GW-1S	42.085297	-76.823444	858.82
GW-2	42.085545	-76.823084	858.82
GW-4	42.085012	-76.822933	858.45
GW-8D	42.084636	-76.822286	857.83
GW-8S	42.084642	-76.822283	858.02
GW-11	42.084375	-76.822149	857.84
GW-12D	42.084448	-76.823430	858.21
GW-12S	42.084451	-76.823419	858.23
GW-13S	42.084586	-76.822990	858.08
GW-14S	42.083878	-76.822031	858.52
GW-15D	42.083260	-76.823237	858.82
GW-15S	42.083255	-76.823252	858.66
GW-16S	42.083811	-76.821503	858.66
GW-17D	42.084137	-76.820407	861.00
GW-17S	42.084142	-76.820391	861.08
GW-18D	42.082255	-76.822966	855.01
GW-18S	42.082257	-76.822957	854.96
GW-19S	42.082466	-76.821373	856.05
GW-20D	42.083139	-76.820111	856.27
GW-20S	42.083136	-76.820120	856.24
OFDP 10.1	42.085248	-76.822774	858.30
OFDP 10.2	42.084760	-76.822510	857.71
OFDP 10.5	42.084836	-76.822117	857.95
OFDP 10.7	42.084833	-76.821818	858.71
OFDP 10.8	42.085286	-76.822631	858.25
PS-1	42.082455	-76.821367	858.84

GeoLogic

GeoLogic NY, Inc., Homer, New York

BORING & MONITORING WELL LOCATION PLAN

CASTLE CLEANERS SITE

221 HOFFMAN STREET, ELMIRA, NEW YORK

DRAWN BY:	SCALE:	PROJECT NO.:
SMC/SDW	AS SHOWN	209053
REVIEWED BY:	DATE:	DRAWING NO.:
FCE	FEB. 2012	4

\\209053\Tech\Drawings\Boring - MW Location Plan 02-2012

APPROXIMATE SCALE:

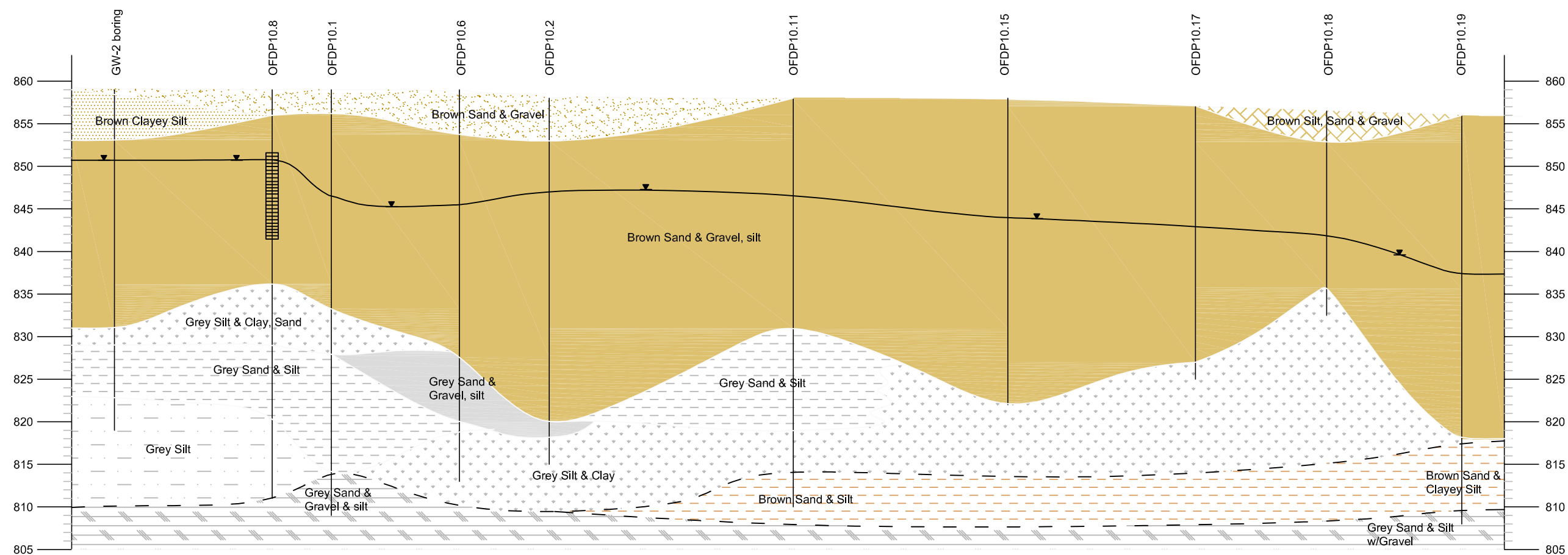
0'10'

250'

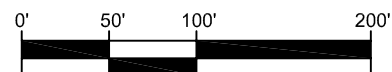
500'

A
(North)

A'
(South)



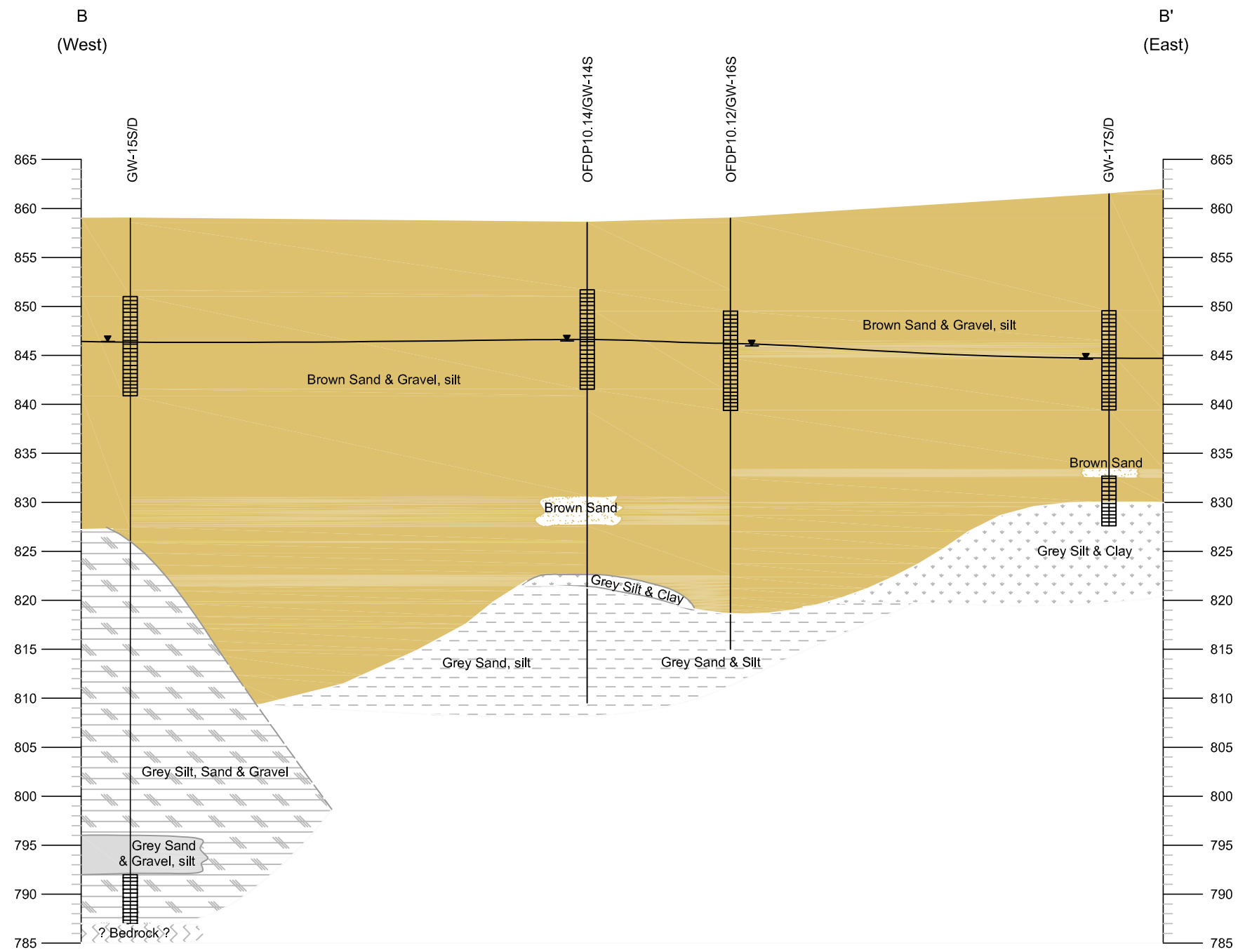
APPROXIMATE HORIZONTAL SCALE:



GeoLogic

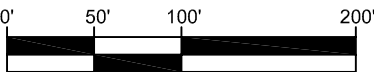
GeoLogic NY, Inc., Homer, New York

CROSS SECTION A-A'		
CASTLE'S FAST DRY CLEANERS		
221 HOFFMAN STREET, ELMIRA, NY		
DRAWN BY:	SCALE:	PROJECT NO.:
SMC/SDW	AS SHOWN	209053
REVIEWED BY:	DATE:	DRAWING NO.:
FCE	AUG. 2011	5



WATER TABLE ELEVATION, FEB. 2012

APPROXIMATE HORIZONTAL SCALE:



GeoLogic

GeoLogic NY, Inc., Homer, New York

CROSS SECTION B-B'
CASTLE CLEANERS SITE
221 HOFFMAN STREET, ELMIRA, NY

DRAWN BY: SMC/SDW	SCALE: AS SHOWN	PROJECT NO.: 209053
REVIEWED BY: FCE	DATE: FEB. 2012	DRAWING NO.: 6



LEGEND:

- ELMIRA MUNICIPAL WATER SUPPLY WELL LOCATION
- MONITORING WELL LOCATION

SHALLOW WELLS:

- (848.63) GROUNDWATER ELEVATION (FT.)
- 846 GROUNDWATER ELEVATION CONTOUR
- ← DIRECTION OF GROUNDWATER FLOW

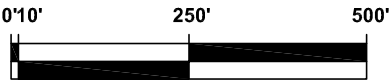
GeoLogic

GeoLogic NY, Inc., Homer, New York

**WATER TABLE MAP FOR FEBRUARY 2012
CASTLE CLEANERS SITE
221 HOFFMAN STREET, ELMIRA, NEW YORK**

DRAWN BY: SMC/SDW	SCALE: AS SHOWN	PROJECT NO.: 209053
REVIEWED BY: FCE	DATE: FEB. 2012	DRAWING NO.: 7

APPROXIMATE SCALE:





Source: www.nysgis.state.ny.us

Target Area



GeoLogic

GeoLogic NY, Inc.

**SOIL VAPOR INTRUSION
CASTLE CLEANERS SITE
211 HOFFMAN STREET
ELMIRA, NEW YORK**

DRAWN BY:
SC

SCALE:
Not To Scale

PROJECT NO:
209053

REVIEWED BY:
FCE

DATE:
Feb. 2012

DRAWING NO:
8



- >1,300 ug/mg, tetrachloroethene
- <1,300 ug/mg, tetrachloroethene

Restricted SCO for the Protection of Groundwater for tetrachloroethene is 1,300 ug/kg

GeoLogic
GeoLogic NY, Inc.

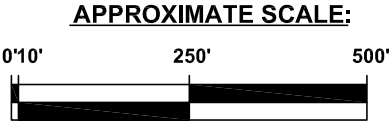
**SOIL CONTAMINANT CONCENTRATIONS
CASTLE CLEANERS SITE
211 HOFFMAN STREET
ELMIRA, NEW YORK**

DRAWN BY: SC	SCALE: Not To Scale	PROJECT NO: 209053
REVIEWED BY: FCE	DATE: OCTOBER 2012	DRAWING NO: 9



LEGEND:

- ELMIRA MUNICIPAL WATER SUPPLY WELL LOCATION
- BORING LOCATION
- 10 ppb HYDROCARBON PLUME CONTOUR IN SAND & GRAVEL
- 10 ppb CHLORINATED COMPOUNDS PLUME CONTOUR IN SAND & GRAVEL



GeoLogic NY, Inc., Homer, New York

DISSOLVED PLUME CONTOUR PLAN FOR
NOVEMBER 2010
CASTLE CLEANERS SITE
221 HOFFMAN STREET, ELMIRA, NEW YORK

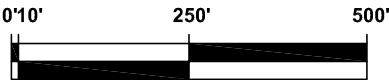
DRAWN BY: SMC/SDW	SCALE: AS SHOWN	PROJECT NO.: 209053
REVIEWED BY: FCE	DATE: JULY 2011	DRAWING NO.: 10



LEGEND:

- ELMIRA MUNICIPAL WATER SUPPLY WELL LOCATION
- MONITORING WELL LOCATION
- 10 ppb HYDROCARBON PLUME CONTOUR IN SAND & GRAVEL
- 10 ppb CHLORINATED COMPOUNDS PLUME CONTOUR IN SAND & GRAVEL

APPROXIMATE SCALE:



GeoLogic

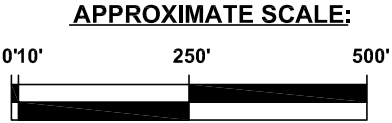
GeoLogic NY, Inc., Homer, New York

**DISSOLVED PLUME CONTOUR PLAN FOR
JANUARY 2012
CASTLE CLEANERS SITE
221 HOFFMAN STREET, ELMIRA, NEW YORK**

DRAWN BY: SMC/SDW	SCALE: AS SHOWN	PROJECT NO.: 209053
REVIEWED BY: FCE	DATE: FEB. 2012	DRAWING NO.: 11



- LEGEND:**
- ELMIRA MUNICIPAL WATER SUPPLY WELL LOCATION
 - MONITORING WELL LOCATION
 - 10 ppb TETRACHLOROETHENE (PCE) PLUME CONTOUR IN SAND & GRAVEL



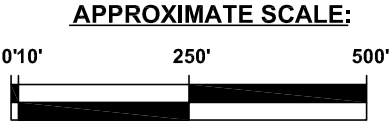
GeoLogic
GeoLogic NY, Inc., Homer, New York

**DISSOLVED PCE PLUME CONTOUR PLAN FOR
JANUARY 2012
CASTLE CLEANERS SITE
221 HOFFMAN STREET, ELMIRA, NEW YORK**

DRAWN BY: SMC/SDW	SCALE: AS SHOWN	PROJECT NO.: 209053
REVIEWED BY: FCE	DATE: MAY 2012	DRAWING NO.: 12



- LEGEND:**
- ELMIRA MUNICIPAL WATER SUPPLY WELL LOCATION
 - MONITORING WELL LOCATION
 - 10 ppb TRICHLOROETHENE (TCE) PLUME CONTOUR IN SAND & GRAVEL
 - 5 ppb



GeoLogic
GeoLogic NY, Inc., Homer, New York

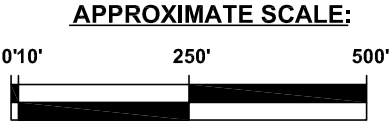
**DISSOLVED TCE PLUME CONTOUR PLAN FOR
JANUARY 2012
CASTLE CLEANERS SITE
221 HOFFMAN STREET, ELMIRA, NEW YORK**

DRAWN BY: SMC/SDW	SCALE: AS SHOWN	PROJECT NO.: 209053
REVIEWED BY: FCE	DATE: MAY 2012	DRAWING NO.: 13



LEGEND:

- ELMIRA MUNICIPAL WATER SUPPLY WELL LOCATION
- MONITORING WELL LOCATION
- 10 ppb cis-1,2 DICHLOROETHENE (DCE) PLUME CONTOUR IN SAND & GRAVEL



GeoLogic NY, Inc., Homer, New York

**DISSOLVED DCE PLUME CONTOUR PLAN FOR
JANUARY 2012
CASTLE CLEANERS SITE
221 HOFFMAN STREET, ELMIRA, NEW YORK**

DRAWN BY: SMC/SDW	SCALE: AS SHOWN	PROJECT NO.: 209053
REVIEWED BY: FCE	DATE: MAY 2012	DRAWING NO.: 14

APPENDIX C
SUBSURFACE LOGS

GeoLogic NY, Inc.

P.O. Box 350
Homer, New York 13077
(607) 749-5000

KEY TO SUBSURFACE LOG

Boring No.: B-1
Project No.: 209001
Date Started: 1/31/09
Date Completed: 1/31/09

Sheet 1 of 1

Reference Elevation: 100.0

Project:
Location:

Depth (ft.)	Sample No.	Type	SPT Blows	N-Value	Recovery (ft.)	PID Reading (ppm)	MATERIAL DESCRIPTION	REMARKS
0							Ground Surface	Water level at 2.0'
1	1	ss	1 2 2 1	4	2.0	32	Brown SILT, Some fine-coarse Sand, trace clay, moist-loose	with augers at 7.5'. At completion water level at 2.2'
2	2						Gray SHALE, medium hard weathered, thin bedded, some fractures	with augers at 10.0'. Run #1: 3.0'-5.0' 95% Recovery, 50% RQD

TABLE I

Identification of soil type is made on basis of an estimate of particle sizes, and in the case of fine-grained soils also on basis of plasticity.

Soil Type	Soil Particle	
Boulder	> 12"	Coarse Grained (Granular)
Cobble	12" - 3"	
Gravel	3" - 3/4"	
	- Coarse	
	- Fine	
Sand	3/4" - #4	Fine Grained
	- Coarse	
	- Medium	
	- Fine	
Silt-Non Plastic (Granular)	#4 - #10	Fine Grained
	#10 - #40	
	#40 - #200	
Clay-Plastic (Cohesive)	< #200	Fine Grained

TABLE II

The following terms are used in classifying soils consisting of mixtures of two or more soil types. The estimate is based on weight of total sample.

Term	Percent of Total Sample
"and"	35 - 50
"some"	20 - 35
"little"	10 - 20
"trace"	1 - 10

(When sampling gravelly soils with a standard split spoon, the true percentage of gravel is often not recovered due to the relatively small sampler diameter.)

TABLE III

The relative compactness or consistency is described in accordance with the following terms.

Granular Soils		Cohesive Soils	
Term	Blows per Foot, N	Term	Blows per Foot, N
Loose	< 11	Very Soft	< 2
Firm	11 - 30	Soft	2 - 4
Compact	31 - 50	Medium	4 - 8
Very Compact	> 51	Stiff	8 - 15
		Very Stiff	15 - 30
		Hard	>30

(Large particles in the soils will often significantly influence the blows per foot recorded during the Penetration Test.)

TABLE IV

Stratified Soils	
Descriptive Term	Thickness
Parting	- 0" - 1/16"
Seam	- 1/16" - 1/2"
Layer	- 1/2" - 12"
Stratum	- >12"
Varved Clay	- Alternating seams or layers of sand, silt & clay
Pocket	- small, erratic deposit, usually <12"
Lens	- lenticular deposit
Occasional	- one or less per foot of thickness
Frequent	- more than one per foot of thickness

TABLE V

Rock Classification Terms		
	Term	Meaning
Hardness	Soft	Scratched by fingernail
	Medium Hard	Scratched easily by penknife
	Hard	Scratched with difficulty by penknife
	Very Hard	Cannot be scratched by penknife
Weathering	Very Weathered	Judged from the relative amounts of disintegration, iron staining, core recovery, clay seams, etc.
	Weathered	
	Sound	
Bedding	Laminated	Natural breaks in Rock Layers
	Thin bedded	<1"
	Bedded	1"-4"
	Thick bedded	4"-12"
	Massive	12"-36"
(Fracturing refers to natural breaks in the rock oriented at some angle to the rock layers.)		

GENERAL INFORMATION & KEY TO SUBSURFACE LOGS

The information presented in the following defines some of the procedures and terms used on the Subsurface Logs to describe the conditions encountered.

1. The figures in the Depth column define the scale of the Subsurface Log.
2. The Sample No. is used for identification on sample containers.
3. The sample column shows, graphically, the depth range from which a sample was recovered. (ss – split spoon; core – rock core; st – shelby tube; dp – direct push). If not shown as a separate column, the sample type should be referenced in the Remark column or in the footnote.
4. Blows on Sampler - shows the results of the "Penetration Test", recording the number of blows required to drive a split spoon sampler into the soil. The number of blows required for each six inches of penetration is recorded. The first 6 inches of penetration is considered to be a seating drive. The number of blows required for the second and third 6 inches of penetration is termed the penetration resistance, N. The outside diameter of the sampler, the hammer weight and the length of drop are noted at the bottom of the Subsurface Log.
5. Recovery shows the length of the recovered soil sample for the sample device noted.
6. All recovered soil samples are reviewed in the office by an experienced technical specialist or geologist, unless noted otherwise. The visual descriptions are made on the basis of a combination of the field descriptions and observations and the sample as received in the office. The method of visual classification is based primarily on the Unified Soil Classification (ASTM D 2487-83) with regard to the particle size and plasticity. (See Table I). Additionally, the relative portion, by weight, of two or more soil types is described for granular soils in accordance with "Suggested Methods of Test for Identification of Soils" by D.M. Burmister, ASTM Special Technical Publication 479, June 1970. (See Table II) The description of the relative soil density or consistency is based upon the penetration records as defined on Table No. III. The description of the soil moisture is based upon the relative wetness of the soil as recovered and is described as damp, moist, wet and saturated. Water introduced in the boring either naturally or during drilling may have affected the moisture condition of the recovered sample. Special terms are used as required to describe materials in greater detail; several such terms are listed in Table IV. When sampling gravelly soils with a standard two-inch diameter split spoon, the true percentage of gravel is often not recovered due to the relatively small sampler diameter. The presence of boulders and large gravel is sometimes, but not necessarily, detected by an evaluation of the casing/hollow stem augers and samplers blows or through the "action" of the drill rig.
7. The description of the rock shown is based on the recovered rock core and the field observations. The terms frequently used in the description are included in Table V.
8. The stratification lines represent the approximate boundary between soil types, and the actual transition may be gradual.
9. Miscellaneous observations and procedures noted in the field are shown in this column, including water level observations. It is important to realize the reliability of the water level observations depends upon the soil type (water does not readily stabilize in a hole through fine grained soils), and that drill water used to advance the boring may have influenced the observations. The groundwater level typically will fluctuate seasonally. One or more perched or trapped water levels may exist in the ground seasonally. All the available readings should be evaluated. If definite conclusions cannot be made, it is often prudent to examine the conditions more thoroughly through test pit excavations or monitoring wells.
10. The length of core run is defined as the length of penetration of the core barrel. Core recovery is the length of core recovered divided by the core run. The RQD (Rock Quality Designation) is the total pieces of NX core exceeding 4 inches in length divided by the core run. The size of the core barrel used is also noted at the bottom of the subsurface log.

The Subsurface Logs attached to this report present the observations and mechanical data collected at the site, supplemented by classification of material removed from the borings as determined through visual identification. It is cautioned that the materials removed from the borings represent only a fraction of the total volume of the deposits at the site and may not necessarily be representative of the subsurface conditions between adjacent borings or between the sampled intervals. The data presented on the Subsurface Logs together with the recovered samples will provide a basis for evaluating the character of the subsurface conditions relative to the project. The evaluation must consider all the recorded details and their significance relative to each other. Often analyses of boring data indicate the need for additional testing or sampling procedures to more accurately evaluate the subsurface conditions. Any evaluation of the contents of this report and the recovered samples must be performed by knowledgeable Professionals.

SUBSURFACE LOG - DIRECT PUSH

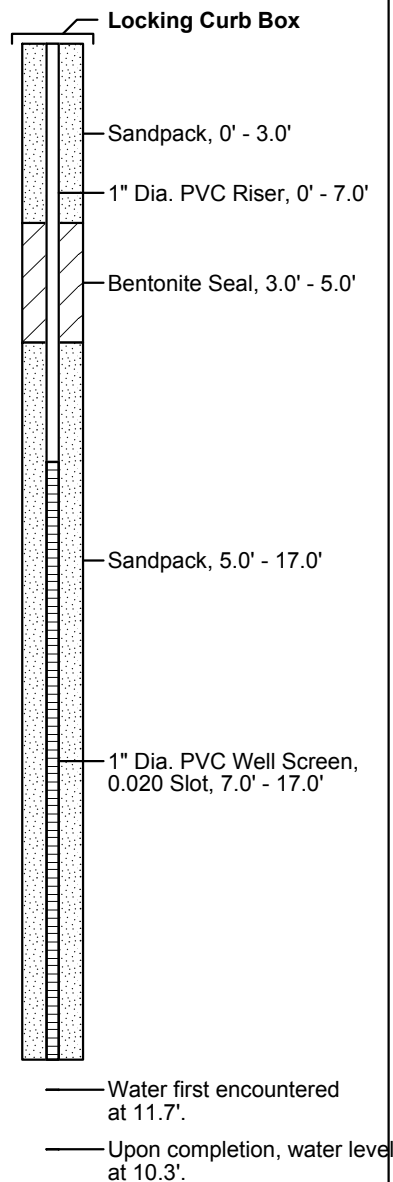
(Page 1 of 1)

Castle Cleaners
 221 Hoffman Street
 Elmira, New York

Boring No.: CCEX 10-1
 Project No.: 209053
 Date Started: 07/07/10
 Date Completed: 07/07/10

Depth (ft)	Sample No.	Recovery (ft)	PID Reading (ppm)	Analysis	DESCRIPTION
0					Brown fine-coarse SAND, GRAVEL and SILT, moist
1	1.4	1.8	8260B/TCL		Brown fine-medium SAND and SILT, wet
4					Brown fine-coarse SAND and GRAVEL, little to Some Silt, wet
2	2.3	1.5, 1.7	8260B		similar
8					
3	2.6	1.0, 1.2	8260B		
12					saturated at 11.7'
16					
20					

BORING TERMINATED AT 17.0'



Visually Classified by: Engineer

File: 209053/tech/CCEX 10-1

SUBSURFACE LOG - DIRECT PUSH

(Page 1 of 1)

Castle Cleaners
221 Hoffman Street
Elmira, New York

Boring No.: CCEX 10-2
Project No.: 209053
Date Started: 07/06/10
Date Completed: 07/06/10

Depth (ft)	Sample No.	Recovery (ft)	PID Reading (ppm)	Analysis	DESCRIPTION	REMARKS
0					Brown fine-coarse SAND and GRAVEL, Some Silt, moist	
1	2.1	2.4, -	8260		No Recovery, 2.0' - 4.0'	
4					similar, little to Some Silt, moist	
2	2.2	1.5, 1.8	8260			
8					similar, wet	
3	1.8	2.0, 1.3	8260/TCL			Water first encountered at 11.8'. Upon completion, water level at 10.4'. Backfilled with Bentonite Chips. Asphalt patch at surface.
12					saturated at 11.8'	Drove mill slot to 12.5', sampled water.
BORING TERMINATED AT 12.5'						
16						

Visually Classified by: Engineer

File: 209053/tech/CCEX 10-2

SUBSURFACE LOG - DIRECT PUSH

(Page 1 of 2)

Castle Cleaners
221 Hoffman Street
Elmira, New York

Boring No.: CCEX 10-3
Project No.: 209053
Date Started: 07/06/10
Date Completed: 07/06/10

Depth (ft)	Sample No.	Recovery (ft)	PID Reading (ppm)	Analysis	DESCRIPTION	REMARKS
0					Brown fine-coarse SAND and GRAVEL, Some Silt, moist	
1	2.6	1.4, 1.4	8260B		Brown fine SAND and SILT, trace gravel, moist	
4					similar, moist	
2	2.9	2.1, 1.7	8260/TCL/MS/MSD		Brown fine-coarse SAND and GRAVEL, Some Silt	
8					similar, wet	
3	2.6	1.0, 1.4	8260B			
12					Brown fine-medium SAND, little to Some Silt, trace gravel, saturated	
4	0.4	1.1	-		Brown fine-coarse SAND and GRAVEL, Some Silt, saturated	
16					No Recovery, gravel in end of shoe	
5	0	-	-			
20					similar, saturated	
6	0.2	-	-			
24					Brown fine-coarse GRAVEL, little to Some Silt and fine Sand, saturated	
7	0.4	1.7	-			

Visually Classified by: Engineer

File: 209053/tech/CCEX 10-3

SUBSURFACE LOG - DIRECT PUSH

(Page 2 of 2)

Castle Cleaners
221 Hoffman Street
Elmira, New York

Boring No.: CCEX 10-3
Project No.: 209053
Date Started: 07/06/10
Date Completed: 07/06/10

Depth (ft)	Sample No.	Recovery (ft)	PID Reading (ppm)	Analysis	DESCRIPTION	REMARKS
26	7	0.4	1.7	-	No Recovery, similar, gravel in shoe	
30	8	0	-	-	No Recovery, similar, gravel in shoe	
34	9	0	-	-		Water first encountered at 11.0'.
38	10	1.9	16.7	-	Brown fine-coarse GRAVEL, little fine-coarse sand, little silt, saturated	Upon completion, water level at 10.5'.
42	11	2.3	0.9	-	similar	Backfilled with Bentonite Chips.
						Asphalt patch at surface.
						Caved at 14.5'
						Deployed mill slot for water samples at: 10.0' - 14.0' 20.0' - 24.0' 28.0' - 32.0' 39.0' - 42.0'
					Brown Gray fine-coarse SAND, GRAVEL and SILT, wet	
					BORING TERMINATED AT 44.0'	
46						
50						

Visually Classified by: Engineer

File: 209053/tech/CCEX 10-3

SUBSURFACE LOG - DIRECT PUSH

(Page 1 of 1)

Castle Cleaners
221 Hoffman Street
Elmira, New York

Boring No: : CCEX 10-4
Project No.: : 209053
Date Started: : 07/08/10
Date Completed: : 07/08/10

Depth (ft)	Sample No.	Recovery (ft)	PID Reading (ppm)	Analysis	DESCRIPTION	REMARKS
0					Brown fine-coarse SAND and GRAVEL, little to Some Silt, moist	
1	1	1.3	1.4,2.5	-		
4					similar, Some Black material (Ash), wet	
2	2	2.4	1.8,1.0	-		
8					Brown fine-coarse SAND, GRAVEL and SILT, Some Black material (Ash / Coal), wet	
3	3	2.0	1.4,33.8	-		
12					Brown fine-coarse SAND and GRAVEL, little to Some Silt, wet	
					saturated at 11.0'	Water first encountered at 11.0'. Upon completion, water level at 10.5'. Backfilled with Bentonite Chips. Asphalt patch at surface. Deployed SP-15 from 10.0' - 14.0' for water sample.
					BORING TERMINATED AT 14.0'	
16						

Visually Classified by: Engineer

File: 209053/tech/CCEX 10-4



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SUBSURFACE LOG - DIRECT PUSH

(Page 1 of 1)

Castle Cleaners
221 Hoffman Street
Elmira, New York

Boring No.: CCIN 10-1
Project No.: 209053
Date Started: 07/08/10
Date Completed: 07/08/10

Depth (ft)	Sample No.	Recovery (ft)	PID Reading (ppm)	Analysis	DESCRIPTION	REMARKS
0					Concrete floor 0.5' - 1.0' void	
1	2.3	1.6,2.2	8260B		FILL(?): Brown fine-coarse SAND and GRAVEL, little silt, moist	
4					similar, moist	
2	2.2	2.5,1.6	8260B/TCL/MS/MSD		Brown SILT and fine SAND, Some fine-coarse Gravel, coal, ash, wood, moist wet at 7.0'	
8					Brown fine-coarse SAND and GRAVEL, little to Some Silt, wet	Water first encountered at 11.5'. Upon completion, water level at 11.7'. Backfilled with Bentonite Chips. Concrete patch at surface. Caved at 6.0'. Drove mill slot to 13.0', sampled internal water from 11.0' - 13.0'.
3	1.9	1.9,2.2	8260B		saturated at 11.5'	
12						
BORING TERMINATED AT 13.0'						
16						

Visually Classified by: Engineer

File: 209053/tech/CCIN 10-1



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SUBSURFACE LOG - DIRECT PUSH

(Page 1 of 1)

Castle Cleaners
221 Hoffman Street
Elmira, New York

Boring No: : CCIN 10-2
Project No.: : 209053
Date Started: : 07/08/10
Date Completed: : 07/08/10

Depth (ft)	Sample No.	Recovery (ft)	PID Reading (ppm)	DESCRIPTION	REMARKS
0				Concrete Floor 0.4' Obstruction at 0.9'	
BORING TERMINATED AT 1.1' - EQUIPMENT REFUSAL					
Visually Classified by: S. Cummins					
File: 209053/tech/CCIN 10-2					



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SUBSURFACE LOG - DIRECT PUSH

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Castle Cleaners
221 Hoffman Street
Elmira, New York

Boring No.: CCIN 10-3
Project No.: 209053
Date Started: 07/09/10
Date Completed: 07/09/10

Depth (ft)	Sample No.	Recovery (ft)	PID Reading (ppm)	Analysis	DESCRIPTION	REMARKS
0					Concrete floor 0.5'	
1	1	3.1	1.7,2.5	8260B	Brown fine-coarse SAND and GRAVEL, little silt, moist	
4					similar, little to Some Silt, moist	
2	2	1.1	2.5,2.3	8260B/TCL	Weathered Concrete, coal and ash in shoe	No free water observed. Backfilled with Bentonite Chips. Concrete patch at surface.
8					Refusal at 7.5'	
12						
16						

Visually Classified by: Engineer

File: 209053/tech/CCIN 10-3



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SUBSURFACE LOG - DIRECT PUSH

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Castle Cleaners
221 Hoffman Street
Elmira, New York

Boring No.: CCIN 10-4
Project No.: 209053
Date Started: 07/09/10
Date Completed: 07/09/10

Depth (ft)	Sample No.	Recovery (ft)	PID Reading (ppm)	Analysis	DESCRIPTION	REMARKS
0					Concrete floor 0.5'	
1	1	1.8	2.3	-	Brown fine-coarse SAND and GRAVEL, little silt, moist	
4					similar, moist	
2	2	2.1	1.7,2.1	-		No free water observed.
3	3	0.3	1.5	-	Black ASH and COAL, little fine-coarse sand and gravel, moist, concrete in end of shoe	Backfilled with Bentonite Chips.
8					Refusal at 7.5'	Concrete patch at surface.
12						
16						

Visually Classified by: Engineer

File: 209053/tech/CCIN 10-4



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SUBSURFACE LOG - DIRECT PUSH

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Castle Cleaners
221 Hoffman Street
Elmira, New York

Boring No.: CCIN 10-5
Project No.: 209053
Date Started: 07/08/10
Date Completed: 07/08/10

Depth (ft)	Sample No.	Recovery (ft)	PID Reading (ppm)	Analysis	DESCRIPTION	REMARKS
0					Concrete floor 0.4' 11" void under concrete slab	
1	2.1	2.2,2.5	8260B/TCL		Brown fine-coarse SAND and GRAVEL, little silt, moist similar, coal and ash	
4	2	2.3	2.1,2.3	8260B		No free water observed. Backfilled with Bentonite Chips. Concrete patch at surface.
8					Refusal at 7.8'	
12						
16						

Visually Classified by: Engineer

File: 209053/tech/CCIN 10-5

SUBSURFACE LOG - DIRECT PUSH

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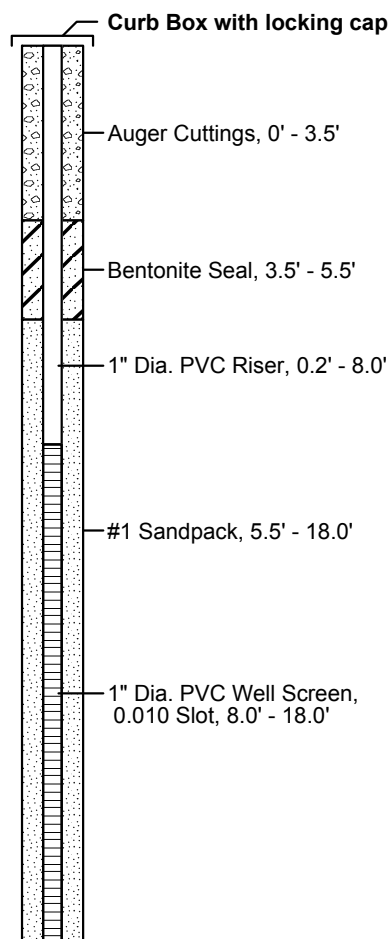
Castle Fast Dry Cleaners

221 Hoffman Street

Elmira, New York

Boring No.: GW-1S
Project No.: 209053
Date Started: 11/03/10
Date Completed: 11/03/10

Depth (ft)	Sample No.	Recovery (ft)	PID Reading (ppm)	DESCRIPTION
0				Brown fine-coarse SAND and SILT, coal, little fine-coarse gravel, moist
1	1.3	0.4		Brown fine-coarse SAND and GRAVEL, Some Silt, moist
4				
2	3.2	0.2		
8				similar, saturated
3	3.3	0.5		
12				similar, saturated
4	1.4	0.7		
16				similar, saturated
5	1.5	0.6		
20				similar, saturated
6	0.8	0.7		
24				



Visually Classified by: Engineer

File: 209053/tech/GW-1S

SUBSURFACE LOG - DIRECT PUSH

(Page 2 of 2)

Castle Fast Dry Cleaners

221 Hoffman Street

Elmira, New York

Boring No.: GW-1S
 Project No.: 209053
 Date Started: 11/03/10
 Date Completed: 11/03/10

Depth (ft)	Sample No.	Recovery (ft)	PID Reading (ppm)	DESCRIPTION
24				No Recovery
7	0	0.2		
28				Gray SILT and CLAY, saturated
8	1.8	0.3		
32				Gray fine SAND, Some Silt, trace fine gravel, saturated
9	2.0	0.4		
36				Gray SILT, trace fine sand, saturated
10	0.4	0.4		
36				similar, fine sand lenses, saturated
11	2.0	0.3		
40				similar, saturated
12	3.0	0.3		
				Sampler Refusal at 43.0'
44				BORING TERMINATED AT 44.0'
48				

— Water first encountered at 12.0'.

— Advanced SP-15 groundwater sampler to 44.0', screened interval 40.0' - 44.0', collected water sample.

Visually Classified by: Engineer

File: 209053/tech/GW-1S

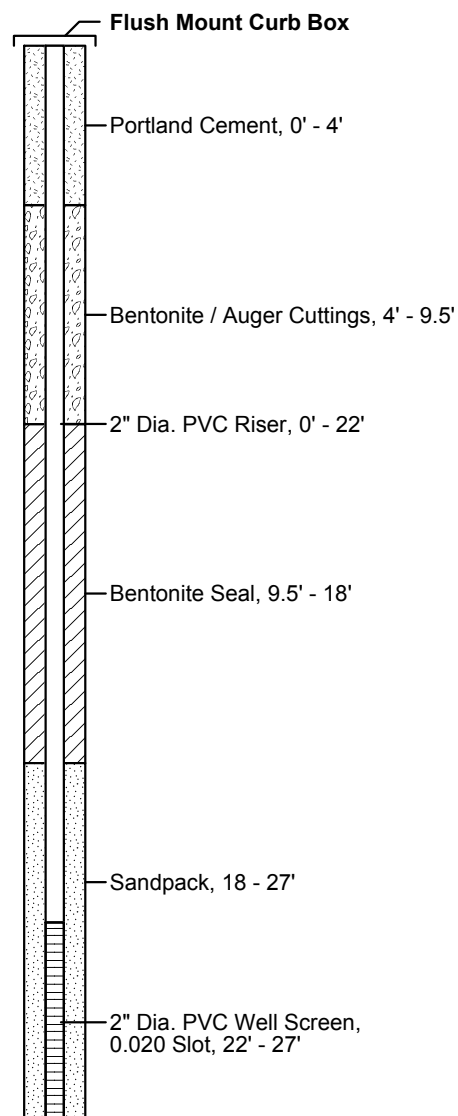
SUBSURFACE LOG

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Castle Cleaners
221 Hoffman Street
Elmira, New York

Boring No.: GW-1D
Project No.: 209053
Date Started: 11/29/11
Date Completed: 11/29/11

Depth (ft)	Sample No.	Blow Count	N-Value	Recovery (ft)	PID Reading (ppm)	DESCRIPTION
0						
2						
4						
6						
8						
10						
12						
14						
16						
18						
20						
22						
24	1	32 21 12 7	33	1.5	0.8	Brown coarse-fine SAND and GRAVEL, little silt, saturated
26	2	7 8 9 8	17	1.8	0	Gray SILT, coarse-fine SAND and GRAVEL with zone of SILT, Some fine Sand, saturated
28						BORING TERMINATED AT 28.0'
30						



Sampling Method: ASTM D-1586, unless otherwise noted.

Notes: 4 1/4" ID Hollow Stem Augers

Visually Classified by: S. Cummins

File: 209053/tech/GW-1D

SUBSURFACE LOG - DIRECT PUSH

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Castle Cleaners
221 Hoffman Street
Elmira, New York

Boring No.: GW-2 (Boring)
Project No.: 209053
Date Started: 04/28/11
Date Completed: 04/28/11

Depth (ft)	Sample No.	Recovery (ft)	PID Reading (ppm)	DESCRIPTION	REMARKS
0				Grass at surface Topsoil 0.3'	Well depth 16.7'.
1	0.9	0		Gray Brown coarse-fine SAND, GRAVEL and Clayey SILT, moist	
4				Brown Gray Clayey SILT, little sand and gravel, moist	
2	2.9	0		Brown coarse-fine SAND, GRAVEL and SILT, moist	
8				Brown coarse-fine SAND and GRAVEL, Some Silt, saturated	
3	3.6	0			
12				similar	
4	3.2	0			
16				Gray zone similar	
5	2.7	0			
20				similar	Water level at 12.6'. Caved at 7.5'.
6	2.2	-		Gray	
24				Brown Gray coarse-fine SAND and GRAVEL, Some to little silt, saturated	
7	1.9	-			
28				Gray coarse-fine SAND, GRAVEL and SILT, saturated	
8	3.5	-		Brown fine SAND, little to Some Silt with fine SAND and SILT seams, saturated	
32				Gray fine SAND and SILT, saturated, with seams Gray fine SAND, little silt, saturated	
9	3.7	-			
36				Gray SILT, saturated	
10	4.0	-			
40	BORING TERMINATED AT 40.0'				

Visually Classified by: S. Cummins

File: 209053/tech/GW-2 (Boring)



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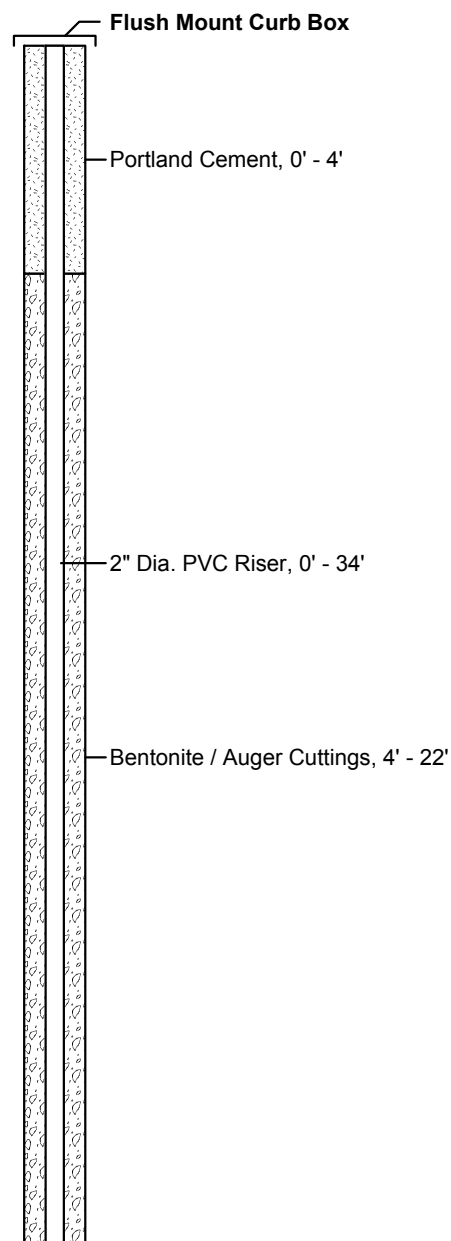
SUBSURFACE LOG

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Castle Cleaners
221 Hoffman Street
Elmira, New York

Boring No.: GW-8D
Project No.: 209053
Date Started: 11/28/11
Date Completed: 11/28/11

Depth (ft)	Sample No.	Blow Count	N-Value	Recovery (ft)	PID Reading (ppm)	DESCRIPTION
0						
2						
4						
6						
8						
10						
12						
14						
16	1	1 2 1 2	3	2.0	24.7	Brown coarse-fine SAND and GRAVEL, Some Silt, saturated
18	2	10 14 9 10	23	1.9	5.1	
20	3	8 7 5 8	12	0.3	1.7	



Sampling Method: ASTM D-1586, unless otherwise noted.
Notes: 4 1/4" ID Hollow Stem Augers
Visually Classified by: S. Cummins
File: 209053/tech/GW-8D

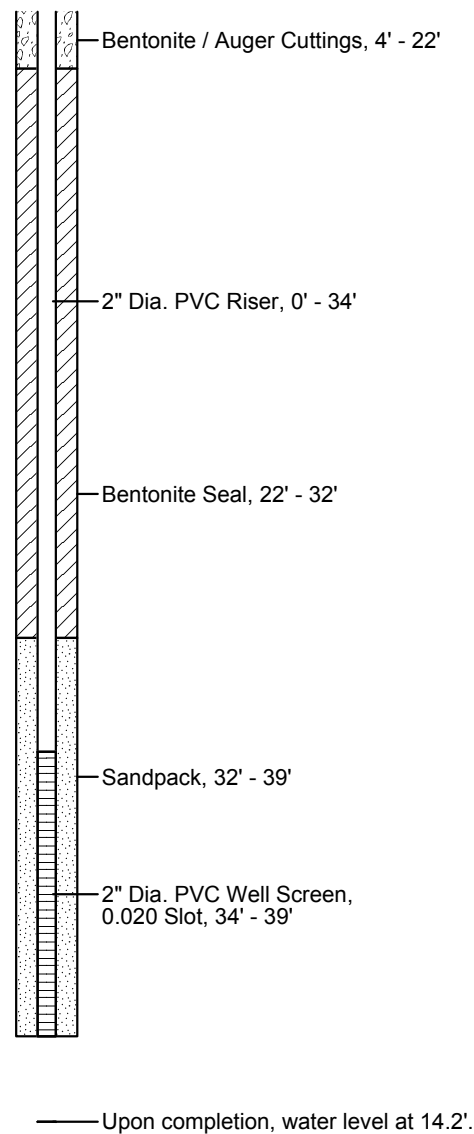
SUBSURFACE LOG

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Castle Cleaners
 221 Hoffman Street
 Elmira, New York

Boring No.: GW-8D
 Project No.: 209053
 Date Started: 11/28/11
 Date Completed: 11/28/11

Depth (ft)	Sample No.	Blow Count	N-Value	Recovery (ft)	PID Reading (ppm)	DESCRIPTION
21		12				
	4	8	17	1.3	1.1	Brown medium-fine SAND, trace silt, saturated
		9				
23		9				Brown coarse-fine SAND and GRAVEL, little silt, saturated
		17				
	5	12	20	1.1	2.6	
		8				
25		6				
	6	20	30	0.7	3.8	Brown medium-fine SAND, Some Gravel, trace silt, saturated
		20				
27		10				similar with little gravel, saturated
		18				
	7	20	26	1.2	3.0	
		14				
29		12				similar with trace gravel, saturated
		12				
	8	9	37	1.4	1.7	
		15				
31		22				
		20				
	9	34	54	2.0	0.6	
		25				
33		22				Brown coarse-fine SAND and GRAVEL, little silt, saturated
		19				
	10	18	37	2.0	0.1	Brown medium-fine SAND, trace silt, saturated
		24				
35		WR				Gray Clayey SILT, Some Sand and Gravel, saturated
		2				
	11	8	10	1.9	0	
		12				
37		28				seam of medium-fine SAND, trace silt
		40				
	12	38	78	2.0	0.2	
		30				
39		13				Brown coarse-fine SAND and GRAVEL, little to Some Clayey Silt, saturated
		14				
	13	14	28	-	0	
		12				
41						BORING TERMINATED AT 41.0'



Sampling Method: ASTM D-1586, unless otherwise noted.
 Notes: 4 1/4" ID Hollow Stem Augers
 Visually Classified by: S. Cummins
 File: 209053/tech/GW-8D



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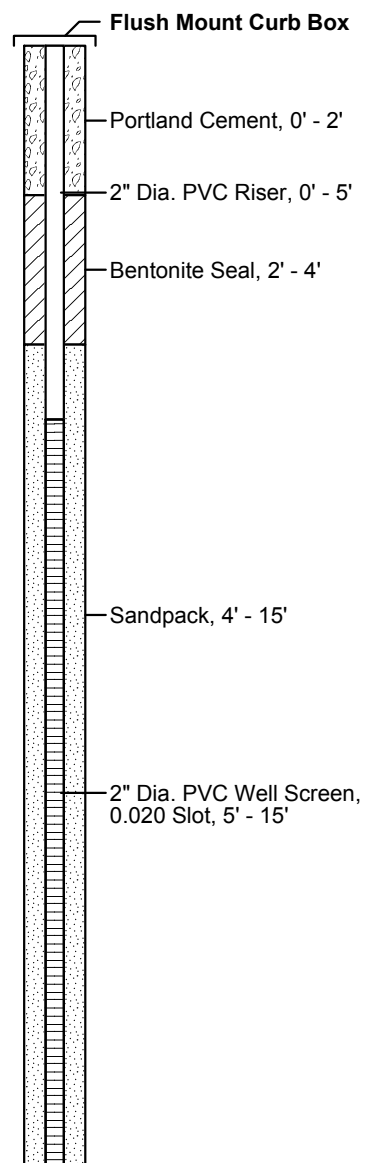
SUBSURFACE LOG

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Castle Cleaners
221 Hoffman Street
Elmira, New York

Boring No.: GW-12S
Project No.: 209053
Date Started: 12/01/12
Date Completed: 12/01/12

Depth (ft)	Sample No.	Blow Count	N-Value	Recovery (ft)	PID Reading (ppm)	DESCRIPTION
0						Augered to 24.0'
2						No Soil Samples obtained.
4						
6						
8						
10						
12						
14						
16						BORING TERMINATED AT 15.0'



Sampling Method: ASTM D-1586, unless otherwise noted.
Notes: 4 1/4" ID Hollow Stem Augers
Visually Classified by: S. Cummins
File: 209053/tech/GW-12S

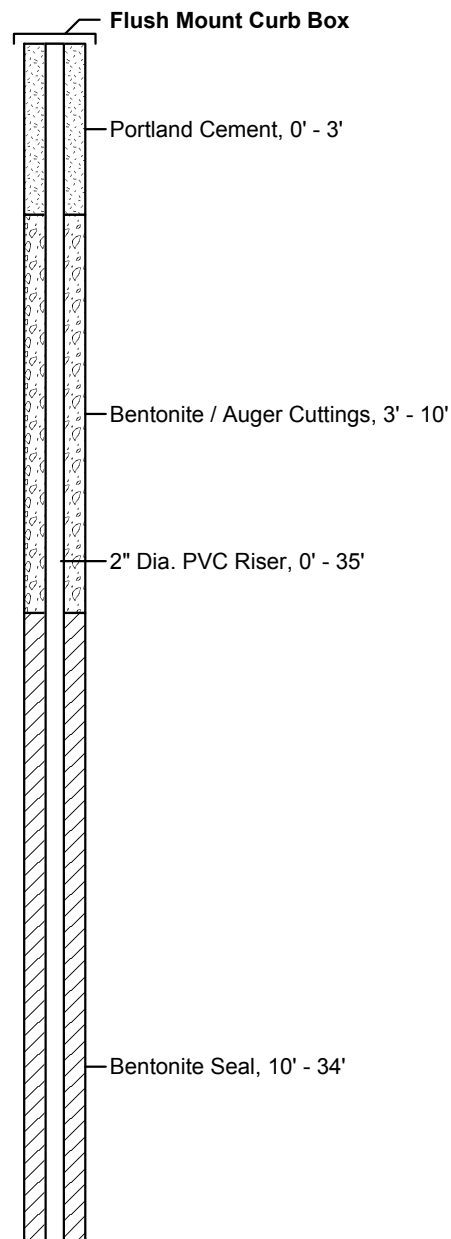
SUBSURFACE LOG

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Castle Cleaners
 221 Hoffman Street
 Elmira, New York

Boring No.: GW-12D
 Project No.: 209053
 Date Started: 11/30/11
 Date Completed: 11/30/11

Depth (ft)	Sample No.	Blow Count	N-Value	Recovery (ft)	PID Reading (ppm)	DESCRIPTION
0		1				Brown coarse-fine SAND and GRAVEL, Some Silt, moist
1	1	2	3	0.5	0	
2	2	3				
2	2	8	15	0.1	0	becomes wet
3	3	7				
4	4	8				
4	4	10	19	0.7	0	saturated at 10'
5	5	11				
6	6	8	17	1.1	0	
6	6	9				
7	7	7				
8	8	10	16	0.8	0	
10	10	13	7	0.6	0.1	
12	12	4	6	0.5	0	
14	14	4				
14	14	2	4	1.8	0.2	
16	16	3				
16	16	3	6	1.8	0	
18	18	3				
18	18	3	7	0.8	0	
20	20	3				
20	20	2	6	0.7	0	
		3				



Sampling Method: ASTM D-1586, unless otherwise noted.
 Notes: 4 1/4" ID Hollow Stem Augers
 Visually Classified by: S. Cummins
 File: 209053/tech/GW-12D

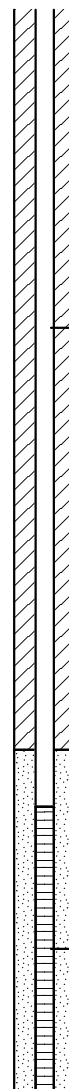
SUBSURFACE LOG

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Castle Cleaners
221 Hoffman Street
Elmira, New York

Boring No.: GW-12D
Project No.: 209053
Date Started: 11/30/11
Date Completed: 11/30/11

Depth (ft)	Sample No.	Blow Count	N-Value	Recovery (ft)	PID Reading (ppm)	DESCRIPTION
21	11	3 4	6	0.7	0	Brown coarse-fine SAND and GRAVEL, Some Silt, saturated
23	12	6 7 7 11	14	1.1	0.2	
25	13	26 9 16 7	25	1.3	0	
27	14	15 7 6 7	13	0.9	0	grades with little silt, saturated
29	15	10 14 20 20	34	1.4	0	
31	16	22 20 18 18	38	0.6	0.9	
33	17	12 10 10 12	20	0.8	0.6	
35	18	13 8 10 20	18	0.2	0	grades with Some Silt, saturated
37	19	17 18 19 26	37	1.2	0	similar with zones of Brown SILT, saturated
39	20	42 22 60 20	82	0.9	0	
BORING TERMINATED AT 40.0'						
41						



2" Dia. PVC Riser, 0' - 35'

Bentonite Seal, 10' - 34'

Sandpack, 34' - 40'

2" Dia. PVC Well Screen,
0.020 Slot, 35' - 40'

— With augers at 14', water level at 12.2'

Sampling Method: ASTM D-1586, unless otherwise noted.

Notes: 4 1/4" ID Hollow Stem Augers

Visually Classified by: S. Cummins

File: 209053/tech/GW-12D

SUBSURFACE LOG - DIRECT PUSH

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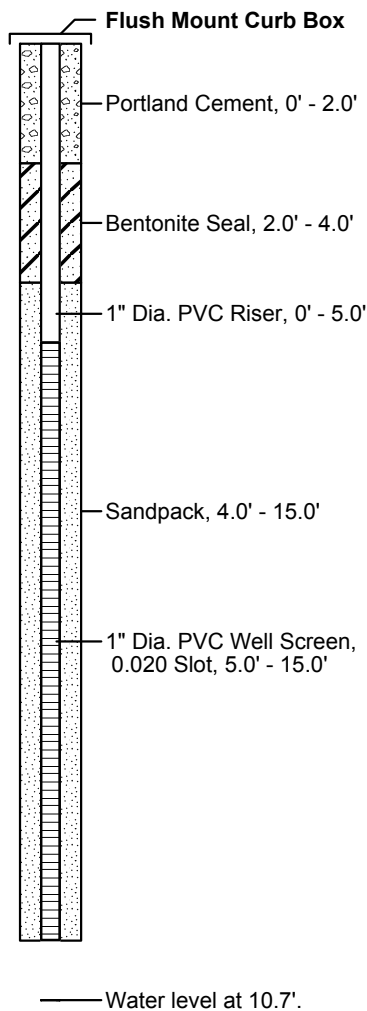
Castle Fast Dry Cleaners

221 Hoffman Street

Elmira, New York

Boring No.: GW-13S
 Project No.: 209053
 Date Started: 12/01/11
 Date Completed: 12/01/11

Depth (ft)	Sample No.	Recovery (ft)	PID Reading (ppm)	DESCRIPTION
0				2" Asphalt, 6" Concrete
1	2.1	0.2		Brown coarse-fine SAND and GRAVEL, little silt, moist
4				grades with Some Silt, moist
2	1.9	1.0		
8				similar, wet
3	0.9	0		
12				similar, saturated
4	3.2	0		
16				BORING TERMINATED AT 16.0'
20				



Visually Classified by: S. Cummins

File: 209053/tech/GW-13S

SUBSURFACE LOG - DIRECT PUSH

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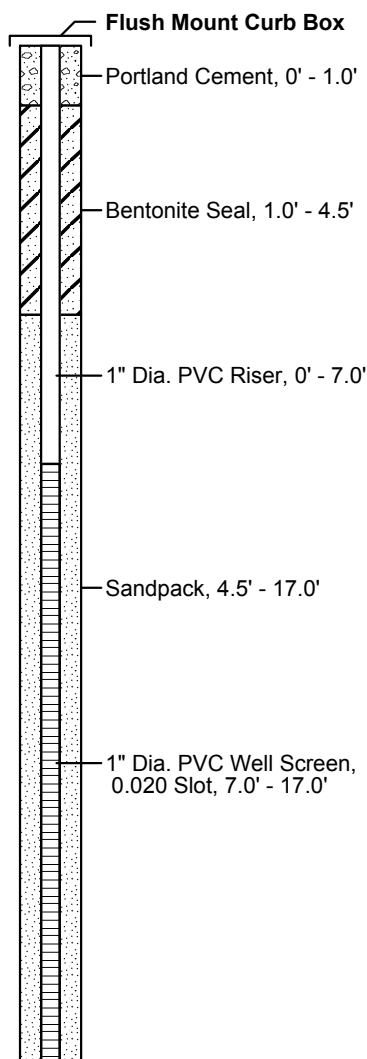
Castle Fast Dry Cleaners

221 Hoffman Street

Elmira, New York

Boring No.: GW-14S
 Project No.: 209053
 Date Started: 12/02/11
 Date Completed: 12/02/11

Depth (ft)	Sample No.	Recovery (ft)	PID Reading (ppm)	DESCRIPTION
0				Brown coarse-fine SAND and GRAVEL, Some Silt, wet
1	2.3	0.1		
4				
2	2.1	0		grades with little silt, wet
8				
3	-	0.4		
12				saturated at 12.0'
4	-	0.3		
16				
BORING TERMINATED AT 17.0'				
20				



Visually Classified by: S. Cummins

File: 209053/tech/GW-14S

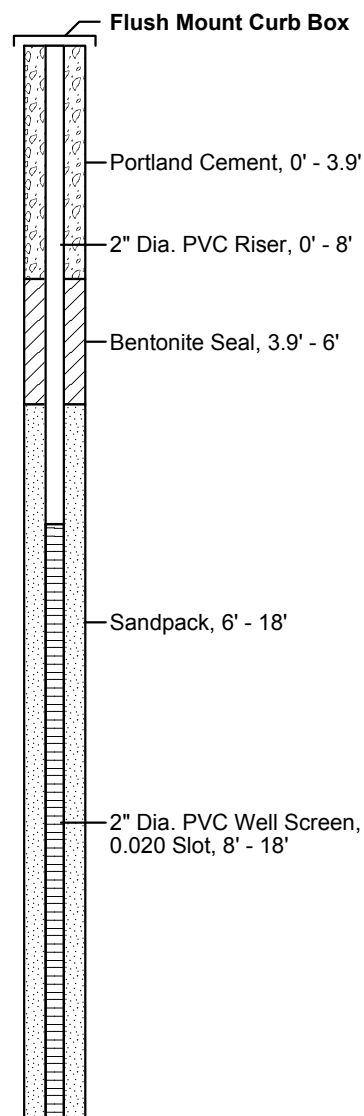
SUBSURFACE LOG

(Page 1 of 1)

Castle Cleaners
221 Hoffman Street
Elmira, New York

Boring No.: GW-15S
Project No.: 209053
Date Started: 11/17/11
Date Completed: 11/17/11

Depth (ft)	Sample No.	Blow Count	N-Value	Recovery (ft)	PID Reading (ppm)	DESCRIPTION
0						Augered to 18.0'
2						No Soil Samples obtained.
4						
6						
8						
10						
12						
14						
16						
18						BORING TERMINATED AT 18.0'
20						



Sampling Method: ASTM D-1586, unless otherwise noted.
Notes: 4 1/4" ID Hollow Stem Augers
Visually Classified by: S. Cummins
File: 209053/tech/GW-15S

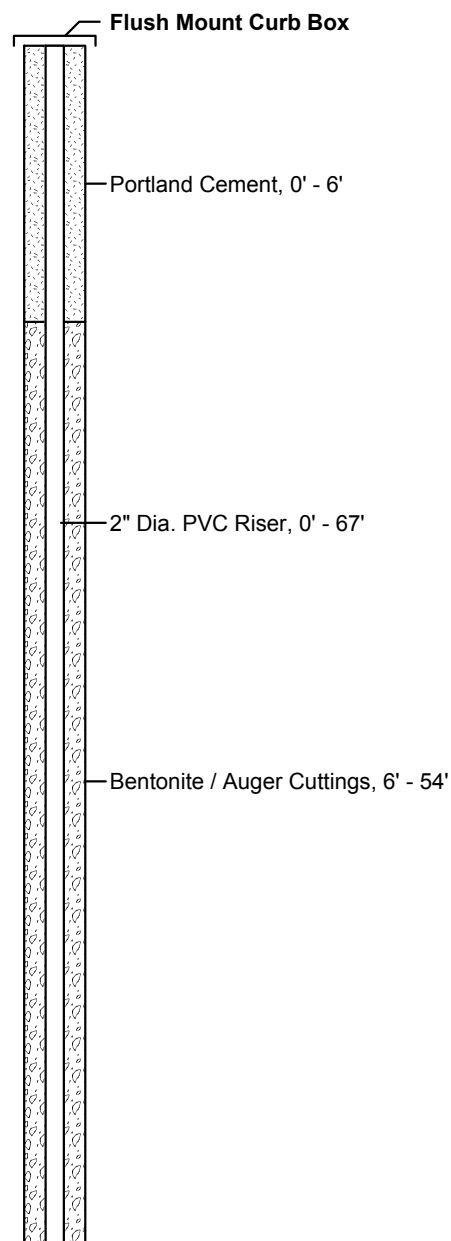
SUBSURFACE LOG

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Castle Cleaners
221 Hoffman Street
Elmira, New York

Boring No.: GW-15D
Project No.: 209053
Date Started: 11/14/11
Date Completed: 11/14/11

Depth (ft)	Sample No.	Blow Count	N-Value	Recovery (ft)	PID Reading (ppm)	DESCRIPTION
0	1	3	4	0.9	0	Brown coarse-fine SAND, GRAVEL and SILT, brick ash, damp
2	2	6	19	0.8	0	
4	3	9	15	1.6	0.5	Brown coarse-fine SAND and GRAVEL, Some Silt, damp
6	4	7	15	0.3	1.1	
8	5	9	18	1.0	0.5	
10	6	14	24	1.2	1.4	
12	7	5	10	0.1	0.2	similar, saturated
14	8	3	5	1.1	0.2	
16	9	3	7	1.2	0	
18	10	6	6	1.5	0	
20	11	9	24	1.3	0.5	
22	12	35	-	0.7	0.5	Cobbles
24	13	7	26	1.1	0.7	
26		14				



Sampling Method: ASTM D-1586, unless otherwise noted.
Notes: 4 1/4" ID Hollow Stem Augers
Visually Classified by: S. Cummins
File: 209053/tech/GW-15D

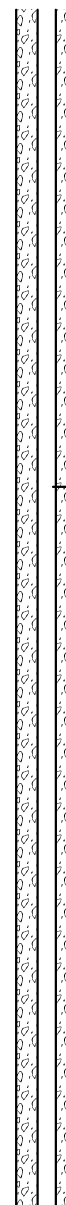
SUBSURFACE LOG

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Castle Cleaners
221 Hoffman Street
Elmira, New York

Boring No.: GW-15D
Project No.: 209053
Date Started: 11/14/11
Date Completed: 11/14/11

Depth (ft)	Sample No.	Blow Count	N-Value	Recovery (ft)	PID Reading (ppm)	DESCRIPTION
26	14	18 13 13	26	1.4	2.3	Brown coarse-fine SAND, GRAVEL and SILT, saturated
28	15	23 15 16 14	31	1.7	1.0	
30	16	25 18 32 22	50	0.6	1.3	
32	17	16 17 19 18	36	1.1	4.6	Gray SILT, coarse-fine SAND and GRAVEL, saturated
34	18	2 12 16 23	28	1.2	1.2	
36	19	12 20 25 27	45	1.3	2.9	
38	20	14 25 28 27	53	0.8	0.6	
40	21	29 25 33 23	58	1.1	0.6	
42	22	16 12 16 28	28	0.8	1.9	
44	23	17 31 46 27	77	1.2	1.6	
46	24	37 32 34 41	66	0.8	0.7	
48	25	17 20 22 23	42	0.9	1.9	
50	26	33 30 23 20	53	1.3	0	
52						



2" Dia. PVC Riser, 0' - 67'

Bentonite / Auger Cuttings, 6' - 54'

Sampling Method: ASTM D-1586, unless otherwise noted.
Notes: 4 1/4" ID Hollow Stem Augers
Visually Classified by: S. Cummins
File: 209053/tech/GW-15D

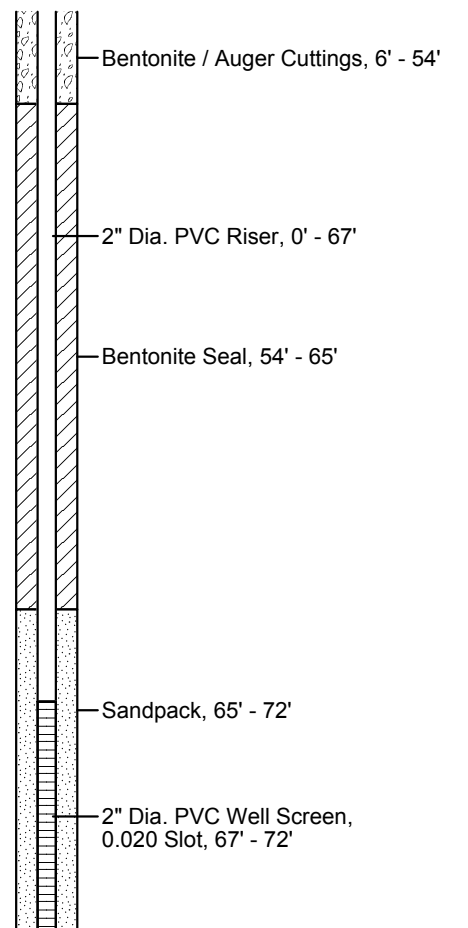
SUBSURFACE LOG

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Castle Cleaners
 221 Hoffman Street
 Elmira, New York

Boring No.: GW-15D
 Project No.: 209053
 Date Started: 11/14/11
 Date Completed: 11/14/11

Depth (ft)	Sample No.	Blow Count	N-Value	Recovery (ft)	PID Reading (ppm)	DESCRIPTION
52	27	17 20 24 19	44	1.9	0.4	Gray SILT, coarse-fine SAND and GRAVEL, saturated
54	28	6 19 30 26	49	1.2	0.9	
56	29	35 32 35 35	67	2.0	0.2	
58	30	43 50/2	-	-	2.5	Cobbles
60						grades with Some Gravel, saturated
62	31	14 57 56 55	113	0.9	-	
64	32	26 25 46 30	71	1.4	1.2	
66	33	25 33 90 49	123	-	1.8	Brown medium-fine SAND and GRAVEL, little silt, saturated
68	34	57 73 90 100/2	153	-	1.2	Gray coarse-fine SAND and GRAVEL, Some Silt, saturated
70	35	50/3	-	0.6	0.8	Dark Gray SILT, coarse-fine SAND and GRAVEL, saturated
72	36	50/2	-	0.4	2.5	similar with weathered Shale fragments, saturated
BORING TERMINATED AT 72.0'						
74						
76						
78						



— With augers at 15', water level at 13'.

Sampling Method: ASTM D-1586, unless otherwise noted.
 Notes: 4 1/4" ID Hollow Stem Augers
 Visually Classified by: S. Cummins
 File: 209053/tech/GW-15D

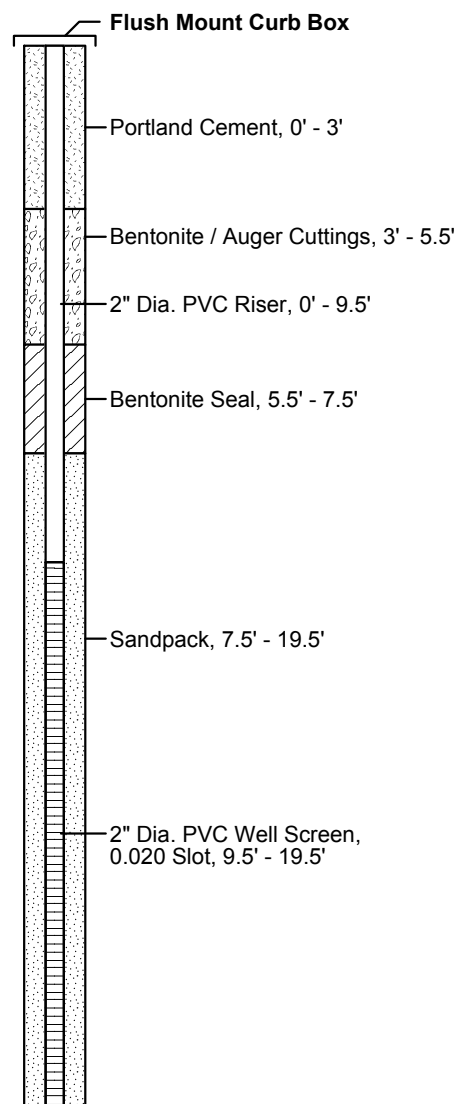
SUBSURFACE LOG

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Castle Cleaners
221 Hoffman Street
Elmira, New York

Boring No.: GW-16S
Project No.: 209053
Date Started: 11/18/11
Date Completed: 11/18/11

Depth (ft)	Sample No.	Blow Count	N-Value	Recovery (ft)	PID Reading (ppm)	DESCRIPTION
0						Augered to 19.8'
2						No Soil Samples obtained.
4						
6						
8						
10						
12						
14						
16						
18						
20						BORING TERMINATED AT 19.8'
22						



Sampling Method: ASTM D-1586, unless otherwise noted.
Notes: 4 1/4" ID Hollow Stem Augers
Visually Classified by: S. Cummins
File: 209053/tech/GW-16S

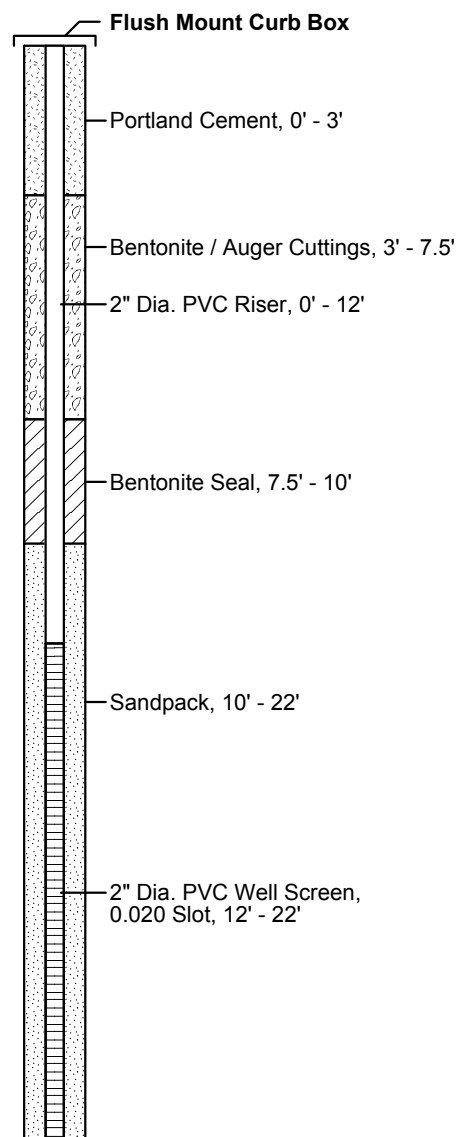
SUBSURFACE LOG

(Page 1 of 1)

Castle Cleaners
221 Hoffman Street
Elmira, New York

Boring No.: GW-17S
Project No.: 209053
Date Started: 11/11/11
Date Completed: 11/11/11

Depth (ft)	Sample No.	Blow Count	N-Value	Recovery (ft)	PID Reading (ppm)	DESCRIPTION
0						Augered to 23.0'
2						No Soil Samples obtained.
4						
6						
8						
10						
12						
14						
16						
18						
20						
22						
24						BORING TERMINATED AT 23.0'



Sampling Method: ASTM D-1586, unless otherwise noted.
Notes: 4 1/4" ID Hollow Stem Augers
Visually Classified by: S. Cummins
File: 209053/tech/GW-17S

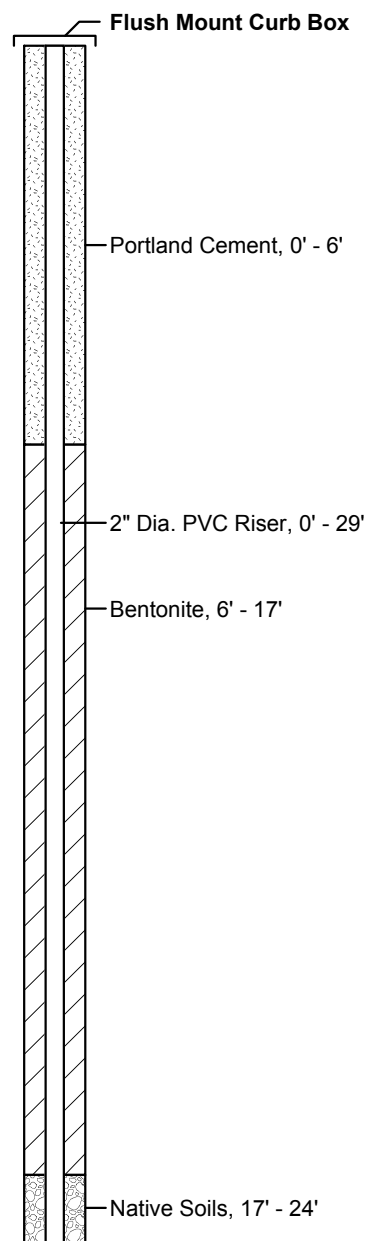
SUBSURFACE LOG

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Castle Cleaners
221 Hoffman Street
Elmira, New York

Boring No.: GW-17D
Project No.: 209053
Date Started: 11/10/11
Date Completed: 11/10/11

Depth (ft)	Sample No.	Blow Count	N-Value	Recovery (ft)	PID Reading (ppm)	DESCRIPTION
0		3				Brown SILT, coarse-fine SAND and GRAVEL, moist
1	1	1	2	0.4	0	
	1	1				
	4					
2		6				Brown coarse-fine SAND and GRAVEL, Some Silt, moist
2	2	6	10	0.9	0	
	4	4				
	5					
4		4				
3	3	5	12	0.4	0.2	
	7					
	19					
6		18				
4	4	26	59	1.4	0.2	
	33					
	37					
8		22				
5	5	33	63	1.5	0.7	
	30					
	33					
10		14				
6	6	27	40	1.0	0.6	
	13					
	11					
12		6				similar, wet
7	7	5	10	0.6	1.5	
	5					
	10					
14		5				similar, saturated
8	8	11	28	0.8	4.5	
	17					
	24					
16		30				
9	9	20	47	1.4	1.5	
	27					
	18					
18						



Sampling Method: ASTM D-1586, unless otherwise noted.

Notes: 4 1/4" ID Hollow Stem Augers

Visually Classified by: S. Cummins

File: 209053/tech/GW-17D

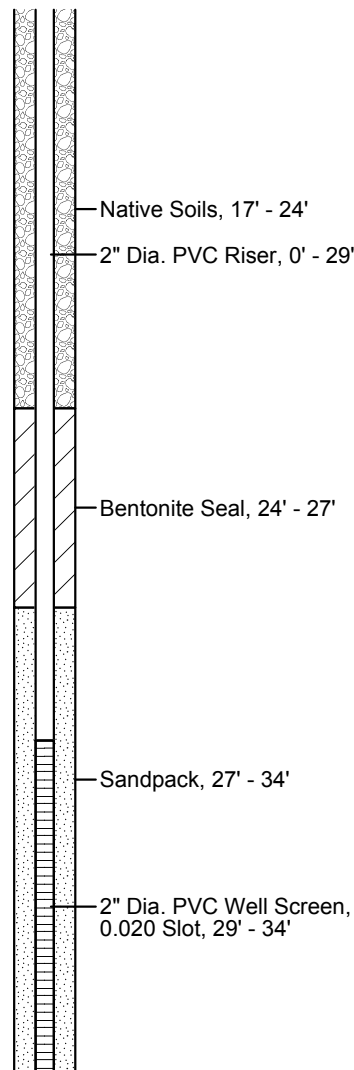
SUBSURFACE LOG

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Castle Cleaners
 221 Hoffman Street
 Elmira, New York

Boring No.: : GW-17D
 Project No.: : 209053
 Date Started: : 11/10/11
 Date Completed: : 11/10/11

Depth (ft)	Sample No.	Blow Count	N-Value	Recovery (ft)	PID Reading (ppm)	DESCRIPTION
18		6				Brown coarse-fine SAND and GRAVEL, Some Silt, saturated
10		9	15	0.5	2.1	
		6				
		3				
20		20				
11		9	14	1.0	0.1	
		5				
		5				
22		4				
12		4	9	0.9	0.4	
		5				
		6				
24		14				
13		14	34	0.9	1.4	
		20				
		15				
26		17				
14		16	28	0.8	2.3	
		12				
		9				
28		4				Brown coarse-fine SAND, little silt, saturated
15		12	34	1.6	2.2	
		22				
		26				
30		31				Brown coarse-fine SAND and GRAVEL, little silt, saturated
16		33	-	1.3	1.2	
		50/4				
32		38				Gray Clayey SILT, little sand, saturated
17		17	25	1.2	0.1	
		8				
		11				
34						BORING TERMINATED AT 34.0'
36						



— With augers at 18', water level at 17.5'.

Sampling Method: ASTM D-1586, unless otherwise noted.
 Notes: 4 1/4" ID Hollow Stem Augers
 Visually Classified by: S. Cummins
 File: 209053/tech/GW-17D

SUBSURFACE LOG

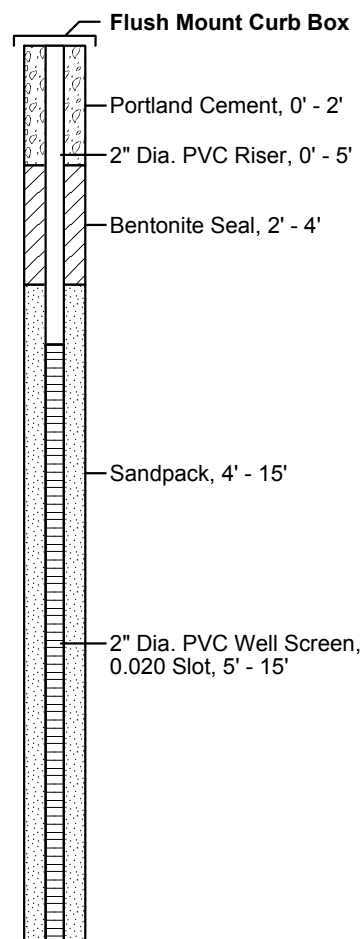
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Castle Cleaners
221 Hoffman Street
Elmira, New York

Boring No.: GW-18S
Project No.: 209053
Date Started: 11/07/11
Date Completed: 11/07/11

Depth (ft)	Sample No.	Blow Count	N-Value	Recovery (ft)	PID Reading (ppm)	DESCRIPTION
0						Augered to 15.0'
2						No Soil Samples obtained.
4						
6						
8						
10						
12						
14						
16						
18						
20						

BORING TERMINATED AT 15.0'



Sampling Method: ASTM D-1586, unless otherwise noted.
Notes: 4 1/4" ID Hollow Stem Augers
Visually Classified by: S. Cummins
File: 209053/tech/GW-18S

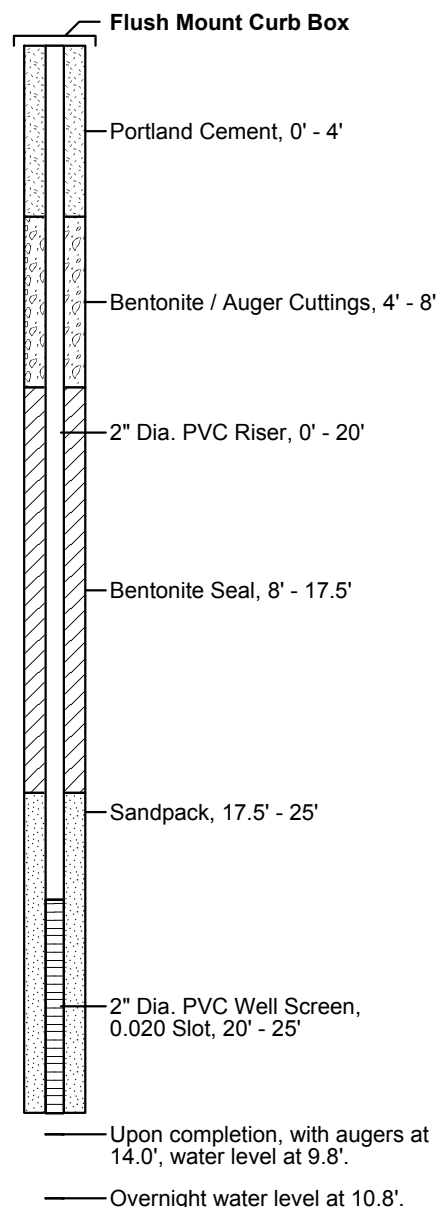
SUBSURFACE LOG

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Castle Cleaners
221 Hoffman Street
Elmira, New York

Boring No.: GW-18D
Project No.: 209053
Date Started: 11/07/11
Date Completed: 11/07/11

Depth (ft)	Sample No.	Blow Count	N-Value	Recovery (ft)	PID Reading (ppm)	DESCRIPTION
0	1	1				6" Ash
1	2	2	4	1.3	0	Brown Clayey SILT and coarse-fine SAND, Some Gravel, damp
2	2	2				
2	4	4	9	1.4	0.1	
4	5	5				
4	3	3	8	1.1	2.4	Brown coarse-fine SAND, GRAVEL and SILT, moist
6	5	5				similar, wet
6	4	4	9	0.9	0.5	
8	5	5				
8	6	6	17	1.1	0.8	
10	7	7				grades with Some Silt, saturated
10	6	6	10	0.1	1.0	
12	2	2				
12	7	5	10	0.4	1.2	
14	2	2				
14	8	4	4	0.3	0.5	
16	1	1				
16	6	6	35	1.0	0.8	
18	24	11				
18	16	16				
18	9	9				
18	10	13	18	1.2	0.3	
20	5	5				
20	4	4				
20	11	6	13	1.4	0.7	Brown fine SAND, Some Silt, saturated
22	7	7				
22	6	6				Brown SILT, saturated
24	6	9	19	1.6	1.1	
24	10	10				
24	12	12				
24	6	6	13	1.3	0.9	
26	7	7				
26	8	8				
26						BORING TERMINATED AT 26.0'
28						



Sampling Method: ASTM D-1586, unless otherwise noted.
Notes: 4 1/4" ID Hollow Stem Augers
Visually Classified by: S. Cummins
File: 209053/tech/GW-18D

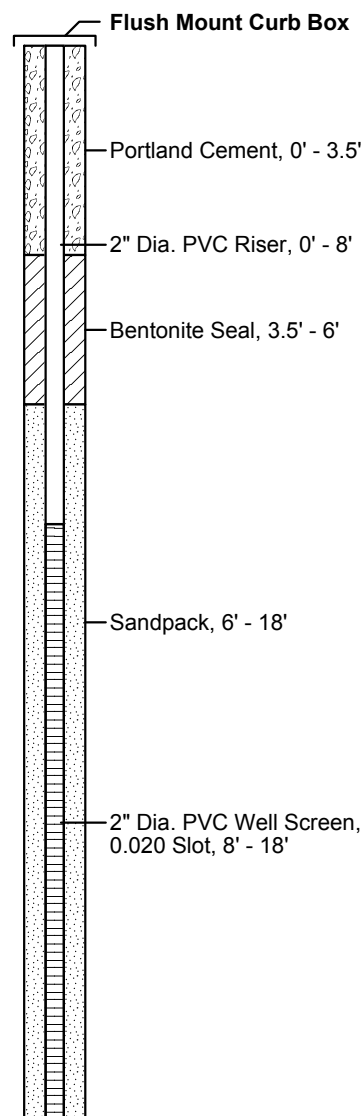
SUBSURFACE LOG

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Castle Cleaners
 221 Hoffman Street
 Elmira, New York

Boring No.: : GW-19S
 Project No.: : 209053
 Date Started: : 11/17/11
 Date Completed: : 11/18/11

Depth (ft)	Sample No.	Blow Count	N-Value	Recovery (ft)	PID Reading (ppm)	DESCRIPTION
0		2				Brown SILT, little sand and gravel, trace ash, wet
1	4	8	0.8	0		
2	11					
2	22	40	0.9	0.4		Cobble
4	18					
4	5					
3	16					
3	8	15	1.4	0		Brown Clayey SILT, little sand, moist
6	7					
6	7					
4	9					
4	14	30	2.0	0.1		
8	16					
8	16					
5	5					
5	8	16	1.3	0.4		Brown coarse-fine SAND and GRAVEL, Some Silt, wet
10	8					
10	12					
6	5	9	0.4	0.8		
12	4					saturated at 12'
12	3					
7	4	8	0.6	0.5		
14	4					
14	3					
8	3	9	1.0	0		
16	6					
16	3					
9	6	17	0.8	0		
18	11					
18	5					
						BORING TERMINATED AT 18.0'
20						



Upon completion, with augers at 14.0', water level at 12.9'.

Sampling Method: ASTM D-1586, unless otherwise noted.
 Notes: 4 1/4" ID Hollow Stem Augers
 Visually Classified by: S. Cummins
 File: 209053/tech/GW-19S

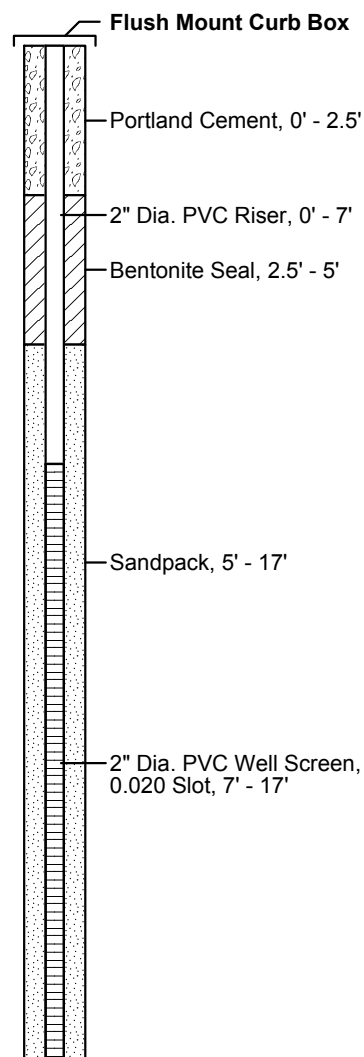
SUBSURFACE LOG

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Castle Cleaners
221 Hoffman Street
Elmira, New York

Boring No.: GW-20S
Project No.: 209053
Date Started: 11/09/11
Date Completed: 11/09/11

Depth (ft)	Sample No.	Blow Count	N-Value	Recovery (ft)	PID Reading (ppm)	DESCRIPTION
0						Augered to 18.0'
2						No Soil Samples obtained.
4						
6						
8						
10						
12						
14						
16						
18						BORING TERMINATED AT 18.0'
20						



Sampling Method: ASTM D-1586, unless otherwise noted.
Notes: 4 1/4" ID Hollow Stem Augers
Visually Classified by: S. Cummins
File: 209053/tech/GW-20S

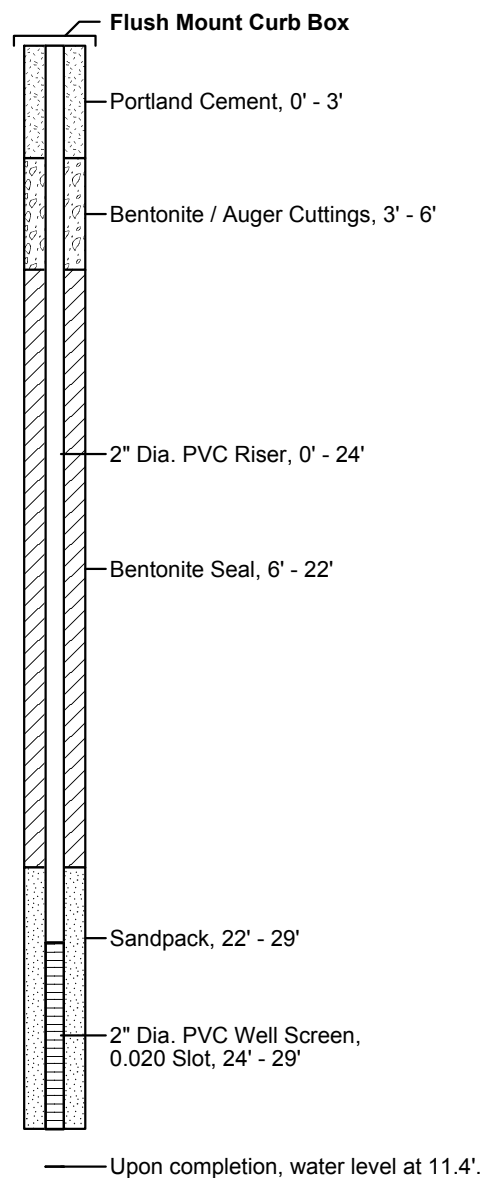
SUBSURFACE LOG

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Castle Cleaners
221 Hoffman Street
Elmira, New York

Boring No.: GW-20D
Project No.: 209053
Date Started: 11/08/11
Date Completed: 11/08/11

Depth (ft)	Sample No.	Blow Count	N-Value	Recovery (ft)	PID Reading (ppm)	DESCRIPTION
0	1	14	9	0.8	0.7	Brown Clayey SILT and coarse-fine SAND, little gravel, moist - wet
2	2	43	5	0.9	0.7	
4	3	57	21	1.4	0.7	Brown coarse-fine SAND and GRAVEL, Some Silt, moist
6	4	225	58	1.3	7.4	
8	5	224	46	1.4	3.4	grades with little silt, saturated
10	6	1110	25	1.0	3.9	
12	7	620	30	0.8	2.1	
14	8	749	70	1.1	4.3	
16	9	1199	18	0.7	1.0	
18	10	750	-	1.4	2.2	
20	11	467	13	1.9	1.7	
22	12	433	6	1.8	1.3	
24	13	565	11	1.6	0.5	
26	14	1696	15	1.9	0	
28	15	1544	8	1.6	0	becomes Gray
30						BORING TERMINATED AT 30.0'
32						



Sampling Method: ASTM D-1586, unless otherwise noted.
Notes: 4 1/4" ID Hollow Stem Augers
Visually Classified by: S. Cummins
File: 209053/tech/GW-20D

SUBSURFACE LOG - DIRECT PUSH

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Castle Fast Dry Cleaners

221 Hoffman Street

Elmira, New York

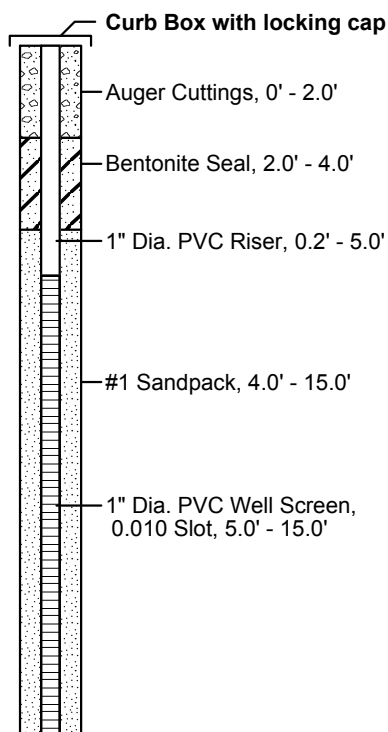
Boring No.: OFDP 10.1

Project No.: 209053

Date Started: 11/04/10

Date Completed: 11/04/10

Depth (ft)	Sample No.	Recovery (ft)	PID Reading (ppm)	DESCRIPTION
0				Possible FILL: Brown fine-coarse SAND and GRAVEL, Some Silt, brick, coal, moist
1	1	1.1	0	
4				Brown fine-coarse SAND and GRAVEL, little silt, moist - wet
2	2	1.1	0.1	
8				similar, wet - saturated
3	3	1.8	0	
12				similar, Some Silt, saturated
4	4	0.6	0	
16				similar, little silt, saturated
5	5	1.8	1.4	
20				similar, saturated
6	6	3.1	0.9	
24				similar, little silt, saturated
7	7	3.2	0	



Visually Classified by: Engineer

File: 209053/tech/ODDP-10.1

SUBSURFACE LOG - DIRECT PUSH

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Castle Fast Dry Cleaners

221 Hoffman Street

Elmira, New York

Boring No.: OFDP 10.1

Project No.: 209053

Date Started: 11/04/10

Date Completed: 11/04/10

Depth (ft)	Sample No.	Recovery (ft)	PID Reading (ppm)	DESCRIPTION
26	7	3.2	0	Brown Clayey SILT and fine SAND, trace gravel, saturated
30	8	0	0	Brown Gray fine-medium SAND, little silt, saturated
34	9	2.0	0	similar, Silt and fine Sand lenses, saturated
38	10	-	0	Gray fine-medium SAND, Some fine-coarse Gravel, little silt, saturated
42	11	-	0	Gray fine-coarse GRAVEL and SAND, little to Some Silt, saturated
46	12	-	0	similar, saturated
50				BORING TERMINATED AT 50.0'

— Water first encountered at 12.5'.

— Caved at 12.0'.

Visually Classified by: Engineer

File: 209053/tech/ODDP-10.1

SUBSURFACE LOG - DIRECT PUSH

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Castle Fast Dry Cleaners

221 Hoffman Street

Elmira, New York

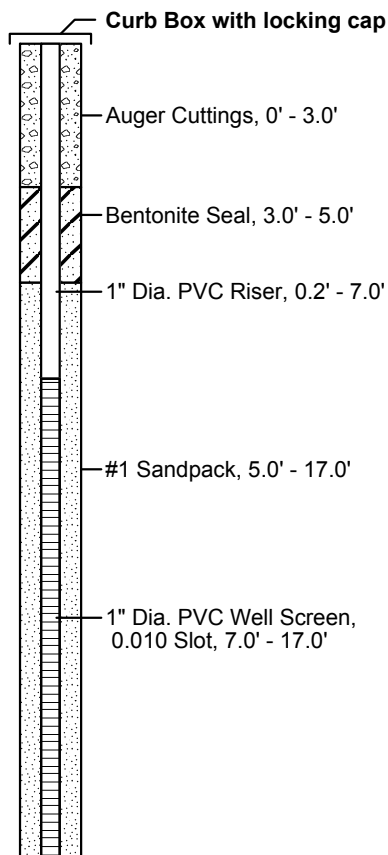
Boring No.: OFDP-10.2

Project No.: 209053

Date Started: 11/05/10

Date Completed: 11/05/10

Depth (ft)	Sample No.	Recovery (ft)	PID Reading (ppm)	DESCRIPTION
0				Possible FILL: Brown fine-coarse SAND and GRAVEL, little to Some Silt, wet
1	1	0.8	0	
4				similar, moist - wet
2	2	1.2	0	
8				Brown fine-coarse SAND and GRAVEL, little to Some Silt, wet
3	3	1.4	0.3	
12				similar, wet
4	4	1.2	0.6	
16				similar, saturated
5	5	0.8	0.6	
20				similar
6	6	0.8	0.6	
24				



Visually Classified by: Engineer

File: 209053/tech/ODDP-10.2

SUBSURFACE LOG - DIRECT PUSH

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Castle Fast Dry Cleaners

221 Hoffman Street

Elmira, New York

Boring No.: OFDP-10.2

Project No.: 209053

Date Started: 11/05/10

Date Completed: 11/05/10

Depth (ft)	Sample No.	Recovery (ft)	PID Reading (ppm)	DESCRIPTION
25				Brown fine-coarse SAND and GRAVEL, little silt, saturated
7	2.8	0		
29				similar, saturated
8	2.3	0		
33				similar
9	2.9	0		
37				Gray fine-medium SAND, Some Gravel, little silt, saturated
10	3.1	0		Gray varved SILT and CLAY with fine Sand lenses, saturated
41				BORING TERMINATED AT 43.0'
45				
49				

— Water first encountered at 12.0'.

— Upon completion, water level at 12.0'.

Visually Classified by: Engineer

File: 209053/tech/ODDP-10.2

SUBSURFACE LOG - DIRECT PUSH

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Castle Cleaners
221 Hoffman Street
Elmira, New York

Boring No.: OFDP 10.3
Project No.: 209053
Date Started: 11/08/10
Date Completed: 11/08/10

Depth (ft)	Sample No.	Recovery (ft)	PID Reading (ppm)	DESCRIPTION	REMARKS
0				Asphalt 0.5'	
1	1	1.4	0.5	Brown fine-coarse SAND and GRAVEL, little to Some Silt, concrete, coal, moist - wet	
4				Brown fine-coarse SAND and GRAVEL, little silt, wet	
2	2	1.6	0.2		
8				similar, little to Some Silt, saturated	
3	3	1.7	0.5		
12				similar, saturated	
4	4	1.6	0.8		
16				similar	
5	5	1.4	1.8		
20					
24				Brown fine SAND and SILT with fine-medium Sand lenses, saturated	
6	6	3.6	2.3		
28				Gray fine SAND, Some Silt, saturated	
7	7	4.0	0.9		
32				Gray fine-coarse SAND, GRAVEL and SILT, wet	
8	8	-	0.2		
36				Gray SILT and fine SAND, saturated	Water first encountered at 8.0'.
9	9	-	0.2		Upon completion, water level at 14.3'.
40				Gray SILT, saturated	
BORING TERMINATED AT 41.0'					

Visually Classified by: Engineer

File: 209053/tech/OFDP-10.3

SUBSURFACE LOG - DIRECT PUSH

(Page 1 of 1)

Castle Cleaners
221 Hoffman Street
Elmira, New York

Boring No: : OFDP 10.4
Project No.: : 209053
Date Started: : 11/08/10
Date Completed: : 11/09/10

Depth (ft)	Sample No.	Recovery (ft)	PID Reading (ppm)	DESCRIPTION	REMARKS
0				Brown fine-coarse SAND and GRAVEL, little silt, wet	
1	1	2.0	0.3		
4				similar, wet	
2	2	1.8	0.1		
8					
12	3	1.8	0.2	similar, saturated	
				similar, little silt, saturated	
16	4	1.8	0.4		
20				similar, saturated	
24				Brown fine-coarse SAND and GRAVEL, little silt, saturated	
28	6	3.8	1.0	Gray varved SILT and CLAY, saturated	
				Gray fine SAND and SILT, saturated	
32	7	2.6	0.1	Gray SILT and CLAY with zone of Sand and Gravel, saturated	Water first encountered at 12.0'.
36				BORING TERMINATED AT 32.0'	
40					

Visually Classified by: Engineer

File: 209053/tech/OFDP-10.4

SUBSURFACE LOG - DIRECT PUSH

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Castle Fast Dry Cleaners

221 Hoffman Street

Elmira, New York

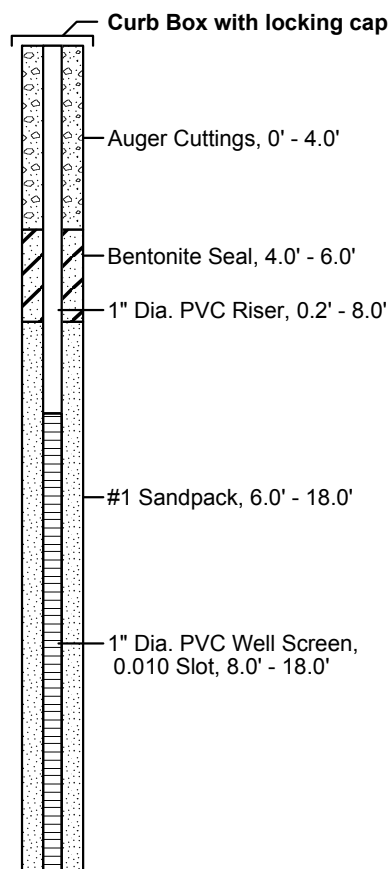
Boring No.: OFDP 10.5

Project No.: 209053

Date Started: 11/09/10

Date Completed: 11/09/10

Depth (ft)	Sample No.	Recovery (ft)	PID Reading (ppm)	DESCRIPTION
0				Brown SILT, little fine-coarse sand and gravel, moist
1	1	1.9	0.7	
4				Brown fine-coarse SAND and GRAVEL, little silt, moist
2	2	1.4	1.0	
8				similar, wet
12	3	1.3	0.8	
				similar with Some Silt, saturated
16	4	2.1	0.9	
				similar, saturated
20	5	1.8	1.0	
24	6	2.6	0.7	similar with little silt, saturated



Visually Classified by: Engineer

File: 209053/tech/OFDP-10.5

SUBSURFACE LOG - DIRECT PUSH

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Castle Fast Dry Cleaners

221 Hoffman Street

Elmira, New York

Boring No.: OFDP 10.5

Project No.: 209053

Date Started: 11/09/10

Date Completed: 11/09/10

Depth (ft)	Sample No.	Recovery (ft)	PID Reading (ppm)	DESCRIPTION
26	6	2.6	0.7	
				similar, saturated
30	7	2.2	0.7	
				similar, little silt, saturated
34	8	3.6	0.7	
				Gray fine SAND, Some Silt, trace gravel, saturated
42	9	2.3	0.7	
				fine-medium SAND, little silt zone
				similar with little gravel, saturated
46	10	2.1	0.7	
				BORING TERMINATED AT 49.0'
50				

— Water first encountered at 13.5'.

— Upon completion, water level at 16.4'.

Visually Classified by: Engineer

File: 209053/tech/OFDP-10.5

SUBSURFACE LOG - DIRECT PUSH

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Castle Cleaners
221 Hoffman Street
Elmira, New York

Boring No.: OFDP 10.6
Project No.: 209053
Date Started: 11/10/10
Date Completed: 11/10/10

Depth (ft)	Sample No.	Recovery (ft)	PID Reading (ppm)	DESCRIPTION	REMARKS
0				Topsoil 0.7'	
1	1	0.8	0.2	Brown fine-coarse SAND and GRAVEL, little to Some Silt, moist	
4					
2	2	1.3	0.4		
8					
3	3	1.8	0.5	similar, saturated	
12				similar	
16	4	1.6	0.2		
20					
5	5	1.8	0.3		
24				similar	
6	6	2.4	0.3		
28					
7	7	2.3	0.4		
32				similar	
8	8	2.6	0.2		
36					
9	9	3.0	0.5	Gray fine-medium SAND, little silt, wet	
40				Gray fine-coarse SAND, GRAVEL and SILT, wet - saturated	
10	10	3.0	0.5		Water first encountered at 11.0'.
44	11	2.0	0.4		Upon completion, water level at 13.1'.
48				BORING TERMINATED AT 46.0'	

Visually Classified by: Engineer

File: 209053/tech/OFDP-10.6

SUBSURFACE LOG - DIRECT PUSH

(Page 1 of 2)

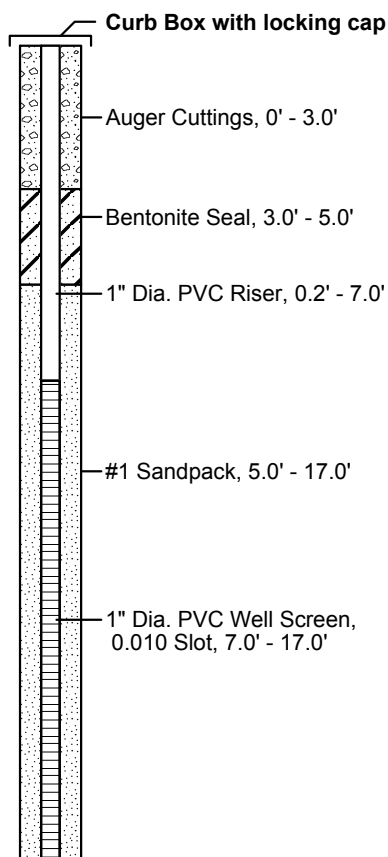
Castle Fast Dry Cleaners

221 Hoffman Street

Elmira, New York

Boring No.: OFDP 10.7
 Project No.: 209053
 Date Started: 11/10/10
 Date Completed: 11/10/10

Depth (ft)	Sample No.	Recovery (ft)	PID Reading (ppm)	DESCRIPTION
0				Topsoil 0.7'
1	1	2.2	0	Brown SILT, moist
4				
2	2	2.3	0.2	Brown fine-coarse SAND and GRAVEL, little to Some Silt, wet
8				similar
12	3	2.1	0.2	
16				similar, saturated
20				similar
24	5	1.8	0.2	
	6	3.2	0.1	Brown fine-coarse SAND and GRAVEL, little to Some Silt, saturated



Visually Classified by: Engineer

File: 209053/tech/OFDP-10.7

SUBSURFACE LOG - DIRECT PUSH

(Page 2 of 2)

Castle Fast Dry Cleaners

221 Hoffman Street

Elmira, New York

Boring No.: OFDP 10.7

Project No.: 209053

Date Started: 11/10/10

Date Completed: 11/10/10

Depth (ft)	Sample No.	Recovery (ft)	PID Reading (ppm)	DESCRIPTION
25				
6	3.2	0.1		
29				similar, saturated
7	3.4	0.3		Gray fine-medium SAND, little silt, saturated
33				Gray Clayey SILT, little fine-medium sand, saturated
8	3.4	0.4		Gray medium-fine SAND, Some Silt, little gravel, saturated
37				
9	3.0	0.2		Gray SILT and CLAY, saturated
41				Gray fine-medium SAND, little silt, saturated
10	0	0.4		No Recovery
45				similar, saturated
11	2.2	0.4		Gray fine-coarse SAND, GRAVEL and SILT, satutated
BORING TERMINATED AT 47.0'				
49				

— Water first encountered at 13.5'.

— Upon completion, water level at 11.4'.

Visually Classified by: Engineer

File: 209053/tech/OFDP-10.7

SUBSURFACE LOG - DIRECT PUSH

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Castle Fast Dry Cleaners

221 Hoffman Street

Elmira, New York

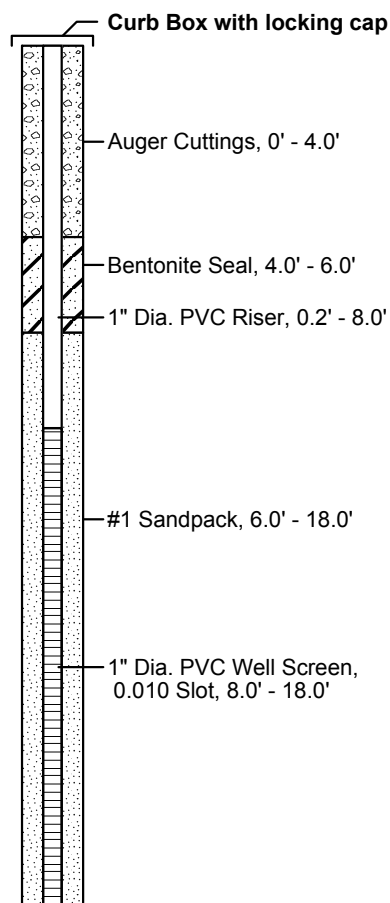
Boring No.: OFDP 10.8

Project No.: 209053

Date Started: 11/11/10

Date Completed: 11/11/10

Depth (ft)	Sample No.	Recovery (ft)	PID Reading (ppm)	DESCRIPTION
0				FILL: Brown fine-coarse SAND and GRAVEL, Some Silt, brick, coal, moist
1	1	3.2	0.2	
4				Brown SILT, Some fine-coarse Sand and Gravel, moist
2	2	2.4	9.9	Brown Gray fine-coarse SAND and GRAVEL, Some Silt, moist - wet
8				Gray fine-coarse SAND and GRAVEL, little to Some Silt, petroleum odor
12	3	2.0	124.3	similar, saturated
16	4	2.2	55	Gray fine-coarse SAND and GRAVEL, little silt, saturated, odor
20				similar, saturated
24	5	2.8	44	Brown fine-coarse SAND and GRAVEL, little to Some Silt, saturated
	6	2.3	28.4	Gray SILT and CLAY, wet



Visually Classified by: Engineer

File: 209053/tech/OFDP-10.8

SUBSURFACE LOG - DIRECT PUSH

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Castle Fast Dry Cleaners

221 Hoffman Street

Elmira, New York

Boring No.: OFDP 10.8

Project No.: 209053

Date Started: 11/11/10

Date Completed: 11/11/10

Depth (ft)	Sample No.	Recovery (ft)	PID Reading (ppm)	DESCRIPTION
25				Gray SILT and CLAY, wet
6	2.3	28.4		
29				Gray fine SAND and SILT, saturated
7	2.3	41		
33				similar, grades to Gray SILT and fine SAND, saturated
8	3.3	59		
37				Gray fine SAND, little to Some Silt, saturated
9	3.2	114		Gray SILT with fine SAND lenses, saturated
41				similar, saturated
10	3.4	25.8		
45				
49				BORING TERMINATED AT 48.0'

— Water first encountered at 12.0'.

Visually Classified by: Engineer

File: 209053/tech/OFDP-10.8

SUBSURFACE LOG - DIRECT PUSH

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Castle Cleaners
221 Hoffman Street
Elmira, New York

Boring No.: OFDP 10.9
Project No.: 209053
Date Started: 11/11/10
Date Completed: 11/11/10

Depth (ft)	Sample No.	Recovery (ft)	PID Reading (ppm)	DESCRIPTION	REMARKS
0				Topsoil 0.5'	
1	1	1.9	0.2	Brown fine-coarse SAND, GRAVEL and SILT, moist	
4				Brown fine-coarse SAND and GRAVEL, little to Some Silt, moist	
2	2	1.8	0.3	similar, wet	
3	3	1.6	0.3	similar, saturated	
4	4	1.3	0.6	similar, saturated	
5	5	0.8	0.4	similar, saturated	
6	6	2.4	0.3	similar, saturated	
7	7	1.2	0.2	similar, saturated	
8	8	0.2	0.4	Gray SILT, wet	
				Gray fine-medium SAND, little fine gravel, little silt, saturated	
				Gray fine-coarse SAND and GRAVEL, little to Some Silt, saturated	
9	9	2.1	0.3	similar, saturated	
10	10	0.2	0.3		Water first encountered at 14.0'. Upon completion, water level at 13.9'.
BORING TERMINATED AT 49.0'					

Visually Classified by: Engineer

File: 209053/tech/OFDP-10.9



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SUBSURFACE LOG - DIRECT PUSH

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Castle Cleaners
221 Hoffman Street
Elmira, New York

Boring No.: OFDP 10.10
Project No.: 209053
Date Started: 11/12/10
Date Completed: 11/12/10

Depth (ft)	Sample No.	Recovery (ft)	PID Reading (ppm)	DESCRIPTION	REMARKS
0				Topsoil 0.4'	
1	1	1.1	0.1	Brown SILT and fine SAND, moist	
4				Brown fine-coarse SAND and GRAVEL, Some Silt, moist	
2	2	0	0.2		
8				similar, wet	
12	3	2.0	0.1		
16				similar, saturated	
20	4	0.5	0.1		
24				similar, saturated	
28	5	1.9	0.2		
32				similar, saturated	
36	6	-	0.3		
40				similar, saturated	
44	7	2.4	0.2		
48				Gray Brown fine-coarse SAND, Some Gravel, little silt, saturated	
	8	1.8	0.3		
				Gray SILT, wet	
	9	3.4	0.2		
				similar, wet - saturated	
	10	3.1	0.2		
				BORING TERMINATED AT 48.0'	

Visually Classified by: Geologist

File: 209053/tech/OFDP-10.10

SUBSURFACE LOG - DIRECT PUSH

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Castle Cleaners
221 Hoffman Street
Elmira, New York

Boring No.: OFDP 10.11
Project No.: 209053
Date Started: 11/12/10
Date Completed: 11/12/10

Depth (ft)	Sample No.	Recovery (ft)	PID Reading (ppm)	DESCRIPTION	REMARKS
0				Asphalt 0.2'	
1	1	1.2	0.2	Brown fine-coarse SAND and GRAVEL, Some Silt, moist	
4				similar	
2	2	1.6	0.4		
8				similar, wet	
3	3	0.8	0.2		
12				similar, saturated	
4	4	1.6	0.2		
16				similar, saturated	
20	5	2.9	0.3		
24					
6	6	3.2	0.5	Gray Brown fine-coarse SAND, trace silt, saturated	
28				Brown fine-coarse SAND and GRAVEL, little silt, saturated	
32	7	2.2	0.3	Gray Brown fine-coarse SAND, little silt, saturated	
				similar	
36	8	2.0	0.4	Gray Brown fine SAND, Some Silt, saturated	
40				Gray SILT, saturated	
9	9	-	0.3		
44				Gray fine SAND and SILT seams, saturated	
10	10	3.0	0.3		
48				REFUSAL AT 48.3'	

Visually Classified by: Geologist

File: 209053/tech/OFDP-10.11

SUBSURFACE LOG - DIRECT PUSH

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Castle Cleaners
221 Hoffman Street
Elmira, New York

Boring No.: OFDP 10.12
Project No.: 209053
Date Started: 11/15/10
Date Completed: 11/15/10

Depth (ft)	Sample No.	Recovery (ft)	PID Reading (ppm)	DESCRIPTION	REMARKS
0				Topsoil 0.5'	
1	1	1.4	0.5	Brown fine-coarse SAND and GRAVEL, Some Silt, wood, moist	
4				Brown fine-coarse SAND and GRAVEL, little to Some Silt, moist	
2	2	1.6	0.7		
8				similar	
3	3	1.8	0.5		
12				similar, saturated	
4	4	1.5	0.5		
16				similar, saturated	
20	5	2.1	0.6		
24				similar	
6	6	0.5	0.7		
28				similar, saturated	
7	7	2.6	0.7		
32				similar	
8	8	2.4	0.6		
36				Brown Gray fine-coarse SAND, little to Some fine-coarse Gravel, little silt, saturated	Upon completion, water level at 16.3'.
40	9	1.6	0.8	Gray fine SAND and SILT, wet	Backfilled with cuttings.
44				BORING TERMINATED AT 44.0'	Caved at 16.0'.
48					

Visually Classified by: Engineer

File: 209053/tech/OFDP-10.12

SUBSURFACE LOG - DIRECT PUSH

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Castle Cleaners
221 Hoffman Street
Elmira, New York

Boring No.: OFDP 10.13
Project No.: 209053
Date Started: 11/15/10
Date Completed: 11/15/10

Depth (ft)	Sample No.	Recovery (ft)	PID Reading (ppm)	DESCRIPTION	REMARKS
0				Topsoil 0.5'	
1	1	1.4	0.3	Brown fine-coarse SAND and GRAVEL, little to Some Silt, moist	
4					
2	2	3.1	1.1		
8				similar	
3	3	4.0	0.4		
12				similar	
4	4	3.2	1.1		
16				similar, saturated	
20	5	2.0	0.4		
24				similar, saturated	
6	6	1.9	0.7		
28				Brown fine-medium SAND, little silt, saturated	
7	7	4.0	0.6	Brown Gray SILT and CLAY, saturated	Water first encountered at 18.0'.
32				Gray SILT, saturated	Upon completion, water level at 17.1'.
8	8	3.6	0.4		Backfilled with cuttings.
36					Caved at 14.3'.
40				BORING TERMINATED AT 38.0'	
44					
48					

Visually Classified by: Engineer

File: 209053/tech/OFDP-10.13

SUBSURFACE LOG - DIRECT PUSH

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Castle Cleaners
221 Hoffman Street
Elmira, New York

Boring No.: OFDP 10.14
Project No.: 209053
Date Started: 11/15/10
Date Completed: 11/16/10

Depth (ft)	Sample No.	Recovery (ft)	PID Reading (ppm)	DESCRIPTION	REMARKS
0				FILL: Brown fine-coarse SAND and GRAVEL, Some Silt, brick, moist	
1	1	1.8	0.3		
4				Brown fine-coarse SAND and GRAVEL, little to Some Silt, moist - wet	
2	2	2.1	0.8		
8				similar	
3	3	1.9	0.5		
12					
16	4	2.0	3.1		
20					
5	5	1.8	0.9		
24					
6	6	2.1	1.7		
28				Brown fine-medium SAND, little to Some Silt, saturated	
32	7	2.4	1.0	Brown fine-coarse SAND and GRAVEL, little silt, saturated	
36					
8	8	2.3	0.2	Gray Brown Clayey SILT, Some fine-coarse Sand and Gravel, wet	
40				Gray fine-medium SAND, little silt, saturated	
9	9	2.1	0.1	similar, grades to Gray fine SAND, little silt, saturated	Water first encountered at 14.0'. Upon completion, water level at 15.4'. Backfilled with cuttings. Caved at 15.0'.
44				similar, saturated	
10	10	2.3	0.2		
48					
BORING TERMINATED AT 49.0'					

Visually Classified by: Engineer

File: 209053/tech/OFDP-10.14

SUBSURFACE LOG - DIRECT PUSH

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Castle Cleaners
221 Hoffman Street
Elmira, New York

Boring No.: OFDP 10.15
Project No.: 209053
Date Started: 11/16/10
Date Completed: 11/16/10

Depth (ft)	Sample No.	Recovery (ft)	PID Reading (ppm)	DESCRIPTION	REMARKS
0				Topsoil at surface	
1	0.4	0.7		Brown fine-coarse SAND and GRAVEL, Some Silt, moist	
4				similar, moist	
2	1.6	1.0			
8				similar	
3	1.2	1.4			
12					
16	4	1.0	1.2	Brown SILT, Some fine-coarse SAND and GRAVEL, saturated	
20				Brown fine-coarse SAND and GRAVEL, little silt, saturated	
5	2.4	1.5			
24				similar	
6	3.8	1.3			
28				Brown Gray fine-coarse SAND and GRAVEL, Some to little silt, saturated	
32	7	4.0	1.2		Water first encountered at 14.0'. Upon completion, water level at 13.7'. Backfilled with cuttings.
8	2.0	1.3		similar	
36				REFUSAL AT 36.0'	
40					

Visually Classified by: Engineer

File: 209053/tech/OFPD-10.15

SUBSURFACE LOG - DIRECT PUSH

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Castle Cleaners
221 Hoffman Street
Elmira, New York

Boring No.: OFDP 10.16
Project No.: 209053
Date Started: 11/16/10
Date Completed: 11/16/10

Depth (ft)	Sample No.	Recovery (ft)	PID Reading (ppm)	DESCRIPTION	REMARKS
0				Topsoil 0.5'	
1	1	1.6	0.3	Brown SILT, Some coarse-fine Sand and Gravel, coal, wet	
4				Brown fine-coarse SAND and GRAVEL, little to Some Silt, moist	
2	2	0.3	0.2	similar	
8				similar, saturated	
12	3	1.8	0.4	similar	
16	4	0.6	0.2	similar	
20	5	1.4	0.2	similar	
24	6	3.1	0.3	similar, saturated	
28				similar, saturated	
32	7	2.1	0.1	Brown fine-medium SAND, trace gravel and silt, saturated	
36	8	3.4	0.2	Brown Gray fine-coarse GRAVEL and SAND, little silt, saturated	
40	9	3.5	0.3		Water first encountered at 14.5'. Upon completion, water level at 15.2'. Backfilled with cuttings.
44					
48	10	1.2	0.3	Gray fine-coarse SAND and GRAVEL, Some Silt, wet	Caved at 14.7'.
BORING TERMINATED AT 49.0'					

Visually Classified by: Engineer

File: 209053/tech/OFDP-10.16

SUBSURFACE LOG - DIRECT PUSH

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Castle Cleaners
221 Hoffman Street
Elmira, New York

Boring No.: OFDP 10.17
Project No.: 209053
Date Started: 04/27/11
Date Completed: 04/27/11

Depth (ft)	Sample No.	Recovery (ft)	PID Reading (ppm)	DESCRIPTION	REMARKS
0				Topsoil	
1	1	1.1	0	Brown coarse-fine SAND, GRAVEL and SILT, damp	
4				similar	
2	2	1.9	0		
8				similar	
3	3	1.7	0.1		
12				saturated Brown coarse-fine SAND and GRAVEL, Some to little silt, saturated	Deployed SP-15 from 12' - 16'; collected water sample.
4	4	2.7	0.7		
16				similar	
5	5	1.0	0		
20				similar	
6	6	2.5	-		
24				Brown coarse-fine SAND and GRAVEL, Some Silt, saturated	
7	7	2.6	-		
28				Gray zone	Deployed SP-15 from 28' - 32'; collected water sample.
8	8	1.7	-		
				Brown SILT with fine SAND seam, saturated	Caved at 9'.
32				BORING TERMINATED AT 32.0'	
36					

Visually Classified by: S. Cummins

File: 209053/tech/OFDP-10.17

SUBSURFACE LOG - DIRECT PUSH

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Castle Cleaners
221 Hoffman Street
Elmira, New York

Boring No: : OFDP 10.18
Project No.: : 209053
Date Started: : 04/27/11
Date Completed: : 04/27/11

Depth (ft)	Sample No.	Recovery (ft)	PID Reading (ppm)	DESCRIPTION	REMARKS
0				Topsoil	
1	1	1.9	0	Brown SILT and coarse-fine SAND, little gravel, moist	
4				Brown coarse-fine SAND, GRAVEL and SILT, moist - damp	
2	2	2.2	0		
8				saturated Brown coarse-fine SAND and GRAVEL, Some to little silt, saturated	
3	3	0.8	0		
12				similar	Deployed SP-15 from 12' - 16'; collected water sample.
4	4	1.7	0		
16				similar	Deployed SP-15 from 17' - 21'; collected water sample.
5	5	0.8	0		Caved at 9.5'.
20				Gray varved SILT and CLAY, trace gravel, moist	
6	6	4.0	0		
24				BORING TERMINATED AT 24.0'	
28					

Visually Classified by: S. Cummins

File: 209053/tech/OFDP-10.18



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SUBSURFACE LOG - DIRECT PUSH

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Castle Cleaners
221 Hoffman Street
Elmira, New York

Boring No.: OFDP 10.19
Project No.: 209053
Date Started: 04/25/11
Date Completed: 04/25/11

Depth (ft)	Sample No.	Recovery (ft)	PID Reading (ppm)	DESCRIPTION	REMARKS
0				Topsoil	
1	1	0.4	0		
4				Brown coarse-fine SAND, GRAVEL and SILT, moist with wet seam	
2	2	1.2	0.1		
8				similar	
3	3	2.3	0.1		
12				saturated	
4	4	3.2	0.2	Brown coarse-fine SAND and GRAVEL, Some to little silt, saturated	Deployed millslot from 12' - 14'; collected water sample. Water level at 12.6'.
16				similar	
5	5	2.6	0.2		
20				similar	
6	6	2.4	0		
24				Brown coarse-fine SAND and GRAVEL, little silt, saturated	
7	7	0.9	0		
28				similar	
8	8	2.2	0		
32				similar	
9	9	3.1	0		
36				similar	
10	10	3.5	0	Brown medium-fine SAND, little clayey silt, saturated	
40				Brown fine SAND, Some Clayey SILT, saturated	
11	11	3.1	0		Deployed millslot from 46' - 48'; collected water sample.
44				Gray coarse-fine SAND, SILT and GRAVEL, saturated	Upon completion, water level at 13.6'. Caved at 8.0'.
12	12	2.7	0.2		
48				BORING TERMINATED AT 48.0'	

Visually Classified by: S. Cummins

File: 209053/tech/OFDP-10.19

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SUBSURFACE LOG - DIRECT PUSH

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Castle Cleaners
221 Hoffman Street
Elmira, New York

Boring No.: OFDP 10.20
Project No.: 209053
Date Started: 04/26/11
Date Completed: 04/26/11

Depth (ft)	Sample No.	Recovery (ft)	PID Reading (ppm)	DESCRIPTION	REMARKS
0				FILL: Black Brown SILT, CINDER, and ASH, moist	
1	1	3.1	0	Brown Clayey SILT, little sand, wet	
4				Brown coarse-fine SAND, GRAVEL and SILT, wet	
2	2	2.2	0.2		
8				similar	
3	3	1.9	0.1		
12				saturated	
4	4	0.8	0.2	Brown coarse-fine SAND and GRAVEL, Some to little silt, saturated	
16				similar	Deployed millslot from 14' - 16'; collected water sample. Water level at 14.7'.
5	5	1.7	0		
20				similar	
6	6	0.2	0		
24				Brown coarse-fine SAND, little silt and gravel with seam Brown fine SAND and SILT, saturated	
7	7	1.3	0		
28				grades with Some Gravel, saturated	
8	8	1.2	1.1		
32				Gray SILT, Some fine Sand, saturated	
9	9	3.3	0.4		Deployed millslot from 38' - 40'; collected water sample.
36				layers of Gray SILT, and Gray SILT and fine SAND, saturated	
10	10	4.0	0		Unable to get water level reading at completion of boring, rods silty. Caved at 9'.
40				BORING TERMINATED AT 40.0'	
44					

Visually Classified by: S. Cummins

File: 209053/tech/OFDP-10.20

SUBSURFACE LOG - DIRECT PUSH

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Castle Cleaners
221 Hoffman Street
Elmira, New York

Boring No.: OFDP-10.21
Project No.: 209053
Date Started: 04/27/11
Date Completed: 04/27/11

Depth (ft)	Sample No.	Recovery (ft)	PID Reading (ppm)	DESCRIPTION	REMARKS
0				Grass at surface Topsoil 0.8'	
1	1	1.3	0.4	Brown coarse-fine SAND and Clayey SILT, Some Gravel, saturated Brown coarse-fine SAND, GRAVEL and SILT, wet	
4				similar, damp	
2	2	0.4	0		
8				similar, saturated	
3	3	1.7	0		
12				Brown coarse-fine SAND and GRAVEL, Some to little silt, saturated	Deployed SP-15 from 12' - 16'; collected water sample. Water level at 7.7'.
4	4	2.3	1.2		
16				similar	
5	5	3.1	1.1		
20				similar	
6	6	2.2	0.9		
24				Brown coarse-fine SAND and GRAVEL, little silt, saturated	Deployed SP-15 from 24' - 28'; collected water sample.
7	7	3.0	2.3		Caved at 9'.
				Gray Brown SILT and CLAY, wet	
28				BORING TERMINATED AT 28.0'	

Visually Classified by: S. Cummins

File: 209053/tech/OFDP-10.21

SUBSURFACE LOG - DIRECT PUSH

(Page 1 of 1)

Castle Cleaners
221 Hoffman Street
Elmira, New York

Boring No.: OFDP 10.22
Project No.: 209053
Date Started: 04/26/11
Date Completed: 04/26/11

Depth (ft)	Sample No.	Recovery (ft)	PID Reading (ppm)	DESCRIPTION	REMARKS
0				Topsoil	
1	1	1.4	0	Brown coarse-fine SAND and Clayey SILT, Some Gravel, wet	
4				Brown coarse-fine SAND, GRAVEL and SILT, moist	
2	2	2.2	0		
8				similar	
3	3	3.2	0	saturated	
12				Brown coarse-fine SAND and GRAVEL, Some to little silt, saturated	Deployed SP-15 from 12' - 16'; collected water sample. Water level at 11.0'.
4	4	3.4	0		
16				similar	
5	5	0.8	0		
20				similar	
6	6	0.7	0		
24				similar	
7	7	1.2	0		Deployed SP-15 from 26' - 30'; collected water sample.
28				Gray SILT and CLAY, moist	Caved at 8.5'.
8	8	1.9	0	becomes Brown	
32				BORING TERMINATED AT 32.0'	

Visually Classified by: S. Cummins

File: 209053/tech/OFDP-10.22

APPENDIX D
DISPOSAL RECORDS

Phone 607-754-0200
FAX 607-754-2854

BILL OF LADING

**GARY
DYER** Inc.

EXCAVATING & TANK SERVICE

2198 N.Y. Route 26
Endicott, New York 13760

SHIP TO: INDUSTRIAL OIL TANK SERVICE
120 Dry Road
Oriskany NY 13424

GENERATOR: LARRY CASTLE (GEOLOGIC)
612 Winsor Avenue
Elmira NY 14901

Date: 12/8/11
W.O.: 11-136
Spill#:
Pin#:

QUANTITY	DESCRIPTION	PLACARD#
	VIRGIN PETROLEUM CONTAMINATED DIRT, SOIL, SAND	N816
	OIL SOAKED DEBRIS	N011
	CONTAMINATED FUEL OIL	N002
	WATER CONTAMINATED WITH GASOLINE OR OIL	N018
	OTHER PETROLEUM DERIVED OILS	N098
580	WASH WATER	

Packing Group

WASH WATER

Arrival Time:

Departure: Demmorage:

Driver BILL SERVICE
Truck No. 9 Tank No.

This is to certify that the above named materials are properly classified, described, packaged, marked and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

Date: 12/8/11

Signature: [Signature]

Date: 12/9/11

Received by: (Signature) [Signature]

Additional Comments:

DEC 12 2011

EPA-NYD 986868982
USDOT 449742

TANK REMOVAL
OIL SPILL CLEANUP

NYS-DEC 7A23
PA-AH S18

CHEMUNG COUNTY LANDFILL
A DIVISION OF CASSELLA WASTE SYSTEMS INC
1690 LAKE STREET ELMIRA, NY 14902

TICKET: 139720
DATE: 12/21/2011
TIME: 07:17 - 07:50

CUSTOMER: LK00022 / SDS HORSEHEADS

HAULCUST: WO: 0 APPROVAL #:

ORIGIN: CHEM / CHEMUNG COUNTY

TRUCK: SDS4015

TRAILER:

GENERATOR: CPDC / CASTLE'S FAST DRAWFILE #: 2901

HAULER: SDS / SDS

ROUTE: NA / NON APPLICABLE

COMMENT:

CELL/TANK: MSW -4B

MATERIAL

QUANTITY UNIT

2901 / SOIL & PLASTIC

1.6700

ST

I Certify under penalty of perjury that I am familiar with wastes
authorized at this facility and that to the best of my knowledge all
waste contained in this load is authorized for disposal at this facility.

Weighmaster: Driver: 

IN: RONALD PETERSON B: PCSCALE1-C

OUT: RONALD PETERSON B: PCSCALE1-CLF



SPECIAL WASTE MANIFEST FORM

Manifest No. _____
Profile No. 0076

Generator Name: Geologic NY Inc Description of Waste: Soil
Address: 1119 Windsor Ave Special Handling: _____
Elmira, NY Well Site: _____
Phone Number: 1-877-245-1223

Hydroval #2901

GENERATOR/AGENT TO COMPLETE THE FOLLOWING:

Container Type: OT Container Size: 10yd Estimated Vol: _____ tons or C.Y.

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Authorized Agent: X Casella Waste Services
Printed Name

X James P. Casella
Signature

X 12-20-11
Date

APPROVED DESTINATION: (Check Applicable Destination Facility For This Load - CHECK ONLY ONE)

☐ Ontario County Landfill
1879 Route 5 & 20
Stanley, NY 14561
Tel: (585) 526-4420

☐ Hyland Landfill
6653 Herdman Road
Angelica, NY 14709
Tel: (585) 466-7271

☒ Chemung County Landfill
1488 County Route 60
Chemung, NY 14903
Tel: (607) 529-3444

☐ Hakes Landfill
4376 Manning Ridge Rd
Painted Post, NY 14870
(607) 937-6044

TRANSPORTER TO COMPLETE THE FOLLOWING:

Transporter: CASELLA WASTE SERVICES Telephone: 607-796-2000

NYSDEC 364 Permit No.: 8A-695 Expiration Date: 03/16/2012

Site Address (Location of Truck Loading): 1618 SEARS ROAD, ELMIRA, NY 14903

Truck No.: 4015 License Plate No.: 3C-100 State: NY

Driver: Casella
Printed Name

Casella
Signature

12-21-11
Date

WEIGHMASTER TO COMPLETE THE FOLLOWING:

Acknowledging Receipt of Materials

Signature: [Signature] Date: 12/21/11

APPENDIX E

MISCELLANEOUS RECORDS

New York State Department of Environmental Conservation

PART 232 DRY CLEANING COMPLIANCE INSPECTION REPORT

Date of last inspection 5-Dec-08

Date of this inspection 16-Nov-09

Date DEC Regional Office was notified of inspection 1-Nov-09

DECID PERMIT OR REGISTRATION NUMBER

8 0 7 3 0 0 0 0 2 8

Dry Cleaning facility name Castle Cleaners
 Dry Cleaning facility address 221 Hoffman Street Elmira New York 14905 Country/Borough Chenung
 Business Telephone number 607-732-1105 Date facility began operation at this location 1981

Dry cleaning facility owner's name Nekayone Inc Tax Payer ID #: 16-1153985
 Dry cleaning facility owner's address 221 Hoffamn Street
 Dry cleaning facility owner's telephone number 607-732-1105

Certified owner/manager's name Jenny A. Merrick
 Certificate number 2003320907 Certificate expiration date: 30-Jun-12

List all certified operator's names, certificate numbers, and certificate expiration dates:

Name	Certificate number	Certificate expiration date
Jenny A. Merrick	2004710907	30-Jun-12

Building Use (check one) ☐ Stand Alone ☒ Mixed use commercial ☐ Mixed use residential
 Are there any units in the building rented or owned by other individuals or businesses ☐ Yes ☒ No
 Level in building where cleaner is located Ground Number of feet to closest neighboring building _____
 If mixed-use, number of floors building 1 Estimated number of units in building 3 Units
 Type of other occupancies adjacent to dry cleaner _____

Compliance Inspector's name Robert D. Bennett
 Compliance Inspector's business address 360 Buffalo Street, Gowanda NY 14070
 Compliance Inspector's telephone number 716-532-5619
 Certificate number 1782920809 Certificate expiration date 30-Nov-11

For DEC OFFICIAL USE ONLY - Compliance status determination:

☐ Compliance, or ☐ Non-Compliance

Name _____ Title _____

Signature _____ Date _____

Notes: _____

FACILITY INFORMATION

Upon entering the perc dry cleaning facility the registered inspector shall begin passive (badge) sampling. The badge shall be placed approximately midway between the machine (or room enclosure in mixed-use settings) and the pressing station, away from any open windows or doors, at a height of 3 to 6 feet above the floor level. The sample shall be taken outside of the room enclosure if possible. The sampling shall be collected over the entire time that the inspection takes place. A minimum of two hours sampling time and two machine loads is required. Samples are to be analyzed at a laboratory using NIOSH Method 1003:

Sample Start Time: 6:45 AM Sample End Time: 8:45 AM Number of Loads 2

Describe sample location, including distance, in feet, to all open windows, doors, and operating fans:

On a hanger 5 feet off from floor just outside the Vapor barrier Room

and near the finishing area with no open door or window compromises

Result of lab analysis (units) 24943 () Result of lab analysis: 3.7 ppm

If result was non-detectable, indicate detection limits (units) ()

Name of Laboratory used to analyze badge sample Advanced Chemical Sensors, Inc. (Attach Lab Report)

Inspector's description of first impressions of the facility

The facility was very clean and orderly. The Vapor Barrier Room Door was Closed.

The owner and operator were very organized. The Perc Disclosure Poster was clearly visible to customers.

Record the following information about the machines located at the facility:

Number of perc dry cleaning machines 1 Any coin operated perc dry cleaning machines ☐ Yes ☒ No

Number of perc dry cleaning machines specified on DEC permit or registration 1- 4th Generation w/ Vapor Barrier Room

Facility permit or registration status Mixed Use

Number of all other textile cleaning machines and solvent used (e. g. wet cleaning, petroleum, etc.)

Number of machines 2 Solvent Water Number of machines Solvent

The inspector shall check the following items for compliance and mark the applicable boxes:

1. Is the DEC Part 232 posting notice (sign) displayed in a conspicuous location for public viewing ☒ Yes ☐ No

2. Are equipment manuals (manufacturers or other) available ☒ Yes ☐ No

3. Are all solvent containers and containers where perc-contaminated items are kept covered and sealed ☒ Yes ☐ No

4. Are the following records maintained, current, accurate and complete on DEC checklists or charts:

Weekly Leak Inspection Checklist (232-1or232-2) ☒ Yes ☐ No Weekly Operation and Maintenance Test (232-1or 232-2) ☒ Yes ☐ No

Date weekly leak instrument record keeping was initiated 17-Jan-99

What kind of instrument does the operator use to check the dry cleaning system for vapor leaks Halogen

Emergency Preparedness checklist (232-1or232-2) ☒ Yes ☐ No Emergency Response/Corrective Action Log (232-3) ☒ Yes ☐ No

Equipment Maintenance Log (232-4) ☒ Yes ☐ No Hazardous Waste Management Log (232-5) ☒ Yes ☐ No

Perc Usage Log (232-6) ☒ Yes ☐ No Operation and Maintenance Checklist (232-7or 232-8) ☒ Yes ☐ No

Date perc usage log was initiated 23-Dec-96 Latest date of drying sensor maintenance 12-Nov-09

Most recent monthly quantity purchased entered in the perc usage log within the past 12 months 40 gallons, Date Oct-09

Largest 12 month total entered in the perc usage log within past 12 months 280 gallons, Date Nov-09

Does largest 12 month total include initial charging of the machine ☐ Yes ☒ No

5. Are records completed by certified operators ☒ Yes ☐ No

6. Are records maintained on-site for five years ☒ Yes ☐ No

FACILITY INFORMATION

If any item in numbers 1-6 on page 2 except the italicized question is "No", explain why
Record keeping started in Jan 1999

Complete this block of information for facilities in mixed-use settings only. The vapor barrier door shall be closed during all times that measurements are taken within the room enclosure. The volumetric flowrate of the general exhaust shall be measured at the fan (s) inlet or outlet, in close proximity to the fan. The values measured and the units of the measurements shall be recorded during the inspection. The report submitted to DEC and the facility shall include measurements converted to the specified units.

Vapor Barrier installed ☒ Yes ☐ No

Vapor Barrier material: ☒ 22 mil or greater PVC ☐ Sheet metal ☐ Metal foil composite board, or

☒ Other material (Specify): Two Part Epoxy Paint 9058-99993

Are all visible joints and seams sealed except for make-up air and exhaust openings and entry doors

Yes ☒ No ☐

Is the door kept closed at all times except when a person is entering or exiting the enclosure

Yes ☒ No ☐

List all compromises in the integrity of the vapor barrier enclosure including the ceiling, floor, and pipe chases

None

General exhaust ventilation system installed

Yes ☒ No ☐

Is the general exhaust system completely separate from the ventilation system (s) serving other areas of the building

Yes ☒ No ☐

Is the general exhaust system located near the dry cleaning machinery

Yes ☒ No ☐

If no, describe general exhaust location

Location of fresh air make-up inlets

At the rear of the vapor barrier room on the wall 6 feet off floor

Volume of room enclosure 1071.342 (ft³) Volumetric flowrate of general exhaust fan (s) 314 (ft³/min)

Measured values for room enclosure volume and volumetric flowrate (units) 400 LPM
12 inch

Measurement instruments Vanometer

Where does general exhaust vent to outer air

Vents upper front to directly outside through fan

The volume of the room enclosure is provided a fresh air change every 3.41 minutes.

FACILITY INFORMATION

Mark the appropriate boxes and supply the information requested:

1. Has the facility removed any perc dry cleaning machines from service since 5/15/97

Yes ☐ No ☒

List perc machine (s) removed from service since 5/15/97 and removal date:

N/A

N/A

2. Provide the following information from the DEC Hazardous Waste Management Log:

Volume and type of last hazardous waste shipment

170 lbs Still waste, lint and waste water filter

Date: 30-Jul-09

Name of Hazardous waste hauler Safety Klean

Licensed Yes ☒ No ☐

3. Wastewater Management Procedures - Separator and Steam Condensate Water

(x) Collected and shipped as listed hazardous waste, or

() Treated on-site and discharged per Part 232 by:

() Heat Evaporation, () "Mister", () Sewer, () Other N/A

Manufacturer and Model # of treatment Unit

Manufacturer's recommended carbon replacement frequency

List dates of carbon replacement since last inspection

4. Check the additional items listed below if applicable (write "NA" if not applicable):

Is the exhaust damper operating properly (if accessible): N/A Yes ☐ No ☐

How often are machine lint filter cleaning and replacement Every 3 Loads

Manufacturer's recommended for lint filter cleaning and replacement Every 3 Loads

Number of loads between cleaning and replacement of carbon absorber pre-filter N/A

Manufacturer's recommendation for cleaning and replacement of carbon absorber pre-filter N/A

5. Answer the following questions for machines installed prior to May 15, 1997:

Have floor drains and flooring in the vicinity of the equipment been sealed Yes ☒ No ☐

Have temporary dikes, berms and containment devices been placed in areas where spills are likely to occur Yes ☐ No ☐

6. Mark the appropriate boxes to indicate if the Preparedness and Prevention Equipment is available:

Volume of largest perc tank or vessel associated with the machine 57 Gallons

List adsorbent material for spill containment and amount Old Clothes

Are vapor proof containers for storing spill contaminated materials available Yes ☒ No ☐

Are vapor proof containers used for spill contaminated materials Yes ☒ No ☐

Volume of containers available Several 25 gallon Containers

Is fire control equipment available and in working order Yes ☒ No ☐

Is aisle space around dry cleaning equipment adequate for inspection of the dry cleaning equipment Yes ☒ No ☐

Is this aisle space clear Yes ☒ No ☐

Are spare parts for equipment repair available Yes ☒ No ☐

Are all parts of dry cleaning system closed (e. g. doors, filters, stills, etc.) Yes ☒ No ☐

Instrument Description. Inspector shall provide the following information for instruments used:

1. Halogen Leak Detector (Beeper) used to locate leak:

Manufacturer halogen detector TIF Model Number XL-1

The dry cleaning inspector MUST first use a halogen leak detector (beeper) to search for leaks. If a leak is found, the inspector must quantify the leak.

2. Portable Gas Analyzer used to quantify leaks. Specify Type: () PID, () FID, () Other

Manufacturer RAE Systems Model Number MiniRAE 2000

The portable gas analyzer must be properly calibrated according to manufacturer's instructions prior to the inspection. Specify calibration procedure:

Calibrated w/Isobutylene at 100 ppm, used correction factor for trichloroethylene

Calibration Date: 16-Nov-09

Calibration Gas Isobutylene Response Factor 1

Gas Analyzer's range of detection 0-10,000 PPM Accuracy 0.1-1.0 PPM

3. Colorimetric Tube/Sampling Pump

Manufacturer of Tubes/Sampling Pump Gastec Model Number GV-100S

Tube Ranges 133 HA 9-900 Expiration Date July-10

DRY CLEANING EQUIPMENT

Use an additional copy of pages 5 and 6 for each perc dry cleaning machine located at the facility.
Record information for each machine from the nameplate (if available):

Manufacturer's name Hoffman
Model number 2010
Year built 1996 Date installed 1996
Rated Capacity 35 pounds Certified equipment ☐ Yes ☒ No
Volume of machine drum 11.5 (ft³)

Indicate the generation of the machine as manufactured:

☐ First Generation ☐ Second Generation ☐ Third Generation ☒ Fourth Generation
Has the machine been retrofitted with control equipment ☐ Yes ☒ No
List retrofitted control equipment N/A

Date of Retrofit N/A
List control equipment on machine as manufactured Refrig Condensor, drying sensor, integral carbon adsorber

Does the machine operate with a door fan/local exhaust ventilation system ☐ Yes ☒ No

Does the machine have a spill containment pan ☒ Yes ☐ No

Volume of spill pan 11.4 (ft³) Volume of largest perc tank associated with machine 7.62 (ft³)

For first and second generation machines only, indicate process vent location physically observed by the inspector:

1. Above the roof ☐ Yes ☐ No
2. Greater than 25 feet from any opening in any adjacent occupancies ☐ Yes ☐ No

The drycleaning machine shall be inspected for perceptible liquid and vapor leaks while machine is operating.

The machine shall be filled to a minimum of 80% of the rated capacity for testing. Measurements shall be taken approx. 1 cm from each of the source listed below. If a leak is found that was not tagged, see Leak Check Eval., p. 7.

PERFORM LEAK CHECK:

	Inspected	Leaks	Measurement	Tagged	Date
hose and pipe connections, fittings, and couplings and valves	☒	☐		☐	
door gaskets and sealings	☒	☐		☐	
filter gaskets and sealings	☒	☐		☐	
pumps	☒	☐		☐	
muck cookers	☐	☐	N/A	☐	
stills	☒	☐		☐	
exhaust dampers	☐	☐	N/A	☐	
diverter valves	☐	☐	N/A	☐	
cartridge filter housings	☐	☐	N/A	☐	
button and lint traps	☒	☐		☐	
filters or purification systems	☒	☐		☐	

The following specified areas of the dry cleaning system must be inspected and measured.

NOTE: Marked boxes indicate "yes"

	Inspected	Measurement	Date
solvent (including spent solvent) tanks and containers	☒	8.9 ppm	11/16/09
water separators	☒	6.3 ppm	11/16/09
dip tanks and drying cabinets	☐	N/A	
pressing stations	☒	9.5 ppm	11/16/09
perc supply containers or systems	☒	1.2 ppm	11/16/09
perc contaminated waste storage drums	☒	23 ppm	11/16/09
perc concentration 6 inches outside center of loading door after opening	☒	38 ppm	11/16/09
perc contaminated materials, or items	☐	N/A	
recently dry cleaned clothing	☒	49 ppm	11/16/09
perc concentration of general exhaust vent in <u>mixed-use settings</u>	☒	2.7 ppm	11/16/09
any other area, list <u>N/A</u>	☐	N/A	

DRY CLEANING EQUIPMENT

The inspector shall perform the following compliance test on the machine if applicable:

1. For 1st and 2nd Generation Machines only, the perc concentration from machine with a full sized carbon adsorber shall be measured at least 8 duct diameters downstream and 2 duct diameters upstream from any flow disturbance such as a bend or outlet while the machine is venting emissions:
 - a. Perc concentration N/A ppm Monitoring instrument used N/A
 - b. For mixed-use settings only:
If test result is 5 ppm or greater, was the carbon adsorber stripped immediately Yes ☐ No ☐
2. The perc concentration from a small external carbon adsorber either on an azeotropic control device or a door fan exhaust shall be measured at least 8 duct diameters downstream and 2 duct diameters upstream from any flow disturbance such as a bend or outlet while it is exhausting emissions:
 - a. Perc concentration N/A ppm Monitoring instrument used N/A
 - b. Location of vented exhaust N/A
 - c. For mixed-use settings only:
If test result is 5 ppm or greater, was the carbon adsorber stripped immediately Yes ☐ No ☐
3. For 4th Generation Machines and 3rd Generation Machines retrofitted to Fourth, the perc concentration in the machine drum shall be measured upon opening the loading door. The measurement shall be taken near the rear of the drum above the articles being cleaned:
 - a. Perc concentration 200 ppm Monitoring instrument used Colometric tube, and portable gas an
4. For 3rd and 4th Generation Machines only, the temperature of the perc vapor stream on the outlet side of a refrigerated condenser shall be measured:
 - a. Temperature 31 °F Monitoring instrument used Digital Thermometer
Measurement range of instrument (units) Unknown Accuracy + or - 1 degree
5. The inward velocity of the door fan shall be measured at the center of the door opening:
 - a. Inward velocity N/A feet per minute Monitoring instrument used N/A
6. The following shall be verified and monitored on dip tanks or drying cabinets:
 - a. A system exits to maintain negative pressure when operated Yes ☐ No ☐
 - b. Exhausted emissions concentration N/A ppm Exhaust Location N/A

The compliance inspector shall verify or record the following items (if applicable):

1. Carbon Adsorber regeneration frequency
 - a. Pounds of carbon in carbon adsorber 60 pounds
 - b. Indicate the method of carbon regeneration by marking the applicable box:
☐ Steam, steam pressure used to strip carbon _____ psi, air flow (units) _____
 Minimum steam pressure and airflow recommended by the manufacturer _____ psi
☒ Hot Air (Steam Coils) ☐ Other (Describe) _____
 - c. Number of loads and pounds of clothes cleaned between regenerations 48 loads 34 lbs
 - d. Manufacturer's recommended regeneration frequency every 50 loads
 - e. Pounds of clothes per pound of carbon in adsorber 27.20
2. Carbon canister replacement frequency
 - a. The frequency of the carbon canister replacement N/A
 - b. Manufacturer's recommended replacement frequency N/A

If the inspector finds that the facility is not operating in compliance with any standards and specifications of Part 232, the operator may be asked to perform leak inspection or monitoring procedures on the equipment. The inspector may demonstrate how to accurately inspect or monitor the equipment. If leaks have been found at the facility they may be repaired immediately and tested again. If repair cannot be completed immediately the leak must be repaired in accordance with the requirements in Part 232 and reinspected within 30 days

Leak Test Evaluation: If a leak was found that was not tagged, inspector shall evaluate status/calibration of the facility's leak-check equipment and owner/operator's ability to perform a calibration and leak-check.

Results of Evaluation:

No Leaks found

The inspector shall write up a discussion of all the other problems identified at the facility and any assistance or recommendations provided to the facility operator or manager to help them address the problem

If re-inspection was required:

Date of re-inspection:

Results of Re-inspection:

Part 232.16 requires that dry cleaning facilities that use non-vented equipment be reinspected within ONE YEAR of the date of this inspection. Facilities using vented equipment must be reinspected within 6 MONTHS and every 6 months, thereafter.

I certify this report was prepared by me or under my direct supervision, and all information submitted is true, accurate, and complete.

Registered inspector's name (print) David Michalewski, P.E.

Registered inspector's address (print) 159 Temple Drive, Cheektowaga, New York 14225

Registered inspector's phone number (716) 685-3931

Registered inspector's signature David Michalewski

Date 12/4/09 Registration number 1770320808

Check Applicable box: ☒ P.E.

☐ R. A. , or

☐ C. I. H.

**ADVANCED CHEMICAL SENSORS INC.**

101 Glades Road • Boca Raton, FL 33432
(561) 338-3116 • FAX: (561) 338-5737



Reviewed by: Laurence D. Locker, Ph.D.
Laboratory Director

TO:

DATE: 11/24/2009

J.T. INSPECTION SERVICES
159 Temple Drive
Cheektowaga NY 14225

PERCHLOROETHYLENE VAPOR ANALYSIS REPORT

SAMPLE NO	DATE	NAME	EXPOSURE TIME(hr)	CONCENTRATION (ppm)
24943	11/16/09	Castle Cleaners	6:45 — 8:45 = 2.00	3.7

The OSHA permissible exposure limit is 100 ppm based on personal exposure for an 8 hour period. The New York State limit is 50 ppm.

The level measured is low compared to these exposure limits.

Limit of Quantitation(2 hr Basis): 0.35 ppm

Sample Condition: OKMethod of Analysis: NYS DOH METH 311-7

New York State Dept. Health-ELAP No. 11737

Date Received: 11/23/09

Date Analyzed: 11/23/09

16850

The Values reported are the average concentrations for the monitoring period used, based on the information provided by the user.
Analysis results for unexposed samples ("Blanks"), used for quality assurance testing, are not subtracted from the sample results reported.
Advanced Chemical Sensors Inc. is accredited by the AIHA for analysis of organic vapors and passive monitoring badges.

EWB Foster Island Wellfield Tetrachloroethene

