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## ***SITE CHARACTERIZATION REPORT***

***19 Holt Drive***

***Stony Point, Rockland County, New York***

***Site Number 344048***

***Contract Work Authorization Number: D006132-11***

***Shaw Project No.: 134685.1104***

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Prepared for:

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## **1.0 Introduction**

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Shaw Environmental & Infrastructure Engineering of New York, P.C. (Shaw) has prepared this Site Characterization (SC) Report summarizing the collection of soil and groundwater samples at the Holt Drive Property (Site Number 344048) located at 19 Kay Fries Drive (also known as Holt Drive), Stony Point, Rockland County, New York (Site) (**Figure 1**). The primary purpose of the SC was to determine the presence, nature and extent of chlorinated solvents in soil and groundwater and whether the Site or soil and groundwater quality conditions at the Site represents a significant threat to human health and/or the environment.

### **1.1 Facility Description and Location**

#### **Operational/Disposal History**

The Site was historically operated by Chromatic Paints (Chromatic). Chromatic manufactured specialty coatings for the sign industry. Gotham Ink and Color Company purchased the property in 1991 and is the current occupant. Current operations are reported to use non-halogenated solvents in the production of ink and to clean equipment. All solvents are reported to be stored in aboveground tanks inside the facility and wastes are reportedly disposed of off-site based upon information provided to Shaw.

This Site was identified as being of potential concern during an off-site Preliminary Site Assessment (PSA) for the nearby Kay Fries Drive Site (Site No. 344023). In June 1998 a PSA was prepared for the Kay Fries Site as well as the adjacent property to the west, Stony Point Electronics, located at 15 Holt Drive. The PSA included the installation of seven monitoring wells (3 deep /4 shallow) two of which are on the adjacent property. Groundwater data generated during the PSA showed exceedances of pertinent New York State groundwater standards in shallow groundwater monitoring wells for 1,1,1-Trichloroethane (1,1,1-TCA) and 1,1-Dichloroethene at maximum levels of 680 and 62 µg/L, respectively. The PSA did not identify a clear source of contamination which warranted further investigation.

As discussed above, the intent of this investigation was to determine if conditions at the Site presents a significant threat to human health and/or the environment. The scope of work is detailed in **Section 2.0** of this report.

## *2.0 Scope of Work*

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### *2.1 Field Sampling Activities*

The scope of work included the collection of six surficial soil samples; five of the six surficial soil locations were completed as soil borings. Three of the soil borings were completed as monitoring wells. **Figure 2** is included as a Site Map and presents the locations of each of these sampling points.

One visit was made to the Site and surrounding properties prior to the initiation of site assessment activities. On October 22, 2010 Shaw personnel met with New York State Department of Environmental Conservation (NYSDEC) to conduct a site walk and discuss the proposed scope of work. The procedures and results of the Site investigative activities are detailed below. A photographic log is included as **Appendix A**.

### *2.2 Soil Sampling*

#### *2.2.1 Surficial Soil Sampling*

Six surficial soil samples (SS-1 through SS-6) were collected on January 4, 2011 at the locations indicated on **Figure 2**. The surficial samples were collected from 0-2 inches below ground surface (bgs) in all locations except for SS-2 and SS-6 which were collected from 0-6 inches bgs due to their locations on asphalt. All samples were collected using a clean, stainless steel scoop and placed directly into the sample jars. All sampling tools and field instruments were decontaminated with an alconox rinse between locations following the procedures outlined in the Quality Assurance Program Plan (QAPP). The surficial soil samples were logged by a Shaw geologist using the Unified Soil Classification System (ASTM D 2487-85) and field screened for VOCs using a MiniRae<sup>TM</sup> PID. The surficial soils consist mostly of Brown fine to medium Sand. Field notes are included as **Appendix B**.

All samples were sent to Katahdin Analytical Services (Kathadin) in Scarborough, Maine for full Target Compound List (TCL) analytes (including volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), total and dissolved metals, mercury, cyanide, pesticides and poly-chlorinated biphenyls (PCBs)) as requested by the approved Work Authorization (WA).

### ***2.2.2 Soil Boring Sampling***

Five of the six surficial soil sample locations were advanced as soil borings by the drilling subcontractor, Parratt-Wolff, Inc between January 4 and January 6, 2011. The soil borings were advanced through the unconsolidated deposits to a maximum depth of 28 feet below ground surface (bgs). The soil borings were logged by a Shaw geologist using the Unified Soil Classification System (ASTM D 2487-85) and field screened for VOCs using a MiniRae<sup>TM</sup> PID calibrated to 100 parts per million (ppm) of isobutylene. Field notes are included as **Appendix B**.

Soil samples were collected continuously from the ground surface to the top of the groundwater table using rig mounted 4 ¼" augers with a 2-foot split spoon sampler. The "split spoons" were logged to provide vertical characterization of any impacts as well as stratigraphic information for the Site. The borings were advanced to a maximum depth of 28 feet bgs for the collection of soil samples at locations which exhibited the highest PID reading and/or were secured at or near the water table interface.

All samples were sent to Katahdin for full TCL list of analytes including VOCs, SVOCs, total metal and dissolved metals, mercury, cyanide, pesticides and PCBs. The following samples were secured for laboratory analysis:

- SB-2 (17'-19');
- SB-3 (24'-26');
- SB-4 (20'-22');
- SB-5 (18'-21.5'); and
- SB-6 (16'-20').

Decontamination procedures between each sample and sampling location followed the procedures outlined in the QAPP. Boring logs (Drill Logs) are included in **Appendix C**. Soil cuttings were containerized and staged onsite for disposal by an approved sub contractor.

### ***2.3 Monitoring Well Installation***

The monitoring wells were installed as directed by the NYSDEC at three of the five soil boring locations. The soil boring and monitoring well correlation is as follows:

- SB-2 converted to MW-3A;
- SB-5 converted to MW-2A; and
- SB-6 converted to MW-1A.

The monitoring wells were constructed using schedule 40 PVC 10-slot screen and riser and finished with protective roadbox covers; the construction specifics are included in the drill logs in **Appendix C**. The monitoring wells were allowed to “cure” and were developed on January 7, 2011. The wells were developed using a submersible pump with clean polyethylene tubing. As detailed in the Site field sheets, 10 well volumes were removed from the wells during development of MW-1A, MW-2A and MW-3A. Development water was containerized and staged onsite for disposal by an approved sub contractor.

## ***2.4 Groundwater Sampling***

On February 7, 8 and 10, 2011 groundwater samples were collected from the newly installed monitoring wells (MW-1A, MW-2A, MW-3A) as well as from existing shallow monitoring wells installed during the June 1998 PSA (MW-4 and MW-8). The monitoring wells were gauged for depth to water and depth to bottom prior to being sampled. A groundwater contour map is included as **Figure 3**.

Groundwater samples were collected using the low-flow methodology with a battery powered peristaltic GeoPump® with clean dedicated polyethylene tubing in accordance with Shaw’s Field Activities Plan (FAP). Groundwater field parameters (pH, temperature, specific conductivity, dissolved oxygen and oxidation reduction potential) were allowed to stabilize prior to sampling. A copy of the well development and field sampling data sheets is included in **Appendix D**. Table 1 summarizes monitoring well gauging and parameter readings. The groundwater samples were sent to Katahdin for full TCL list analytes (VOCs, SVOCs, total and dissolved metals, mercury, cyanide, pesticides and PCBs.) A matrix spike and matrix spike duplicate were collected at MW-8 and a blind field duplicate was collected from MW-3A. All purged groundwater was collected and transferred into the well development drums staged onsite.

On April 14, 2011 a total of 13 drums of drill cuttings and purge water were disposed of by Innovative Recycling Technologies of Lindenhurst, NY and transported by Freehold Cartage, Inc. for disposal at EPA registered facility Vexor Technology, Inc in Medina, OH. A copy of the drum disposal manifests are included as **Appendix E**.

## ***2.5 Data Quality Control/Quality Assurance and Management***

All analytical data (**Appendix F** – provided on CD) generated throughout the course of this investigation was sent for third party validation. Environmental Data Validation, Inc. reviewed all the generated data and prepared a Data Usability Summary Report (DUSR) for each package (**Appendix G**).

## ***2.6 Site Survey***

On February 18, 2010, CT Male and Associates of Latham, NY (CT Male) completed a survey of the Site, surrounding properties and newly installed groundwater monitoring wells. CT Male provided Shaw with coordinates in NYS Plane NAD 1983 and groundwater monitoring well elevations in NAVD 1988. Using the information provided by CT Male, Shaw determined the groundwater elevation of each of the monitoring wells and created a site groundwater contour map.

The ground surface of the general area surrounding the site slopes gently to the northeast of Kay Fries or Holt Drive. Groundwater contour maps were prepared using the groundwater elevation data obtained during the February sampling event and are presented as **Figure 3**. The groundwater elevation difference between MW-3A and MW-1A was 11.72. The horizontal hydraulic gradient for the February event is relatively flat-0.0404 (MW-3 to MW-1). Groundwater appears to be flowing in a northern direction toward Kay Fries Drive.



### **3.0 Analytical Results**

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#### **3.1 Soil Sampling (Surficial and Soil Boring)**

The analytical results are summarized and compared to NYSDEC Recommended Soil Cleanup Objectives (RSCOs) for unrestricted use as defined by 6 NYCRR part 375 (December 2006) on **Table 1**. The complete analytical data package is included as **Appendix F**. None of the compounds detected in any of the soil boring samples exceeded NYSDEC RSCO standards. Compounds detected above pertinent laboratory or method detection limits are presented on **Figure 4**.

#### **3.2 Groundwater Sampling**

##### **3.2.1 Groundwater Samples – Monitoring Wells**

The analytical results from the February 2011 sampling event are summarized and compared to New York State Groundwater Quality Standards (NYSGWQS) as defined in the Technical and Operational Guidance Series (TOGS) 1.1.1 for ambient water quality on **Table 2** and **Figure 5**. The complete analytical data package is included as **Appendix F**. The field data and groundwater parameters collected during the February sampling event are summarized in **Table 3**. The February 2011 groundwater sampling events detected at least one analyte at concentrations at or above the NYSGWQS in the samples collected from MW-1A, MW-2A, MW-3A, MW-4 and MW-8.

#### **3.3 Quality Assurance/Quality Control (QA/QC)**

QA/QC samples were collected and analyzed to evaluate field and laboratory quality control. Results are included in the laboratory packages (**Appendices F**). The relative percent difference for duplicate samples were acceptable. The matrix spike samples were also acceptable.

#### **3.4 Data Usability Summary Report (DUSR)**

All DUSRs produced for this project by Environmental Data Validation, Inc. are included as **Appendix G**. In general all data is good and considered usable.

As noted in the DUSR for SE0092 (soil and groundwater), most sample results are usable as reported, or usable with minor qualification due to sample matrix or to processing outliers. One result of 3,3-Dichlorobenzidine for SS-5 (0-2”) is not usable due to an apparent matrix effect.

Two SVOCs (Hexachlorocyclopentadiene and 2,4-Dinitrophenol) in the equipment blank soils (EB-1 and EB-2) are not usable due to laboratory processing. The holding times, surrogates, matrix spikes, field quality control and compound quantitation were all acceptable with the exception of that for iron in the total fraction of groundwater sample MW-3A. The result for Iron in the parent sample and its duplicate has been qualified as an estimated value. The result for 1,1,1- TCA in MW-2A was qualified as being tentative in identification and an estimated value which should be used with caution as potential false positive and/or elevated quantitative value.

## 4.0 *Investigation Findings*

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Soil and groundwater data generated during the course of Site investigative activities indicate the following findings:

1. There were no analytes detected above the RSCOs for unrestricted use in any of the surficial soil samples or soil boring samples.
2. Based upon groundwater measurements collected and topography, groundwater is flowing northerly, across the Site. Hydraulic gradients for the February event are relatively flat -0.0404 feet/foot (MW-3A to MW-1A).
3. Analytes equal or exceeding the NYSGWQS were found in 5 of the 5 groundwater samples collected from the existing (MW-4 and MW-8) and newly installed (MW-1A, MW-2A, MW-3A) shallow monitoring wells. Results exceeding the NYSDGWQS are as follows:
  - 1,1,1-TCA [5 µg/l] – 5 J NJ µg/l (MW-2A); 6 µg/l (MW-8); 10 µg/l (MW-1A);
  - Iron [300 µg/l] – 1,580 µg/l (MW-1A) and 2,410 µg/l (MW-4);
  - Sodium [20,000 µg/l] – 27,500 µg/l (MW-2A); 97,500 µg/l (MW-3A); 36,800 µg/l (MW-4); 36,300 µg/l (MW-8); 49,800 µg/l (MW-1A).



Table 1  
Soil Analytical Data  
Holt Drive  
Stony Point, Rockland County, New York

Analyte	NYSDEC Soil Cleanup Objectives (Unrestricted)	NYSDEC Soil Cleanup Objectives (Commercial)	NYSDEC Soil Cleanup Objectives (Industrial)	SS-1 (0-2")	SS-2 (0-6")	SB-2 (17'-19')	SS-3 (0-2")	SB-3 (24'-26')	SS-4 (0-2")	SB-4 (20-22')	SS-5 (0-2")	SB-5 (18-21.5')	SS-6 (0-6")	SB-6 (16-20')	SS-DUP	SB-DUP	EB-1 WATER	EB-2 WATER
Sample Date				1/4/2011	1/4/2011	1/4/2011	1/4/2011	1/4/2011	1/4/2011	1/5/2011	1/5/2011	1/5/2011	1/6/2011	1/6/2011			1/6/2011	1/6/2011
VOCs																		
Chloromethane	-	-	-	<0.012	<0.013	<0.012	<0.013	<0.012	<0.012	<0.012	<0.012	<0.010	<0.011	<0.012	<0.011	<0.012	<0.002	<0.002
Bromomethane	-	-	-	<0.012	<0.013	<0.012	<0.013	<0.012	<0.012	<0.012	<0.012	<0.010	<0.011	<0.012	<0.011	<0.012	<0.002	<0.002
Vinyl Chloride	0.02	13	27	<0.012	<0.013	<0.012	<0.013	<0.012	<0.012	<0.012	<0.012	<0.010	<0.011	<0.012	<0.011	<0.012	<0.002	<0.002
Chloroethane	-	-	-	<0.012	<0.013	<0.012	<0.013	<0.012	<0.012	<0.012	<0.012	<0.010	<0.011	<0.012	<0.011	<0.012	<0.002	<0.002
Methylene Chloride	0.05	500 <sup>b</sup>	1,000 <sup>c</sup>	<0.029	<0.032	<0.031	<0.032	<0.029	<0.030	<0.030	<0.030	<0.026	<0.028	<0.030	<0.027	<0.029	<0.005	<0.005
Acetone	0.05	500 <sup>b</sup>	1,000 <sup>c</sup>	<0.029	<b>0.017J</b>	<b>0.023J</b>	<b>0.022J</b>	<0.029	<b>0.009J</b>	<b>0.009J</b>	<b>0.010J</b>	<b>0.008J</b>	<b>0.009J</b>	<b>0.010J</b>	<b>0.006J</b>	<0.029	<0.005	<0.005
Carbon Disulfide	-	-	-	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.005	<0.006	<0.006	<0.005	<0.006	<0.001	<0.001
1,1-Dichloroethene	0.33	500 <sup>b</sup>	1,000 <sup>c</sup>	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.005	<0.006	<0.006	<0.005	<0.006	<0.001	<0.001
1,1-Dichloroethane	0.27	240	480	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.005	<0.006	<0.006	<0.005	<0.006	<0.001	<0.001
cis-1,2-Dichloroethene	0.25	500 <sup>b</sup>	1,000 <sup>c</sup>	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.005	<0.006	<0.006	<0.005	<0.006	<0.001	<0.001
trans-1,2-Dichloroethene	0.19	500 <sup>b</sup>	1,000 <sup>c</sup>	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.005	<0.006	<0.006	<0.005	<0.006	<0.001	<0.001
Chloroform	0.37	350	700	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.005	<0.006	<0.006	<0.005	<0.006	<0.001	<0.001
1,2-Dichloroethane	-	-	-	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.005	<0.006	<0.006	<0.005	<0.006	<0.001	<0.001
1,3-Dichlorobenzene	2.4	280	560	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.005	<0.006	<0.006	<0.005	<0.006	<0.001	<0.001
2-Butanone	-	-	-	<0.029	<0.032	<0.031	<0.032	<0.029	<0.030	<0.030	<b>&lt;0.030 UJ</b>	<0.026	<0.028	<0.030	<0.027	<0.029	<0.005	<0.005
1,1,1-Trichloroethane	0.68	500 <sup>b</sup>	1,000 <sup>c</sup>	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.005	<0.006	<0.006	<0.005	<0.006	<0.001	<0.001
Carbon Tetrachloride	0.76	22	44	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.005	<0.006	<0.006	<0.005	<0.006	<0.001	<0.001
Bromodichloromethane	-	-	-	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.005	<0.006	<0.006	<0.005	<0.006	<0.001	<0.001
1,2-Dichloropropane	-	-	-	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.005	<0.006	<0.006	<0.005	<0.006	<0.001	<0.001
cis-1,3-Dichloropropene	-	-	-	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<b>&lt;0.006 UJ</b>	<0.005	<0.006	<0.006	<0.005	<0.006	<0.001	<0.001
Trichloroethene	0.47	200	400	<b>0.003J</b>	<0.006	<0.006	<b>0.002J</b>	<0.006	<b>0.003J</b>	<0.006	<0.006	<b>0.0009J J<sup>1</sup></b>	<0.006	<b>0.0009J</b>	<0.005	<b>0.0007J</b>	<0.001	<0.001
Dibromochloromethane	-	-	-	<b>&lt;0.006 UJ</b>	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.005	<0.006	<0.006	<0.005	<0.006	<0.001	<0.001
1,1,2-Trichloroethane	-	-	-	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.005	<0.006	<0.006	<0.005	<0.006	<0.001	<0.001
Benzene	0.06	44	89	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.005	<0.006	<0.006	<0.005	<0.006	<0.001	<0.001
trans-1,3-Dichloropropene	-	-	-	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.005	<0.006	<0.006	<0.005	<0.006	<0.001	<0.001
Bromoform	-	-	-	<b>&lt;0.006 UJ</b>	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.005	<0.006	<0.006	<0.005	<0.006	<0.001	<0.001
4-Methyl-2-Pentanone	-	-	-	<0.029	<0.032	<0.031	<0.032	<0.029	<0.030	<0.030	<b>&lt;0.030 UJ</b>	<0.026	<0.028	<0.030	<0.027	<0.029	<0.005	<0.005
2-Hexanone	-	-	-	<b>&lt;0.029 UJ</b>	<0.032	<0.031	<0.032	<0.029	<0.030	<0.030	<b>&lt;0.030 UJ</b>	<0.026	<0.028	<0.030	<0.027	<0.029	<0.005	<0.005
Tetrachloroethene	1.3	150	300	<b>0.005J</b>	<0.006	<0.006	<b>0.004J</b>	<0.006	<b>0.005J</b>	<0.006	<b>0.003J</b>	<0.005	<0.006	<0.006	<0.005	<0.006	<0.001	<0.001
1,1,2,2-Tetrachloroethane	-	-	-	<b>&lt;0.006 UJ</b>	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<b>&lt;0.006 UJ</b>	<0.005	<0.006	<0.006	<0.005	<0.006	<0.001	<0.001
Toluene	0.7	500 <sup>b</sup>	1,000 <sup>c</sup>	<0.006	<0.006	<0.006	<b>&lt;0.006 UJ</b>	<0.006	<b>&lt;0.006 UJ</b>	<0.006	<0.006	<0.005	<0.006	<0.006	<0.005	<0.006	<b>0.002</b>	<b>0.002</b>
Chlorobenzene	1.1	500 <sup>b</sup>	1,000 <sup>c</sup>	<b>&lt;0.006 UJ</b>	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.005	<0.006	<0.006	<0.005	<0.006	<0.001	<0.001
Ethyl Benzene	1	390	780	<b>&lt;0.006 UJ</b>	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.005	<0.006	<0.006	<0.005	<0.006	<0.001	<0.001
Styrene	-	-	-	<b>&lt;0.006 UJ</b>	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<b>&lt;0.006 UJ</b>	<0.005	<0.006	<0.006	<0.005	<0.006	<0.001	<0.001
m/p-Xylenes	0.26	500 <sup>b</sup>	1,000 <sup>c</sup>	<b>0.006J J<sup>1</sup></b>	<0.013	<0.012	<b>0.004J</b>	<0.012	<b>0.004J</b>	<0.012	<b>0.002J</b>	<0.010	<0.011	<0.012	<0.011	<0.012	<0.002	<0.002
o-Xylene	0.26	500 <sup>b</sup>	1,000 <sup>c</sup>	<b>0.004J J<sup>1</sup></b>	<0.006	<0.006	<b>0.003J</b>	<0.006	<b>0.004J</b>	<0.006	<b>0.002 J</b>	<0.005	<0.006	<0.006	<0.005	<0.006	<0.001	<0.001
1,2-Dichloroethylene (total)	-	-	-	<0.012	<0.013	<0.012	<0.013	<0.012	<0.012	<0.012	<0.012	<0.010	<0.011	<0.012	<0.011	<0.012	<0.002	<0.002
Xylenes (total)	0.26	500 <sup>b</sup>	1,000 <sup>c</sup>	<b>0.010J J<sup>1</sup></b>	<0.019	<0.019	<b>0.007J</b>	<0.018	<b>0.008J</b>	<0.018	<b>0.004J</b>	<0.016	<0.017	<0.018	<0.016	<0.017	<0.003	<0.003

Notes:  
Analytical results presented in mg/kg (ppm).  
NYSDEC Soil Cleanup Objectives obtained from 6 NYCRR Part 375, Table A - Unrestricted use; Table B - Restricted commercial use; Table C- Restricted industrial use  
<sup>b</sup> = The SCO's for commercial use were capped at a maximum value of 500 ppm.  
<sup>c</sup> = For constituents where the calculated SCO was lower than the rural soil background concentration, the rural soil background is used.  
<sup>c1</sup> = SCO's for industrial use and the protection of groundwater were capped at a maximum value of 1000ppm  
**Bold** = Analyte detected above laboratory method detection limits  
SB-DUP collected from SB-6 (16-20')  
SS-DUP collected from SS-6 (0-6")  
< = Analyte not detected above laboratory method detection limits  
J = Indicates an estimated value  
J<sup>1</sup> = The analyte was positively identified; the associated numerical value is an approximate [ ] of the analyte in the sample.  
UJ = The analyte was not detected. The associated reported quantitation limit is an estimate and may be inaccurate or imprecise.  
- = No Soil cleanup objective listed for analyte

**Table 1**  
**Soil Analytical Data**  
**Holt Drive**  
**Stony Point, Rockland County, New York**

Analyte	NYSDEC Soil Cleanup Objectives (Unrestricted)	NYSDEC Soil Cleanup Objectives (Commercial)	NYSDEC Soil Cleanup Objectives (Industrial)	SS-1 (0-2")	SS-2 (0-6")	SB-2 (17'-19")	SS-3 (0-2")	SB-3 (24'-26")	SS-4 (0-2")	SB-4 (20-22")	SS-5 (0-2")	SB-5 (18-21.5")	SS-6 (0-6")	SB-6 (16-20")	SS-DUP	SB-DUP	EB-1 WATER	EB-2 WATER
Sample Date				1/4/2011	1/4/2011	1/4/2011	1/4/2011	1/4/2011	1/4/2011	1/5/2011	1/5/2011	1/5/2011	1/6/2011	1/6/2011			1/6/2011	1/6/2011
SVOCs																		
Phenol	0.33 <sup>b</sup>	500 <sup>b</sup>	1,000 <sup>c</sup>	<0.380	<0.420	<0.400	<.380	<0.410	<0.420	<0.390	<0.400	<0.380	<0.360	<0.400	<0.380	<0.390	<0.009	<0.009
Bis (2-Chloroethyl) Ether	-	-	-	<0.380	<0.420	<0.400	<.380	<0.410	<0.420	<0.390	<0.400	<0.380	<0.360	<0.400	<0.380	<0.390	<0.009	<0.009
2-Chlorophenol	-	-	-	<0.380	<0.420	<0.400	<.380	<0.410	<0.420	<0.390	<0.400	<0.380	<0.360	<0.400	<0.380	<0.390	<0.009	<0.009
1,3-Dichlorobenzene	-	-	-	<0.380	<0.420	<0.400	<.380	<0.410	<0.420	<0.390	<0.400	<0.380	<0.360	<0.400	<0.380	<0.390	<0.009	<0.009
1,4-Dichlorobenzene	-	-	-	<0.380	<0.420	<0.400	<.380	<0.410	<0.390	<0.400	<0.380	<0.360	<0.360	<0.400	<0.390	<0.390	<0.009	<0.009
1,2-Dichlorobenzene	-	-	-	<0.380	<0.420	<0.400	<.380	<0.410	<0.420	<0.390	<0.400	<0.380	<0.360	<0.400	<0.380	<0.390	<0.009	<0.009
2-Methylphenol	-	-	-	<0.380	<0.420	<0.400	<.380	<0.410	<0.420	<0.390	<0.400	<0.380	<0.360	<0.400	<0.380	<0.390	<0.009	<0.009
2,2'-Oxybis (1-Chloropropane)	-	-	-	<0.380	<0.420	<0.400	<.380	<0.410	<0.420	<0.390	<0.400	<0.380	<0.360	<0.400	<0.380	<0.390	<0.009	<0.009
N-Nitroso-di-n-propylamine	-	-	-	<0.380	<0.420	<0.400	<.380	<0.410	<0.420	<0.390	<0.400	<0.380	<0.360	<0.400	<0.380	<0.390	<0.009	<0.009
3&4-Methylphenol	-	-	-	<0.380	<0.420	<0.400	<.380	<0.410	<0.420	<0.390	<0.400	<0.380	<0.360	<0.400	<0.380	<0.390	<0.009	<0.009
Hexachloroethane	-	-	-	<0.380	<0.420	<0.400	<.380	<0.410	<0.420	<0.390	<0.400	<0.380	<0.360	<0.400	<0.380	<0.390	<0.009	<0.009
Nitrobenzene	-	-	-	<0.380	<0.420	<0.400	<.380	<0.410	<0.420	<0.390	<0.400	<0.380	<0.360	<0.400	<0.380	<0.390	<0.009	<0.009
Isophorone	-	-	-	<0.380	<0.420	<0.400	<.380	<0.410	<0.420	<0.390	<0.400	<0.380	<0.360	<0.400	<0.380	<0.390	<0.009	<0.009
2-Nitrophenol	-	-	-	<0.380	<0.420	<0.400	<.380	<0.410	<0.420	<0.390	<0.400	<0.380	<0.360	<0.400	<0.380	<0.390	<0.009	<0.009
2,4-Dimethylphenol	-	-	-	<0.380	<0.420	<0.400	<.380	<0.410	<0.420	<0.390	<0.400	<0.380	<0.360	<0.400	<0.380	<0.390	<0.009	<0.009
Bis (2-Chloroethoxy) methane	-	-	-	<0.380	<0.420	<0.400	<.380	<0.410	<0.420	<0.390	<0.400	<0.380	<0.360	<0.400	<0.380	<0.390	<0.009	<0.009
2,4-Dichlorophenol	-	-	-	<0.380	<0.420	<0.400	<.380	<0.410	<0.420	<0.390	<0.400	<0.380	<0.360	<0.400	<0.380	<0.390	<0.009	<0.009
1,2,4-Trichlorobenzene	-	-	-	<0.380	<0.420	<0.400	<.380	<0.410	<0.420	<0.390	<0.400	<0.380	<0.360	<0.400	<0.380	<0.390	<0.009	<0.009
Naphthalene	12	500 <sup>b</sup>	1,000 <sup>c</sup>	<0.380	<0.420	<0.400	<.380	<0.410	<0.420	<0.390	<0.400	<0.380	<0.360	<0.400	<0.380	<0.390	<0.009	<0.009
4-Chloroaniline	-	-	-	<0.380	<0.420	<0.400	<.380	<0.410	<0.420	<0.390	<0.400	<0.380	<0.360	<0.400	<0.380	<0.390	<0.009	<0.009
Hexachlorobutadiene	-	-	-	<0.380	<0.420	<0.400	<.380	<0.410	<0.420	<0.390	<0.400	<0.380	<0.360	<0.400	<0.380	<0.390	<0.009	<0.009
4-Chloro-3-Methylphenol	-	-	-	<0.380	<0.420	<0.400	<.380	<0.410	<0.420	<0.390	<0.400	<0.380	<0.360	<0.400	<0.380	<0.390	<0.009	<0.009
2-Methylnaphthalene	-	-	-	<0.380	<0.420	<0.400	<.380	<0.410	<0.420	<0.390	<0.400	<0.380	<0.360	<0.400	<0.380	<0.390	<0.009	<0.009
1-Methylnaphthalene	-	-	-	<0.380	<0.420	<0.400	<.380	<0.410	<0.420	<0.390	<0.400	<0.380	<0.360	<0.400	<0.380	<0.390	<0.009	<0.009
Hexachlorocyclopentadiene	-	-	-	<0.380	<0.420	<0.400	<.380	<0.410	<0.420	<0.390	<0.400	<0.380	<0.360	<0.400	<0.380	<0.390	<0.009	<0.009
2,4,6-Trichlorophenol	-	-	-	<0.380	<0.420	<0.400	<.380	<0.410	<0.420	<0.390	<0.400	<0.380	<0.360	<0.400	<0.380	<0.390	<0.009	<0.009
2,4,5-Trichlorophenol	-	-	-	<0.380	<1	<1	<0.95	<1	<1	<0.970	<0.990	<0.940	<0.890	<1	<0.960	<0.960	<0.024	<0.024
2-Chloronaphthalene	-	-	-	<0.380	<0.420	<0.400	<.380	<0.410	<0.420	<0.390	<0.400	<0.380	<0.360	<0.400	<0.380	<0.390	<0.009	<0.009
2-Nitroaniline	-	-	-	<0.940	<1	<1	<0.95	<1	<1	<0.970	<0.990	<0.940	0.890	<1	<0.960	<0.960	<0.024	<0.024
Dimethyl Phthalate	-	-	-	<0.380	<0.420	<0.400	<.380	<0.410	<0.420	<0.390	<0.400	<0.380	<0.360	<0.400	<0.380	<0.390	<0.009	<0.009
2,6-Dinitrotoluene	-	-	-	<0.380	<0.420	<0.400	<.380	<0.410	<0.420	<0.390	<0.400	<0.380	<0.360	<0.400	<0.380	<0.390	<0.009	<0.009
Acenaphthylene	-	-	-	<0.380	<0.420	<0.400	<.380	<0.410	<0.420	<0.390	<0.400	<0.380	<0.360	<0.400	<0.380	<0.390	<0.009	<0.009
3-Nitroaniline	-	-	-	<0.940	<1	<1	<0.95	<1	<1	<0.970	<0.990	<0.940	0.890	<1	<0.960	<0.960	<0.024	<0.024
Acenaphthene	-	-	-	<0.380	<0.420	<0.400	<.380	<0.410	<0.420	<0.390	<0.400	<0.380	<0.360	<0.400	<0.380	<0.390	<0.009	<0.009
2,4-Dinitrophenol	-	-	-	<0.940	<1	<1	<0.95	<1	<1	<0.970	<0.990	<0.940	0.890	<1	<0.960	<0.960	<0.024 R	<0.024 R
Dibenzofuran	-	-	-	<0.380	<0.420	<0.400	<.380	<0.410	<0.420	<0.390	<0.400	<0.380	<0.360	<0.400	<0.380	<0.390	<0.009	<0.009
4-Nitrophenol	-	-	-	<0.940	<1	<1	<0.95	<1	<1	<0.970	<0.990	<0.940	0.890	<1	<0.960	<0.960	<0.024	<0.024
2,4-Dinitrotoluene	-	-	-	<0.380	<0.420	<0.400	<.380	<0.410	<0.420	<0.390	<0.400	<0.380	<0.360	<0.400	<0.380	<0.390	<0.009	<0.009
Diethylphthalate	-	-	-	<0.380	<0.420	<0.400	<.380	<0.410	<0.420	<0.390	<0.400	<0.380	<0.360	<0.400	<0.380	<0.390	<0.009	<0.009
Fluorene	-	-	-	<0.380	<0.420	<0.400	<.380	<0.410	<0.420	<0.390	<0.400	<0.380	<0.360	<0.400	<0.380	<0.390	<0.009	<0.009
4-Chlorophenyl-phenylether	-	-	-	<0.380	<0.420	<0.400	<.380	<0.410	<0.420	<0.390	<0.400	<0.380	<0.360	<0.400	<0.380	<0.390	<0.009	<0.009
4-Nitroaniline	-	-	-	<0.940	<1	<1	<0.95	<1	<1	<0.970	<0.990	<0.940	0.890	<1	<0.960	<0.960	<0.024	<0.024
4,6-Dinitro-2-Methylphenol	-	-	-	<0.940	<1	<1	<0.95	<1	<1	<0.970	<0.990	<0.940	0.890	<1	<0.960	<0.960	<0.024 UJ	<0.024 UJ
N-Nitrosodiphenylamine	-	-	-	<0.380	<0.420	<0.400	<.380	<0.410	<0.420	<0.390	<0.400	<0.380	<0.360	<0.400	<0.380	<0.390	<.009	<0.009
4-Bromophenyl-phenylether	-	-	-	<0.380	<0.420	<0.400	<.380	<0.410	<0.420	<0.390	<0.400	<0.380	<0.360	<0.400	<0.380	<0.390	<.009	<0.009
Hexachlorobenzene	-	-	-	<0.380	<0.420	<0.400	<.380	<0.410	<0.420	<0.390	<0.400	<0.380	<0.360	<0.400	<0.380	<0.390	<.009	<0.009
Pentachlorophenol	0.8 <sup>b</sup>	6.7	55	<0.940	<1	<1	<0.95	<1	<1	<0.970	<0.990	<0.940	0.890	<1	<0.960	<0.960	<0.024	<0.024
Phenanthrene	100	500 <sup>b</sup>	1,000 <sup>c</sup>	<0.380	<0.420	<0.400	<b>0.56</b>	<0.410	<b>0.390J</b>	<0.390	<b>0.370J</b>	<0.380	<0.360	<0.400	<0.380	<0.390	<0.009	<0.009
Anthracene	-	-	-	<0.380	<0.420	<0.400	<b>1.10J</b>	<0.410	<0.390	<0.410	<b>0.330J</b>	<0.380	<0.360	<0.400	<0.380	<0.390	<0.009	<0.009
Carbazole	-	-	-	<0.380	<0.420	<0.400	<.380	<0.410	<0.420	<0.390	<0.400	<0.380	<0.360	<0.400	<0.380	<0.390	<0.009	<0.009
Di-n-butylphthalate	-	-	-	<0.380	<0.420	<0.400	<.380	<0.410	<0.420	<0.390	<0.400	<0.380	<0.360	<0.400	<0.380	<0.390	<0.009	<0.009
Fluoranthene	-	-	-	<0.380	<0.420	<0.400	<b>1.9</b>	<0.410	<b>0.88</b>	<0.390	<b>0.76</b>	<0.380	<0.360	<0.400	<0.380	<0.390	<0.009	<0.009
Pyrene	100	500 <sup>b</sup>	1,000 <sup>c</sup>	<0.380	<0.420	<0.400	<b>1.5</b>	<0.410	<b>0.72</b>	<0.390	<b>0.66</b>	<0.380	<0.360	<0.400	<0.380	<0.390	<0.009	<0.009
Butylbenzylphthalate	-	-	-	<0.380	<0.420	<0.400	<.380	<0.410	<0.420	<0.390	<0.400	<0.380	<0.360	<0.400	<0.380	<0.390	<0.009	<0.009
Benzo(a)anthracene	-	-	-	<0.380	<0.420	<0.400	<b>0.76</b>	<0.410	<b>0.330J</b>	<0.390	<b>0.280J</b>	<0.380	<0.360	<0.400	<0.380	<0.390	<0.009	<0.009
3,3'-Dichlorobenzidine	-	-	-	<0.380	<0.420	<0.400	<.380	<0.410	<0.420	<0.390	<b>&lt;0.400 R</b>	<0.380	<0.360	<0.400	<0.380	<0.390	<0.009	<0.009
Chrysene	-	-	-	<0.380	<0.420	<0.400	<b>0.88</b>	<0.410	<b>0.46</b>	<0.390	<0.400	<0.380	<0.360	<0.400				

Notes:  
Analytical results presented in mg/kg (ppm).  
NYSDEC Soil Cleanup Objectives obtained from 6 NYCRR Part 375, Table A - Unrestricted use; Table B - Restricted commercial use; Table C- Restricted industrial use  
<sup>b</sup> = The SCOs for commercial use were capped at a maximum value of 500 ppm.  
**Bold** = Analyte detected above laboratory method detection limits  
Shaded = Analyte detected above NYSDEC Soil Cleanup Objectives  
SB-DUP collected from SB-6 (16-20")  
SS-DUP collected from SS-6 (0-6")  
J = Indicates an estimated value  
UJ = The analyte was not detected. The associated reported quantitation limit is an estimate and may be inaccurate or imprecise.  
R = The data are unusable. The analyte may or may not be present.  
< = Analyte not detected above laboratory method detection limits  
- = No Soil cleanup objective listed for analyte

Table 1  
Soil Analytical Data  
Holt Drive  
Stony Point, Rockland County, New York

Analyte	NYSDEC Soil Cleanup Objectives (Unrestricted)	NYSDEC Soil Cleanup Objectives (Commercial)	NYSDEC Soil Cleanup Objectives (Industrial)	SS-1 (0-2")	SS-2 (0-6")	SB-2 (17'-19")	SS-3 (0-2")	SB-3 (24'-26')	SS-4 (0-2")	SB-4 (20-22')	SS-5 (0-2")	SB-5 (18-21.5')	SS-6 (0-6")	SB-6 (16-20')	SS-DUP	SB-DUP	EB-1 WATER	EB-2 WATER
				1/4/2011	1/4/2011	1/4/2011	1/4/2011	1/4/2011	1/4/2011	1/5/2011	1/5/2011	1/5/2011	1/6/2011	1/6/2011			1/6/2011	1/6/2011
Pesticides																		
alpha-BHC	0.02	3.4	6.8	<.0018	<.0021	<.0019	<.002	<.002	<.0021	.0008J	0.002	0.0056	.0015J	0.0063	0.003	0.0063	<.000047	<.000047
gamma-BHC	-	-	-	<.0018	<.0021	<.0019	<.002	<.002	<.0021	<.0019	<.002	<.0018	<.0019	<.002	<.0019	<.0019	<.000047	<.000047
Heptachlor	0.042	9.2	29	<.0018	<.0021	<.0019	<.002	<.002	<.0021	<.0019	<.002	<.0018	<.0019	<.002	<.0019	<.0019	<.000047	<.000047
Aldrin	0.005 <sup>c</sup>	0.68	1.4	<.0018	<.0021	<.0019	<.002	<.002	<.0021	<.0019	<.002	<.0018	<.0019	<.002	<.0019	<.0019	<.000047	<.000047
beta-BHC	0.036	3	14	<.0018	<.0021	<.0019	<.002	<.002	<.0021	<.0019	<.002	<.0018	<.0019	<.002	<.0019	<.0019	<.000047	<.000047
delta-BHC	0.04	500 <sup>b</sup>	1,000 <sup>c</sup>	<.0018	<.0021	<.0019	<.002	<.002	<.0021	<.0019	<.002	<.0018	<.0019	<.002	<.0019	<.0019	<.000047	<.000047
Heptachlor Epoxide	-	-	-	<.0018	<.0021	<.0019	<.002	<.002	<.0021	<.0019	<.002	<.0018	<.0019	<.002	<.0019	<.0019	<.000047	<.000047
Endosulfan I	2.4	200 <sup>f</sup>	920 <sup>f</sup>	.00047J	<.0021	<.0019	<.002	<.002	<.0021	<.0019	<.002	<.0018	<.0019	<.002	<.0019	<.0019	<.000047	<.000047
gamma-Chlordane	-	-	-	<.0018	<.0021	<.0019	<.002	<.002	<.0021	<.0019	<.002	<.0018	<.0019	<.002	<.0019	<.0019	<.000047	<.000047
alpha-Chlordane	0.094	24	47	<.0018	<.0021	<.0019	<.002	<.002	<.0021	<.0019	<.002	<.0018	<.0019	<.002	<.0019	<.0019	<.000047	<.000047
4,4'-DDE	0.0033 <sup>b</sup>	62	120	.00087J	<.0042	<.0038	0.001J	<.0039	.0033J	<.0037	.0015J	.00075J	.00062J	<.0038	.00065J	<.0037	<.000094	<.000094
Dieldrin	0.005 <sup>c</sup>	1.4	2.8	<.0036	<.0042	<.0038	<.0039	<.0039	<.0041	<.0037	<.0038	<.0036	<.0036	<.0038	<.0037	<.0037	<.000094	<.000094
Endrin	0.014	89	410	<.0036	<.0042	<.0038	<.0039	<.0039	<.0041	<.0037	<.0038	<.0036	<.0036	<.0038	<.0037	<.0037	<.000094	<.000094
4,4'-DDD	0.0033 <sup>b</sup>	92	180	<.0036	<.0042	<.0038	<.0039	<.0039	<.0041	<.0037	<.0038	<.0036	<.0036	<.0038	<.0037	<.0037	<.000094	<.000094
Endosulfan II	2.4	200 <sup>f</sup>	920 <sup>f</sup>	<.0036	<.0042	<.0038	.00075J J <sup>1</sup>	<.0039	<.0041	<.0037	<.0038	<.0036	<.0036	<.0038	<.0037	<.0037	<.000094	<.000094
4,4'-DDT	0.0033 <sup>b</sup>	47	94	<.0036	<.0042	<.0038	.0012J	<.0039	.0032J	<.0037	.0023J	<.0036	<.0036	<.0038	<.0037	<.0037	<.000094	<.000094
Endrin Aldehyde	-	-	-	<.0036	<.0042	<.0038	<.0039	<.0039	<.0041	<.0037	<.0038	<.0036	<.0036	<.0038	<.0037	<.0037	<.000094	<.000094
Endosulfan sulfate	2.4	200 <sup>f</sup>	920 <sup>f</sup>	<.0036	<.0042	<.0038	<.0039	<.0039	<.0041	<.0037	<.0038	<.0036	<.0036	<.0038	<.0037	<.0037	<.000094	<.000094
Methoxychlor	-	-	-	<.0018	<.0021	<.0019	<.0020	<.0020	<.0021	<.0019	<.0020	<.0018	<.0019	<.0020	<.0019	<.0019	<.000047	<.000047
Endrin Ketone	-	-	-	.0016J	<.0042	<.0038	<.0039	<.0039	<.0041	<.0037	<.0038	<.0036	<.0036	<.0038	<.0037	<.0037	<.000094	<.000094
Toxaphene	-	-	-	<.0036	<.0042	<.0038	<.0039	<.0039	<.0041	<.0037	<.0038	<.0036	<.0036	<.0038	<.0037	<.0037	<.00094	<.00094
Notes: Analytical results presented in mg/kg (ppm). NYSDEC Soil Cleanup Objectives obtained from 6 NYCRR Part 375, Table A - Unrestricted use; Table B - Restricted commercial use; Table C- Restricted industrial use <sup>b</sup> = The SCOs for commercial use were capped at a maximum value of 500 ppm. <sup>c</sup> = For constituents where the calculated SCO was lower than the rural soil background concentration, the rural soil background is used. <sup>f</sup> = This SCO is for the sum of Endosulfan I, Endosulfan II, and Endosulfan Sulfate SB-DUP collected from SB-6 (16-20') SS-DUP collected from SS-6 (0-6") J - Used for Pesticide analyte when there is a greater than 40% difference for detected concentrations between the two GC columns J <sup>1</sup> = The analyte was positively identified; the associated numerical value is an approximate [ ] of the analyte in the sample. < = Analyte not detected above laboratory method detection limits - = No Soil cleanup objective listed for analyte																		
PCBs																		
Aroclor-1016	0.1	1	25	<.0018	<.0021	<.0019	<.0020	<.0020	<.0021	<.0019	<.0020	<.0018	<.0019	<.0020	<.0019	<.0019	<.00047	<.00047
Aroclor-1221	0.1	1	25	<.0018	<.0021	<.0019	<.0020	<.0020	<.0021	<.0019	<.0020	<.0018	<.0019	<.0020	<.0019	<.0019	<.00047	<.00047
Aroclor-1232	0.1	1	25	<.0018	<.0021	<.0019	<.0020	<.0020	<.0021	<.0019	<.0020	<.0018	<.0019	<.0020	<.0019	<.0019	<.00047	<.00047
Aroclor-1242	0.1	1	25	<.0018	<.0021	<.0019	<.0020	<.0020	<.0021	<.0019	<.0020	<.0018	<.0019	<.0020	<.0019	<.0019	<.00047	<.00047
Aroclor-1248	0.1	1	25	<.0018	<.0021	<.0019	<.0020	<.0020	<.0021	<.0019	<.0020	<.0018	<.0019	<.0020	<.0019	<.0019	<.00047	<.00047
Aroclor-1254	0.1	1	25	<.0018	<.0021	<.0019	<.0020	<.0020	<.0021	<.0019	<.0020	<.0018	<.0019	<.0020	<.0019	<.0019	<.00047	<.00047
Aroclor-1260	0.1	1	25	<.0018	<.0021	<.0019	<.0020	<.0020	<.0021	<.0019	<.0020	<.0018	<.0019	<.0020	<.0019	<.0019	<.00047	<.00047
Notes: Analytical results presented in mg/kg (ppm). NYSDEC Soil Cleanup Objectives obtained from 6 NYCRR Part 375, Table A - Unrestricted use; Table B - Restricted commercial use; Table C- Restricted industrial use SB-DUP collected from SB-6 (16-20') SS-DUP collected from SS-6 (0-6") < = Analyte not detected above laboratory method detection limi																		

Table 1  
Soil Analytical Data  
Holt Drive  
Stony Point, Rockland County, New York

Analyte	NYSDEC Soil Cleanup Objectives (Unrestricted)	NYSDEC Soil Cleanup Objectives (Commercial)	NYSDEC Soil Cleanup Objectives (Industrial)	SS-1 (0-2")	SS-2 (0-6")	SB-2 (17'-19')	SS-3 (0-2")	SB-3 (24'-26')	SS-4 (0-2")	SB-4 (20-22')	SS-5 (0-2")	SB-5 (18-21.5')	SS-6 (0-6")	SB-6 (16-20')	SS-DUP	SB-DUP	EB-1 WATER	EB-2 WATER
Sample Date				1/4/2011	1/4/2011	1/4/2011	1/4/2011	1/4/2011	1/4/2011	1/5/2011	1/5/2011	1/5/2011	1/6/2011	1/6/2011			1/6/2011	1/6/2011
Metals + Cyanide (mg/kg)																		
Aluminum	-	-	-	17200	13400	9280	15000	5820	17400	6100	13200	7480	15000	5490	14800	6790	<15.2	<15.3
Antimony	-	-	-	<0.1 UJ	<0.2 UJ	<0.11 UJ	<0.11 UJ	<0.1 UJ	<0.12 UJ	<0.1 UJ	<0.1 UJ	<0.1 UJ	<0.09 UJ	<0.1 UJ	<0.12 UJ	<0.10 UJ	<1.5	<1.5
Arsenic	13 <sup>c</sup>	16 <sup>c</sup>	16 <sup>c</sup>	4.2	8.5	3.4	3.8	2.1	5.4	2.2	4.2	2.3	3.8	2.2	4.1	2.4	<1.86	<1.86
Barium	350 <sup>d</sup>	400	10,000 <sup>d</sup>	83.1	63	55.9	49.3	35.2	76	36	54.6	36.4	51.6	26.6	51.6	26.4	<0.44	<0.44
Beryllium	7.2	590	2,700	0.64	0.62	0.47J	0.55	0.34J	0.73	0.37J	0.56	0.41J	0.65	0.38J	0.63	0.38J	<0.04	<0.04
Cadmium	2.5 <sup>c</sup>	9.3	60	0.42J	0.35J	0.24J	0.30J	0.14J	0.34J	0.17J	0.26J	0.19J	0.37J	0.18J	0.28J	0.20J	<0.04	<0.04
Calcium	-	-	-	3600	1350	12900	4580	10500	1940	1900	1710	1690	1500	2010	1220	1810	<5.79	110
Chromium	-	-	-	13.2	17.4	15.2	13.8	11	16.9	13	13.7	14	15.2	10.5	15.7	14.5	<0.32	<0.32
Cobalt	-	-	-	9	10.9	7	7.9	4.8	7.1	5	6.4	5.6	9	4.8	7	5.2	<0.28	<0.28
Copper	50	270	10,000 <sup>d</sup>	54.9	25.6	16.8	15.5	10.5	18.7	12.2	16.9	12.7	22.7	11.2	20	12	8.1J	8.5J
Iron	-	-	-	21400 J <sup>1</sup>	23200 J <sup>1</sup>	16800 J <sup>1</sup>	17800 J <sup>1</sup>	12300 J <sup>1</sup>	19600 J <sup>1</sup>	13700 J <sup>1</sup>	17500 J <sup>1</sup>	14300 J <sup>1</sup>	20500 J <sup>1</sup>	13000 J <sup>1</sup>	20800 J <sup>1</sup>	13600 J <sup>1</sup>	7.6J	95.1J
Lead	63 <sup>c</sup>	1,000	3,900	10.4	10.2	6 J <sup>1</sup>	13.4	3.4	29.4	3.5 J <sup>1</sup>	20.5	4.8 J <sup>1</sup>	7.3	3.1	7.3	3.5	<0.73	<0.73
Magnesium	-	-	-	4360	4700	6000	3680	3660	3680	2630	3370	2920	4640	2510	3710	3220	<4.83	16.3J
Manganese	1600 <sup>c</sup>	10,000 <sup>d</sup>	10,000 <sup>d</sup>	456	678	278	343	200	440	254	373	270	413	180	334	210	1.0J	2.5J
Mercury	0.18 <sup>c</sup>	2.8 <sup>j</sup>	5.7 <sup>j</sup>	0.02J	0.02J	0.01J	0.16	0.005J	0.08	0.003J	0.04	0.002J	0.02J	0.002J	0.02J	0.005J	<0.04	<0.04
Nickel	30	310	10,000 <sup>d</sup>	14.5	20.9	14.4	15.1	9.4	14.6	10.2	13.6	11.3	16.7	9.3	13.8	11.4	0.36J	0.55J
Potassium	-	-	-	1280 J <sup>1</sup>	1910 J <sup>1</sup>	2000 J <sup>1</sup>	1350 J <sup>1</sup>	1340 J <sup>1</sup>	1470 J <sup>1</sup>	1320 J <sup>1</sup>	1270 J <sup>1</sup>	1450 J <sup>1</sup>	1720 J <sup>1</sup>	1100 J <sup>1</sup>	1660 J <sup>1</sup>	1400 J <sup>1</sup>	<105	11.7J
Selenium	3.9c	1,500	6,800	<0.35	<0.35	<0.38	<0.37	<0.37	<0.41	<0.34	<0.34	<0.35	<0.33	<0.34	<0.42	<0.37	<3.67	<3.68
Silver	2	1,500	6,800	0.23J	0.56J	0.24J	0.30J	0.14J	0.34J	0.17J	0.26J	0.19J	0.37J	0.18J	0.28J	0.20J	<0.04	<0.04
Sodium	-	-	-	450	481	161	82.3J	123	110	176	106	160	388	110	339	128	43.4J	143J
Thallium	-	-	-	<0.15	<0.3	<0.16	<0.16	<0.15	<0.17	<0.14	<0.14	<0.15	<0.14	<0.14	<0.18	<0.15	<0.67	<0.67
Vanadium	-	-	-	44.2	21.9	20.2	26.3	14.3	29.2	17.6	22.8	18.9	28.4	15.5	25.8	16.7	<0.39	<0.39
Zinc	109 <sup>c</sup>	10,000 <sup>d</sup>	10,000 <sup>d</sup>	52.2	52.9	37.3	43.2	22.9	57.5	26.4	48.5	28.6	42.2	22.9	39.1	25.8	12.3J	10.7J
Cyanide	-	-	-	<.55	<.6	<.6	<.6	<.6	<.6	<.55	<.6	<.55	<.55	<.55	<.55	<.55	<10	<10

Notes:  
Metals data are presented in mg/kg (ppm).  
NYSDEC Soil Cleanup Objectives obtained from 6 NYCRR Part 375, Table A - Unrestricted use; Table B - Restricted commercial use; Table C- Restricted industrial use  
<sup>c</sup> = For constituents where the calculated SCO was lower than the rural soil background concentration, the rural soil background is used.  
<sup>d</sup> = The SCOs for metals were capped at a maximum value of 10,000 ppm  
<sup>f</sup> = For constituents where the calculated SCO was lower than the rural soil background concentration as determined by the DEC/DOH rural soil survey, the rural soil background concentration is used as the Track 2 SCO value for this use of the site.  
<sup>j</sup> = This SCO is the lower of the values for mercury (elemental) or mercury (inorganic salts)  
**BD** = Analyte detected above laboratory method detection limits  
SB-DUP collected from SB-6 (16-20')  
SS-DUP collected from SS-6 (0-6")  
< = Analyte not detected above laboratory method detection limits  
J = This flag indicates an estimated value  
J<sup>1</sup> = The analyte was positively identified; the associated numerical value is an approximate [ ] of the analyte in the sample.  
UJ = The analyte was not detected. The associated reported quantitation limit is an estimate and may be inaccurate or imprecise.



**Table 2**  
**Groundwater Analytical Data**  
**Holt Drive**  
**Stony Point, Rockland County, New York**

Sample I.D.		MW-2A	MW-3A	MW-8	ERB-1	ERB-2	DUP	MW-1A	MW-4
	NYSDEC Guidance								
Sample Date		2/7/2011	2/7/2011	2/7/2011	2/7/2011	2/7/2011	2/7/2011	2/8/2011	2/10/2011
<b>VOCs</b>									
Chloromethane	5*	<2	<2	<2	<2	<2	<2	<2	<2
Bromomethane	5*	<2	<2	<2	<2	<2	<2	<2	<2
Vinyl Chloride	2	<2	<2	<2	<2	<2	<2	<2	<2
Chloroethane	5*	<2	<2	<2	<2	<2	<2	<2	<2
Methylene Chloride	5*	<5	<5	<5	<5	<5	<5	<5	<5
Acetone	50	<5	<5	<5	<5	<5	<5	<5	<5
Carbon Disulfide	60	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	5*	<1	<1	2	<1	<1	<1	4	4 J
1,1-Dichloroethane	5*	<1	<1	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	5*	<1	<1	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	5*	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	7	<1	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	0.6	<1	<1	<1	<1	<1	<1	<1	<1
2-Butanone	50	<5	<5	<5	<5	<5	<5	<5	<5
1,1,1-Trichloroethane	5*	5 J NJ	<1	6	<1	<1	<1	10	<1
Carbon Tetrachloride	5	<1	<1	<1	<1	<1	<1	<1	<1
Bromodichloromethane	50	<1	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloropropane	1	<1	<1	<1	<1	<1	<1	<1	<1
cis-1,3-Dichloropropene	0.4**	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	5*	<1	<1	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane	NGV	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2-Trichloroethane	1	<1	<1	<1	<1	<1	<1	<1	<1
Benzene	1	<1	<1	<1	<1	<1	<1	<1	<1
t-1,3-Dichloropropene	0.4**	<1	<1	<1	<1	<1	<1	<1	<1
Bromoform	50	<1	<1	<1	<1	<1	<1	<1	<1
4-Methyl-2-Pentanone	NGV	<5	<5	<5	<5	<5	<5	<5	<5
2-Hexanone	50	<5	<5	<5	<5	<5	<5	<5	<5
Tetrachloroethene	5*	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	5*	<1	<1	<1	6 J	5 J	<1	<1	<1
Toluene	5*	<1	<1	<1	<1	<1	<1	<1	<1
Chlorobenzene	5*	<1	<1	<1	<1	<1	<1	<1	<1
Ethyl Benzene	5*	<1	<1	<1	<1	<1	<1	<1	<1
Styrene	5*	<1	<1	<1	<1	<1	<1	<1	<1
m/p-Xylenes	5*	<2	<2	<2	<2	<2	<2	<2	<2
o-Xylene	5*	<1	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethylene (total)	NGV	<2	<2	<2	<2	<2	<2	<2	<2
Xylenes (total)	NGV	<3	<3	<3	<3	<3	<3	<3	<3

**Notes:**

All data are presented in µg/l or parts per billion ;  
Standards taken from NYSDEC Memorandum 1.1.1, Ambient Water Quality Standards and Guidance Values,  
and Groundwater Effluent Limitations, June 1998.  
DUP from MW-3A;

**Bold** = Analyte detected above laboratory method detection limit;

**Shaded** = Analyte detected above NYSDEC Groundwater Guidance Values;

< = Analyte not detected above laboratory method detection limits;

J = Indicates an estimated value.

NGV = No Guidance Value listed.

NJ- The detection is tentative in identification and estimated in value. Although there is presumptive evidence of the analyte, the result should be used with caution as a potential false positive and/or elevated quantitative value.

\* = The principal organic contaminant standard for groundwater of 5 µg/l applies to this substance;

\*\* = Applies to the sum of cis- and trans-1,3-dichloropropene or 1,2,4-Trichlorobenzene and 1,2,3-Trichlorobenzen

**Table 2**  
**Groundwater Analytical Data**  
**Holt Drive**  
**Stony Point, Rockland County, New York**

Sample I.D.		MW-2A	MW-3A	MW-8	ERB-1	ERB-2	DUP	MW-1A	MW-4
	NYSDEC Guidance								
Sample Date		2/7/2011	2/7/2011	2/7/2011	2/7/2011	2/7/2011	2/7/2011	2/8/2011	2/10/2011
<b>SVOCs</b>									
Phenol	1***	<9	<9	<9	<10	<9	<9	<9	<9
Bis (2-Chloroethyl) Ether	1	<9	<9	<9	<10	<9	<9	<9	<9
2-Chlorophenol	1***	<9	<9	<9	<10	<9	<9	<9	<9
1,3-Dichlorobenzene	3*	<9	<9	<9	<10	<9	<9	<9	<9
1,4-Dichlorobenzene	3*	<9	<9	<9	<10	<9	<9	<9	<9
1,2-Dichlorobenzene	3*	<9	<9	<9	<10	<9	<9	<9	<9
2-Methylphenol	1***	<9	<9	<9	<10	<9	<9	<9	<9
2,2'-Oxybis (1-Chloropropane)	NGV	<9	<9	<9	<10	<9	<9	<9	<9
N-Nitroso-di-n-propylamine	NGV	<9	<9	<9	<10	<9	<9	<9	<9
3&4-Methylphenol	NGV	<9	<9	<9	<10	<9	<9	<9	<9
Hexachloroethane	5*	<9	<9	<9	<10	<9	<9	<9	<9
Nitrobenzene	0.4	<9	<9	<9	<10	<9	<9	<9	<9
Isophorone	50	<9	<9	<9	<10	<9	<9	<9	<9
2-Nitrophenol	1***	<9	<9	<9	<10	<9	<9	<9	<9
2,4-Dimethylphenol	10	<9	<9	<9	<10	<9	<9	<9	<9
Bis (2-Chloroethoxy) methane	5*	<9	<9	<9	<10	<9	<9	<9	<9
2,4-Dichlorophenol	5*	<9	<9	<9	<10	<9	<9	<9	<9
1,2,4-Trichlorobenzene	5*	<9	<9	<9	<10	<9	<9	<9	<9
Naphthalene	10	<9	<9	<9	<10	<9	<9	<9	<9
4-Chloroaniline	5*	<9	<9	<9	<10	<9	<9	<9	<9
Hexachlorobutadiene	0.5	<9 UJ	<9 UJ	<9 UJ	<9 UJ	<9 UJ	<9 UJ	<9	<9
4-Chloro-3-Methylphenol	NGV	<9	<9	<9	<10	<9	<9	<9	<9
2-Methylnaphthalene	NGV	<9	<9	<9	<10	<9	<9	<9	<9
1-Methylnaphthalene	NGV	<9	<9	<9	<10	<9	<9	<9	<9
Hexachlorocyclopentadiene	5*	<9	<9	<9	<10	<9	<9	<9	<9
2,4,6-Trichlorophenol	1***	<9	<9	<9	<10	<9	<9	<9	<9
2,4,5-Trichlorophenol	1***	<24	<24	<24	<24	<24	<24	<24	<24
2-Chloronaphthalene	10	<9	<9	<9	<10	<9	<9	<9	<9
2-Nitroaniline	5*	<24	<24	<24	<24	<24	<24	<24	<24
Dimethyl Phthalate	50	<9	<9	<9	<10	<9	<9	<9	<9
2,6-Dinitrotoluene	5*	<9	<9	<9	<10	<9	<9	<9	<9
Acenaphthylene	NGV	<9	<9	<9	<10	<9	<9	<9	<9
3-Nitroaniline	5*	<24	<24	<24	<24	<24	<24	<24	<24
Acenaphthene	20	<9	<9	<9	<10	<9	<9	<9	<9
2,4-Dinitrophenol	5*	< 24	< 24	< 24	<24	< 24	< 24	< 24	< 24
Dibenzofuran	NGV	<9	<9	<9	<10	<9	<9	<9	<9
4-Nitrophenol	1***	< 24	< 24	< 24	<24	< 24	< 24	< 24	< 24
2,4-Dinitrotoluene	5*	<9	<9	<9	<10	<9	<9	<9	<9
Diethylphthalate	50	<9	<9	<9	<10	<9	<9	<9	<9
Fluorene	50	<9	<9	<9	<10	<9	<9	<9	<9
4-Chlorophenyl-phenylether	NGV	<9	<9	<9	<10	<9	<9	<9	<9
4-Nitroaniline	5*	<24	<24	<24	<24	<24	<24	<24	<24
4,6-Dinitro-2-Methylphenol	1***	<24	<24	<24	<24	<24	<24	<24	<24
N-Nitrosodiphenylamine	50	<9	<9	<9	<10	<9	<9	<9	<9
4-Bromophenyl-phenylether	NGVV	<9	<9	<9	<10	<9	<9	<9	<9
Hexachlorobenzene	0.04	<9	<9	<9	<10	<9	<9	<9	<9
Pentachlorophenol	1***	<24	<24	<24	<24	<24	<24	<24	<24
Phenanthrene	50	<9	<9	<9	<10	<9	<9	<9	<9
Anthracene	50	<9	<9	<9	<10	<9	<9	<9	<9
Carbazole	NGV	<9	<9	<9	<10	<9	<9	<9	<9
Di-n-butylphthalate	50	<9	<9	<9	<10	<9	<9	<9	<9
Fluoranthene	50	<9	<9	<9	<10	<9	<9	<9	<9
Pyrene	50	<9	<9	<9	<10	<9	<9	<9	<9
Butylbenzylphthalate	50	<9	<9	<9	<10	<9	<9	<9	<9
Benzo(a)anthracene	0.002	<9	<9	<9	<10	<9	<9	<9	<9
3,3'-Dichlorobenzidine	5*	<9	<9	<9	<10	<9	<9	<9	<9
Chrysene	0.002	<9	<9	<9	<10	<9	<9	<9	<9
bis(2-Ethylhexyl)phthalate	5	<9	<9	<9	<10	<b>3 J</b>	<9	<9	<b>2 J</b>
Di-n-octylphthalate	50	<9	<9	<9	<10	<9	<9	<9	<9
Benzo(b)fluoranthene	0.002	<9	<9	<9	<10	<9	<9	<9	<9
Benzo(k)fluoranthene	0.002	<9	<9	<9	<10	<9	<9	<9	<9
Benzo(a)pyrene	0.002	<9	<9	<9	<10	<9	<9	<9	<9
Indeno(1,2,3-cd)pyrene	0.002	<9	<9	<9	<10	<9	<9	<9	<9
Dibenzo(a,h)anthracene	NGV	<9	<9	<9	<10	<9	<9	<9	<9
Benzo(g,h,i)perylene	NGV	<9	<9	<9	<10	<9	<9	<9	<9

**Notes:**

All data are presented in µg/l or parts per billion;  
Standards taken from NYSDEC Memorandum 1.1.1, Ambient Water Quality Standards and Guidance Values,  
and Groundwater Effluent Limitations, June 1998.  
DUP from MW-03A

< = Analyte not detected above laboratory method detection limits;

**Bold** = Analyte detected above laboratory method detection limit

J = Indicates an estimated value.

JB = indicates an estimated value as well as being detected in the laboratory method blank analyzed concurrently with the sample.

NGV = No Guidance Value listed.

UJ = The analyte was not detected. The associated reported quantitation limit is an estimate and may be inaccurate or imprecise.

\* = The principal organic contaminant standard for groundwater of 5 µg/l applies to this substance.

\*\*\* = Applies to the sum of phenolic compound

**Table 2**  
**Groundwater Analytical Data**  
**Holt Drive**  
**Stony Point, Rockland County, New York**

Sample I.D.	NYSDEC Guidance	MW-2A	MW-3A	MW-8	ERB-1	ERB-2	DUP	MW-1A	MW-4
Sample Date		2/7/2011	2/7/2011	2/7/2011	2/7/2011	2/7/2011	2/7/2011	2/8/2011	2/10/2011
Pesticides									
alpha-BHC	NGV	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047
gamma-BHC	NGV	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047
Heptachlor	0.04	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047
Aldrin	NGV	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047
beta-BHC	NGV	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047
delta-BHC	NGV	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047
Heptachlor Epoxide	0.03	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047
Endosulfan I	NGV	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047
gamma-Chlordane	0.05	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047
alpha-Chlordane	0.05	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047
4,4'-DDE	0.2	<0.094	<0.094	<0.094	<0.094	<0.094	<0.094	<0.094	<0.094
Dieldrin	0.004	<0.094	<0.094	<0.094	<0.094	<0.094	<0.094	<0.094	<0.094
Endrin	ND	<0.094	<0.094	<0.094	<0.094	<0.094	<0.094	<0.094	<0.094
4,4'-DDD	0.3	<0.094 UJ	<0.094 UJ	<0.094 UJ	<0.094 UJ	<0.094 UJ	<0.094 UJ	<0.094 UJ	<0.094
Endosulfan II	NGV	<0.094	<0.094	<0.094	<0.094	<0.094	<0.094	<0.094	<0.094
4,4'-DDT	0.2	<0.094 UJ	<0.094 UJ	<0.094 UJ	<0.094 UJ	<0.094 UJ	<0.094 UJ	<0.094	<0.094
Endrin Aldehyde	5*	<0.094	<0.094	<0.094	<0.094	<0.094	<0.094	<0.094	<0.094
Endosulfan sulfate	NGV	<0.094	<0.094	<0.094	<0.094	<0.094	<0.094	<0.094	<0.094
Methoxychlor	35	<0.047 UJ	<0.047 UJ	<0.047 UJ	<0.047 UJ	<0.047 UJ	<0.047 UJ	<0.047	<0.047
Endrin Ketone	5*	<0.094	<0.094	<0.094	<0.094	<0.094	<0.094	<0.094	<0.094
Toxaphene	0.06	<0.094	<0.094	<0.094	<0.094	<0.094	<0.094	<0.094	<0.094
Notes: All data are presented in µg/l or parts per billion; Standards taken from NYSDEC Memorandum 1.1.1, Ambient Water Quailiy Standards and Guidance Values, and Groundwater Effluent Limitations, June 1998. DUP from MW-3A < = Analyte not detected above laboratory method detection limits; UJ = The analyte was not detected. The associated reported quantitation limit is an estimate and may be inaccurate or imprecise. NGV = No Guidance Value listed * = Applies to the sum of these substance:									
PCBs									
Aroclor-1016	0.09*	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047 UJ	<0.047	<0.047
Aroclor-1221	0.09*	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047 UJ	<0.047	<0.047
Aroclor-1232	0.09*	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047 UJ	<0.047	<0.047
Aroclor-1242	0.09*	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047 UJ	<0.047	<0.047
Aroclor-1248	0.09*	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047 UJ	<0.047	<0.047
Aroclor-1254	0.09*	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047 UJ	<0.047	<0.047
Aroclor-1260	0.09*	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047 UJ	<0.047	<0.047
Notes: All data are presented in µg/l Standards taken from NYSDEC Memorandum 1.1.1, Ambient Water Quailiy Standards and Guidance Values, and Groundwater Effluent Limitations, June 1998. DUP from MW-3A < = Analyte not detected above laboratory method detection limits UJ = The analyte was not detected. The associated reported quantitation limit is an estimate and may be inaccurate or imprecise. NGV = No Guidance Value listed * = Applies to the sum of these substance:									

**Table 2**  
**Groundwater Analytical Data**  
**Holt Drive**  
**Stony Point, Rockland County, New York**

Sample I.D.	NYSDEC Guidance	MW-2A	MW-3A	MW-8	ERB-1	ERB-2	DUP	MW-1A	MW-4
Sample Date		2/7/2011	2/7/2011	2/7/2011	2/7/2011	2/7/2011	2/7/2011	2/8/2011	2/10/2011
Metals + Cyanide									
Aluminum	NGV	94.6 J	160 J	109 J	<14.80	<14.80	19.8 J	834	1,460
Antimony	3	<1.28	<1.28	<1.28	<1.28	<1.28	<1.28	<1.28	<1.28
Arsenic	25	<1.43	<1.43	2.4 J	<1.43	<1.43	<1.43	<1.43	<1.43
Barium	1,000	21.4	70	38.7	37.4	<0.23	67.5	30.2	20.3
Beryllium	3	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Cadmium	5	0.15 J	0.08 J	0.28 J	<0.05	<0.05	<0.05	<0.05 J	0.51 J
Calcium	NGV	42,100	75,000	45,000	54,800	14,100	75,700	29,600	11,400
Chromium	50	1.1 J	1.1 J	2.3 J	<0.36	<0.36	1.1 J	2.5 J	7.1 J
Cobalt	NGV	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	0.86 J	1.2 J
Copper	200	1.4 J	1.8 J	1.8 J	1.9 J	1.3 J	2.2 J	19.2 J	3.8 J
Iron	300	184	292 J <sup>1</sup>	235	29.1 J	36.5 J	37.5 J J <sup>1</sup>	1,580	2,410
Lead	25	1.2 J	<1.07	<1.07	<1.07	<1.07	<1.07	4.7 J	2.0 J
Magnesium	35,000	13,100	20,700	11,200	3,720	3,170	20,100	6,870	3,460
Manganese	300	18.2	10.2	2.8 J	<1.06	<1.06	4.3 J	107	76.4
Mercury	0.7	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Nickel	100	0.88 J	1.5 J	0.77 J	<0.28	<0.28	<0.28	1.5 J	4.0 J
Potassium	NGV	1,460	<0.04	1550	5,660	<41.00	1,550	1,540	1,240
Selenium	10	<2.36	<2.36	<2.36	<2.36	<2.36	<2.36	<2.36	<2.36
Silver	50	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27
Sodium	20,000	27,500	97,500	36,300	25,600	8,100	94,440	49,800	36,800
Thallium	0.5	<1.07	<1.07	<1.07	<1.07	<1.07	<1.07	<1.07	<1.07
Vanadium	NGV	0.40 J	0.73 J	0.31 J	<0.23	<0.23	<0.23	2.5 J	3.6 J
Zinc	2,000	11.0 J	12.9 J	13.9 J	13.2 J	3.7 J	10.2 J	17.3 J	18.8 J
Cyanide		<10	<10	<10	<10	<10	<10	<10	<10

Notes:  
Metals reported as Target Analyte List (TAL); Dissolved Metals results are included in the Laboratory Data Package  
All data are presented in µg/l  
Standards taken from NYSDEC Memorandum 1.1.1, Ambient Water Quailiy Standards and Guidance Values,  
and Groundwater Effluent Limitations, June 1998.  
DUP from MW-3A  
Bold = Analyte detected above laboratory method detection limits  
Shaded = Analyte detected above NYSDEC Groundwater Guidance Values  
< = Analyte not detected above laboratory method detection limits  
J<sup>1</sup> = The analyte was positively identified; the associated numerical value is an approximate [ ] of the analyte in the samp  
J = Indicates an estimated value.  
NGV = No Guidance Value listec

**Table 3**  
**Summary of Groundwater Sampling Field Data**  
**Preliminary Site Assessment: Holt Drive**  
**Stony Pony, New York**  
**February 7, 8 and 10, 2011**

**Depth to Water and Final Parameter Readings**

Well ID	Date Sampled	Top of PVC Casing (feet) MSL	Depth to Water (feet)	Depth to Bottom (feet)	Groundwater Elevation (feet) MSL	Dissolved Oxygen mg/L	pH (SU)	Specific Conductivity (mS/cm)	ORP mv	Temperature (C)
MW-1A	02/08/11	66.84	21.30	24.67	45.54	11.26	7.77	0.288	0.2	9.86
MW-2A	02/07/11	68.64	22.11	26.55	46.53	9.40	6.25	0.327	5.6	11.73
MW-3A	02/07/11	66.95	9.69	17.50	57.26	9.06	6.34	0.813	9.2	11.04
MW-4	02/10/11	70.55	23.46	29.45	47.09	8.02	7.38	0.299	162.0	12.43
MW-8	2/7 & 2/8/2011	70.60	23.60	30.43	47.00	10.95	7.36	0.284	-8.0	10.81

Notes:

All measurements recorded in feet;

MSL - Mean Sea Level;

mg/L - Milligrams per Liter;

SU - Standard Units;

mS/cm - micro siemens per centimeter

C - Degrees Celsius;

mV - Millivolts;

Dissolved Oxygen recorded in % converted to mg/L

## *Figures*

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XREF Files: IMAGE Files: STONY POINT, NY\_TOPO.jpg  
File: K:\project\134685\STONY POINT\_NY\134685-STONYPOINT\_NY\_A1.dwg  
Plot Date/Time: Mar 30, 2011 - 3:04pm  
Plotted By: chris.desiata

OFFICE	DRAWN BY	CHECKED BY	APPROVED BY	DRAWING NUMBER
LATHAM, NY	CD	03/30/11 RA	--	134685-STONYPOINT_NY_A1



**NEW YORK**  
SOURCE:  
USGS 7.5 TARGET QUAD, 1979  
SCALE: 1:24,000



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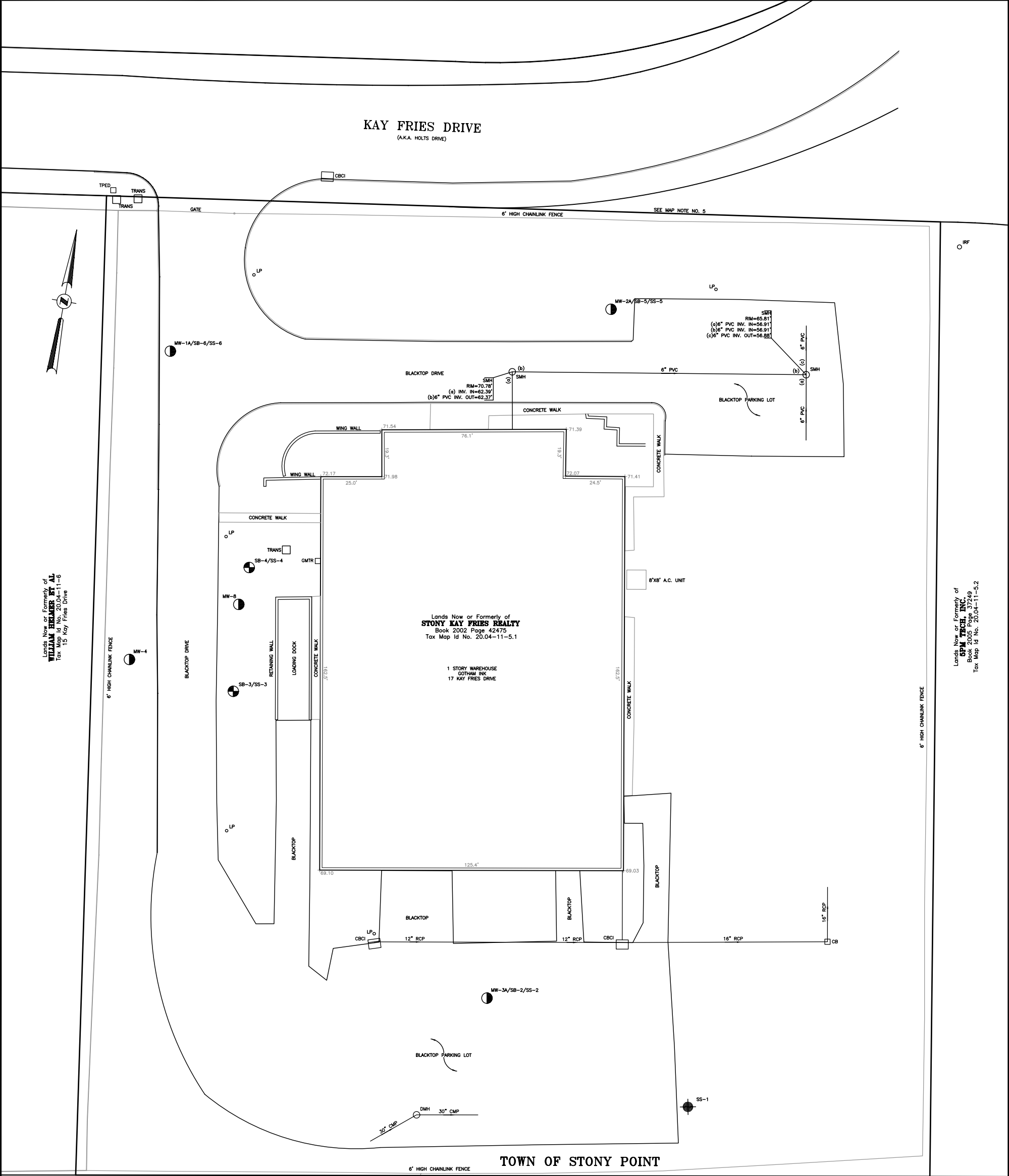
NYSDEC

FIGURE 1  
SITE LOCATION PLAN

15-19 HOLT DRIVE  
STONY POINT, ROCKLAND COUNTY, NEW YORK



OFFICE	DATE	DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY	DRAWING NUMBER
LATHAM, NY	03/09/11	MJS	MJS	RA	DS	134685-011B1



LEGEND	
	CB
	CATCH BASIN SQUARE
	DMH
	DRAINAGE MANHOLE
	GMTR
	GAS METER
	LP
	LIGHT POLE
	MW
	MONITOR WELL
	SMH
	SANITARY MANHOLE
	SB
	SOIL BORING
	SS
	SOIL BORING
	TPED
	TELEPHONE PEDESTAL
	TRANS
	TRANSFORMER
	CHAIN LINK FENCE LINE

MAP NOTES:

- NORTH ORIENTATION IS REFERENCED TO GRID NORTH BASED ON THE NEW YORK STATE PLANE COORDINATE SYSTEM, EAST ZONE, NAD 83 OBTAINED FROM GPS OBSERVATIONS MADE ON FEBRUARY 7, 2011. THE COORDINATES SHOWN ARE HORIZONTAL GROUND COORDINATES, GRID COORDINATES MAY BE OBTAINED BY A MULTIPLIER OF 0.999924803 (COMBINED FACTOR).
- TOPOGRAPHIC INFORMATION SHOWN HEREON WAS COMPILED FROM AN ACTUAL FIELD SURVEY CONDUCTED ON FEBRUARY 7, 2011.
- VERTICAL DATUM SHOWN HEREON IS NAVD 88 AND WAS OBTAINED THROUGH GPS OBSERVATIONS.
- PRIOR TO AND DURING THE COURSE OF THIS SURVEY THIS GEOGRAPHIC AREA ACCUMULATED APPROXIMATELY 24" INCHES OF PACKED SNOW AND ICE. THEREFORE THE UNDERSIGNED CANNOT CERTIFY THAT SOME OBJECT OR FEATURE HAS BEEN OMITTED OR THAT THERE IS AN ELEVATION ERROR CONSISTENT WITH THE DEPTH OF THE SNOW PACK, HOWEVER EVERY EFFORT TO PROVIDE A COMPLETE PLOTTING OF THE CONDITIONS HAS BEEN MADE.
- BOUNDARY INFORMATION SHOWN HEREON WAS TAKEN FROM TAX MAP INFORMATION. THIS MAP DOES NOT REPRESENT A BOUNDARY SURVEY BY THE UNDERSIGNED.
- UNDERGROUND FACILITIES, STRUCTURES, AND UTILITIES HAVE BEEN PLOTTED FROM DATA OBTAINED FROM PREVIOUS MAPS AND RECORD DRAWINGS. SURFACE FEATURES SUCH AS CATCH BASIN RIMS, MANHOLE COVERS, WATER VALVES, GAS VALVES, ETC. ARE THE RESULT OF FIELD SURVEY UNLESS NOTED OTHERWISE. THERE MAY BE OTHER UNDERGROUND UTILITIES, THE EXISTENCE OF WHICH IS NOT KNOWN TO THE UNDERSIGNED. SIZE AND LOCATION OF ALL UNDERGROUND UTILITIES AND STRUCTURES MUST BE VERIFIED BY THE APPROPRIATE AUTHORITIES. DIG SAFELY NEW YORK MUST BE NOTIFIED PRIOR TO CONDUCTING TEST BORINGS, EXCAVATION AND CONSTRUCTION.



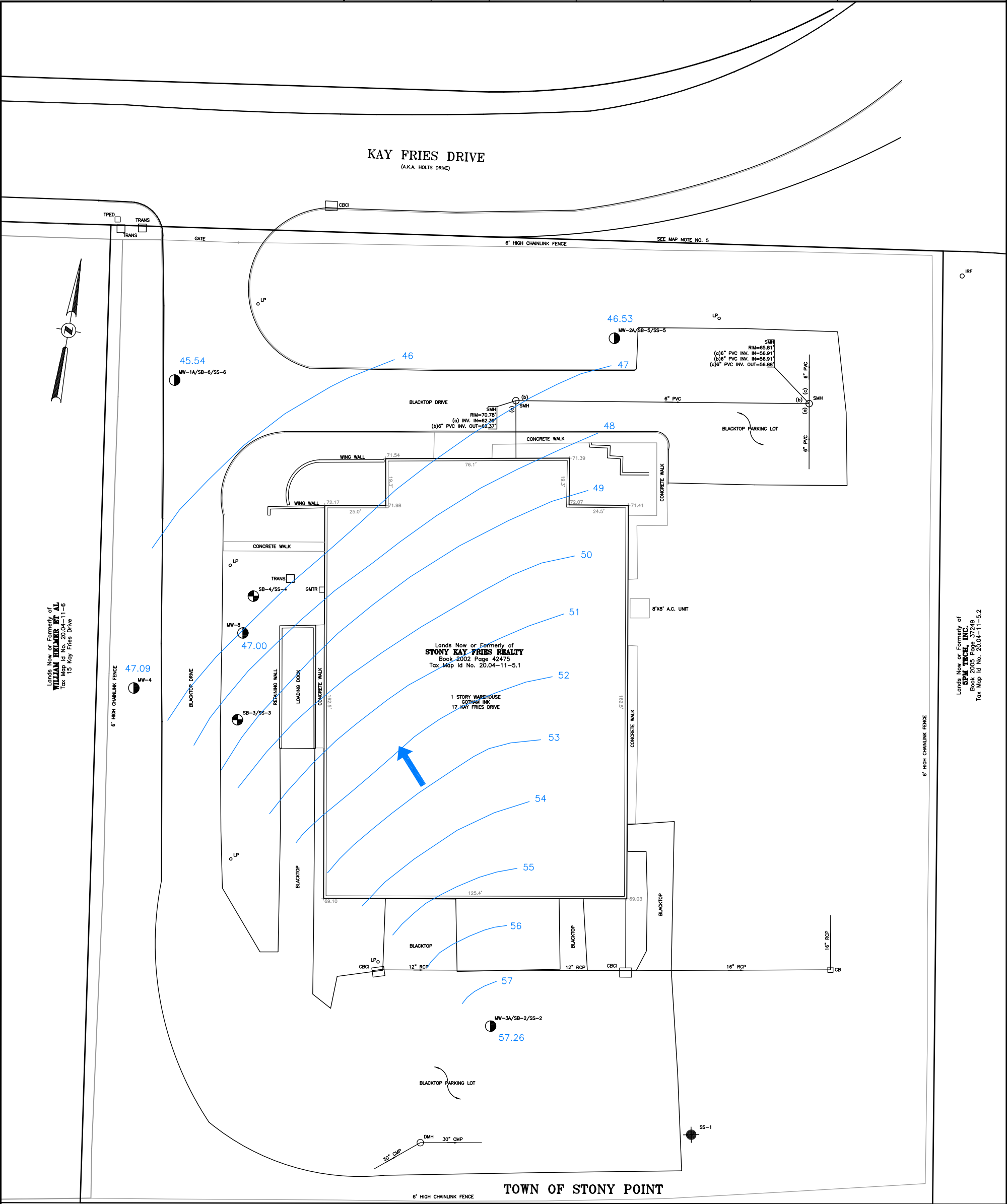
**Shaw Environmental, Inc.**

NYS DEPARTMENT OF ENVIRONMENTAL CONSERVATION  
PROJECT NO. 134685  
STONY POINT, NEW YORK

FIGURE 2  
SITE MAP  
HOLT DRIVE



OFFICE	DATE	DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY	DRAWING NUMBER
LATHAM, NY	03/24/11	MJS	MJS	RA	DS	134685-011B2



- LEGEND
- GROUNDWATER FLOW DIRECTION
  - GROUNDWATER CONTOUR/ELEVATION
  - CATCH BASIN SQUARE
  - DRAINAGE MANHOLE
  - GAS METER
  - LIGHT POLE
  - MONITOR WELL
  - SANITARY MANHOLE
  - SOIL BORING
  - SURFICIAL SOIL
  - TELEPHONE PEDESTAL
  - TRANSFORMER
  - CHAIN LINK FENCE LINE

- MAP NOTES:
- NORTH ORIENTATION IS REFERENCED TO GRID NORTH BASED ON THE NEW YORK STATE PLANE COORDINATE SYSTEM, EAST ZONE, NAD 83 OBTAINED FROM GPS OBSERVATIONS MADE ON FEBRUARY 7, 2011. THE COORDINATES SHOWN ARE HORIZONTAL GROUND COORDINATES, GRID COORDINATES MAY BE OBTAINED BY A MULTIPLIER OF 0.999924803 (COMBINED FACTOR).
  - TOPOGRAPHIC INFORMATION SHOWN HEREON WAS COMPILED FROM AN ACTUAL FIELD SURVEY CONDUCTED ON FEBRUARY 7, 2011.
  - VERTICAL DATUM SHOWN HEREON IS NAVD 88 AND WAS OBTAINED THROUGH GPS OBSERVATIONS.
  - PRIOR TO AND DURING THE COURSE OF THIS SURVEY THIS GEOGRAPHIC AREA ACCUMULATED APPROXIMATELY 24" INCHES OF PACKED SNOW AND ICE. THEREFORE THE UNDERSIGNED CANNOT CERTIFY THAT SOME OBJECT OR FEATURE HAS BEEN OMITTED OR THAT THERE IS AN ELEVATION ERROR CONSISTENT WITH THE DEPTH OF THE SNOW PACK, HOWEVER EVERY EFFORT TO PROVIDE A COMPLETE PLOTTING OF THE CONDITIONS HAS BEEN MADE.
  - BOUNDARY INFORMATION SHOWN HEREON WAS TAKEN FROM TAX MAP INFORMATION. THIS MAP DOES NOT REPRESENT A BOUNDARY SURVEY BY THE UNDERSIGNED.
  - UNDERGROUND FACILITIES, STRUCTURES, AND UTILITIES HAVE BEEN PLOTTED FROM DATA OBTAINED FROM PREVIOUS MAPS AND RECORD DRAWINGS. SURFACE FEATURES SUCH AS CATCH BASIN RIMS, MANHOLE COVERS, WATER VALVES, GAS VALVES, ETC. ARE THE RESULT OF FIELD SURVEY UNLESS NOTED OTHERWISE. THERE MAY BE OTHER UNDERGROUND UTILITIES, THE EXISTENCE OF WHICH IS NOT KNOWN TO THE UNDERSIGNED. SIZE AND LOCATION OF ALL UNDERGROUND UTILITIES AND STRUCTURES MUST BE VERIFIED BY THE APPROPRIATE AUTHORITIES. DIG SAFELY NEW YORK MUST BE NOTIFIED PRIOR TO CONDUCTING TEST BORINGS, EXCAVATION AND CONSTRUCTION.

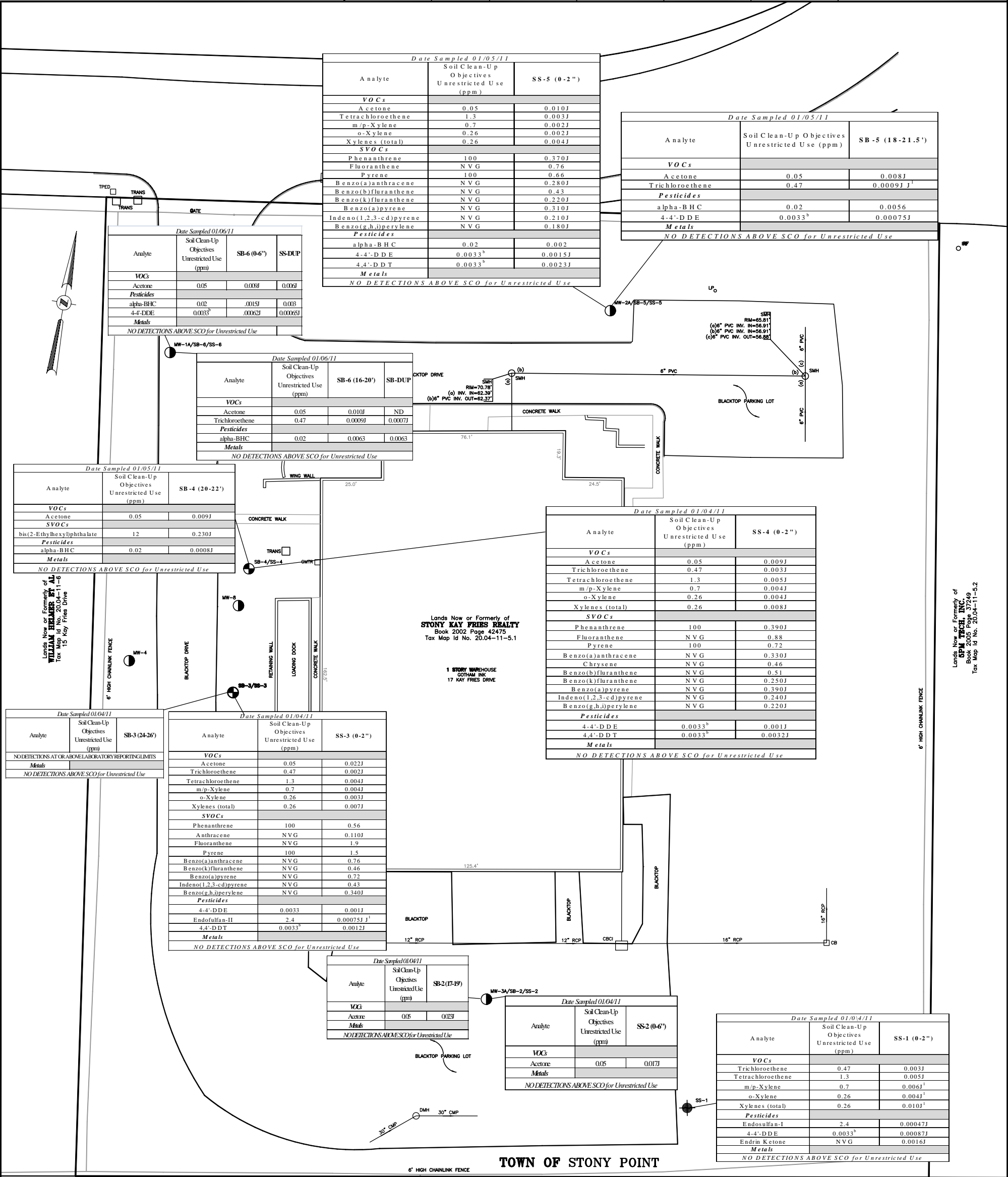


**Shaw Environmental, Inc.**

NYS DEPARTMENT OF ENVIRONMENTAL CONSERVATION  
PROJECT NO. 134685  
STONY POINT, NEW YORK

FIGURE 3  
GROUNDWATER CONTOUR MAP  
FEBRUARY 7, 8 & 10, 2011  
HOLT DRIVE

OFFICE	DATE	DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY	DRAWING NUMBER
LATHAM, NY	04/19/11	MJS	CD	RA	DS	134685-011B4



**NOTES:**

Analytical results presented in mg/kg (ppm).

NYSDEC Soil Cleanup Objectives obtained from 6 NYCRR Part 375, Table A - Unrestricted use

<sup>a</sup> = The SCO's for commercial use were capped at a maximum value of 500 ppm.

<sup>b</sup> = For constituents where the calculated SCO was lower than the rural soil background concentration, the rural soil background is used.

<sup>c</sup> = This SCO is for the sum of Endosulfan I, Endosulfan II, and Endosulfan Sulfate

SB-DUP collected from SB-6 (16-20")

SS-DUP collected from SS-6 (0-6")

J - Used for Pesticide analyte when there is a greater than 40% difference for detected concentrations between the two GC columns

J<sup>1</sup> - The analyte was positively identified; the associated numerical value is an approximate [ ] of the analyte in the sample.

<= Analyte not detected above laboratory method detection limits

= No Soil cleanup objective listed for analyte

**Shaw Environmental, Inc.**

NYS DEPARTMENT OF ENVIRONMENTAL CONSERVATION

PROJECT NO. 134685

STONY POINT, NEW YORK

**FIGURE 4**

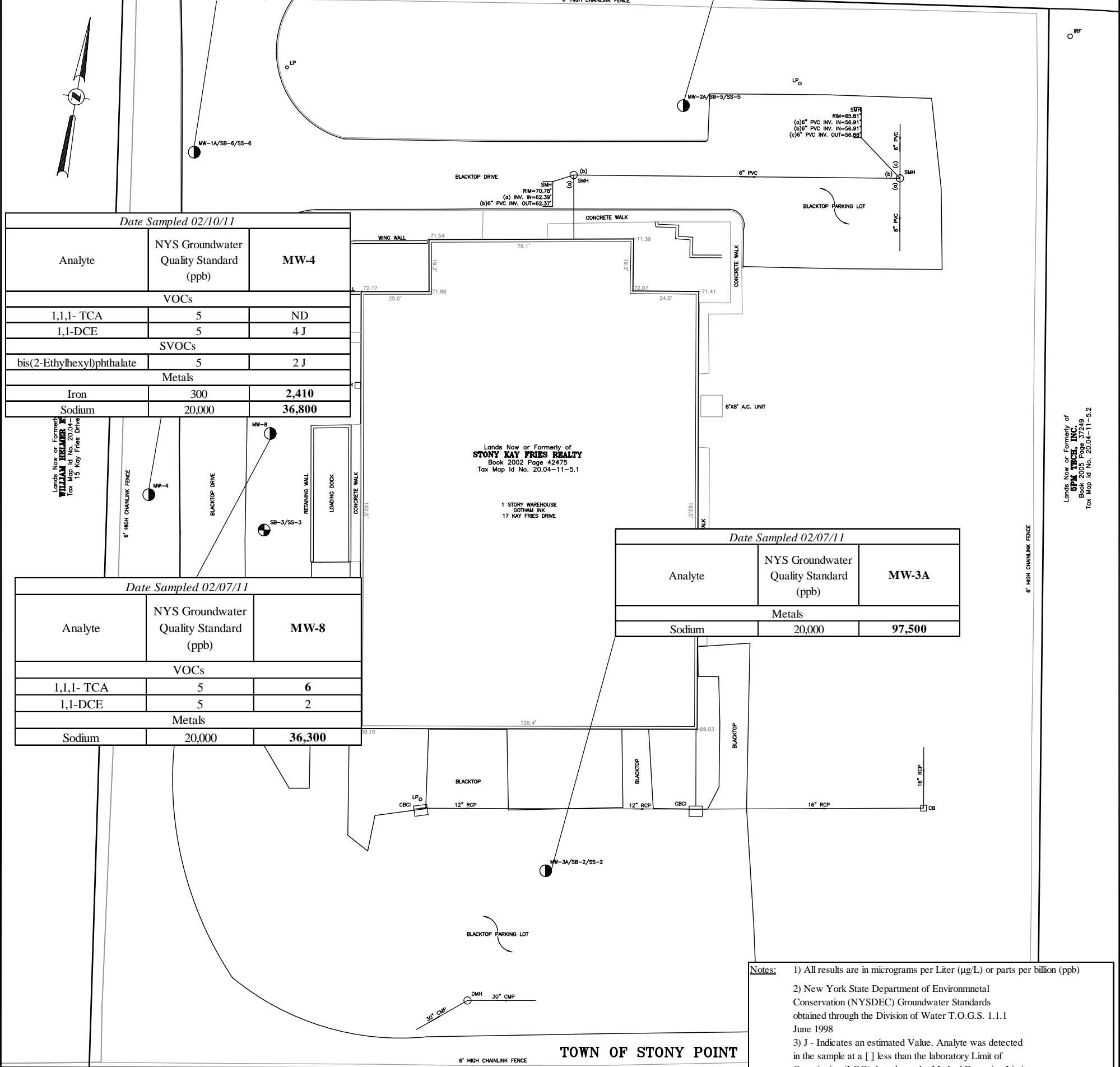
**SOIL QUALITY MAP**

**HOLT DRIVE**

OFFICE	DATE	DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY	DRAWING NUMBER
LATHAM, NY	03/24/11	MJS	MJS	RA	DS	134685-011B3

Date Sampled 02/08/11		
Analyte	NYS Groundwater Quality Standard (ppb)	MW-1A
VOCs		
1,1,1- TCA	5	10
1,1-DCE	5	4
Metals		
Iron	300	1,580
Sodium	20,000	49,800

Date Sampled 02/07/11		
Analyte	NYS Groundwater Quality Standard (ppb)	MW-2A
VOCs		
1,1,1- TCA	5	5 NJ
1,1-DCE	5	ND
Metals		
Sodium	20,000	27,500



**Notes:**

- 1) All results are in micrograms per Liter (µg/L) or parts per billion (ppb)
- 2) New York State Department of Environmental Conservation (NYSDEC) Groundwater Standards obtained through the Division of Water T.O.G.S. 1.1.1 June 1998
- 3) J - Indicates an estimated Value. Analyte was detected in the sample at a [ ] less than the laboratory Limit of Quantitation (LOQ), but above the Method Detection Limit (MDL)
- 4) **BOLD**- Indicates analyte is at or exceeds NYSGWQS
- 5) ND-Not detected t or above laboratory reporting limits
- 6) Metals analytes only reported if results exceeded the NYSGWQS
- 7) Analytes reported represent the Laboratories Detections & Contaminants of Concern
- 8) NJ - Estimated value. (The result should be used with caution as potential false positive and/or elevated quantitative value.



Shaw Environmental, Inc.

NYS DEPARTMENT OF ENVIRONMENTAL CONSERVATION  
PROJECT NO. 134685  
STONY POINT, NEW YORK

FIGURE 5  
GROUNDWATER QUALITY MAP  
FEBRUARY 2011  
HOLT DRIVE

## *Appendix A*

### *Photolog*

---



Shaw Environmental, Inc.  
Photographic Record

Customer: NYSDEC

Project Number: 134685

Site Name: Holt Drive

Site Location: Stony Point, NY

Photographer:  
R. Adams

Date:  
10/22/10

Direction:  
North

Comments:  
Approx. location of  
MW-2A/ SB-5 / SS-5



Photographer:  
R. Adams

Date:  
10/22/10

Direction:  
North

Comments:  
Approx. location of  
MW-1A/ SB-6 / SS-6



Shaw Environmental, Inc.  
Photographic Record

**Customer:** NYSDEC

**Project Number:** 134685

**Site Name:** Holt Drive

**Site Location:** Stony Point, NY

**Photographer:**  
R. Adams

**Date:**  
10/22/10

**Direction:**  
Northeast

**Comments:**  
Approx. location of  
MW-3A/ SB-2 / SS-2



**Photographer:**  
R. Adams

**Date:**  
10/22/10

**Direction:**  
West

**Comments:**  
Area where SB-  
5/SS-3, SB-4/SS-4  
were completed;  
MW-8 in background



*Appendix B*

*Field Notes*

---



Location Holt, Stony Point Date 1/4/11  
 Project / Client NY DEC

0830 Set up decon area and drums.

0900 Marc Calls Back he will get variance for hand clearing done we need to dig carefully when above 10ft.

\* Dave Stoll will send me copy of variance form

↳ MW on west edge of property 23.4ft to water

John wants us to sample when we come back to sample the new wells

0915 John Miller of NY DEC request a change in scope. An email was sent to Jen Flanagan requesting

5 surface sample locations + one we already completed at the E S S location 3 will become MWs

Location Holt Stony Point Date 1/4/11  
 Project / Client NY DEC

2 will be borings.

total of 6 S Soil } Samples  
 and 5 S Boring } Submitted  
 to Lab

1100 Start Boring SB-3 For analysis  
 1200-1230 - Lunch

1300 Call M. Flanagan about Driller schedule and change of scope per NY DEC.  
 Drillers can work 10hrs if needed

1430 Start MW-3 location  
 ↳ see well log for notes  
 call Marc F to find out about gw depth. I am hitting water @ 10ft.  
 He would like us to leave hole open a gauge water depth tomorrow

1700 clean up, off site



Location Holt Stoney Point Date 1/4/11Project / Client NY DECSurface Soil Samples

Sample ID	Depth	Description	PID
SS-1 1/4	0-2"	Break thru Asphalt. Silt light Brown Dense Med to fine sand some silt trace gravel	
headspace	0.1ppm		
SS-2 1/4	10-6"	Break thru Asphalt Dense Moist Brown Fine sand with silt.	
headspace	0.0ppm		
SS-3 1/4	0-2"	Grass top. Brown loose Med to fine sand trace silt and fine gravel.	
headspace	0.2ppm		
SS-4 1/4	0-2"	Grass top Brown loose Med to fine sand trace silt and fine gravel.	
headspace	0.1ppm		
SS-5 1/5	0-2"	Grass top. Brown loose Med to fine sand trace silt	
*MS/MSD sample			
headspace	0.7ppm		
SS-6 1/6	0-6"	Break thru Asphalt loose Med to fine sand trace silt.	
*DVP sample			
headspace			

Location Holt Stoney Point Date 1/4/11Project / Client NY DEC

SB-3	4 1/4	slurrier w/ silt Spind 2' Sample	
2"-2ft	60%	recovery Brown Med sand with fine sand trace silt and small gravel. PID headspace 0.0ppm	
2-4'	50%	recovery Brown Med to coarse sand trace small angular gravel loose PID headspace 0.0ppm	
4-6'	30%	recovery Fine Brown loose sand with silt PID 0.0ppm	
6'-8'	60%	recovery Brown loose Fine to med sand little silt PID 0.0ppm	
8'-10'	85%	recovery L. Brown dense Fine sand little silt PID 0.0ppm	

Location Holt Stony Point Date 1/4/11Project / Client NY DEC

SB-3 (continued)

10-12' 75% recovery Med to Fine  
Sand Brown Loose moist  
little silt  
PID 0.1ppm

12'-14' 60% recovery Fine Brown  
Dense Sand little Med Sand  
little silt trace clay?  
PID 0.1ppm

14-16' 60% recovery Fine Brown  
Dense sand little silt trace  
Med Sand  
PID 0.0ppm

16-18' 70% recovery Fine Brown  
Dense Sand; little silt  
PID 0.0ppm

18'-20' 60% recovery Fine Brown  
dense sand trace silt  
PID 0.0ppm

Location Holt Stony Point Date 1/4/11Project / Client NY DEC

SB-3 (continued)

20'-22' 90% recovery  
Same as above

22-24' 30% recovery Brown  
Fine Sand loose some pieces  
of wood w/ coarse sand mixed  
at around 23' Fine Sand  
from 23-24' (Bad recovery)  
23.5-24'

24'-26' 40% recovered  
Fine wet Brown loose  
sand  
PID 0.0ppm

\* Sampled @ 1320 (24'-26')  
26-28' Same as above  
PID 0.0ppm

End of Exploration

\* P.W. was going to grout up  
30' Boring, but John Miller of NYDEC  
said the new guidelines allow the  
drill cuttings to be placed back in  
the hole. He had emailed Dave Stoll

Location Holt, Stony Point Date 1/5/11Project / Client NY DEC

out 79518

0645 Leave hotel for site

0715 Arrive at site. Parratt and Wolff on site upon arrival. Complete Morning ppw, safety ppw.

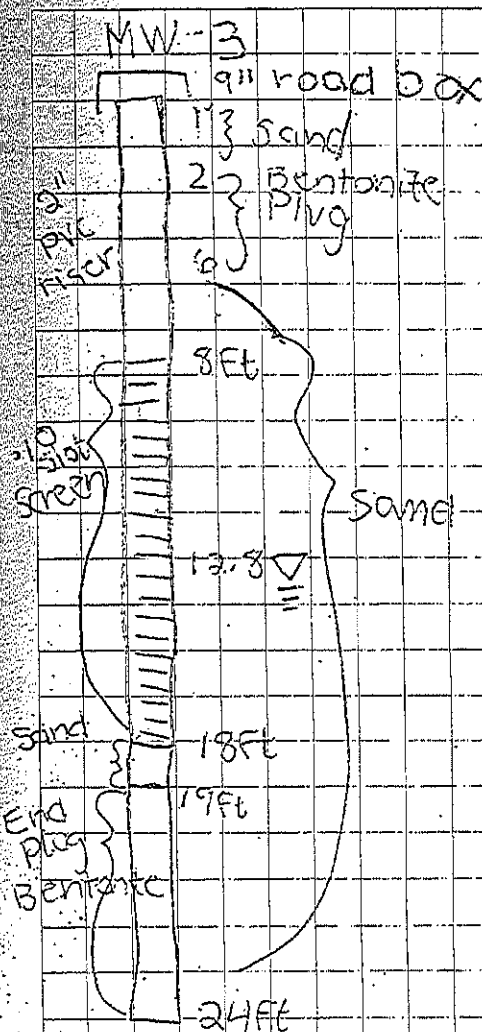
Joe, Mike, hollow stem auger rig, Box truck w/ supplies and drums.

Measure 12.8ft dTW in MW-3 hole (augers still in ground)

0745 Call Marc about well installation. He would like well screen from 9-18ft with plug that will not swell into well screen.

Location Holt, Stony Point Date 1/5/11Project / Client NY DEC

in 79540



Location Holt Drive Stony Pt Date 1/5/11  
 Project / Client NY DEC

SB-4

0-2' 80% recovery Brown  
 Med to Fine Sand trace  
 silt and small angular gravel  
 PID reading 1.0ppm

2-4' 30% recovery Fine Brown  
 Sand little Med Sand little  
 silt trace small angular gravel  
 PID reading 0.7ppm

4-6' 50% same as above  
 PID reading 1.0ppm

6-8' 70% recovery 6-7.5 Fine to Med  
 Sand Dense with trace silt  
 7.5-8 small angular gravel  
 with coarse sand  
 PID reading 0.5ppm

8-10' 95% recovery Brown Med  
 Med Dense Sand some Fine Sand  
 trace silt  
 PID reading 1.1ppm

Location Holt Dr Stony Point Date 1/5/11  
 Project / Client NY DEC

10-12' 80% recovery Fine gr in  
 Med dense Sand Brown clay  
 with little Med Sand  
 PID reading 0.9ppm

12-14' 70% recovery Same  
 as above  
 PID reading 1.0ppm

14-16' 60% recovery Fine to  
 Med Brown Sand Med  
 Dense clay PID reading 0.9ppm

16-18' 65% recovery Fine  
 Brown sand little Med Sand  
 little silt PID reading 0.3ppm

18-20' Same as above  
 PID reading 1.3ppm

20-22' recovery 80% Same  
 as above PID 0.9ppm  
 water @ 22ft

Location Holt Stony Point Date 1/5/11Project / Client NY DEC

22-24' Wet Fine grain Sand  
Brown Med dense  
PID 0.0ppm

24'-26' 100% recovery  
Wet, Fine grain Sand  
Brown Med dense little med  
sand trace silt  
PID 0.2ppm

26-28' 100% recovery Same  
as above PID 0.3ppm

End of Exploration

↳ Boring was grouted

↳ Augers steam cleaned  
on Decon pad by basket  
ball hoop area

Move to MW-2 location  
in parking lot (Front of pr  
perty)  
See drill log for details

Location Holt Stony Point Date 1/5/11Project / Client NY DEC

1530 John Miller off site  
he will check in to  
hear progress tomorrow.

Gotham Ink would like  
drums staged in area by  
Basketball hoop or next  
to truck trailers.

labels can have NYDEC  
w/ contact as John Miller  
and Shaw.

1650 drill to 28' at MW-2  
leave augers at location  
MW- will be installed in  
the am.

1700 off site, pack sample  
when I return to hotel.

*[Signature]* 1/5/11



92

Location

Holt Dr. Stony Pt.

Date 11/6/11

Project / Client

NY DEC

101003-79540 in 79802

0645 leave hotel for site

0715 Pick up supplies for shipping  
samples today. (ice, tape,  
zip locks)0720 Arrive at site. Start Morning  
Safety. PPM. Start MW-2  
installation of well.0725 Parratt and Wolff on site  
Complete JSA / tailgate  
safety0730 Call pine about pump  
issues. Have been having  
w/ PID

\* Start drilling MW-1 today

0745 Call Lab about hrs. for  
samples analysis. Talk w/  
Kelly.1420 Marc F. calls he would like a water  
sample collected for lab analysis

1645 Pack samples

1715 Ship samples at UPS location

93

Location

Holt Dr.

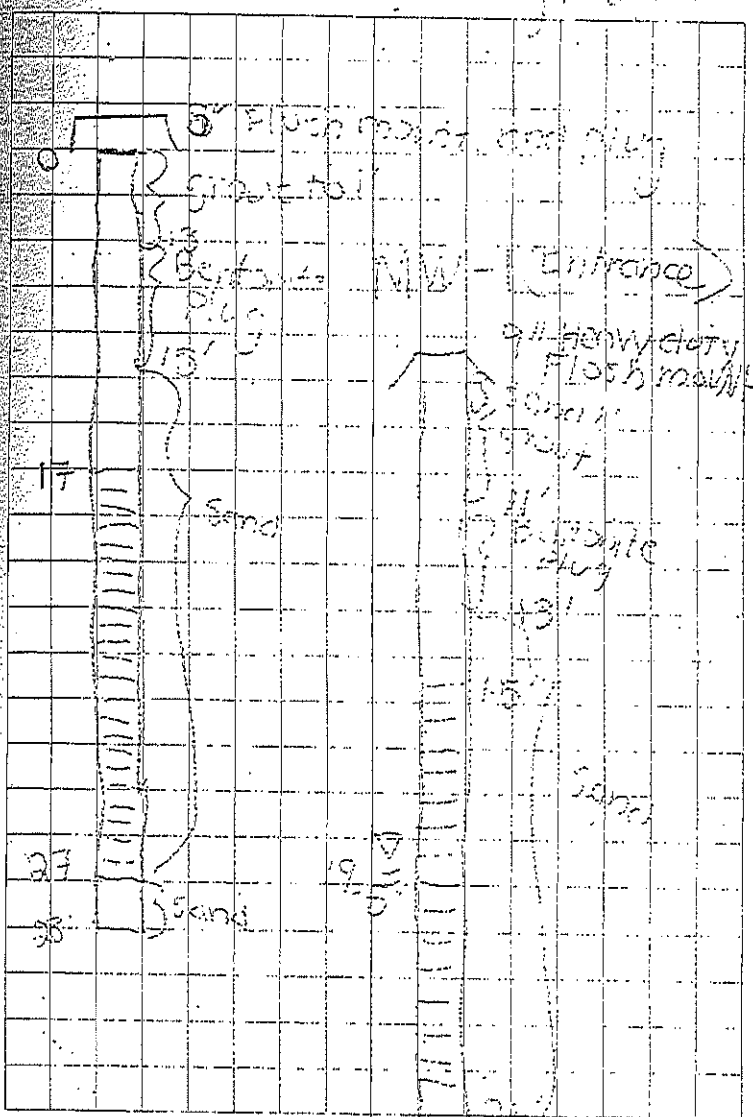
Date

11/6/11

Project / Client

Stony Point NY DEC

MW-2 (Front Parking Lot)



Location Holt Dr. Stony Point Date 11/7/11  
 Project / Client NY DEC

0635 leave Hotel For site.

0700 Parratt & Wolff on site  
 complete morning safety pt

0710 Parratt & Wolff start drillings  
 SB-3 again to properly  
 grout Boring.

0730 I start developing all wells  
 see development notes for  
 details

1145 Label all drums  
 1 plastic from decon  
 2 development water  
 1 decon water  
 9 Soil / drill cuttings  
 13 total drums staged  
 behind building.

measure off wells and SB.  
 1230 Parratt & Wolff and Slick  
 off site.

Location Holt Stony Point Date \_\_\_\_\_

Project / Client \_\_\_\_\_

2130 Arrive back at office  
 call pine for pick-up of  
 equipment  
 VAN 0084 Conf #

## *Appendix C*

### *Drill Logs*

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# Drilling Log

Monitoring Well **MW-1A**  
Page: 1 of 2

Project NYSDEC Holt Dr. Owner NYSDEC  
Location Stony Point, NY Proj. No. 134685.11  
Surface Elev. 67.5 ft. Total Hole Depth 26.0 ft. North 868554.5 ft. East 634761.5 ft.  
Top of Casing 66.84 ft. Water Level Initial 19.5 ft. Static 21.3 ft. Diameter 4.25 in.  
Screen: Dia 2" in. Length 10' ft. Type/Size Sch. 40 PVC/0.10 Slot in.  
Casing: Dia 2" in. Length 15' ft. Type Sch. 40 PVC  
Fill Material #10 Sand, Bentonite Rig/Core Hollow Stem Auger/2' Split Spoon  
Drill Co. Parrat-Wolfe Method Direct Push  
Driller Mike W. Log By J. Galley Date 1/6/11 Permit # NA  
Checked By \_\_\_\_\_ License No. \_\_\_\_\_

COMMENTS  
MW-1A. Also Location of SB-6  
and SS-6

Depth (ft.)	Well Completion	PID (ppm)	Sample ID % Recovery	Blow Count Recovery	Graphic Log	USCS Class.	Description (Color, Texture, Structure) Geologic descriptions are based on ASTM Standard D 2487-93 and the USCS.
0			SS-6 (0-8') 50%				Grass / Topsoil. Brown, Well-graded medium-fine SAND, trace Silt, dry
2		0.0	60%				Brown, Well-graded medium-fine SAND, trace Silt, Dry
4		0.0	80%				
6		0.2	85%			SW	
8		0.7	80%				
10		0.5	70%				
12		0.0	60%			SP SM	Brown, Poorly-graded fine SAND and SILT, Dry
14		0.2	30%			SW SM	Brown, Well-graded medium-fine SAND, trace Silt, Dry
16		0.0	40%			SW SM	Medium Brown, Well-graded medium-coarse SAND, trace Silt, Dry
18		0.5				SP	Medium Brown, Poorly-graded medium SAND, little fine Sand, trace Silt, Dry
20		0.3	SB-6 (16-20) 50%				Brown, Well-graded fine-medium SAND, moist
22		0.0	90%			SW	
24		0.0	80%			SP	Brown, Poorly-graded medium SAND, some coarse Sand, Wet
26		0.0	180%				

Continued Next Page



# Drilling Log

Monitoring Well **MW-1A**  
Page: 2 of 2

Project NYSDEC Holt Dr. Owner NYSDEC  
Location Stony Point, NY Proj. No. 134685.11

Depth (ft.)	Well Completion	PID (ppm)	Sample ID % Recovery	Blow Count Recovery	Graphic Log	USCS Class.	Description (Color, Texture, Structure) Geologic descriptions are based on ASTM Standard D 2487-93 and the USCS.
26				X			Continued
28							
30							
32							
34							
36							
38							
40							
42							
44							
46							
48							
50							
52							
54							
56							
58							



# Drilling Log

Monitoring Well **MW-2A**

Page: 1 of 2

Project NYSDEC Holt Dr. Owner NYSDEC  
 Location Stony Point, NY Proj. No. 134685.11  
 Surface Elev. 68.6 ft. Total Hole Depth 28.0 ft. North 868603.1 ft. East 634937.6 ft.  
 Top of Casing 68.64 ft. Water Level Initial 21.5 ft. Static 22.1 ft. Diameter 4.25 in.  
 Screen: Dia 2" in. Length 10' ft. Type/Size Sch. 40 PVC/0.10 Slot in.  
 Casing: Dia 2" in. Length 17' ft. Type Sch. 40 PVC  
 Fill Material #10 Sand, Bentonite Rtg/Core Hollow Stem/2' Split Spoon  
 Drill Co. Parrat-Wolfe Method Direct Push  
 Driller Mike W. Log By J. Galley Date 1/5/11 Permit # NA  
 Checked By \_\_\_\_\_ License No. \_\_\_\_\_

COMMENTS  
 MW-2A. Also Location of SB-5  
 and SS-5

Depth (ft.)	Well Completion	PID (ppm)	Sample ID % Recovery	Blow Count Recovery	Graphic Log	USCS Class.	Description (Color, Texture, Structure) Geologic descriptions are based on ASTM Standard D 2487-93 and the USCS.
0							Grass
0.7			SS-5 (0-8') 40%			SW	Brown, Well-graded fine-medium SAND, trace Silt, Dry
2						SP	Brown, Poorly-graded fine SAND, little Silt, Dry
1.4			95%			SM	Brown, Well-graded fine SAND and SILT, Dry
0.6			90%			SW	Brown, Well-graded fine-medium SAND, Dry
0.2			80%				
0.4			40%				
10							Brown, Well-graded fine-medium SAND, trace Silt, trace angular Gravel, Dry
1.0			60%			SW	
0.0			50%				
0.0			50%				
0.0			60%			SW	Brown, Well-graded medium-fine SAND, little Silt, Dry
0.1							
0.3			SB-5 (18-21.6') 70%			SW	Brown, Well-graded medium-fine SAND, little Silt, Wet
0.0			60%			SP	Brown, Poorly-graded fine SAND, little Silt, trace medium Sand, Wet
0.0			85%				

Continued Next Page



# Drilling Log

Monitoring Well

**MW-2A**

Page: 2 of 2

Project NYSDEC Holt Dr.

Owner NYSDEC

Location Stony Point, NY

Proj. No. 134685.11

Depth (ft.)	Well Completion	PID (ppm)	Sample ID % Recovery	Blow Count Recovery	Graphic Log	USCS Class.	Description (Color, Texture, Structure) Geologic descriptions are based on ASTM Standard D 2487-93 and the USCS.
							Continued
26		0.9	85%			SP	
28		0.2	100%				
30							
32							
34							
36							
38							
40							
42							
44							
46							
48							
50							
52							
54							
56							
58							



# Drilling Log

Monitoring Well **MW-3A**

Page: 1 of 2

Project NYSDEC Holt Dr. Owner NYSDEC  
 Location Stony Point, NY Proj. No. 134685.11  
 Surface Elev. 67.3 ft. Total Hole Depth 25.0 ft. North 868314.1 ft. East 634936.5 ft.  
 Top of Casing 66.95 ft. Water Level Initial 12.5 ft. Stalls 0.7 ft. Diameter 4.25 in.  
 Screen: Dia 2" in. Length 10' ft. Type/Size Sch. 40 PVC/0.10 Slot in.  
 Casing: Dia 2" in. Length 8' ft. Type Sch. 40 PVC  
 Fill Material #10 Sand, Bentonite Rtg/Core Hollow Stem/2' Split Spoon  
 Drill Co. Parrat-Wolfe Method Direct Push  
 Driller Mike W. Log By J. Galley Date 1/4/11 Permit # NA  
 Checked By \_\_\_\_\_ License No. \_\_\_\_\_

COMMENTS  
 MW-3A. Also Location of SS-2  
 and SB-2

Depth (ft.)	Well Completion	PID (ppm)	Sample ID Sample Recovery % Recovery	Blow Count Recovery	Graphic Log	USCS Class.	Description (Color, Texture, Structure) Geologic descriptions are based on ASTM Standard D 2487-93 and the USCS.
0			SS-2 (0- 8') 40%			SP	Asphalt Brown, Poorly-graded fine SAND with Silt, Dry Brown, SILT, little Sand, Dry
2		0.0	90%			ML	
4		0.1	75%			ML	Gray/Brown, SILT, trace fine Sand, Moist
6		0.1	95%			ML	Gray/Brown, SILT, little fine Sand, trace coarse Sand, Moist
8		0.1	70%			ML	Brown, SILT, little fine-medium-coarse Sand, Moist
10		0.0	90%			ML	Brown, Well-graded fine-medium-coarse SAND, trace Silt, Moist
12		0.2	100%			SW	
14		0.1	90%			SW	Gray/Brown, Well-graded medium-coarse SAND, Moist
16		0.0	80%			ML	Gray/Brown, SILT, Moist
18		0.0	80%			ML	Gray/Brown, SILT, little fine Sand, Wet
20		0.0	45%			ML	
22		0.0	60%				
24		0.0	120%				

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Continued Next Page



# Drilling Log

Monitoring Well **MW-3A**  
Page: 2 of 2

Project NYSDEC Holt Dr. Owner NYSDEC  
Location Stony Point, NY Proj. No. 134685.11

Depth (ft.)	Well Completion	PID (ppm)	Sample ID % Recovery	Blow Count Recovery	Graphic Log	USCS Class.	Description (Color, Texture, Structure) Geologic descriptions are based on ASTM Standard D 2487-93 and the USCS.
							Continued
26				X			
28							
30							
32							
34							
36							
38							
40							
42							
44							
46							
48							
50							
52							
54							
56							
58							



# Drilling Log

Soil Boring **SB-3**

Page: 1 of 2

Project NYSDEC Holt Dr. Owner NYSDEC  
Location Slony Point, NY Proj. No. 134685.11  
Surface Elev. 71.0 ft. Total Hole Depth 28.0 ft. North 868420.7 ft. East 634811.4 ft.  
Top of Casing NA Water Level Initial 23.5 ft. Static NA Diameter 4.25 in.  
Screen: Dia NA in. Length NA ft. Type/Size NA/NA in.  
Casing: Dia NA in. Length NA ft. Type NA  
Fill Material NA Rig/Core Hollow Stem/2' Split Spoon  
Drill Co. Parrat-Wolfe Method Direct Push  
Driller Mike W. Log By J. Galley Date 1/4/11 Permit # NA  
Checked By \_\_\_\_\_ License No. \_\_\_\_\_

COMMENTS  
SB-3 Also Location of SS-3

Depth (ft.)	PID (ppm)	Sample ID % Recovery	Blow Count Recovery	Graphic Log	USCS Class.	Description (Color, Texture, Structure) Geologic descriptions are based on ASTM Standard D 2487-93 and the USCS.
0		SS-3 (0-2') 60%			SW	Grass Brown, Well-graded fine-medium SAND, smal Gravel, trace Silt, Dry
2	0.0	50%			SW	Brown, Well-graded medium-coarse SAND, trace angular Gravel, Dry
4	0.0	30%				Brown, Poorly-graded fine SAND, little Silt, Dry
6	0.0	80%			SP SM	
8	0.0	65%				
10	0.0	75%				Brown, Well-graded fine-medium SAND, little Silt, Dry
12	0.0	60%			SW	
14	0.0	60%				Brown, Poorly-graded fine SAND, little Silt, Dry
16	0.0	70%				
18	0.0	60%			SP	
20	0.0	90%				
22	0.0	30%			SW	Brown, Well-graded fine SAND and wood remains with coarse Sand Interbeds, Moist
24	0.0	SB-3 (24-26') 26'			SP	Brown, Poorly-graded fine SAND, wet

Continued Next Page



# Drilling Log

Soil Boring **SB-3**  
Page: 2 of 2

Project NYSDEC Holt Dr. Owner NYSDEC  
Location Stony Point, NY Proj. No. 134685.11

Depth (ft.)	PID (ppm)	Sample ID % Recovery	Blow Count Recovery	Graphic Log	USCS Class.	Description (Color, Texture, Structure) Geologic descriptions are based on ASTM Standard D 2487-93 and the USCS.
26	0.0	60%			SP	Continued
28	0.0	60%				
30						
32						
34						
36						
38						
40						
42						
44						
46						
48						
50						
52						
54						
56						
58						

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# Drilling Log

Soil Boring **SB-4**

Page: 1 of 2

Project NYSDEC Holt Dr. Owner NYSDEC  
Location Stony Point, NY Proj. No. 134685.11  
Surface Elev. 71.1 ft. Total Hole Depth 28.0 ft. North 868472.2 ft. East 634809 ft.  
Top of Casing NA Water Level Initial ▽ 22.0 ft. Static NA Diameter 4.25 in.  
Screen: Dia NA in. Length NA ft. Type/Size NA/NA in.  
Casing: Dia NA in. Length NA ft. Type NA  
Fill Material NA Rig/Core Hollow Stem/2' Split Spoon  
Drill Co. Parrat-Wolfe Method Direct Push  
Driller Mike W. Log By J. Galley Date 1/5/11 Permit # NA  
Checked By \_\_\_\_\_ License No. \_\_\_\_\_

COMMENTS  
SB-4 Also Location of SS-4

Depth (ft.)	PID (ppm)	Sample ID % Recovery	Blow Count Recovery	Graphic Log	USCS Class	Description (Color, Texture, Structure) Geologic descriptions are based on ASTM Standard D 2487-93 and the USCS.
0						Grass
1.0		SS-4 (0-2') 80%				Brown, Well-graded fine-medium SAND, little Silt, trace angular Gravel, Dry
2						
0.7		30%				
4						
1.0		50%			SW	
6						
0.5		70%				
8						
1.1		95%				
10						Brown, Poorly-graded fine SAND, little medium Sand, Dry
0.9		80%				
12					SP	
1.0		70%				
14						Brown, Well-graded fine-medium SAND, Dry
0.9		60%				
16						
0.3		65%				
18					SW	
1.3		65%				
20						
0.9		SB-4 (20-22') 80%				
22						Brown, Poorly-graded fine SAND, Wet
0.0		80%				
24					SP	
0.2		95%				

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# Drilling Log

Soil Boring **SB-4**  
Page: 2 of 2

Project NYSDEC Holt Dr. Owner NYSDEC  
Location Stony Point, NY Proj. No. 134685.11

Depth Fe	PID (ppm)	Sample ID % Recovery	Blow Count Recovery	Graphic Log	USCS Class.	Description (Color, Texture, Structure) Geologic descriptions are based on ASTM Standard D 2487-93 and the USCS.
						Continued
26	0.2	95%			SP	
28	0.3	100%				
30						
32						
34						
36						
38						
40						
42						
44						
46						
48						
50						
52						
54						
56						
58						

*Appendix D*

*Well Development Logs and Field Sampling Data Sheets*

---

**Shaw Environmental, Inc.**  
**Monitoring Well Development Field Data Sheet**

Project Name: Holt Dr.

Project Number: 134685

Water Level Data Stony Point NY

Date: 11/7/11 Start Time: 1010

Well ID: MW-2

Initial Total Casing Length 26.48' (feet)

\*Volume Factors:

2-inch well = 0.163 gal/ft

4-inch well = 0.653 gal/ft

6-inch well = 1.468 gal/ft

Depth to Water (from top of casing) 20.74' (feet)

a) Height of Water Column 5.74' (feet)

Well Volume ((a) x volume factor \*) = 5.74 (feet) x 0.163 gallons/foot = 0.935 gallons x 10 wv 9.35 gallons

**Development Data**

Date: 11/7/11 Time: 1015 (start) 1035 (finish)

Method: Submersible whale pump.  
(Waterra, baller, submersible pump, etc.)

Time	1020	1025	1030	1035	units		
Specific Conductivity	0.963	1.060	1.051	1.448			
pH	6.59	6.54	6.50	6.50			
Turbidity	1344.0	136.2	74.8	53.4			
Temperature	11.03	11.20	11.03	11.01			
ORP	232.2	213.4	236.4	238.2			
DO	6.36	6.11	6.32	6.14			

Time							
Specific Conductivity							
pH							
Turbidity							
Temperature							
ORP							
DO							

Time							
Specific Conductivity							
pH							
Turbidity							
Temperature							
ORP							
DO							

Did well dry out? (If yes, how many times)

Actual Volume Removed 20 (gallons)

Personnel: Jen Gailley

**COMMENTS:**

\* water very silty to start  
pumped until water appeared clear  
> than 10 well volumes.

**Shaw Environmental, Inc.**  
**Monitoring Well Development Field Data Sheet**

Project Name: Holt Dr.

Project Number: 134685

Water Level Data Stony Point NY

Date: 11/7/11

Start Time: 0730

Well ID: MW-3

Initial Total Casing Length 17.6' (feet)

\*Volume Factors:

2-inch well = 0.163 gal/ft

4-inch well = 0.653 gal/ft

6-inch well = 1.468 gal/ft

Depth to Water (from top of casing) 8.7' (feet)

a) Height of Water Column 8.9ft (feet)

Well Volume ([a] x volume factor \*) = 8.9' (feet) x 0.163 gallons/foot = 1.4507 gallons x 10 WV. = 14.507 gallons

**Development Data**

Date: 11/7/11 Time: 0730 (start) 0800 (finish)

Method: Submersible Whirl pump  
 (Water, baller, submersible pump, etc.)

Time	0735	0740	0750	0755	0800	units
Specific Conductivity	1.253	1.293	1.318	1.317	1.317	ms/cm
pH	6.80	6.65	6.54	6.53	6.53	
Turbidity	1325.6	1305.4	937.5	50.2	50.2	NTU
Temperature	9.82	13.2	9.80	9.83	9.83	°C
ORP	206.7	212.1	212.7	215.2	215.1	ORP
DO	6.77	6.60	6.45	6.30	6.40	mg/L

Time						
Specific Conductivity						
pH						
Turbidity						
Temperature						
ORP						
DO						

Time						
Specific Conductivity						
pH						
Turbidity						
Temperature						
ORP						
DO						

Did well dry out? (If yes, how many times)

Actual Volume Removed 20 (gallons)

Personnel: Jen Gailley

**COMMENTS:**

\* water very silty to start  
pumped until water appeared to  
be clear; sampled water w/ ysl sample  
cup

**Shaw Environmental, Inc.**  
**Monitoring Well Development Field Data Sheet**

Project Name: Holt Dr

Project Number: 134685

Water Level Data Stony Point NY

Date: 1/7/11 Start Time: 0830

Well ID: MW-1

Initial Total Casing Length 24.81' (feet)

\*Volume Factors:

2-inch well = 0.163 gal/ft

4-inch well = 0.653 gal/ft

6-inch well = 1.468 gal/ft

Depth to Water (from top of casing) 19.8' (feet)

a) Height of Water Column 5.01' (feet)

Well Volume ((a) x volume factor \*) = 5.01' (feet) x 0.163 gallons/foot = 0.816 gallons x 10 (well volume) = 8.16 gallons

Development Data

Date: 1/7/11 Time: 0840 (start) 0905 (finish)

Method: Submersible whale pump  
 (Waterra, baller, submersible pump, etc.)

Time	0845	0855	0900	0905	units		
Specific Conductivity	0.704	0.473	0.474	0.474	ms/cm		
pH	7.60	7.27	7.26	7.26			
Turbidity	1339.1	82.7	68.2	74.2	NTU		
Temperature	7.60	11.01	9.80	9.81	°C		
ORP	217.3	213.5	213.5	213.5	ORP		
DO	7.59	7.12	7.13	7.13	mg/L		

Time							
Specific Conductivity							
pH							
Turbidity							
Temperature							
ORP							
DO							

Time							
Specific Conductivity							
pH							
Turbidity							
Temperature							
ORP							
DO							

Did well dry out? (If yes, how many times)

Actual Volume Removed ~20 (gallons)

Personnel: Jen Gailey

COMMENTS:

\* water very silty; turned pump off  
to take readings; filled sample cup  
pumped until water appeared clear  
> term well volumes.

# Groundwater Sample Event Field Data Sheet

Project Name: NYSDEC Holt Drive

Project Number: 134685.11

## Water Level Data

Date: 2/7/11 Start Time: 1338

Well ID: MW-2A

Initial Total Casing Length 26.55 (feet)

Depth to Water (from top of casing) 22.11 (feet)

a) Height of Water Column 4.44 (feet)

Well Volume ([a] x volume factor \*) = 4.44 (feet) x .163 gallons/foot = .7 gallons

\*Volume Factors:

1-inch well = 0.041 gal/ft

1.5-inch well = 0.092 gal/ft

2-inch well = 0.163 gal/ft

3-inch well = 0.367 gal/ft

4-inch well = 0.653 gal/ft

6-inch well = 1.468 gal/ft

## Purge Data

Date: 2/7/11 Time: 1345 (start) 1415 (finish)

Method:

(Waterra, bailer, submersible pump, etc.) Geo Peri

Purge Volume (3 to 5 well volumes): \_\_\_\_\_ Low Flow Sampling

Time	1345	1350	1353	1356	1359	1403	1408	1412	1415
Volume L/min	.31								
Specific Conductivity	.379	.352	.343	.330	.328	.328	.328	.329	.327
pH	7.98	6.67	6.44	6.33	6.28	6.25	6.25	6.25	6.25
Turbidity	15.9	20.1	22.7	10.3	11.2	12.2	10.7	10.7	10.9
Temperature	10.84	11.84	12.11	12.06	12.04	11.89	11.83	11.77	11.73
ORP	-29.3	-13.2	-7.1	-2.7	0.1	2.2	3.6	4.0	5.6
DO		84.0%	83.3%	82.8%	82.5%	82.3%	82.0%	81.7%	81.3%

Did well dry out? (If yes, how many times)

Actual Volume Removed 9.0 (gallons)

## Sampling Data

Sample Date: 2/7/11

Sample Time: 1420

Appearance (visual) Clear

Color clear

Odor —

Sampling Method:

Constituents Sampled	Container Description	Perservative
Total VOAs (8260)	40mL Voa	HCl
Total SVOCs	1 Liter Glass Amber	<=6°
TCL Pest/PCB	1 Liter Glass Amber	<=6°
Cyanide	250 mL Plastic	NaOH
TAL Metals + Hg (total)	500 mL Plastic	HNO <sub>3</sub>
TAL Metals + Hg (dissolved)	500 mL Plastic	<=6°

Personnel: R. Adams / M. Dupuy

COMMENTS:

FR: .3/4/min

# Groundwater Sample Event Field Data Sheet

Project Name: NYSDEC Holt Drive

Project Number: 134685.11

## Water Level Data

Date: 2/7/11 Start Time: 1430 Well ID: MW-3A [+ Dup.]  
 Initial Total Casing Length 17.50 (feet) \*Volume Factors:  
 Depth to Water (from top of casing) 9.69 (feet) 1-inch well = 0.041 gal/ft  
 a) Height of Water Column 7.81 (feet) 1.5-inch well = 0.092 gal/ft  
 Well Volume ((a) x volume factor \*) = 7.81 (feet) x .163 gallons/foot = 1.27 gallons  
 2-inch well = 0.163 gal/ft  
 3-inch well = 0.367 gal/ft  
 4-inch well = 0.653 gal/ft  
 6-inch well = 1.468 gal/ft

## Purge Data

Date: 4/22/11 Time: 1458 (start) 1530 (finish)

Method:  
 (Waterra, bailer, submersible pump, etc.)

Purge Volume (3 to 5 well volumes): \_\_\_\_\_ Low Flow Sampling

Time	1500	1503	1507	1512	1516	1520	1525	1530
Volume								
Specific Conductivity	.427	.782	.791	.795	.805	.819	.815	.813
pH	6.64	6.57	6.47	6.35	6.33	6.34	6.33	6.34
Turbidity	34.6	28.7	28.4	21.5	15.0	5.8	5.4	5.0
Temperature	11.98	11.41	11.18	10.60	10.13	10.77	10.98	11.04
ORP	-16.1	-13.6	-5.9	-1.2	1.6	4.4	7.0	9.2
DO	96.4	89.2	81.2%	78.0%	76.4%	77.4%	78.1%	78.4%

Did well dry out? (If yes, how many times)

Actual Volume Removed 9.6 (gallons)

## Sampling Data

Sample Date: 2/7/11 Sample Time: 1535  
 Appearance (visual) clear Color clear Odor none  
 Sampling Method:

Constituents Sampled	Container Description	Perservative
Total VOAs (8260)	40mL Voa	HCl
Total SVOCs	1 Liter Glass Amber	<=6°
TCL Pest/PCB	1 Liter Glass Amber	<=6°
Cyanide	250 mL Plastic	NaOH
TAL Metals + Hg (total)	500 mL Plastic	HNO <sub>3</sub>
TAL Metals + Hg (dissolved)	500 mL Plastic	<=6°

Personnel: R. Adams

COMMENTS:

FR= 32 L/min \* Dup.



## Groundwater Sample Event Field Data Sheet

Project Name: NYSDEC Holt Drive

Project Number: 134685.11

## Water Level Data

Date: 2/7/11 Start Time: 1615 Well ID: MW-8 (existing)

Initial Total Casing Length 30.43 (feet)

Depth to Water (from top of casing) 23.60 (feet)

a) Height of Water Column 6.83 (feet)

Well Volume  $([a] \times \text{volume factor}) = 6.83 \text{ (feet)} \times 1.163 \text{ gallons/foot} = 7.94 \text{ gallons}$

Well PAP  
Loose!

## \*Volume Factors:

1-inch well = 0.041 gal/ft  
 1.5-inch well = 0.092 gal/ft  
 2-inch well = 0.163 gal/ft  
 3-inch well = 0.367 gal/ft  
 4-inch well = 0.653 gal/ft  
 6-inch well = 1.468 gal/ft

## Purge Data

Date: 1620 Time: 2/7 1623 2/8 1430 (start) 2/7 1640 2/8 1440 (finish)

Method:  
 (Water, bailer, submersible pump, etc.)

Purge Volume (3 to 5 well volumes): \_\_\_\_\_ Low Flow Sampling

\* 2/8  
Resuming  
to collectms/mso for  
SUBA  
Peb/Pest

Time	1625	1628	1631	1635	1640	1430	1435	1440
Volume								
Specific Conductivity	.314	.311	.309	.312	.313	.288	.287	.284
pH	7.54	7.55	7.57	7.57	7.58	7.27	7.31	7.36
Turbidity	120.7	97.8	81.4	31.1	11.7	86.7	43.6	38.4
Temperature	10.21	10.90	11.26	12.24	12.53	10.48	10.59	10.81
ORP	-23.3	-14.1	-11.6	-9.5	-9.6	-14.7	-10.7	-8.0
DO	107.8%	94.0%	97.9%	31.1	96.8	94.8%	93.0%	94.7%

Did well dry out? (If yes, how many times)

Once

Actual Volume Removed 4.6 ~ 4.5 (gallons)

## Sampling Data

Sample Date: 2/7/11, 2/8/11 Sample Time: 2/7/11 1650 2/8/11 1440

Appearance (visual) Clear Color Clear Odor None

Sampling Method: \_\_\_\_\_

Constituents Sampled	Container Description	Perservative
Total VOAs (8260)	40mL Voa	HCl
Total SVOCs	1 Liter Glass Amber	<=6°
TCL Pest/PCB	1 Liter Glass Amber	<=6°
Cyanide	250 mL Plastic	NaOH
TAL Metals + Hg (total)	500 mL Plastic	HNO <sub>3</sub>
TAL Metals + Hg (dissolved)	500 mL Plastic	<=6°

Personnel: R. Adams

## COMMENTS:

2/7/11 collected all samples except TCL Pest/PCBs &amp; TCL SVOCs. (Any)

FR = .31 L/min

18 minimum → for ms/mso

# Groundwater Sample Event Field Data Sheet

Project Name: NYSDEC Holt Drive

Project Number: 134685.11

## Water Level Data

Date: 2/8/11 Start Time: 1555

Well ID: mw-1A → well Lid placed off needs Replacement

Initial Total Casing Length 24.67 (feet)

\*Volume Factors:  
1-inch well = 0.041 gal/ft  
1.5-inch well = 0.092 gal/ft  
2-inch well = 0.163 gal/ft  
3-inch well = 0.367 gal/ft  
4-inch well = 0.653 gal/ft  
6-inch well = 1.468 gal/ft

Depth to Water (from top of casing) 21.30 (feet)

a) Height of Water Column 3.37 (feet)

Well Volume  $([a] \times \text{volume factor}) = 3.37 \text{ (feet)} \times 1.63 \text{ gallons/foot} = 5.54 \text{ gallons}$

## Purge Data

Date: 2/8/11 Time: 1610 (start) 1630 (finish)

Method:  
(Watera, bailer, submersible pump, etc.)

Purge Volume (3 to 5 well volumes): \_\_\_\_\_ Low Flow Sampling

Time	1612	1615	1618	1621	1624	1630	
Volume							
Specific Conductivity	285	287	288	288	289	288	
pH	8.17	8.21	7.84	7.81	7.79	7.77	
Turbidity	204.0	160.1	118.1	56.7	47.3	45.0	
Temperature	8.37	9.16	9.65	9.71	9.73	9.86	
ORP	-41.7	-32.3	-18.2	-11.4	-9.6	0.2	
DO	67.1%	74.3	97.1%	96.7%	94.8	97.4%	

Did well dry out? (If yes, how many times)

Actual Volume Removed 6.2 (gallons)

## Sampling Data

Sample Date: 2/8/11  
Appearance (visual) Clear  
Sampling Method:

Sample Time: 1655<sup>PM</sup> 1650  
Color clear Odor NA

Constituents Sampled	Container Description	Perservative
Total VOAs (8260)	40mL Voa	HCl
Total SVOCs	1 Liter Glass Amber	<=6°
TCL Pest/PCB	1 Liter Glass Amber	<=6°
Cyanide	250 mL Plastic	NaOH
TAL Metals + Hg (total)	500 mL Plastic	HNO <sub>3</sub>
TAL Metals + Hg (dissolved)	500 mL Plastic	<=6°

Personnel: R. Adams

## COMMENTS:

FD. 31 L/min.

# Groundwater Sample Event Field Data Sheet

Project Name: NYSDEC Holt Drive

Project Number: 134685.11

## Water Level Data

Date: 2/10/11 Start Time: 1520

Well ID: MW-4 → no need for bailers low flow OK.

Initial Total Casing Length 29.45 (feet)

Depth to Water (from top of casing) 23.46 (feet)

a) Height of Water Column 5.99 (feet)

Well Volume ((a) x volume factor \*) = 5.99 (feet) x 163 gallons/foot = 977 gallons

\*Volume Factors:  
1-inch well = 0.041 gal/ft  
1.5-inch well = 0.092 gal/ft  
2-inch well = 0.163 gal/ft  
3-inch well = 0.367 gal/ft  
4-inch well = 0.653 gal/ft  
6-inch well = 1.468 gal/ft

## Purge Data

Date: 2/10/11 Time: 1530 (start) 1558 (finish)

Method:

(Watterra, bailer, submersible pump, etc.)

Purge Volume (3 to 5 well volumes): \_\_\_\_\_ Low Flow Sampling

Time	1532	1535	1538	1542	1546	1550	
Volume							
Specific Conductivity	364	348	327	328	292	299	
pH	7.91	7.73	7.59	7.39	7.33	7.38	
Turbidity	82.7	80.5	66.0	98.7	66.8	88.8	
Temperature	13.38	13.48	13.61	12.69	12.45	12.43	
ORP	124	134	146	156	159	162	
DO	7.02	6.67	6.69	8.13	7.49	8.02	

Did well dry out? (If yes, how many times)

Actual Volume Removed 8.6 (gallons)

## Sampling Data

Sample Date: 2/10/11  
Appearance (visual) sl. cloudy  
Sampling Method:

Sample Time: 1600  
Color \_\_\_\_\_ Odor \_\_\_\_\_

Constituents Sampled	Container Description	Perservative
Total VOAs (8260)	40mL Voa	HCl
Total SVOCs	1 Liter Glass Amber	<=6°
TCL Pest/PCB	1 Liter Glass Amber	<=6°
Cyanide	250 mL Plastic	NaOH
TAL Metals + Hg (total)	500 mL Plastic	HNO <sub>3</sub>
TAL Metals + Hg (dissolved)	500 mL Plastic	<=6°

Personnel: R. Adams

COMMENTS: FR=31 L/min

*Appendix E*

*Drum Disposal Manifests*

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# NON-HAZARDOUS WASTE MANIFEST

Please print or type (Form designed for use on elite (12 pitch) typewriter)

<b>NON-HAZARDOUS WASTE MANIFEST</b>		1. Generator's US EPA ID No. <div style="text-align: center;">N / A</div>		Manifest Document No. <div style="text-align: center;">2 8 0 3 2</div>		2. Page 1 of 1	
3. Generator's Name and Mailing Address NYSDEC-DIV. OF ENVIRO. Remediation Sec C Remedial Bureau B-625 Broadway, 12th Fl. Albany, NY 12233				Holt Drive 15 Holt Drive Stony Point, NY 10980			
4. Generator's Phone ( 631) 225-3044							
5. Transporter 1 Company Name Freehold Cartage, Inc.		6. US EPA ID Number NJ D 0 5 4 1 2 6 1 6 4		A. State Transporter's ID		B. Transporter 1 Phone (732) 462-1001	
7. Transporter 2 Company Name		8. US EPA ID Number		C. State Transporter's ID		D. Transporter 2 Phone	
9. Designated Facility Name and Site Address Vexor Technology, Inc. 955 West Smith Road Medina, OH 44256		10. US EPA ID Number OH D 0 7 7 7 7 2 8 9 5		E. State Facility's ID		F. Facility's Phone (330) 721-9773	
11. WASTE DESCRIPTION				12. Containers		13. Total Quantity	
				No. Type		Unit Wt./Vol.	
				a. Non Hazardous Non-DOT Regulated Material		13 DM 715 G	
				b.			
				c.			
G. Additional Descriptions for Materials Listed Above				H. Handling Codes for Wastes Listed Above			
15. Special Handling Instructions and Additional Information 11a) VHX20514 **Certificate of Disposal Required**							
16. GENERATOR'S CERTIFICATION: I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this manifest are not subject to federal hazardous waste regulations.							
Printed/Typed Name Agent of NYSDEC Nicholas Nicholas of Shaw Environmental				Signature [Signature]		Date 04/14/11	
17. Transporter 1 Acknowledgement of Receipt of Materials				Signature [Signature]		Date 04/14/11	
18. Transporter 2 Acknowledgement of Receipt of Materials				Signature [Signature]		Date	
19. Discrepancy Indication Space							
20. Facility Owner or Operator; Certification of receipt of the waste materials covered by this manifest, except as noted in item 19.							
Printed/Typed Name				Signature		Date	

NON-HAZARDOUS WASTE

GENERATOR

TRANSPORTER

FACILITY

*Appendix F*  
*Analytical Data Packages – Soil and Groundwater*  
*(Provided on CD)*

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## *Appendix G*

### *Data Usability Summary Reports (DUSR)*

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# Data Validation Services

120 Cobble Creek Road P.O. Box 208  
North Creek, NY 12853

Phone 518-251-4429

Facsimile 518-251-4428

March 28, 2011

Heather Fariello  
Shaw Environmental  
13 British American Blvd  
Latham, NY 12110

RE: NYSDEC Holt Site  
Data Usability Summary Report (DUSR)  
Katahdin Package Numbers SE0092 and HOLT01  
Login Nos. SE0092, SE0564, SE0589, and SE0647

Dear Ms. Fariello:

Review has been completed for the data packages generated by Katahdin that pertain to samples collected between 01/04/11 and 02/10/11 at the NYSDEC Holt site. Eleven soil samples, five aqueous samples, two soil field duplicates, and one aqueous field duplicate were processed for TCL volatiles, TCL semivolatiles, TCL PCBs, TCL pesticides, and TAL metals/CN. The aqueous samples and field duplicates were also processed for filtered/dissolved metals. The waste characterization sample reported in SDG SE0092 did not undergo validation review. Analytical methodologies utilized are those of the USEPA SW846 6000/7000/8000.

The data packages submitted contained full deliverables for validation, but this usability report is primarily generated from review of the summary form information, with full review of sample raw data, and limited review of associated QC raw data. Full validation has not been performed. However, the reported summary forms have been reviewed for application of validation qualifiers, per the USEPA Region 2 validation SOPs and the USEPA National Functional Guidelines for Data Review, with consideration of the requirements of the project QAPP and the specific methodologies. The following items were reviewed:

- \* Laboratory Narrative Discussion
- \* Case Narratives
- \* Custody Documentation
- \* Holding Times
- \* Surrogate and Internal Standard Recoveries
- \* Matrix Spike Recoveries/Duplicate Correlations
- \* Field Duplicate Correlations
- \* Preparation/Calibration Blanks
- \* Matrix Spiked Blanks/Laboratory Control Samples
- \* Instrumental Tunes
- \* Calibration/Low Level Standards
- \* ICP Interference Check Standards
- \* ICP Serial Dilution Correlations



## VALIDATION DATA QUALIFIER DEFINITIONS

- U** The analyte was analyzed for, but was not detected above the level of the associated reported quantitation limit.
- J** The analyte was positively identified; the associated numerical value is an approximate concentration of the analyte in the sample.
- UJ** The analyte was not detected. The associated reported quantitation limit is an estimate and may be inaccurate or imprecise.
- NJ** The detection is tentative in identification and estimated in value. Although there is presumptive evidence of the analyte, the result should be used with caution as a potential false positive and/or elevated quantitative value.
- R** The data are unusable. The analyte may or may not be present.
- EMPC** The results do not meet all criteria for a confirmed identification. The quantitative value represents the Estimated Maximum Possible Concentration of the analyte in the sample.

- \* Method Compliance
- \* Sample Result Verification

Those items listed above which show deficiencies are discussed within the text of this narrative. All of the other items were determined to be acceptable for this level of review.

**In summary**, most results for the samples are usable as reported, or usable with minor qualification due to sample matrix or to processing outliers. The result for one semivolatile compound in one soil sample is not usable due to an apparent matrix effect. The result for one semivolatile compound in the equipment blanks is not usable due to laboratory processing.

Copies of the laboratory sample identification and case narratives are attached. Also included with this report are validation qualifier definitions and red-ink qualified hardcopy client results tables or laboratory report forms.

The following text discusses quality issues of concern.

### **Chain-of-Custody/Sample Receipt**

There are no release entries on the chain-of-custody for sample MW-4.

One of the trip blanks associated with the soil samples was not entered onto the chain-of-custody.

### **Field Duplicates**

Blind field duplicate evaluations on SS-06(0-6"), SB-06(16-20"), and MW-3A show results within guidelines, with the exception of that for iron in the total fraction of MW-3A. The result for that element in the parent sample and its duplicate have been qualified as estimated in value.

### **TCL Volatiles by EPA 8260B**

Samples SS-1(0-2") and SS-3(0-2") produced low responses for surrogate and/or internal standards in replicate analyses. In both cases, the best case is the reanalysis. Those analyses are to be used, with results for 1,1,2,2-tetrachloroethane qualified as estimated in the latter, and the results for nine target analytes qualified as estimated in the former, both cases due to outlying associated internal standard responses.

Samples SS-4(0-2") and SS-5(0-2") show low responses for one internal standard, but were not reanalyzed. Results for associated analyte 1,1,2,2-tetrachloroethane in those two samples have been qualified as estimated in value.

The detection of acetone in SS-1(0-2") is considered external contamination, due to presence in the associated equipment blank. That detection has been edited to reflect non-detection.

Due to poor mass spectral quality, the result for 1,1,1-trichloroethane in MW-2A is qualified as tentative in identification and estimated in value.

The matrix spikes of MW-8, SB-5(0-2"), and SB-5(18-21.5") show acceptable recoveries and duplicate correlations, with the following exceptions, results for which are qualified as estimated in the indicated parent sample:

- o trichloroethene (117% and 117%) in SB-5(18-21.5")
- o 2-butanone, 2-hexanone, styrene, cis-1,3-dichloropropene, and 4-methyl-2-pentanone (11% to 68%) in SB-5(0-2")

Sample holding times were met, and instrument tunes meet protocol requirements.

The calibration standard responses are acceptable, with the exception of those for chloromethane (22%D and 23%D) in the standards associated with SS-2(0-6") and Trip Blank 2. Results for that compound in those two samples are qualified as estimated in value.

### **Semivolatiles Analyses by EPA8270C**

The detections of bis(2-ethylhexyl)phthalate in MW-4 and the soil samples are considered external contamination due to the presence in the associated method blanks. Those detected results have been edited to reflect non-detection.

Similarly, the detections of benzo(b)fluoranthene and benzo(a)pyrene in MW-1A and MW-8 have been edited to reflect non-detection due to presence of those compound in the associated method blank.

Hexachlorocyclopentadiene failed to recover, and 2,4-dinitrophenol produced one recovery below 10%, in the LCSs associated with the equipment blanks. Therefore, results for those compounds in the equipment blanks are rejected. The result for 4,6-dinitro-2-methylphenol is qualified as estimated in the equipment blanks due to a low recovery of 11% in one of the LCSs. There is no effect on the results of the project field samples.

The results for hexachlorocyclopentadiene in the soil samples collected 02/07/11 are qualified as estimated due to low recovery (13%) of compound in one of the associated LCSs.

Sample SS-1(0-2") shows low responses for one internal standard, but was not reanalyzed. Results for the seven associated analytes in that sample have been qualified as estimated in value.

The matrix spikes of MW-8, SS-5(0-2"), and SB-5(18-21.5") show acceptable recoveries and duplicate correlations, with the exception of those for 3,3'-dichlorobenzidine (10% and 8%) in SS-5(0-2"). Due to recovery below 10%, the result for that compound in the parent sample is rejected, and not usable.

Calibrations standard responses were within laboratory and validation guidelines. Sample holding times were met, and surrogate recoveries are within required limits.

### **TCL Pesticides and PCBs Analyses by EPA8081A and EPA 8082**

Aroclor results in the aqueous field duplicate DUP are qualified as estimated, as indicated by low recoveries (35% and 42%) of surrogate standard DCB. Results for the parent sample did not require qualification.

The result for endosulfan II is qualified as estimated in SS-3(0-2") due to an elevated dual column correlation (47%D).

Matrix spikes of pesticides and Aroclors 1016 and 1260 in MW-8, SS-5(0-2"), and SB-5(18-21.5") show acceptable accuracy and precision.

Results for 4,4'-DDD in MW-1A and MW-8, and for 4,4'-DDD, 4,4'-DDT, and methoxychlor in MW-2A, MW-3A, DUP, and the equipment blanks, are qualified as estimated due to outlying responses (16%D to 29%D) in the associated calibration standards.

### **TAL Metals/CN by 6010B, 7470, 7471, and 9012**

The samples submitted for the dissolved metals fraction were not filtered and preserved until after laboratory receipt. Therefore, all results for metals in the filtered fractions of the samples have been qualified as estimated due to the delayed preservation.

Calibration and low-level standard responses are acceptable, with the exception of low recovery for sodium (88%) in the continuing calibration verification standard associated with the equipment blanks. Results for that element in those blanks have been qualified as estimated in value.

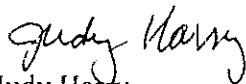
The matrix spike/laboratory duplicate accuracy and precision determinations were performed on MW-8 (both total and "dissolved" fractions), SS-5(0-2"), and SB-5(18-21.5"). Results are within validation guidelines, with the exceptions of those for antimony (20% to 23%) and potassium (163% to 89%) in both parent soil samples. The results for those two elements in the soil sample have been qualified as estimated in value.

The ICP serial dilution evaluations were performed on MW-8 (both total and "dissolved" fractions), SS-5(0-2"), and SB-5(18-21.5"), with the following outliers. Detections for those elements in the indicated samples are qualified as estimated:

<u>Parent Sample</u>	<u>Element</u>	<u>Correlation, %D</u>	<u>Affected Samples</u>
SS-5(0-2")	iron	13	Those with the "SS" prefix
SB-5(18-21.5")	iron	13	Those with the "SB" prefix
	lead	13	"

Please do not hesitate to contact me if you have comments or questions regarding this report.

Very truly yours,

  
Judy Harry

**CLIENT and LABORATORY SAMPLE IDs  
and CASE NARRATIVES**



**SDG NARRATIVE  
KATAHDIN ANALYTICAL SERVICES  
SHAW ENVIRONMENTAL & INFRASTRUCTURE GROUP  
CASE NYSDEC 134685/1102  
SE0092**

**Sample Receipt**

The following samples were received on January 7, 2011 and were logged in under Katahdin Analytical Services work order number SE0092 for a hardcopy due date of January 26, 2011.

<u>KATAHDIN Sample No.</u>	<u>SHAW Sample Identification</u>
SE0092-1	SS-1 (0-2")
SE0092-2	SS-2 (0-6")
SE0092-3	SB-2 (17-19')
SE0092-4	SS-3 (0-2")
SE0092-5	SB-3 (24-26')
SE0092-6	SS-4 (0-2")
SE0092-7	SB-4 (20-22')
SE0092-8	SS-5 (0-2")
SE0092-9	SB-5 (18-21.5')
SE0092-10	SS-6 (0-6")
SE0092-11	SS-DUP
SE0092-12	SB-6 (16-20')
SE0092-13	SB-DUP
SE0092-14	TRIP BLANK
SE0092-15	EB-1
SE0092-16	EB-2
SE0092-17	WASTEC-1
SE0092-18	TRIP BLANK 2

The samples were logged in for the analyses specified on the chain of custody form. All problems encountered and resolved during sample receipt have been documented on the applicable chain of custody forms.

We certify that the test results provided in this report meet all the requirements of the NELAC standards unless otherwise noted in this narrative or in the Report of Analysis.

Sample analyses have been performed by the methods as noted herein.

Should you have any questions or comments concerning this Report of Analysis, please do not hesitate to contact your Katahdin Analytical Services Project Manager, **Ms. Kelly Perkins**. This narrative is an integral part of the Report of Analysis.

### Organics Analysis

The samples of Work Order SE0092 were analyzed in accordance with "Test Methods for Evaluating Solid Wastes: Physical/Chemical Methods." SW-846, 2nd edition, 1982 (revised 1984), 3rd edition, 1986, and Updates I, II, IIA, III, IIIA, and IIIB 1996, 1998 & 2004, Office of Solid Waste and Emergency Response, U.S. EPA., and/or for the specific methods listed below or on the Report of Analysis.

All samples that have client ID's identified with "SB-" are labeled with the symbol " " to indicate the distance in inches. Due to software limitations, this symbol could not be used in order to generate the MS/MSD forms and the (ROA) Report of Analysis forms. Therefore, the symbol " " was removed from the affected client IDs for all Forms or the MS/MSD and ROA forms.

### 8260B TCLP Analysis

The target analyte trichloroethene was detected in the TCLP blank WG87287-3 above the MDL but below the PQL. Since the analyte was not detected above the MDL in the associated sample, no further action was taken.

The reported percent recovery acceptance limits for the Laboratory Control Samples (LCSs) are statistically derived limits for the full list of spiked compounds. The recoveries of the spiked analytes in the LCS, Matrix Spike (MS) and Matrix Spike Duplicate (MSD) are compared to these acceptance limits. Katahdin standard operating procedure is to take corrective action only if the number of spiked analytes in the LCS that are outside of the QC limits is greater than the DoD QSM allowable number of exceedances. The LCS report consists of the full list of spiked analytes, but only the client's list of target analytes are evaluated. If the associated MS/MSD has greater than the allowable number of exceedances, no corrective action is taken, as long as the LCS is acceptable.

### 8260B Analysis

Samples SE0092-8 and 9 were used for the matrix spike (MS) and matrix spike duplicate (MSD), as per client request.

Samples SE0092-4RA, 6, 6RA, 8, 9, 10 and 12 were manually integrated for the target analyte acetone. The specific reasons for the manual integrations are indicated on the raw data by the manual integration codes (M1-M11). These codes are further explained in the attachment following this narrative.

Sample SE0092-1 had a low recovery for one surrogate which was outside of the laboratory established acceptance limits, as well as a low response for one internal standard that resulted in a %D which was outside the laboratory acceptance limit of -50% to +100% of the response of the internal standard of the daily calibration verification standard. The sample was reanalyzed and had acceptable surrogate recoveries, but had low responses for two internal standards. This is likely attributable to a matrix effect. The results from both analyses are reported.

Sample SE0092-4 had low recoveries for two surrogates which were outside of the laboratory established acceptance limits. The sample was reanalyzed and had acceptable surrogate recoveries, but had a low response for one internal standard that resulted in a %D which was outside the laboratory acceptance limit of -50% to +100% of the response of the internal standard of the daily calibration verification standard. This is likely attributable to a matrix effect. The results from both analyses are reported.

Sample SE0092-6 had a low response for one internal standard that resulted in a %D which was outside the laboratory acceptance limit of -50% to +100% of the response of the internal standard of the daily calibration verification standard. The sample was reanalyzed with similar results indicating a possible matrix effect. The results from both analyses are reported.

Sample SE0092-8 had a low response for one internal standard that resulted in a %D which was outside the laboratory acceptance limit of -50% to +100% of the response of the internal standard of the daily calibration verification standard. This sample was used as an MS/MSD and the MS/MSD had acceptable internal standard responses. Therefore, the sample was not reanalyzed.

The initial calibration analyzed on the C instrument on 01/14/11 had the mean response factor (RF) for the (SPCC) System Performance Check Compound bromoform less than 0.1. The calibration verification standards (CV's) associated with this initial calibration (files C2134 and C2157) had RF's for the SPCC bromoform less than 0.1.

The initial calibration analyzed on the D instrument on 12/28/10 had a %RSD value for acetone that exceeded the method acceptance limit of 15%. The analyte met the acceptance criteria for the linear and quadratic calibration models. Although the %RSD is greater than 15%, acetone was calibrated with the average model since this calibration model is more accurate for this analyte at concentrations near the PQL than either the linear or quadratic calibration models.

The Form 7's have a column for %D's that are set to 20% for all of the target analytes as required according to DoD QSM version 4.1. The CV's (files C2134 and D9335) had low responses for the analyte chloroform and/or high responses for dibromochloromethane that resulted in a %D that was greater than 20%. This analyte was not a calibration check compound (CCC). These analytes were not calibration check compounds (CCC). Since the CV's CCC's according to method 8260B were acceptable, the associated samples were not reanalyzed.

The reported percent recovery acceptance limits for the Laboratory Control Samples (LCSs) are statistically derived limits for the full list of spiked compounds. The recoveries of the spiked analytes in the LCS, Matrix Spike (MS) and Matrix Spike Duplicate (MSD) are compared to these acceptance limits. Katahdin standard operating procedure is to take corrective action only if the number of spiked analytes in the LCS that are outside of the QC limits is greater than the DoD QSM allowable number of exceedances. The LCS report consists of the full list of spiked analytes, but only the client's list of target analytes are evaluated. If the associated MS/MSD has greater than the allowable number of exceedances, no corrective action is taken, as long as the LCS is acceptable.

#### 8151 TCLP Analysis

The opening CV's (files 8EA00159 and 8EA00171) had high responses for the target analytes 2,4-D and silvex on both channels which resulted in %D's that were outside of the method acceptance limits of 15%. Since a high response would indicate a high bias and these analytes were not detected above the MDL in the associated sample, the samples were not reanalyzed. The associated LCS/LCSD may be biased high.

The closing CV (file 8EA00169) had high responses for silvex on both channels and high responses for 2,4-D and the surrogate 2,4-dichlorophenylacetic acid on channel A. These responses resulted in %D's that were outside of the method acceptance limits of 15%. Since a high response would indicate a high



bias and these analytes were not detected above the MDL in the associated sample, the sample was not reanalyzed.

#### 8270C TCLP Analysis

The reported percent recovery acceptance limits for the Laboratory Control Samples (LCSs) are statistically derived for the full list of spiked compounds. The recoveries of the spiked analytes in the LCS, Matrix Spike (MS) and Matrix Spike Duplicate (MSD) are compared to these acceptance limits. Katahdin standard operating procedure is to take corrective action only if the number of spiked analytes in the LCS that are outside of the QC limits is greater than the DoD QSM allowable number of exceedances. If the associated MS/MSD has greater than the allowable number of exceedances, no corrective action is taken, as long as the LCS is acceptable.

#### 8270C Analysis

Samples SE0092-8 and 9 were used for the matrix spike (MS) and matrix spike duplicate (MSD), as per client request.

All soil samples and associated QC were subjected to the GPC sample clean-up process.

Surrogate recoveries for all samples and QC were evaluated using laboratory established acceptance limits.

The reported percent recovery acceptance limits for the aqueous Laboratory Control Samples (LCSs) are statistically derived for the full list of spiked compounds. The limits for the soil LCS's are nominal acceptable limits. The recoveries of the spiked analytes in the LCS, Matrix Spike (MS) and Matrix Spike Duplicate (MSD) are compared to these acceptance limits. Katahdin standard operating procedure is to take corrective action only if the number of spiked analytes in the LCS that are outside of the QC limits is greater than the DoD QSM allowable number of exceedances. If the associated MS/MSD has greater than the allowable number of exceedances, no corrective action is taken, as long as the LCS is acceptable. Nominal limits are used for the LCS/LCSD until enough data is collected to generate statistically based acceptance limits.

Sample SE0092-1 had a low response for the internal standard perylene-d12 that resulted in a %D which was outside the laboratory acceptance limit of -50% to +100% of the response of the internal standard of the daily calibration verification standard. Since this internal response was within the DoD QSM 4.1 acceptance limit of -50% to +100% of the response of the internal standard of the midpoint standard of the initial calibration, the sample was not reanalyzed.

#### 8081 TCLP Analysis

The closing CV (file 1EA00115) had low responses for methoxychlor on both channels which resulted in %D's that were outside of the method acceptance limits of 15%. Since the associated LCS and LCSD had acceptable recoveries, the associated samples were not reanalyzed.

#### 8081 Analysis

Samples SE0092-8 and 9 were used for the matrix spike (MS) and matrix spike duplicate (MSD), as per client request.

All soil samples and associated QC were subjected to the GPC sample clean-up process.

Sample SE0092-6 was manually integrated for the target analyte 4,4'-DDT. The specific reasons for the manual integrations are indicated on the raw data by the manual integration codes (M1-M11). These codes are further explained in the attachment following this narrative.

The reported percent recovery acceptance limits for the Laboratory Control Samples (LCSs) are statistically derived limits for the full list of spiked compounds. The recoveries of the spiked analytes in the LCS, Matrix Spike (MS) and Matrix Spike Duplicate (MSD) are compared to these acceptance limits. Katahdin standard operating procedure is to take corrective action only if the number of spiked analytes in the LCS that are outside of the QC limits is greater than the DoD QSM allowable number of exceedances. The LCS report consists of the full list of spiked analytes, but only the client's list of target analytes are evaluated. If the associated MS/MSD has greater than the allowable number of exceedances, no corrective action is taken, as long as the LCS is acceptable.

The LCSD WG87131-3 had two spiked target analytes with recoveries that were high and outside of the laboratory established acceptance limits. The DoD QSM allowable number of exceedances for 20 target analytes is one analyte. Since the LCS had acceptable spike recoveries, the associated samples were not reextracted.

The opening CV (file 1EA00102) had a low response for endosulfan sulfate on channel B, which resulted in a %D that was outside of the method acceptance limits of 15%. Since the responses were acceptable on channel A, the associated samples were not reanalyzed.

The closing CV (file 1EA00115) had low responses for methoxychlor on both channels and low responses for 4,4'-DDD and 4,4'-DDT on channel A. These responses resulted in %D's that were outside of the method acceptance limits of 15%. Since the associated LCS and LCSD had acceptable recoveries, the associated samples were not reanalyzed.

The opening/closing CV (file 1EA00153) had low responses for 4,4'-DDT and methoxychlor on channel A, which resulted in %D's that were outside of the method acceptance limits of 15%. Since the responses were acceptable on channel B, the associated samples were not reanalyzed.

The closing CV (file 1EA00165) had a low response for 4,4'-DDT on channel A, which resulted in a %D that was outside of the method acceptance limits of 15%. Since the responses were acceptable on channel B, the associated samples were not reanalyzed.

#### 8082 Analysis

Samples SE0092-8 and 9 were used for the matrix spike (MS) and matrix spike duplicate (MSD), as per client request.

All soil samples and associated QC were subjected to the GPC sample clean-up process.

The method blank WG87104-1, the LCS/LCSD WG87104-2 and 3, the MS/MSD WG87104-5 and 6 and samples SE0092-4RA, 5, 7, and 12 had low recoveries for the surrogate TCX on channel A, which were outside the laboratory established acceptance limits. Since the recoveries of TCX on channel B and the surrogate DCB on both channels were acceptable, the samples were not reextracted.

Samples SE0092-1 and 11 had low recoveries for DCB on channel A, which were outside the laboratory established acceptance limits. Since the recoveries of DCB on channel B and the surrogate TCX on both channels were acceptable, the samples were not reextracted.

Samples SE0092-2 and 3 had low recoveries for TCX and DCB on channel A, which were outside the laboratory established acceptance limits. Since the recoveries were acceptable on the confirmation channel, the samples were not reextracted.

The opening CV (file 7EA051) had a low response for Aroclor 1016 on channel A, as well as a low response for TCX on channel B. These responses resulted in %D's that were outside of the method acceptance limits of 15%. Since the responses were acceptable on the confirmation channels, the associated samples were not reanalyzed.

The closing CV (file 7EA066) had a low response for TCX and a high response for DCB on channel B, which resulted in %D's that were outside of the method acceptance limits of 15%. Since the responses were acceptable on channel A, the associated samples were not reanalyzed.

The opening CV (file 7EA086) had low responses for TCX on both channels, as well as low responses for Aroclor 1016 and Aroclor 1260 on channel A. These responses resulted in %D's that were outside of the method acceptance limits of 15%. Since the Aroclor responses were acceptable on channel B, the associated samples were not reanalyzed.

The opening/closing CV (file 7EA100) had low responses for TCX on both channels, as well as a low response for Aroclor 1260 on channel A. These responses resulted in %D's that were outside of the method acceptance limits of 15%. Since the Aroclor responses were acceptable on channel B, the associated samples were not reanalyzed.

The closing CV (file 7EA115) had low responses for DCB on both channels, as well as low responses for TCX, Aroclor 1016 and Aroclor 1260 on channel A. These responses resulted in %D's that were outside of the method acceptance limits of 15%. Since the Aroclor responses were acceptable on channel B, the associated samples were not reanalyzed.

The opening CV (file 7EA120) had a low response for Aroclor 1016 on channel A, which resulted in a %D that was outside of the method acceptance limits of 15%. Since the responses were acceptable on channel B, the associated samples were not reanalyzed.

There were no other protocol deviations or observations noted by the organics laboratory staff.

#### Metals Analysis

The samples of Katahdin Work Order SE0092 were prepared and analyzed for metals in accordance with the "Test Methods for Evaluating Solid Wastes: Physical/Chemical Methods." SW-846. 2nd edition,

1982 (revised 1984), 3rd edition, 1986, and Updates I, II, IIA, III, IIIA and IIIB 1996, 1998 & 2004, Office of Solid Waste and Emergency Response, U.S. EPA.

#### TCLP Extraction (EPA Method 1311)

Katahdin Sample Number SE0092-17 was subjected to TCLP extraction on 01/10/11 in accordance with USEPA Method 1311. The resulting TCLP extract is identified throughout the raw data by the suffix "T" appended to the Katahdin Sample Number, e.g. "SE0092-017T". The TCLP fluid blank identified as PBT996A is associated with this TCLP extract. The measured concentrations of contaminants in this TCLP fluid blank are listed on the Extraction Fluid Blank Report appended after Form 3P in the accompanying data package. The measured lead concentration (0.040 mg/L) in the TCLP fluid blank PBT996A is above the laboratory's reporting limit (0.025 mg/L). Since the result for lead in the extraction fluid blank is well below the TCLP regulatory limit of 5 mg/L, the associated sample was not re-extracted.

#### Inductively-Coupled Plasma Atomic Emission Spectroscopic Analysis (ICP)

Solid-matrix Katahdin Sample Numbers SE0092-(1-13) were digested for ICP analysis on 01/10/11 (QC Batch BA10ICS0) in accordance with USEPA Method 3050B. Katahdin Sample Numbers SE0092-(8 and 9) were prepared with duplicate matrix-spiked aliquots.

Aqueous-matrix Katahdin Sample Numbers SE0092-(15, 16, and 17T) were digested for ICP analysis on 01/11/11 (QC Batch BA11ICW0) in accordance with USEPA Method 3010A.

ICP analyses of the Katahdin Work Order SE0092 sample digestates were performed using a Thermo iCAP 6500 ICP spectrometer in accordance with USEPA Method 6010. All samples were analyzed within holding times and all analytical run QC criteria were met.

Katahdin Sample Number SE0092-17T was diluted during preparation for ICP analysis due to possible matrix interference.

#### Analysis of Mercury by Cold Vapor Atomic Absorption (CVAA)

Solid-matrix Katahdin Sample Numbers SE0092-(1-13) were digested for mercury analysis on 01/10/11 (QC Batch BA10HGS0) in accordance with USEPA Method 7471. Katahdin Sample Numbers SE0092-(8 and 9) were prepared with duplicate matrix-spiked aliquots.

Aqueous-matrix Katahdin Sample Numbers SE0092-(15, 16, and 17T) were digested for mercury analysis on 01/11/11 (QC Batch BA11HGW0) in accordance with USEPA Method 7470.

Mercury analyses of the Katahdin Work Order SE0092 sample digestate was performed using a Cetac M6100 automated mercury analyzer. All analytical run QC criteria were met and all samples were analyzed within holding times.

#### Matrix QC Summary

The measured recoveries of antimony and potassium in the matrix-spiked aliquots of Katahdin Sample Numbers SE0092-(8 and 9) are outside the laboratory's acceptance criteria (75% - 125% recovery of the

added element, if the native concentration is less than four times the amount added). The measured recoveries of these analytes in post-digestion spikes of these samples are within acceptance criteria.

The matrix-spike duplicate analyses of Katahdin Sample Numbers SE0092-(8 and 9) are within the laboratory's acceptance limit (<20% relative difference between duplicate matrix-spiked aliquots) for all analytes.

The serial dilution analysis of Katahdin Sample Number SE0092-8 is outside the laboratory's acceptance limit (<10% relative percent difference, if the concentration in the original sample is greater than 50 times the MDL) for cobalt and iron.

The serial dilution analysis of Katahdin Sample Number SE0092-9 is outside the laboratory's acceptance limit (<10% relative percent difference, if the concentration in the original sample is greater than 50 times the MDL) for iron and lead.

#### Reporting of Metals Results

Analytical results for client samples and batch QC samples (preparation blanks and laboratory control samples) have been reported down to the laboratory's method detection limits (MDLs) throughout the accompanying data package. Results that fall between the MDL and the PQL are flagged with "J" in the C-qualifier column, and the measured concentration appears in the concentration column. Analytical results that are below the MDLs are flagged with "U" in the C-qualifier column, and the MDL is listed in the concentration column. These PQLs and MDLs have been adjusted for each sample based on the sample amounts used in preparation and analysis.

Analytical results for instrument run QC samples (ICVs, ICBs, etc.) have been reported down to the laboratory's instrument detection limits (IDLs).

IDLs, MDLs, and PQLs are listed on Form 10 of the accompanying data package.

#### Wet Chemistry Analysis

The samples of Work Order SE0092 were analyzed in accordance with the specific methods listed on the Report of Analysis.

Analyses for reactive cyanide, ignitability, reactive sulfide, total cyanide, and pH (soil) were performed according to "Test Methods for Evaluating Solid Wastes: Physical/Chemical Methods." SW-846. 2nd edition, 1982 (revised 1984), 3rd edition, 1986, and Updates I, II, IIA, III, IIIA and IIIB 1996, 1998 & 2004, Office of Solid Waste and Emergency Response, U.S. EPA.

Analyses for total solids were performed according to "Standard Methods for the Examination of Water and Wastewater", 15th, 16th, 17th, 18th, 19<sup>th</sup>, and 20th editions, 1980, 1985, 1989, 1992, 1995, 1999. APHA-AWWA-WPCF.

All Wet Chemistry results were evaluated to Katahdin Analytical Services' Method Detection Limits (MDL). Measured concentrations that fall between the MDL and Katahdin's Practical Quantitation Limit



(PQL) are flagged "J". Measured concentrations that are below the MDL are flagged "L" and reported as "U PQL", where "PQL" is the numerical value of the Practical Quantitation Limit.

All analyses were performed within analytical holding times, and all quality control criteria were met.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Operations Manager or Quality Assurance Officer, as verified by the following signature.

Leslie Dimond  
01.26.11

Leslie Dimond  
Quality Assurance Officer





SDG NARRATIVE  
KATAHDIN ANALYTICAL SERVICES  
SHAW ENVIRONMENTAL & INFRASTRUCTURE GROUP  
NYSDEC HOLT DRIVE  
SDG: HOLT01  
SE0564, SE0589, SE0647

Sample Receipt

The following samples were received on February 9, 10 and 12, 2011 and were logged in under Katahdin Analytical Services work order numbers SE0564, SE0589 and SE0647 for a hardcopy due date of March 2, 2011.

<u>KATAHDIN</u> <u>Sample No.</u>	<u>SHAW</u> <u>Sample Identification</u>
SE0564-1	MW-2A
SE0564-2	MW-2A
SE0564-3	MW-3A
SE0564-4	MW-3A
SE0564-5	MW-8
SE0564-6	MW-8
SE0564-7	ERB-1
SE0564-8	ERB-1
SE0564-9	ERB-2
SE0564-10	ERB-2
SE0564-11	DUP
SE0564-12	DUP
SE0564-13	TRIP BLANK (1)
SE0564-14	TRIP BLANK (2)
SE0564-15	TRIP BLANK (3)
SE0589-1	MW-8
SE0589-2	MW-1A
SE0589-3	MW-1A
SE0647-1	MW-4
SE0647-2	MW-4

The samples were logged in for the analyses specified on the chain of custody form. All problems encountered and resolved during sample receipt have been documented on the applicable chain of custody forms.

We certify that the test results provided in this report meet all the requirements of the NELAC standards unless otherwise noted in this narrative or in the Report of Analysis.

Sample analyses have been performed by the methods as noted herein.

Should you have any questions or comments concerning this Report of Analysis, please do not hesitate to contact your Katahdin Analytical Services Project Manager, Ms. Kelly Perkins. This narrative is an integral part of the Report of Analysis.

### Organics Analysis

The samples of SDG HOLT01 were analyzed in accordance with "Test Methods for Evaluating Solid Wastes: Physical/Chemical Methods." SW-846, 2nd edition, 1982 (revised 1984), 3rd edition, 1986, and Updates I, II, IIA, III, IIIA, and IIIB 1996, 1998 & 2004, Office of Solid Waste and Emergency Response, U.S. EPA., and/or for the specific methods listed below or on the Report of Analysis.

#### 8260B Analysis

Sample SE0564-5 was used for the matrix spike (MS) and matrix spike duplicate (MSD), as per client request.

The reported percent recovery acceptance limits for the Laboratory Control Samples (LCSs) are statistically derived for the full list of spiked compounds. The recoveries of the spiked analytes in the LCS, Matrix Spike (MS) and Matrix Spike Duplicate (MSD) are compared to these acceptance limits. Katahdin standard operating procedure is to take corrective action only if the number of spiked analytes in the LCS that are outside of the QC limits is greater than the DoD QSM allowable number of exceedances. The LCS report consists of the full list of spiked analytes, but only the client's list of target analytes are evaluated. If the associated MS/MSD has greater than the allowable number of exceedances, no corrective action is taken, as long as the LCS is acceptable.

#### 8270C Analysis

Sample SE0589-1 was used for the matrix spike (MS) and matrix spike duplicate (MSD), as per client request.

Surrogate recoveries for all samples and QC were evaluated using laboratory established acceptance limits.

The laboratory method blank WG87948-1 had high recoveries for three surrogates, which were outside the laboratory established acceptance limits. Since a high recovery would indicate a high bias and there were no target analytes detected above the PQL, the associated samples were not reextracted.

The LCSD WG87948-3 had high recoveries for three surrogates, which were outside the laboratory established acceptance limits. The LCSD also had seven spiked target analytes with recoveries that were high and outside of the laboratory established acceptance limits. The DoD QSM allowable number of exceedances for 65 target analytes is three analytes. Since the associated LCS was acceptable with the number of DoD QSM exceedances, the associated samples were not reextracted.

Samples SE0564-7, 9 and SE0647-1 had high recoveries for the surrogate 2-fluorobiphenol, which were outside the laboratory established acceptance limits. Since a high recovery would indicate a high bias and there were no target analytes detected above the PQL in the samples, the samples were not reextracted.



The target analytes benzo(b)fluoranthene and benzo(a)pyrene were detected in the method blank WG87971-1 above the MDL but below the PQL. The laboratory policy is not to take corrective action unless the concentration of the target analyte is above the PQL. The analytes were also detected in the associated samples above the MDL, but below the PQL, and were flagged with a "B" qualifier indicating that the analytes were detected in the method blank analyzed and extracted concurrently with the samples.

The reported percent recovery acceptance limits for the Laboratory Control Samples (LCSs) are statistically derived for the full list of spiked compounds. The recoveries of the spiked analytes in the LCS, Matrix Spike (MS) and Matrix Spike Duplicate (MSD) are compared to these acceptance limits. Katahdin standard operating procedure is to take corrective action only if the number of spiked analytes in the LCS that are outside of the QC limits is greater than the DoD QSM allowable number of exceedances. If the associated MS/MSD has greater than the allowable number of exceedances, no corrective action is taken, as long as the LCS is acceptable.

The initial calibration analyzed on 02/11/11 had %RSD values for several analytes that exceeded the method acceptance limit of 15%. For these analytes, either a linear or quadratic model was used for quantitation instead of an average response factor. The target analytes 4-chloroaniline and anthracene failed for both the linear and quadratic models in the initial calibration curve due to the correlation coefficient and the coefficient of determination being less than the method acceptance criteria of 0.995 and 0.990, respectively. These compounds were calibrated using the average model. The corresponding independent check standard (file U4536) had a high response for the target analyte pentachlorophenol, which resulted in a %D that was greater than 20%. The Independent Check Report consists of the full list of spiked analytes, but only the client's list of target analytes are evaluated.

The calibration verification standard (CV) (file U4558) had a high response for the calibration check compound (CCC) di-n-octyl-phthalate, which resulted in a %D that was outside the method acceptance limit of 20%. Since a high response would indicate a high bias and this target analyte was not detected above the PQL in the associated samples, the samples were not reanalyzed.

#### 8082 Analysis

Sample SE0589-1 was used for the matrix spike (MS) and matrix spike duplicate (MSD), as per client request.

The method blank WG87947-1 and sample SE0564-9 had low recoveries for the surrogate DCB on channel A, which were outside the laboratory established acceptance limits. Since the recoveries were acceptable on the confirmation channel, the associated samples were not reextracted.

Sample SE0564-11 had low recoveries for the surrogate DCB on both channels, which were outside the laboratory established acceptance limits. Since the recoveries for TCX were acceptable and the client ID is labeled as "DUP", the sample was not reextracted.

The reported percent recovery acceptance limits for the Laboratory Control Samples (LCSs) are statistically derived for the full list of spiked compounds. The recoveries of the spiked analytes in the LCS, Matrix Spike (MS) and Matrix Spike Duplicate (MSD) are compared to these acceptance limits. Katahdin standard operating procedure is to take corrective action only if the number of spiked analytes in the LCS that are outside of the QC limits is greater than the DoD QSM allowable number of exceedances.

If the associated MS/MSD has greater than the allowable number of exceedances, no corrective action is taken, as long as the LCS is acceptable.

The opening/closing calibration verification standards (CV's) (files 7EB423 and 7EB437) had high responses for the surrogate TCX and Aroclor 1016 on channel A, which resulted in %D's that were outside of the method acceptance limits of 15%. Since the responses were acceptable on channel B, the associated samples were not reanalyzed.

The closing CV (file 7EB450) had a high response for TCX and a low response for DCB on channel A, which resulted in %D's that were outside of the method acceptance limits of 15%. Since the responses were acceptable on channel B, the associated samples were not reanalyzed.

#### 8081 Analysis

Sample SE0589-1 was used for the matrix spike (MS) and matrix spike duplicate (MSD), as per client request.

The LCS's/LCSD's WG87946-2 and 3, WG87973-2 and WG88161-2 and 3 and the MS/MSD WG87973-4 and 5 had high recoveries for the spiked analytes heptachlor, endosulfan I, endosulfan II and/or 4,4'-DDT, which were outside the laboratory established acceptance limits. Since high recoveries would indicate a high bias and no target analytes were detected in the associated samples above the PQL, the MS/MSD and the associated samples were not reextracted.

The LCSD WG87973-3 had low recoveries for the spiked analytes 4,4'-DDE and 4,4'-DDD, which were outside the laboratory established acceptance limits. Since the recoveries for these analytes were acceptable in the associated LCS, the associated samples were not reextracted.

The opening CV (file 1EB00194) had high responses for 4,4'-DDT and methoxychlor on both channels, as well as high responses for heptachlor and 4,4'-DDD on channel B. These responses resulted in %D's that were outside of the method acceptance limits of 15%. Since a high response would indicate a high bias and no target analytes were detected in the associated samples above the PQL, the associated samples were not reanalyzed.

The closing CV (file 1EB00203) had high responses for heptachlor on both channels, as well as high responses for 4,4'-DDT and methoxychlor and low responses for delta-BHC and 4,4'-DDD on channel A. These responses resulted in %D's that were outside of the method acceptance limits of 15%. Since a high response would indicate a high bias and no target analytes were detected in the associated samples above the PQL, and the responses for delta-BHC and 4,4'-DDD were acceptable on channel B, the associated samples were not reanalyzed.

The opening CV (file 1EB00224) had high responses for heptachlor, 4,4'-DDT and methoxychlor on channel A, which resulted in %D's that were outside of the method acceptance limits of 15%. Since the responses were acceptable on channel B, the associated samples were not reanalyzed.

The closing CV (file 1EB00235) had low responses for 4,4'-DDD on both channels, as well as a low response for 4,4'-DDE on channel A. These responses resulted in %D's that were outside of the method acceptance limits of 15%.

The closing CV (file 1EB00392) had low responses for 4,4'-DDD, 4,4'-DDT and methoxychlor on both channels, which resulted in %D's that were outside of the method acceptance limits of 15%. Since the recoveries for these analytes were acceptable in the associated LCS/LCSD, the associated sample was not reanalyzed.

There were no other protocol deviations or observations noted by the organics laboratory staff.

### Metals Analysis

The samples of SDG HOLT01 were prepared and analyzed for metals in accordance with the "Test Methods for Evaluating Solid Wastes: Physical/Chemical Methods." SW-846. 2nd edition, 1982 (revised 1984), 3rd edition, 1986, and Updates I, II, IIA, III, IIA and IIB 1996, 1998 & 2004, Office of Solid Waste and Emergency Response, U.S. EPA.

### Inductively-Coupled Plasma Atomic Emission Spectroscopic Analysis (ICP)

Aqueous-matrix Katahdin Sample Numbers SE0564-(1-12) were digested for ICP analysis on 02/10/2011 (QC Batch BB10ICW0) in accordance with USEPA Method 3010A. Katahdin Sample Numbers SE0564-5 and SE0564-6 were prepared with duplicate matrix-spiked aliquots.

Aqueous-matrix Katahdin Sample Numbers SE0589-(2,3) were digested for ICP analysis on 02/14/2011 (QC Batch BB14ICW0) in accordance with USEPA Method 3010A.

Aqueous-matrix Katahdin Sample Numbers SE0647-(1,2) were digested for ICP analysis on 02/15/2011 (QC Batch BB15ICW0) in accordance with USEPA Method 3010A.

ICP analyses of the SDG HOLT01 sample digestates were performed using a Thermo iCAP 6500 ICP spectrometer in accordance with USEPA Method 6010. All samples were analyzed within holding times and all analytical run QC criteria were met.

### Analysis of Mercury by Cold Vapor Atomic Absorption (CVAA)

Aqueous-matrix Katahdin Sample Numbers SE0564-(1-12) and SE0589-(2,3) were digested for mercury analysis on 02/11/2011 (QC Batch BB11HGW0) in accordance with USEPA Method 7470. Katahdin Sample Numbers SE0564-5 and SE0564-6 were prepared with duplicate matrix-spiked aliquots.

Aqueous-matrix Katahdin Sample Numbers SE0647-(1,2) were digested for mercury analysis on 02/18/2011 (QC Batch BB18HGW1) in accordance with USEPA Method 7470.

Mercury analyses of the SDG HOLT01 sample digestate was performed using a Cetac M6100 automated mercury analyzer. All analytical run QC criteria were met and all samples were analyzed within holding times.

### Matrix QC Summary

The measured recoveries of all analytes in the matrix-spiked aliquots of Katahdin Sample Numbers SE0564-(5 and 6) were inside the laboratory's acceptance criteria (75% - 125% recovery of the added element, if the native concentration is less than four times the amount added).

The matrix-spike duplicate analyses of Katahdin Sample Numbers SE0564-(5 and 6) are within the laboratory's acceptance limit (<20% relative difference between duplicate matrix-spiked aliquots) for all analytes.

The serial dilution analyses of Katahdin Sample Numbers SE0564-(5 and 6) are within the laboratory's acceptance limit (<10% relative percent difference, if the concentration in the original sample is greater than 50 times the MDL) for all analytes.

### Reporting of Metals Results

Analytical results for client samples and batch QC samples (preparation blanks and laboratory control samples) have been reported down to the laboratory's method detection limits (MDLs) throughout the accompanying data package. Results that fall between the MDL and the PQL are flagged with "J" in the C-qualifier column, and the measured concentration appears in the concentration column. Analytical results that are below the MDLs are flagged with "U" in the C-qualifier column, and the MDL is listed in the concentration column. These PQLs and MDLs have been adjusted for each sample based on the sample amounts used in preparation and analysis.

Analytical results for instrument run QC samples (ICVs, ICBs, etc.) have been reported down to the laboratory's instrument detection limits (IDLs).

IDLs, MDLs, and PQLs are listed on Form 10 of the accompanying data package.

### Wet Chemistry Analysis

The samples of SDG HOLT01 were analyzed in accordance with the specific methods listed on the Report of Analysis.

Analyses for cyanide were performed according to "Test Methods for Evaluating Solid Wastes: Physical/Chemical Methods." SW-846. 2nd edition, 1982 (revised 1984), 3rd edition, 1986, and Updates I, II, IIA, III, IIA and IIIB 1996, 1998 & 2004, Office of Solid Waste and Emergency Response, U.S. EPA.

All Wet Chemistry results were evaluated to Katahdin Analytical Services' Method Detection Limits (MDL). Measured concentrations that fall between the MDL and Katahdin's Practical Quantitation Limit (PQL) are flagged "J". Measured concentrations that are below the MDL are flagged "U" and reported as "U PQL", where "PQL" is the numerical value of the Practical Quantitation Limit.

All analyses were performed within analytical holding times, and all quality control criteria were met.



I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Operations Manager or Quality Assurance Officer, as verified by the following signature.

Leslie Dimond

Leslie Dimond 030311  
Quality Assurance Officer



**QUALIFIED CLIENT RESULTS TABLES  
and Laboratory Results Forms**

## INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services

Client Field ID: MW-2A

Matrix: WATER

SDG Name: HOLT01

Percent Solids: 0.00

Lab Sample ID: SE0564-002

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	Adjusted CRDL	Adjusted MDL
7429-90-5	ALUMINUM, DISSOLVED	14.80	U	UJ	P	1	300	14.80
7440-36-0	ANTIMONY, DISSOLVED	1.28	U	J	P	1	8.0	1.28
7440-38-2	ARSENIC, DISSOLVED	1.43	U	J	P	1	8.0	1.43
7440-39-3	BARIUM, DISSOLVED	20.3	J	J	P	1	5.0	0.23
7440-41-7	BERYLLIUM, DISSOLVED	0.10	U	UJ	P	1	5.0	0.10
7440-43-9	CADMIUM, DISSOLVED	0.08	J	J	P	1	10	0.05
7440-70-2	CALCIUM, DISSOLVED	41400	J	J	P	1	100	11.20
7440-47-3	CHROMIUM, DISSOLVED	1.0	J	J	P	1	15	0.36
7440-48-4	COBALT, DISSOLVED	0.24	U	UJ	P	1	30	0.24
7440-50-8	COPPER, DISSOLVED	4.2	J	J	P	1	25	0.63
7439-89-6	IRON, DISSOLVED	43.5	J	J	P	1	100	5.42
7439-92-1	LEAD, DISSOLVED	1.07	U	UJ	P	1	5.0	1.07
7439-95-4	MAGNESIUM, DISSOLVED	13200	J	J	P	1	100	7.80
7439-96-5	MANGANESE, DISSOLVED	13.8	J	J	P	1	5.0	1.06
7439-97-6	MERCURY, DISSOLVED	0.04	U	UJ	CV	1	0.20	0.04
7440-02-0	NICKEL, DISSOLVED	0.70	J	J	P	1	40	0.28
7440-09-7	POTASSIUM, DISSOLVED	1400	J	J	P	1	1000	41.00
7782-49-2	SELENIUM, DISSOLVED	2.36	U	UJ	P	1	10	2.36
7440-22-4	SILVER, DISSOLVED	0.27	U	UJ	P	1	15	0.27
7440-23-5	SODIUM, DISSOLVED	26000	J	J	P	1	1000	23.72
7440-28-0	THALLIUM, DISSOLVED	1.07	U	UJ	P	1	15	1.07
7440-62-2	VANADIUM, DISSOLVED	0.27	J	J	P	1	25	0.23
7440-66-6	ZINC, DISSOLVED	12.6	J	J	P	1	25	0.72

Bottle ID: A

Comments:

## INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services

Client Field ID: MW-3A

Matrix: WATER

SDG Name: HOLT01

Percent Solids: 0.00

Lab Sample ID: SE0564-004

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	Adjusted CRDL	Adjusted MDL
7429-90-5	ALUMINUM, DISSOLVED	14.80	U	UJ	P	1	300	14.80
7440-36-0	ANTIMONY, DISSOLVED	1.28	U	↓	P	1	8.0	1.28
7440-38-2	ARSENIC, DISSOLVED	1.43	U	↓	P	1	8.0	1.43
7440-39-3	BARIUM, DISSOLVED	70.0		J	P	1	5.0	0.23
7440-41-7	BERYLLIUM, DISSOLVED	0.10	U	UJ	P	1	5.0	0.10
7440-43-9	CADMIUM, DISSOLVED	0.05	U	UJ	P	1	10	0.05
7440-70-2	CALCIUM, DISSOLVED	76700		J	P	1	100	11.20
7440-47-3	CHROMIUM, DISSOLVED	0.92	J	J	P	1	15	0.36
7440-48-4	COBALT, DISSOLVED	0.24	U	UJ	P	1	30	0.24
7440-50-8	COPPER, DISSOLVED	3.0	J	J	P	1	25	0.63
7439-89-6	IRON, DISSOLVED	31.6	J	J	P	1	100	5.42
7439-92-1	LEAD, DISSOLVED	1.07	U	UJ	P	1	5.0	1.07
7439-95-4	MAGNESIUM, DISSOLVED	20600		J	P	1	100	7.80
7439-96-5	MANGANESE, DISSOLVED	4.7	J	J	P	1	5.0	1.06
7439-97-6	MERCURY, DISSOLVED	0.04	U	UJ	CV	1	0.20	0.04
7440-02-0	NICKEL, DISSOLVED	0.97	J	J	P	1	40	0.28
7440-09-7	POTASSIUM, DISSOLVED	1560		J	P	1	1000	41.00
7782-49-2	SELENIUM, DISSOLVED	2.36	U	UJ	P	1	10	2.36
7440-22-4	SILVER, DISSOLVED	0.27	U	UJ	P	1	15	0.27
7440-23-5	SODIUM, DISSOLVED	99900		J	P	1	1000	23.72
7440-28-0	THALLIUM, DISSOLVED	1.07	U	UJ	P	1	15	1.07
7440-62-2	VANADIUM, DISSOLVED	0.23	U	UJ	P	1	25	0.23
7440-66-6	ZINC, DISSOLVED	9.5	J	J	P	1	25	0.72

Bottle ID: A

Comments:



## INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services

Client Field ID: MW-8

Matrix: WATER

SDG Name: HOLT01

Percent Solids: 0.00

Lab Sample ID: SE0564-006

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	Adjusted CRDL	Adjusted MDL
7429-90-5	ALUMINUM, DISSOLVED	14.80	U	UJ	P	1	300	14.80
7440-36-0	ANTIMONY, DISSOLVED	1.28	U	UJ	P	1	8.0	1.28
7440-38-2	ARSENIC, DISSOLVED	1.7	J	J	P	1	8.0	1.43
7440-39-3	BARIUM, DISSOLVED	37.4		J	P	1	5.0	0.23
7440-41-7	BERYLLIUM, DISSOLVED	0.10	U	UJ	P	1	5.0	0.10
7440-43-9	CADMIUM, DISSOLVED	0.05	U	UJ	P	1	10	0.05
7440-70-2	CALCIUM, DISSOLVED	45600		J	P	1	100	11.20
7440-47-3	CHROMIUM, DISSOLVED	1.9	J	J	P	1	15	0.36
7440-48-4	COBALT, DISSOLVED	0.24	U	UJ	P	1	30	0.24
7440-50-8	COPPER, DISSOLVED	2.0	J	J	P	1	25	0.63
7439-89-6	IRON, DISSOLVED	29.1	J	J	P	1	100	5.42
7439-92-1	LEAD, DISSOLVED	1.07	U	UJ	P	1	5.0	1.07
7439-95-4	MAGNESIUM, DISSOLVED	11200		J	P	1	100	7.80
7439-96-5	MANGANESE, DISSOLVED	1.06	U	UJ	P	1	5.0	1.06
7439-97-6	MERCURY, DISSOLVED	0.04	U	J	CV	1	0.20	0.04
7440-02-0	NICKEL, DISSOLVED	0.28	U	J	P	1	40	0.28
7440-09-7	POTASSIUM, DISSOLVED	1540		J	P	1	1000	41.00
7782-49-2	SELENIUM, DISSOLVED	2.36	U	UJ	P	1	10	2.36
7440-22-4	SILVER, DISSOLVED	0.27	U	UJ	P	1	15	0.27
7440-23-5	SODIUM, DISSOLVED	35200		J	P	1	1000	23.72
7440-28-0	THALLIUM, DISSOLVED	1.3	J	J	P	1	15	1.07
7440-62-2	VANADIUM, DISSOLVED	0.24	J	J	P	1	25	0.23
7440-66-6	ZINC, DISSOLVED	8.5	J	J	P	1	25	0.72

Bottle ID: A

Comments:

## INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services

Client Field ID: ERB-1

Matrix: WATER

SDG Name: HOLT01

Percent Solids: 0.00

Lab Sample ID: SE0564-008

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	Adjusted CRDL	Adjusted MDL
7429-90-5	ALUMINUM, DISSOLVED	14.80	U	UJ	P	1	300	14.80
7440-36-0	ANTIMONY, DISSOLVED	1.28	U	UJ	P	1	8.0	1.28
7440-38-2	ARSENIC, DISSOLVED	1.6	J	J	P	1	8.0	1.43
7440-39-3	BARIUM, DISSOLVED	37.5		J	P	1	5.0	0.23
7440-41-7	BERYLLIUM, DISSOLVED	0.10	U	UJ	P	1	5.0	0.10
7440-43-9	CADMIUM, DISSOLVED	0.05	U	UJ	P	1	10	0.05
7440-70-2	CALCIUM, DISSOLVED	54900		J	P	1	100	11.20
7440-47-3	CHROMIUM, DISSOLVED	0.46	J	J	P	1	15	0.36
7440-48-4	COBALT, DISSOLVED	0.24	U	UJ	P	1	30	0.24
7440-50-8	COPPER, DISSOLVED	4.6	J	J	P	1	25	0.63
7439-89-6	IRON, DISSOLVED	25.4	J	J	P	1	100	5.42
7439-92-1	LEAD, DISSOLVED	1.07	U	UJ	P	1	5.0	1.07
7439-95-4	MAGNESIUM, DISSOLVED	3770		J	P	1	100	7.80
7439-96-5	MANGANESE, DISSOLVED	1.06	U	UJ	P	1	5.0	1.06
7439-97-6	MERCURY, DISSOLVED	0.04	U	UJ	CV	1	0.20	0.04
7440-02-0	NICKEL, DISSOLVED	0.31	J	J	P	1	40	0.28
7440-09-7	POTASSIUM, DISSOLVED	5690		J	P	1	1000	41.00
7782-49-2	SELENIUM, DISSOLVED	2.36	U	UJ	P	1	10	2.36
7440-22-4	SILVER, DISSOLVED	0.27	U	UJ	P	1	15	0.27
7440-23-5	SODIUM, DISSOLVED	26200		J	P	1	1000	23.72
7440-28-0	THALLIUM, DISSOLVED	1.07	U	UJ	P	1	15	1.07
7440-62-2	VANADIUM, DISSOLVED	0.23	U	UJ	P	1	25	0.23
7440-66-6	ZINC, DISSOLVED	12.3	J	J	P	1	25	0.72

Bottle ID: A

Comments:

## INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services

Client Field ID: ERB-2

Matrix: WATER

SDG Name: HOLT01

Percent Solids: 0.00

Lab Sample ID: SE0564-010

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	Adjusted CRDL	Adjusted MDL
7429-90-5	ALUMINUM, DISSOLVED	14.80	U	UJ	P	1	300	14.80
7440-36-0	ANTIMONY, DISSOLVED	1.28	U	↓	P	1	8.0	1.28
7440-38-2	ARSENIC, DISSOLVED	1.43	U	↓	P	1	8.0	1.43
7440-39-3	BARIUM, DISSOLVED	0.44	J	J	P	1	5.0	0.23
7440-41-7	BERYLLIUM, DISSOLVED	0.10	U	UJ	P	1	5.0	0.10
7440-43-9	CADMIUM, DISSOLVED	0.16	J	J	P	1	10	0.05
7440-70-2	CALCIUM, DISSOLVED	13700		↓	P	1	100	11.20
7440-47-3	CHROMIUM, DISSOLVED	1.0	J	↓	P	1	15	0.36
7440-48-4	COBALT, DISSOLVED	0.24	U	UJ	P	1	30	0.24
7440-50-8	COPPER, DISSOLVED	4.6	J	J	P	1	25	0.63
7439-89-6	IRON, DISSOLVED	91.2	J	J	P	1	100	5.42
7439-92-1	LEAD, DISSOLVED	1.07	U	UJ	P	1	5.0	1.07
7439-95-4	MAGNESIUM, DISSOLVED	3110		J	P	1	100	7.80
7439-96-5	MANGANESE, DISSOLVED	1.2	J	J	P	1	5.0	1.06
7439-97-6	MERCURY, DISSOLVED	0.04	U	UJ	CV	1	0.20	0.04
7440-02-0	NICKEL, DISSOLVED	0.28	U	↓	P	1	40	0.28
7440-09-7	POTASSIUM, DISSOLVED	41.00	U	↓	P	1	1000	41.00
7782-49-2	SELENIUM, DISSOLVED	2.36	U	↓	P	1	10	2.36
7440-22-4	SILVER, DISSOLVED	0.27	U	↓	P	1	15	0.27
7440-23-5	SODIUM, DISSOLVED	8100		J	P	1	1000	23.72
7440-28-0	THALLIUM, DISSOLVED	1.07	U	UJ	P	1	15	1.07
7440-62-2	VANADIUM, DISSOLVED	0.23	U	UJ	P	1	25	0.23
7440-66-6	ZINC, DISSOLVED	13.8	J	J	P	1	25	0.72

Bottle ID: A

Comments:

## INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services

Client Field ID: DUP

Matrix: WATER

SDG Name: HOLT01

Percent Solids: 0.00

Lab Sample ID: SE0564-012

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	Adjusted CRDL	Adjusted MDL
7429-90-5	ALUMINUM, DISSOLVED	14.80	U	uJ	P	1	300	14.80
7440-36-0	ANTIMONY, DISSOLVED	1.28	U	J	P	1	8.0	1.28
7440-38-2	ARSENIC, DISSOLVED	1.43	U	J	P	1	8.0	1.43
7440-39-3	BARIUM, DISSOLVED	65.8		J	P	1	5.0	0.23
7440-41-7	BERYLLIUM, DISSOLVED	0.10	U	uJ	P	1	5.0	0.10
7440-43-9	CADMIUM, DISSOLVED	0.07	J	J	P	1	10	0.05
7440-70-2	CALCIUM, DISSOLVED	74000		J	P	1	100	11.20
7440-47-3	CHROMIUM, DISSOLVED	1.7	J	J	P	1	15	0.36
7440-48-4	COBALT, DISSOLVED	0.24	U	uJ	P	1	30	0.24
7440-50-8	COPPER, DISSOLVED	5.1	J	J	P	1	25	0.63
7439-89-6	IRON, DISSOLVED	91.7	J	J	P	1	100	5.42
7439-92-1	LEAD, DISSOLVED	1.07	U	uJ	P	1	5.0	1.07
7439-95-4	MAGNESIUM, DISSOLVED	19500		J	P	1	100	7.80
7439-96-5	MANGANESE, DISSOLVED	5.1		J	P	1	5.0	1.06
7439-97-6	MERCURY, DISSOLVED	0.04	U	uJ	CV	1	0.20	0.04
7440-02-0	NICKEL, DISSOLVED	0.76	J	J	P	1	40	0.28
7440-09-7	POTASSIUM, DISSOLVED	1510		J	P	1	1000	41.00
7782-49-2	SELENIUM, DISSOLVED	2.36	U	uJ	P	1	10	2.36
7440-22-4	SILVER, DISSOLVED	0.27	U	uJ	P	1	15	0.27
7440-23-5	SODIUM, DISSOLVED	92300		J	P	1	1000	23.72
7440-28-0	THALLIUM, DISSOLVED	1.07	U	uJ	P	1	15	1.07
7440-62-2	VANADIUM, DISSOLVED	0.23	U	uJ	P	1	25	0.23
7440-66-6	ZINC, DISSOLVED	11.3	J	J	P	1	25	0.72

Bottle ID: A

Comments:

## INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services

Client Field ID: MW-1A

Matrix: WATER

SDG Name: HOLT01

Percent Solids: 0.00

Lab Sample ID: SE0589-003

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	Adjusted CRDL	Adjusted MDL
7429-90-5	ALUMINUM, DISSOLVED	21.7	J	J	P	1	300	14.80
7440-36-0	ANTIMONY, DISSOLVED	1.28	U	UJ	P	1	8.0	1.28
7440-38-2	ARSENIC, DISSOLVED	1.43	U	UJ	P	1	8.0	1.43
7440-39-3	BARIUM, DISSOLVED	24.7		J	P	1	5.0	0.23
7440-41-7	BERYLLIUM, DISSOLVED	0.10	U	UJ	P	1	5.0	0.10
7440-43-9	CADMIUM, DISSOLVED	0.05	U	UJ	P	1	10	0.05
7440-70-2	CALCIUM, DISSOLVED	27600		J	P	1	100	11.20
7440-47-3	CHROMIUM, DISSOLVED	1.3	J	J	P	1	15	0.36
7440-48-4	COBALT, DISSOLVED	0.24	U	UJ	P	1	30	0.24
7440-50-8	COPPER, DISSOLVED	6.2	J	J	P	1	25	0.63
7439-89-6	IRON, DISSOLVED	15.4	J	J	P	1	100	5.42
7439-92-1	LEAD, DISSOLVED	1.07	U	UJ	P	1	5.0	1.07
7439-95-4	MAGNESIUM, DISSOLVED	6430		J	P	1	100	7.80
7439-96-5	MANGANESE, DISSOLVED	59.2		J	P	1	5.0	1.06
7439-97-6	MERCURY, DISSOLVED	0.04	U	UJ	CV	1	0.20	0.04
7440-02-0	NICKEL, DISSOLVED	0.28	U	UJ	P	1	40	0.28
7440-09-7	POTASSIUM, DISSOLVED	1260		J	P	1	1000	41.00
7782-49-2	SELENIUM, DISSOLVED	2.36	U	UJ	P	1	10	2.36
7440-22-4	SILVER, DISSOLVED	0.27	U	UJ	P	1	15	0.27
7440-23-5	SODIUM, DISSOLVED	47300		J	P	1	1000	23.72
7440-28-0	THALLIUM, DISSOLVED	1.07	U	UJ	P	1	15	1.07
7440-62-2	VANADIUM, DISSOLVED	0.47	J	J	P	1	25	0.23
7440-66-6	ZINC, DISSOLVED	10.6	J	J	P	1	25	0.72

Bottle ID: A

Comments:

## INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services

Client Field ID: MW-4

Matrix: WATER

SDG Name: HOLT01

Percent Solids: 0.00

Lab Sample ID: SE0647-002

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	Adjusted CRDL	Adjusted MDL
7429-90-5	ALUMINUM, DISSOLVED	138	J	J	P	1	300	14.80
7440-36-0	ANTIMONY, DISSOLVED	1.28	U	UJ	P	1	8.0	1.28
7440-38-2	ARSENIC, DISSOLVED	1.43	U	UJ	P	1	8.0	1.43
7440-39-3	BARIUM, DISSOLVED	10.1		J	P	1	5.0	0.23
7440-41-7	BERYLLIUM, DISSOLVED	0.10	U	UJ	P	1	5.0	0.10
7440-43-9	CADMIUM, DISSOLVED	0.09	J	J	P	1	10	0.05
7440-70-2	CALCIUM, DISSOLVED	10200		J	P	1	100	11.20
7440-47-3	CHROMIUM, DISSOLVED	1.8	J	J	P	1	15	0.36
7440-48-4	COBALT, DISSOLVED	0.24	U	UJ	P	1	30	0.24
7440-50-8	COPPER, DISSOLVED	1.3	J	J	P	1	25	0.63
7439-89-6	IRON, DISSOLVED	208		J	P	1	100	5.42
7439-92-1	LEAD, DISSOLVED	1.07	U	UJ	P	1	5.0	1.07
7439-95-4	MAGNESIUM, DISSOLVED	2670		J	P	1	100	7.80
7439-96-5	MANGANESE, DISSOLVED	3.5	J	J	P	1	5.0	1.06
7439-97-6	MERCURY, DISSOLVED	0.04	U	UJ	CV	1	0.20	0.04
7440-02-0	NICKEL, DISSOLVED	0.28	U	UJ	P	1	40	0.28
7440-09-7	POTASSIUM, DISSOLVED	859	J	J	P	1	1000	41.00
7782-49-2	SELENIUM, DISSOLVED	2.36	U	UJ	P	1	10	2.36
7440-22-4	SILVER, DISSOLVED	0.27	U	UJ	P	1	15	0.27
7440-23-5	SODIUM, DISSOLVED	39600		J	P	1	1000	23.72
7440-28-0	THALLIUM, DISSOLVED	1.07	U	UJ	P	1	15	1.07
7440-62-2	VANADIUM, DISSOLVED	0.70	J	J	P	1	25	0.23
7440-66-6	ZINC, DISSOLVED	13.5	J	J	P	1	25	0.72

Bottle ID: A

Comments:

Table 1  
Soil Analytical Data  
Holt Drive  
Stony Point, Rockland County, New York

Analyte	NYSDEC Soil Cleanup Objectives (Unrestricted)	NYSDEC Soil Cleanup Objectives (Commercial)	NYSDEC Soil Cleanup Objectives (Industrial)	SS-1 (0-2)	SS-2 (0-6)	SB-2 (17-19)	SS-3 (0-2)	SB-3 (24-26)	SS-4 (0-2")	SB-4 (20-22")
Sample Date				1/4/2011	1/4/2011	1/4/2011	1/4/2011	1/4/2011	1/4/2011	1/5/2011
VOCs										
Chloromethane	-	-	-	<0.012	<0.013	<0.012	<0.013	<0.012	<0.012	<0.012
Bromomethane	-	-	-	<0.012	<0.013	<0.012	<0.013	<0.012	<0.012	<0.012
Vinyl Chloride	0.02	13	27	<0.012	<0.013	<0.012	<0.013	<0.012	<0.012	<0.012
Chloroethane	-	-	-	<0.012	<0.013	<0.012	<0.013	<0.012	<0.012	<0.012
Methylene Chloride	0.05	500 <sup>b</sup>	1,000 <sup>c</sup>	<0.029	<0.032	<0.031	<0.032	<0.029	<0.030	<0.030
Acetone	0.05	500 <sup>b</sup>	1,000 <sup>c</sup>	<0.029	0.017J	0.023J	0.022J	<0.029	0.009J	0.009J
Carbon Disulfide	-	-	-	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
1,1-Dichloroethene	0.33	500 <sup>b</sup>	1,000 <sup>c</sup>	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
1,1-Dichloroethane	0.27	240	480	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
cis-1,2-Dichloroethene	0.25	500 <sup>b</sup>	1,000 <sup>c</sup>	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
trans-1,2-Dichloroethene	0.19	500 <sup>b</sup>	1,000 <sup>c</sup>	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Chloroform	0.37	350	700	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
1,2-Dichloropropane	-	-	-	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
1,3-Dichlorobenzene	2.4	280	560	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
2-Butanone	-	-	-	<0.029	<0.032	<0.031	<0.032	<0.029	<0.030	<0.030
1,1,1-Trichloromethane	0.68	500 <sup>b</sup>	1,000 <sup>c</sup>	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Carbon Tetrachloride	0.76	22	44	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Bromodichloromethane	-	-	-	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
1,2-Dichloropropane	-	-	-	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
cis-1,3-Dichloropropene	-	-	-	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
1-Chloroethene	0.47	200	400	0.003J	<0.006	<0.006	0.002J	<0.006	0.003J	<0.006
Dichlorodifluoromethane	-	-	-	<0.006 <u>US</u>	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
1,1,2-Trichloroethane	-	-	-	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Benzene	0.06	44	89	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
1-1,3-Dichloropropene	-	-	-	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Bromoform	-	-	-	<0.006 <u>US</u>	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
4-Methyl-2-Pentanone	-	-	-	<0.029	<0.032	<0.031	<0.032	<0.029	<0.030	<0.030
2-Hexanone	-	-	-	<0.029 <u>US</u>	<0.032	<0.031	<0.032	<0.029	<0.030	<0.030
Tetrachloroethene	1.3	150	300	0.005J	<0.006	<0.006	0.004J	<0.006	0.005J	<0.006
1,1,2,2-Tetrachloroethane	-	-	-	<0.006 <u>US</u>	<0.006	<0.006	<0.006 <u>US</u>	<0.006	<0.006 <u>US</u>	<0.006
Toluene	0.7	500 <sup>b</sup>	1,000 <sup>c</sup>	<0.006 <u>US</u>	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Chlorobenzene	1.1	500 <sup>b</sup>	1,000 <sup>c</sup>	<0.006 <u>US</u>	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Ethyl Benzene	1	390	780	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Styrene	-	-	-	<0.006 <u>US</u>	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
m/p-Xylenes	0.26	500 <sup>b</sup>	1,000 <sup>c</sup>	0.006J <u>US</u>	<0.013	<0.012	0.004J	<0.012	0.004J	<0.012
o-Xylene	0.26	500 <sup>b</sup>	1,000 <sup>c</sup>	0.004J <u>US</u>	<0.006	<0.006	0.003J	<0.006	0.004J	<0.006
1,2-Dichloroethylene (total)	-	-	-	<0.012	<0.013	<0.012	<0.013	<0.012	<0.012	<0.012
Xylenes (total)	0.26	500 <sup>b</sup>	1,000 <sup>c</sup>	0.010J <u>US</u>	<0.019	<0.019	0.007J	<0.018	0.008J	<0.018

Notes:

Analytical results presented in mg/kg (ppm).

NYSDEC Soil Cleanup Objectives obtained from 6 NYCRR Part 375, Table A - Unrestricted use; Table B - Restricted commercial use; Table C - Restricted industrial use

<sup>b</sup> - The SCO's for commercial use were capped at a maximum value of 500 ppm

<sup>c</sup> - For constituents where the calculated SCO was lower than the rural soil background concentration, the rural soil background is used

<sup>d</sup> - SCO's for industrial use and the protection of groundwater were capped at a maximum value of 1000ppm

**Bold** - Analyte detected above laboratory method detection limits

**Shaded** - Analyte detected above NYSDEC Soil Cleanup Objectives

SB-DUP collected from SB-6 (16-20")

SS-DUP collected from SS-1 (0-2")

- - - Analyte not detected above laboratory method detection limits

J - Indicates an estimated value

R - Non-detect results for these compounds in the affected samples are rejected

L - No Soil cleanup objective listed for analyte

C:\Users\Public\Documents\New York State Table1.doc

**Table 1**  
**Soil Analytical Data**  
**Holt Drive**  
**Stony Point, Rockland County, New York**

Analyte	NYSDEC Soil Cleanup Objectives (Unrestricted)	NYSDEC Soil Cleanup Objectives (Commercial)	NYSDEC Soil Cleanup Objectives (Industrial)	SS-1 (0-2)	SS-2 (0-6)	SB-2 (17-19)	SS-3 (0-2)	SB-3 (24-26)	SS-4 (0-2")	SB-4 (20-22")
Sample Date				1/4/2011	1/4/2011	1/4/2011	1/4/2011	1/4/2011	1/4/2011	1/5/2011
<b>SVOCs</b>										
Phenol	0.33 <sup>b</sup>	500 <sup>b</sup>	1,000 <sup>c</sup>	<0.380	<0.420	<400	<380	<410	<0.420	<390
Bis (2-Chloroethyl) Ether	-	-	-	<0.380	<0.420	<400	<380	<410	<0.420	<390
2-Chlorophenol	-	-	-	<0.380	<0.420	<400	<380	<410	<0.420	<390
1,3-Dichlorobenzene	-	-	-	<0.380	<0.420	<400	<380	<410	<0.420	<390
1,4-Dichlorobenzene	-	-	-	<0.380	<0.420	<400	<380	<410	<0.420	<390
1,2-Dichlorobenzene	-	-	-	<0.380	<0.420	<400	<380	<410	<0.420	<390
2-Methylphenol	-	-	-	<0.380	<0.420	<400	<380	<410	<0.420	<390
2,2'-Oxybis (1-Chloropropane)	-	-	-	<0.380	<0.420	<400	<380	<410	<0.420	<390
N-Nitroso-di-n-propylamine	-	-	-	<0.380	<0.420	<400	<380	<410	<0.420	<390
3&4-Methylphenol	-	-	-	<0.380	<0.420	<400	<380	<410	<0.420	<390
Hexachloroethane	-	-	-	<0.380	<0.420	<400	<380	<410	<0.420	<390
Nitrobenzene	-	-	-	<0.380	<0.420	<400	<380	<410	<0.420	<390
Isophorone	-	-	-	<0.380	<0.420	<400	<380	<410	<0.420	<390
2-Nitrophenol	-	-	-	<0.380	<0.420	<400	<380	<410	<0.420	<390
2,4-Dimethylphenol	-	-	-	<0.380	<0.420	<400	<380	<410	<0.420	<390
Bis (2-Chloroethoxy) methano	-	-	-	<0.380	<0.420	<400	<380	<410	<0.420	<390
2,4-Dichlorophenol	-	-	-	<0.380	<0.420	<400	<380	<410	<0.420	<390
1,2,4-Trichlorobenzene	-	-	-	<0.380	<0.420	<400	<380	<410	<0.420	<390
Naphthalene	12	500 <sup>b</sup>	1,000 <sup>c</sup>	<0.380	<0.420	<400	<380	<410	<0.420	<390
4-Chloroaniline	-	-	-	<0.380	<0.420	<400	<380	<410	<0.420	<390
Hexachlorobutadiene	-	-	-	<0.380	<0.420	<400	<380	<410	<0.420	<390
4-Chloro-3-Methylphenol	-	-	-	<0.380	<0.420	<400	<380	<410	<0.420	<390
2-Methylnaphthalene	-	-	-	<0.380	<0.420	<400	<380	<410	<0.420	<390
1-Methylnaphthalene	-	-	-	<0.380	<0.420	<400	<380	<410	<0.420	<390
Hexachlorocyclopentadiene	-	-	-	<0.380	<0.420	<400	<380	<410	<0.420	<390
2,4,6-Trichlorophenol	-	-	-	<0.380	<0.420	<400	<380	<410	<0.420	<390
2,4,5-Trichlorophenol	-	-	-	<0.380	<1	<1	<95	<1	<1	<970
2-Chloronaphthalene	-	-	-	<0.380	<0.420	<400	<380	<410	<0.420	<390
2-Nitroaniline	-	-	-	<0.940	<1	<1	<95	<1	<1	<970
Dimethyl Phthalate	-	-	-	<0.380	<0.420	<400	<380	<410	<0.420	<390
2,6-Dinitrotoluene	-	-	-	<0.380	<0.420	<400	<380	<410	<0.420	<390
Aconaphthylene	-	-	-	<0.380	<0.420	<400	<380	<410	<0.420	<390
3-Nitroaniline	-	-	-	<0.940	<1	<1	<95	<1	<1	<970
Acenaphthene	-	-	-	<0.380	<0.420	<400	<380	<410	<0.420	<390
2,4-Dinitrophenol	-	-	-	<0.940	<1	<1	<95	<1	<1	<970
Dibenzofuran	-	-	-	<0.380	<0.420	<400	<380	<410	<0.420	<390
4-Nitrophenol	-	-	-	<0.940	<1	<1	<95	<1	<1	<970
2,4-Dinitrotoluene	-	-	-	<0.380	<0.420	<400	<380	<410	<0.420	<390
Diethylphthalate	-	-	-	<0.380	<0.420	<400	<380	<410	<0.420	<390
Fluorene	-	-	-	<0.380	<0.420	<400	<380	<410	<0.420	<390
4-Chlorophenyl-phenylether	-	-	-	<0.380	<0.420	<400	<380	<410	<0.420	<390
4-Nitroaniline	-	-	-	<0.940	<1	<1	<95	<1	<1	<970
4,6-Dinitro-2-Methylphenol	-	-	-	<0.940	<1	<1	<95	<1	<1	<970
N-Nitrosodiphenylamine	-	-	-	<0.380	<0.420	<400	<380	<410	<0.420	<390
4-Bromophenyl-phenylether	-	-	-	<0.380	<0.420	<400	<380	<410	<0.420	<390
Hexachlorobenzene	-	-	-	<0.380	<0.420	<400	<380	<410	<0.420	<390
Pentachlorophenol	0.8 <sup>b</sup>	6.7	55	<0.940	<1	<1	<95	<1	<1	<970
Phenanthrene	100	500 <sup>b</sup>	1,000 <sup>c</sup>	<0.380	<0.420	<400	0.56	<410	390J	<390
Anthracene	-	-	-	<0.380	<0.420	<400	110J	<410	<0.420	<390
Carbazole	-	-	-	<0.380	<0.420	<400	<380	<410	<0.420	<390
Di-n-butylphthalate	-	-	-	<0.380	<0.420	<400	<380	<410	<0.420	<390
Fluoranthene	-	-	-	<0.380	<0.420	<400	1.9	<410	0.88	<390
Pyrene	100	500 <sup>b</sup>	1,000 <sup>c</sup>	<0.380	<0.420	<400	1.5	<410	0.72	<390
Butylbenzylphthalate	-	-	-	<0.380	<0.420	<400	<380	<410	<0.420	<390



**Table 1**  
**Soil Analytical Data**  
**Holt Drive**  
**Stony Point, Rockland County, New York**

Analyte	NYSDEC Soil Cleanup Objectives (Unrestricted)	NYSDEC Soil Cleanup Objectives (Commercial)	NYSDEC Soil Cleanup Objectives (Industrial)	SS-1 (0-2)	SS-2 (0-6)	SB-2 (17-19)	SS-3 (0-2)	SB-3 (24-26)	SS-4 (0-2")	SB-4 (20-22")
Sample Date				1/4/2011	1/4/2011	1/4/2011	1/4/2011	1/4/2011	1/4/2011	1/4/2011
Benzo(a)anthracene	-	-	-	< 0.380	< 0.420	< 400	0.76	< 410	.330J	< 390
3,3'-Dichlorobenzidine	-	-	-	< 0.380	< 0.420	< 400	< 380	< 410	< 0.420	< 390
Chrysene	-	-	-	< 0.380	< 0.420	< 400	0.88	< 410	0.46	< 390
bis(2-ethylhexyl)phthalate	13	500 <sup>b</sup>	1,000 <sup>b</sup>	< 0.380 ✓ u	< 0.420 ✓ u	< 400	< 380	< 410	< 0.420	.230J
Di-n-octylphthalate	-	-	-	< 0.380 u	< 0.420	< 400	< 380	< 410	< 0.420	< 390
Benzo(b)fluoranthene	-	-	-	< 0.380	< 0.420	< 400	0.88	< 410	0.51	< 390
Benzo(k)fluoranthene	-	-	-	< 0.380	< 0.420	< 400	0.46	< 410	.250J	< 390
Benzo(a)pyrene	-	-	-	< 0.380	< 0.420	< 400	0.72	< 410	.390J	< 390
Indeno(1,2,3-cd)pyrene	-	-	-	< 0.380	< 0.420	< 400	0.43	< 410	.240J	< 390
Dibenzo(a,h)anthracene	-	-	-	< 0.380	< 0.420	< 400	< 380	< 410	< 0.420	< 390
Benzo(g,h,i)perylene	-	-	1,000 <sup>b</sup>	< 0.380 ✓	< 0.420	< 400	.340J	< 410	.220J	< 390

**Notes:**

Analytical results presented in mg/kg (ppm).

NYSDEC Soil Cleanup Objectives obtained from n NYCRR Part 375: Table A - Unrestricted use; Table B - Restricted commercial use; Table C - Restricted industrial use

<sup>b</sup> - The SCOs for commercial use were capped at a maximum value of 500 ppm

bold - Analyte detected above laboratory method detection limits

Shaded - Analyte detected above NYSDEC Soil Cleanup Objectives

SB-DUP collected from SB-6 (16-20")

SS-DUP collected from SS-6 (0-6")

- - Analyte not detected above laboratory method detection limits

J - Indicates an estimated value

- No Soil cleanup objective listed for analyte

**Table 1**  
**Soil Analytical Data**  
**Holt Drive**  
**Stony Point, Rockland County, New York**

Analyte	NYSDEC Soil Cleanup Objectives (Unrestricted)	NYSDEC Soil Cleanup Objectives (Commercial)	NYSDEC Soil Cleanup Objectives (Industrial)	SS-1 (0-2)	SS-2 (0-6)	SB-2 (17-19)	SS-3 (0-2)	SB-3 (24-26)	SS-4 (0-2")	SB-4 (20-22")
Sample Date				1/4/2011	1/4/2011	1/4/2011	1/4/2011	1/4/2011	1/4/2011	1/5/2011
<b>Pesticides</b>										
alpha-BHC	0.02	3.4	6.8	<.0018	<.0021	<.0019	<.002	<.002	<.0021	.008J
gamma-BHC	-	-	-	<.0018	<.0021	<.0019	<.002	<.002	<.0021	<.0019
Heptachlor	0.042	2	29	<.0018	<.0021	<.0019	<.002	<.002	<.0021	<.0019
Aldrin	0.005 <sup>a</sup>	0.68	1.4	<.0018	<.0021	<.0019	<.002	<.002	<.0021	<.0019
beta-BHC	0.036	3	14	<.0018	<.0021	<.0019	<.002	<.002	<.0021	<.0019
delta-BHC	0.04	500 <sup>b</sup>	1,000 <sup>c</sup>	<.0018	<.0021	<.0019	<.002	<.002	<.0021	<.0019
Heptachlor Epoxide	-	-	-	<.0018	<.0021	<.0019	<.002	<.002	<.0021	<.0019
Endosulfan I	2.4	200 <sup>d</sup>	920 <sup>e</sup>	.00047J	<.0021	<.0019	<.002	<.002	<.0021	<.0019
gamma-Chlordane	-	-	-	<.0018	<.0021	<.0019	<.002	<.002	<.0021	<.0019
alpha-Chlordane	0.094	24	47	<.0018	<.0021	<.0019	<.002	<.002	<.0021	<.0019
4,4'-DDE	0.0033 <sup>b</sup>	62	120	.00087J	<.0042	<.0038	.001J	<.0039	.0033J	<.0037
Dieldrin	0.005 <sup>a</sup>	1.4	2.8	<.0036	<.0042	<.0038	<.0039	<.0039	<.0041	<.0037
Endrin	0.014	89	410	<.0036	<.0042	<.0038	<.0039	<.0039	<.0041	<.0037
4,4'-DDD	0.0033 <sup>b</sup>	92	180	<.0036	<.0042	<.0038	<.0039	<.0039	<.0041	<.0037
Endosulfan II	2.4	200 <sup>d</sup>	920 <sup>e</sup>	<.0036	<.0042	<.0038	.00075J	<.0039	<.0041	<.0037
4,4'-DDT	0.0033 <sup>b</sup>	47	94	<.0036	<.0042	<.0038	.0012J	<.0039	.0032J	<.0037
Endrin Aldohyde	-	-	-	<.0036	<.0042	<.0038	<.0039	<.0039	<.0041	<.0037
Endosulfan sulfate	2.4	200 <sup>d</sup>	920 <sup>e</sup>	<.0036	<.0042	<.0038	<.0039	<.0039	<.0041	<.0037
Methoxychlor	-	-	-	<.038	<.021	<.019	<.020	<.020	<.021	<.019
Endrin Ketone	-	-	-	.0016J	<.0042	<.0038	<.0039	<.0049	<.0041	<.0037
Toxaphene	-	-	-	<.036	<.042	<.038	<.039	<.039	<.041	<.037

**Notes:**

Analytical results presented in mg/kg (ppm).

NYSDEC Soil Cleanup Objectives obtained from 6 NYCRR Part 375, Table A - Unrestricted use; Table B - Restricted commercial use; Table C - Restricted industrial use

<sup>a</sup> = The SCO for commercial use were capped at a maximum value of 500 ppm

<sup>b</sup> = For constituents where the calculated SCO was lower than the rural soil background concentration, the rural soil background is used

<sup>c</sup> = The SCO is for the sum of Endosulfan I, Endosulfan II, and Endosulfan Sulfate

SB-DUP collected from SB-6 (16-20")

SS-DUP collected from SS-6 (0-6")

J = Used for Pesticide analyte when there is a greater than 40% difference for detected concentrations between the two GC columns

- = Analyte not detected above laboratory method detection limits

- = No Soil cleanup objective listed for analyte

<b>PCBs</b>										
Aroclor-1016	0.1	1	25	<.018	<.021	<.019	<.020	<.020	<.021	<.019
Aroclor-1221	0.1	1	25	<.018	<.021	<.019	<.020	<.020	<.021	<.019
Aroclor-1232	0.1	1	25	<.018	<.021	<.019	<.020	<.020	<.021	<.019
Aroclor-1242	0.1	1	25	<.018	<.021	<.019	<.020	<.020	<.021	<.019
Aroclor-1248	0.1	1	25	<.018	<.021	<.019	<.020	<.020	<.021	<.019
Aroclor-1254	0.1	1	25	<.018	<.021	<.019	<.020	<.020	<.021	<.019
Aroclor-1260	0.1	1	25	<.018	<.021	<.019	<.020	<.020	<.021	<.019

**Notes:**

Analytical results presented in mg/kg (ppm).

NYSDEC Soil Cleanup Objectives obtained from 6 NYCRR Part 375, Table A - Unrestricted use; Table B - Restricted commercial use; Table C - Restricted industrial use

SB-DUP collected from SB-6 (16-20")

SS-DUP collected from SS-6 (0-6")

- = Analyte not detected above laboratory method detection limits

**Table 1**  
**Soil Analytical Data**  
**Holt Drive**  
**Stony Point, Rockland County, New York**

Analyte	NYSDEC Soil Cleanup Objectives (Unrestricted)	NYSDEC Soil Cleanup Objectives (Commercial)	NYSDEC Soil Cleanup Objectives (Industrial)	SS-1 (0-2)	SS-2 (0-6)	SB-2 (17-19)	SS-3 (0-2)	SB-3 (24-26)	SS-4 (0-2")	SB-4 (20-22")
Sample Date				1/4/2011	1/4/2011	1/4/2011	1/4/2011	1/4/2011	1/4/2011	1/5/2011
<b>Metals + Cyanide (mg/kg)</b>										
Aluminum	-	-	-	17200	13400	9280	15000	5820	17400	6100
Antimony	-	-	-	<0.1 <i>UJ</i>	<0.2 <i>UJ</i>	<0.17 <i>UJ</i>	<0.11 <i>UJ</i>	<0.1 <i>UJ</i>	<0.12 <i>UJ</i>	<0.1 <i>UJ</i>
Arsenic	13 <sup>a</sup>	16 <sup>a</sup>	16 <sup>a</sup>	4.2	8.5	3.4	3.8	2.1	5.4	2.2
Barium	350 <sup>b</sup>	400	10,000 <sup>d</sup>	83.1	63	55.9	49.3	35.2	76	36
Beryllium	7.2	590	2,700	0.64	0.62	0.47J	0.55	0.34J	0.73	0.37J
Cadmium	2.5 <sup>c</sup>	9.3	60	0.42J	0.35J	0.24J	0.30J	0.14J	0.34J	0.17J
Calcium	-	-	-	3600	1360	12900	4580	10500	1940	1900
Chromium	-	-	-	13.2	17.4	16.2	13.8	11	16.9	13
Cobalt	-	-	-	9	10.9	7	7.9	4.8	7.1	6
Copper	50	270	10,000 <sup>d</sup>	54.9	26.6	16.8	16.5	10.6	18.7	12.2
Iron	-	-	-	21400 <i>J</i>	23200 <i>J</i>	16800 <i>J</i>	17800 <i>J</i>	12300 <i>J</i>	19600 <i>J</i>	13700 <i>J</i>
Lead	63 <sup>c</sup>	1,000	3,900	10.4	10.2	6	13.4	3.4	29.4	3.5
Magnesium	-	-	-	4360	4700	6000	3680	3660	3650	2630
Manganese	1600 <sup>c</sup>	10,000 <sup>d</sup>	10,000 <sup>d</sup>	456	678	278	343	206	440	264
Mercury	0.18 <sup>c</sup>	2.8 <sup>b</sup>	5.7 <sup>c</sup>	0.02J	0.02J	0.01J	0.16	0.005J	0.08	0.003J
Nickel	30	310	10,000 <sup>d</sup>	14.5	20.9	14.4	16.1	9.4	14.6	10.2
Potassium	-	-	-	1280 <i>J</i>	1910 <i>J</i>	2000 <i>J</i>	1350 <i>J</i>	1340 <i>J</i>	1470 <i>J</i>	1320 <i>J</i>
Selenium	3.9 <sup>c</sup>	1,500	6,800	<0.35	<0.35	<0.38	<0.37	<0.37	<0.41	<0.34
Silver	2	1,560	6,800	0.23J	0.56J	0.24J	0.21J	0.18J	0.30J	0.27J
Sodium	-	-	-	450	481	161	82.3J	123	110	176
Thallium	-	-	-	<0.15	<0.3	<0.16	<0.16	<0.15	<0.17	<0.14
Vanadium	-	-	-	44.2	21.9	20.2	26.3	14.3	29.2	17.6
Zinc	100 <sup>c</sup>	10,000 <sup>d</sup>	10,000 <sup>d</sup>	52.2	62.9	37.3	43.2	22.9	67.6	26.4
Cyanide	-	-	-	<.55	<.6	<.6	<.6	<.6	<.6	<.55

**Notes:**

Metals data are presented in mg/kg (ppm)

NYSDEC Soil Cleanup Objectives obtained from 6 NYCRR Part 375, Table A - Unrestricted use; Table B - Restricted commercial use; Table C - Restricted industrial use

<sup>a</sup> - For constituents where the calculated SCO was lower than the rural soil background concentration, the rural soil background is used.

<sup>b</sup> - The SCOs for metals were capped at a maximum value of 10,000 ppm

<sup>c</sup> - For constituents where the calculated SCO was lower than the rural soil background concentration as determined by the DEC/DOH rural soil survey, the rural soil background concentration is used as the Track 2 SCO value for this use of the site

<sup>d</sup> - This SCO is the lower of the values for mercury (elemental) or mercury (inorganic salts)

**Bold** - Analyte detected above laboratory method detection limits

**Shaded** - Analyte detected above NYSDEC Soil Cleanup Objectives

SB-DUP collected from SB-6 (1A-21")

SS-DUP collected from SS-6 (0-6")

*c* - Analyte not detected above laboratory method detection limits

*J* - This flag indicates an estimated value

**Table 1**  
**Soil Analytical Data**  
**Holt Drive**  
**Stony Point, Rockland County, New York**

Analyte	SB-5 (0-2")	SB-5 (18-21.5")	SS-6 (0-6")	SB-6 (16-20")	SS-DUP	SB-DUP	EB-1 WATER	EB-2 WATER
Sample Date	1/5/2011	1/5/2011	1/6/2011	1/6/2011			1/6/2011	1/5/2011
Chloromethane	<0.012	<0.010	<0.011	<0.012	<0.011	<0.012	<0.002	<0.002
Bromomethane	<0.012	<0.010	<0.011	<0.012	<0.011	<0.012	<0.002	<0.002
Vinyl Chloride	<0.012	<0.010	<0.011	<0.012	<0.011	<0.012	<0.002	<0.002
Chloroethane	<0.012	<0.010	<0.011	<0.012	<0.011	<0.012	<0.002	<0.002
Methylene Chloride	<0.030	<0.026	<0.028	<0.030	<0.027	<0.029	<0.005	<0.005
Acetone	0.010J	0.008J	0.009J	0.010J	0.006J	<0.029	<0.005	<0.005
Carbon Disulfide	<0.006	<0.005	<0.006	<0.006	<0.005	<0.006	<0.001	<0.001
1,1-Dichloroethene	<0.006	<0.005	<0.006	<0.006	<0.005	<0.006	<0.001	<0.001
1,1-Dichloroethane	<0.006	<0.005	<0.006	<0.006	<0.005	<0.006	<0.001	<0.001
cis-1,2-Dichloroethene	<0.006	<0.005	<0.006	<0.006	<0.005	<0.006	<0.001	<0.001
trans-1,2-Dichloroethene	<0.006	<0.005	<0.006	<0.006	<0.005	<0.006	<0.001	<0.001
Chloroform	<0.006	<0.005	<0.006	<0.006	<0.005	<0.006	<0.001	<0.001
1,2-Dichloropropane	<0.006	<0.005	<0.006	<0.006	<0.005	<0.006	<0.001	<0.001
1,3-Dichlorobenzene	<0.006	<0.005	<0.006	<0.006	<0.005	<0.006	<0.001	<0.001
2-Butanone	<0.030 <i>UJ</i>	<0.026	<0.028	<0.030	<0.027	<0.029	<0.005	<0.005
1,1,1-Trichloroethane	<0.006	<0.005	<0.006	<0.006	<0.005	<0.006	<0.001	<0.001
Carbon Tetrachloride	<0.006	<0.005	<0.006	<0.006	<0.005	<0.006	<0.001	<0.001
Bromodichloromethane	<0.006	<0.005	<0.006	<0.006	<0.005	<0.006	<0.001	<0.001
1,2-Dichloropropane	<0.006	<0.005	<0.006	<0.006	<0.005	<0.006	<0.001	<0.001
cis-1,3-Dichloropropene	<0.006 <i>UJ</i>	<0.005	<0.006	<0.006	<0.005	<0.006	<0.001	<0.001
Trichloroethene	<0.006	0.0009J	<0.006	0.0009J	<0.005	0.0007J	<0.001	<0.001
Dichlorodifluoromethane	<0.006	<0.005	<0.006	<0.006	<0.005	<0.006	<0.001	<0.001
1,1,2-Trichloroethane	<0.006	<0.005	<0.006	<0.006	<0.005	<0.006	<0.001	<0.001
Benzene	<0.006	<0.005	<0.006	<0.006	<0.005	<0.006	<0.001	<0.001
1,1,3-Dichloropropene	<0.006	<0.005	<0.006	<0.006	<0.005	<0.006	<0.001	<0.001
Bromoform	<0.006	<0.005	<0.006	<0.006	<0.005	<0.006	<0.001	<0.001
4-Methyl-2-Pentanone	<0.030 <i>UJ</i>	<0.026	<0.028	<0.030	<0.027	<0.029	<0.005	<0.005
2-Hexanone	<0.030 <i>UJ</i>	<0.026	<0.028	<0.030	<0.027	<0.029	<0.005	<0.005
Tetrachloroethene	0.003J	<0.005	<0.006	<0.006	<0.005	<0.006	<0.001	<0.001
1,1,2,2-Tetrachloroethane	<0.006 <i>UJ</i>	<0.005	<0.006	<0.006	<0.005	<0.006	<0.001	<0.001
Toluene	<0.006	<0.005	<0.006	<0.006	<0.005	<0.006	0.002	0.002
Chlorobenzene	<0.006	<0.005	<0.006	<0.006	<0.005	<0.006	<0.001	<0.001
Ethyl Benzene	<0.006	<0.005	<0.006	<0.006	<0.005	<0.006	<0.001	<0.001
Styrene	<0.006 <i>UJ</i>	<0.005	<0.006	<0.006	<0.005	<0.006	<0.001	<0.001
m/p-Xylenes	0.002J	<0.010	<0.011	<0.012	<0.011	<0.012	<0.002	<0.002
o-Xylene	0.002	<0.005	<0.006	<0.006	<0.005	<0.006	<0.001	<0.001
1,2-Dichloromethylene (total)	<0.012	<0.010	<0.011	<0.012	<0.011	<0.012	<0.002	<0.002
Xylenes (total)	0.004J	<0.016	<0.017	<0.018	<0.016	<0.017	<0.003	<0.003

**Notes:**

Analytical results presented in mg/kg (pp)  
 NYSDR<sup>1</sup> Soil Cleanup Objectives obtain  
<sup>1</sup> - The SCOs for commercial use were:  
<sup>2</sup> - For constituents where the calculated  
<sup>3</sup> - SCOs for industrial use and the pres.  
**Bold** ~ Analyte detected above laboratory  
 Shaded ~ Analyte detected above NYSD  
 SB-DUP collected from SB-6 (16-20")  
 SS-DUP collected from SS-6 (0-6")  
 ~ ~ Analyte not detected above laboratory  
 J ~ Indicates an estimated value  
 R ~ Non-detect results for these compou  
 ~ ~ No Soil cleanup objective listed for ai

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Table 1  
Soil Analytical Data  
Holt Drive  
Stony Point, Rockland County, New York

Analyte	SS-6 (0-2")	SB-6 (18-21.5')	SS-6 (0-6")	SB-6 (16-20')	SS-DUP	SB-DUP	EB-1 WATER	EB-2 WATER
Sample Date	1/5/2011	1/5/2011	1/6/2011	1/6/2011			1/6/2011	1/6/2011
Phenol	<.400	<.380	<.350	<.400	<.38	<.39	<.009	<.009
Bis (2-Chloroethyl) Ether	<.400	<.380	<.380	<.400	<.38	<.39	<.009	<.009
2-Chlorophenol	<.400	<.380	<.380	<.400	<.38	<.39	<.009	<.009
1,3-Dichlorobenzene	<.400	<.380	<.380	<.400	<.38	<.39	<.009	<.009
1,4-Dichlorobenzene	<.400	<.380	<.380	<.400	<.38	<.39	<.009	<.009
1,2-Dichlorobenzene	<.400	<.380	<.380	<.400	<.38	<.39	<.009	<.009
2-Methylphenol	<.400	<.380	<.380	<.400	<.38	<.39	<.009	<.009
2,2'-Oxybis (1-Chloropropane)	<.400	<.380	<.380	<.400	<.38	<.39	<.009	<.009
N-Nitroso-di-n-propylamine	<.400	<.380	<.380	<.400	<.38	<.39	<.009	<.009
3,4,4-Methylphenol	<.400	<.380	<.380	<.400	<.38	<.39	<.009	<.009
Hexachloroethane	<.400	<.380	<.380	<.400	<.38	<.39	<.009	<.009
Nitrobenzene	<.400	<.380	<.380	<.400	<.38	<.39	<.009	<.009
Isophorone	<.400	<.380	<.380	<.400	<.38	<.39	<.009	<.009
2-Nitrophenol	<.400	<.380	<.380	<.400	<.38	<.39	<.009	<.009
2,4-Dimethylphenol	<.400	<.380	<.380	<.400	<.38	<.39	<.009	<.009
Bis (2-Chloroethoxy) methane	<.400	<.380	<.380	<.400	<.38	<.39	<.009	<.009
2,4-Dichlorophenol	<.400	<.380	<.380	<.400	<.38	<.39	<.009	<.009
1,2,4-Trichlorobenzene	<.400	<.380	<.380	<.400	<.38	<.39	<.009	<.009
Naphthalene	<.400	<.380	<.380	<.400	<.38	<.39	<.009	<.009
4-Chloroaniline	<.400	<.380	<.380	<.400	<.38	<.39	<.009	<.009
Hexachlorobutadiene	<.400	<.380	<.380	<.400	<.38	<.39	<.009	<.009
4-Chloro-3-Methylphenol	<.400	<.380	<.380	<.400	<.38	<.39	<.009	<.009
2-Methylnaphthalene	<.400	<.380	<.380	<.400	<.38	<.39	<.009	<.009
1-Methylnaphthalene	<.400	<.380	<.380	<.400	<.38	<.39	<.009	<.009
Hexachlorocyclopentadiene	<.400	<.380	<.380	<.400	<.38	<.39	<.009	<.009
2,4,6-Trichlorophenol	<.400	<.380	<.380	<.400	<.38	<.39	<.009	<.009
2,4,5-Trichlorophenol	<.990	<.940	<.890	<1	<.95	<.96	<.024	<.024
2-Chloronaphthalene	<.400	<.380	<.380	<.400	<.38	<.39	<.009	<.009
2-Nitroaniline	<.990	<.940	<.890	<1	<.95	<.96	<.024	<.024
Dimethyl Phthalate	<.400	<.380	<.380	<.400	<.38	<.39	<.009	<.009
2,6-Dinitrotoluene	<.400	<.380	<.380	<.400	<.38	<.39	<.009	<.009
Acenaphthylene	<.400	<.380	<.380	<.400	<.38	<.39	<.009	<.009
3-Nitroaniline	<.990	<.940	<.890	<1	<.95	<.96	<.024	<.024
Acenaphthene	<.400	<.380	<.380	<.400	<.38	<.39	<.009	<.009
2,1-Dinitrophenol	<.990	<.940	<.890	<1	<.95	<.96	<.024	<.024
Dibenzoturan	<.400	<.380	<.380	<.400	<.38	<.39	<.009	<.009
4-Nitrophenol	<.990	<.940	<.890	<1	<.95	<.96	<.024	<.024
2,4-Dinitrotoluene	<.400	<.380	<.380	<.400	<.38	<.39	<.009	<.009
Diethylphthalate	<.400	<.380	<.380	<.400	<.38	<.39	<.009	<.009
Fluorene	<.400	<.380	<.380	<.400	<.38	<.39	<.009	<.009
4-Chlorophenyl-phenylether	<.400	<.380	<.380	<.400	<.38	<.39	<.009	<.009
4-Nitroaniline	<.990	<.940	<.890	<1	<.95	<.96	<.024	<.024
4,6-Dinitro-2-Methylphenol	<.990	<.940	<.890	<1	<.95	<.96	<.024	<.024
N-Nitrosodiphenylamine	<.400	<.380	<.380	<.400	<.38	<.39	<.009	<.009
4-Bromophenyl-phenylether	<.400	<.380	<.380	<.400	<.38	<.39	<.009	<.009
Hexachlorobenzene	<.400	<.380	<.380	<.400	<.38	<.39	<.009	<.009
Pentachlorophenol	<.990	<.940	<.890	<1	<.95	<.96	<.024	<.024
Phenanthrene	.370	<.380	<.380	<.400	<.38	<.39	<.009	<.009
Anthracene	<.400	<.380	<.380	<.400	<.38	<.39	<.009	<.009
Carbazole	<.400	<.380	<.380	<.400	<.38	<.39	<.009	<.009
Di-n-butylphthalate	<.400	<.380	<.380	<.400	<.38	<.39	<.009	<.009
Fluoranthene	0.76	<.380	<.380	<.400	<.38	<.39	<.009	<.009
Pyrene	0.66	<.380	<.380	<.400	<.38	<.39	<.009	<.009
Butylbenzylphthalate	<.400	<.380	<.380	<.400	<.38	<.39	<.009	<.009

Table 1  
Soil Analytical Data  
Holt Drive  
Stony Point, Rockland County, New York

Analyte	SS-6 (0-2")	SB-6 (16-21.5")	SS-6 (0-6")	SB-6 (16-20")	SS-DUP	SB-DUP	EB-1 WATER	EB-2 WATER
Sample Date	1/5/2011	1/5/2011	1/6/2011	1/6/2011			1/6/2011	1/6/2011
Benzo(a)anthracene	280J	< 380	< 380	< 400	< 38	< 39	< .009	< .009
3,3'-Dichlorobenzidine	400R	< 380	< 380	< 400	< 38	< 39	< .009	< .009
Chrysene	< 400	< 380	< 380	< 400	< 38	< 39	< .009	< .009
bis(2-Ethylhexyl)phthalate	< 400	5390 U	< 380 U	< 400 U	< 0.38 U	< 0.39 U	< .009	0.033
Di-n-octylphthalate	< 400	< 380	< 380	< 400	< 38	< 39	< .009	< .009
Benzo(b)fluoranthene	0.43	< 380	< 380	< 400	< 38	< 39	< .009	< .009
Benzo(k)fluoranthene	220J	< 380	< 380	< 400	< 38	< 39	< .009	< .009
Benzo(a)pyrene	310J	< 380	< 380	< 400	< 38	< 39	< .009	< .009
Indeno(1,2,3-cd)pyrene	210J	< 380	< 380	< 400	< 38	< 39	< .009	< .009
Dibenzo(a,h)anthracene	< 400	< 380	< 380	< 400	< 38	< 39	< .009	< .009
Benzo(g,h,i)perylene	180J	< 380	< 380	< 400	< 38	< 39	< .009	< .009
Notes								
Analytical results presented in mg/kg (pp)								
NYSDDEC Soil Cleanup Objectives obtain								
* - The SCO's for commercial use were								
Bold - Analyte detected above laboratory								
Shaded - Analyte detected above NYSDI								
SB-DUP collected from SB-6 (16-20")								
SS-DUP collected from SS-6 (0-6")								
* - Analyte not detected above labor.								
J - Indicates an estimated value								
- No Soil cleanup objective listed R								

Table 1  
Soil Analytical Data  
Holt Drive  
Stony Point, Rockland County, New York

Analyte	SS-5 (0-2")	SB-5 (18-21.5")	SS-6 (0-6")	SB-6 (16-20")	SS-DUP	SB-DUP	EB-1 WATER	EB-2 WATER
Sample Date	1/5/2011	1/5/2011	1/6/2011	1/6/2011			1/6/2011	1/6/2011
alpha-BHC	0.002	0.0066	0.015J	0.0063	0.003	0.0063	<.000047	<.000047
gamma-BHC	<.002	<.0018	<.0019	<.002	<.0019	<.0019	<.000047	<.000047
Heptachlor	<.002	<.0018	<.0019	<.002	<.0019	<.0019	<.000047	<.000047
Aldrin	<.002	<.0018	<.0019	<.002	<.0019	<.0019	<.000047	<.000047
beta-BHC	<.002	<.0018	<.0019	<.002	<.0019	<.0019	<.000047	<.000047
delta-BHC	<.002	<.0018	<.0019	<.002	<.0019	<.0019	<.000047	<.000047
Heptachlor Epoxide	<.002	<.0018	<.0019	<.002	<.0019	<.0019	<.000047	<.000047
Endosulfan I	<.002	<.0018	<.0019	<.002	<.0019	<.0019	<.000047	<.000047
gamma-Chlordane	<.002	<.0018	<.0019	<.002	<.0019	<.0019	<.000047	<.000047
alpha-Chlordane	<.002	<.0018	<.0019	<.002	<.0019	<.0019	<.000047	<.000047
4,4'-DDE	0.015J	0.0075J	0.0062J	<.0038	0.0065J	<.0037	<.000094	<.000094
Dieldrin	<.0038	<.0036	<.0036	<.0038	<.0037	<.0037	<.000094	<.000094
Endrin	<.0038	<.0036	<.0036	<.0038	<.0037	<.0037	<.000094	<.000094
4,4'-DDD	<.0038	<.0036	<.0036	<.0038	<.0037	<.0037	<.000094	<.000094
Endosulfan II	<.0038	<.0036	<.0036	<.0038	<.0037	<.0037	<.000094	<.000094
4,4'-DDT	0.023J	<.0036	<.0036	<.0038	<.0037	<.0037	<.000094	<.000094
Endrin Aldehyde	<.0038	<.0036	<.0036	<.0038	<.0037	<.0037	<.000094	<.000094
Endosulfan sulfate	<.0038	<.0036	<.0036	<.0038	<.0037	<.0037	<.000094	<.000094
Methoxychlor	<.020	<.018	<.019	<.020	<.019	<.019	<.00047	<.00047
Endrin Ketone	<.0038	<.0036	<.0036	<.0038	<.0037	<.0037	<.000094	<.000094
Toxaphene	<.038	<.036	<.036	<.038	<.037	<.037	<.00094	<.00094
Notes: Analytical results presented in mg/kg (pp) NYSDEC Soil Cleanup Objectives obtain b - The S'COs for commercial use were c d - For constituents where the calculated f - This S'CO is for the sum of Endosulfan SB-DUP collected from SB-6 (16-20") SS-DUP collected from SS-6 (0-6") J - Used for Pesticide analyte when there * - Analyte not detected above labor - No Soil cleanup objective listed R								
Aroclor-1016	<.020	<.018	<.019	<.020	<.019	<.019	<.00047	<.00047
Aroclor-1221	<.020	<.018	<.019	<.020	<.019	<.019	<.00047	<.00047
Aroclor-1232	<.020	<.018	<.019	<.020	<.019	<.019	<.00047	<.00047
Aroclor-1242	<.020	<.018	<.019	<.020	<.019	<.019	<.00047	<.00047
Aroclor-1246	<.020	<.018	<.019	<.020	<.019	<.019	<.00047	<.00047
Aroclor-1254	<.020	<.018	<.019	<.020	<.019	<.019	<.00047	<.00047
Aroclor-1260	<.020	<.018	<.019	<.020	<.019	<.019	<.00047	<.00047
Notes: Analytical results presented in mg/kg (pp) NYSDEC Soil Cleanup Objectives obtain SB-DUP collected from SB-6 (16-20") SS-DUP collected from SS-6 (0-6") * - Analyte not detected above labor.								

Table 1  
Soil Analytical Data  
Holt Drive  
Stony Point, Rockland County, New York

Analyte	SS-5 (0-2")	SB-5 (18-21.5')	SS-6 (0-6")	SB-6 (18-20')	SS-DUP	SB-DUP	EB-1 WATER	EB-2 WATER
Sample Date	1/5/2011	1/5/2011	1/6/2011	1/6/2011			1/6/2011	1/6/2011
Aluminum	13200	7480	15000	5490	14800	6790	<15.2	<15.1
Antimony	<0.1 <i>UJ</i>	<0.1 <i>UJ</i>	<0.09 <i>UJ</i>	<0.1 <i>UJ</i>	<0.12 <i>UJ</i>	<0.10 <i>UJ</i>	<1.5	<1.5
Arsenic	4.2	2.3	3.8	2.2	4.1	2.4	<1.86	<1.86
Barium	54.6	36.4	51.6	26.6	51.6	26.4	<0.44	<0.44
Beryllium	0.56	0.41J	0.65	0.38J	0.63	0.38J	<0.04	<0.04
Cadmium	0.26J	0.18J	0.37J	0.18J	0.28J	0.20J	<0.04	<0.04
Calcium	1710	1690	1600	2918	1220	1810	<5.79	110
Chromium	13.7	14	15.2	10.5	15.7	14.6	<0.32	<0.32
Cobalt	6.4	5.6	9	4.8	7	6.2	<0.28	<0.28
Copper	16.9	12.7	22.7	11.2	20	12	8.1J	8.5J
Iron	17500 <i>J</i>	14300 <i>J</i>	20500 <i>J</i>	13000 <i>J</i>	20800 <i>J</i>	13600 <i>J</i>	7.8J	95.1J
Lead	20.5	4.8 <i>J</i>	7.3	3.1 <i>J</i>	7.3	3.5 <i>J</i>	<0.73	<0.73
Magnesium	3370	2920	4840	2510	3710	3220	<4.83	18.3J
Manganese	373	270	413	180	334	210	1.0J	2.5J
Mercury	0.04	0.002J	0.02J	0.002J	0.02J	0.005J	<0.04	<0.04
Nickel	13.6	11.3	16.7	9.3	13.8	11.4	0.36J	0.55J
Potassium	1270 <i>J</i>	1460 <i>J</i>	1720 <i>J</i>	1100 <i>J</i>	1860 <i>J</i>	1400 <i>J</i>	<105	11.7J
Selenium	<0.34	<0.35	<0.33	<0.34	<0.42	<0.37	<3.67	<3.68
Silver	0.28J	0.25J	0.18J	0.21J	0.37J	0.25J	<0.48	<0.49
Sodium	108	160	368	110	339	128	43.4J <i>J</i>	143J <i>J</i>
Thallium	<0.14	<0.15	<0.14	<0.14	<0.18	<0.15	<0.87	<0.87
Vanadium	22.8	18.9	28.4	15.5	25.6	16.7	<0.39	<0.39
Zinc	48.6	28.6	42.2	22.8	39.1	25.8	12.3J	10.7J
Cyanide	<6	<5.5	<5.5	<5.5	<5.5	<5.5	<10	<10

Notes:

Metals data are presented in mg/kg (f NYSDEC Soil Cleanup Objectives obtain

\* - For constituents where the calculated

d - The SCOs for metals were capped

f - For constituents where the calculated :

j - This SCO is the lower of the values fi

Bold - Analyte detected above laboratory

Shaded - Analyte detected above NYSD

SB-DUP collected from SB-6 (18-20')

SS-DUP collected from SS-6 (0-6")

\* - Analyte not detected above labor.

J - This flag indicates an estimated va



**Table 2**  
**Groundwater Analytical Data**

[illegible]

All data are presented in  $\mu\text{g/l}$  or parts per billion (ppb)

Standards taken from NYSDEC Memorandum 1.1.1, Ambient Water Quality Standards and Guidance Values, and Groundwater Effluent Limitations, June 1998.

DUP from MW-5A

**Bold** - Analyte detected above laboratory method detection limits

Shaded = Analyte detected above NYSDEC Groundwater Guidance Values

\* Analyte not detected above laboratory method detection limits

Indicators are estimated with

NGV No Guidance Value listed

\* The principal organic contaminant standard for groundwater of 5 ug/l applies to this substance.

\*\* Applies to the sum of cis- and trans-1,3-dichloropropene or 1,2,4-Trichlorobenzene and 1,2,3 Trichlorobenzene

Table 2  
Groundwater Analytical Data  
Holt Drive  
Stony Point, Rockland County, New York

Sample I.D.	NYSDEC Guidance	MW-2A	MW-3A	MW-8	ERB-1	ERB-2	DUP	MW-1A	MW-4
Sample Date		2/7/2011	2/7/2011	2/7/2011	2/7/2011	2/7/2011	2/7/2011	2/8/2011	2/10/2011
SVOCs									
Phenol	1***	<9	<9	<9	<10	<9	<9	<9	<9
Bis (2-Chloroethyl) Ether	1	<9	<9	<9	<10	<9	<9	<9	<9
2-Chlorophenol	1***	<9	<9	<9	<10	<9	<9	<9	<9
1,3-Dichlorobenzene	3*	<9	<9	<9	<10	<9	<9	<9	<9
1,4-Dichlorobenzene	3*	<9	<9	<9	<10	<9	<9	<9	<9
1,2-Dichlorobenzene	3*	<9	<9	<9	<10	<9	<9	<9	<9
2-Methylphenol	1***	<9	<9	<9	<10	<9	<9	<9	<9
2,2-Oxybis (1-Chloropropane)	NGV	<9	<9	<9	<10	<9	<9	<9	<9
N-Nitroso-di-n-propylamine	NGV	<9	<9	<9	<10	<9	<9	<9	<9
3&4-Methylphenol	NGV	<9	<9	<9	<10	<9	<9	<9	<9
Hexachloroethane	5*	<9	<9	<9	<10	<9	<9	<9	<9
Nitrobenzene	0.4	<9	<9	<9	<10	<9	<9	<9	<9
Isophorone	50	<9	<9	<9	<10	<9	<9	<9	<9
2-Nitrophenol	1***	<9	<9	<9	<10	<9	<9	<9	<9
2,4-Dimethylphenol	10	<9	<9	<9	<10	<9	<9	<9	<9
Bis (2-Chloroethoxy) methane	5*	<9	<9	<9	<10	<9	<9	<9	<9
2,4-Dichlorophenol	5*	<9	<9	<9	<10	<9	<9	<9	<9
1,2,4-Trichlorobenzene	5*	<9	<9	<9	<10	<9	<9	<9	<9
Naphthalene	10	<9	<9	<9	<10	<9	<9	<9	<9
4-Chloroaniline	5*	<9	<9	<9	<10	<9	<9	<9	<9
Hexachlorobutadiene	0.5	<9	<9	<9	<10	<9	<9	<9	<9
4-Chloro-3-Methylphenol	NGV	<9	<9	<9	<10	<9	<9	<9	<9
2-Methylnaphthalene	NGV	<9	<9	<9	<10	<9	<9	<9	<9
1-Methylnaphthalene	NGV	<9	<9	<9	<10	<9	<9	<9	<9
Hexachlorocyclopentadiene	5*	<9	<9	<9	<10	<9	<9	<9	<9
2,4,6-Trichlorophenol	1***	<9	<9	<9	<10	<9	<9	<9	<9
2,4,5-Trichlorophenol	1***	<24	<24	<24	<24	<24	<24	<24	<24
2-Chloronaphthalene	10	<9	<9	<9	<10	<9	<9	<9	<9
2-Nitroaniline	5*	<24	<24	<24	<24	<24	<24	<24	<24
Dimethyl Phthalate	50	<9	<9	<9	<10	<9	<9	<9	<9
2,6-Dinitrotoluene	5*	<9	<9	<9	<10	<9	<9	<9	<9
Acenaphthylene	NGV	<9	<9	<9	<10	<9	<9	<9	<9
3-Nitroaniline	5*	<24	<24	<24	<24	<24	<24	<24	<24
Acenaphthene	20	<9	<9	<9	<10	<9	<9	<9	<9
2,4-Dinitrophenol	5*	<24	<24	<24	<24	<24	<24	<24	<24
Dibenzofuran	NGV	<9	<9	<9	<10	<9	<9	<9	<9
4-Nitrophenol	1***	<24	<24	<24	<24	<24	<24	<24	<24
2,4-Dinitrotoluene	5*	<9	<9	<9	<10	<9	<9	<9	<9
Diethylphthalate	50	<9	<9	<9	<10	<9	<9	<9	<9
Fluorene	50	<9	<9	<9	<10	<9	<9	<9	<9
4-Chlorophenyl-phenylether	NGV	<9	<9	<9	<10	<9	<9	<9	<9
4-Nitroaniline	5*	<24	<24	<24	<24	<24	<24	<24	<24
4,6-Dinitro-2-Methylphenol	1***	<24	<24	<24	<24	<24	<24	<24	<24
N-Nitrosodiphenylamine	50	<9	<9	<9	<10	<9	<9	<9	<9
4-Bromophenyl-phenylether	NGVV	<9	<9	<9	<10	<9	<9	<9	<9
Hexachlorobenzene	0.04	<9	<9	<9	<10	<9	<9	<9	<9
Pentachlorophenol	1***	<24	<24	<24	<24	<24	<24	<24	<24
Phenanthrene	50	<9	<9	<9	<10	<9	<9	<9	<9
Anthracene	50	<9	<9	<9	<10	<9	<9	<9	<9
Carbazole	NGV	<9	<9	<9	<10	<9	<9	<9	<9

Table 2  
Groundwater Analytical Data  
Holt Drive  
Stony Point, Rockland County, New York

Sample ID	NYSDEC Guidance	MW-2A	MW-3A	MW-8	ERB-1	ERB-2	DUP	MW-1A	MW-4
Sample Date		2/7/2011	2/7/2011	2/7/2011	2/7/2011	2/7/2011	2/7/2011	2/8/2011	2/10/2011
Di-n-butylphthalate	50	<9	<9	<9	<10	<9	<9	<9	<9
Fluoranthene	50	<9	<9	<9	<10	<9	<9	<9	<9
Pyrene	50	<9	<9	<9	<10	<9	<9	<9	<9
Butylbenzylphthalate	50	<9	<9	<9	<10	<9	<9	<9	<9
Benzo(a)anthracene	0.002	<9	<9	<9	<10	<9	<9	<9	<9
3,3'-Dichlorobenzidine	5*	<9	<9	<9	<10	<9	<9	<9	<9
Chrysene	0.002	<9	<9	<9	<10	<9	<9	<9	<9
bis(2-Ethylhexyl)phthalate	5	<9	<9	<9	<10	3 J	<9	<9	2 J
Di-n-octylphthalate	50	<9	<9	<9	<10	<9	<9	<9	<9
Benzo(b)fluoranthene	0.002	<9	<9	LIB < 9	<10	<9	<9	LIB < 9	<9
Benzo(k)fluoranthene	0.002	<9	<9	<9	<10	<9	<9	<9	<9
Benzo(a)pyrene	0.002	<9	<9	LIB < 9	<10	<9	<9	LIB < 9	<9
Indeno(1,2,3-cd)pyrene	0.002	<9	<9	<9	<10	<9	<9	<9	<9
Dibenzo(a,h)anthracene	NGV	<9	<9	<9	<10	<9	<9	<9	<9
Benzo(g,h,i)perylene	NGV	<9	<9	<9	<10	<9	<9	<9	<9

Notes:  
All data are presented in µg/l  
Standards taken from NYSDEC Memorandum 1.1.1, Ambient Water Quality Standards and Guidance Values, and Groundwater Effluent Limitations, June 1998.  
DUP from MW-03A  
- Analyte not detected above laboratory method detection limits  
J - Indicates an estimated value  
LIB - indicates an estimated value as well as being detected in the laboratory method blank analyzed concurrently with the sample  
NA - Not Analyzed  
NGV - No Guidance Value listed  
\* - The principal organic contaminant standard for groundwater of 5 µg/l applies to this substance  
\*\*\* - Applies to the sum of phenolic compounds

**Table 2**  
**Groundwater Analytical Data**  
**Holt Drive**  
**Stony Point, Rockland County, New York**

Sample I.D.		MW-2A	MW-3A	MW-8	ERB-1	ERB-2	DUP	MW-1A	MW-4
	NYSDEC Guidance								
Sample Date		2/1/2011	2/1/2011	2/1/2011	2/1/2011	2/1/2011	2/1/2011	2/8/2011	2/10/2011
<b>Pesticides</b>									
alpha-BHC	ND	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047
gamma-BHC	NGV	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047
Heptachlor	0.04	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047
Aldrin	ND	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047
beta-BHC	NGV	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047
delta-BHC	NGV	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047
Heptachlor Epoxide	0.03	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047
Endosulfan I	NGV	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047
gamma-Chlordane	0.05	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047
alpha-Chlordane	0.05	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047
4,4'-DDE	0.2	<0.094	<0.094	<0.094	<0.094	<0.094	<0.094	<0.094	<0.094
Dieldrin	0.004	<0.094	<0.094	<0.094	<0.094	<0.094	<0.094	<0.094	<0.094
Endrin	ND	<0.094	<0.094	<0.094	<0.094	<0.094	<0.094	<0.094	<0.094
4,4'-DDT	0.3	<0.094 <i>US</i>	<0.094 <i>US</i>	<0.094 <i>US</i>	<0.094 <i>US</i>	<0.094 <i>US</i>	<0.094 <i>US</i>	<0.094 <i>US</i>	<0.094
Endosulfan II	NGV	<0.094	<0.094	<0.094	<0.094	<0.094	<0.094	<0.094	<0.094
4,4'-DDT	0.2	<0.094 <i>US</i>	<0.094 <i>US</i>	<0.094 <i>US</i>	<0.094 <i>US</i>	<0.094 <i>US</i>	<0.094 <i>US</i>	<0.094	<0.094
Endrin Aldehyde	5*	<0.094	<0.094	<0.094	<0.094	<0.094	<0.094	<0.094	<0.094
Endosulfan sulfate	NGV	<0.094	<0.094	<0.094	<0.094	<0.094	<0.094	<0.094	<0.094
Methoxychlor	35	<0.047 <i>US</i>	<0.047 <i>US</i>	<0.047 <i>US</i>	<0.047 <i>US</i>	<0.047 <i>US</i>	<0.047 <i>US</i>	<0.047	<0.047
Endrin ketone	5*	<0.094	<0.094	<0.094	<0.094	<0.094	<0.094	<0.094	<0.094
Toxaphene	0.06	<0.094	<0.094	<0.094	<0.094	<0.094	<0.094	<0.094	<0.094
Notes: All data are presented in µg/l Standards taken from NYSDEC Memorandum 1.1.1, Ambient Water Quality Standards and Guidance Values, and Groundwater Effluent Limitations, June 1998. DUP from MW-3A - Analyte not detected above laboratory method detection limits NA - Not Analyzed ND - Non-Detect NGV - No Guidance Value listed * - Applies to the sum of these substances									
<b>PCBs</b>									
Aroclor-1016	0.09*	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047 <i>US</i>	<0.047	<0.047
Aroclor-1221	0.09*	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047
Aroclor-1232	0.09*	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047
Aroclor-1242	0.09*	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047
Aroclor-1248	0.09*	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047
Aroclor-1254	0.09*	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047
Aroclor-1260	0.09*	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047 <i>US</i>	<0.047	<0.047
Notes: All data are presented in µg/l Standards taken from NYSDEC Memorandum 1.1.1, Ambient Water Quality Standards and Guidance Values, and Groundwater Effluent Limitations, June 1998. DUP from MW-3A - Analyte not detected above laboratory method detection limits NA - Not Analyzed ND - Non-Detect NGV - No Guidance Value listed * - Applies to the sum of these substances									

**Table 2**  
**Groundwater Analytical Data**  
**Holt Drive**  
**Stony Point, Rockland County, New York**

Sample I.D.	NYSDEC Guidance	MW-2A	MW-3A	MW-8	ERB-1	ERB-2	DUP	MW-1A	MW-4
Sample Date		2/7/2011	2/7/2011	2/7/2011	2/7/2011	2/7/2011	2/7/2011	2/8/2011	2/10/2011
Metals + Cyanide									
Aluminum	NGV	94.6 J	160 J	109 J	<14.80	<14.80	19.8 J	834	1,460
Antimony	3	<1.28	<1.28	<1.28	<1.28	<1.28	<1.28	<1.28	<1.28
Arsenic	25	<1.43	<1.43	2.4 J	<1.43	<1.43	<1.43	<1.43	<1.43
Barium	1,000	21.4	70	38.7	37.4	<0.23	67.5	30.2	20.3
Beryllium	3	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Cadmium	5	0.15 J	0.08 J	0.28 J	<0.05	<0.05	<0.05	<0.05 J	0.51 J
Calcium	NGV	42,100	75,000	45,000	54,800	14,100	75,700	29,600	11,400
Chromium	50	1.1 J	1.1 J	2.3 J	<0.36	<0.36	1.1 J	2.5 J	7.1 J
Cobalt	NGV	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	0.86 J	1.2 J
Copper	200	1.4 J	1.8 J	1.8 J	1.9 J	1.3 J	2.2 J	19.2 J	3.8 J
Iron	300	184	292	235	29.1 J	36.5 J	37.5 J	1,580	2,410
Lead	25	1.2 J	<1.07	<1.07	<1.07	<1.07	<1.07	4.7 J	2.0 J
Magnesium	35,000	13,100	20,700	11,200	3,720	3,170	20,100	6,870	3,460
Manganese	300	18.2	10.2	2.8 J	<1.06	<1.06	4.3 J	107	76.4
Mercury	0.7	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Nickel	100	0.88 J	1.5 J	0.77 J	<0.28	<0.28	<0.28	1.5 J	4.0 J
Potassium	NGV	1,460	<0.04	1,550	5,660	<41.00	1,550	1,540	1,240
Selenium	10	<2.36	<2.36	<2.36	<2.36	<2.36	<2.36	<2.36	<2.36
Silver	50	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27
Sodium	20,000	27,500	97,500	36,300	25,600	8,100	94,440	49,800	36,800
Thallium	0.5	<1.07	<1.07	<1.07	<1.07	<1.07	<1.07	<1.07	<1.07
Vanadium	NGV	0.40 J	0.73 J	0.31 J	<0.23	<0.23	<0.23	2.5 J	3.6 J
Zinc	2,000	11.0 J	12.9 J	13.9 J	13.2 J	3.7 J	10.2 J	17.3 J	18.8 J
Cyanide		<10	<10	<10	<10	<10	<10	<10	<10
Notes: Metals reported as Target Analyte List (TAL); Dissolved Metals results are included in the Laboratory Data Package All data are presented in µg/l Standards taken from NYSDEC Memorandum 1.1.1, Ambient Water Quality Standards and Guidance Values, and Groundwater Effluent Limitations, June 1998. DUP from MW-3A Bold = Analyte detected above laboratory method detection limits Shaded = Analyte detected above NYSDEC Groundwater Guidance Values < = Analyte not detected above laboratory method detection limits NA = Not Analyzed NGV = No Guidance Value listed									