

# Monthly Operations and Monitoring Report

## February 2006

*Site:*

Stanton Cleaners Area Groundwater Contamination Site Great Neck, New York

*Prepared for:*

Environmental Chemical Corporation  
1293 Broad Street, Suite 200  
Bloomfield, New Jersey 07003

*Prepared by:*

Earth Tech, Inc.  
7870 Villa Park Drive, Suite 400  
Richmond, Virginia 23228

*March 31, 2006*

ET Project No. 70536.02.01.02

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*Date:* March 7, 2006

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*Date:* March 31, 2006

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## 1.0 INTRODUCTION

This Monthly Operations and Monitoring Report, February 2006 (Monthly Report) has been prepared by Earth Tech, Inc., as a subcontractor to Environmental Chemical Corporation (ECC), under Contract No.5442-001-001.

The Stanton Cleaners Area Groundwater Contamination (Stanton) site is located at 110 Cutter Mill Road in Great Neck, Nassau County, New York. The Stanton Cleaner Property (SCP) is approximately ¼ acre in size and includes a two-story building in which a dry-cleaning business operates and an adjacent one-story boiler/storage building as well as a two-story treatment building. The site is bordered by an indoor tennis facility, a synagogue and school facility.

Improper handling and disposal of spent dry cleaning solvents, including Tetrachloroethylene (PCE), resulted in the release of hazardous substances at the site. PCE migrated from the site's subsurface soils into the indoor air environments of the surrounding buildings and into groundwater beneath the site, resulting in a significant threat to human health.

In 1983, approximately 20 cubic yards of PCE-contaminated soil was removed from behind the Stanton Cleaners property.

In 1989, a groundwater extraction and treatment system was installed by the original Site operator to address groundwater contamination which resulted from improper disposal of spent PCE behind the SCP building. This system is not currently operational.

In 1998, the New York State Department of Environmental Conservation (NYSDEC) funded the construction of a new air stripper treatment system for the WAGNN water supply wells, which are impacted by contamination from the Site. This treatment system is currently in operation. In October 1998, as an immediate response action, the EPA installed a temporary soil vapor interceptor system, adjacent to the tennis club, to mitigate impacts from PCE vapors to the indoor air of this facility.

In 2001, the EPA completed the construction and installation of a soil vapor extraction (SVE) system and a ground water treatment (GWT) system on the SCP. Both the SVE and GWT systems are housed in the treatment building that was constructed on the SCP. The SVE was installed to remediate the VOC-contaminated soils, thus reducing the indoor air contamination in the adjacent affected buildings to safe levels. The GWT system was installed to remediate the VOC-contaminated groundwater and to remove the threat of vapors through the Site soils. Both systems are currently operating at the Site. The collected VOC-contaminated vapors and groundwater from both systems are treated through separate granular activated carbon (GAC) systems.

The site is presently under the jurisdiction of the Remedial Branch of the USEPA, Region II; USACE provides oversight to USEPA for the remedial action and the long-term remedial action programs. ECC provides oversight to the USACE to perform long-term remediation actions. Earth Tech, as a subcontractor to ECC, provides support on the following tasks as described in the Work Plan:

- Operation and maintenance (O&M) of the GWTS and SVE, including sampling and reporting;
- Sampling of monitoring wells associated with the site in order to track the migration of the contaminant plume, along with reporting.

- Sampling of indoor air quality of buildings adjacent to the site in order to identify all the adjacent buildings being impacted by site related contaminants and the effectiveness of the remedial actions being instituted at the site.

All work under this contract is performed in accordance with the following documents:

- Work Plan for Long-Term Remedial Action Support;
- Site-Specific Health and Safety Plan (HASP), dated July 23, 2001 (Revised February 3, 2003) and
- Sampling Quality Assurance Project Plan (SQAPP) dated August 22, 2000.

As required by the Scope of Work for this project, monthly summary reports are prepared to document and summarize the activities taking place. These reports provide a concise description of work performed during the reporting period and include pertinent deliverables as appendices. This monthly summary report covers the period between February 1 and February 28, 2006.

## **2.0 SUMMARY OF ACTIVITIES DURING FEBRUARY 2006**

The following list summarizes activities performed and milestone dates under this contract during the reporting period, February 1 through February 28, 2006:

- February 1 – EPA-EXT-4R was shut off and EPA-MW-24 was turned on
- February 6 – Weekly O&M Inspection
- February 6 – PLC screen freezes up. Computer is restarted and monitor returns to normal
- February 14 – Weekly O&M Inspection
- February 14 – Monthly System Sampling
- February 16 – Bi-weekly System Air Monitoring
- February 20 – Weekly O&M Inspection
- February 22 – Monthly Water Level Gauging
- February 27 – Weekly O&M Inspection
- February 27 – Bi-weekly System Air Monitoring

Details of system shutdowns and alarms during the month of February 2006 are discussed in section 3.1. Daily Quality Control Reports (DQCRs), which include projected work for the following two weeks, are completed for each day of site activities. Copies of these reports are included as Appendix A.

### **3.0 GROUNDWATER TREATMENT SYSTEM ACTIVITIES**

#### **3.1 Operation and Maintenance**

The GWTS treated and discharged 2,559,952.9 gallons during the month of February 2006. The system was operational (recovery well pumps running) for approximately 672 of the 672 hours during the month, for an average operating flow of 63.5 gallons per minute (gpm). The system has treated a total of 18,991,710.1 gallons since the plant startup in November 2001.

There are currently two recovery wells pumping water into the system (EPA-EXT-02 and EPA-MW-24). EPA-EXT-02 is located in the triangle, the corner of New Cutter Mill Road and Mirrielees Road. Extraction well MW-24 had been pumping from the triangle location until it was turned off and April 20, 2005. Extraction well EPA-EXT-4R was activated on April 20, 2005. EPA-EXT-4R is located in the parking lot directly in front of the Stanton Dry Cleaners building. The decision to turn off extraction well MW-24 and replace it with EPA-EXT-4R in April 2005 was made by the USEPA. Later, in early 2006, based on an evaluation of laboratory analytical results obtained from extraction well EPA-EXT-4R and monitoring well sampling results for monitoring wells located in the area of EPA-MW-24, the decision was made to shut down extraction well EPA-EXT-4R and re-activate EPA-MW-24. Therefore, EPA-EXT-4R was taken offline and EPA-MW-24 was activated on February 2, 2006.

The facility is equipped with a remote monitoring and control system that was accessed a minimum of three times per week, by the lead engineer, during the reporting period to ensure proper system operation and notify response personnel if a problem or abnormal condition was observed. The system also provides remote notification of alarm conditions via automatic e-mail and text messaging.

The Treatment System Operation and Maintenance Checklist were completed during each O&M inspection event and the checklists for February 1, 6, 14, 16, 20 and 27, 2006 are provided in Appendix B. When the system is operational, any abnormal conditions or parameters outside of the normal operating range are addressed by the lead operator and/or monitoring/environmental technician on site (Jim Simmonds or James Kearns). If they require guidance or notes any serious conditions, the inspector notifies the response manager (Tom Williams). The checklists are completed on site and sent to James Kearns for review and scheduling of additional work if needed. Abnormal conditions and/or parameters outside the operating range are addressed, including repairs, cleaning, and continued monitoring.

System operational and alarm conditions are automatically stored by the PLC. This data is downloaded every two weeks. The February 2006 operational data is included in Appendix C. While operational, the system data are within the normal ranges and are consistent with visual observations, with any exceptions as described above.

The effluent flow data table in Appendix C shows daily discharge flows from each day of system operation and cumulative treated water discharge for each day during the reporting period, as well as a summary of total monthly flow and average daily flow since the system was started up in October 2001.

A review of October 2005 Operations and maintenance logs indicated there has been a slight reduction in discharge flow for the P&T system. In an effort to increase the discharge flow, it was determined that the P&T system aqueous phase carbon vessels needed to be placed in parallel in the system treatment train in

an effort to reduce back pressure and increase effluent flow. The altering of the piping for the 2-400 pound aqueous phase carbon vessels from series to parallel was performed on November 1, and 2, 2005.

On November 30, 2005 the SVE systems was offline due to a faulty low level sensor in the SVE knockout tank. The sensor was reviewed during the December 19, 2005 O&M inspection and was deemed to be faulty. A new low-level float switch was installed on January 9, 2006.

On January 9, 2006, three drains were installed in the line of SVE 1 so that the line can be drained weekly and so adequate air flow can be obtained at the SVE 1 air sample ports for the bi weekly air monitoring. On January 24, 2006 the drains were replaced with more permanent ball valve drains.

## **3.2 Sampling and Analysis**

### **3.2.1 Raw and Treated Groundwater**

In accordance with the SQAPP, GWTS sampling is conducted on a monthly basis to monitor plant efficiency, to determine whether liquid carbon breakthrough has occurred, and to verify that contract-specific discharge parameters (in accordance with National Pollutant Discharge Elimination System (NPDES) permit equivalency) are met. The combined GWTS influent, along with the GWTS effluent (discharge), will be sampled by the 15<sup>th</sup> of each month. Collected samples will be shipped to a designated EPA, CLP lab for analysis of TCL volatile organic compounds.

Earth Tech personnel conducted the GWTS influent and effluent sampling for this report period on February 14, 2006. The samples were shipped to the USEP Region II DESA Laboratory, located in Edison, NJ for analysis of low concentration TCL volatile organic compounds. A copy of the full sampling trip report containing the chain of custody forms and FedEx air bill is included in Appendix D. Laboratory analytical results for the GWTS sampling event during this reporting period will be forwarded to ECC under separate cover from the laboratory.

Measurements of influent and effluent pH and turbidity, along with effluent conductivity, are automatically monitored and recorded by the GWTS PLC on a daily basis; this information is included with the downloaded data in Appendix C.

The next GWTS influent / effluent sampling event is scheduled for March 7, 2006.

### **3.2.2 Process Air Stream Monitoring**

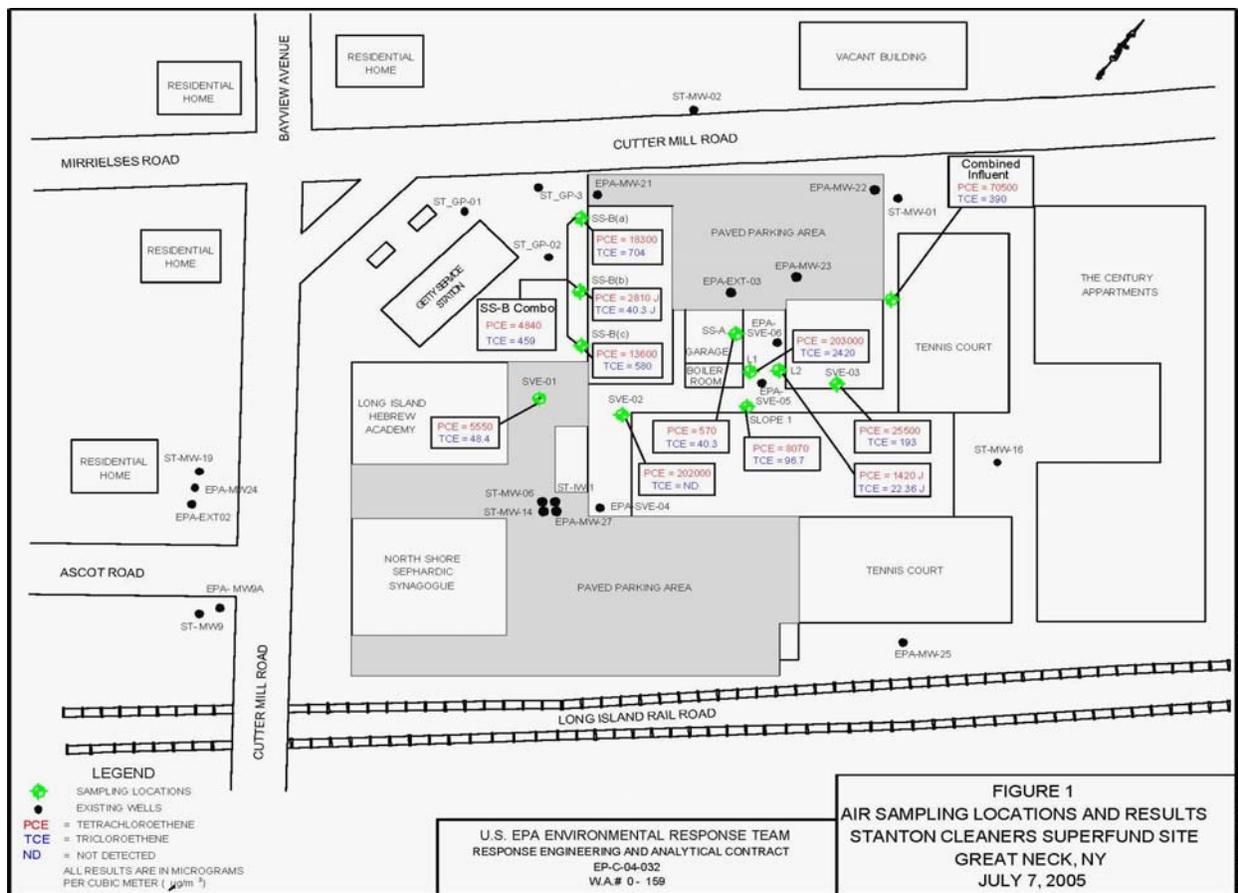
Air monitoring of the SVE and Pump and Treat System is performed on a bi-weekly basis. It includes monitoring for VOCs, air velocity, temperature, humidity, dew point, vacuum pressure and other parameters, as specified in the O&M manual. Air monitoring is performed at the following locations within the system:

- Combined SVE - Influent (pre-treatment),
- Post groundwater Air-Stripper (pre-treatment),
- Post vapor phase carbon vessel 1 – Air Stripper air discharge (post-treatment).
- Post vapor phase carbon vessel 2 – SVE air discharge (post-treatment).
- Sub-slab monitoring points (pre-treatment)

On October 3, 2005, following a review of the REAC SVE System Air Sampling Results for the event performed on July 7, 2005, the active SVE recovery wells were modified in an effort to maximize contaminant recovery rates. Details of the modifications to the active SVE wells prior to and post October 3, 2005 are included in the table below.

<u>SVE Location</u>	<u>Prior to 10/3/05</u>	<u>After 10/3/05</u>
SVE 1	Shallow On	Shallow and Intermediate On
SVE 2	Shallow On	Shallow On
SVE 3	Shallow On	Shallow On
SVE 4	Off	Off
EPA-SVE-4R	On	On
SSA	On	On
SSB-A	On	On
SSB-B	On	Off
SSB-C	On	On
L1	On	On
L2	On	Off

In addition to modifying the active SVE locations, the names of each location were altered in an effort to stay consistent with REAC's nomenclature. Future weekly monitoring logs will be consistent REACs sample numbers. The laboratory analytical results for REAC's sampling of the SVE locations, performed on July, 7, 2005 are included in the figure below (please note the results in the figure are reported in micrograms per cubic meter).



Additional evaluation/enhancement of the SVE recovery rates is ongoing and the installation of several SVE sample port locations was performed on November 1 and 2, 2005. On January 9, 2006, two more SVE sample port locations were installed in the line of SVE 3. The bi-weekly air monitoring logs are included in Appendix F. Estimated PCE removal rates for the SVE system are presented in Table 1. A Graph showing the estimated PCE removal rate trend over time is presented in Figure 2. The next bi-weekly air-monitoring event is scheduled for March 13, 2006.

#### 4.0 MONITORING WELL SAMPLING

Groundwater samples from select monitoring wells both on and off-site are collected on a quarterly basis and shipped to a designated EPA, CLP lab for analysis. Groundwater sampling activities are performed in accordance with the USEPA Groundwater Sampling SOP #2007 and the USEPA Low-Stress Purging and Sampling SOP provided in the SQAPP. Each quarterly sampling event is coordinated with the local water authority to schedule the event when local water supply drawdown conditions do not impact the measurements. The location and number of monitoring wells as well as analytical parameters will be determined before each event by the USEPA, USACE, and ECC.

The first semi-annual groundwater sampling event of 2005 was conducted by Earth Tech personnel on February 7 through 11, 2005. A total of 25 groundwater monitoring wells were sampled for analysis of

the presence of TCL volatiles only. A copy of the full sampling trip report containing the chain of custody forms and FedEx air bills is included in Appendix D.

The second semi-annual groundwater sampling event was performed the week of August 29, 2005. It included sampling 29 monitoring wells, 15 of which had natural attenuation parameter analyses. Laboratory analytical results for this semi-annual groundwater sampling event were sent directly to ECC under separate cover from the laboratory. The next groundwater monitoring well sampling event is scheduled for the week of May 22, 2006.

## **5.0 PLUME PERIMETER MONITORING**

Groundwater level measurements are obtained from both on-site and offsite wells once a month in order to evaluate capture zone(s) around the groundwater extraction wells. The event is coordinated with the local water authority so the event can be scheduled when the local water supply drawdown conditions will have minimal impact to the measurements.

Water level measurements were collected on February 22, 2006. The location and number of monitoring wells was determined by the USEPA based on the site Capture Zone Analysis Plan. Groundwater level measurements for February 22, 2006 and historical groundwater level measurements are provided in Appendix H.

## **6.0 INDOOR AIR QUALITY SAMPLING**

Indoor air quality samples from select locations within the treatment building and buildings along the perimeter of the site are collected using summa canisters on a quarterly basis and shipped to a laboratory for analysis. The location and number of indoor air quality samples to be collected as well as analytical parameters are determined by the USEPA, USACE and ECC.

The last indoor air quality sampling event was conducted on September 20 and 21, 2005 by Earth Tech personnel. This sampling event was conducted to address air quality issues within the Long Island Hebrew Academy. The next indoor air sampling event is planned for May/June 2006.

## **7.0 FUTURE EVENTS PLANNED**

The following scheduled events are planned (or have since occurred) during the next three reporting periods:

- Continue to perform GWTS inspection and maintenance as required;
- Continue to perform bi-weekly system air monitoring;
- Collect system influent and effluent samples as directed by USACE/ECC/USEPA;
- Obtain groundwater level measurements as directed by USACE/ECC/USEPA;
- Collect groundwater samples from monitoring wells as directed by USACE/ECC/USEPA (Planned for May 2006);
- Collect indoor air quality samples as directed by USACE/ECC/USEPA (Planned for May/June 2006);
- Revise O&M manual to reflect changes to GWP&T carbon vessel set-up;

- Review aqueous and vapor phase carbon change out schedule (review performed in December 2005, to be revisited in June 2006)

## **8.0 PROBLEM AREAS AND RECOMMENDED SOLUTIONS (OUTSTANDING ISSUES)**

The altering of the piping for the 2-400 pound aqueous phase carbon vessels from series to parallel was performed in November 2005. A review of flow rates indicated the effluent flow has increased from approximately 60 gpm to 72 gpm following the change. Action List of ongoing and completed items is provided in Appendix J to track work tasks that have been targeted as issues to be addressed.

Monthly O&M performed on November 29, 2005 indicated the low level float switch for the SVE system knockout tank was not functioning. Further inspection performed in December 2005 indicated a replacement was required. A replacement low level float switch was installed on January 9, 2006.

In early 2006, based on an evaluation of laboratory analytical results obtained from extraction well EPA-EXT-4R and monitoring well sampling results for monitoring wells located in the area of EPA-MW-24, the decision was made to shut down extraction well EPA-EXT-4R and re-activate EPA-MW-24. Therefore, EPA-EXT-4R was taken offline and EPA-MW-24 was activated on February 2, 2006.

On February 6, 2006, it was noted that the actuator for EPA-EXT-02 was not functioning properly. Therefore a replacement part was ordered and is expected to arrive in late March. The new actuator will be installed at that time.

## **Tables**

**TABLE 1**  
**ESTIMATED PCE RECOVERY RATES**  
**STANTON CLEANERS AREA GROUNDWATER CONTAMINATION SITE**  
**250 CFM SVE SYSTEM**  
**September 2003 - February 2006**

Date	# of Days	Flow Rate		VOC			
		(cfm)	Avg (cfm)	Concentration (ppm)	Average (ppm)	Discharge Rate (lbs/day)	Total Discharge (lbs)
9/11/2003	1	225	225	4.2	4.20	0.6	0.6
9/25/2003	13	210	217.5	4.7	4.45	0.6	7.8
10/8/2003	13	213	211.5	5	4.85	0.6	8.2
10/23/2003	15	210	210	12.2	8.6	1.1	16.7
11/5/2003	13	215	212.5	6.8	9.5	1.2	16.2
11/22/2003	17	211	213	6	6.4	0.8	14.3
12/4/2003	12	205	208	5.9	5.95	0.8	9.2
12/17/2003	13	200	202.5	4	4.95	0.6	8.0
12/30/2003	13	210	205	4	4.95	0.6	8.1
1/15/2004	16	205	207.5	4.1	4.05	0.5	8.3
2/5/2004	SVE System Manually Shutdown Since 1/16/04						
2/12/2004	8	200	200	3.5	3.5	0.4	3.5
2/26/2004	14	205	202.5	5.3	4.4	0.6	7.7
3/10/2004	12	200	202.5	5	5.15	0.6	7.7
3/25/2004	15	199	199.5	5.1	5.05	0.6	9.3
4/13/2004	19	175	187	6.3	5.7	0.7	12.5
4/29/2004	16	170	172.5	6	6.15	0.7	10.5
						<b>Total</b>	<b>148.7</b>

Notes:

SVE system turned off from 8/24/2004 through 8/31/2004 during tennis court demolition activities.

New SVE well EPA-EXT-04 on-line 11/04/2004

VOC readings taken before vapor phase carbon off-gas treatment.

Deep SVE Wells Closed on 12/10/03 Per OSC's Request

Formula provided by EPA in the "Elements for Effective Management of Operating Pump and Treatment Systems" publication.

$$M_{air} = Q_{air} \times C_{air} \times 0.0283 \frac{m^3}{ft.3} \times 1440 \frac{min.}{day} \times 2.2 \frac{lbs.}{1000000 \text{ mg}}$$

$$C_{air} \text{ (mg/m}^3\text{)} = \frac{Conc \text{ (ppmv)}}{1E+06} \times 1 \text{ mole air} \times 1000 \frac{L}{m^3} \times 1000 \frac{mg}{g} \times MW_x$$

Notes:

M<sub>air</sub> = mass loading, removal rate in air (lbs/day)

Q<sub>air</sub> = flow rate in air (cfm)

C<sub>air</sub> = contaminant concentration (mg/m<sup>3</sup>)

MW<sub>x</sub> = molecular weight in grams/mole, for PCE is 166

Note: The conversion factor (1 mole air)/(24.1 L) varies with both temperature and pressure. At a pressure of 1 atmosphere and a temperature of 32 degrees Fahrenheit (0 degrees Celsius), the conversion is (1 mole air)/(22.4 L).

**TABLE 1 (continued)**  
**ESTIMATED PCE RECOVERY RATES**  
**STANTON CLEANERS AREA GROUNDWATER CONTAMINATION SITE**  
**250 CFM SVE SYSTEM**  
**September 2003 - February 2006**

Date	# of Days	Flow Rate		VOC			
		(cfm)	Avg (cfm)	Concentration (ppm)	Average (ppm)	Discharge Rate (lbs/day)	Total Discharge (lbs)
5/13/2004	14	150	160	6	6	0.6	8.3
5/30/2004	17	147	148.5	5.9	5.95	0.5	9.3
6/10/2004	11	150	148.5	4.4	5.15	0.5	5.2
6/30/2004	20	145	147.5	5.6	5	0.5	9.1
7/8/2004	8	140	142.5	4.9	5.25	0.5	3.7
7/22/2004	14	139	139.5	4.8	4.85	0.4	5.8
8/9/2004	18	140	139.5	3.1	3.95	0.3	6.1
8/31/2004	1	135	137.5	3	3.05	0.3	0.3
9/8/2004	8	120	127.5	2.9	2.95	0.2	1.9
9/30/2004	22	121	120.5	3.1	3	0.2	4.9
10/4/2004	5	121	121	2.9	3	0.2	1.1
10/20/2004	15	120	120.5	2.8	2.85	0.2	3.2
11/1/2004	12	121	120.5	3	2.9	0.2	2.6
11/17/2004	16	125	123	4.1	3.55	0.3	4.3
11/29/2004	12	120	122.5	4.2	4.15	0.3	3.8
12/7/2004	8	121	120.5	4.2	4.2	0.3	2.5
12/16/2004	9	120	120.5	4.1	4.15	0.3	2.8
						<b>Total</b>	<b>223.5</b>

Notes:

SVE system turned off from 8/24/2004 through 8/31/2004 during tennis court demolition activities.

New SVE well EPA-EXT-04 on-line 11/04/2004

VOC readings taken before vapor phase carbon off-gas treatment.

Deep SVE Wells Closed on 12/10/03 Per OSC's Request

Formula provided by EPA in the "Elements for Effective Management of Operating Pump and Treatment Systems" publication.

$$M_{air} = Q_{air} \times C_{air} \times 0.0283 \frac{m^3}{ft^3} \times 1440 \frac{min.}{day} \times 2.2 \frac{lbs.}{1000000 \text{ mg}}$$

$$C_{air} (mg/m^3) = \frac{Conc (ppmv)}{1E+06} \times \frac{1 \text{ mole air}}{24.1 \text{ L}} \times \frac{1000 \text{ L}}{m^3} \times \frac{1000 \text{ mg}}{g} \times MW_x$$

Notes:

M<sub>air</sub> = mass loading, removal rate in air (lbs/day)

Q<sub>air</sub> = flow rate in air (cfm)

C<sub>air</sub> = contaminant concentration (mg/m<sup>3</sup>)

MW<sub>x</sub> = molecular weight in grams/mole, for PCE is 166

Note: The conversion factor (1 mole air)/(24.1 L) varies with both temperature and pressure. At a pressure of 1 atmosphere and a temperature of 32 degrees Fahrenheit (0 degrees Celsius), the conversion is (1 mole air)/(22.4 L).

**TABLE 1**  
**ESTIMATED PCE RECOVERY RATES**  
**STANTON CLEANERS AREA GROUNDWATER CONTAMINATION SITE**  
**250 CFM SVE SYSTEM**  
**September 2003 – February 2006**

Date	# of Days	Flow Rate		VOC			
		(cfm)	Avg (cfm)	Concentration (ppm)	Average (ppm)	Discharge Rate (lbs/day)	Total Discharge (lbs)
1/12/2005	27	120	120	4.5	4.3	0.3	8.6
1/17/2005	5	120	120	4.5	4.5	0.3	1.7
2/9/2005	23	120	120	3.9	4.2	0.3	7.2
2/23/2005	14	120	120	3.5	3.7	0.3	3.8
3/2/2005	7	120	120	3.2	3.35	0.2	1.7
3/16/2005	14	120	120	3.5	3.35	0.2	3.5
4/4/2005	19	120	120	3	3.25	0.2	4.6
4/20/2005	16	120	120	2.9	2.95	0.2	3.5
5/3/2005	13	120	120	3.1	3.00	0.2	2.9
5/19/2005	16	120	120	2.9	3.00	0.2	3.6
6/15/2005	26	120	120	1	1.95	0.1	3.8
6/22/2005	7	270	120	8.3	4.65	0.3	2.4
7/25/2005	33	280	275	8.3	8.30	1.4	46.5
8/9/2005	15	290	285	5	6.65	1.2	17.6
8/24/2005	15	290	290	6	5.50	1.0	14.8
9/7/2005	14	260	275	6.5	6.25	1.1	14.9
9/20/2005	13	260	260	6.8	6.65	1.1	13.9
						<b>Total</b>	<b>378.3</b>

Notes:

SVE system turned off from 8/24/2004 through 8/31/2004 during tennis court demolition activities.

New SVE well EPA-EXT-04 on-line 11/04/2004

VOC readings taken before vapor phase carbon off-gas treatment.

Deep SVE Wells Closed on 12/10/03 Per OSC's Request

Formula provided by EPA in the "Elements for Effective Management of Operating Pump and Treatment Systems" publication.

$$M_{air} = Q_{air} \times C_{air} \times \frac{0.0283 \text{ m}^3}{\text{ft}^3} \times \frac{1440 \text{ min}}{\text{day}} \times \frac{2.2 \text{ lbs}}{1000000 \text{ mg}}$$

$$C_{air} \text{ (mg/m}^3\text{)} = \frac{\text{Conc (ppmv)}}{1\text{E}+06} \times \frac{1 \text{ mole air}}{24.1 \text{ L}} \times \frac{1000 \text{ L}}{\text{m}^3} \times \frac{1000 \text{ mg}}{\text{g}} \times MW_x$$

Notes:

M<sub>air</sub> = mass loading, removal rate in air (lbs/day)

Q<sub>air</sub> = flow rate in air (cfm)

C<sub>air</sub> = contaminant concentration (mg/m<sup>3</sup>)

MW<sub>x</sub> = molecular weight in grams/mole, for PCE is 166

Note: The conversion factor (1 mole air)/(24.1 L) varies with both temperature and pressure. At a pressure of 1 atmosphere and a temperature of 32 degrees Fahrenheit (0 degrees Celsius), the conversion is (1 mole air)/(22.4 L).

**TABLE 1**  
**ESTIMATED PCE RECOVERY RATES**  
**STANTON CLEANERS AREA GROUNDWATER CONTAMINATION SITE**  
**250 CFM SVE SYSTEM**  
**September 2003 - February 2006**

Date	# of Days	Flow Rate		VOC			
		(cfm)	Avg (cfm)	Concentration (ppm)	Average (ppm)	Discharge Rate (lbs/day)	Total Discharge (lbs)
10/3/2005	13	270	265	7.4	7.10	1.2	15.1
10/18/2005	15	240	255	3.7	5.55	0.9	13.1
11/7/2005	20	250	245	1.5	2.60	0.4	7.9
11/29/2005	22	200	225	1.7	1.60	0.2	4.9
12/19/2005	20	305	252.5	14.7	8.20	1.3	25.6
1/4/2006	16	260	282.5	3.4	9.05	1.6	25.3
1/19/2006	15	285	272.5	2.5	2.95	0.5	7.4
1/30/2006	10	275	280	2.2	2.35	0.4	4.1
2/16/2006	17	210	242.5	10.7	6.45	1.0	16.4
2/27/2006	11	275	242.5	2.4	6.55	1.0	10.8
						<b>Total</b>	<b>508.8</b>

Notes:

SVE system turned off from 8/24/2004 through 8/31/2004 during tennis court demolition activities.  
 New SVE well EPA-EXT-04 on-line 11/04/2004  
 VOC readings taken before vapor phase carbon off-gas treatment.  
 Deep SVE Wells Closed on 12/10/03 Per OSC's Request  
 Formula provided by EPA in the "Elements for Effective Management of Operating Pump and Treatment Systems" publication.

$$M_{air} = Q_{air} \times C_{air} \times 0.0283 \frac{m^3}{ft.3} \times 1440 \frac{min.}{day} \times 2.2 \frac{lbs.}{1000000 \text{ mg}}$$

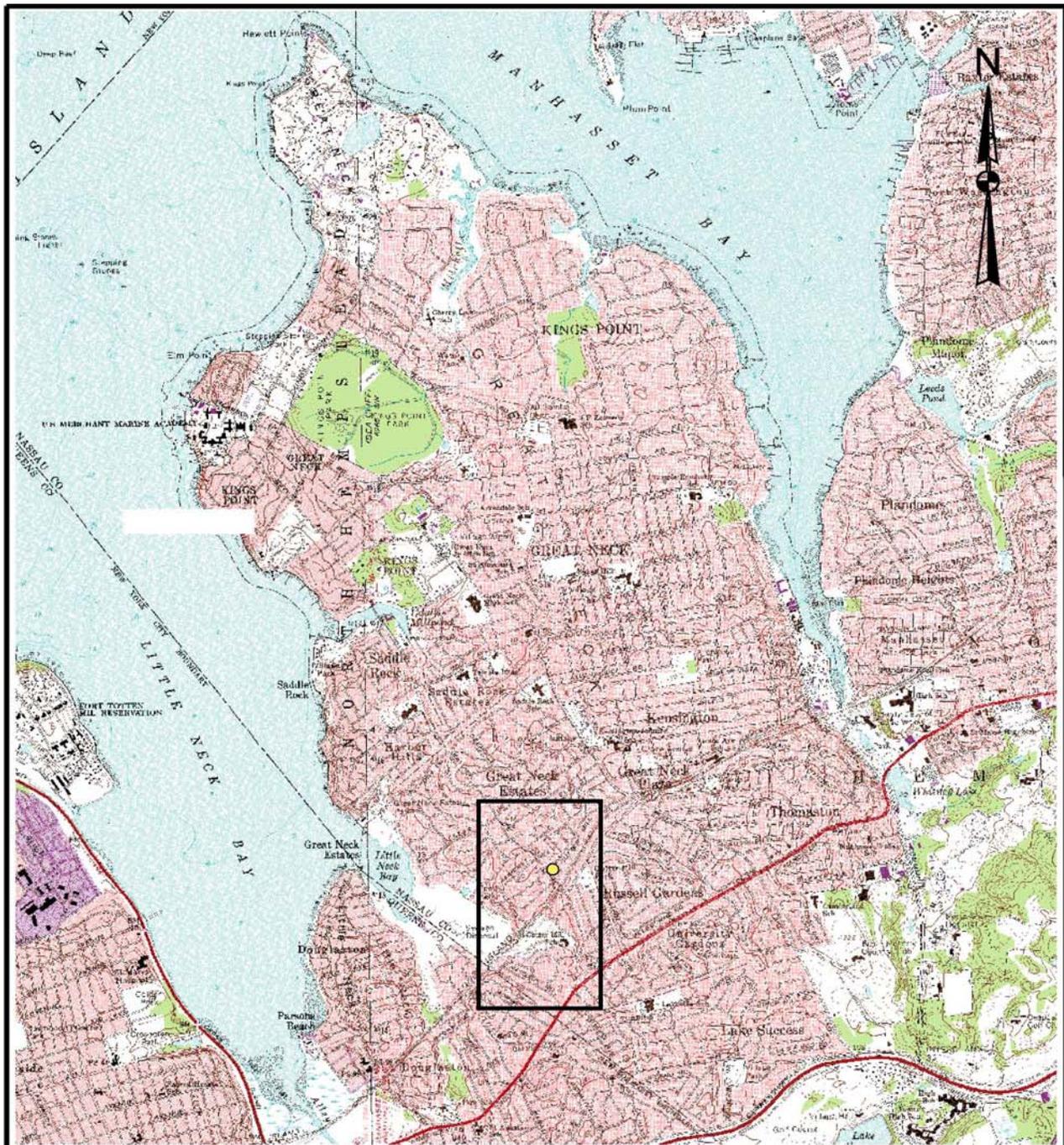
$$C_{air} (mg/m^3) = \frac{Conc (ppmv)}{1E+06} \times \frac{1 \text{ mole air}}{24.1 \text{ L}} \times \frac{1000 \text{ L}}{m^3} \times \frac{1000 \text{ mg}}{g} \times MW_x$$

Notes:

$M_{air}$  = mass loading, removal rate in air (lbs/day)  
 $Q_{air}$  = flow rate in air (cfm)  
 $C_{air}$  = contaminant concentration (mg/m<sup>3</sup>)  
 $MW_x$  = molecular weight in grams/mole, for PCE is 166

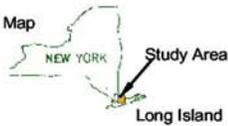
Note: The conversion factor (1 mole air)/(24.1 L) varies with both temperature and pressure. At a pressure of 1 atmosphere and a temperature of 32 degrees Fahrenheit (0 degrees Celsius), the conversion is (1 mole air)/(22.4 L).

## Figures



USGS 7.5 Minute Topographic Quadrangle:  
Sea Cliff, N.Y., 1968, Photorevised 1979

Location Map



2000 0 2000 4000 Feet

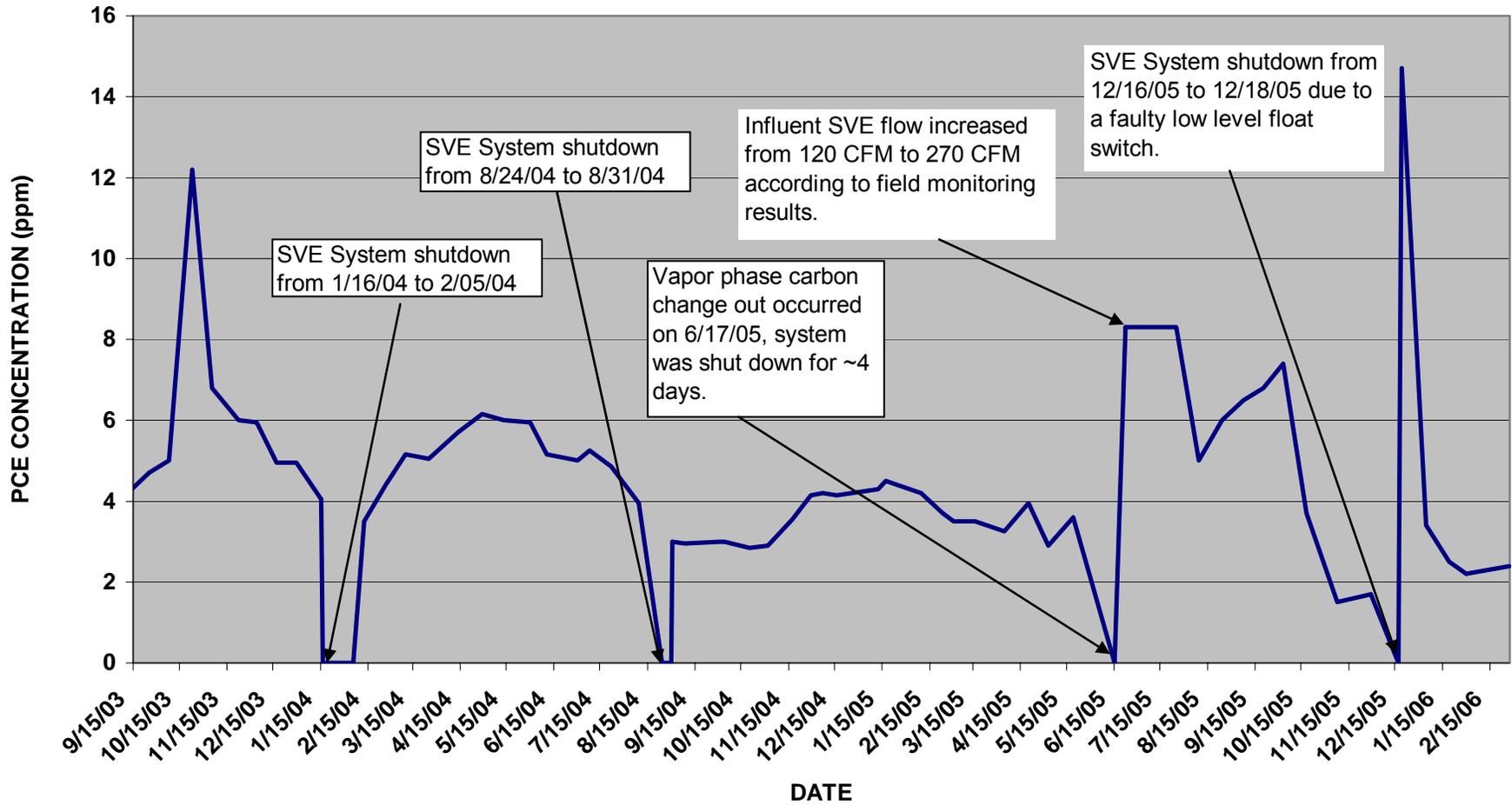
**Legend**

- Stanton Cleaners Study Area
- Stanton Cleaners Site

**EARTH TECH**  
A **tyco** INTERNATIONAL LTD. COMPANY

**Figure 1**  
**Site Location Map**  
**Stanton Cleaners Area**  
**Groundwater Contamination Site**  
Stanton Cleaners Area  
Groundwater Contamination Site  
Great Neck, Nassau County, New York

**Figure 2**  
**STANTON CLEANERS AREA GROUNDWATER CONTAMINATION SITE**  
**AVERAGE PCE CONCENTRATIONS (ppm)**  
**250 CFM FINAL SVE SYSTEM**  
**September 2003 - February 2006**



## **Appendix A**

### **Daily Quality Control Reports (DQCRs)**

## DAILY QUALITY CONTROL REPORT

Site Name and Location: Stanton Cleaners Site (LTRA) – Great Neck, NY

Client: ECC

Contract No: 5442-001-001

Contractor: Earth Tech, Inc.

Address: 7870 Villa Park Drive, Suite 400  
Richmond, Virginia 23228

Phone No.: (804) 515-8300

Date: 2/1/06

Earth Tech Project No.: 70536

Day	S	M	T	W	T	F	S
Weather				SUNNY			
Temp.				50°F			
Wind				NONE			
Humidity				60%			

Earth Tech Personnel On-Site: **Tom, Williams, James Kearns, Robert Derrick, Frank Mahalski**

Subcontractor (include names & responsibilities): **N/A**

Contract Materials and Equipment on site: **Chevy Blazer, Ford Explorer**

Work Performed (include sampling; list by NAS number if applicable):

**Modification of the P&T system: EPA-EXT-04R was shut off and EPA-MW-24 was activated.**

Quality Control Activities (including field calibrations): **N/A**

Health and Safety Levels and Activities: **Level D**

Problems Encountered/Correction Action Taken: **N/A**

Explain Developments Leading to Change in SOW or Finding of Fact: **N/A**

Preparatory Inspection (list all inspections by subject and specification location; attach minutes of meeting and list of all attendees): **N/A**

Have all required submittals and samples of construction been approved? **Yes**

Do the materials and equipment to be used conform to the submittals? **Yes**

Has all preliminary work been inspected, tested, and completed? **Yes**

Test required and inspection techniques to be executed to prove contract compliance (include both expected and actual results): **N/A**

## DAILY QUALITY CONTROL REPORT

Site Name and Location: Stanton Cleaners Site (LTRA) – Great Neck, NY

Client: ECC

Contract No: 5442-001-001

Contractor: Earth Tech, Inc.

Address: 7870 Villa Park Drive, Suite 400  
Richmond, Virginia 23228

Phone No.: (804) 515-8300

Date: 2/1/06

**Earth Tech Project No.: 70536**

Has a phase hazard analysis been performed? **Included in the Site Specific Health & Safety Plan**

Comments and deficiencies noted and corrective actions taken: **Explained in work performed section.**

Initial Inspection: List all inspections by subject and specification location. Comment and/or deficiencies noted and corrective actions taken.

**Explained in work performed section.**

Follow-up Inspection: List all inspections by subject and specification location. Comment and/or deficiencies noted and corrective actions taken.

Special Notes:

**MW-24 is operating at approximately 24 gpm while EPA-EXT-02 is operating at approximately 36 gpm.**

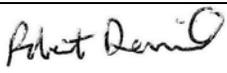
Tomorrow's Expectations:

**Weekly O and M inspection**

**Monthly system sampling (Feb. 14<sup>th</sup>)**

By: Robert Derrick

Title: Environmental Scientist

Signature: 

(Quality Control Representative/Manager)

The above report is complete and correct. All materials and equipment used and all work performed during this reporting period are in compliance with the contract specifications and submittals, except as noted above.

Signature:

(Contractor's Authorized Representative)

## DAILY QUALITY CONTROL REPORT

Site Name and Location: Stanton Cleaners Site (LTRA) – Great Neck, NY

Client: ECC

Contract No: 5442-001-001

Contractor: Earth Tech, Inc.

Address: 7870 Villa Park Drive, Suite 400  
Richmond, Virginia 23228

Phone No.: (804) 515-8300

Date: 2/6/06

Earth Tech Project No.: 70536

Day	S	M	T	W	T	F	S
Weather		SUNNY					
Temp.		40°F					
Wind		NONE					
Humidity		60%					

Earth Tech Personnel On-Site: **Robert Derrick**

Subcontractor (include names & responsibilities): **N/A**

Contract Materials and Equipment on site: **Chevy Blazer, general hand tools**

Work Performed (include sampling; list by NAS number if applicable):

Quality Control Activities (including field calibrations): **N/A**

**Weekly O&M inspection**

**Weekly system monitoring**

Health and Safety Levels and Activities: **Level D**

Problems Encountered/Correction Action Taken: **N/A**

Explain Developments Leading to Change in SOW or Finding of Fact: **N/A**

Preparatory Inspection (list all inspections by subject and specification location; attach minutes of meeting and list of all attendees): **N/A**

Have all required submittals and samples of construction been approved? **Yes**

Do the materials and equipment to be used conform to the submittals? **Yes**

Has all preliminary work been inspected, tested, and completed? **Yes**

Test required and inspection techniques to be executed to prove contract compliance (include both expected and actual results): **N/A**

## DAILY QUALITY CONTROL REPORT

Site Name and Location: Stanton Cleaners Site (LTRA) – Great Neck, NY

Client: ECC

Contract No: 5442-001-001

Contractor: Earth Tech, Inc.

Address: 7870 Villa Park Drive, Suite 400  
Richmond, Virginia 23228

Phone No.: (804) 515-8300

Date: 2/6/06

**Earth Tech Project No.: 70536**

Has a phase hazard analysis been performed? **Included in the Site Specific Health & Safety Plan**

Comments and deficiencies noted and corrective actions taken: **Explained in work performed section.**

Initial Inspection: List all inspections by subject and specification location. Comment and/or deficiencies noted and corrective actions taken.

**Explained in work performed section.**

Follow-up Inspection: List all inspections by subject and specification location. Comment and/or deficiencies noted and corrective actions taken.

Special Notes: **The PLC screen (computer monitor) is frozen. It appears that pixels have been burnt out; Cannot read anything from the site display. Notified James Kearns and Tom Williams**

Tomorrow's Expectations:

**Weekly O&M monitoring**

**Weekly system sampling**

**Bi-weekly air monitoring**

**Monthly system sampling (Feb 14<sup>th</sup>)**

By: Robert Derrick

Title: Environmental Scientist

Signature: 

(Quality Control Representative/Manager)

The above report is complete and correct. All materials and equipment used and all work performed during this reporting period are in compliance with the contract specifications and submittals, except as noted above.

Signature: \_\_\_\_\_ (Contractor's Authorized Representative)

## DAILY QUALITY CONTROL REPORT

Site Name and Location: Stanton Cleaners Site (LTRA) – Great Neck, NY

Client: ECC

Contract No: 5442-001-001

Contractor: Earth Tech, Inc.

Address: 7870 Villa Park Drive, Suite 400  
Richmond, Virginia 23228

Phone No.: (804) 515-8300

Date: **2/6/06 (P.M.)**

Earth Tech Project No.: **70536**

Day	S	M	T	W	T	F	S
Weather		<b>CLOUDY</b>					
Temp.		<b>39°</b>					
Wind		<b>0-30MPH</b>					
Humidity		<b>LOW</b>					

Earth Tech Personnel On-Site: **Tom Williams, Robert Derrick**

Subcontractor (include names & responsibilities): **N/A**

Contract Materials and Equipment on site: **Chevy Blazer, Ford Explorer, general hand tools**

Work Performed (include sampling; list by NAS number if applicable):

**Weekly O&M inspection, Tom Williams fixed digital PLC screen display**

Quality Control Activities (including field calibrations): **N/A**

Health and Safety Levels and Activities: **Level D**

Problems Encountered/Correction Action Taken: **N/A**

Explain Developments Leading to Change in SOW or Finding of Fact: **N/A**

Preparatory Inspection (list all inspections by subject and specification location; attach minutes of meeting and list of all attendees): **N/A**

Have all required submittals and samples of construction been approved? **Yes**

Do the materials and equipment to be used conform to the submittals? **Yes**

Has all preliminary work been inspected, tested, and completed? **Yes**

Test required and inspection techniques to be executed to prove contract compliance (include both expected and actual results): **N/A**

Has a phase hazard analysis been performed? **Included in the Site Specific Health & Safety Plan**

## DAILY QUALITY CONTROL REPORT

Site Name and Location: Stanton Cleaners Site (LTRA) – Great Neck, NY

Client: ECC

Contract No: 5442-001-001

Contractor: Earth Tech, Inc.

Address: 7870 Villa Park Drive, Suite 400

Richmond, Virginia 23228

Phone No.: (804) 515-8300

Date: 2/6/06 (P.M.)

Earth Tech Project No.: 70536

Comments and deficiencies noted and corrective actions taken: **Explained in work performed section.**

Initial Inspection: List all inspections by subject and specification location. Comment and/or deficiencies noted and corrective actions taken.

**Explained in work performed section.**

Follow-up Inspection: List all inspections by subject and specification location. Comment and/or deficiencies noted and corrective actions taken.

Special Notes: **During weekly O&M inspection, the PLC digital display screen was not working.**

**Tom Williams was contacted and fixed the problem during the afternoon.**

**This report was done by Frank Mahalski**

**Also, it was re-indicated that the actuator for monitoring well EPA-EXT-02 needs to be replaced. The Part number will be obtained and a new actuator will be obtained during the next O&M visit.**

**In addition, please note that MW-24 and EPA-EXT-02 are currently active, EPA-EXT-4R was taken offline on February 2, 2006**

**Tomorrow's Expectations:**

By: Frank Mahalski

Title: Environmental Scientist

Signature:

(Quality Control Representative/Manager)

The above report is complete and correct. All materials and equipment used and all work performed during this reporting period are in compliance with the contract specifications and submittals, except as noted above.

Signature:

(Contractor's Authorized Representative)

## DAILY QUALITY CONTROL REPORT

Site Name and Location: Stanton Cleaners Site (LTRA) – Great Neck, NY

Client: ECC

Contract No: 5442-001-001

Contractor: Earth Tech, Inc.

Address: 7870 Villa Park Drive, Suite 400  
Richmond, Virginia 23228

Phone No.: (804) 515-8300

Date: 2/14/06

Earth Tech Project No.: 70536

Day	S	M	T	W	T	F	S
Weather			SUNNY				
Temp.			40°F				
Wind			NONE				
Humidity			50%				

Earth Tech Personnel On-Site: **Robert Derrick, Ryan Mentzer**

Subcontractor (include names & responsibilities): **N/A**

Contract Materials and Equipment on site: **Ford F 250, Chevy Blazer, sample vials, general sampling Supplies (tape, coolers, etc), bailers, Horiba, general hand tools**

Work Performed (include sampling; list by NAS number if applicable):

**Monthly system sampling**

**Weekly O and M inspection**

Quality Control Activities (including field calibrations): **Calibrated Horiba**

Health and Safety Levels and Activities: **Level D**

Problems Encountered/Correction Action Taken: **N/A**

Explain Developments Leading to Change in SOW or Finding of Fact: **N/A**

Preparatory Inspection (list all inspections by subject and specification location; attach minutes of meeting and list of all attendees): **N/A**

Have all required submittals and samples of construction been approved? **Yes**

Do the materials and equipment to be used conform to the submittals? **Yes**

Has all preliminary work been inspected, tested, and completed? **Yes**

Test required and inspection techniques to be executed to prove contract compliance (include both expected and actual results): **N/A**

## DAILY QUALITY CONTROL REPORT

Site Name and Location: Stanton Cleaners Site (LTRA) – Great Neck, NY

Client: ECC

Contract No: 5442-001-001

Contractor: Earth Tech, Inc.

Address: 7870 Villa Park Drive, Suite 400  
Richmond, Virginia 23228

Phone No.: (804) 515-8300

Date: 2/14/06

**Earth Tech Project No.: 70536**

Has a phase hazard analysis been performed? **Included in the Site Specific Health & Safety Plan**

Comments and deficiencies noted and corrective actions taken: **Explained in work performed section.**

Initial Inspection: List all inspections by subject and specification location. Comment and/or deficiencies noted and corrective actions taken.

**Explained in work performed section.**

Follow-up Inspection: List all inspections by subject and specification location. Comment and/or deficiencies noted and corrective actions taken.

Special Notes: **Samples were taken from wells EPA-MW-21 and ST-MW-19 using bailers. Five bailer-fulls were taken from the wells and then a sixth bailer full was sampled from. The actuator from 02 is broken. It appears that water dripped down into it, froze and caused its failure. The model number was taken down and Dave Miller will be emailed so a new one can be ordered. It will be installed the next time that Ryan or Chuck comes to the site.**

Tomorrow's Expectations:

**Bi weekly air monitoring**

**Weekly O and M inspection**

By: Robert Derrick

Title: Environmental Scientist

Signature: 

(Quality Control Representative/Manager)

The above report is complete and correct. All materials and equipment used and all work performed during this reporting period are in compliance with the contract specifications and submittals, except as noted above.

Signature: \_\_\_\_\_  
(Contractor's Authorized Representative)

## DAILY QUALITY CONTROL REPORT

Site Name and Location: Stanton Cleaners Site (LTRA) – Great Neck, NY

Client: ECC

Contract No: 5442-001-001

Contractor: Earth Tech, Inc.

Address: 7870 Villa Park Drive, Suite 400  
Richmond, Virginia 23228

Phone No.: (804) 515-8300

Date: 2/16/06

Earth Tech Project No.: 70536

Day	S	M	T	W	T	F	S
Weather					SUNNY		
Temp.					55°F		
Wind					NONE		
Humidity					60%		

Earth Tech Personnel On-Site: **Robert Derrick**

Subcontractor (include names & responsibilities): **N/A**

Contract Materials and Equipment on site: **Chevy Blazer, air pump, sample bag, MultiRae PID, VelociCalc pressure gauge, general hand tools**

Work Performed (include sampling; list by NAS number if applicable):

**Bi weekly air monitoring**

Quality Control Activities (including field calibrations): **Calibrated PID**

Health and Safety Levels and Activities: **Level D**

Problems Encountered/Correction Action Taken: **N/A**

Explain Developments Leading to Change in SOW or Finding of Fact: **N/A**

Preparatory Inspection (list all inspections by subject and specification location; attach minutes of meeting and list of all attendees): **N/A**

Have all required submittals and samples of construction been approved? **Yes**

Do the materials and equipment to be used conform to the submittals? **Yes**

Has all preliminary work been inspected, tested, and completed? **Yes**

Test required and inspection techniques to be executed to prove contract compliance (include both expected and actual results): **N/A**

Has a phase hazard analysis been performed? **Included in the Site Specific Health & Safety Plan**

## DAILY QUALITY CONTROL REPORT

Site Name and Location: Stanton Cleaners Site (LTRA) – Great Neck, NY

Client: ECC

Contract No: 5442-001-001

Contractor: Earth Tech, Inc.

Address: 7870 Villa Park Drive, Suite 400  
Richmond, Virginia 23228

Phone No.: (804) 515-8300

Date: 2/16/06

**Earth Tech Project No.: 70536**

Comments and deficiencies noted and corrective actions taken: **Explained in work performed section.**

Initial Inspection: List all inspections by subject and specification location. Comment and/or deficiencies noted and corrective actions taken.

**Explained in work performed section.**

Follow-up Inspection: List all inspections by subject and specification location. Comment and/or deficiencies noted and corrective actions taken.

Special Notes:

Tomorrow's Expectations:

**Quarterly indoor air sampling (late February)**

**Weekly O and M inspection**

By: Robert Derrick

Title: Environmental Scientist

Signature:



(Quality Control Representative/Manager)

The above report is complete and correct. All materials and equipment used and all work performed during this reporting period are in compliance with the contract specifications and submittals, except as noted above.

Signature:

(Contractor's Authorized Representative)

## DAILY QUALITY CONTROL REPORT

Site Name and Location: Stanton Cleaners Site (LTRA) – Great Neck, NY

Client: ECC

Contract No: 5442-001-001

Contractor: Earth Tech, Inc.

Address: 7870 Villa Park Drive, Suite 400  
Richmond, Virginia 23228

Phone No.: (804) 515-8300

Date: 2/20/06

Earth Tech Project No.: 70536

Day	S	M	T	W	T	F	S
Weather		SUNNY					
Temp.		35°F					
Wind		NONE					
Humidity		40%					

Earth Tech Personnel On-Site: **Robert Derrick, Frank Mahalski (NEIE)**

Subcontractor (include names & responsibilities): N/A

Contract Materials and Equipment on site: **Chevy Blazer, general hand tools**

Work Performed (include sampling; list by NAS number if applicable):

**Weekly O and M inspection**

Quality Control Activities (including field calibrations): N/A

Health and Safety Levels and Activities: **Level D**

Problems Encountered/Correction Action Taken: N/A

Explain Developments Leading to Change in SOW or Finding of Fact: N/A

Preparatory Inspection (list all inspections by subject and specification location; attach minutes of meeting and list of all attendees): N/A

Have all required submittals and samples of construction been approved? **Yes**

Do the materials and equipment to be used conform to the submittals? **Yes**

Has all preliminary work been inspected, tested, and completed? **Yes**

Test required and inspection techniques to be executed to prove contract compliance (include both expected and actual results): N/A

Has a phase hazard analysis been performed? **Included in the Site Specific Health & Safety Plan**

## DAILY QUALITY CONTROL REPORT

Site Name and Location: Stanton Cleaners Site (LTRA) – Great Neck, NY

Client: ECC

Contract No: 5442-001-001

Contractor: Earth Tech, Inc.

Address: 7870 Villa Park Drive, Suite 400

Richmond, Virginia 23228

Phone No.: (804) 515-8300

Date: 2/20/06

**Earth Tech Project No.: 70536**

Comments and deficiencies noted and corrective actions taken: **Explained in work performed section.**

Initial Inspection: List all inspections by subject and specification location. Comment and/or deficiencies noted and corrective actions taken.

**Explained in work performed section.**

Follow-up Inspection: List all inspections by subject and specification location. Comment and/or deficiencies noted and corrective actions taken.

Special Notes:

Tomorrow's Expectations:

**Bi weekly air monitoring**

**Weekly O and M inspection**

**Quarterly indoor air (Summa) sampling (Last week in February)**

By: Robert Derrick

Title: Environmental Scientist

Signature: 

(Quality Control Representative/Manager)

The above report is complete and correct. All materials and equipment used and all work performed during this reporting period are in compliance with the contract specifications and submittals, except as noted above.

Signature:

(Contractor's Authorized Representative)

## DAILY QUALITY CONTROL REPORT

Site Name and Location: Stanton Cleaners Site (LTRA) – Great Neck, NY

Client: ECC

Contract No: 5442-001-001

Contractor: Earth Tech, Inc.

Address: 7870 Villa Park Drive, Suite 400  
Richmond, Virginia 23228

Phone No.: (804) 515-8300

Date: 2/27/06

Earth Tech Project No.: 70536

Day	S	M	T	W	T	F	S
Weather		SUNNY					
Temp.		32°F					
Wind		10-15 MPH					
Humidity		23%					

Earth Tech Personnel On-Site: **James Kearns, Robert Derrick, Frank Mahalski**

Subcontractor (include names & responsibilities): **N/A**

Contract Materials and Equipment on site: **Chevy Blazer, Ford Explorer, MultiRae PID, VelociCalc, air pump, air sample bag, general hand tools**

Work Performed (include sampling; list by NAS number if applicable):

**Bi-weekly air monitoring  
O and M inspection**

Quality Control Activities (including field calibrations): **N/A**

Health and Safety Levels and Activities: **Level D**

Problems Encountered/Correction Action Taken: **N/A**

Explain Developments Leading to Change in SOW or Finding of Fact: **N/A**

Preparatory Inspection (list all inspections by subject and specification location; attach minutes of meeting and list of all attendees): **N/A**

Have all required submittals and samples of construction been approved? **Yes**

Do the materials and equipment to be used conform to the submittals? **Yes**

Has all preliminary work been inspected, tested, and completed? **Yes**

Test required and inspection techniques to be executed to prove contract compliance (include both expected and actual results): **N/A**

## DAILY QUALITY CONTROL REPORT

Site Name and Location: Stanton Cleaners Site (LTRA) – Great Neck, NY

Client: ECC

Contract No: 5442-001-001

Contractor: Earth Tech, Inc.

Address: 7870 Villa Park Drive, Suite 400  
Richmond, Virginia 23228

Phone No.: (804) 515-8300

Date: 2/27/06

Earth Tech Project No.: 70536

Has a phase hazard analysis been performed? **Included in the Site Specific Health & Safety Plan**

Comments and deficiencies noted and corrective actions taken: **Explained in work performed section.**

Initial Inspection: List all inspections by subject and specification location. Comment and/or deficiencies noted and corrective actions taken.

**Explained in work performed section.**

Follow-up Inspection: List all inspections by subject and specification location. Comment and/or deficiencies noted and corrective actions taken.

Special Notes:

**Drained SVE-1—some water came out but there was still almost no air flow at the sample ports (the line may be frozen). Some water was present at Post Air Stripper and GW Post Vapor Effluent sample ports**

Tomorrow's Expectations:

**Indoor air sampling (Summa) at LIHA, SHA and Stanton (Feb. 28 and March 1)**

**Monthly system sampling (March 7)**

**Weekly O and M inspection**

By: Robert Derrick

Title: Environmental Scientist

Signature: 

(Quality Control Representative/Manager)

The above report is complete and correct. All materials and equipment used and all work performed during this reporting period are in compliance with the contract specifications and submittals, except as noted above.

Signature:

(Contractor's Authorized Representative)

## **Appendix B**

### **Groundwater Treatment System Operation & Maintenance Checklists**

2/6/05

**STANTON CLEANERS AREA GROUNDWATER CONTAMINATION SITE OPERATION AND  
MAINTENANCE WEEKLY CHECKLIST**

1. A. Is any part of the system leaking?      YES     NO  
If so, list where. \_\_\_\_\_
- B. Is there water on the floor?      YES     NO  
If so, list where. \_\_\_\_\_
- C. Are all three (3) floor sump level switches in place?     YES      NO
- D. Is there any evidence of water in any of these floor sumps?      YES     NO  
Note: If water is present, remove with shop vac or paper towels.

2. A. Display screen on computer will either show system or screen saver. If screen saver is on, tap screen with finger to show screen. If only the desktop is showing with no system screen, click the *Lookout* – (*Stanton*) icon on the taskbar at the bottom of the screen.

B. From the site display, monitor and record the following.

1. Recovery Well EPA-EXT-02 flow<sup>1</sup>      \_\_\_\_\_ GPM
2. Recovery Well EPA-EXT-02 valve open \_\_\_\_\_ %
3. Recovery Well EPA-EXT-4R flow      \_\_\_\_\_ GPM
4. Recovery Well EPA-EXT-4R valve open \_\_\_\_\_ %
5. Recovery Well pH      \_\_\_\_\_ pH
6. Recovery Well conductivity      \_\_\_\_\_ cond
7. Air Stripper pH      \_\_\_\_\_ pH
8. Air Stripper temperature      \_\_\_\_\_ deg.
9. Air Stripper air flow      \_\_\_\_\_ CFM
10. Pre-vapor carbon pressure      \_\_\_\_\_ “wc
11. Post carbon air flow      \_\_\_\_\_ CFM
12. Discharge conductivity      \_\_\_\_\_ cond
13. Discharge pH      \_\_\_\_\_ pH
14. Discharge flow      \_\_\_\_\_ GPM
15. Discharge total gallons      \_\_\_\_\_ Gal
16. SVE inlet vacuum      \_\_\_\_\_ “Hg
17. SVE air flow      \_\_\_\_\_ CFM

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<sup>1</sup> Wells EPA-EXT-02 and MW-24 wells are manifold together in the field and are piped into the treatment building together. The EPA-EXT-02 water flow meter is therefore actually displaying and totalizing the output of both wells.

C. From the treatment room, monitor and record the following.

1. Recovery Well EPA-EXT-02 total flow \_\_\_\_\_ 10339100 \_\_\_\_\_ Gal
2. Recovery Well EPA-EXT-03 total flow \_\_\_\_\_ 10707800 \_\_\_\_\_ Gal
3. Recovery Well pH \_\_\_\_\_ 6.72 \_\_\_\_\_ pH
4. Recovery Well conductivity \_\_\_\_\_ 0.63 \_\_\_\_\_ cond
5. Air Stripper pH \_\_\_\_\_ 8.00 \_\_\_\_\_ pH
6. Air Stripper temperature \_\_\_\_\_ 14.9 \_\_\_\_\_ deg. F
7. Air Stripper Pump water flow \_\_\_\_\_ 72 \_\_\_\_\_ GPM
8. Air Stripper Pump pressure \_\_\_\_\_ 29 \_\_\_\_\_ PSI
9. Discharge conductivity \_\_\_\_\_ 1.13 \_\_\_\_\_ cond
10. Discharge pH \_\_\_\_\_ 8.18 \_\_\_\_\_ pH
11. SVE inlet vacuum (digital readout) \_\_\_\_\_ 01.6 \_\_\_\_\_ "Hg
12. SVE inlet vacuum \_\_\_\_\_ 2.8 \_\_\_\_\_ "Hg
13. SVE post knockout vacuum \_\_\_\_\_ 2.0 \_\_\_\_\_ "Hg

3. A. If time allows, check to see that the treatment system is cycling properly as described in [STANTON CLEANERS AREA GROUNDWATER CONTAMINATION SITE O&M MANUAL](#)

2/14/05

**STANTON CLEANERS AREA GROUNDWATER CONTAMINATION SITE OPERATION AND MAINTENANCE WEEKLY CHECKLIST**

1. A. Is any part of the system leaking?      YES     NO  
If so, list where. \_\_\_\_\_
- B. Is there water on the floor?      YES     NO  
If so, list where. \_\_\_\_\_
- C. Are all three (3) floor sump level switches in place?     YES      NO
- D. Is there any evidence of water in any of these floor sumps?      YES     NO  
Note: If water is present, remove with shop vac or paper towels.

2. A. Display screen on computer will either show system or screen saver. If screen saver is on, tap screen with finger to show screen. If only the desktop is showing with no system screen, click the *Lookout* – (Stanton) icon on the taskbar at the bottom of the screen.

B. From the site display, monitor and record the following.

**Currently MW-24 and EPA-EXT-02 are on**

1. Recovery Well EPA-EXT-02 flow<sup>1</sup>      \_\_\_\_\_ 60 \_\_\_\_\_ GPM
2. Recovery Well EPA-EXT-02 valve open      \_\_\_\_\_ 100 \_\_\_\_\_ %
3. Recovery Well EPA-EXT-4R flow      \_\_\_\_\_ GPM
4. Recovery Well EPA-EXT-4R valve open      \_\_\_\_\_ %
5. Recovery Well pH      \_\_\_\_\_ 6.8 \_\_\_\_\_ pH
6. Recovery Well conductivity      \_\_\_\_\_ 64 \_\_\_\_\_ cond
7. Air Stripper pH      \_\_\_\_\_ 8.0 \_\_\_\_\_ pH
8. Air Stripper temperature      \_\_\_\_\_ 151 \_\_\_\_\_ deg.
9. Air Stripper air flow      \_\_\_\_\_ 510 \_\_\_\_\_ CFM
10. Pre-vapor carbon pressure      \_\_\_\_\_ 0 \_\_\_\_\_ "wc
11. Post carbon air flow      \_\_\_\_\_ 2905 \_\_\_\_\_ CFM
12. Discharge conductivity      \_\_\_\_\_ 122 \_\_\_\_\_ cond
13. Discharge pH      \_\_\_\_\_ 8.2 \_\_\_\_\_ pH
14. Discharge flow      \_\_\_\_\_ 72 \_\_\_\_\_ GPM
15. Discharge total gallons      \_\_\_\_\_ 117,659,901 \_\_\_\_\_ Gal
16. SVE inlet vacuum      \_\_\_\_\_ 2 \_\_\_\_\_ "Hg

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<sup>1</sup> Wells EPA-EXT-02 and MW-24 wells are manifold together in the field and are piped into the treatment building together. The EPA-EXT-02 water flow meter is therefore actually displaying and totalizing the output of both wells.

17. SVE air flow \_\_\_\_\_80\_\_\_\_\_ CFM

C. From the treatment room, monitor and record the following.

1. Recovery Well EPA-EXT-02 total flow 10487000\_\_\_\_\_ Gal

2. Recovery Well EPA-EXT-03 total flow \_\_\_\_\_ Gal

3. Recovery Well pH \_\_\_\_\_6.71\_\_\_\_\_ pH

4. Recovery Well conductivity \_\_\_\_\_.64\_\_\_\_\_ cond

5. Air Stripper pH \_\_\_\_\_7.95\_\_\_\_\_ pH

6. Air Stripper temperature \_\_\_\_\_14.9\_\_\_\_\_ deg. F

7. Air Stripper Pump water flow \_\_\_\_\_70\_\_\_\_\_ GPM

8. Air Stripper Pump pressure \_\_\_\_\_29\_\_\_\_\_ PSI

9. Discharge conductivity \_\_\_\_\_1.14\_\_\_\_\_ cond

10. Discharge pH \_\_\_\_\_8.16\_\_\_\_\_ pH

11. SVE inlet vacuum (digital readout) \_\_\_\_\_1.7\_\_\_\_\_ "Hg

12. SVE inlet vacuum \_\_\_\_\_-2.8\_\_\_\_\_ "Hg

13. SVE post knockout vacuum \_\_\_\_\_1\_\_\_\_\_ "Hg

3. A. If time allows, check to see that the treatment system is cycling properly as described in [STANTON CLEANERS AREA GROUNDWATER CONTAMINATION SITE O&M MANUAL](#)

2/20/05

**STANTON CLEANERS AREA GROUNDWATER CONTAMINATION SITE OPERATION AND  
MAINTENANCE WEEKLY CHECKLIST**

1.     A. Is any part of the system leaking?     YES   √NO  
       If so, list where. \_\_\_\_\_
- B. Is there water on the floor?     YES   √NO  
       If so, list where. \_\_\_\_\_
- C. Are all three (3) floor sump level switches in place?   √YES     NO
- D. Is there any evidence of water in any of these floor sumps?   YES    √NO  
       Note: If water is present, remove with shop vac or paper towels.

2.     A. Display screen on computer will either show system or screen saver. If screen saver is on, tap screen with finger to show screen. If only the desktop is showing with no system screen, click the *Lookout* – (*Stanton*) icon on the taskbar at the bottom of the screen.

       B. From the site display, monitor and record the following.

**Currently MW-24 and EPA-EXT-02 are on**

1. Recovery Well EPA-EXT-02 flow<sup>1</sup>     \_\_\_\_\_ 60 \_\_\_\_\_ GPM
2. Recovery Well EPA-EXT-02 valve open   \_\_\_\_\_ 100 \_\_\_\_\_ %
3. Recovery Well EPA-EXT-4R flow         \_\_\_\_\_ GPM
4. Recovery Well EPA-EXT-4R valve open   \_\_\_\_\_ %
5. Recovery Well pH                     \_\_\_\_\_ 6.8 \_\_\_\_\_ pH
6. Recovery Well conductivity            \_\_\_\_\_ 63 \_\_\_\_\_ cond
7. Air Stripper pH                        \_\_\_\_\_ 8.0 \_\_\_\_\_ pH
8. Air Stripper temperature             \_\_\_\_\_ 151 \_\_\_\_\_ deg.
9. Air Stripper air flow                 \_\_\_\_\_ 445 \_\_\_\_\_ CFM
10. Pre-vapor carbon pressure            \_\_\_\_\_ 0 \_\_\_\_\_ “wc
11. Post carbon air flow                 \_\_\_\_\_ 2599 \_\_\_\_\_ CFM
12. Discharge conductivity              \_\_\_\_\_ 122 \_\_\_\_\_ cond
13. Discharge pH                         \_\_\_\_\_ 8.2 \_\_\_\_\_ pH
14. Discharge flow                        \_\_\_\_\_ 66 \_\_\_\_\_ GPM
15. Discharge total gallons             \_\_\_\_\_ 118,222,500 \_\_\_\_\_ Gal
16. SVE inlet vacuum                    \_\_\_\_\_ 2 \_\_\_\_\_ “Hg
17. SVE air flow                         \_\_\_\_\_ 147 \_\_\_\_\_ CFM

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<sup>1</sup> Wells EPA-EXT-02 and MW-24 wells are manifold together in the field and are piped into the treatment building together. The EPA-EXT-02 water flow meter is therefore actually displaying and totalizing the output of both wells.

C. From the treatment room, monitor and record the following.

1. Recovery Well EPA-EXT-02 total flow \_\_\_\_\_ 1,156,800 \_\_\_\_\_ Gal
2. Recovery Well EPA-EXT-03 total flow \_\_\_\_\_ \_\_\_\_ Gal
3. Recovery Well pH \_\_\_\_\_ 6.72 \_\_\_\_\_ pH
4. Recovery Well conductivity \_\_\_\_\_ 0.64 \_\_\_\_\_ cond
5. Air Stripper pH \_\_\_\_\_ 7.96 \_\_\_\_\_ pH
6. Air Stripper temperature \_\_\_\_\_ 14.9 \_\_\_\_\_ deg. F
7. Air Stripper Pump water flow \_\_\_\_\_ 70 \_\_\_\_\_ GPM
8. Air Stripper Pump pressure \_\_\_\_\_ 30 \_\_\_\_\_ PSI
9. Discharge conductivity \_\_\_\_\_ 1.14 \_\_\_\_\_ cond
10. Discharge pH \_\_\_\_\_ 8.17 \_\_\_\_\_ pH
11. SVE inlet vacuum (digital readout) \_\_\_\_\_ 01.7 \_\_\_\_\_ "Hg
12. SVE inlet vacuum \_\_\_\_\_ 2.75 \_\_\_\_\_ "Hg
13. SVE post knockout vacuum \_\_\_\_\_ 1.5 \_\_\_\_\_ "Hg

3. A. If time allows, check to see that the treatment system is cycling properly as described in [STANTON CLEANERS AREA GROUNDWATER CONTAMINATION SITE O&M MANUAL](#)

2/27/05

**STANTON CLEANERS AREA GROUNDWATER CONTAMINATION SITE OPERATION AND MAINTENANCE WEEKLY CHECKLIST**

1. A. Is any part of the system leaking?      YES     NO  
If so, list where. \_\_\_\_\_
- B. Is there water on the floor?      YES     NO  
If so, list where. \_\_\_\_\_
- C. Are all three (3) floor sump level switches in place?     YES      NO
- D. Is there any evidence of water in any of these floor sumps?      YES     NO  
Note: If water is present, remove with shop vac or paper towels.

2. A. Display screen on computer will either show system or screen saver. If screen saver is on, tap screen with finger to show screen. If only the desktop is showing with no system screen, click the *Lookout* – (*Stanton*) icon on the taskbar at the bottom of the screen.

B. From the site display, monitor and record the following.

**Currently MW-24 and EPA-EXT-02 are on**

1. Recovery Well EPA-EXT-02 flow<sup>1</sup>      \_\_\_\_\_ 63 \_\_\_\_\_ GPM
2. Recovery Well EPA-EXT-02 valve open      \_\_\_\_\_ 100 \_\_\_\_\_ %
3. Recovery Well EPA-EXT-4R flow      \_\_\_\_\_ GPM
4. Recovery Well EPA-EXT-4R valve open      \_\_\_\_\_ %
5. Recovery Well pH      \_\_\_\_\_ 6.8 \_\_\_\_\_ pH
6. Recovery Well conductivity      \_\_\_\_\_ 68 \_\_\_\_\_ cond
7. Air Stripper pH      \_\_\_\_\_ 8.0 \_\_\_\_\_ pH
8. Air Stripper temperature      \_\_\_\_\_ 150 \_\_\_\_\_ deg.
9. Air Stripper air flow      \_\_\_\_\_ 476 \_\_\_\_\_ CFM
10. Pre-vapor carbon pressure      \_\_\_\_\_ 0 \_\_\_\_\_ "wc
11. Post carbon air flow      \_\_\_\_\_ 3013 \_\_\_\_\_ CFM
12. Discharge conductivity      \_\_\_\_\_ 126 \_\_\_\_\_ cond
13. Discharge pH      \_\_\_\_\_ 8.3 \_\_\_\_\_ pH
14. Discharge flow      \_\_\_\_\_ 60 \_\_\_\_\_ GPM
15. Discharge total gallons      \_\_\_\_\_ 118,877,613 \_\_\_\_\_ Gal
16. SVE inlet vacuum      \_\_\_\_\_ 2 \_\_\_\_\_ "Hg
17. SVE air flow      \_\_\_\_\_ 500 \_\_\_\_\_ CFM

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<sup>1</sup> Wells EPA-EXT-02 and MW-24 wells are manifold together in the field and are piped into the treatment building together. The EPA-EXT-02 water flow meter is therefore actually displaying and totalizing the output of both wells.

C. From the treatment room, monitor and record the following.

1. Recovery Well EPA-EXT-02 total flow \_\_\_\_\_ 2,170,200 \_\_\_\_\_ Gal
2. Recovery Well EPA-EXT-03 total flow \_\_\_\_\_ \_\_\_\_ Gal
3. Recovery Well pH \_\_\_\_\_ 6.71 \_\_\_\_\_ pH
4. Recovery Well conductivity \_\_\_\_\_ 0.64 \_\_\_\_\_ cond
5. Air Stripper pH \_\_\_\_\_ 7.93 \_\_\_\_\_ pH
6. Air Stripper temperature \_\_\_\_\_ 14.8 \_\_\_\_\_ deg. F
7. Air Stripper Pump water flow \_\_\_\_\_ 70 \_\_\_\_\_ GPM
8. Air Stripper Pump pressure \_\_\_\_\_ 29 \_\_\_\_\_ PSI
9. Discharge conductivity \_\_\_\_\_ 1.13 \_\_\_\_\_ cond
10. Discharge pH \_\_\_\_\_ 8.17 \_\_\_\_\_ pH
11. SVE inlet vacuum (digital readout) \_\_\_\_\_ 01.7 \_\_\_\_\_ "Hg
12. SVE inlet vacuum \_\_\_\_\_ 2.75 \_\_\_\_\_ "Hg
13. SVE post knockout vacuum \_\_\_\_\_ 1 \_\_\_\_\_ "Hg

3. A. If time allows, check to see that the treatment system is cycling properly as described in [STANTON CLEANERS AREA GROUNDWATER CONTAMINATION SITE O&M MANUAL](#)

## **Appendix C**

### **Groundwater Treatment System Downloaded Operational Data**

Stanton Cleaners Groundwater Contamination Site - February 2006 - Site Operation Data

	Recovery Well 1	Recovery Well 2	Recovery Well 3	Discharge	Discharge	Influent water	Influent conductivity	Effluent conductivity	Influent water	Air Stripper water	Discharge water	Total gallons discharged	Air Stripper Air Flow	Combined Discharge Air Flow	SVE Air Flow
	Flow (GPM)	Flow (GPM)	Flow (GPM)	Flow (GPM)	Flow (CFM)	Temperature (deg F)			pH	pH	pH				
2/1/2006 0:00	15	0	42	69	2861	151	59	114	6.8	8	8.2	116446173	556	2861	71
2/1/2006 4:00	16	0	40	69	2863	151	60	115	6.8	8	8.2	116460363.4	373	2863	500
2/1/2006 8:00	15	0	40	70	2599	151	59	115	6.8	8	8.2	116474821.9	442	2599	500
2/1/2006 12:00	15	0	41	7	2870	151	59	114	6.8	8	8.2	116489224.6	449	2870	72
2/1/2006 16:00	8	0	60	68	2863	152	62	119	6.8	8	8.2	116503950.9	468	2863	203
2/1/2006 20:00	0	0	61	70	2774	151	63	122	6.8	8	8.2	116519411.6	440	2774	318
2/2/2006 0:00	0	0	60	68	2907	151	63	122	6.8	8	8.2	116535217	449	2907	500
2/2/2006 4:00	0	0	62	67	2990	151	63	123	6.8	8	8.2	116550826.5	460	2990	500
2/2/2006 8:00	0	0	61	72	2836	152	64	123	6.8	8	8.2	116566635.4	356	2836	89
2/2/2006 12:00	0	0	62	69	2774	152	63	124	6.8	8	8.2	116582203.8	435	2774	77
2/2/2006 16:00	0	0	60	69	2788	152	63	123	6.8	8	8.2	116597993	423	2788	89
2/2/2006 20:00	0	0	63	68	2673	152	63	124	6.8	8	8.2	116613540.6	428	2673	123
2/3/2006 0:00	0	0	61	71	2742	153	63	124	6.8	8	8.2	116629334.8	388	2742	92
2/3/2006 4:00	0	0	62	71	2744	153	63	125	6.8	8	8.2	116644895.4	453	2744	72
2/3/2006 8:00	0	0	62	71	2551	154	63	126	6.8	8	8.2	116660707.4	454	2551	78
2/3/2006 12:00	0	0	61	69	2744	154	63	126	6.8	8	8.2	116676279.6	364	2744	110
2/3/2006 16:00	0	0	59	68	2546	154	63	126	6.8	8	8.2	116692080.4	388	2546	78
2/3/2006 20:00	0	0	61	68	2601	153	62	125	6.8	8	8.2	116707902.8	382	2601	84
2/4/2006 0:00	0	0	62	72	2774	152	63	124	6.8	8	8.2	116723467.9	407	2774	84
2/4/2006 4:00	0	0	63	71	2774	152	63	124	6.8	8	8.2	116739272	454	2774	78
2/4/2006 8:00	0	0	60	71	2546	152	63	125	6.8	8	8.2	116754831.8	452	2546	84
2/4/2006 12:00	0	0	61	67	2909	153	63	125	6.8	8	8.2	116770640.5	440	2909	119
2/4/2006 16:00	0	0	62	0	2693	153	63	125	6.8	8	8.2	116786251.9	415	2693	90
2/4/2006 20:00	0	0	62	67	2548	153	63	125	6.8	8	8.2	116801964.7	404	2548	86
2/5/2006 0:00	0	0	64	68	2601	155	63	127	6.8	8	8.2	116817734.1	378	2601	89
2/5/2006 4:00	0	0	60	68	2601	154	63	126	6.8	8	8.2	116833287.3	415	2601	83
2/5/2006 8:00	0	0	62	69	2742	152	63	123	6.8	8	8.2	116849069.7	434	2742	71
2/5/2006 12:00	0	0	62	67	2544	152	63	123	6.8	8	8.2	116864849.6	440	2544	84
2/5/2006 16:00	0	0	63	69	2551	152	63	123	6.8	8	8.2	116880600.9	402	2551	85
2/5/2006 20:00	0	0	63	70	2601	151	63	122	6.8	8	8.2	116896125	386	2601	76
2/6/2006 0:00	0	0	60	72	2863	151	64	123	6.8	8	8.2	116911885.9	438	2863	82
2/6/2006 4:00	0	0	61	68	2861	151	65	124	6.8	8.1	8.3	116919833.9	449	2861	194
2/6/2006 8:00	0	0	61	68	2774	152	67	126	6.8	8.1	8.3	116935338.5	445	2774	88
2/7/2006 0:00	0	0	63	69	2691	151	71	130	6.9	8.2	8.4	116951082.3	480	2691	87
2/7/2006 4:00	0	0	61	68	2781	151	76	135	7	8.3	8.5	116966845.5	463	2781	82
2/7/2006 8:00	0	0	61	71	2859	152	77	136	7	8.3	8.5	116982361.8	429	2859	87
2/7/2006 12:00	0	0	61	68	2907	152	70	128	6.9	8.1	8.3	116998127.3	442	2907	113
2/7/2006 16:00	0	0	62	67	2737	151	64	124	6.8	8	8.2	117013868.2	524	2737	87
2/7/2006 20:00	0	0	60	68	2755	151	66	125	6.8	8.1	8.3	117029402.3	457	2755	81
2/8/2006 0:00	0	0	63	69	2700	151	65	123	6.8	8	8.2	117045153.2	495	2700	82
2/8/2006 4:00	0	0	63	2	2776	150	65	123	6.8	8	8.2	117060843.1	488	2776	71
2/8/2006 8:00	0	0	61	67	2990	150	66	123	6.8	8	8.2	117076462.2	464	2990	92
2/8/2006 12:00	0	0	63	68	2774	151	64	123	6.8	8	8.2	117092235.1	556	2774	489
2/8/2006 16:00	0	0	60	68	2928	151	63	121	6.8	8	8.2	117108028.7	413	2928	83
2/8/2006 20:00	0	0	62	72	2907	150	63	121	6.8	8	8.2	117123544	478	2907	500
2/9/2006 0:00	0	0	63	71	2907	150	66	122	6.8	8	8.2	117139339.8	535	2907	68
2/9/2006 4:00	0	0	63	69	2859	150	66	123	6.8	8	8.3	117155109.7	474	2859	72

2/9/2006 8:00	0	0	62	68	2859	150	66	123	6.8	8.1	8.3	117170662.1	394	2859	500
2/9/2006 12:00	0	0	63	67	2859	150	66	124	6.8	8	8.3	117186462.7	503	2859	500
2/9/2006 16:00	0	0	60	68	2907	150	63	121	6.8	8	8.2	117202004.1	500	2907	500
2/9/2006 20:00	0	0	59	69	2691	150	64	122	6.8	8	8.2	117217802.4	462	2691	83
2/10/2006 0:00	0	0	62	69	2988	150	66	124	6.8	8	8.3	117233598.8	545	2988	195
2/10/2006 4:00	0	0	61	70	2907	150	66	124	6.8	8.1	8.3	117249172.8	403	2907	500
2/10/2006 8:00	0	0	61	69	2861	150	66	125	6.8	8	8.3	117264978.5	490	2861	500
2/10/2006 12:00	0	0	62	70	2907	151	67	126	6.8	8	8.3	117280564.7	423	2907	500
2/10/2006 16:00	0	0	62	67	2691	151	65	123	6.8	8	8.2	117296387.7	423	2691	500
2/10/2006 20:00	0	0	61	68	2907	151	66	124	6.8	8	8.2	117311959.4	440	2907	500
2/11/2006 0:00	0	0	62	69	2861	151	67	124	6.8	8	8.2	117327772.5	420	2861	87
2/11/2006 4:00	0	0	62	70	2691	151	67	126	6.8	8	8.2	117343346.7	458	2691	82
2/11/2006 8:00	0	0	0	0	20	152	71	131	6.9	8.1	8.3	117351277.2	19	20	45
2/11/2006 12:00	0	0	60	68	2990	151	67	125	6.8	8	8.2	117360370.7	481	2990	87
2/11/2006 16:00	0	0	62	68	2829	151	65	125	6.8	8	8.2	117375919.8	419	2829	82
2/11/2006 20:00	0	0	62	68	2861	151	66	125	6.8	8	8.2	117391729.5	473	2861	77
2/12/2006 0:00	0	0	62	69	2691	151	66	125	6.8	8.1	8.3	117407302	469	2691	83
2/12/2006 4:00	0	0	62	70	2857	150	67	125	6.8	8.1	8.3	117423118.4	362	2857	98
2/12/2006 8:00	0	0	62	67	2771	151	68	126	6.8	8.1	8.3	117438908.1	459	2771	450
2/12/2006 12:00	0	0	60	70	2689	151	69	126	6.9	8.1	8.3	117454730.5	368	2689	89
2/12/2006 16:00	0	0	63	72	2928	151	68	126	6.8	8.1	8.3	117470514.4	418	2928	500
2/12/2006 20:00	0	0	64	71	2599	150	67	125	6.8	8.1	8.3	117486099.2	363	2599	139
2/13/2006 0:00	0	0	63	71	2861	150	67	124	6.8	8.1	8.3	117501927.2	389	2861	221
2/13/2006 4:00	0	0	62	67	2928	150	67	124	6.8	8.1	8.3	117517744.6	394	2928	500
2/13/2006 8:00	0	0	62	69	2990	150	67	124	6.8	8	8.3	117533312.2	403	2990	87
2/13/2006 12:00	0	0	61	70	2691	151	66	125	6.8	8	8.3	117549105.7	386	2691	87
2/13/2006 16:00	0	0	62	69	2907	151	64	123	6.8	8	8.2	117564932.5	500	2907	124
2/13/2006 20:00	0	0	62	67	2783	151	65	124	6.8	8	8.3	117580733.6	417	2783	77
2/14/2006 0:00	0	0	62	67	2928	151	68	126	6.8	8.1	8.3	117596282.7	498	2928	89
2/14/2006 4:00	0	0	61	68	2988	151	71	129	6.9	8.1	8.3	117612088.2	485	2988	77
2/14/2006 8:00	0	0	64	69	2988	151	75	134	7	8.2	8.4	117627894.9	535	2988	83
2/14/2006 12:00	0	0	61	67	2691	151	67	126	6.8	8	8.3	117643701.1	506	2691	79
2/14/2006 16:00	0	0	62	70	2599	151	63	122	6.8	8	8.2	117659260.3	549	2599	77
2/14/2006 20:00	0	0	60	72	2776	151	66	126	6.8	8	8.2	117675068.9	499	2776	85
2/15/2006 0:00	0	0	63	71	2928	151	66	126	6.9	8.1	8.3	117690854.7	493	2928	85
2/15/2006 4:00	0	0	61	69	2774	151	67	127	6.9	8.1	8.3	117706389.9	531	2774	172
2/15/2006 8:00	0	0	63	70	2928	151	67	127	6.9	8	8.3	117722162.8	498	2928	93
2/15/2006 12:00	0	0	59	67	2774	152	66	128	6.9	8	8.2	117737939.1	402	2774	91
2/15/2006 16:00	0	0	61	0	2691	152	64	125	6.8	8	8.2	117753600.2	472	2691	82
2/15/2006 20:00	0	0	61	70	2861	152	64	124	6.8	8	8.2	117769231.6	454	2861	85
2/16/2006 0:00	0	0	60	68	2909	151	64	124	6.8	8	8.2	117784968.7	401	2909	83

2/16/2006 4:00	0	0	63	67	2863	151	66	125	6.8	8	8.2	117800712.5	457	2863	231
2/16/2006 8:00	0	0	62	70	2907	152	66	127	6.8	8	8.2	117816470.9	452	2907	279
2/16/2006 12:00	0	0	60	67	2691	153	63	126	6.8	8	8.2	117831952.3	470	2691	87
2/16/2006 16:00	0	0	61	69	2868	153	62	125	6.8	8	8.2	117847698.1	433	2868	97
2/16/2006 20:00	0	0	61	67	2691	152	63	125	6.8	8	8.2	117863355.5	452	2691	98
2/17/2006 0:00	0	0	61	71	2739	153	64	126	6.8	8	8.2	117879050.8	440	2739	87
2/17/2006 4:00	0	0	60	72	2691	153	65	126	6.8	8	8.2	117894765.5	445	2691	77
2/17/2006 8:00	0	0	61	71	2771	153	65	127	6.8	8	8.2	117910468.5	470	2771	78
2/17/2006 12:00	0	0	63	69	2689	153	64	127	6.8	8.1	8.2	117926180.9	437	2689	84

2/17/2006 16:00	0	0	61	68	2691	152	63	123	6.8	8	8.2	117941884.9	391	2691	83
2/17/2006 20:00	0	0	63	71	2544	151	64	123	6.8	8	8.2	117957380.8	462	2544	71
2/18/2006 00:00	0	0	64	68	2735	150	66	124	6.8	8.1	8.3	117973067.9	464	2735	80
2/18/2006 4:00	0	0	60	68	2905	151	67	125	6.8	8.1	8.3	117987109.6	419	2905	80
2/18/2006 8:00	0	0	59	67	2928	151	67	125	6.8	8.1	8.3	118002849.2	429	2928	334
2/18/2006 12:00	0	0	61	68	2774	151	67	126	6.8	8.1	8.3	118018565.1	483	2774	83
2/18/2006 16:00	0	0	61	69	2771	150	67	124	6.8	8.1	8.3	118034292.8	479	2771	88
2/18/2006 20:00	0	0	61	68	2988	149	68	123	6.8	8.1	8.3	118050019.7	506	2988	72
2/19/2006 0:00	0	0	61	70	3222	149	75	131	6.9	8.2	8.4	118065749.5	480	3222	500
2/19/2006 4:00	0	0	62	68	2988	149	77	133	7	8.2	8.5	118081501.3	428	2988	66
2/19/2006 8:00	0	0	60	69	2898	150	80	137	7	8.3	8.5	118097231.7	500	2898	71
2/19/2006 12:00	0	0	60	67	2990	150	74	132	6.9	8.2	8.4	118112982.7	417	2990	88
2/19/2006 16:00	0	0	61	71	2928	150	65	123	6.8	8	8.2	118128718.9	458	2928	83
2/19/2006 20:00	0	0	59	68	2774	150	66	124	6.8	8	8.3	118144433.3	363	2774	78
2/20/2006 0:00	0	0	62	4	2930	150	67	124	6.8	8	8.3	118160101.1	427	2930	94
2/20/2006 4:00	0	0	60	0	2859	150	69	126	6.9	8.1	8.3	118175754.9	349	2859	500
2/20/2006 8:00	0	0	60	67	3146	150	67	125	6.8	8	8.3	118191640	460	3146	82
2/20/2006 12:00	0	0	62	1	2907	150	67	125	6.8	8	8.3	118207301.8	525	2907	83
2/20/2006 16:00	0	0	60	72	2990	150	63	122	6.8	8	8.2	118222841.4	481	2990	286
2/20/2006 20:00	0	0	59	71	2691	150	66	124	6.8	8	8.2	118238573.4	427	2691	87
2/21/2006 0:00	0	0	63	70	2861	150	69	127	6.9	8	8.3	118254283.4	447	2861	86
2/21/2006 4:00	0	0	59	69	3036	151	77	136	7	8.2	8.4	118270036.9	361	3036	500
2/21/2006 8:00	0	0	61	71	2774	151	78	137	7	8.2	8.4	118285770.4	423	2774	242
2/21/2006 12:00	0	0	61	68	2758	151	68	127	6.9	8.1	8.3	118301482.8	432	2758	78
2/21/2006 16:00	0	0	61	0	2907	151	63	123	6.8	8	8.2	118317253.5	432	2907	83
2/21/2006 20:00	0	0	60	71	2990	151	65	123	6.8	8	8.2	118333044.6	449	2990	79
2/22/2006 0:00	0	0	62	68	2546	151	66	125	6.8	8	8.3	118348727.7	415	2546	114
2/22/2006 4:00	0	0	61	71	2771	150	67	125	6.8	8	8.3	118364419.9	549	2771	92
2/22/2006 8:00	0	0	60	68	2928	151	67	125	6.8	8	8.2	118380113.1	449	2928	500
2/22/2006 12:00	0	0	61	0	2599	151	64	125	6.8	8	8.2	118395635	420	2599	207
2/22/2006 16:00	0	0	61	67	2863	151	63	124	6.8	8	8.2	118411264.9	464	2863	77
2/22/2006 20:00	0	0	61	70	2863	151	64	124	6.8	8	8.2	118426957.1	520	2863	72
2/23/2006 0:00	0	0	60	71	2774	151	64	125	6.8	8	8.2	118442651.9	439	2774	119
2/23/2006 4:00	0	0	61	69	2909	152	65	125	6.8	8	8.2	118458325.9	470	2909	242
2/23/2006 8:00	0	0	61	68	2751	152	64	124	6.8	8	8.2	118474242.9	449	2751	167
2/23/2006 12:00	0	0	62	68	2601	152	64	125	6.8	8	8.2	118489885.6	414	2601	89
2/23/2006 16:00	0	0	62	69	2693	152	63	124	6.8	8	8.2	118505567.8	439	2693	87
2/23/2006 20:00	0	0	62	66	2983	151	63	123	6.8	8	8.2	118521222	454	2983	500
2/24/2006 0:00	0	0	61	68	2755	151	65	126	6.8	8	8.2	118536879.4	409	2755	142
2/24/2006 4:00	0	0	62	70	2861	151	67	126	6.8	8	8.3	118552520.1	459	2861	90
2/24/2006 8:00	0	0	60	67	2907	151	67	126	6.8	8	8.3	118568210.7	437	2907	500
2/24/2006 12:00	0	0	61	68	2691	151	68	126	6.8	8.1	8.3	118583907.1	494	2691	500
2/24/2006 16:00	0	0	60	69	2907	150	66	126	6.8	8	8.3	118599575.9	513	2907	500
2/24/2006 20:00	0	0	59	66	2990	150	68	126	6.8	8	8.3	118615250.3	443	2990	500
2/25/2006 0:00	0	0	62	68	2907	150	68	125	6.8	8	8.3	118630919.7	489	2907	500
2/25/2006 4:00	0	0	63	69	2907	150	67	126	6.8	8	8.3	118646624.8	377	2907	500
2/25/2006 8:00	0	0	61	68	2447	150	68	126	6.9	8	8.3	118662290.6	417	2447	500
2/25/2006 12:00	0	0	61	67	2909	152	69	128	6.9	8.1	8.3	118677906.8	427	2909	500
2/25/2006 16:00	0	0	61	67	2546	152	67	127	6.9	8	8.3	118693534	442	2546	500
2/25/2006 20:00	0	0	60	0	2930	151	67	126	6.9	8.1	8.3	118709172.5	419	2930	500
2/26/2006 0:00	0	0	61	68	3146	150	68	126	6.8	8.1	8.3	118725056.3	407	3146	500

2/26/2006 4:00	0	0	61	70	2905	150	74	131	7	8.2	8.4	118740740.9	437	2905	500
2/26/2006 8:00	0	0	62	67	2928	150	74	131	6.9	8.2	8.4	118756399.3	498	2928	363
2/26/2006 12:00	0	0	63	68	2905	150	74	132	6.9	8.1	8.4	118772096.3	472	2905	100
2/26/2006 16:00	0	0	60	67	2732	150	67	125	6.8	8	8.3	118787752	433	2732	238
2/26/2006 20:00	0	0	63	66	2689	149	72	128	6.9	8.1	8.4	118803411	494	2689	500
2/27/2006 0:00	0	0	61	70	2928	149	74	132	6.9	8.1	8.4	118819088.4	479	2928	500
2/27/2006 4:00	0	0	61	66	2990	150	76	132	7	8.1	8.4	118834992.6	534	2990	500
2/27/2006 8:00	0	0	60	71	2907	150	73	130	6.9	8.1	8.4	118850660	484	2907	500
2/27/2006 12:00	0	0	62	68	2907	150	73	129	6.9	8.1	8.4	118866341.8	538	2907	500
2/27/2006 16:00	0	0	60	71	2907	150	67	126	6.8	8	8.3	118882014.4	491	2907	500
2/27/2006 20:00	0	0	61	68	2774	150	71	129	6.9	8.1	8.4	118897670	452	2774	500
2/28/2006 0:00	0	0	60	67	2714	150	79	138	7.1	8.2	8.5	118913340.8	468	2714	500
2/28/2006 4:00	0	0	60	68	2774	151	79	139	7.1	8.2	8.5	118929018.5	433	2774	500
2/28/2006 8:00	0	0	61	68	2691	150	78	136	7	8.2	8.5	118944687.2	448	2691	500
2/28/2006 12:00	0	0	63	71	2735	150	67	125	6.8	8	8.3	118960375.7	476	2735	500
2/28/2006 16:00	0	0	62	68	3041	150	65	124	6.8	8	8.2	118976039.4	475	3041	500
2/28/2006 20:00	0	0	61	67	2794	150	67	125	6.8	8	8.3	118991710.1	444	2794	500

**Appendix D**  
**Sampling Trip Reports**

### SAMPLING TRIP REPORT

**Site Name:** STANTON CLEANERS AREA GROUNDWATER CONTAMINATION SITE

**CERCLIS ID Number:** NYD047650197

**Sampling Dates:** February 14, 2006

**CLP Case Number:** N/A

**Site Location:** 110 Cutter Mill Road, Great Neck, New York, 11021

**Sample Descriptions:** Groundwater Treatment System Influent / Effluent.

#### Laboratories Receiving Samples (Table 1):

Case Number	Sample Type	Name and Address of Laboratory
N/A	TCL-VOAs OLC03.2	John Birri USEPA Region II DESA LAB Building 209 MS-230 2890 Woodbridge Avenue Edison, N.J. 08837

#### Sample Dispatch Data (Table 2):

On February 14, 2006, a total of six (6) groundwater samples, including one (1) duplicate sample and one (1) trip blank were shipped to the U.S. Environmental Protection Agency Region II Lab (USEPA) for TCL-VOAs analysis.

FedEx Air Bill No.	Number of Coolers	Number and Type of Samples	Time and Date of Shipping
855367811050	1	Total of 6 Aqueous Samples to include 1 duplicate sample, and 1 Trip Blank for TCL-VOAs	2/14/06 @ 3:00 TO: USEPA

#### Sampling Personnel (Table 3):

Name	Organization	Site Duties
Tom Williams	Earth Tech, Inc.	Earth Tech Project Manager
James Kearns	Earth Tech, Inc.	Earth Tech Task Manager/ Health and Safety
Robert Derrick	Earth Tech, Inc.	Sampler
Ryan Mentzer	Earth Tech, Inc.	Sampler

**Sample Numbers and Collection Points (Table 4):**

Laboratory	Analysis	Sample Type	Sample #	Sample Collection Point(SCP)
USEPA Region II DESA LAB Building 209 MS-230 2890 Woodbridge Avenue Edison, N.J. 08837	TCL- VOAs	Aqueous Groundwater	MW-19 (Bail)	ST-MW-19
			MW-21 (Bail)	EPA-MW-21
			Influent	Influent
			Effluent	Effluent
			TB	Trip Blank
			Effluent-A	Duplicate of Effluent

**Additional Comments:**

The Influent, Effluent and Effluent-A samples were collected after a five gallon purge from the sample ports located within the treatment system. The samples from the wells ST-MW-19 and EPA-MW-21 were collected using bailers per OSC request. Five bailer volumes of water were extracted from each well and the samples were then taken from a sixth bailer volume. These samples were collected for the following analysis: Target Compound List (TCL) Volatile Organic Compounds. In addition, one duplicate sample (Effluent-A) was collected from the effluent of the groundwater treatment process and was a duplicate sample of sample Effluent. One trip blank (TB) was also included in the shipment. Copies of the Chain of Custody forms and a copy of the FedEx air bill are included in Appendix A and B, respectively.

Earth Tech personnel also collected real time water quality parameters from the raw water for all the following sampling locations: Influent, Effluent (Discharge), ST-MW-19 and EPA-MW-21 and the results are included in Appendix C.

## **Appendix 1**

### **Chain of Custody (February 14, 2006 System Sampling Event)**

**EPA** USEPA Contract Laboratory Program  
Organic Traffic Report & Chain of Custody Record

Case No: **L**  
DAS No:  
SDG No:

Date Shipped: 2/14/2006	Chain of Custody Record	Sampler Signature: <i>Rob Deane</i>	For Lab Use Only
Carrier Name: FedEx	Requested By	Received By: <i>Rob Deane</i>	Lab Contract No:
Altitude: 355367811050	Date / Time: 2/14/06	(Date / Time)	Unit Price:
Shipped to: USEPA REGION II DESA	1 <i>Rob Deane</i>		Transfer To:
LAB: Building 208, MS-230	2		Lab Contract No:
2880 Woodbridge Ave.	3		Unit Price:
Edison NJ 08817	4		
(732) 909-6896			

ORGANIC SAMPLE No.	MATRIX SAMPLER	CONC TYPE	ANALYSIS TURNOVER	TAG No. PRESERVATIVE BOTTLES	STATION LOCATION	SAMPLE COLLECT DATE/TIME	INORGANIC SAMPLE No.	FOR LAB USE ONLY Sample Condition On Receipt
EFFLUENT	Monitor Well Robert Derrick	L/G	VOA (14)	(HCL) (3)	EFFLUENT	2/14/2006 14:37		
EFFLUENT-A	Field OC/ Robert Derrick	L/G	VOA (14)	(HCL) (3)	EFFLUENT-A	2/14/2006 14:59		
INFLUENT/EPA EXT-02	Monitor Well/ Robert Derrick	L/G	VOA (14)	(HCL) (3)	INFLUENT/EPA EXT 0 2/EPA-MW-24	2/14/2006 14:50		
MW-19 (BALL)	Monitor Well/ Robert Derrick	L/G	VOA (14)	(HCL) (3)	MW-19 (Ball)	2/14/2006 13:03		
MW-21 (BALL)	Monitor Well/ Robert Derrick	L/G	VOA (14)	(HCL) (3)	MW-21 (Ball)	2/14/2006 14:40		
TB	Field OC/ Robert Derrick	L/G	VOA (14)	(HCL) (3)	TB	2/14/2006 8:00		

Sample for Case Completed? <input type="checkbox"/>	Sample(s) to be used for Laboratory OC: EFFLUENT-A	Additional Sampler Signature(s):	Coder Temperature Upon Receipt	Chain of Custody Seal Number
Analysis Key: VOA = CLP TCL Violates	Concentration: 1 = Low, M = Medium, H = High	Type/Designate: Composite = C, Grab = G		Custody Seal Intact? <input type="checkbox"/>
				Shipment Intact? <input type="checkbox"/>

TR Number: **2-500684269-021306-0001**  
 PR provides preliminary results. Requests for preliminary results will increase analytical costs.  
 Send Copy to: Sample Management Office, 2000 Edmund Halley Dr., Reston, VA, 20191-3400 Phone 703/264-9348 Fax 703/264-9222  
**LABORATORY COPY**  
 1725.1-045 Page 1 of 1



## **Appendix 2**

**FedEx Air Bill  
(February 14, 2006 System Sampling Event)**



FedEx Tracking Number 8553 6781 1050

Form ID No. 0200 Sender's Copy

1 From Please print and press hard Date 2-14-06 Sender's FedEx Account Number 237442598

Sender's Name Robert Derrick Phone (804) 200-9611

Company Earth Tech

Address 110 Cotten Mill Road

City Great Neck State NY ZIP 11021

2 Your Internal Billing Reference 70576 OPTIONAL

3 To Recipient's Name Attention: John Birri Phone 732, 906-6886

Company USEPA Region II Desa Lab

Recipient's Address 2890 Woodbridge Avenue, Building 209, MS-230

Address Edison State NJ ZIP 08837

Try online shipping at fedex.com. Questions? Go to our Web site at fedex.com or call 1.800.GoFedEx.1.800.463.3339.

4a Express Package Service To add SATURDAY Delivery, see Section 6. Packages up to 150 lbs. FedEx Priority Overnight Next business morning. FedEx Standard Overnight Next business afternoon. FedEx First Overnight Earliest next business morning delivery to select locations. FedEx 2Day Second business day. FedEx Express Saver Third business day. FedEx Envelope rate not available. Minimum charge: One-pound rate.

4b Express Freight Service To add SATURDAY Delivery, see Section 6. Packages over 150 lbs. FedEx 1Day Freight\* Next business day. FedEx 2Day Freight Second business day. FedEx 3Day Freight Third business day. \*Call for Confirmation.

5 Packaging Declared value limit \$500. FedEx Envelope. FedEx Pak. FedEx Box. FedEx Tube. Other.

6 Special Handling Include FedEx address in Section 3. SATURDAY Delivery Available ONLY for FedEx Priority Overnight, FedEx 2Day, FedEx 1Day Freight, and FedEx 2Day Freight to select ZIP codes. HOLD Weekday at FedEx Location NOT Available for FedEx First Overnight. HOLD Saturday at FedEx Location Available ONLY for FedEx Priority Overnight and FedEx 2Day to select locations.

Does this shipment contain dangerous goods? No Yes Is per attached Shipper's Declaration. Yes Shipper's Declaration not required. Dry Ice Dry Ice, 3, UN 1845 x kg. Cargo Aircraft Only.

7 Payment Bill to: Enter FedEx Acct. No. or Credit Card No. below. Sender Acct. No. in Section 1 will be billed. Recipient Third Party Credit Card Cash/Check.

Total Packages 1 Total Weight \$ Total Declared Value\$ .00. \*Our liability is limited to \$100 unless you declare a higher value. See back for details. FedEx Use Only.

8 NEW Residential Delivery Signature Options If you require a signature, check Direct or Indirect. No Signature Required Package may be left with out obtaining a signature for delivery. Direct Signature Anyone at recipient's address may sign for delivery. Indirect Signature If no one is available at recipient's address, anyone at a neighboring address may sign for delivery. 520

RETAIN THIS COPY FOR YOUR RECORDS.

## **Appendix 3**

### **Water Quality Parameters (February 14, 2006 System Sampling Event)**

# STANTON CLEANERS SITE LTRA

## Groundwater Pump and Treatment System Water Quality Parameters Log

Date:  
2/14/06  
Project #  
70536

	pH	COND.	TURB.	DO	TEMP.	SALINITY
Influent	6.49	0.685	0.8	9.5	13.2	0.0
EPA-MW-21*	7.18	0.287	81.2	9.8	11.7	0.0
ST-MW-19*	7.18	0.074	24.8	9.7	14.4	0.0
Discharge	6.72	0.634	0.6	10.3	13.1	0.0

**Total Gallons pumped:** 117,659,901 gallons

**Flow rate:** 60 gpm

\*These samples were collected using a  
bailer

**Equipment Calibrated by:** Robert Derrick

**Water samples collected by:** Robert Derrick and  
Ryan Mentzer

**Water monitoring performed by:** Robert Derrick

**Comments:**

TEMP. - Temperature measured in degrees Celsius

COND. - Conductivity measured in milliSiemens per centimeter (mS/cm).

TURB. - Turbidity measure in nephelometric turbidity units (NTU).

DO - Dissolved Oxygen measured in milligrams per liter (mg/L).

SALINITY - Salinity in percentage.

## **Appendix E**

### **Groundwater Treatment System Raw and Treated Analytical Data**

**Stanton Cleaners Analytical Tracking Table  
Influent and Effluent Groundwater Data**

Sample Location	ECC ID*	EPA ID	Date Collected	Compounds Detected	Result (µg/L)	Qualifier**
Influent	SC-01	B0001	10/27/2003	MTBE	2	J
				<i>cis</i> -1,2-Dichloroethene	2	J
				Trichloroethene (TCE)	3	J
				Toluene	3	J
				Tetrachloroethene	350 (D)	
Effluent	SC-04	B0002	10/27/2003	None		
Trip Blank	SC-TB	B0003	10/27/2003	Acetone	61	J
				Methylene chloride	2	J
Influent	SC-01	B0177	11/12/2003	Tetrachloroethene (PCE)	240	
				Chlorodifluoromethane	8.6	NJ
				1,2-Dichloroethene	3.3	NJ
Effluent	SC-04	B0178	11/12/2003	Chlorodifluoromethane	22	NJ
Influent Dup	SC-60	B0179	11/12/2003	Tetrachloroethene	250	
				Chlorodifluoromethane	29	NJ
				1,2-Dichloroethene	3.4	NJ
Trip Blank	SC-TB	B0180	11/12/2003	Tetrachloroethene	9.4	
				Chlorodifluoromethane	4.3	NJ
Influent	SC-01	B17J3	12/10/2003	Tetrachloroethene	290 (D)	
				<i>cis</i> -1,2-Dichloroethene	2	J
				Trichloroethene	3	J
Effluent	SC-04	B17J4	12/10/2003	None		
Influent Dup	SC-61	B17J5	12/10/2003	Tetrachloroethene	280 (D)	
				<i>cis</i> -1,2-Dichloroethene	2	J
				Trichloroethene	3	J
Trip Blank	SC-TB	B17J6	12/10/2003	MTBE	5	J
				Toluene	2	J
				Ethylbenzene	2	J
Influent	SC-01	B1000	1/12/2004	MTBE	2.7	
				<i>cis</i> -1,2-Dichloroethene	1.5	
				Trichloroethene	2.5	
				Tetrachloroethene	280	
Effluent	SC-04	B1001	1/12/2004	None		
Influent Dup	SC-62	B1002	1/12/2004	MTBE	2.6	
				<i>cis</i> -1,2-Dichloroethene	1.5	
				Trichloroethene	2.5	
				Tetrachloroethene	300	
Trip Blank	SC-TB	B1003	1/12/2004	Methylene chloride	0.6	K
				MTBE	3.7	
				Tetrachloroethene	7.9	
				m&p-Xylene	0.7	
Influent	SC-01	B17Z0	2/12/2004	<i>cis</i> -1,2-Dichloroethene	1.7	
				Trichloroethene	3.0	
				Tetrachloroethene	610 (D)	
				Unknown TIC	0.53	J
Effluent	SC-04	B17Z1	2/12/2004	Acetone	3.8	J
Influent Dup	SC-63	B17Z2	2/12/2004	Acetone	25	J
				<i>cis</i> -1,2-Dichloroethene	1.7	
				Trichloroethene	2.8	
				Tetrachloroethene	440 (D)	
Trip Blank	SC-TB	B17Z3	2/12/2004	Methylene chloride	0.16	J
				MTBE	4.7	
				Chloroform	0.26	J
				Tetrachloroethene	7.1	
				Xylene (total)	0.56	
				1,3-Dichlorobenzene	0.40	J
				1,4-Dichlorobenzene	0.38	J
				Unknown TIC	0.58	J
Benzene, 1-ethyl-3-methyl-	0.72	JN				

**Stanton Cleaners Analytical Tracking Table  
Influent and Effluent Groundwater Data**

Sample Location	ECC ID*	EPA ID	Date Collected	Compounds Detected	Result (µg/L)	Qualifier**
Influent	SC-01	B17Z6	3/10/2004	MTBE	2.7	
				<i>cis</i> -1,2-Dichloroethene	1.2	
				Trichloroethene	2.3	
				Tetrachloroethene	260	
Effluent	SC-04	B17Z7	3/10/2004	Tetrachloroethene	0.70	
Influent Dup	SC-64	B17Z8	3/10/2004	MTBE	2.8	
				<i>cis</i> -1,2-Dichloroethene	1.2	
				Trichloroethene	2.3	
				Tetrachloroethene	260	
Trip Blank	SC-TB	B17Z9	3/10/2004	Acetone	1.8	
				Toluene	0.50	
				Isobutane	41	NJ
Influent	SC-01	B1BS2	4/14/2004	MTBE	1.9	
				<i>cis</i> -1,2-Dichloroethene	0.83	
				Trichloroethene	1.5	
				Tetrachloroethene	380 (D)	
Effluent	SC-04	B1BS3	4/14/2004	Tetrachloroethene	1.9	
Influent Dup	SC-65	B1BS4	4/14/2004	Acetone	1.2	J
				MTBE	1.5	
				<i>cis</i> -1,2-Dichloroethene	0.67	J
				Trichloroethene	1.1	
				Tetrachloroethene	260 (D)	
Trip Blank	SC-TB	B1BS5	4/14/2004	Methylene chloride	0.17	J
				Chloroform	2.8	
				Bromodichloromethane	0.80	
Influent	SC-01	B1BS6	5/20/2004	MTBE	2.1	
				<i>cis</i> -1,2-Dichloroethene	1.0	
				Trichloroethene	1.8	
				Tetrachloroethene	190	
Effluent	SC-04	B1BS7	5/20/2004	Acetone	1.2	
Influent Dup	SC-66	B1BS8	5/20/2004	Acetone	0	
				MTBE	2.1	
				<i>cis</i> -1,2-Dichloroethene	0.9	
				Trichloroethene	1.6	
				Tetrachloroethene	200	
Trip Blank	SC-TB	B1BS9	5/20/2004	Acetone	1	
				Chloroform	0	
				Bromodichloromethane	0	
Influent	SC-01	B1BS6	6/15/2004	Carbon Disulfide	1.1	
				MTBE	2.7	
				<i>cis</i> -1,2-Dichloroethene	1.3	
				Trichloroethene	2.4	
				Tetrachloroethene	320	
Effluent	SC-04	B1BS7	6/15/2004	Tetrachloroethene	2.1	
Influent Dup	SC-67	B1BS8	6/15/2004	MTBE	2.3	
				<i>cis</i> -1,2-Dichloroethene	1.2	
				Trichloroethene	2.2	
				Tetrachloroethene	330	
Trip Blank	SC-TB	B1BS9	6/15/2004	None		

**Stanton Cleaners Analytical Tracking Table  
Influent and Effluent Groundwater Data**

Sample Location	ECC ID*	EPA ID	Date Collected	Compounds Detected	Result (µg/L)	Qualifier**
Influent	SC-01	B1FJ2	7/13/2004	Acetone	0.8	
				MTBE	2.3	
				<i>cis</i> -1,2-Dichloroethene	1.1	
				Trichloroethene	1.7	
				Tetrachloroethene	170	
Effluent	SC-04	B1FJ3	7/13/2004	Acetone	0.72	
				Tetrachloroethene	2	
Influent Dup	SC-67	B1FJ4	7/13/2004	MTBE	2.4	
				<i>cis</i> -1,2-Dichloroethene	1.1	
				Trichloroethene	1.8	
				Tetrachloroethene	160	
Trip Blank	SC-TB	B1FJ5	7/13/2004	Acetone	0.73	
				Acetic Acid, Ethyl Ester	2.5	NJ
Influent	SC-01	B1GH2	8/16/2004	MTBE	1.9	
				<i>cis</i> -1,2-Dichloroethene	0.7	
				Trichloroethene	1.5	
				Tetrachloroethene	200	
				Acetone	2	
Effluent	SC-04	B1GH3	8/16/2004	Tetrachloroethene	5.4	
				Acetone	1.6	
Influent Dup	SC-69	B1GH4	8/16/2004	Acetone	1.2	
				MTBE	2	
				<i>cis</i> -1,2-Dichloroethene	0.7	
				Trichloroethene	1.5	
				Tetrachloroethene	210	
Influent	SC-01			Chloromethane	0.80	
				Acetone	1.0	
				MTBE	1.5	
				<i>cis</i> -1,2-Dichloroethene	0.70	
				Trichloroethene	1.4	
Effluent	SC-04			Tetrachloroethene	200	
				Chloromethane	0.80	
				Acetone	2.1	
Influent Dup	SC-70			Tetrachloroethene	1.7	
				Acetone	1.0	
				MTBE	1.3	
				<i>cis</i> -1,2-Dichloroethene	0.60	
				Trichloroethene	1.4	
Trip Blank	SC-TB			Tetrachloroethene	210	
				Acetone	2.2	
				2-Butanone	1.5	
Influent	SC-01	B1LZ2	10/21/2004	Acetone	5	J
				Methylene chloride	0.2	J
				MTBE	0.82	
				<i>cis</i> -1,2-Dichloroethene	0.5	
				Trichloroethene	1.2	
				Tetrachloroethene	220	
Effluent	SC-04	B1LZ3	10/21/2004	Acetone	5	J
				Methylene chloride	0.5	UJ
				Tetrachloroethene	0.2	J
Influent Dup	SC-71	B1LZ4	10/21/2004	Acetone	5	J
				Methylene chloride	1.1	
				MTBE	1.1	
				<i>cis</i> -1,2-Dichloroethene	0.64	
				Trichloroethene	1.1	
				Tetrachloroethene	210	(D)
Trip Blank	SC-TB	B1LZ5	10/21/2004	Acetone	5.7	
				Methylene chloride	0.68	
				Toluene	0.39	J

**Stanton Cleaners Analytical Tracking Table  
Influent and Effluent Groundwater Data**

Sample Location	ECC ID*	EPA ID	Date Collected	Compounds Detected	Result (µg/L)	Qualifier**
Influent	SC-01	B1T22	11/17/2004	Acetone	3	J
				Methylene chloride	1.3	U
				MTBE	1.3	
				<i>cis</i> -1,2-Dichloroethene	0.64	
				Trichloroethene	1.2	
				Tetrachloroethene	170	(D)
Effluent	SC-04	B1T23	11/17/2004	Methyl Acetate	0.5	UJ
				Methylene chloride	0.5	U
Influent Dup	SC-72	B1T24	11/17/2004	Methylene chloride	0.85	U
				MTBE	1.3	
				<i>cis</i> -1,2-Dichloroethene	0.5	
				Trichloroethene	0.83	
				Tetrachloroethene	160	(D)
Trip Blank	SC-TB	B1T25	11/17/2004	Acetone	3	J
				Methyl Acetate	0.5	UJ
				Methylene chloride	0.46	J
				2-Butanone	2.4	J
				Tetrachloroethene	9.6	
				1,2,3-Trichlorobenzene	0.5	UJ
Influent	SC-01	B1T79	12/15/2004	MTBE	1.6	
				<i>cis</i> -1,2-Dichloroethene	0.45	J
				Trichloroethene (TCE)	1.0	J
				Tetrachloroethene	100	(D)
				Methylcyclohexane	1	UJ
				Bromomethane	1	UJ
				Bromodichloromethane	1	UJ
				Chloromethane	1	UJ
				1,2-Dichloroethene	1	UJ
				1,2-Dichloropropane	1	UJ
				2-Hexanone	10	R
				4-Methyl-2-pentanone	10	R
Effluent	SC-04	B1T81	12/15/2004	Benzene	0.5	JB
				1,2,4-Trichlorobenzene	0.5	JB
				1,2,3-Trichlorobenzene	0.5	JB
Influent Dup	SC-73	B1T80	12/15/2004	Methyl tert-Butyl Ether	1.6	
				<i>cis</i> -1,2-Dichloroethene	0.48	J
				Trichloroethene	0.98	J
				4-Methyl-2-pentanone	10	R
				Tetrachloroethene	98	(D)
Trip Blank	SC-TB	B1T82	12/15/2004	2-Hexanone	10	R
				Chloroform	0.1	J
				Cyclohexane	0.15	J
				Benzene	0.5	JB
				Toluene	0.21	J

**Stanton Cleaners Analytical Tracking Table  
Influent and Effluent Groundwater Data**

Sample Location	ECC ID*	EPA ID	Date Collected	Compounds Detected	Result (µg/L)	Qualifier**
Influent	SC-01	B1W00	1/21/2005	MTBE	1.5	
				<i>cis</i> -1,2-Dichloroethene	0.7	
				Trichloroethene (TCE)	1.4	
				Tetrachloroethene	160	
Effluent	SC-04	B1W02	1/21/2005	Acetone	1.8	
Influent Dup	SC-74	B1W01	1/21/2005	Methyl tert-Butyl Ether	1.4	
				<i>cis</i> -1,2-Dichloroethene	0.7	
				Trichloroethene	1.4	
				Tetrachloroethene	150	
Trip Blank	SC-TB	B1W03	1/21/2005	Acetone	10	
				Acetone	3.5	
Influent	SC-01	AG00197	2/3/2005	MTBE	1.4	
				<i>cis</i> -1,2-Dichloroethene	0.5	
				Trichloroethene (TCE)	1.1	
				Tetrachloroethene	140	
Effluent	SC-04	AG00198	2/3/2005	Acetone	1.2	
Influent Dup	SC-75	AG00199	2/3/2005	Methyl tert-Butyl Ether	1.5	
				<i>cis</i> -1,2-Dichloroethene	0.54	
				Trichloroethene	1.1	
				Tetrachloroethene	140	
Trip Blank	SC-TB	AG00200	2/3/2005	Acetone	1.1	
				Acetone	4.3	
				4-Methyl-2-pentanone	1.2	
Influent	SC-01	AG00468	3/9/2005	MTBE	1.4	
				Acetone	2.5	
				Trichloroethene (TCE)	1.1	
				Tetrachloroethene	130	
Effluent	SC-04	AG00469	3/9/2005	Acetone	1.8	
Influent Dup	SC-76	AG00470	3/9/2005	MTBE	1.4	
				Acetone	1.2	
				Trichloroethene	1.1	
				Tetrachloroethene	130	
Trip Blank	SC-TB	AG00471	3/9/2005	Acetone	1.7	
				Chloroform	1.6	
Influent (EPA-EXT-02)	SC-01	AG00825	4/22/2005	MTBE	1.7	
				2-Butanone	2.2	
				Acetone	2.4	
				Trichloroethene (TCE)	1.1	
Influent (EPA-EXT-4R)	SC-02	AG00826	4/22/2005	Tetrachloroethene	65	
				2-Butanone	2.5	
				Acetone	5.1	
				Trichloroethene (TCE)	1.3	
Effluent	SC-04	AG00827	4/22/2005	Tetrachloroethene	9.5	
Influent Dup (EPA-EXT-02) (EPA-EXT-4R)	SC-77	AG00828	4/22/2005	None		
				2-Butanone	2.8	
				Acetone	4.9	
				Trichloroethene	1.3	
				Tetrachloroethene	9	

**Stanton Cleaners Analytical Tracking Table  
Influent and Effluent Groundwater Data**

Sample Location	ECC ID*	EPA ID	Date Collected	Compounds Detected	Result (µg/L)	Qualifier**
Trip Blank	SC-TB	AG00829	4/22/2005	Acetone	1	
				Chloroform	1.7	
				Trichloroethene (TCE)	0.84	
Influent (EPA-EXT-02)	SC-01	AG01320	5/24/2005	MTBE	1.1	
				Trichloroethene (TCE)	1.0	
				Tetrachloroethene	100	
Influent (EPA-EXT-4R)	SC-02	AG01321	5/24/2005	Tetrachloroethene	8.8	
Effluent	SC-04	AG01322	5/24/2005	Acetone	1.3	
Influent Dup (EPA-EXT-02) (EPA-EXT-4R)	SC-78	AG01323	5/24/2005	Tetrachloroethene	8.6	
Trip Blank	SC-TB	AG01324	5/24/2005	Acetone	1.3	
				Chloroform	13	
				Bromodichloromethane	2.5	
Influent (EPA-EXT-02)	SC-01	AG02074	6/22/2005	MTBE	0.98	
				Trichloroethene (TCE)	0.8	
				Tetrachloroethene	95	
				Acetone	2.7	K
				Ethyl Acetate	10	JN
Influent (EPA-EXT-4R)	SC-02	AG02075	6/22/2005	Tetrachloroethene	9.1	
				Acetone	1.9	K
				Ethyl Acetate	3.6	JN
				Propane, 2-Isothiocyano-2	0.8	JN
Influent		AG02076	6/22/2005	MTBE	0.64	
				Tetrachloroethene	50	
				Acetone	2	K
				Trichloroethene (TCE)	0.56	
Effluent	SC-04	AG02072	6/22/2005	Ethyl Acetate	8.8	JN
				Acetone	2.6	K
EffluentDup	SC-04	AG02073	6/22/2005	Ethyl Acetate	6.2	JN
				Acetone	2.6	K
Trip Blank	SC-TB	AG02077	6/22/2005	Ethyl Acetate	3.3	JN
				Acetone	2.4	K
				Chloroform	13	
				Bromodichloromethane	2.7	
Influent (EPA-EXT-02)	SC-01	AG02780	7/12/2005	Ethyl Acetate	3.1	JN
				MTBE	0.9	
				Trichloroethene (TCE)	0.8	
				Tetrachloroethene	85	
Influent (EPA-EXT-4R)	SC-02	AG02781	7/12/2005	Acetone	1	K
				Tetrachloroethene	7.4	
				Acetone	2.1	K
				Ethyl Acetate	4.1	JN
Influent		AG02782	7/12/2005	Propane, 2-Isothiocyano-2	1.4	JN
				MTBE	0.52	
				Tetrachloroethene	43	
Effluent	SC-04	AG02778	7/12/2005	Acetone	2.8	K
				Ethyl Acetate	11	JN
EffluentDup	SC-04	AG02779	7/12/2005	Acetone	1.9	K
				Ethyl Acetate	5.2	JN
Trip Blank	SC-TB		7/12/2005	Acetone	1.5	K
				Chloroform	12	
				Bromodichloromethane	2.6	

**Stanton Cleaners Analytical Tracking Table  
Influent and Effluent Groundwater Data**

Sample Location	ECC ID*	EPA ID	Date Collected	Compounds Detected	Result (µg/L)	Qualifier**
Influent (EPA-EXT-02)	SC-01	AG03721	8/15/2005	MTBE	0.68	
				Trichloroethene (TCE)	0.73	
				Tetrachloroethene	88	
Influent (EPA-EXT-4R)	SC-02	AG03722	8/15/2005	Tetrachloroethene	9.7	
				Propane, 2-Isothiocyano-2	0.53	JN
Influent		AG03723	8/15/2005	Tetrachloroethene	43	
Effluent	SC-04	AG03725	8/15/2005	Acetone	ND (5.0)	
EffluentDup	SC-04	AG03720	8/15/2005	Acetone	ND (5.0)	
Trip Blank	SC-TB	AG03724	8/15/2005	Chloroform	13	
				Bromodichloromethane	2.6	
Influent (EPA-EXT-02)	SC-01	AG04086	9/8/2005	MTBE	0.76	
				Trichloroethene (TCE)	0.74	
				Tetrachloroethene	90	
Influent (EPA-EXT-4R)	SC-02	AG04087	9/8/2005	Tetrachloroethene	9.8	
Influent		AG04088	9/8/2005	MTBE	0.63	
				Tetrachloroethene	44	
Effluent	SC-04	AG04084	9/8/2005	Acetone	ND (1.0)	
EffluentDup	SC-04	AG04085	9/8/2005	Acetone	1.0	
Trip Blank	SC-TB	AG04089	9/8/2005	Chloroform	11	
				Bromodichloromethane	2.2	
Influent (EPA-EXT-02)	SC-01	AG07649	10/5/2005	MTBE	0.82	
				Trichloroethene (TCE)	0.78	
				Tetrachloroethene	100	
Influent (EPA-EXT-4R)	SC-02	AG07650	10/5/2005	Tetrachloroethene	9.3	
Influent		AG07651	10/5/2005	MTBE	0.6	
				Acetone	1	
				Tetrachloroethene	52	
Effluent	SC-04	AG07647	10/5/2005	Acetone	1.1	
EffluentDup	SC-04	AG07648	10/5/2005	Acetone	1.4	
Trip Blank	SC-TB	AG07652	10/5/2005	Chloroform	ND	
Influent (EPA-EXT-02)	SC-01	AG08530	11/14/2005	Acetone	1.4	K
				MTBE	0.92	
				Trichloroethene (TCE)	0.81	
				Tetrachloroethene	95	
Influent (EPA-EXT-4R)	SC-02	AG08531	11/14/2005	Acetone	1.0	K
				Tetrachloroethene	10	
Influent		AG08532	11/14/2005	MTBE	0.9	
				Acetone	1.4	K
				Trichloroethene (TCE)	0.74	
				Tetrachloroethene	91	
Effluent	SC-04	AG08528	11/14/2005	Acetone	ND	
EffluentDup	SC-04	AG08529	11/14/2005	Acetone	ND	
Trip Blank	SC-TB	AG08533	11/14/2005	Acetone	2.0	K

**Stanton Cleaners Analytical Tracking Table  
Influent and Effluent Groundwater Data**

Sample Location	ECC ID*	EPA ID	Date Collected	Compounds Detected	Result (µg/L)	Qualifier**
Influent (EPA-EXT-02)	SC-01	AG08953	12/6/2005	Acetone	4.1	
				MTBE	0.85	
				Trichloroethene (TCE)	0.67	
				Tetrachloroethene	90	
Influent (EPA-EXT-4R)	SC-02	AG08954	12/6/2005	1-Butanol	0.63	NJ
				Acetone	1.4	K
Influent		AG08955	12/6/2005	Tetrachloroethene	9.5	
				MTBE	0.9	
				Acetone	1.4	K
				Trichloroethene (TCE)	0.77	
				Tetrachloroethene	89	
Effluent	SC-04	AG08951	12/6/2005	Acetone	1.5	K
EffluentDup	SC-04	AG08952	12/6/2005	Acetone	3.0	K
Trip Blank	SC-TB		12/6/2005	Acetone	ND	
Influent (EPA-EXT-02)	SC-01	AH00216	1/10/2006	Acetone	ND	
				MTBE	0.98	
				Trichloroethene (TCE)	0.79	
				Tetrachloroethene	93	
Influent (EPA-EXT-4R)	SC-02	AH00217	1/10/2006	Acetone	ND (1.0)	
				Tetrachloroethene	8.2	
Influent		AH00218	1/10/2006	MTBE	0.94	
				Acetone	ND (1.0)	
				Trichloroethene (TCE)	0.85	
				Tetrachloroethene	90	
Effluent	SC-04	AH00214	1/10/2006	Acetone	ND (1.0)	
EffluentDup	SC-04	AH00215	1/10/2006	Furan, Tetrahydro	0.52	NJ
Trip Blank	SC-TB	AH00219		Acetone	ND (1.0)	
Influent		AH01177	2/15/2006	MTBE	1.2	
				Trichloroethene (TCE)	0.72	
				Tetrachloroethene	80	
MW-19		AH01178	2/15/2006	Acetone	1.2	
				Trichloroethene (TCE)	1.2	
				Tetrachloroethene	85	
MW-21		AH01179	2/15/2006	Trichloroethene (TCE)	2.6	
				Tetrachloroethene	27	
Effluent		AH01175	2/15/2006		ND	
Effluent Duplicate		AH01176	2/15/2006		ND	
Trip Blank	SC-TB	AH00219	2/15/2006	Chloroform	10	
				Bromodichloromethane	2.3	
Influent		AH01256	3/8/2006	MTBE	1.4	
				Trichloroethene (TCE)	0.71	
				Tetrachloroethene	83	
				Acetone	2	
Effluent		AH01254	3/8/2006	Acetone	2	
Effluent Duplicate		AH01255	3/8/2006	Acetone	2.4	
Trip Blank		AH01257	3/8/2006	Acetone	2	
				Bromodichloromethane	5	
				Chloroform	14	

**Notes:**

- \* = Unless otherwise noted, samples collected from ECC ID SC-04 were used as the matrix spike / matrix spike duplicate sample.
- \*\* = Data validation was performed by EPA Region II. ECC carried over assigned qualifiers and did not perform a separate review or validation of the data.
- (D) = Detection from a dilution of the sample.
- J = qualified as estimated
- JN = Presumptive evidence for the presence of the material at an estimated value.
- K = The reported value may be biased high.
- µg/L = micrograms per liter

**Stanton Cleaners Analytical Tracking Table  
Influent and Effluent Groundwater Data**

<b>Sample Location</b>	<b>ECC ID*</b>	<b>EPA ID</b>	<b>Date Collected</b>	<b>Compounds Detected</b>	<b>Result (µg/L)</b>	<b>Qualifier**</b>
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MTBE = Tert-butyl-methyl-ether

NJ = TIC. The reported value is estimated.

TIC = Tentatively Identified Compound.

## **Appendix F**

### **Soil Vapor Extraction and Pump and Treat System Bi-weekly Air Monitoring Logs**

**STANTON CLEANERS AREA GROUNDWATER  
CONTAMINATION SITE  
Soil-Vapor Extraction and Pump and Treat System  
Bi-Weekly Air Monitoring Log**

Date: 2/16/06  
Project # 70536

	MultiRAE Plus PGM-50					VelociCalc Plus				
	VOC	CO	Oxygen	LEL	H2S	Temp.	Vac. Pre.	%RH	Dew pt.	Flow
SVE-Influent	10.7	0	20.2%	0%	0%	97.7	N/A	32.5%	63.5	210
Post Air Stripper	0.0	0	20.7%	0%	0%	60.2	N/A	89.4%	58.8	2100
SVE-Effluent <sup>1</sup>	1.8	0	20.1%	0%	0%	78.0	N/A	51.0%	61.3	240
GW Post Vapor Effluent <sup>2</sup>	0.0	0	20.7%	0%	0%	55.3	N/A	82.9%	57.0	2400
EPA-SVE-1 (shallow)	0.0	0	20.9%	0%	0%	67.1	10.00	34.0%	38.3	8.20
EPA-SVE-1 (medium)	0.0	0	20.9%	0%	0%	69.9	11.25	40.5%	47.9	4.50
EPA-SVE-2 (shallow)	0.0	0	20.9%	0%	0%	50.0	0.00	66.8%	45.2	0.500
EPA-SVE-2 (medium)	0.0	0	20.9%	0%	0%	90.9	0.00	31.2%	39.3	0.600
SS-A	0.3	0	20.9%	0%	0%	59.6	4.75	41.1%	35.7	40.4
EPA-SVE-04R/SS-B(A) <sup>3</sup> *										
SS-B <sup>Ⓢ</sup> *										
SS-C <sup>5</sup>	0.0	0	20.9%	0%	0%	61.0	2.00	55.2%	40.1	3.5
L1	0.2	0	20.9%	0%	0%	53.5	6.00	67.2%	39.7	75.2
L2										
SS-B(B) <sup>3</sup>	0.5	0	20.9%	0%	0%	62.5	2.50	43.0%	40	30.80
SS Vent-LIHA	0.0	0	20.9%	0%	0%	70.0	2.00	30.0%	39.0	23.1
Vapor Point-1/Slope 1	0.0	0	20.9%	0%	0%	N/A	N/A	N/A	N/A	N/A
SVE-3B	0.6	0	20.9%	0%	0%	58.4	10.00	73.2%	99.8	113.50
SVE-3A**										
Background	N/A	N/A	N/A	N/A	N/A	57.8	N/A	54.2%	41.3	N/A

\*These were blocked

\*\* Water in line

Equipment calibrated by: Rob Derrick

Air readings collected by: Rob Derrick

\*Approximately

Comments:

VOC: Volatile Organic Compounds

CO: Carbon Monoxide

LEL: Lower Explosive Limit

ppm: parts per million

temperature: measured in degrees Fahrenheit

pressure: measured in inches of water (in/H<sub>2</sub>O), inches of mercury (in/Hg), or pounds per square inch (psi).

Flow: measured in cubic feet per minute (cfm)

%RH: relative humidity

<sup>1</sup>Formerly Post SVE Carbon

<sup>2</sup>Formerly Post Air Stripper Carbon

<sup>3</sup>Formerly Sub-Slab A,B, and C respectively

Dew Pt.: dew point in degrees Fahrenheit

AS: Air Stripper

SVE: Soil Vapor Extraction System

<sup>4</sup>Formerly Sub-Slab

D

<sup>5</sup>Formerly Sub-Slab

B

NA- Not Available

	<u>Prior to 10/3/05</u>	<u>After 10/3/05</u>
SVE 1	shallow on	shallow and medium on
SVE 2	shallow on	shallow on
SVE 3	shallow on	shallow on
SVE 4	off	off
EPA-SVE-04R/SSB(A)	on	on
SS-A	on	on
SS-B(B)	on	off
SS-B( C)	on	on
L1	on	on
L2	on	off

**Comments:**

New SVE well EPA-EXT-04 online since 11/4/04

Sub-slab sample ports online since 3/22/05

L2 is offline

**STANTON CLEANERS AREA GROUNDWATER  
CONTAMINATION SITE  
Soil-Vapor Extraction and Pump and Treat System  
Bi-Weekly Air Monitoring Log**

Date: 2/27/06  
Project # 70536

	MultiRAE Plus PGM-50					VelociCalc Plus				
	VOC	CO	Oxygen	LEL	H2S	Temp.	Vac. Pre.	%RH	Dew pt.	Flow
SVE-Influent	2.4	0	20.2%	0%	0%	87.8	N/A	23.1%	46.1	275
Post Air Stripper	0.0	0	20.9%	0%	0%	57.6	N/A	96.1%	56.9	2200
SVE-Effluent <sup>1</sup>	0.0	0	20.0%	0%	0%	58.1	N/A	58.4%	43.6	205
GW Post Vapor Effluent <sup>2</sup>	0.0	0	20.9%	0%	0%	57.3	N/A	96.0%	56.1	2050
EPA-SVE-1 (shallow)	0.0	0	20.9%	0%	0%	48.9	0.00	96.0%	41.6	0.008
EPA-SVE-1 (medium)	0.0	1	20.4%	0%	0%	38.2	0.00	68.0%	27.6	0.025
EPA-SVE-2 (shallow)	0.0	0	20.5%	0%	0%	39.0	0.00	46.6%	21.5	2.350
EPA-SVE-2 (medium)	0.0	1	20.3%	0%	0%	44.3	0.00	31.3%	17.0	0.700
SS-A	0.0	0	20.9%	0%	0%	34.7	5.75	33.7%	12.0	32.7
EPA-SVE-04R/SS-B(A)	0.0	1	20.9%	0%	0%	37.1	2.75	29.0%	11.3	1.500
SS-B-C	0.0	0	20.9%	0%	0%	37.0	3.50	31.3%	12.0	5.15
SS-C	0.0	0	20.9%	0%	0%	43.4	4.25	45.5%	24.6	43.7
L1	0.0	1	20.9%	0%	0%	37.4	6.50	67.5%	26.9	87.0
L2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SS-B(B)	0.0	1	20.9%	0%	0%	49.4	3.00	46.0%	28.9	34.50
SS Vent-LIHA	0.0	1	20.9%	0%	0%	39.9	2.00	58.0%	27.4	91.0
Vapor Point-1/Slope 1	0.0	0	20.9%	0%	0%	N/A	N/A	N/A	N/A	N/A
SVE-3B	0.0	1	20.5%	0%	0%	39.4	7.50	96.1%	38.1	18.00
SVE-3A	2.3	1	19.8%	0%	0%	52.5	10.00	92.1	50.1	115
Background	0.0	0	20.9%	0%	0%	32.1	N/A	23.2%	1.6	N/A

Equipment calibrated by: Rob Derrick and Frank Mahalski  
Air readings collected by: Rob Derrick and Frank Mahalski

\*Approximately

Comments:

VOC: Volatile Organic Compounds

CO: Carbon Monoxide

LEL: Lower Explosive Limit

ppm: parts per million

temperature: measured in degrees Fahrenheit

pressure: measured in inches of water (in/H<sub>2</sub>O), inches of mercury (in/Hg), or pounds per square inch (psi).

Flow: measured in cubic feet per minute (cfm)

%RH: relative humidity

<sup>1</sup>Formerly Post SVE Carbon

<sup>2</sup>Formerly Post Air Stripper Carbon

<sup>3</sup>Formerly Sub-Slab A,B, and C respectively

Dew Pt.: dew point in degrees Fahrenheit

AS: Air Stripper

SVE: Soil Vapor Extraction System

<sup>4</sup>Formerly Sub-Slab

D

<sup>5</sup>Formerly Sub-Slab

B

NA- Not Available

	<b><u>Prior to 10/3/05</u></b>	<b><u>After 10/3/05</u></b>
SVE 1	shallow on	shallow and medium on
SVE 2	shallow on	shallow on
SVE 3	shallow on	shallow on
SVE 4	off	off
EPA-SVE-04R/SSB(A)	on	on
SS-A	on	on
SS-B(B)	on	off
SS-B( C)	on	on
L1	on	on
L2	on	off

**Comments:**

New SVE well EPA-EXT-04 online since 11/4/04

Sub-slab sample ports online since 3/22/05

L2 is offline

## **Appendix G**

### **Semi-Annual Groundwater Sampling Analytical Data**

**NO GROUNDWATER SAMPLING EVENT THIS MONTH**

## **Appendix H**

### **Historical Groundwater Level Monitoring Results (Ongoing)**

## WATER LEVEL DATA SUMMARY

<b>PROJECT:</b>	Stanton Cleaners	<b>JOB NUMBER:</b>	70536
<b>LOCATION:</b>	Great Neck, NY	<b>DATE:</b>	2/22/2006
<b>CLIENT:</b>	USACE / USEPA	<b>MEASURED BY:</b>	Rob Derrick
<b>SURVEY DATUM:</b>	ft msl		Frank Mahalski
<b>MEASURING DEVICE:</b>	Solinst Water Level Indicator S/N# 34407		

WELL NUMBER	MEASURING POINT		DEPTH TO WATER (FT)	ELEVATION OF WATER (FT)	COMMENTS
	Description	Elevation (FT)			
EPA-MW-11D	ft BTOC	74.63	58.37	16.26	
EPA-MW-21	ft BTOC	84.13	65.72	18.41	
EPA-MW-22	ft BTOC	82.20	63.38	18.82	
EPA-MW-23	ft BTOC	82.83	63.91	18.92	
EPA-MW-27	ft BTOC	69.32	51.10	18.22	
ST-MW-02	ft BTOC	82.03			covered by concrete
ST-MW-06	ft BTOC	69.83	44.88	24.95	
ST-MW-09	ft BTOC	78.13	63.24	14.89	
ST-MW-11	ft BTOC	75.25			blocked by a car
ST-MW-12	ft BTOC	87.20	70.58	16.62	
ST-MW-14	ft BTOC	69.73	54.86	14.87	
ST-MW-16	ft BTOC	75.78	54.17	21.61	
ST-MW-17	ft BTOC	86.53	70.03	16.50	
ST-MW-19	ft BTOC	82.50	66.46	16.04	
ST-MW-20	ft BTOC	84.53	70.81	13.72	

**Notes:**

**WAGNN Public Supply Well Pumping Rate: GPM**

**Treatment System:**

**Total Gallons Pumped:**

**HISTORICAL GROUNDWATER ELEVATIONS  
STANTON CLEANERS AREA GROUNDWATER CONTAMINATION SITE  
GREAT NECK, NASSAU COUNTY, NEW YORK**

Well ID	Top of PVC Elevation (ft msl)	10/29/2003		10/31/2003		11/22/03 - 11/23/03	
		DTW (ft BTOC)	Elevation (ft msl)	DTW (ft BTOC)	Elevation (ft msl)	DTW (ft BTOC)	Elevation (ft msl)
EPA-MW-11D	74.63	57.74	16.89	57.94	16.69	60.07	14.56
EPA-MW-21	84.13	66.70	17.43	66.14	17.99	66.86	17.27
EPA-MW-22	82.20	64.51	17.69	64.08	18.12	65.09	17.11
EPA-MW-23	82.83	64.97	17.86	64.54	18.29	78.61	4.22
EPA-MW-27	69.32	51.74	17.58	51.12	18.20	52.85	16.47
ST-MW-02	82.03	64.19	17.84	63.78	18.25	64.40	17.63
ST-MW-06	69.83	63.43	6.40	44.82	25.01	44.92	24.91
ST-MW-09	78.13	61.39	16.74	60.67	17.46	62.52	15.61
ST-MW-11	75.25	58.67	16.58	58.06	17.19	60.59	14.66
ST-MW-12	87.20	73.84	13.36	70.18	17.02	72.01	15.19
ST-MW-14	69.73	50.94	18.79	50.76	18.97	56.40	13.33
ST-MW-16	75.78	55.51	20.27	55.53	20.25	65.51	10
ST-MW-17	86.53	69.95	16.58	69.27	17.26	71.55	14.98
ST-MW-19	82.50	67.01	15.49	64.93	17.57	68.04	14.46
ST-MW-20	84.53	65.99	18.54	65.83	18.70	73.45	11.08

**Notes:**

ft msl - feet mean sea level

ft BTOC - feet below top of casing

--- Not measured

**HISTORICAL GROUNDWATER ELEVATIONS  
STANTON CLEANERS AREA GROUNDWATER CONTAMINATION SITE  
GREAT NECK, NASSAU COUNTY, NEW YORK**

Well ID	Top of PVC Elevation (ft msl)	12/17/03 - 12/18/03		1/12/2004		2/26/2004	
		DTW (ft BTOC)	Elevation (ft msl)	DTW (ft BTOC)	Elevation (ft msl)	DTW (ft BTOC)	Elevation (ft msl)
EPA-MW-11D	74.63	59.00	15.63	57.52	17.11	56.50	18.13
EPA-MW-21	84.13	64.99	19.14	66.17	17.96	64.30	19.83
EPA-MW-22	82.20	63.03	19.17	63.99	18.21	61.90	20.30
EPA-MW-23	82.83	77.05	5.78	64.45	18.38	63.00	19.83
EPA-MW-27	69.32	51.75	17.57	51.22	18.10	50.50	18.82
ST-MW-02	82.03	63.25	18.78	64.03	18.00	62.03	20.00
ST-MW-06	69.83	43.10	26.73	45.74	24.09	44.40	25.43
ST-MW-09	78.13	61.50	16.63	--	--	60.00	18.13
ST-MW-11	75.25	59.23	16.02	62.10	13.15	60.90	14.35
ST-MW-12	87.20	72.00	15.20	70.27	16.93	60.50	26.70
ST-MW-14	69.73	55.05	14.68	NA	NA	48.70	21.03
ST-MW-16	75.78	64.18	11.60	54.99	20.79	53.00	22.78
ST-MW-17	86.53	69.99	16.54	69.40	17.13	67.25	19.28
ST-MW-19	82.50	67.21	15.29	--	--	65.25	17.25
ST-MW-20	84.53	71.56	12.97	63.51	21.02	61.75	22.78

**Notes:**

ft msl - feet mean sea level

ft BTOC - feet below top of casing

-- - Not measured

**HISTORICAL GROUNDWATER ELEVATIONS  
STANTON CLEANERS AREA GROUNDWATER CONTAMINATION SITE  
GREAT NECK, NASSAU COUNTY, NEW YORK**

Well ID	Top of PVC Elevation (ft msl)	3/29/2004		4/5/2004		5/19/2004	
		DTW (ft BTOC)	Elevation (ft msl)	DTW (ft BTOC)	Elevation (ft msl)	DTW (ft BTOC)	Elevation (ft msl)
EPA-MW-11D	74.63	60.00	14.63	60.36	14.27	60.30	14.33
EPA-MW-21	84.13	66.99	17.14	67.38	16.75	67.10	17.03
EPA-MW-22	82.20	61.90	20.30	65.00	17.20	64.98	17.22
EPA-MW-23	82.83	65.10	17.73	65.59	17.24	65.25	17.58
EPA-MW-27	69.32	52.08	17.24	52.84	16.48	53.10	16.22
ST-MW-02	82.03	63.99	18.04	64.90	17.13	64.87	17.16
ST-MW-06	69.83	45.60	24.23	46.24	23.59	46.25	23.58
ST-MW-09	78.13	62.80	15.33	--	--	62.00	16.13
ST-MW-11	75.25	60.00	15.25	60.85	14.40	60.46	14.79
ST-MW-12	87.20	72.22	14.98	72.22	14.98	72.12	15.08
ST-MW-14	69.73	56.99	12.74	57.87	11.86	58.13	11.60
ST-MW-16	75.78	54.68	21.10	55.48	20.30	55.09	20.69
ST-MW-17	86.53	70.25	16.28	71.76	14.77	71.80	14.73
ST-MW-19	82.50	66.00	16.50	--	--	65.78	16.72
ST-MW-20	84.53	71.45	13.08	73.78	10.75	73.65	10.88

**Notes:**

ft msl - feet mean sea level

ft BTOC - feet below top of casing

-- - Not measured

**HISTORICAL GROUNDWATER ELEVATIONS  
STANTON CLEANERS AREA GROUNDWATER CONTAMINATION SITE  
GREAT NECK, NASSAU COUNTY, NEW YORK**

Well ID	Top of PVC Elevation (ft msl)	6/14/2004		7/21/04 - 7/22/04		8/2/2004	
		DTW (ft BTOC)	Elevation (ft msl)	DTW (ft BTOC)	Elevation (ft msl)	DTW (ft BTOC)	Elevation (ft msl)
EPA-MW-11D	74.63	59.97	14.66	59.75	14.88	59.75	14.88
EPA-MW-21	84.13	67.00	17.13	66.99	17.14	66.11	18.02
EPA-MW-22	82.20	64.78	17.42	64.50	17.70	64.33	17.87
EPA-MW-23	82.83	66.21	16.62	66.10	16.73	65.16	17.67
EPA-MW-27	69.32	53.05	16.27	52.98	16.34	54.86	14.46
ST-MW-02	82.03	65.11	16.92	65.00	17.03	59.85	22.18
ST-MW-06	69.83	45.99	23.84	45.66	24.17	44.11	25.72
ST-MW-09	78.13	62.00	16.13	61.79	16.34	--	--
ST-MW-11	75.25	60.40	14.85	60.39	14.86	60.50	14.75
ST-MW-12	87.20	72.29	14.91	72.20	15.00	71.36	15.84
ST-MW-14	69.73	58.55	11.18	58.34	11.39	55.56	14.17
ST-MW-16	75.78	55.09	20.69	55.01	20.77	54.85	20.93
ST-MW-17	86.53	71.52	15.01	71.46	15.07	70.80	15.73
ST-MW-19	82.50	65.00	17.50	64.77	17.73	--	--
ST-MW-20	84.53	73.44	11.09	73.25	11.28	71.66	12.87

**Notes:**

ft msl - feet mean sea level

ft BTOC - feet below top of casing

-- - Not measured

**HISTORICAL GROUNDWATER ELEVATIONS  
STANTON CLEANERS AREA GROUNDWATER CONTAMINATION SITE  
GREAT NECK, NASSAU COUNTY, NEW YORK**

Well ID	Top of PVC Elevation (ft msl)	9/28/04 - 9/29/04		10/12/04 -10/13/04		11/3/2004	
		DTW (ft BTOC)	Elevation (ft msl)	DTW (ft BTOC)	Elevation (ft msl)	DTW (ft BTOC)	Elevation (ft msl)
EPA-MW-11D	74.63	59.70	14.93	58.97	15.66	58.95	15.68
EPA-MW-21	84.13	66.75	17.38	66.50	17.63	66.41	17.72
EPA-MW-22	82.20	64.41	17.79	64.34	17.86	64.32	17.88
EPA-MW-23	82.83	65.11	17.72	65.00	17.83	64.87	17.96
EPA-MW-27	69.32	52.31	17.01	52.25	17.07	52.26	17.06
ST-MW-02	82.03	65.00	17.03	65.03	17.00	65.00	17.03
ST-MW-06	69.83	44.55	25.28	55.34	14.49	55.29	14.54
ST-MW-09	78.13	62.00	16.13	62.12	16.01	62.15	15.98
ST-MW-11	75.25	60.41	14.84	60.50	14.75	60.34	14.91
ST-MW-12	87.20	72.00	15.20	72.21	14.99	72.22	14.98
ST-MW-14	69.73	56.71	13.02	56.50	13.23	56.49	13.24
ST-MW-16	75.78	55.10	20.68	57.00	18.78	57.01	18.77
ST-MW-17	86.53	70.99	15.54	70.98	15.55	70.95	15.58
ST-MW-19	82.50	64.84	17.66	64.80	17.70	64.79	17.71
ST-MW-20	84.53	71.97	12.56	72.00	12.53	72.55	11.98

**Notes:**

ft msl - feet mean sea level

ft BTOC - feet below top of casing

-- - Not measured

**HISTORICAL GROUNDWATER ELEVATIONS  
STANTON CLEANERS AREA GROUNDWATER CONTAMINATION SITE  
GREAT NECK, NASSAU COUNTY, NEW YORK**

Well ID	Top of PVC Elevation (ft msl)	12/8/2004		1/3/2005		2/7/2005	
		DTW (ft BTOC)	Elevation (ft msl)	DTW (ft BTOC)	Elevation (ft msl)	DTW (ft BTOC)	Elevation (ft msl)
EPA-MW-11D	74.63	59.75	14.88	59.10	15.53	57.63	17.00
EPA-MW-21	84.13	66.61	17.52	65.67	18.46	65.80	18.33
EPA-MW-22	82.20	64.33	17.87	64.44	17.76	65.32	16.88
EPA-MW-23	82.83	65.16	17.67	65.10	17.73	64.44	18.39
EPA-MW-27	69.32	52.24	17.08	51.87	17.45	50.85	18.47
ST-MW-02	82.03	64.54	17.49	64.78	17.25	63.90	18.13
ST-MW-06	69.83	44.11	25.72	55.41	14.42	47.32	22.51
ST-MW-09	78.13	59.98	18.15	62.31	15.82	63.44	14.69
ST-MW-11	75.25	60.50	14.75	59.99	15.26	58.64	16.61
ST-MW-12	87.20	71.36	15.84	71.98	15.22	70.45	16.75
ST-MW-14	69.73	55.56	14.17	56.51	13.22	50.15	19.58
ST-MW-16	75.78	54.85	20.93	57.08	18.70	55.15	20.63
ST-MW-17	86.53	70.80	15.73	71.03	15.50	70.75	15.78
ST-MW-19	82.50	64.32	18.18	64.76	17.74	65.01	17.49
ST-MW-20	84.53	71.66	12.87	72.43	12.10	65.09	19.44

**Notes:**

ft msl - feet mean sea level

ft BTOC - feet below top of casing

-- - Not measured

**HISTORICAL GROUNDWATER ELEVATIONS  
STANTON CLEANERS AREA GROUNDWATER CONTAMINATION SITE  
GREAT NECK, NASSAU COUNTY, NEW YORK**

Well ID	Top of PVC Elevation (ft msl)	3/22/2005		4/11/2005		5/19/2005	
		DTW (ft BTOC)	Elevation (ft msl)	DTW (ft BTOC)	Elevation (ft msl)	DTW (ft BTOC)	Elevation (ft msl)
EPA-MW-11D	74.63	60.00	14.63	60.99	13.64	61.00	13.63
EPA-MW-21	84.13	64.50	19.63	64.00	20.13	63.21	20.92
EPA-MW-22	82.20	64.55	17.65	65.12	17.08	65.43	16.77
EPA-MW-23	82.83	65.00	17.83	65.10	17.73	65.00	17.83
EPA-MW-27	69.32	51.67	17.65	51.60	17.72	51.33	17.99
ST-MW-02	82.03	63.99	18.04	63.89	18.14	63.40	18.63
ST-MW-06	69.83	55.40	14.43	55.42	14.41	55.32	14.51
ST-MW-09	78.13	61.20	16.93	61.78	16.35	61.72	16.41
ST-MW-11	75.25	60.10	15.15	60.00	15.25	59.99	15.26
ST-MW-12	87.20	72.00	15.20	71.21	15.99	71.12	16.08
ST-MW-14	69.73	56.20	13.53	56.33	13.40	56.34	13.39
ST-MW-16	75.78	57.00	18.78	57.10	18.68	57.30	18.48
ST-MW-17	86.53	70.78	15.75	70.00	16.53	59.90	26.63
ST-MW-19	82.50	63.23	19.27	63.00	19.50	63.00	19.50
ST-MW-20	84.53	71.32	13.21	71.21	13.32	71.71	12.82

**Notes:**

ft msl - feet mean sea level

ft BTOC - feet below top of casing

-- - Not measured

**HISTORICAL GROUNDWATER ELEVATIONS  
STANTON CLEANERS AREA GROUNDWATER CONTAMINATION SITE  
GREAT NECK, NASSAU COUNTY, NEW YORK**

Well ID	Top of PVC Elevation (ft msl)	6/15/2005		7/7/2005		8/4/2005	
		DTW (ft BTOC)	Elevation (ft msl)	DTW (ft BTOC)	Elevation (ft msl)	DTW (ft BTOC)	Elevation (ft msl)
EPA-MW-11D	74.63	58.70	15.93	58.51	16.12	59.07	15.56
EPA-MW-21	84.13	66.35	17.78	66.27	17.83	66.85	17.28
EPA-MW-22	82.20	63.83	18.37	63.78	18.42	64.38	17.82
EPA-MW-23	82.83	64.32	18.51	64.29	18.54	64.88	17.95
EPA-MW-27	69.32	51.45	17.87	51.35	17.97	51.84	17.48
ST-MW-02	82.03	--	--	--	--	--	
ST-MW-06	69.83	45.70	24.13	45.90	23.93	45.80	24.03
ST-MW-09	78.13	63.45	14.68	63.29	14.84	63.94	14.19
ST-MW-11	75.25	--	--	--	--	--	
ST-MW-12	87.20	71.02	16.18	70.71	16.49	71.42	15.78
ST-MW-14	69.73	55.08	14.65	54.99	14.74	55.45	14.28
ST-MW-16	75.78	54.54	21.24	54.71	21.07	54.82	20.96
ST-MW-17	86.53	70.35	16.18	70.17	16.36	70.78	15.75
ST-MW-19	82.50	66.82	15.68	66.89	15.61	66.53	15.97
ST-MW-20	84.53	71.20	13.33	71.07	13.46	71.59	12.94

**Notes:**

ft msl - feet mean sea level

ft BTOC - feet below top of casing

-- - Not measured

**HISTORICAL GROUNDWATER ELEVATIONS  
STANTON CLEANERS AREA GROUNDWATER CONTAMINATION SITE  
GREAT NECK, NASSAU COUNTY, NEW YORK**

Well ID	Top of PVC Elevation (ft msl)	8/30/2005		10/11/2005		11/6/2005	
		DTW (ft BTOC)	Elevation (ft msl)	DTW (ft BTOC)	Elevation (ft msl)	DTW (ft BTOC)	Elevation (ft msl)
EPA-MW-11D	74.63			59.28	15.35	60.09	
EPA-MW-21	84.13	67.03	17.10	67.35	16.78	67.14	16.99
EPA-MW-22	82.20	64.52	17.68	64.93	17.27	64.67	17.53
EPA-MW-23	82.83	65.03	17.80	65.43	17.40	65.17	17.66
EPA-MW-27	69.32	55.11	14.21	52.38	16.94	52.27	17.05
ST-MW-02	82.03	64.42	17.61				
ST-MW-06	69.83	46.25	23.58	45.99	23.84	43.69	26.14
ST-MW-09	78.13			64.28	13.85	64.40	13.73
ST-MW-11	75.25		--				--
ST-MW-12	87.20	71.61	15.59	71.68	15.52	71.76	15.44
ST-MW-14	69.73	55.71	14.02	55.71	14.02	57.16	12.57
ST-MW-16	75.78	55.21	20.57	55.78	20.00	54.55	21.23
ST-MW-17	86.53	70.99	15.54	71.09	15.44	71.36	15.17
ST-MW-19	82.50	66.71	15.79	66.90	15.60	66.86	15.64
ST-MW-20	84.53	71.83	12.70	71.78	12.75	74.56	9.97

**Notes:**

ft msl - feet mean sea level

ft BTOC - feet below top of casing

-- - Not measured

**HISTORICAL GROUNDWATER ELEVATIONS  
STANTON CLEANERS AREA GROUNDWATER CONTAMINATION SITE  
GREAT NECK, NASSAU COUNTY, NEW YORK**

Well ID	Top of PVC Elevation (ft msl)	12/19/2005		1/24/2006		2/22/2006	
		DTW (ft BTOC)	Elevation (ft msl)	DTW (ft BTOC)	Elevation (ft msl)	DTW (ft BTOC)	Elevation (ft msl)
EPA-MW-11D	74.63	59.19	15.44	59.22	15.41	58.37	16.26
EPA-MW-21	84.13	66.84	17.29	66.55	17.58	65.72	18.41
EPA-MW-22	82.20	64.39	17.81	64.09	18.11	63.38	18.82
EPA-MW-23	82.83	64.89	17.94	64.61	18.22	63.91	18.92
EPA-MW-27	69.32	51.96	17.36	51.72	17.60	51.10	18.22
ST-MW-02	82.03	--	--				
ST-MW-06	69.83	44.43	25.40	44.08	25.75	44.88	24.95
ST-MW-09	78.13	63.96	14.17	63.77	14.36	63.24	14.89
ST-MW-11	75.25	--	--				
ST-MW-12	87.20	71.43	15.77	71.17	16.03	70.58	16.62
ST-MW-14	69.73	55.58	14.15	56.09	13.64	54.86	14.87
ST-MW-16	75.78	54.77	21.01	54.43	21.35	54.17	21.61
ST-MW-17	86.53	70.82	15.71	70.62	15.91	70.03	16.50
ST-MW-19	82.50	66.94	15.56	66.66	15.84	66.46	16.04
ST-MW-20	84.53	71.64	12.89	72.13	12.40	70.81	13.72

**Notes:**

ft msl - feet mean sea level

ft BTOC - feet below top of casing

-- - Not measured

## **Appendix I**

### **Indoor Air Quality Analytical Data**

## **Appendix J**

### **Action List Dated February 2006**

**FEBRUARY 2006 ACTION LIST SUMMARY**

**PROJECT:** Stanton Cleaners                      **JOB NUMBER:** 70536  
**LOCATION:** Great Neck, NY                      **DATE:** March 2, 2006  
**CLIENT:** USACE / USEPA

<b><u>COMPLETED ITEMS</u></b>	<b><u>DATE PERFORMED</u></b>
Scheduling of Groundwater Sampling event	Scheduled for the Week of May 22, 2006
Review of Carbon Change out Schedule	Deemed not necessary at this point, (to be re-evaluated in June 2006)
Scheduling of Indoor Air Sampling Event	Planned for May 2006
EPA-EXT-4R Shut Off; EPA-MW-24 Turned On	2/1/2006
Weekly O&M Inspection/Weekly System Monitoring	2/6/2006
Weekly O&M Inspection/Weekly System Monitoring	2/14/2006
Monthly System Sampling	2/14/2006
Bi-Weekly System Air Monitoring	2/16/2006
Weekly O&M/Weekly System Monitoring	2/20/2006
Monthly Groundwater Level Gauging	2/22/2006
Weekly O&M/Weekly System Monitoring/Bi-Weekly Air Monitoring	2/27/2006

<b><u>OUTSTANDING ITEMS</u></b> /	<b><u>RECOMMENDED SOLUTION</u></b>
Revision to O&M manual to reflect changes in GWP&T	To be performed in March 2006
Indoor Air Sampling	To be performed May 2006
Groundwater Monitoring Well Sampling	To be performed Week of May 22, 2006