2012 PERIODIC REVIEW REPORT
BREWSTER VILLAGE WELL FIELD SITE

(Site No.: 3-40-012)
Village of Brewster, Brewster, Putnam County, New York

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New York State Department of Environmental Conservation

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Section 1
Executive Summary

1.1 Site History and Remedial Program

The Brewster Well Field Site (the "Site") is located on the northern and southern banks of the East Branch Croton River (the "River"), and is approximately three-quarters of a mile west of the Village of Brewster in the Town of Southeast, Putnam County, New York as shown on Figure 1, the Site Location Map. The Site was found to be contaminated with chlorinated solvents, primarily tetrachloroethene (PCE) and trichloroethene (TCE). Alben Dry Cleaners was determined to be the source of the contamination.

The Brewster Well Field, which supplies water to approximately 2,200 people, was found to be contaminated with halogenated volatile organic compounds that included PCE, TCE and cis-1,2-dichloroethylene (DCE). The initial contamination discovery was made in 1978. An on-site packed air stripper was installed in 1984 to provide treatment of the Village's water supply and was later replaced by a full scale air stripper in 1985.

After completing a Remedial Investigation and Feasibility Study (RI/FS), the OU-1 Record of Decision (ROD) was signed in 1986. The selected remedy included continued operation of the air stripper to treat the Village's water supply and a second groundwater treatment system to capture the contaminant plume. This second air stripper system was installed northwest of the Brady Stannard Chevrolet dealership and operated until 2007, when it was replaced with a new tray air stripper system, located to the east of Smith Cairns Subaru dealership. The original air stripper groundwater treatment system was demolished in 2012. The new groundwater treatment system was located to better capture the contaminant plume that still exists under the former Alben Dry Cleaners building, which is now the Subaru dealership. All former and existing treatment systems can be found on the Site Plan included as Figure 2. In 2009, the EPA issued an Explanation of Significant Differences (ESD) documenting changes to the original remedy including the installation of an enhanced subslab vapor mitigation system to prevent vapor intrusion and remediate contaminated soil discovered beneath the Smith Cairns Subaru dealership building. The ESD also detailed institutional controls to prevent potential exposure to contaminated soils and groundwater in the vicinity of the Site.

1.2 Remedy Evaluation

This Periodic Review Report (PRR) will cover the time period between June 1, 2011 and December 31, 2012. The annual groundwater sampling event was delayed in 2012 until December when a new work assignment was issued to CDM Smith. The next groundwater sampling event is scheduled for April 2013 and the 2013 PRR will cover January 2013 through December 2013.

The groundwater treatment system treated approximately 88,034,515 gallons of water from system start-up in February 2008 through December 28, 2012. The system operated almost continuously during this period. Aztech Technologies Inc. (Aztech) monitors the treatment system remotely, performs monthly sampling of the system influent and discharge, and completes any regular maintenance as necessary.

Concentrations of PCE, DCE, and Vinyl Chloride in the combined influent to the groundwater treatment system have decreased significantly since system sampling started in March 2008. PCE concentrations in the combined system influent dropped 72 percent from 880 µg/L in March 2008 to 250 µg/L in December 2012, while DCE concentrations dropped 79 percent from 110 µg/L to 23 µg/L over the same time period. Vinyl chloride concentrations in the combined system influent dropped from 15 µg/L in March 2008 to non-detect in December 2011 and have remained below the method detection limit through December 2012. TCE concentrations started at 9 µg /L in March 2008, dropped to non-detect during 2009; rose to 11 µg/L in May 2011 and again dropped back to non-detect in January 2012 where the level remains currently.

Annual groundwater sampling results continue to show chlorinated volatile organic compounds (CVOCs) in two areas of the Site, near the extraction wells for the groundwater treatment system and northwest of the Brady Stannard Chevrolet dealership. Comparing annual groundwater sampling results from 2011 and 2012 collected from approximately 30 monitoring wells on- and off-site, PCE concentrations were down across the Site and remained low to non-detect in the area northwest of the Brady Stannard Dealership, and highest in the area near the Smith Cairns Subaru dealership. DCE concentrations were generally down across the Site and vinyl chloride concentrations were down significantly across the Site.

Monthly Operation and Maintenance is performed by Aztech including monthly sampling and periodic cleaning of the air stripper trays. Any operational issues when possible are resolved remotely or during monthly site visits by Aztech. Daily fax reports are sent to CDM Smith and Aztech by the groundwater treatment system Pro Control System.

Total costs for operation of the treatment system and completion of all the required monitoring, sampling, and reporting was $110,966 in 2011 and $71,969 in 2012.

This annual PRR is required to verify site conditions.

The following measures are recommended to better define and capture the contaminant plume on-site and maintain the Site:

- Redevelop extraction well EW-6 for better production rate or install a new well to provide better performance and increase the capture of the highest levels of groundwater contamination;
- Decommission the injection wells associated with the old groundwater treatment system.
- Repair existing monitoring wells as needed.

Section 2

Section 2
Site Overview

This PRR was prepared by CDM Smith for the New York State Department of Environmental Conservation (NYSDEC) under Work Assignment DCWA No. 8 of CDM Smith's standby contract D007621 with NYSDEC. The NYSDEC has assigned the Site the ID No. 3-40-012.

2.1 Objectives of the Periodic Review

The periodic review (PR) process is used to determine if a remedy continues to be properly managed, as set forth in the Site Management Plan (SMP). The objectives of the PR for sites in the State Superfund Program (SSP) are as follows:

- Evaluate if chosen remedy is performing properly and effectively and is protective of public health and the environment;
- Determine compliance with the ROD, Explanation of Significant Differences (ESD) and , if available, the SMP;
- Evaluate treatment system and recommend repairs, if necessary;
- Evaluate the condition of the remedy;
- Ascertain that the intent of the institutional controls (IC) continues to be met, the engineering controls remain in place, and both are effective and protect public human health and the environment; and
- Evaluate the O&M costs.

2.2 Site Location

The Site is located on the northern and southern banks of the East Branch of the Croton River and is approximately three-quarters of a mile west of the Village of Brewster in the Town of Southeast, Putnam County, New York. The land to the north and west of the site is largely residential while most of the land south of the site is occupied by commercial or light industrial facilities.

2.3 Site History

The Brewster Well Field, which supplies water to approximately 2,200 people, was found to be contaminated with halogenated volatile organic compounds (VOCs) that included PCE, TCE and DCE. The initial contamination discovery was made in 1978. Alben Dry Cleaners was determined to be the source of the contamination, which is now the location of the Subaru dealership. The Site was placed on the National Priorities List in December 1982. Under a cooperative agreement with the EPA Office of Research and Development, a packed air stripper was installed in 1984 at the Village's well field to provide treatment of their water supply.

After completing a RI/FS, the OU-1 ROD was signed in 1986. The selected remedy included:

- Continued operation (by the Village of Brewster) of the existing air stripping system at the well field north of the River to provide the Village a water supply that exceeds applicable or relevant and appropriate standards (ARARs).
- The design and construction of a groundwater treatment system (GWTS) to contain the groundwater contaminant plume, restore groundwater quality through the extraction, treatment and re-injection of the treated water, and to restore groundwater quality south of the East Branch Croton River.

The ROD identified ARARs for the Site to include EPA's Maximum Contaminant Levels (MCLs), and New York State's groundwater quality standards established pursuant to the Clean Water Act, as follows:

- EPA Safe Drinking Water Act limit of 5 µg/L for TCE;
- NYS Groundwater Standard of 10 µg/L for TCE.

The ROD also called for an RI/FS to identify and address the source(s) of the groundwater contamination. A supplemental RI/FS was completed in July 1988. Based upon the results of soil and groundwater sampling activities, a significant source of contamination was identified as a dry well adjacent to Alben Dry Cleaners. In September 1988 a second operable unit (OU-2) ROD was issued by EPA. This "source control" ROD called for the excavation and off-site disposal of the dry well, its contents, and surrounding contaminated soils. This OU-2 remedial action was completed by Foster Wheeler Environmental (FWC) in September 1991.

During the Five-Year Review conducted in 2007, it was determined that a plume exists under the Subaru dealership (former location of the Alben Dry Cleaners) that was not being fully captured by the original GWTS. As a result, a new treatment system with three extraction wells and a stacked tray air stripper was installed at the Subaru dealership in 2007 by the EPA under contract with Aztech.

In October 2009, the EPA issued an ESD for the Site. Citing the results of soil gas samples collected beneath the slab of the Subaru dealership, it explained that a subslab mitigation system was installed and later enhanced to target a small volume of contaminated soil identified beneath the building.

It should also be noted that there was a historical spill of petroleum on the Brady-Stannard Cadillac/Chevrolet property due to a collapsed underground storage tank. An old SVE system is still located on that site, as indicated on Figure 2, but it is not operational. Residual petroleum contamination associated with this spill remains at the Site, however, this spill is not an area of concern related to the Site and is not discussed further in this PRR.

In 2012 the original remediation system was demolished and removed from the site by an EPA contractor. The associated extraction wells were abandoned, however the injection wells were not abandoned and remain on-site. At this time, EPA does not intend to abandon the injection wells.

Old groundwater treatment system, demolished in 2012.

New groundwater treatment system installed in 2007.

2.4 Site Geology and Hydrogeology

The subsurface hydrogeology consists of unconsolidated sediments overlying bedrock. No contamination was found in the bedrock wells. All recovery wells are located in the unconsolidated overburden. Groundwater flow south of the River (from source area) is to the north. Under natural conditions (i.e. no well field) groundwater would discharge to the River from both the north and south. However, due to the historic pumping at the Village Well Field north of the River, the groundwater flows beneath the river from the south and thus drawing contamination from the Site towards the Brewster well field.

The River flows to the southwest and contributes to the Croton Falls Reservoir approximately 3.5 miles downstream. The River is also impounded approximately 3,000 feet upstream to form the East Branch Croton Reservoir.

Section 3

Section 3

Evaluate Remedy Performance, Effectiveness and Protectiveness

The treatment system at the Site consists of the following primary elements:

- A GWTS consisting of three groundwater extraction wells with level controls, a stacked tray air stripper, a blower with a variable frequency drive (VFD), a Pro Control system for remote monitoring, and groundwater discharge to the East Branch of the Croton River; and
- An enhanced subslab mitigation system

The GWTS was installed to the east of the Site in the summer of 2007 by Aztech and was put into service in October 2007. Three extraction wells ERTEW-5, ERTEW-6 and ERTEW-7 were installed in parking areas along the front (north side) of the Subaru dealership , as shown on Figure 2. The pumps extract groundwater from the wells and convey it to the air stripper treatment system. The treated groundwater is discharged to the river and the air is discharged through the discharge stack to the atmosphere. Weekly system checks and monthly sampling of the influent and effluent are being completed by Aztech.

System improvements made since start-up include installing the VFD on the air stripper blower and a Pro Control system that provides treatment system monitoring without weekly trips to the Site. These modifications were completed by Aztech in July 2008. Both these improvements resulted in a cost savings by reducing the electrical costs by running the blower at a lower speed but still achieving the discharge requirements and reducing the number of trips to the Site each month from 4 to 1, therefore, reducing man-hours, fuel consumption and overall greenhouse gas emissions.

The GWTS continues to remove contaminants of concern (COCs) from the groundwater to address the contamination coming from under the Subaru dealership building and preventing migration downgradient. The three extraction wells appear to be providing containment and have reduced COC concentrations in groundwater since start-up, though the concentrations have leveled off.

The subslab mitigation system was installed by EPA in the Subaru dealership building in May 2006 in response to elevated VOC concentrations detected in subslab vapor intrusion samples collected from beneath the slab of the building. EPA has been responsible for operation and maintenance of the enhanced subslab mitigation system since it was installed.In March 2010, the subslab mitigation system was enhanced with additional piping to reach the area of greatest contamination and a greater capacity blower to facilitate more efficient VOC removal from this area. Subslab concentrations continue to decline, as evidenced by subslab air samples collected by EPA in March 2011, indicating the success of the mitigation system run in conjuction with the GWTS. Soil samples collected by EPA in the zone of highest COC concentrations in July 2011 met EPA's clean-up objective of 4 mg/kg PCE and NYSDEC's unrestricted use soil clean-up objective of 1.3 mg/kg. The enhanced subslab mitigation system continues to operate due to residual contamination remaining in the groundwater beneath the building.

3.1 Operation and Maintenance Plan

Prior to Aztech installing the Pro Control system, field technicians conducted weekly visits to check the wells and record air pressure, temperature and flow rates and flow totals.

Since the Pro Control installation, the GWTS automatically generates a daily status report, which includes system status, air pressure and temperature, as well as flow rates and cumulative flow for extraction wells ERTEW-5, ERTEW-6, and ERTEW-7. These status reports are faxed daily by the system to CDM Smith and Aztech. Fax reports for each Friday are included as Attachment B.

On a monthly basis, Aztech samples each extraction well, the combined influent, and the treated water discharge for VOCs.

The air stripper trays on the GWTS are cleaned about once per year by scraping and washing using a dilute muriatic acid solution to remove or reduce the scale build up seen historically through the GWTS operation. This cleaning is completed when the backpressure on the system increases significantly or when the air stripper is not effectively removing VOCs from the water. As part of Aztech's monthly site maintenance the pin wheels on the flow meters are removed and cleaned. This is to ensure that accurate flow volumes are recorded.

An O&M report for the Site was completed by Aztech and is included as Appendix I.

3.1.1 O&M Compliance Report

The groundwater treatment system has been in compliance with SPDES discharge criteria since March of 2008 when Aztech began collecting samples monthly from the systems treated discharge. The SPDES discharge criteria limit is 10 µg/L for each of the COCs, including DCE, TCE, Vinyl Chloride, and PCE.

The following table provides a summary of required O&M activities for the Site along with the frequency of compliance between June 2011 and December 2012.

Confirm Compliance with O&M Activities

Activity	Required Frequency (X)			Compliance Dates
	Monthly	Yearly	As Needed	
Preventive Maintenance	X			6/30/2011 7/28/2011 8/30/2011 9/30/2011 12/14/2011 1/11/2012 2/10/2012 3/29/2012 4/10/2012 5/10/2012 6/5/2012 8/1/2012 8/23/2012 9/27/2012 12/4/2012
Groundwater Influent & Effluent Sampling	X			6/30/2011 7/28/2011 8/30/2011 9/30/2011 12/14/2011 1/11/2012 2/10/2012 3/29/2012 4/10/2012 5/10/2012 6/5/2012 8/1/2012 8/23/2012 9/27/2012 12/4/2012
Water Level Monitoring		X		12/26/2012
Monitoring Well Sampling		X		12/26/2012
Air Stripper Tray Cleaning			X	3/13/2012
Monitoring Well Maintenance			X	-

3.1.2 Evaluation of O&M Activities

3.1.2.1 Pumping Rates

Pumping rates for each extraction well are recorded automatically by the Pro Control system. The system measures instantaneous pumping rates in gallons per minute (gpm) as well as cumulative pumping volumes. The total volume pumped by the system is later calculated by summing the volumes from the three wells. Pumping volumes and other information collected on the GWTS are reported in Tables 3-1 through 3-4.

The system pumped approximately 88,034,515 gallons of water from system start-up in February 2008 through December 28, 2012. Pumping rates for all wells are presented in Table 3-1. In June 2011 through December 2012, pumping rates for the extraction wells ERTEW-5 and ERTEW-7 were

relatively constant and averaged 16 gallons per minute (gpm) and 19 gpm, respectively. The flow rate for ERTEW-6 over the same time period dropped gradually from 7 gpm to 0 gpm. The largest amount of water was pumped by ERTEW-7 with a total of 14,250,519 gallons pumped between June 2011 and December 2012, followed by ERTEW-5 with 11,436,147 gallons and the least was pumped by ERTEW-6 with 2,935,404 gallons. The recharge rate is slower in ERTEW-6 than the other extraction wells and the pump cycles off and on frequently. As a result, the treatment system often reported a flow rate of zero in ERTEW-6, especially after July 2012 (Table 3-1). Since August 2008, the pumping rate of ERTEW-6 has been cut back using a valve to try to avoid dewatering of the well and also to reduce breakthrough of VOCs in the system effluent, since this well has the highest VOC concentrations. The pinwheel that measures the pumping rate on well ERTEW-5 stopped functioning in November 2010 and was repaired on February 24, 2011. The flow measurements collected by the system during that time period are not reliable. The Pro Control system stopped sending fax reports on May 5, 2011 and resumed May 16, 2011 after being repaired by Aztech.

The groundwater treatment system shut down regularly between June 2011 and December 2012, up to three times per month. However, the system was usually reset remotely within one or two days of the shut-down. The longest shut-down period was three days between January 7, 2012 and January 10, 2012. Table 3-4 lists the dates on which the system shut down.

3.1.2.2 Groundwater Elevation Measurement

There are 83 monitoring wells on and in the vicinity of the Site. A subset of approximately 60 monitoring wells are gauged during the annual groundwater sampling event, usually in the spring. A sufficient number of wells are gauged to establish the current direction of groundwater flow across the Site.

On December 26, 2012, CDM Smith collected groundwater elevation data and depth to bottom measurements from 57 wells during the annual groundwater sampling event (Table 3-5). Groundwater elevation measurements were recorded under pumping conditions while the GWTS and Village wells were operating.

Groundwater in the shallow aquifer, as measured in the shallow wells to the north of the River was observed to be flowing south towards the River (Figure 3), while south of the river, groundwater in the shallow aquifer flowed north towards the River. The extraction wells were pumping during the gauging activities, but do not appear to have had much draw-down effect in the shallow wells. Intermediate depth wells may or may not be located in the same unconfined aquifer as the shallow wells; sufficient boring logs are not available to make this determination. Close to extraction wells ERTEW-5, ERTEW-6, and ERTEW-7, groundwater at the intermediate depth in the aquifer was flowing towards the extraction wells (Figure 4). In other areas south of the River, water measured in the intermediate wells was observed flowing north towards the River, while groundwater north of the River flowed south towards the River.

3.1.2.3 Groundwater Treatment System Analytical

Aztech collects groundwater samples monthly from extraction wells ERTEW-5, ERTEW-6, and ERTEW-7, combined influent, and effluent. Monthly groundwater samples are analyzed for VOCs by EPA Method 601. Samples are analyzed by Adirondack Environmental Services, Inc. in Albany, NY, a NYSDOH approved ELAP certified laboratory (Appendix F). Table 3-2 provides a summary of the sample results for the system influent and effluent, and each extraction well from March 2008 through

December, 2012. Figures in Appendix A show TCE, PCE, DCE, and Vinyl Chloride concentrations from March 2008 through December 2012.

Over the period of June 2011 through December 2012 , TCE concentration in the combined influent fluctuated from below detection (at a detection limit of 5 µg/L) to 6.3 µg/L in September 2011, down from the combined influent TCE concentration observed in March 2008 (9 µg/L). TCE in the combined influent was below detection throughout 2012. Vinyl Chloride concentrations also fluctuated between June 2011 and December 2012, from 12 µg/L in August 2011 to below detection (at a detection limit of 5 µg/L), down from 15 µg/L in March 2008. Vinyl Chloride in the combined influent was also below detection throughout 2012. PCE concentrations in combined influent ranged from 160 µg/L in August 2012 to 300 µg/L in June 2011, down from 880 µg/L in 2008. DCE concentrations in combined influent samples ranged from 60 µg/L in August 2011 to 15 µg/L in April 2012, down from 110 µg/L DCE in 2008.

TCE concentrations in groundwater samples from extraction well ERTEW-5 remained below detection from June 2011 through December 2012, down from 10 µg/L when system sampling started in March 2008. Vinyl Chloride also remained below detection from June 2011 through December 2012, down from 19 µg/L in 2008. PCE concentrations in ERTEW-5 ranged from 670 µg/L in June 2011 to 380 µg/L in June 2012, down from 1,600 µg/L in 2008. DCE concentrations in ERTEW-5 were between 35 µg/L in September 2012 to below detection (at 10 µg/L) for December 2011 through April 2012, down from 160 µg/L in 2008.

TCE concentrations in groundwater samples from extraction well ERTEW-6 ranged from 18 µg/L in September 2011 to below detection (at detection limits ranging from 5 to 10 µg/L) for March through December 2012, compared with the 2008 concentration of 12 µg/L system sampling began. Vinyl Chloride concentrations in ERTEW-6 ranged from 79 µg/L in December 2012 to 18 µg/L in December 2011, compared with a 2008 concentration of 21 µg/L. PCE concentrations ranged from 55 µg/L in June and September 2011 to 8.5 µg/L in August 2012, down from 1,500 µg/L in 2008. DCE concentrations in ERTEW-6 ranged from 380 µg/L in September 2011 to 130 µg/L in December 2012, as compared to 190 µg/L in 2008.

TCE concentrations in groundwater samples from extraction well ERTEW-7 ranged from 7.9 µg/L in December 2012 to 2.6 µg/L in March and June 2012, as compared to a starting concentration of 6 µg/L in 2008. Vinyl Chloride concentrations in ERTEW-7 ranged from 2 µg/L in December 2012 to below detection for June 2011 through September 2012, down significantly from a starting concentration of 10 µg/L. PCE concentrations in ERTEW-7 ranged from 64 µg/L in December 2012 to 22 µg/L in May 2012, as compared to a starting concentration of 48 µg/L in 2008. DCE concentrations ranged from 28 µg/L in September 2012 to 5.4 µg/L in July 2011, as compared to the 2008 starting concentration of 10 µg/L.

Excluding two PCE detections in June 2011 and August 2012, Effluent concentrations were below detection (at a detection limit of 1 µg/L) for all samples taken in June 2011 through December 2012. The PCE detections were 1.1 µg/L and 1.3 µg/L for June 2011 and August 2012, respectively. The SPDES effluent discharge criteria for PCE, DCE, TCE, and Vinyl Chloride is 10 µg/L for each of these constituents.

3.1.2.4 System Operation and Maintenance

For the period of June 2011 through December 2012, Aztech continued to make monthly O&M visits to collect system groundwater samples. Aztech sampled the influent from each of the extraction wells,

combined influent, and effluent. The GWTS equipment was also inspected during these visits for obvious leaks, corrosion, or other issues, such as fouling of the stripper trays and pressure in the

blower. Daily status reports continue to be received from the system and reports from every Friday for June 2011 through December 2012 are included in Appendix B. Pinwheels on flow meters are cleaned every month. No other major O&M activities were described in the inspection forms submitted during the June 2011 through December 2012 timeframe. A regular site visit was not performed by Aztech in November 2012 due to scheduling issues, however, a technician did make a brief site visit on November 6, 2012 to clean the flow meter pinwheels.

EPA decommissioned the old GWTS building behind the Brady Stannard Chevrolet dealership between August 7 and 17, 2012. The work was performed by Environmental Restoration, LLC (ER) and overseen by EPA Region 2 staff. ER's *Brewster Well Field Decommissioning and Dismantling Operations Summary Report* is included as Appendix J. The shed, which housed the old groundwater treatment system, was dismantled and disposed of and the underground piping was removed. The extraction wells associated with this system were abandoned, however, eight (8) injection wells near this system were not abandoned. During decommissioning of the old groundwater treatment system, two drums of acetic acid (56% strength) were found inside the treatment building. ER's report did not specify the size of the drums, but they are assumed to be 55-gallon drums. The acetic acid was neutralized by gradually adding small amounts into the on-site dry well inside the GWTS building and adding lime for pH adjustment. The dry well was excavated with the rest of the treatment system building.

Also, during the decommissioning activities ER replaced a non-operational sub-slab depressurization (SDS) mitigation fan at the Smith-Cairn Subaru dealership with a new RadonAway HS 2000 series fan.

3.2 Monitoring Plan Compliance Report

This PRR assesses whether the Site has been managed as set forth in the O&M Plan prepared by Aztech in 2010 and the ROD (EPA 1986).

3.2.1 Groundwater Sampling

The Site includes a network of 83 groundwater monitoring wells installed to depths ranging from six feet to 104 feet below the top of the well. These wells are used to monitor plume migration and evaluate groundwater treatment effectiveness. In order to provide the data for compliance monitoring, groundwater sampling and gauging is performed annually. Subsets of the accessible monitoring wells are gauged during this yearly gauging and a selected list of wells is sampled.

Three new monitoring wells were installed in November-December 2010 on the north side of the River on the western edge of the Site. These wells were intended to delineate the plume of contaminants detected in the area of well TH7. Drilling was performed by Aztech and was overseen by CDM Smith personnel. Boring logs were included in Appendix J of the 2011 Final Periodic Review Report, Brewster Village Well Field Site (CDM Smith, March 2012).

The shallow monitoring wells are generally screened within the upper ten feet of sediments, consisting primarily of somewhat finer grained alluvium and upper glacial outwash materials. The intermediate wells are screened generally between depths of 15 to 50 feet, within sediments consisting primarily of coarser grained, glaciofluvial sand and gravel. The groundwater elevation data collected in November 2012 is summarized in Table 3-5.

Appendix C includes groundwater sampling data from December 2000 through December 2012 and Appendix D includes some historical isoconcentration plots. Between November 26 and 29, 2012 CDM Smith collected groundwater samples from 33 monitoring wells at the Site and surrounding area. The wells consisted of shallow and intermediate depth wells. The monitoring well locations are shown on Figure 2. Table 3-5 provides a summary of sample identification, depth to groundwater, depth to bottom, date and time of sample.

Groundwater samples were collected using low flow sample techniques to purge groundwater until water quality parameters stabilized. Samples were analyzed for VOCs by EPA Method 8260 plus MTBE. For QA/QC purposes, two blind duplicate samples were also collected during the sample event and a trip blank was provided by the laboratory. Two field blanks were also collected by running lab-provided deionized water through the polyethylene and silicone tubing. The groundwater samples were submitted to H2M Labs, Inc. in Melville, New York for analysis. Data validation was completed by Environmental Data Validation, Inc. of Pittsburgh, Pennsylvania.

The analytical results were compared to New York State Ambient Water Quality Standards (AWQS) (NYSDEC Division of Water Technical and Operational Guidance Series 1.1.1) and the NYS Drinking Water Standard (NYS DWS). Tables 3-6 through 3-8 provide a summary of the analytical results for the 2012 sample round and Appendix C provides a summary of the historical groundwater analytical results. A complete laboratory report is included in Appendix F and the data validation report is included in Appendix E.

3.2.2 Shallow Groundwater Sample Analytical Results

CDM Smith collected a total of four samples from the shallow aquifer at the Site. Table 3-6 provides a summary of groundwater analytical results for VOCs in the shallow depth wells and Table 3-8 provides a summary of VOCs detected at all depths during the November 2012 sampling round.

VOCs were only detected above the AWQS in one shallow well, DGC19S, as follows:

- Benzene was detected at a concentration of 12 µg/L above the AWQS of 0.7 µg/L and the NYS DWS of 5 µg/L;
- Ethylbenzene was detected at a concentration of 7 µg/L , slightly above the AWQS of 5 µg/L and the NYS DWS of 5 µg/L ;
- Total xylene was detected at a concentration of 150 µg/L , above the AWQS of 5 µg/L and the NYS DWS of 5 µg/L;

Benzene, ethylbenze, and xylene are compounds associated with petroleum products and are not associated with the solvent release at the Site. However, they could be associated with a former petroleum spill at the Brady Stannard dealership.

3.2.3 Intermediate Groundwater Sample Analytical Results

CDM Smith collected a total of 29 groundwater samples from the intermediate depth monitoring wells at the Site and all samples were analyzed for VOCs by EPA Method 8260. The analytical results were compared to the AWQS and the NYS DWS. Table 3-7 provides a summary of groundwater analytical results for VOCs in the intermediate depth wells from the November 2012 sampling round. Isoconcentration plots of PCE, DCE, and Vinyl Chloride exceedances are included as Figures 5, 6, and 7, respectively.

VOCs were detected in eight of the 29 intermediate depth wells sampled as follows:

- PCE was detected in 16 wells at concentrations ranging from 2J µg/L in wells DGC-8I, ERT-7I and ERT-8I, where J indicates an estimated value, to 530 µg/L in well ERTEW-5. Of the 16 detections, nine (9) were above the AWQS and NYS DWS of 5 µg/L;
- DCE was detected in 12 wells at concentrations ranging from 1J µg/L in well ERT-7I to 150 µg/L in well ERTEW-6. Of the 12 detections, nine (9) were above the AWQS and NYS DWS of 5 µg/L;
- Vinyl Chloride was detected in six (6) wells at concentrations ranging from 1J µg/L in well DGC-19I to 81 µg/L in ERTEW-6. Of the six (6) detections, three (3) were above the AWQS of 2 µg/L and the NYS DWS of 5 µg/L;
- TCE was detected in 12 wells at concentrations ranging from 1J µg/L in wells DGC-3I, DGC-7I, DGC-16I, CDM-3, and ERTEW-6 to 7J µg/L in wells DGC-6I and ERTEW-7. Of the 12 detections, two (2) were above the AWQS and NYS DWS of 5 µg/L;

3.2.4 Quality Control / Quality Assurance for Groundwater Samples

The duplicates, DUP-1 and DUP-2, QA/QC sample results were consistent with the results for DGC-2I and DGC-16S, respectively. Two trip blanks were also submitted and analyzed for VOCs by EPA Method 8260 plus MTBE. The sample results for the trip blank were non-detect for all analytes The monitoring results indicated that PCE, TCE, DCE, and Vinyl Chloride represent the major groundwater contaminants for this site. The historical groundwater contaminant isoconcentration maps for PCE, TCE, DCE, and Vinyl Chloride are provided in Appendix D. Historical groundwater analytical summary tables are included in Appendix C.

PCE is the most prevalent groundwater contaminant at this site. The isoconcentration map for PCE (Figure 5) indicated two source areas of this constituent, one on-site in the area of extraction wells ERTEW5 (530 µg/L), ERTEW6 (10 µg/L), and ERTEW7 (57 µg/L), and a second one in the area of monitoring well TH-7 (29 µg/L), CDM-03 (8 µg/L), and DGC-6I (13 µg/L) located north of the River. Groundwater containing PCE at a concentration above the site cleanup standard of 5 µg/L was also found in DGC-1I (7 µg/L), DGC-9I (6 µg/L), and DGC-16I (11 µg/L),. Groundwater containing PCE above the cleanup standard does not appear to extend northeastward to the municipal well field.

DCE is the second most prevalent groundwater contaminant at this site. The isoconcentration map for DCE (Figure 6) also indicates the same two source areas as PCE, one near TH-07 (25 µg/L), DGC-7I (77 µg/L), DGC-6I (45 µg/L), DGC-9I (38 µg/L), DGC-19I (7 µg/L), and DGC-17I (55 µg/L), and a second in the area of extraction wells ERTEW-5 (34 µg/L), ERTEW-6 (150 µg/L) and ERTEW-7 (24 µg/L). The DCE at these locations may represent degradation products of PCE. Groundwater containing DCE above the cleanup standard of 5 µg/L does not appear to extend northeastward to the municipal well field.

Vinyl Chloride is the third most prevalent groundwater contaminant at this site. The isoconcentration map for Vinyl Chloride indicates one source area of this constituent in the area of extraction wells ERTEW-5 (3 µg/L), ERTEW-6 (81 µg/L), and ERTEW-7 (2 µg/L) (Figure 7). A small concentration of Vinyl Chloride was also detected in TH-7 (4 µg/L) on the north of the site across the Croton River and DGC7I (2 µg/L).

3.2.5 Data Validation

Data validation for the 2012 annual sampling was completed by Nancy Potak of Greensboro, VT. Her report indicated that all data was usable with a qualifier "J"added to some data due to:

- analysis one day beyond the 14 day holding time;
- relative percent differences between continuing calibration detections were greater than 20%;
- MS/MSD recoveries outside the acceptable range of 70 – 130%, and
- Relative percent differences between MS/MSD compounds greater than 30%.

3.2.6 Confirm Compliance with Monitoring Plan

The following table provides confirmation that the compliance monitoring is being performed in accordance with the monitoring plan.

Activity	Required Frequency		Compliance Dates
	Monthly	Annually	
Groundwater Sampling Monitoring Wells		X	12/26/2012
Water Level Monitoring		X	12/26/2012
Sampling of Extraction Wells, System Influent and Effluent	X		6/30/2011 7/28/2011 8/30/2011 9/30/2011 12/14/2011 1/11/2012 2/10/2012 3/29/2012 4/10/2012 5/10/2012 6/5/2012 8/1/2012 8/23/2012 9/27/2012 12/4/2012

3.2.7 Confirmation that Performance Standards are being Met

Table 3-2 provides a summary of the sample results for the system influent and effluent, and extraction wells from March 2008 through December 2012. The figures in Appendix A show TCE, PCE, DCE, and Vinyl Chloride concentrations in monthly system samples from March 2008 through December 2012. A significant reduction in PCE, DCE, and vinyl chloride is evident in the combined influent samples since system sampling began in March 2008. Between system start up in March 2008 and the latest sampling in December 2012, PCE concentrations in the combined system influent dropped from 880 µg /L to 250 µg /L, DCE dropped from 110 µg /L to 23 µg /L, vinyl chloride dropped from 15 µg /L to non-detect (at a detection limit of 5 µg/L), and TCE concentrations dropped from a starting value of 9 µg /L non-detect (at a detection limit of 5 µg/L).

These figures show that the groundwater treatment system is effectively removing PCE, TCE, DCE and Vinyl Chloride from the groundwater. The mass removal calculations for VOCs shown in Table 3-3 were calculated using analytical sample data and pumping rates from removal wells ERTEW-5, ERTEW-6, and ERTEW-7 from March 2008 through December 2012.

Since monitoring began in March 2008, the GWTS has removed an estimated 368 pounds of VOCs from groundwater between February 2008 and December 2012. Most of the VOC extraction has been from well EW-5 and most of the VOC removal is PCE (Table 3-3).

Concentrations of COCs have decreased since the treatment system was installed, however, concentrations of DCE, TCE, and PCE are still being detected in all of the extraction wells and Vinyl Chloride is still detectable in well ERTEW-6. Concentrations of DCE and TCE in the combined system influent seem to have leveled out over the last year.

3.3 Institutional Controls/Engineering Controls Certification Plan Report

An Institutional and Engineering Controls Plan is included as Appendix G. Institutional Controls and Engineering Controls (IC/EC) at the Site currently consist of:

- Operation and maintenance of the air stripper at the Village water supply well field;
- Operation and maintenance of groundwater treatment system at the Site;
- Requirement that new wells installed in Putnam County are permitted by the County Department of Health, preventing installation of drinking water wells in the contaminated plume;
- Requirement that the local planning board must contact EPA prior to the approval of any construction on the dealership property and vicinity of the Site; and
- The Site Management Plan (Appendix G).

3.3.1 IC/EC Requirements and Compliance

Determination of compliance with the IC/EC at the Site is made based on the following criteria:

- The IC/EC(s) applied at the Site are in place and unchanged from the previous certification;
- Nothing has occurred that would impair the ability of such controls to protect the public health and the environment, or constitute a violation or failure to comply with any element of the SMP for such controls;
- Access to the Site will continue to be provided to the Department to evaluate the remedy, including access to evaluate the continued maintenance of such controls.

The Site IC/ECs are in compliance with the requirements stated above.

Section 4

Section 4
Evaluate Costs

4.1 Summary of Costs

Total costs for operation of the treatment system and completion of all the required monitoring, sampling, and reporting in January through December, 2012 was approximately $71,969.11. The breakdown of major costs for 2008 through 2012 is as follows:

	Plant O&M	Costs for Annual Sampling	Long Term Monitoring and Reporting	Analytical Costs for 1 Year of Monthly Sampling	
2008	$48,030.00	$4,749.00	$36,944.30	$2,734.82	
2009	$27,886.45	$4,299.00	$43,265.38	$2,734.82	
2010	$24,488.30	$5,464.25	$23,213.80	$2,734.82	
2011	$38,923.83	$6,896.42	$62,861.96	$2,283.88	*
2012	$21,629.36	$4,116.95	$46,222.80	$ -	*

* Starting in November 2011, invoices for monthly sampling are included in Plant O&M

The long-term monitoring and reporting costs, which are billed by CDM Smith, include costs associated with project management and annual periodic reporting throughout the year. This long-term monitoring and reporting cost is based on invoices billed to NYSDEC and includes all labor costs to complete one round of annual groundwater sampling including travel expenses, but not including analytical costs or equipment costs. The analytical costs, now billed by Adirondack Labs, for monthly groundwater treatment system sampling were estimated for 2008 and 2009 based on invoices available from 2010. Costs for annual sampling are based on lab analytical costs, data validation costs, and equipment rental costs and do not include labor costs or travel expenses.

The plant O&M costs are billed by Aztech for monthly site visits to maintain the groundwater treatment system and collect system samples. Invoices are included as Appendix H. The O&M figure includes materials required for monthly maintenance and also utility costs for running the system. The O&M costs for 2008 also included upgrading the system with the variable frequency drive (VFD) and the Pro Control auto dialer. These costs included materials and time to install and program the new components, as well as performing the pilot test of the VFD. O&M costs dropped after these upgrades were completed.

Three new monitoring wells were installed in November-December 2010 on the north side of the River on the western edge of the Site. Drilling was performed by Aztech and was overseen by CDM Smith personnel. Aztech's costs for installing the new wells are included in the plant O&M for 2011. CDM Smith's labor, travel expenses, and rental equipment costs associated with the well installation is included above. The long-term monitoring and reporting cost reported for 2011 above includes labor for installation of the new monitoring wells in December 2010 as well as groundwater sampling in 2010, both of which were invoiced in 2011. Annual sampling costs for 2011 included $975 for brush clearing, which was not done in previous years, but will continue to be an annual or bi-annual expense. Once the wells were installed, YEC Inc., of Valley Cottage, New York, surveyed the new wells and billed $1,717.17, which is not included in the costs above.

Section 5

Section 5
Conclusions and Recommendations

5.1 Conclusions

5.1.1 Groundwater Treatment System

The GWTS continues to remove COCs from the groundwater to address the contamination coming from under the Subaru dealership building and to prevent migration down-gradient. As stated in Section 3.1.2.3, from June 2011 to December 2012, the TCE concentration in the combined influent dropped to non-detect (at a detection limit of 5 µg/L) in December 2012, below the concentration when system sampling started in March 2008 (9 µg/L). Vinyl Chloride concentrations also fluctuated between June 2011 and December 2012, from 12 µg/L in August 2011 to below detection (at a detection limit of 5 µg/L), down from 15 µg/L in March 2008. Vinyl Chloride in the combined influent was also below detection throughout 2012. PCE concentrations in combined influent ranged from 160 µg/L in August 2012 to 300 µg/L in June 2011, down from 880 µg/L in 2008. DCE concentrations in combined influent samples ranged from 60 µg/L in August 2011 to 15 µg/L in April 2012, down from 110 µg/L DCE in 2008.

5.1.2 Annual Groundwater Sampling

On November 26, 2012, CDM Smith collected groundwater elevation data and depth to bottom of the 33 wells sampled (Table 3-5). CDM Smith's conclusions are based on an evaluation and interpretation of the 2012 groundwater monitoring data and comparison to 2008 through 2011 groundwater monitoring data. The aforementioned comparison is as follows:

- Groundwater flow at this Site consists of shallow and deeper groundwater flow zones. Intermediate depth wells may or may not be located in the same unconfined aquifer as the shallow wells. Water in the shallow zones flows towards the Croton River on both sides. Closer to extraction wells ERTEW5, ERTEW6, and ERTEW7, the groundwater at intermediate depth in the aquifer was flowing towards the extraction wells, as expected under pumping conditions. In other areas, water measured in the intermediate depth wells was observed flowing towards the river

Two plumes of PCE, DCE, and vinyl chloride are present across the site (Figures 5, 6, 7). The GWTS extraction wells ERT-EW-5, ERT-EW-6, and ERT-EW-7 were installed in the vicinity of the principal source area. A smaller, lower concentration residual plume exists near the river and wells TH7, DGC6I, and DGC7I. Comparing the 2012 data to the 2008 and 2005 data shows that these sources have decreased and that the remedial system and natural attenuation are reducing COC concentrations across the Site. Additionally, between 2009 and 2011 an increase in site-wide PCE, DCE, and vinyl chloride concentrations was observed. However, the 2012 site-wide sampling results for the same parameters showed lower overall concentrations, as compared to 2011. Continued monitoring will show whether there is a continued trend of decreasing concentrations of COCs over the Site.

Review of the historical data showed one CVOC plume from the source area at the current location of the treatment system towards the old groundwater treatment system location and old extraction wells EW1 through EW4. When this system was shutdown and the new system started, it may have created a split in the plume near the Brady Stannard dealership, leaving part of the plume behind. Further monitoring in this area is recommended to be sure concentrations continue to decrease.

5.1.3 EPA 2012 5-Year Review Report Conclusions and Recommendations

EPA completed a 5-Year Review Report for the Site in April 2012, which discussed data collected in the preceeding five year period, reevaluated risk and remedy protectiveness based on updated assumptions, and made recommendations for follow-up actions. The 5-Year Review concluded that "the implemented remedies at the Brewster Well field site currently protect human health and the environment in the short-term since the vapor mitigation system is preventing exposure to contaminated vapors and area-wide well drilling bans and use of a treated municipal water supply prevent exposure to contaminated groundwater. In order for the remedies to be protective in the long- term, the extent of the low volatile organic compound (VOC) concentration plume needs to be delineated and alternatives to address the contamination evaluated." Furthermore, the 5-Year Review Report concluded that confirmation surface water sampling performed in March 2012 indicated that the surface water does not contain COCs and further sampling is not necessary. The report also recommended the installation of additional monitoring wells in the area northeast of the Brady Stannard dealership to better define the groundwater plume in the vicinity of monitoring wells DGC7I and DGC17I. Finally, to address the low VOC concentration portion of the groundwater plume near the East Branch of the Croton River, the report suggested evaluating chemical/biological treatment injections, system expansions, and/or monitored natural attenuation.

5.2 Recommendations

CDM Smith makes the following recommendations for the Brewster Well Field system;

- The groundwater treatment system should continue to be monitored monthly and annual groundwater sampling should be carried out in 2013 with COC evaluation after the next sampling round.

- The tray air stripper is effectively removing VOCs and meeting the effluent discharge criteria. ERT-EW5 and ERT-EW7 provide most of the water being treated by the air stripper. ERT-EW6, which is the well with the highest contamination, is producing very little water. CDM Smith recommends redeveloping this well or installing a new well to provide better performance similar to that of ERT-EW5 and ERT-EW7 and increase the capture of the highest levels of groundwater contamination. This may also help reduce the fouling that is occurring in this well and on the trays of the air stripper.

- To reduce the chance of well and pump failure in the future, the production wells ERT-EW5, -EW6 and -EW7 should be cleaned each year by surging and pumping and the pumps cleaned.

- When the old groundwater treatment system was decommissioned in 2012, the injection wells were not abandoned. These wells are no longer in use and are not likely to be useful for any future injections since they are not located in the source area and the water table is shallow in that area, which could make injections difficult. CDM Smith recommends that the injection wells associated with the decommissioned treatment system be abandoned to prevent them serving as a potential conduit for contamination.

- During the November 2012 sampling, CDM Smith identified nine (9) monitoring wells that are in need of new road box covers. In order to protect the integrity of the wells, these road box covers should be replaced if possible. In some cases, the road boxes may be damaged and may need to be replaced. Additionally, CDM Smith identified three (3) wells with bent stick-up risers, which is problematic for well gauging, causing the water level meter to become lodged in the well. CDM Smith recommends cutting off these well risers below the bend and coupling on a new riser section.

Tables

Table 3-1
Brewster Village Well Field Site (Site No. 3-40-012)
Groundwater Treatment System Pumping Volumes
June 2011 - December 2012

Date	ERTEW-5		ERTEW-6		ERTEW-7		Total of 3 recovery wells	
	Flow Rate (gpm)	Cumulative Flow (gal)	Flow Rate (gpm)	Cumulative Flow (gal)	Flow Rate (gpm)	Cumulative Flow (gal)	Flow Rate (gpm)	Cumulative Flow (gal)
6/3/2011	19	29,357,158	7	4,239,463	18	25,815,824	44	59,412,445
6/12/2011	19	29,540,498	7	4,315,701	18	26,001,555	44	59,857,754
6/17/2011	19	29,674,554	7	4,368,183	18	26,129,170	44	60,171,907
6/23/2011	19	29,834,057	7	4,431,219	18	26,282,382	43	60,547,658
6/3/2011	19	29,357,158	7	4,239,463	18	25,815,824	44	59,412,445
6/10/2011	0	29,518,090	0	4,306,903	0	25,980,320	0	59,805,313
6/17/2011	19	29,674,554	7	4,368,183	18	26,129,170	44	60,171,907
6/24/2011	18	29,860,609	7	4,441,774	18	26,307,973	44	60,610,356
7/1/2011	18	30,044,088	7	4,515,776	18	26,486,570	43	61,046,434
7/8/2011	19	30,143,963	7	4,556,005	17	26,581,510	44	61,281,478
7/15/2011	18	30,327,971	7	4,629,947	17	26,756,946	43	61,714,864
7/22/2011	18	30,510,750	7	4,704,323	18	26,931,911	43	62,146,984
7/29/2011	18	30,692,132	7	4,778,725	17	27,106,478	43	62,577,335
8/5/2011	18	30,871,619	8	4,853,975	17	27,281,222	42	63,006,816
8/12/2011	18	31,048,569	7	4,928,928	17	27,455,872	42	63,433,369
8/19/2011	17	31,224,852	7	5,003,279	17	27,630,406	42	63,858,537
8/26/2011	17	31,331,255	7	5,048,044	17	27,735,661	42	64,114,960
9/2/2011	13	31,458,168	7	5,109,977	18	27,882,951	38	64,451,096
9/9/2011	0	31,570,282	0	5,170,857	0	28,028,963	0	64,770,102
9/16/2011	13	31,694,007	7	5,241,797	18	28,201,758	38	65,137,562
9/23/2011	13	31,825,759	7	5,314,935	18	28,381,312	38	65,522,006
9/30/2011	13	31,957,820	7	5,387,569	18	28,561,112	38	65,906,501
10/7/2011	14	32,102,216	7	5,459,876	18	28,738,280	39	66,300,372
10/14/2011	0	32,221,639	0	5,519,204	0	28,885,059	0	66,625,902
10/21/2011	14	32,301,105	7	5,558,499	18	28,982,745	39	66,842,349
10/28/2011	14	32,444,336	7	5,629,229	18	29,161,237	39	67,234,802
11/4/2011	13	32,546,225	7	5,681,825	18	29,295,150	38	67,523,200
11/11/2011	13	32,680,311	7	5,751,636	18	29,475,517	38	67,907,464
11/18/2011	14	32,814,830	7	5,820,146	18	29,655,760	38	68,290,736
11/25/2011	14	32,955,752	7	5,887,572	18	29,836,798	39	68,680,122
12/2/2011	14	33,097,520	7	5,954,478	18	30,019,093	39	69,071,091
12/9/2011	14	33,235,898	7	6,020,718	18	30,202,032	39	69,458,648
12/16/2011	13	33,351,327	6	6,076,575	18	30,359,137	37	69,787,039
12/23/2011	13	33,497,565	6	6,150,285	18	30,569,996	37	70,217,846
12/30/2011	12	33,622,658	6	6,214,184	19	30,755,809	37	70,592,651
1/6/2012	12	33,744,380	6	6,277,272	19	30,942,401	37	70,964,053
1/13/2012	13	33,829,509	6	6,319,408	18	31,072,213	37	71,221,130
1/20/2012	13	33,960,769	6	6,376,682	19	31,257,916	37	71,595,367
1/27/2012	13	34,091,737	6	6,432,833	19	31,444,964	37	71,969,534
2/3/2012	13	34,222,936	5	6,487,731	19	31,633,189	37	72,343,856
2/10/2012	13	34,353,053	5	6,541,426	19	31,821,697	37	72,716,176
2/17/2012	11	34,462,968	5	6,593,470	19	32,014,228	35	73,070,666
2/24/2012	11	34,569,583	5	6,644,843	19	32,207,659	35	73,422,085
3/2/2012	11	34,675,777	5	6,694,544	19	32,401,549	35	73,771,870
3/9/2012	11	34,783,143	5	6,742,010	19	32,596,203	35	74,121,356
3/16/2012	11	34,889,114	5	6,788,766	19	32,789,016	35	74,466,896
3/23/2012	16	35,004,130	4	6,819,118	19	32,974,838	39	74,798,086
3/30/2012	16	35,164,779	3	6,854,163	19	33,167,625	38	75,186,567
4/6/2012	16	35,323,621	3	6,888,218	19	33,359,192	38	75,571,031
4/13/2012	16	35,480,298	3	6,921,216	19	33,551,770	38	75,953,284
4/20/2012	16.01	35,638,921	3	6,952,867	19.24	33745487	38.25	76,337,275
4/27/2012	16.4	35,800,880	2.88	6,983,043	19.07	33938814	38.35	76,722,737
5/4/2012	16.32	35,963,419	2.72	7,011,632	19.16	34131737	38.2	77,106,788
5/11/2012	15.74	36,125,131	2.59	7,038,652	19.29	34324351	37.62	77,488,134
5/18/2012	15.81	36,286,925	2.43	7,063,922	18.99	34516443	37.23	77,867,290
5/25/2012	15.79	36,446,617	2.15	7,087,276	19	34707775	36.94	78,241,668
6/1/2012	15.71	36,602,887	0	7,099,725	18.88	34898201	34.59	78,600,813
6/8/2012	NO REPORT							
6/15/2012	14.38	36,903,629	1.56	7,124,839	18.6	35273756	34.54	79,302,224
6/22/2012	14.25	37,048,593	1.48	7,140,327	18.49	35459453	34.22	79,648,373
6/29/2012	NO REPORT							
7/6/2012	NO REPORT							
7/13/2012	13.72	37,386,013	1.06	7,156,708	18.62	35,910,079	33.4	80,452,800
7/20/2012	13.71	37,505,888	0.74	7,163,097	18.73	36,075,028	33.18	80,744,013
7/27/2012	13.52	37,645,059	0	7,164,203	18.96	36,265,378	32.48	81,074,640
8/3/2012	0	37,750,889	0	7,164,216	0	36,410,925	0	81,326,030
8/10/2012	15.37	37,791,205	0.87	7,166,042	18.93	36,459,963	35.17	81,417,210
8/17/2012	15.53	37,946,720	0.7	7,171,091	18.93	36,651,260	35.16	81,769,071
8/24/2012	15.15	38,101,563	0.53	7,171,093	19.22	36,843,157	34.9	82,115,813
8/31/2012	15.18	38,255,498	0	7,171,093	19.15	37,034,579	34.33	82,461,170
9/7/2012	15.47	38,410,697	0	7,171,093	18.47	37,223,079	33.94	82,804,869
9/14/2012	15.8	38,568,221	0	7,171,093	19.04	37,411,744	34.84	83,151,058
9/21/2012	15.58	38,726,691	0	7,171,093	18.95	37,600,394	34.53	83,498,178
9/28/2012	16.3	38,886,144	0.67	7,171,115	18.5	37,789,981	35.47	83,847,240
10/5/2012	15.91	39,047,953	0.73	7,173,855	18.89	37,979,352	35.53	84,201,160
10/12/2012	16.26	39,210,823	0.66	7,174,852	18.72	38,169,117	35.64	84,554,792
10/19/2012	16.11	39,373,958	0.43	7,174,861	18.9	38,359,323	35.44	84,908,142
10/26/2012	16.25	39,536,784	0.56	7,174,861	19.05	38,550,179	35.86	85,261,824
11/2/2012	0	39,617,654	0	7,174,861	0	38,649,859	0	85,442,374
11/9/2012	16.14	39,682,111	0	7,174,865	19.15	38,735,115	35.29	85,592,091
11/16/2012	16.04	39,843,287	0	7,174,865	19.32	38,928,561	35.36	85,946,713
11/23/2012	15.93	40,004,455	0	7,174,865	19.22	39,122,468	35.15	86,301,788
11/30/2012	15.86	40,165,783	0	7,174,865	19.18	39,315,402	35.04	86,656,050
12/7/2012	15.89	40,311,885	0	7,174,867	19.05	39,492,289	34.94	86,979,041
12/14/2012	16.13	40,471,645	0	7,174,867	18.99	39,683,387	35.12	87,329,899
12/21/2012	15.91	40,632,416	0	7,174,867	19.34	39,874,884	35.25	87,682,167
12/28/2012	15.85	40,793,305	0	7,174,867	19.02	40,066,343	34.87	88,034,515

Table 3-2
Brewster Well Field Site (Site No. 3-40-012)
Analytical Summary
Monthly Groundwater Sampling Results
June 2011 - December 2012

SPDES Contaminants	SPDES Equivalent Discharge	Concentration (ug/L) in Recovery Well ERTEW-5														
		6/30/2011	7/28/2011	8/30/2011	9/30/2011	12/14/2011	1/11/2012	2/10/2012	3/13/2012	4/10/2012	5/10/2012	6/5/2012	8/1/2012	8/23/2012	9/27/2012	12/4/2012
cis 1,2-Dichloroethene	10	18	15	14	10	< 10	< 10	< 10	< 10	< 10	11	16	22	25	35	20
Tetrachloroethene	10	670	570	580	530	550	550	550	580	450	400	380	430	410	500	410
Vinyl Chloride	10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Trichloroethene	10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Methylene Chloride		< 10	< 10	11 B	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Chloroform		< 10	< 10	< 10	< 10	< 10	18 S	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10

SPDES Contaminants	SPDES Equivalent Discharge	Concentration (ug/L) in Recovery Well ERTEW-6														
		6/30/2011	7/28/2011	8/30/2011	9/30/2011	12/14/2011	1/11/2012	2/10/2012	3/29/2012	4/10/2012	5/10/2012	6/5/2012	8/1/2012	8/23/2012	9/27/2012	12/4/2012
cis 1,2-Dichloroethene	10	320	210	350	380	360	350	310	280	260	180	190	230	170	170	130
Tetrachloroethene	10	55	38	37	55	41	34	30	29	23	21	10	13	8.5	12	10
Vinyl Chloride	10	49	27	74	76	18	25	38	36	34	33	38	54	55	65	79
Trichloroethene	10	17	12	11	18	16	14	10	< 10	< 10	< 10	< 5	< 5	< 5	< 5	< 5
Chloroform		< 10	< 10	< 10	< 10	< 10	41 S	< 10	< 10	< 10	< 10	< 5	< 5	< 5	< 5	< 5

SPDES Contaminants	SPDES Equivalent Discharge	Concentration (ug/L) in Recovery Well ERTEW-7														
		6/30/2011	7/28/2011	8/30/2011	9/30/2011	12/14/2011	1/11/2012	2/10/2012	3/29/2012	4/10/2012	5/10/2012	6/5/2012	8/1/2012	8/23/2012	9/27/2012	12/4/2012
cis 1,2-Dichloroethene	10	7.1	5.4	11	8.5	8.2	7.3	6.6	6	6.8	7.2	7.5	17	19	28	27
Tetrachloroethene	10	37	28	40	30	30	27	25	23	24	22	27	49	47	57	64
Vinyl Chloride	10	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	2
Trichloroethene	10	5.8	3.1	6.3	5.5	5.7	4.9	3.5	2.6	2.9	2.8	2.6	4.9	5.2	6.6	7.9
Methylene Chloride		< 1	< 1	4.6 B	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1

SPDES Contaminants	SPDES Equivalent Discharge	Concentration (ug/L) in Combined Influent														
		6/30/2011	7/28/2011	8/30/2011	9/30/2011	12/14/2011	1/11/2012	2/10/2012	3/29/2012	4/10/2012	5/10/2012	6/5/2012	8/1/2012	8/23/2012	9/27/2012	12/4/2012
cis 1,2-Dichloroethene	10	58	43	60	54	44	38	29	27	15	22	16	25	16	28	23
Tetrachloroethene	10	300	260	250	230	230	240	230	200	210	200	190	210	160	220	250
Vinyl Chloride	10	7.5	< 5	12	9.9	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Trichloroethene	10	6.1	< 5	5	6.3	5.1	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroform		< 10	< 10	< 10	< 10	< 10	6 S	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5

SPDES Contaminants	SPDES Equivalent Discharge	Concentration (ug/L) in Effluent														
		6/30/2011	7/28/2011	8/30/2011	9/30/2011	12/14/2011	1/11/2012	2/10/2012	3/29/2012	4/10/2012	5/10/2012	6/5/2012	8/1/2012	8/23/2012	9/27/2012	12/4/2012
cis 1,2-Dichloroethene	10	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Tetrachloroethene	10	1.1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	1.3	< 1	< 1	< 1
Vinyl Chloride	10	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Trichloroethene	10	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methylene Chloride		< 1	< 1	2.1 B	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	1.0 B	< 1	< 1	< 1

E - Estimated value, concentration exceeds the instrument calibration range
D - Diluted sample
NS - Not sampled
B - Analyte detected in blank

Table 3-3
Brewster Village Well Field Site (Site No. 3-40-012)
VOC Removal Summary
May 2011 - December 2012

Interval Dates for Flow Data
5/27/11-7/1/11

Sample Date
6/30/2011

Well ID		ERTEW-5		ERTEW-6		ERTEW-7	
		Flow for interval (gal)	878,561	Flow for interval (gal)	349,862	Flow for interval (gal)	850,126
Compounds	**Total Mass Extracted (lbs) from all wells**	**Concentration (ug/L)**	**Mass extracted (lbs)**	**Concentration (ug/L)**	**Mass extracted (lbs)**	**Concentration (ug/L)**	**Mass extracted (lbs)**
cis 1,2-Dichloroethene	1.12	18	0.13	320	0.93	7.1	0.05
Tetrachloroethene	5.33	670	4.91	55	0.16	37	0.26
Vinyl Chloride	0.14	0	0.00	49	0.14	0	0.00
Trichloroethene	0.09	0	0.00	17	0.05	5.8	0.04
Total VOCs removed for interval (lbs)	6.69		5.04		1.29		0.35
Total VOCs removed cumulative (lbs) since 2/29/08	308.25						

Interval Dates for Flow Data
7/1/11-7/29/11

Sample Date
7/28/2011

Well ID		ERTEW-5		ERTEW-6		ERTEW-7	
		Flow for interval (gal)	648,044	Flow for interval (gal)	262,949	Flow for interval (gal)	619,908
Compounds	**Total Mass Extracted (lbs) from all wells**	**Concentration (ug/L)**	**Mass extracted (lbs)**	**Concentration (ug/L)**	**Mass extracted (lbs)**	**Concentration (ug/L)**	**Mass extracted (lbs)**
cis 1,2-Dichloroethene	0.57	15	0.08	210	0.46	5.4	0.03
Tetrachloroethene	3.31	570	3.08	38	0.08	28	0.14
Vinyl Chloride	0.06	0	0.00	27	0.06	0	0.00
Trichloroethene	0.04	0	0.00	12	0.03	3.1	0.02
Total VOCs removed for interval (lbs)	3.98		3.16		0.63		0.19
Total VOCs removed cumulative (lbs) since 2/29/08	312.23						

Interval Dates for Flow Data
7/29/11-9/2/11

Sample Date
8/30/2011

Well ID		ERTEW-5		ERTEW-6		ERTEW-7	
		Flow for interval (gal)	766,036	Flow for interval (gal)	331,252	Flow for interval (gal)	776,473
Compounds	**Total Mass Extracted (lbs) from all wells**	**Concentration (ug/L)**	**Mass extracted (lbs)**	**Concentration (ug/L)**	**Mass extracted (lbs)**	**Concentration (ug/L)**	**Mass extracted (lbs)**
cis 1,2-Dichloroethene	1.13	15	0.10	350	0.97	11	0.07
Tetrachloroethene	4.07	580	3.71	37	0.10	40	0.26
Vinyl Chloride	0.20	0	0.00	74	0.20	0	0.00
Trichloroethene	0.07	0	0.00	11	0.03	6.3	0.04
Total VOCs removed for interval (lbs)	5.48		3.80		1.30		0.37
Total VOCs removed cumulative (lbs) since 2/29/08	317.71						

Table 3-3
Brewster Village Well Field Site (Site No. 3-40-012)
VOC Removal Summary
May 2011 - December 2012

Interval Dates for Flow Data
9/2/11-9/30/11

Sample Date
9/30/2011

Well ID		ERTEW-5		ERTEW-6		ERTEW-7	
		Flow for interval (gal)	499,652	Flow for interval (gal)	277,592	Flow for interval (gal)	678,161
Compounds	**Total Mass Extracted (lbs) from all wells**	**Concentration (ug/L)**	**Mass extracted (lbs)**	**Concentration (ug/L)**	**Mass extracted (lbs)**	**Concentration (ug/L)**	**Mass extracted (lbs)**
cis 1,2-Dichloroethene	0.97	10	0.04	380	0.88	8.5	0.05
Tetrachloroethene	2.51	530	2.21	55	0.13	30	0.17
Vinyl Chloride	0.18	0	0.00	76	0.18	0	0.00
Trichloroethene	0.07	0	0.00	18	0.04	5.5	0.03
Total VOCs removed for interval (lbs)	3.73		2.25		1.23		0.25
Total VOCs removed cumulative (lbs) since 2/29/08	321.43						

Interval Dates for Flow Data
12/1/11-12/16/11

Sample Date
12/14/2011

Well ID		ERTEW-5		ERTEW-6		ERTEW-7	
		Flow for interval (gal)	1,393,507	Flow for interval (gal)	689,006	Flow for interval (gal)	1,798,025
Compounds	**Total Mass Extracted (lbs) from all wells**	**Concentration (ug/L)**	**Mass extracted (lbs)**	**Concentration (ug/L)**	**Mass extracted (lbs)**	**Concentration (ug/L)**	**Mass extracted (lbs)**
cis 1,2-Dichloroethene	2.19	0	0.00	360	2.07	8.2	0.12
Tetrachloroethene	7.08	550	6.40	41	0.24	30	0.45
Vinyl Chloride	0.10	0	0.00	18	0.10	0	0.00
Trichloroethene	0.18	0	0.00	16	0.09	5.7	0.09
Total VOCs removed for interval (lbs)	9.56		6.40		2.50		0.66
Total VOCs removed cumulative (lbs) since 2/29/08	330.99						

Interval Dates for Flow Data
12/16/11-1/13/12

Sample Date
1/11/2012

Well ID		ERTEW-5		ERTEW-6		ERTEW-7	
		Flow for interval (gal)	478,182	Flow for interval (gal)	242,833	Flow for interval (gal)	713,076
Compounds	**Total Mass Extracted (lbs) from all wells**	**Concentration (ug/L)**	**Mass extracted (lbs)**	**Concentration (ug/L)**	**Mass extracted (lbs)**	**Concentration (ug/L)**	**Mass extracted (lbs)**
cis 1,2-Dichloroethene	0.75	0	0.00	350	0.71	7.3	0.04
Tetrachloroethene	2.42	550	2.19	34	0.07	27	0.16
Vinyl Chloride	0.05	0	0.00	25	0.05	0	0.00
Trichloroethene	0.06	0	0.00	14	0.03	4.9	0.03
Total VOCs removed for interval (lbs)	3.28		2.19		0.86		0.23
Total VOCs removed cumulative (lbs) since 2/29/08	334.27						

Table 3-3
Brewster Village Well Field Site (Site No. 3-40-012)
VOC Removal Summary
May 2011 - December 2012

Interval Dates for Flow Data
1/13/12 - 2/10/12

Sample Date
2/10/2012

Well ID		ERTEW-5		ERTEW-6		ERTEW-7	
		Flow for interval (gal)	523,544	Flow for interval (gal)	222,018	Flow for interval (gal)	749,484
Compounds	**Total Mass Extracted (lbs) from all wells**	**Concentration (ug/L)**	**Mass extracted (lbs)**	**Concentration (ug/L)**	**Mass extracted (lbs)**	**Concentration (ug/L)**	**Mass extracted (lbs)**
cis 1,2-Dichloroethene	0.62	0	0.00	310	0.57	6.6	0.04
Tetrachloroethene	2.61	550	2.40	30	0.06	25	0.16
Vinyl Chloride	0.07	0	0.00	38	0.07	0	0.00
Trichloroethene	0.04	0	0.00	10	0.02	3.5	0.02
Total VOCs removed for interval (lbs)	3.34		2.40		0.72		0.22
Total VOCs removed cumulative (lbs) since 2/29/08	337.62						

Interval Dates for Flow Data
2/10/12 - 3/16/12

Sample Date
3/13/2012

Well ID		ERTEW-5		ERTEW-6		ERTEW-7	
		Flow for interval (gal)	536,061	Flow for interval (gal)	247,340	Flow for interval (gal)	967,319
Compounds	**Total Mass Extracted (lbs) from all wells**	**Concentration (ug/L)**	**Mass extracted (lbs)**	**Concentration (ug/L)**	**Mass extracted (lbs)**	**Concentration (ug/L)**	**Mass extracted (lbs)**
cis 1,2-Dichloroethene	0.63	0	0.00	280	0.58	6	0.05
Tetrachloroethene	2.84	580	2.59	29	0.06	23	0.19
Vinyl Chloride	0.07	0	0.00	36	0.07	0	0.00
Trichloroethene	0.02	0	0.00	0	0.00	2.6	0.02
Total VOCs removed for interval (lbs)	3.56		2.59		0.71		0.26
Total VOCs removed cumulative (lbs) since 2/29/08	341.18						

Interval Dates for Flow Data
3/16/12 - 4/13/12

Sample Date
4/10/2012

Well ID		ERTEW-5		ERTEW-6		ERTEW-7	
		Flow for interval (gal)	591,184	Flow for interval (gal)	132,450	Flow for interval (gal)	762,754
Compounds	**Total Mass Extracted (lbs) from all wells**	**Concentration (ug/L)**	**Mass extracted (lbs)**	**Concentration (ug/L)**	**Mass extracted (lbs)**	**Concentration (ug/L)**	**Mass extracted (lbs)**
cis 1,2-Dichloroethene	0.33	0	0.00	260	0.29	6.8	0.04
Tetrachloroethene	2.40	450	2.22	23	0.03	24	0.15
Vinyl Chloride	0.04	0	0.00	34	0.04	0	0.00
Trichloroethene	0.02	0	0.00	0	0.00	2.9	0.02
Total VOCs removed for interval (lbs)	2.78		2.22		0.35		0.21
Total VOCs removed cumulative (lbs) since 2/29/08	343.96						

Table 3-3
Brewster Village Well Field Site (Site No. 3-40-012)
VOC Removal Summary
May 2011 - December 2012

Interval Dates for Flow Data
4/13/12 - 5/11/12

Sample Date
5/10/2012

Well ID		ERTEW-5		ERTEW-6		ERTEW-7	
		Flow for interval (gal)	644,833	Flow for interval (gal)	117,436	Flow for interval (gal)	772,581
Compounds	**Total Mass Extracted (lbs) from all wells**	**Concentration (ug/L)**	**Mass extracted (lbs)**	**Concentration (ug/L)**	**Mass extracted (lbs)**	**Concentration (ug/L)**	**Mass extracted (lbs)**
cis 1,2-Dichloroethene	0.28	11	0.06	180	0.18	7.2	0.05
Tetrachloroethene	2.31	400	2.15	21	0.02	22	0.14
Vinyl Chloride	0.03	0	0.00	33	0.03	0	0.00
Trichloroethene	0.02	0	0.00	0	0.00	2.8	0.02
Total VOCs removed for interval (lbs)	2.65		2.21		0.23		0.21
Total VOCs removed cumulative (lbs) since 2/29/08	346.61						

Interval Dates for Flow Data
5/11/12 - 6/15/12

Sample Date
6/5/2012

Well ID		ERTEW-5		ERTEW-6		ERTEW-7	
		Flow for interval (gal)	778,498	Flow for interval (gal)	86,187	Flow for interval (gal)	949,405
Compounds	**Total Mass Extracted (lbs) from all wells**	**Concentration (ug/L)**	**Mass extracted (lbs)**	**Concentration (ug/L)**	**Mass extracted (lbs)**	**Concentration (ug/L)**	**Mass extracted (lbs)**
cis 1,2-Dichloroethene	0.30	16	0.10	190	0.14	7.5	0.06
Tetrachloroethene	2.69	380	2.47	10	0.01	27	0.21
Vinyl Chloride	0.03	0	0.00	38	0.03	0	0.00
Trichloroethene	0.02	0	0.00	0	0.00	2.6	0.02
Total VOCs removed for interval (lbs)	3.04		2.57		0.17		0.29
Total VOCs removed cumulative (lbs) since 2/29/08	349.65						

Interval Dates for Flow Data
6/15/12 - 8/3/12

Sample Date
8/1/2012

Well ID		ERTEW-5		ERTEW-6		ERTEW-7	
		Flow for interval (gal)	847,260	Flow for interval (gal)	39,377	Flow for interval (gal)	1,137,369
Compounds	**Total Mass Extracted (lbs) from all wells**	**Concentration (ug/L)**	**Mass extracted (lbs)**	**Concentration (ug/L)**	**Mass extracted (lbs)**	**Concentration (ug/L)**	**Mass extracted (lbs)**
cis 1,2-Dichloroethene	0.39	22	0.16	230	0.08	17	0.16
Tetrachloroethene	3.51	430	3.04	13	0.00	49	0.47
Vinyl Chloride	0.02	0	0.00	54	0.02	0	0.00
Trichloroethene	0.05	0	0.00	0	0.00	4.9	0.05
Total VOCs removed for interval (lbs)	3.97		3.20		0.10		0.67
Total VOCs removed cumulative (lbs) since 2/29/08	353.61						

Table 3-3
Brewster Village Well Field Site (Site No. 3-40-012)
VOC Removal Summary
May 2011 - December 2012

Interval Dates for Flow Data
8/3/12 - 8/24/12

Sample Date
8/23/2012

Well ID		ERTEW-5		ERTEW-6		ERTEW-7	
		Flow for interval (gal)	350,674	Flow for interval (gal)	6,877	Flow for interval (gal)	432,232
Compounds	**Total Mass Extracted (lbs) from all wells**	**Concentration (ug/L)**	**Mass extracted (lbs)**	**Concentration (ug/L)**	**Mass extracted (lbs)**	**Concentration (ug/L)**	**Mass extracted (lbs)**
cis 1,2-Dichloroethene	0.15	25	0.07	170	0.01	19	0.07
Tetrachloroethene	1.37	410	1.20	8.5	0.00	47	0.17
Vinyl Chloride	0.00	0	0.00	55	0.00	0	0.00
Trichloroethene	0.02	0	0.00	0	0.00	5.2	0.02
Total VOCs removed for interval (lbs)	1.54		1.27		0.01		0.26
Total VOCs removed cumulative (lbs) since 2/29/08	355.16						

Interval Dates for Flow Data
8/24/12 - 9/28/12

Sample Date
9/27/2012

Well ID		ERTEW-5		ERTEW-6		ERTEW-7	
		Flow for interval (gal)	784,581	Flow for interval (gal)	22	Flow for interval (gal)	946,824
Compounds	**Total Mass Extracted (lbs) from all wells**	**Concentration (ug/L)**	**Mass extracted (lbs)**	**Concentration (ug/L)**	**Mass extracted (lbs)**	**Concentration (ug/L)**	**Mass extracted (lbs)**
cis 1,2-Dichloroethene	0.45	35	0.23	170	0.00	28	0.22
Tetrachloroethene	3.72	500	3.27	12	0.00	57	0.45
Vinyl Chloride	0.00	0	0.00	65	0.00	0	0.00
Trichloroethene	0.05	0	0.00	0	0.00	6.6	0.05
Total VOCs removed for interval (lbs)	4.23		3.50		0.00		0.72
Total VOCs removed cumulative (lbs) since 2/29/08	359.38						

Interval Dates for Flow Data
9/28/12 - 12/28/12

Sample Date
12/4/2012

Well ID		ERTEW-5		ERTEW-6		ERTEW-7	
		Flow for interval (gal)	1,907,161	Flow for interval (gal)	3,752	Flow for interval (gal)	2,276,362
Compounds	**Total Mass Extracted (lbs) from all wells**	**Concentration (ug/L)**	**Mass extracted (lbs)**	**Concentration (ug/L)**	**Mass extracted (lbs)**	**Concentration (ug/L)**	**Mass extracted (lbs)**
cis 1,2-Dichloroethene	0.84	20	0.32	130	0.00	27	0.51
Tetrachloroethene	7.74	410	6.52	10	0.00	64	1.22
Vinyl Chloride	0.04	0	0.00	79	0.00	2	0.04
Trichloroethene	0.15	0	0.00	0	0.00	7.9	0.15
Total VOCs removed for interval (lbs)	8.77		6.84		0.01		1.92
Total VOCs removed cumulative (lbs) since 2/29/08	368.15						

Note: Mass Extracted was calculated for each compound by multiplying the measured concentration by the flow for the interval and converting units to lbs.

Table 3-4
Brewster Village Well Field Site (Site No. 3-40-012)
Groundwater Treatment System Shut-Down Periods
2011-2012

Time and Date of Shut Down	System Running Again by This Date
1/25/2011 15:02	1/26/2011
2/24/2011 9:13	2/26/2011
3/6/2011 21:40	3/7/2011
3/7/2011 8:49	3/8/2011
3/9/2011 12:10	3/10/2011
3/29/2011 10:50	3/30/2011
4/28/2011 11:49	4/29/2011
5/3/2011 11:58	5/4/2011
5/25/2011 11:04	5/26/2011
6/9/2011 17:10	6/12/2011
7/2/211 4:32	7/6/2011
7/28/2011 11:52	7/29/2011
8/19/2011 17:28	8/23/2011
8/28/2011 7:22	8/30/2011
8/30/2011 10:29	8/31/2011
9/6/2011 7:30	9/7/2011
9/8/2011 4:51	9/10/2011
9/30/2011 7:31	10/1/2011
10/13/2011 1:40	10/18/2011
10/29/2011 21:34	11/1/2011
11/17/2011 10:07	11/18/2011
12/14/2011 11:42	12/15/2011
1/7/2012 9:15	1/10/2012
1/11/2012 13:07	1/12/2012
2/10/2012 10:32	2/11/2012
3/19/2012 11:03	3/20/2012
3/21/2012 10:56	3/22/2012
4/10/2012 10:30	4/11/2012
6/5/2012 10:15	6/6/2012
6/25/2012 6:57	*
7/3/2012 6:24	7/13/2012
7/15/2012 15:44	7/17/2012
8/1/2012 14:33	8/4/2012
9/27/2012 12:26	9/28/2012
10/29/2012 16:21	10/31/2012
10/31/2012 17:39	11/6/2012
11/7/2012 21:16	11/9/2012
12/3/2012 1:26	12/4/2012

*Missing fax reports:
5/4/2011 through 5/16/2011
12/5/2011 through 12/14/2011
6/25/2012 through 7/13/2012

Table 3-5
Brewster Village Well Field Site (Site No. 3-40-012)
Groundwater Sample Information Summary
November 2012

WELL	Top of Casing Elevation (feet above mean sea level)	Depth to Water (feet from top of casing)	Depth to bottom (feet from top of casing)	Groundwater Elevation (feet above mean sea level)	Date Sampled	Time Sampled	DESCRIPTION	Identified Action Items
DGC1S	336.66	7.11	10.40	329.55			ID = 2" steel casing, stickup	
DGC1I	336.61	7.86	42.95	328.75	11/28/2012	8:15	ID = 2" steel casing, stickup	
DGC1D	336.63	6.05	106.23	330.58			ID = 4" steel casing, stickup	
DGC2S	338.22	NG	NG	NA			ID = 2" steel casing, stickup	
DGC2I	338.55	8.29	19.75	330.26	11/28/2012	11:25	ID = 2" steel casing, stickup	
DGC2D	338.43	5.85	NG	332.58			ID = 4" steel casing, stickup	
DGC3I	335.49	5.46	22.80	330.03	11/27/2012	13:55	ID = 2" steel casing, flushmount	Secondary cover depressed, possibly surface water infiltrating into well
DGC3S	335.97	4.62	10.20	331.35			ID = 2" steel casing, flushmount	Secondary cover depressed, possibly surface water infiltrating into well
DGC5I	341.97	Flooded		NA			ID = 2" steel casing, stickup	
DGC5S	340.99	Flooded		NA			ID = 2" steel casing, stickup	
DGC6I	337.64	7.69	39.92	329.95	11/27/2012	17:00	ID = 2" steel casing, stickup	
DGC7D	334.11	Artesian Well		NA			ID = 4" steel casing, stickup	
DGC7I	333.74	3.80	40.43	329.94	11/29/2012	9:00	ID = 2" steel casing, stickup	
DGC7S	334.09	4.13	10.13	329.96			ID = 2" steel casing, stickup	
DGC8I	335.20	5.33	75.40	329.87	11/29/2012	9:35	ID = 2" steel casing, stickup	
DGC8S	334.78	4.85	10.43	329.93			ID = 2" steel casing, stickup	
DGC9I	333.29	3.42	45.42	329.87	11/28/2012	15:40	ID = 2" steel casing, stickup	
DGC9S	333.42	3.50	10.41	329.92	11/28/2012	15:20	ID = 2" steel casing, stickup	
DGC10D	336.61	Flooded		NA			ID = 4" steel casing, stickup	
DGC10I	338.43	Flooded		NA			ID = 2" steel casing, stickup	
DGC10S	336.63	Flooded		NA			ID = 2" steel casing, stickup	
DGC11D	No Data	NG	NG	NA				
DGC11I	336.67	NG	NG	NA	11/28/2012	10:50	ID = 2" steel casing, stickup	Riser bent at or just below grade
DGC11S	336.99	NG	NG	NA			ID = 2" steel casing, stickup	
DGC12I	337.81	8.00	43.10	329.81			ID = 2" steel casing, stickup	
DGC12S	337.02	DRY	6.28	NA			ID = 2" steel casing, stickup	
DGC13I	334.43	4.69	65.91	329.74	11/28/2012	8:50	ID = 2" steel casing, stickup	
DGC13S	335.84	5.14	10.40	330.70			ID = 2" steel casing, stickup	
DGC14D	340.37	Destroyed		NA			ID = 4" steel, stickup	Stand pipe bent, cannot remove Well Cover to Guage/Sample
DGC14I	340.21	9.90	24.56	330.31	11/27/2012	8:20	ID = 2" steel, stickup	
DGC14S	341.37	10.46	12.90	330.91			ID = 2" steel, stickup	
DGC15D	341.86	NG	NG	NA			ID = 4" steel, stickup	
DGC15I	341.92	NG	NG	NA			ID = 2" steel, stickup	
DGC15S	343.46	NG	NG	NA			ID = 2" steel, stickup	
DGC16I	339.11	9.11	37.85	330.00	11/27/2012	16:25	ID = 2" steel, stickup	
DGC16S	339.96	9.75	10.68	330.21	11/27/2012	15:55	ID = 2" steel, stickup	
DGC17I	335.25	5.25	35.25	330.00	11/29/2012	8:35	ID = 2" steel, stickup	Riser bent at or just below grade
DGC18I	338.43	8.35	30.28	330.08	11/27/2012	11:55	ID = 2" steel, stickup	
DGC18S	338.04	7.46	10.64	330.58	11/27/2012	11:20	ID = 2" steel, stickup	
DGC19D	338.04	7.20	34.20	330.84			ID = 2" PVC, flushmount	Road Box cover missing
DGC19I	336.92	6.88	22.00	330.04	11/27/2012	12:40	ID = 2" steel, flushmount	
DGC19S	337.19	7.02	10.60	330.17	11/27/2012	13:05	ID = 2" steel, flushmount	
ERT1I	337.94	NG	NG	NA			ID = .5" PVC, flushmount	Road Box cover missing
ERT1S	338.05	NG	NG	NA			ID = .5" PVC, flushmount	Road Box cover missing
ERT2S	338.31	7.56	14.45	330.75			ID = .5" PVC, flushmount	
ERT2I	338.20	8.75	33.73	329.45	11/27/2012	9:20	ID = .5" PVC, flushmount	
ERT3I	338.64	8.04	28.85	330.60			ID = .5" PVC, flushmount	
ERT4I	338.47	7.60	23.05	330.87			ID = .5" PVC, flushmount	Road Box cover missing
ERT5I	338.03	7.34	33.20	330.69			ID = .5" PVC, flushmount	
ERT5S	338.08	Destroyed		NA			ID = .5" PVC, flushmount	Hit by Plow, unable to Gauge/Sample
ERT6I	339.65	8.67	26.80	330.98			ID = .5" PVC, flushmount	
ERT7I	339.99	8.99	26.73	331.00	11/27/2012	10:35	ID = .5" PVC, flushmount	
ERT8D	341.99	10.46	57.63	331.53			ID = 2" PVC, flushmount	
ERT8I	341.70	10.78	39.74	330.92	11/27/2012	15:30	ID = 2" PVC, flushmount	
ERT8S	341.43	7.78	15.00	333.65			ID = 2" PVC, flushmount	
ERT9D	339.63	8.70	41.11	330.93			ID = 2" PVC, flushmount	Road Box cover missing
ERT9I	339.51	8.58	27.95	330.93	11/27/2012	15:05	ID = 2" PVC, flushmount	Road Box cover missing
ERT10D	337.89	NG	NG	NA			ID = 2" PVC	

Table 3-5
Brewster Village Well Field Site (Site No. 3-40-012)
Groundwater Sample Information Summary
November 2012

WELL	Top of Casing Elevation (feet above mean sea level)	Depth to Water (feet from top of casing)	Depth to bottom (feet from top of casing)	Groundwater Elevation (feet above mean sea level)	Date Sampled	Time Sampled	DESCRIPTION	Identified Action Items
ERT10I	337.91	NG	NG	NA			ID = 2" PVC	
ERTEW5	337.79	11.00	34.50	326.79	11/26/2012	16:40	ID = 6" PVC, Sch 80, PVC cap	
ERTEW6	337.74	6.10	20.08	331.64	11/26/2012	16:50	ID = 4" PVC, flushmount	
ERTEW7	337.76	22.29	36.30	315.47	11/26/2012	17:00	ID = 6" PVC, flushmount	
ERTPR-1	339.27	NG	NG	NA			north well 2" PVC	
ERTPR-1	339.25	NG	NG	NA			west well 2" PVC	
ERTPR-1	339.23	NG	NG	NA			east well 2" PVC	
EW1	332.56*	NG	NG	NA			4" steel inside full size manhole	
EW2	332.27*	NG	NG	NA			4" steel inside full size manhole	
EW3	332.08*	NG	NG	NA			4" steel inside full size manhole	
EW4	332.28*	NG	NG	NA			4" steel inside full size manhole	
GMS02 ***	339.59	8.68	35.14	330.91	11/27/2012	14:40	ID = 2" PVC	Road Box cover missing
GMS04 ***	339.60	6.80	29.08	332.80			ID = 2", Locking well cap, Flushmount	
IW5	334.35**	NG	NG	NA			6" steel	
IW6	334.24**	NG	NG	NA			6" steel	
IW7	334.21**	NG	NG	NA			6" steel	
IW8	334.23**	NG	NG	NA			6" steel	
IW9	334.22**	NG	NG	NA			6" steel	
IW10	334.31**	NG	NG	NA			6" steel	
IW11	334.19**	NG	NG	NA			6" steel	
IW12	334.22**	NG	NG	NA			6" steel	
TH6	337.05	6.58	23.86	330.47	11/28/2012	10:10	2" PVC stickup	
TH7	337.35	7.42	28.68	329.93	11/28/2012	14:00	2" PVC stickup	
TH9	333.64	3.72	27.20	329.92	11/28/2012	9:35	2" PVC stickup	
TH11A	332.62	4.81	9.89	327.81			2" PVC stickup	
TH11B	334.70	2.78	24.11	331.92	11/28/2012	9:15	2" PVC stickup	
TH13	337.32	NG	NG	NA			ID = 1.5" pvc, Stickup, 4" outer casing, blank rubber cap	
CDM1	NA	12.28	40.94	NA	11/28/2012	12:40	ID = 2" steel casing, stickup	
CDM 2	NA	19.81	49.10	NA	11/28/2012	13:35	ID = 2" steel casing, stickup	
CDM 3	NA	21.96	45.20	NA	11/28/2012	14:35	ID = 2" steel casing, stickup	

Notes:
Well elevations based on Badey & Watson June 26, 2002 survey for Sevenson Environmental Services, Inc.
* = Well elevation taken at bottom of manhole
** = Well elevation taken at cross mark set on flange
*** = Well elevations based on 2006 EPA master survey
ID = Interior diameter
NA = Not available
NG = Well not gauged

Table 3-6
Brewster Village Well Field Site (Site No. 3-40-012)
2012 Annual Groundwater Sampling Results - Shallow Wells

Sample Id	NYSDEC Ambient Water Quality Standards and Guidance Values (ug/L)	NYS Drinking Water Standards (ug/L)	340012-DGC9S-01		340012-DGC16S-01		340012 - DGC19S-01		340012-DGC18S-01	
Lab Sample Number			1212022-006A		1212022-007A		1212022-010A		1212022-008A	
Sampling Date			11/28/2012		11/27/2012		11/27/2012		11/27/2012	
Matrix			GW		GW		GW		GW	
Dilution Factor			1		1		1		1	
Units			ug/L		ug/L		ug/L		ug/L	
Compound				Q		Q		Q		Q
Ethylbenzene	5	5	10	U	10	U	7	J	10	U
Styrene	NS	NS	10	U	10	U	10	U	10	U
cis-1,3-Dichloropropene	NS	NS	10	U	10	U	10	U	10	U
trans-1,3-Dichloropropene	5	NS	10	U	10	U	10	U	10	U
1,2-Dichloroethane	NS	NS	10	U	10	U	10	U	10	U
4-Methyl-2-pentanone	50	NS	10	U	10	U	10	U	10	U
Toluene	5	5	10	U	10	U	3	J	10	U
Chlorobenzene	5	NS	10	U	10	U	10	U	10	U
Dibromochloromethane	50	NS	10	U	10	U	10	U	10	U
Tetrachloroethene	5	5	10	U	10	U	10	U	10	U
Xylene (total)	5	5	10	U	10	U	150		10	U
Methyl tert-butyl ether	10	10	10	U	10	U	2	J	10	U
1,2-Dichloroethene (total)	5	5	10	U	10	U	10	U	10	U
Carbon tetrachloride	5	NS	10	U	10	U	10	U	10	U
2-Hexanone	NS	NS	10	U	10	U	10	U	10	U
Acetone	50	NS	10	U	10	U	10	U	10	U
Chloroform	7	NS	10	U	10	U	10	U	10	U
Benzene	0.7	5	10	U	10	U	12		10	U
1,1,1-Trichloroethane	5	5	10	U	10	U	10	U	10	U
Bromomethane	NS	NS	10	U	10	U	10	U	10	U
Chloromethane	NS	NS	10	U	10	J	10	J	10	J
Chloroethane	50	NS	10	U	10	U	10	U	10	U
Vinyl chloride	2	2	10	U	10	U	10	U	10	U
Methylene chloride	5	NS	10	U	10	U	10	U	10	U
Carbon disulfide	50	NS	10	U	10	U	10	U	10	U
Bromoform	NS	NS	10	U	10	U	10	U	10	U
Bromodichloromethane	NS	NS	10	U	10	U	10	U	10	U
1,1-Dichloroethane	5	5	10	U	10	U	10	U	10	U
1,1-Dichloroethene	5	NS	10	U	10	U	10	U	10	U
1,2-Dichloropropane	NS	NS	10	U	10	U	10	U	10	U
2-Butanone	NS	NS	10	U	10	U	10	U	10	U
1,1,2-Trichloroethane	NS	NS	10	U	10	U	10	U	10	U
Trichloroethene	5	5	10	U	10	U	10	U	10	U
1,1,2,2-Tetrachloroethane	5	5	10	U	10	U	10	U	10	U

U - Compound was analyzed for but not detected
J - Indicates an estimated value
B - Indicates the analyte is found in the associated blank as well as in the sample
NS - No Standard
ug/L - micrograms per liter = parts per billion (ppb)
Notes:
Shaded values exceed the NYSDEC Ambient Water Quality Standards and NYS Drinking Water Standards if applicable.

Table 3-7
Brewster Village Well Field Site (Site No. 3-40-012)
2012 Annual Groundwater Sample Results - Intermediate Wells

Sample Id	NYSDEC Ambient Water Quality Standards and Guidance Values (ug/L)	NYS Drinking Water Standards (ug/L)	340012-DGC-1I-01		340012-DGC-2I-01		340012-DGC3I-01		340012-DGC6I-01		340012-DGC7I-01		340012-DGC8I-01		340012-DGC9I-01		340012-DGC11I-01	
Lab Sample Number			1212022-003A		1212022-004A		1212022-005A		1212029-002A		1212029-003A		1212029-004A		1212029-005A		1212029-006A	
Sampling Date			11/28/2012		11/28/2012		11/27/2012		11/27/2012		11/28/2012		11/29/2012		11/28/2012		11/28/2012	
Matrix			GW		GW		GW		GW		GW		GW		GW		GW	
Dilution Factor			1		1		1		1		1		1		1		1	
Units			ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L	
Compound				**Q**		**Q**		**Q**		**Q**		**Q**		**Q**		**Q**		**Q**
Ethylbenzene	5	5	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Styrene	NS	NS	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
cis-1,3-Dichloropropene	NS	NS	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
trans-1,3-Dichloropropene	5	NS	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
1,2-Dichloroethane	NS	NS	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
4-Methyl-2-pentanone	50	NS	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Toluene	5	5	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Chlorobenzene	5	NS	10	U	10	U	10	U	3	J	10	U	10	U	10	U	10	U
Dibromochloromethane	50	NS	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Tetrachloroethene	5	5	7	J	10	U	5	J	13		10	U	2	J	6	J	10	U
Xylene (total)	5	5	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Methyl tert-butyl ether	10	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
1,2-Dichloroethene (total)	5	5	10	U	10	U	3	J	45		77		2	J	38		10	U
Carbon tetrachloride	5	NS	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
2-Hexanone	NS	NS	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Acetone	50	NS	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Chloroform	7	NS	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Benzene	0.7	5	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
1,1,1-Trichloroethane	5	5	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Bromomethane	NS	NS	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Chloromethane	NS	NS	10	U	10	U	10	U	10	U	10	U	10	J	10	U	10	U
Chloroethane	50	NS	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Vinyl chloride	2	2	10	U	10	U	10	U	10	U	2	J	10	U	10	U	10	U
Methylene chloride	5	NS	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Carbon disulfide	50	NS	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Bromoform	NS	NS	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Bromodichloromethane	NS	NS	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
1,1-Dichloroethane	5	5	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
1,1-Dichloroethene	5	NS	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
1,2-Dichloropropane	NS	NS	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
2-Butanone	NS	NS	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
1,1,2-Trichloroethane	NS	NS	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Trichloroethene	5	5	10	U	10	U	1	J	7	J	1	J	10	U	5	J	10	U

U - Compound was analyzed for but not detected
J - Indicates an estimated value
B - Indicates the analyte is found in the associated blank as well as in the sample
NS - No Standard
ug/L - micrograms per liter = parts per billion (ppb)
Notes:
Shaded values exceed the NYSDEC Ambient Water Quality Standards and NYS Drinking Water Standards if applicable

Table 3-7
Brewster Village Well Field Site (Site No. 3-40-012)
2012 Annual Groundwater Sample Results - Intermediate Wells

Sample Id	NYSDEC Ambient Water Quality Standards and Guidance Values (ug/L)	NYS Drinking Water Standards (ug/L)	340012-DGC13I-01		340012-DGC14I-01		340012-DGC16I-01		340012-DGC17I-01		340012-DGC18I-01		340012-DGC19I-01		340012-CDM1-01		340012-CDM2-01	
Lab Sample Number			1212029-007A		1212029-008A		1212029-009A		1212029-010A		1212029-011A		1212022-009A		1212022-001A		1212022-002A	
Sampling Date			11/28/2012		11/27/2012		11/27/2012		11/29/2012		11/27/2012		11/27/2012		11/28/2012		11/28/2012	
Matrix			GW		GW		GW		GW		GW		GW		GW		GW	
Dilution Factor			1		1		1		1		1		1		1		1	
Units			ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L	
Compound				**Q**		**Q**		**Q**		**Q**		**Q**		**Q**		**Q**		**Q**
Ethylbenzene	5	5	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Styrene	NS	NS	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
cis-1,3-Dichloropropene	NS	NS	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
trans-1,3-Dichloropropene	5	NS	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
1,2-Dichloroethane	NS	NS	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
4-Methyl-2-pentanone	50	NS	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Toluene	5	5	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Chlorobenzene	5	NS	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Dibromochloromethane	50	NS	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Tetrachloroethene	5	5	10	U	10	U	11		5	J	10	U	4	J	10	U	10	U
Xylene (total)	5	5	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Methyl tert-butyl ether	10	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
1,2-Dichloroethene (total)	5	5	10	U	10	U	10	U	55		10	U	7	J	10	U	10	U
Carbon tetrachloride	5	NS	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
2-Hexanone	NS	NS	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Acetone	50	NS	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Chloroform	7	NS	10	U	10	U	10	U	10	U	10	U	10	U	10	J	10	U
Benzene	0.7	5	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
1,1,1-Trichloroethane	5	5	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Bromomethane	NS	NS	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Chloromethane	NS	NS	10	U	10	U	10	U	10	U	10	U	10	J	10	U	10	J
Chloroethane	50	NS	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Vinyl chloride	2	2	10	U	10	U	10	U	10	U	10	U	1	J	10	U	10	U
Methylene chloride	5	NS	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Carbon disulfide	50	NS	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Bromoform	NS	NS	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Bromodichloromethane	NS	NS	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
1,1-Dichloroethane	5	5	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
1,1-Dichloroethene	5	NS	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
1,2-Dichloropropane	NS	NS	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
2-Butanone	NS	NS	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
1,1,2-Trichloroethane	NS	NS	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Trichloroethene	5	5	10	U	10	U	1	J	4	J	10	U	2	J	10	U	10	U

U - Compound was analyzed for but not detected
J - Indicates an estimated value
B - Indicates the analyte is found in the associated blank as well as
NS - No Standard
ug/L - micrograms per liter = parts per billion (ppb)
Notes:
Shaded values exceed the NYSDEC Ambient Water Quality Standar

Table 3-7
Brewster Village Well Field Site (Site No. 3-40-012)
2012 Annual Groundwater Sample Results - Intermediate Wells

Sample Id	NYSDEC Ambient Water Quality Standards and Guidance Values (ug/L)	NYS Drinking Water Standards (ug/L)	340012-CDM3-01		340012-ERT-2I-01		340012-ERT-7I-01		340012-ERT-8I-01		340012-ERT-9I-01		340012-ERT-EW5-01		340012-ERT-EW6-01		340012-ERT-EW7-01	
Lab Sample Number			1212029-001A		1212029-013A		1212022-015A		1212029-014A		1212029-015A		1212022-012A		1212022-013A		1212022-014A	
Sampling Date			11/28/2012		11/27/2012		11/27/2012		11/27/2012		11/27/2012		11/26/2012		11/26/2012		11/26/2012	
Matrix			GW		GW		GW		GW		GW		GW		GW		GW	
Dilution Factor			1		1		1		1		1		1		1		1	
Units			ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L	
Compound				**Q**		**Q**		**Q**		**Q**		**Q**	.	**Q**		**Q**		**Q**
Ethylbenzene	5	5	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Styrene	NS	NS	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
cis-1,3-Dichloropropene	NS	NS	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
trans-1,3-Dichloropropene	5	NS	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
1,2-Dichloroethane	NS	NS	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
4-Methyl-2-pentanone	50	NS	10	U	10	U	10	U	10	U	10	U	10	DU	10	U	10	U
Toluene	5	5	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Chlorobenzene	5	NS	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Dibromochloromethane	50	NS	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Tetrachloroethene	5	5	8	J	10	U	2	J	2	J	10	U	530	E	10		57	
Xylene (total)	5	5	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Methyl tert-butyl ether	10	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
1,2-Dichloroethene (total)	5	5	10	U	10	U	1	J	10	U	10	U	34		150		24	
Carbon tetrachloride	5	NS	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
2-Hexanone	NS	NS	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Acetone	50	NS	10	U	10	U	10	U	10	U	10	U	6	DBJ	10	U	10	U
Chloroform	7	NS	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Benzene	0.7	5	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
1,1,1-Trichloroethane	5	5	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Bromomethane	NS	NS	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Chloromethane	NS	NS	10	U	10	U	10	J	10	U	10	U	10	J	10	U	10	J
Chloroethane	50	NS	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Vinyl chloride	2	2	10	U	10	U	10	U	10	U	10	U	3	J	81		2	J
Methylene chloride	5	NS	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Carbon disulfide	50	NS	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Bromoform	NS	NS	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Bromodichloromethane	NS	NS	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
1,1-Dichloroethane	5	5	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
1,1-Dichloroethene	5	NS	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
1,2-Dichloropropane	NS	NS	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
2-Butanone	NS	NS	10	U	10	U	10	U	10	U	10	U	10	DU	10	U	10	U
1,1,2-Trichloroethane	NS	NS	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Trichloroethene	5	5	1	J	10	U	10	U	10	U	10	U	3	J	1	J	7	J

U - Compound was analyzed for but not detected
J - Indicates an estimated value
B - Indicates the analyte is found in the associated blank as well as
NS - No Standard
ug/L - micrograms per liter = parts per billion (ppb)
Notes:
Shaded values exceed the NYSDEC Ambient Water Quality Standar

Table 3-7
Brewster Village Well Field Site (Site No. 3-40-012)
2012 Annual Groundwater Sample Results - Intermediate Wells

Sample Id	NYSDEC Ambient Water Quality Standards and Guidance Values (ug/L)	NYS Drinking Water Standards (ug/L)	340012-GMS-02-01		340012-TH-11B-01		340012-TH-6-01		340012-TH-7-01		340012-TH-9-01	
Lab Sample Number			1212029-016A		1212029-017A		1212022-016A		1212022-017A		1212022-018A	
Sampling Date			11/27/2012		11/28/2012		11/28/2012		11/28/2012		11/28/2012	
Matrix			GW		GW		GW		GW		GW	
Dilution Factor			1		1		1		1		1	
Units			ug/L		ug/L		ug/L		ug/L		ug/L	
Compound				**Q**		**Q**		**Q**		**Q**		**Q**
Ethylbenzene	5	5	10	U	10	U	10	U	10	U	10	U
Styrene	NS	NS	10	U	10	U	10	U	10	U	10	U
cis-1,3-Dichloropropene	NS	NS	10	U	10	U	10	U	10	U	10	U
trans-1,3-Dichloropropene	5	NS	10	U	10	U	10	U	10	U	10	U
1,2-Dichloroethane	NS	NS	10	U	10	U	10	U	10	U	10	U
4-Methyl-2-pentanone	50	NS	10	U	10	U	10	U	10	U	10	U
Toluene	5	5	10	U	2	J	10	U	10	U	10	U
Chlorobenzene	5	NS	10	U	10	U	10	U	10	U	10	U
Dibromochloromethane	50	NS	10	U	10	U	10	U	10	U	10	U
Tetrachloroethene	5	5	4	J	10	U	10	U	29		10	U
Xylene (total)	5	5	10	U	10	U	10	U	10	U	10	U
Methyl tert-butyl ether	10	10	10	U	10	U	10	U	10	U	10	U
1,2-Dichloroethene (total)	5	5	10	U	10	U	10	U	25		10	U
Carbon tetrachloride	5	NS	10	U	10	U	10	U	10	U	10	U
2-Hexanone	NS	NS	10	U	10	U	10	U	10	U	10	U
Acetone	50	NS	10	U	10	U	10	U	10	U	10	U
Chloroform	7	NS	10	U	10	U	10	U	10	U	10	U
Benzene	0.7	5	10	U	10	U	10	U	10	U	10	U
1,1,1-Trichloroethane	5	5	10	U	10	U	10	U	10	U	10	U
Bromomethane	NS	NS	10	U	10	U	10	U	10	U	10	U
Chloromethane	NS	NS	10	U	10	U	10	U	10	U	10	U
Chloroethane	50	NS	10	U	10	U	10	U	10	U	10	U
Vinyl chloride	2	2	10	U	10	U	10	U	4	J	10	U
Methylene chloride	5	NS	10	U	10	U	10	U	10	U	10	U
Carbon disulfide	50	NS	10	U	10	U	10	U	10	U	10	U
Bromoform	NS	NS	10	U	10	U	10	U	10	U	10	U
Bromodichloromethane	NS	NS	10	U	10	U	10	U	10	U	10	U
1,1-Dichloroethane	5	5	10	U	10	U	10	U	10	U	10	U
1,1-Dichloroethene	5	NS	10	U	10	U	10	U	10	U	10	U
1,2-Dichloropropane	NS	NS	10	U	10	U	10	U	10	U	10	U
2-Butanone	NS	NS	10	U	10	U	10	U	10	U	10	U
1,1,2-Trichloroethane	NS	NS	10	U	10	U	10	U	10	U	10	U
Trichloroethene	5	5	10	U	10	U	10	U	4	J	10	U

U - Compound was analyzed for but not detected
J - Indicates an estimated value
B - Indicates the analyte is found in the associated blank as well as
NS - No Standard
ug/L - micrograms per liter = parts per billion (ppb)
Notes:
Shaded values exceed the NYSDEC Ambient Water Quality Standar

Table 3-8
Brewster Village Well Field Site (Site No. 3-40-012)
2012 Annual Groundwater Sampling Results - All Wells

Sample Id	NYSDEC Ambient Water Quality Standards and Guidance Values (ug/L)	NYS Drinking Water Standards (ug/L)	340012-DGC-1I-01		340012-DGC-2I-01		340012-DGC3I-01		340012-DGC6I-01		340012-DGC7I-01		340012-DGC8I-01		340012-DGC9I-01		340012-DGC11I-01	
Lab Sample Number			1212022-003A		1212022-004A		1212022-005A		1212029-002A		1212029-003A		1212029-004A		1212029-005A		1212029-006A	
Sampling Date			11/28/2012		11/28/2012		11/27/2012		11/27/2012		11/28/2012		11/29/2012		11/28/2012		11/28/2012	
Matrix			GW		GW		GW		GW		GW		GW		GW		GW	
Dilution Factor			1		1		1		1		1		1		1		1	
Units			ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L	
Compound				**Q**		**Q**		**Q**		**Q**		**Q**		**Q**		**Q**		**Q**
Ethylbenzene	5	5	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Styrene			10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
cis-1,3-Dichloropropene			10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
trans-1,3-Dichloropropene	5		10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
1,2-Dichloroethane			10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
4-Methyl-2-pentanone	50		10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Toluene	5	5	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Chlorobenzene	5		10	U	10	U	10	U	3	J	10	U	10	U	10	U	10	U
Dibromochloromethane	50		10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Tetrachloroethene	5	5	7	J	10	U	5	J	13		10	U	2	J	6	J	10	U
Xylene (total)	5	5	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Methyl tert-butyl ether	10	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
1,2-Dichloroethene (total)	5	5	10	U	10	U	3	J	45		77		2	J	38		10	U
Carbon tetrachloride	5		10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
2-Hexanone			10	U	10	U	10	U	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ
Acetone	50		10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Chloroform	7		10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Benzene	0.7	5	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
1,1,1-Trichloroethane	5	5	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Bromomethane			10	U	10	U	10	U	10	U	10	UJ	10	UJ	10	UJ	10	UJ
Chloromethane			10	U	10	U	10	U	10	U	10	U	10	J	10	U	10	U
Chloroethane	50		10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Vinyl chloride	2	2	10	U	10	U	10	U	10	U	2	J	10	U	10	U	10	U
Methylene chloride	5		10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Carbon disulfide	50		10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Bromoform			10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Bromodichloromethane			10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
1,1-Dichloroethane	5	5	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
1,1-Dichloroethene	5		10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
1,2-Dichloropropane			10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
2-Butanone			10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
1,1,2-Trichloroethane			10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Trichloroethene	5	5	10	U	10	U	1	J	7	J	1	J	10	U	5	J	10	U
1,1,2,2-Tetrachloroethane	5	5	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U

Notes:
U - Compound was analyzed for but not detected
J - Indicates an estimated value
B - Indicates the analyte is found in the associated blank as well as in the sample
ug/L - micrograms per liter = parts per billion (ppb)
Notes:
Shaded values exceed the NYSDEC Ambient Water Quality Standards and NYS Drinking Water Standards if applicable.
Compounds not detected in any of the samples were removed from the table.

Table 3-8
Brewster Village Well Field Site (Site No. 3-40-012)
2012 Annual Groundwater Sampling Results - All Wells

Sample Id	NYSDEC Ambient Water Quality Standards and Guidance Values (ug/L)	NYS Drinking Water Standards (ug/L)	340012-DGC13I-01		340012-DGC14I-01		340012-DGC16I-01		340012-DGC17I-01		340012-DGC18I-01		340012-DGC19I-01		340012-CDM1-01		340012-CDM2-01	
Lab Sample Number			1212029-007A		1212029-008A		1212029-009A		1212029-010A		1212029-011A		1212022-009A		1212022-001A		1212022-002A	
Sampling Date			11/28/2012		11/27/2012		11/27/2012		11/29/2012		11/27/2012		11/27/2012		11/28/2012		11/28/2012	
Matrix			GW		GW		GW		GW		GW		GW		GW		GW	
Dilution Factor			1		1		1		1		1		1		1		1	
Units			ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L	
Compound				**Q**		**Q**		**Q**		**Q**		**Q**		**Q**		**Q**		**Q**
Ethylbenzene	5	5	10	U	10	U	10	U	10	U	10	UJ	10	U	10	U	10	U
Styrene			10	U	10	U	10	U	10	U	10	UJ	10	U	10	U	10	U
cis-1,3-Dichloropropene			10	U	10	U	10	U	10	U	10	UJ	10	U	10	U	10	U
trans-1,3-Dichloropropene	5		10	U	10	U	10	U	10	U	10	UJ	10	U	10	U	10	U
1,2-Dichloroethane			10	U	10	U	10	U	10	U	10	UJ	10	U	10	U	10	U
4-Methyl-2-pentanone	50		10	U	10	U	10	U	10	U	10	UJ	10	U	10	U	10	U
Toluene	5	5	10	U	10	U	10	U	10	U	10	UJ	10	U	10	U	10	U
Chlorobenzene	5		10	U	10	U	10	U	10	U	10	UJ	10	U	10	U	10	U
Dibromochloromethane	50		10	U	10	U	10	U	10	U	10	UJ	10	U	10	U	10	U
Tetrachloroethene	5	5	10	U	10	U	11		5	J	10	UJ	4	J	10	U	10	U
Xylene (total)	5	5	10	U	10	U	10	U	10	U	10	UJ	10	U	10	U	10	U
Methyl tert-butyl ether	10	10	10	U	10	U	10	U	10	U	10	UJ	10	U	10	U	10	U
1,2-Dichloroethene (total)	5	5	10	U	10	U	10	U	55		10	UJ	7	J	10	U	10	U
Carbon tetrachloride	5		10	U	10	U	10	U	10	U	10	UJ	10	U	10	U	10	U
2-Hexanone			10	UJ	10	UJ	10	UJ	10	UJ	10	UJ	10	U	10	U	10	U
Acetone	50		10	U	10	U	10	U	10	U	10	UJ	10	U	10	U	10	U
Chloroform	7		10	U	10	U	10	U	10	U	10	UJ	10	U	10	J	10	U
Benzene	0.7	5	10	U	10	U	10	U	10	U	10	UJ	10	U	10	U	10	U
1,1,1-Trichloroethane	5	5	10	U	10	U	10	U	10	U	10	UJ	10	U	10	U	10	U
Bromomethane			10	UJ	10	UJ	10	UJ	10	UJ	10	UJ	10	U	10	U	10	U
Chloromethane			10	U	10	U	10	U	10	U	10	UJ	10	J	10	U	10	J
Chloroethane	50		10	U	10	U	10	U	10	U	10	UJ	10	U	10	U	10	U
Vinyl chloride	2	2	10	U	10	U	10	U	10	U	10	UJ	1	J	10	U	10	U
Methylene chloride	5		10	U	10	U	10	U	10	U	10	UJ	10	U	10	U	10	U
Carbon disulfide	50		10	U	10	U	10	U	10	U	10	UJ	10	U	10	U	10	U
Bromoform			10	U	10	U	10	U	10	U	10	UJ	10	U	10	U	10	U
Bromodichloromethane			10	U	10	U	10	U	10	U	10	UJ	10	U	10	U	10	U
1,1-Dichloroethane	5	5	10	U	10	U	10	U	10	U	10	UJ	10	U	10	U	10	U
1,1-Dichloroethene	5		10	U	10	U	10	U	10	U	10	UJ	10	U	10	U	10	U
1,2-Dichloropropane			10	U	10	U	10	U	10	U	10	UJ	10	U	10	U	10	U
2-Butanone			10	U	10	U	10	U	10	U	10	UJ	10	U	10	U	10	U
1,1,2-Trichloroethane			10	U	10	U	10	U	10	U	10	UJ	10	U	10	U	10	U
Trichloroethene	5	5	10	U	10	U	1	J	4	J	10	UJ	2	J	10	U	10	U
1,1,2,2-Tetrachloroethane	5	5	10	U	10	U	10	U	10	U	10	UJ	10	U	10	U	10	U

Notes:
U - Compound was analyzed for but not detected
J - Indicates an estimated value
B - Indicates the analyte is found in the associated blank as well as in the s
ug/L - micrograms per liter = parts per billion (ppb)
Notes:
Shaded values exceed the NYSDEC Ambient Water Quality Standards and
Compounds not detected in any of the samples were removed from the ta

Table 3-8
Brewster Village Well Field Site (Site No. 3-40-012)
2012 Annual Groundwater Sampling Results - All Wells

Sample Id	NYSDEC Ambient Water Quality Standards and Guidance Values (ug/L)	NYS Drinking Water Standards (ug/L)	340012-CDM3-01		340012-DGC9S-01		340012-DGC16S-01		340012 - DGC19S-01		340012-DGC18S-01		340012-ERT-2I-01		340012-ERT-7I-01		340012-ERT-8I-01	
Lab Sample Number			1212029-001A		1212022-006A		1212022-007A		1212022-010A		1212022-008A		1212029-013A		1212022-015A		1212029-014A	
Sampling Date			11/28/2012		11/28/2012		11/27/2012		11/27/2012		11/27/2012		11/27/2012		11/27/2012		11/27/2012	
Matrix			GW		GW		GW		GW		GW		GW		GW		GW	
Dilution Factor			1		1		1		1		1		1		1		1	
Units			ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L	
Compound				**Q**		**Q**		**Q**		**Q**		**Q**		**Q**		**Q**		**Q**
Ethylbenzene	5	5	10	U	10	U	10	U	7	J	10	U	10	U	10	U	10	U
Styrene			10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
cis-1,3-Dichloropropene			10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
trans-1,3-Dichloropropene	5		10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
1,2-Dichloroethane			10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
4-Methyl-2-pentanone	50		10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Toluene	5	5	10	U	10	U	10	U	3	J	10	U	10	U	10	U	10	U
Chlorobenzene	5		10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Dibromochloromethane	50		10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Tetrachloroethene	5	5	8	J	10	U	10	U	10	U	10	U	10	U	2	J	2	J
Xylene (total)	5	5	10	U	10	U	10	U	150		10	U	10	U	10	U	10	U
Methyl tert-butyl ether	10	10	10	U	10	U	10	U	2	J	10	U	10	U	10	U	10	U
1,2-Dichloroethene (total)	5	5	10	U	10	U	10	U	10	U	10	U	10	U	1	J	10	U
Carbon tetrachloride	5		10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
2-Hexanone			10	UJ	10	U	10	U	10	U	10	U	10	UJ	10	UJ	10	UJ
Acetone	50		10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Chloroform	7		10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Benzene	0.7	5	10	U	10	U	10	U	12		10	U	10	U	10	U	10	U
1,1,1-Trichloroethane	5	5	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Bromomethane			10	UJ	10	U	10	U	10	U	10	U	10	UJ	10	UJ	10	UJ
Chloromethane			10	U	10	U	10	J	10	J	10	J	10	U	10	J	10	U
Chloroethane	50		10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Vinyl chloride	2	2	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Methylene chloride	5		10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Carbon disulfide	50		10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Bromoform			10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Bromodichloromethane			10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
1,1-Dichloroethane	5	5	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
1,1-Dichloroethene	5		10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
1,2-Dichloropropane			10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
2-Butanone			10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
1,1,2-Trichloroethane			10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Trichloroethene	5	5	1	J	10	U	10	U	10	U	10	U	10	U	10	U	10	UJ
1,1,2,2-Tetrachloroethane	5	5	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U

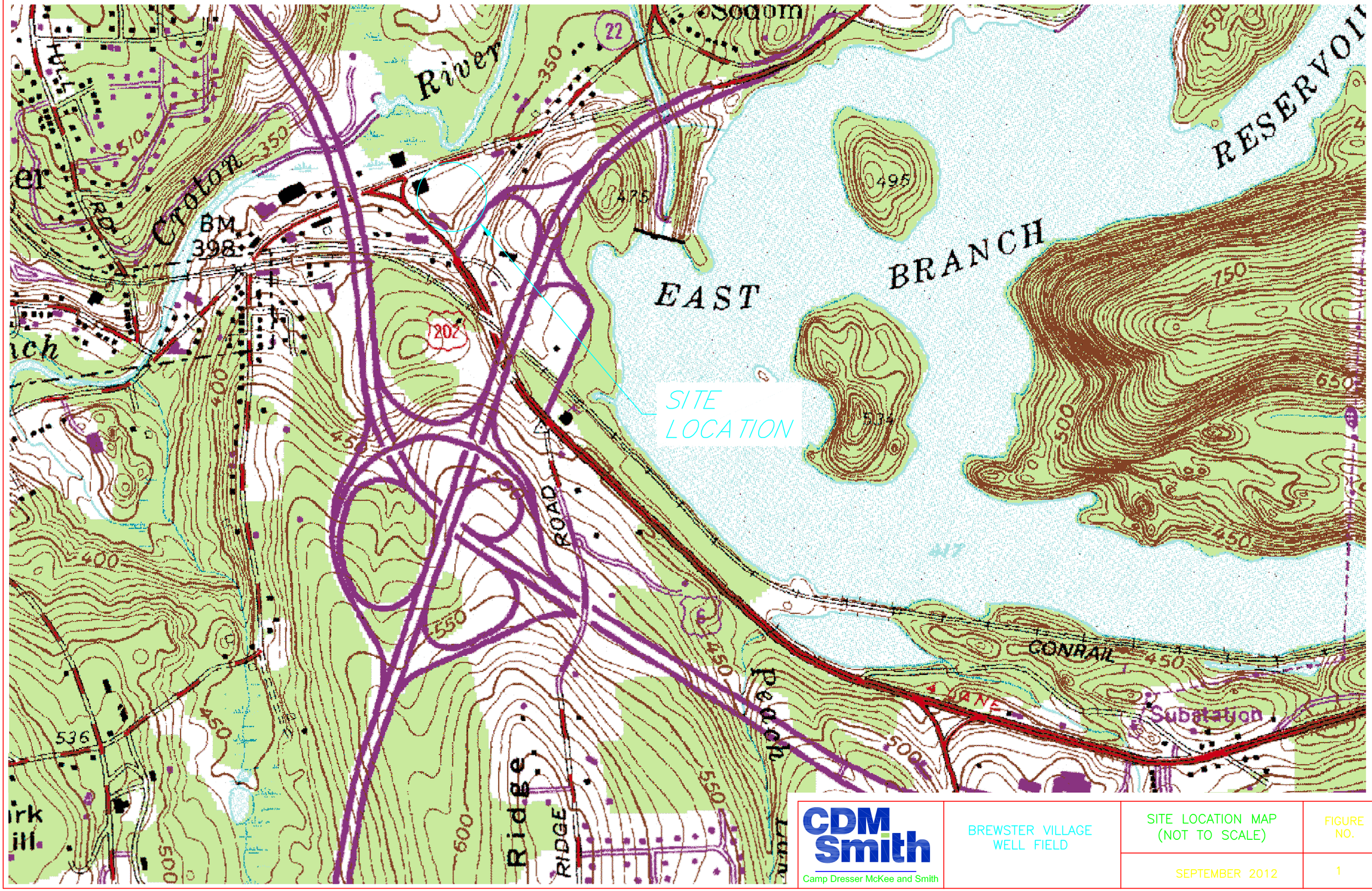
Notes:
U - Compound was analyzed for but not detected
J - Indicates an estimated value
B - Indicates the analyte is found in the associated blank as well as in the s
ug/L - micrograms per liter = parts per billion (ppb)
Notes:
Shaded values exceed the NYSDEC Ambient Water Quality Standards and
Compounds not detected in any of the samples were removed from the ta

Table 3-8
Brewster Village Well Field Site (Site No. 3-40-012)
2012 Annual Groundwater Sampling Results - All Wells

Sample Id	NYSDEC Ambient Water Quality Standards and Guidance Values (ug/L)	NYS Drinking Water Standards (ug/L)	340012-ERT-9I-01		340012-ERT-EW5-01		340012-ERT-EW6-01		340012-ERT-EW7-01		340012-GMS-02-01		340012-TH-11B-01		340012-TH-6-01		340012-TH-7-01		340012-TH-9-01	
Lab Sample Number			1212029-015A		1212022-012A		1212022-013A		1212022-014A		1212029-016A		1212029-017A		1212022-016A		1212022-017A		1212022-018A	
Sampling Date			11/27/2012		11/26/2012		11/26/2012		11/26/2012		11/27/2012		11/28/2012		11/28/2012		11/28/2012		11/28/2012	
Matrix			GW		GW		GW		GW		GW		GW		GW		GW		GW	
Dilution Factor			1		1		1		1		1		1		1		1		1	
Units			ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L	
Compound				**Q**	.	**Q**		**Q**		**Q**		**Q**		**Q**		**Q**		**Q**		**Q**
Ethylbenzene	5	5	10	UJ	10	UJ	10	U	10	U	10	UJ	10	UJ	10	U	10	U	10	U
Styrene			10	UJ	10	UJ	10	U	10	U	10	UJ	10	UJ	10	U	10	U	10	U
cis-1,3-Dichloropropene			10	UJ	10	UJ	10	U	10	U	10	UJ	10	UJ	10	U	10	U	10	U
trans-1,3-Dichloropropene	5		10	UJ	10	UJ	10	U	10	U	10	UJ	10	UJ	10	U	10	U	10	U
1,2-Dichloroethane			10	UJ	10	UJ	10	U	10	U	10	UJ	10	UJ	10	U	10	U	10	U
4-Methyl-2-pentanone	50		10	UJ	10	UJ	10	U	10	U	10	UJ	10	UJ	10	U	10	U	10	U
Toluene	5	5	10	UJ	10	UJ	10	U	10	U	10	UJ	2	J	10	U	10	U	10	U
Chlorobenzene	5		10	UJ	10	UJ	10	U	10	U	10	UJ	10	UJ	10	U	10	U	10	U
Dibromochloromethane	50		10	UJ	10	UJ	10	U	10	U	10	UJ	10	UJ	10	U	10	U	10	U
Tetrachloroethene	5	5	10	UJ	530	EJ	10	J	57	J	4	J	10	UJ	10	U	29	J	10	U
Xylene (total)	5	5	10	UJ	10	UJ	10	U	10	U	10	UJ	10	UJ	10	U	10	U	10	U
Methyl tert-butyl ether	10	10	10	UJ	10	UJ	10	U	10	U	10	UJ	10	UJ	10	U	10	U	10	U
1,2-Dichloroethene (total)	5	5	10	UJ	34	J	150		24		10	UJ	10	UJ	10	U	25		10	U
Carbon tetrachloride	5		10	UJ	10	UJ	10	U	10	U	10	UJ	10	UJ	10	U	10	U	10	U
2-Hexanone			10	UJ	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ	10	U	10	UJ	10	UJ
Acetone	50		10	UJ	6	BJ	10	UJ	10	UJ	10	UJ	10	UJ	10	U	10	UJ	10	UJ
Chloroform	7		10	UJ	10	UJ	10	U	10	U	10	UJ	10	UJ	10	U	10	U	10	U
Benzene	0.7	5	10	UJ	10	UJ	10	U	10	U	10	UJ	10	UJ	10	U	10	U	10	U
1,1,1-Trichloroethane	5	5	10	UJ	10	UJ	10	U	10	U	10	UJ	10	UJ	10	U	10	U	10	U
Bromomethane			10	UJ	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ	10	U	10	U	10	U
Chloromethane			10	UJ	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ	10	U	10	UJ	10	UJ
Chloroethane	50		10	UJ	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ	10	U	10	UJ	10	UJ
Vinyl chloride	2	2	10	UJ	3	J	81	J	2	J	10	UJ	10	UJ	10	U	4	J	10	U
Methylene chloride	5		10	UJ	10	UJ	10	U	10	U	10	UJ	10	UJ	10	U	10	U	10	U
Carbon disulfide	50		10	UJ	10	UJ	10	U	10	U	10	UJ	10	UJ	10	U	10	U	10	U
Bromoform			10	UJ	10	UJ	10	U	10	U	10	UJ	10	UJ	10	U	10	U	10	U
Bromodichloromethane			10	UJ	10	UJ	10	U	10	U	10	UJ	10	UJ	10	U	10	U	10	U
1,1-Dichloroethane	5	5	10	UJ	10	UJ	10	U	10	U	10	UJ	10	UJ	10	U	10	U	10	U
1,1-Dichloroethene	5		10	UJ	10	UJ	10	U	10	U	10	UJ	10	UJ	10	U	10	U	10	U
1,2-Dichloropropane			10	UJ	10	UJ	10	U	10	U	10	UJ	10	UJ	10	U	10	U	10	U
2-Butanone			10	UJ	10	UJ	10	U	10	U	10	UJ	10	UJ	10	U	10	UJ	10	UJ
1,1,2-Trichloroethane			10	UJ	10	UJ	10	U	10	U	10	UJ	10	UJ	10	U	10	U	10	U
Trichloroethene	5	5	10	UJ	3	J	1	J	7	J	10	UJ	10	UJ	10	U	4	J	10	U
1,1,2,2-Tetrachloroethane	5	5	10	UJ	50	UJ	50	U	10	U	10	UJ	10	UJ	10	U	10	U	10	U

Notes:
U - Compound was analyzed for but not detected
J - Indicates an estimated value
B - Indicates the analyte is found in the associated blank as well as in the sa
ug/L - micrograms per liter = parts per billion (ppb)
Notes:
Shaded values exceed the NYSDEC Ambient Water Quality Standards and N
Compounds not detected in any of the samples were removed from the ta

Figures



CDM Smith Camp Dresser McKee and Smith	BREWSTER VILLAGE WELL FIELD	SITE LOCATION MAP (NOT TO SCALE)	FIGURE NO.
		SEPTEMBER 2012	1

0897-61712

LEGEND

DG5I	MONITORING WELL WITH DESIGNATION
EW1	OLD GWTS EXTRACTION WELL WITH DESIGNATION
IW1	OLD GWTS INJECTION WELL WITH DESIGNATION
ERT-EW5	NEW GWTS EXTRACTION WELL WITH DESIGNATION
	APPROXIMATE PROPERTY LINE

THIS MAP WAS PREPARED FOR THE EXCLUSIVE USE OF AND IS CERTIFIED ONLY TO: SEVENSON ENVIRONMENTAL SERVICES, INC.

DGC10I
DGC10S
DGC10D
DGC5S
DGC5I
DGC11S
DGC11I
Village of Brewster Groundwater Treatment System (Approx.)
TH6
DGC2S
DGC2I
DGC2D
TH11A
TH11B
Shed
DGC1S
DGC1I
DGC1D
TH9
DGC12S
DGC12I
DGC12D
CDM1
DGC13S
CDM2
CDM3
TH7
DGC9S
DGC9I
DGC8S
DGC8I
DGC15I
DGC15S
DGC15D
DGC7I
DGC7S
DGC7D
IW12
IW11
IW10
IW9
DGC17I
DGC6I
IW8
IW7
IW6
IW5
Old Groundwater Treatment System
Old GWTS Extraction Wells
EW4
EW3
EW2
EW1
ERT10D
ERT10I
Approximate Location of SVE System
DGC16I
DGC16S
GMS02
Brady Stannard Dealership
DGC3I
DGC3S
DGC18I
DGC18S
ERT8S
ERT8I
ERT8D
DGC19I
DGC19D
DGC19S
ERT9I
ERT9D
ERT4I
ERT5I
ERT1S
ERT5S
ERT1I
ERTEW7
ERTEW5
ERTEW6
ERT3I
ERT2S
ERT2I
Smith Cairns Subaru/Jeep Dealership
ERT7I
ERT6I
ERTPR-1
TH13
Effluent Outfall For New Groundwater Treatment System
New Groundwater Treatment System
GMS04
DGC14D
DGC14I
DGC14S
INTERSTATE ROUTE 84 — ROUTE 503
OLD ROUTE 22
ROUTES 6, 22 & 202
ROUTES 6 & 202
BRANCH
OFF
TRIB
CROTON
RIVER
Access
True North at 74° 30' West Longitude
N
1" = 200'
100 0 200

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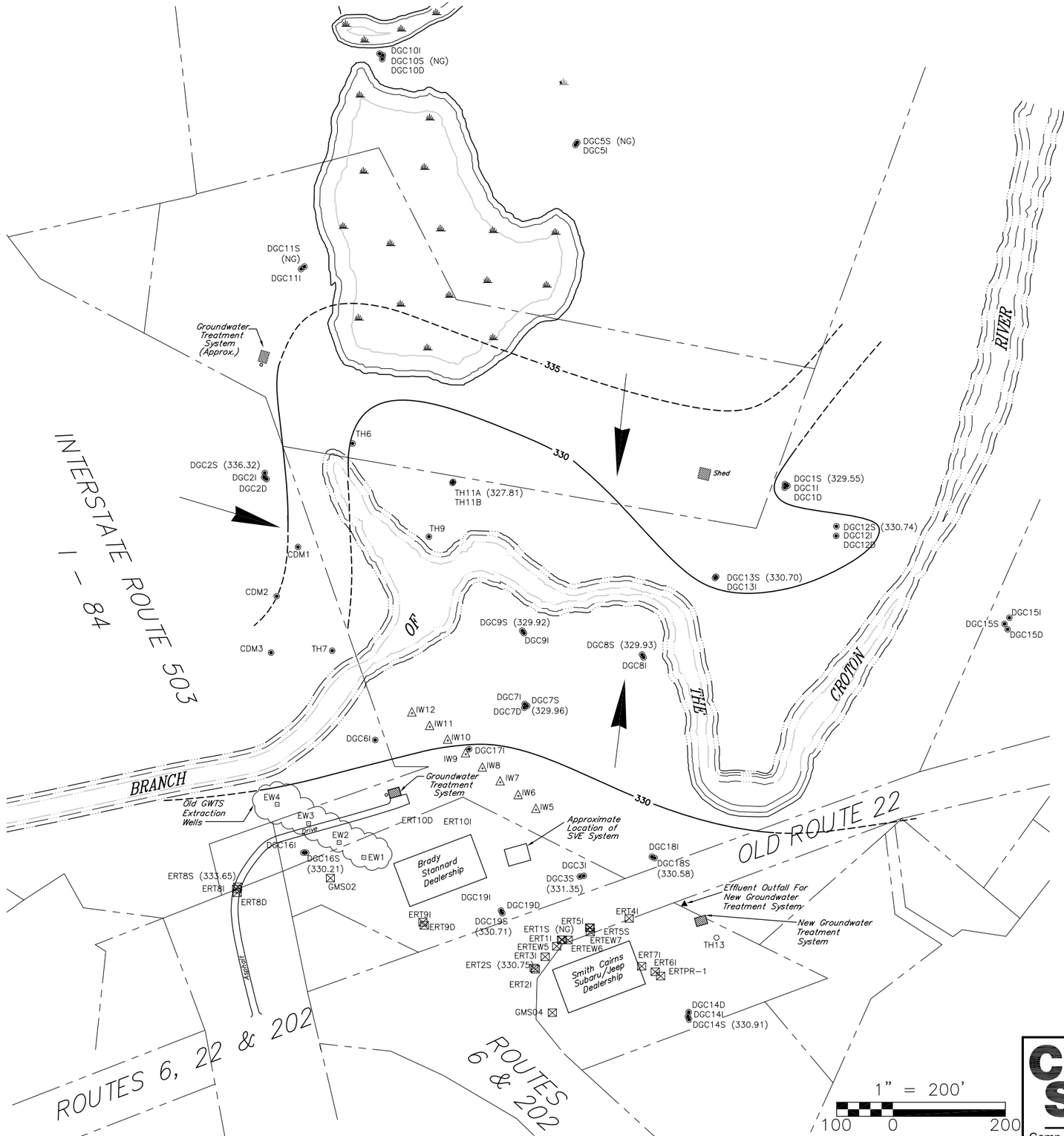
BREWSTER VILLAGE WELL FIELD

SITE PLAN

NOVEMBER 2012

FIGURE NO. 2



LEGEND

- DGC8S (329.93) — MONITORING WELL WITH DESIGNATION (GROUNDWATER ELEVATION)
- EW1 — OLD GWTS EXTRACTION WELL WITH DESIGNATION
- IW1 — OLD GWTS INJECTION WELL WITH DESIGNATION
- ERT–1 — NEW GWTS EXTRACTION WELL WITH DESIGNATION
- APPROXIMATE PROPERTY LINE
- 330 — CONCEPTUAL GROUNDWATER CONTOUR LINE CONTOUR INTERVAL 5 FT ABOVE MEAN SEA LEVEL
- INFERRED GROUNDWATER CONTOUR LINE
- GROUNDWATER FLOW DIRECTION

THIS MAP WAS PREPARED FOR THE EXCLUSIVE USE OF AND IS CERTIFIED ONLY TO: SEVENSON ENVIRONMENTAL SERVICES, INC.

November 26, 2012 Gauging Data - Shallow Wells

WELL	Top of Casing Elevation (feet above mean sea level)	Depth to Water (feet from top of casing)	Depth to bottom (feet from top of casing)	Groundwater Elevation (feet above mean sea level)
DGC1S	336.66	7.11	10.40	329.55
DGC2S	338.22	NG	1.90	NG
DGC3S	335.97	4.62	10.20	331.35
DGC5S	340.99	area flooded		NG
DGC7S	334.09	4.13	10.13	329.96
DGC8S	334.78	4.85	10.43	329.93
DGC9S	333.42	3.50	10.41	329.92
DGC10S	336.63	area flooded		NG
DGC11S	336.99	well damaged		NG
DGC12S	337.02	dry	6.28	330.74
DGC13S	335.84	5.14	10.40	330.70
DGC14S	341.37	10.46	12.90	330.91
DGC16S	339.96	9.75	10.68	330.21
DGC18S	338.04	7.46	10.64	330.58
DGC19S	337.19	7.02	10.60	330.17
TH11A	332.62	4.81	9.89	327.81
ERT1S	338.05	NG	13.48	NG
ERT2S	338.31	7.56	14.45	330.75
ERT8S	341.43	7.78	15.00	333.65

True North at 74° 30' West Longitude

N

NOTES:
WELL ELEVATIONS BASED ON BADEY & WATSON JUNE 6, 2002 SURVEY FOR SEVENSON ENVIRONMENTAL SERVICES, INC.

\# WELL FULL WITH GROUNDWATER, POSSIBLE ARTESIAN WELL.
NG WELL NOT GUAGED
NA NOT AVAILABLE

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BREWSTER VILLAGE
WELL FIELD

GROUNDWATER CONTOURS FOR SHALLOW WELLS

NOVEMBER 2012

FIGURE NO. 3

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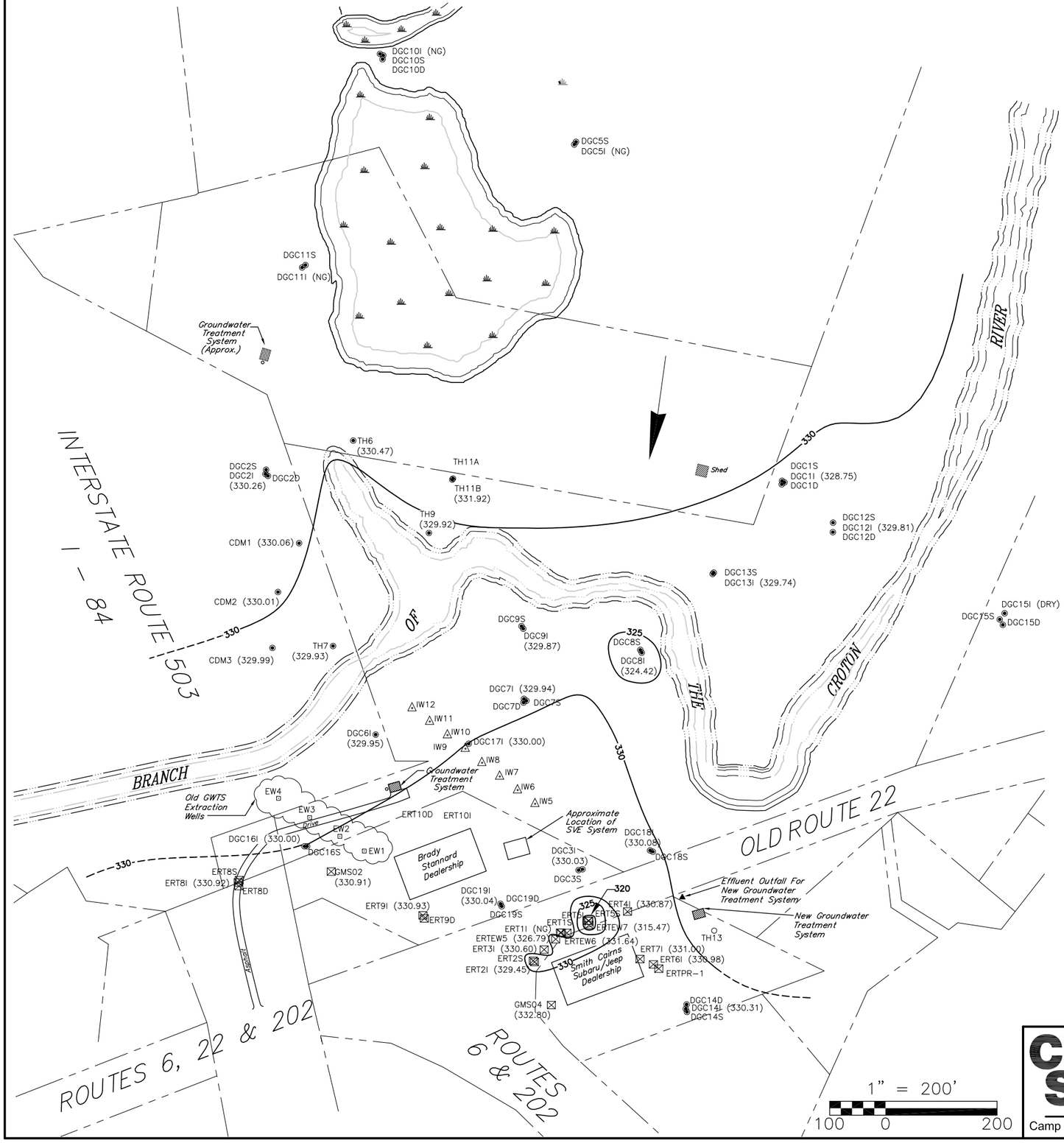

LEGEND

- DGC2I (330.26) — MONITORING WELL WITH DESIGNATION (GROUNDWATER ELEVATION)
- EW1 — OLD GWTS EXTRACTION WELL WITH DESIGNATION
- IW1 — OLD GWTS INJECTION WELL WITH DESIGNATION
- ERT-1 — NEW GWTS EXTRACTION WELL WITH DESIGNATION
- APPROXIMATE PROPERTY LINE
- 330 — CONCEPTUAL GROUNDWATER CONTOUR LINE CONTOUR INTERVAL 5 FT ABOVE MEAN SEA LEVEL
- INFERRED GROUNDWATER CONTOUR LINE
- GROUNDWATER FLOW DIRECTION

THIS MAP WAS PREPARED FOR THE EXCLUSIVE USE OF AND IS CERTIFIED ONLY TO: SEVENSON ENVIRONMENTAL SERVICES, INC.

November 26, 2012 Gauging Data - Intermediate Depth Wells

WELL	Top of Casing Elevation (feet above mean sea level)	Depth to Water (feet from top of casing)	Depth to bottom (feet from top of casing)	Groundwater Elevation (feet above mean sea level)
DGC1I	336.61	7.86	42.95	328.75
DGC2I	338.55	8.29	19.75	330.26
DGC3I	335.49	5.46	22.80	330.03
DGC5I	341.97	area flooded		NG
DGC6I	337.64	7.69	39.92	329.95
DGC7I	333.74	3.80	40.43	329.94
DGC8I	335.20	10.78	39.74	324.42
DGC9I	333.29	3.42	45.42	329.87
DGC10I	338.43	area flooded		NG
DGC11I	336.67	well damaged		NG
DGC12I	337.81	8.00	43.10	329.81
DGC13I	334.43	4.69	65.91	329.74
DGC14I	340.21	9.90	24.56	330.31
DGC16I	339.11	9.11	37.85	330.00
DGC17I	335.25	5.25	35.25	330.00
DGC18I	338.43	8.35	30.28	330.08
DGC19I	336.92	6.88	22.00	330.04
GMS04	339.60	6.80	29.08	332.80
TH7	337.35	7.42	28.68	329.93
TH9	333.64	3.72	27.20	329.92
TH11B	334.70	2.78	24.11	331.92
ERT1I	337.94	NG	33.93	NG
ERT2I	338.20	8.75	33.73	329.45
ERT3I	338.64	8.04	28.85	330.60
ERT4I	338.47	7.60	23.05	330.87
ERT6I	339.65	8.67	26.80	330.98
ERT7I	339.99	8.99	26.73	331.00
ERT8I	341.70	10.78	39.74	330.92
ERT9I	339.51	8.58	27.95	330.93
TH6	337.05	6.58	23.86	330.47
CDM-1	342.34	12.28	40.94	330.06
CDM-2	349.82	19.81	49.10	330.01
CDM-3	351.95	21.96	45.20	329.99
GMS02 ***	339.59	8.68	35.14	330.91
ERTEW5	337.79	11.00	34.50	326.79
ERTEW6	337.74	6.10	20.08	331.64
ERTEW7	337.76	22.29	36.30	315.47

NOTES:
WELL ELEVATIONS BASED ON BADEY & WATSON JUNE 6, 2002 SURVEY FOR SEVENSON ENVIRONMENTAL SERVICES, INC.

\# WELL FULL WITH GROUNDWATER, POSSIBLE ARTESIAN WELL.
NG WELL NOT GUAGED
NA NOT AVAILABLE

CDM Smith
Camp Dresser McKee and Smith

BREWSTER VILLAGE WELL FIELD

GROUNDWATER CONTOURS FOR INTERMEDIATE WELLS

NOVEMBER 2012

FIGURE NO. 4

0897-61712

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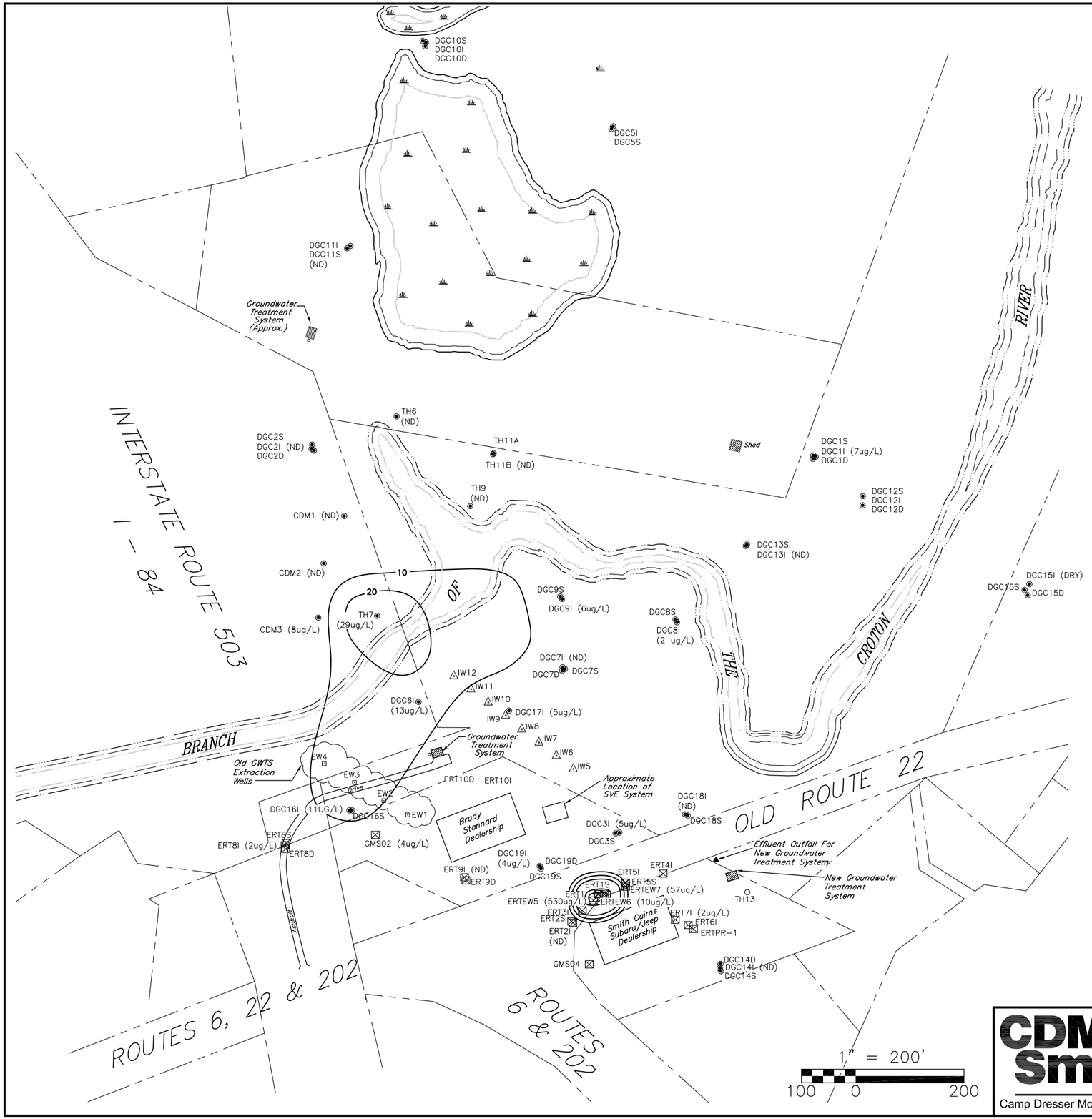

LEGEND

- DGC8I (2 ug/L) — MONITORING WELL WITH DESIGNATION (TETRACHLOROETHENE CONCENTRATION, ug/L)
- EW1 — OLD GWTS EXTRACTION WELL WITH DESIGNATION
- IW1 — OLD GWTS INJECTION WELL WITH DESIGNATION
- ERT-1 — NEW GWTS EXTRACTION WELL WITH DESIGNATION
- APPROXIMATE PROPERTY LINE
- 20 — ISOCONCENTRATION CONTOUR LINE CONTOUR INTERVAL 10ug/L

THIS MAP WAS PREPARED FOR THE EXCLUSIVE USE OF AND IS CERTIFIED ONLY TO: SEVENSON ENVIRONMENTAL SERVICES, INC.

Groundwater Samples Collected November 2012			
	Tetrachloroethene	1,2-Dichloroethene (total)	Vinyl chloride
Well	(µg/L)	(µg/L)	(µg/L)
DGC-1I	7	ND	ND
DGC-2I	ND	ND	ND
DGC3I	5	3	ND
DGC6I	13	45	ND
DGC7I	ND	77	2
DGC8I	2	2	ND
DGC9I	6	38	ND
DGC11I	ND	ND	ND
DGC13I	ND	ND	ND
DGC14I	ND	ND	ND
DGC16I	11	ND	ND
DGC17I	5	55	ND
DGC18I	ND	ND	ND
DGC19I	4	7	1
CDM1	ND	ND	ND
CDM2	ND	ND	ND
CDM3	8	ND	ND
ERT-2I	ND	ND	ND
ERT-7I	2	1	ND
ERT-8I	2	ND	ND
ERT-9I	ND	ND	ND
ERT-EW5	530	34	3
ERT-EW6	10	150	81
ERT-EW7	57	24	2
GMS-02	4	ND	ND
TH-11B	ND	ND	ND
TH-6	ND	ND	ND
TH-7	29	25	4
TH-9	ND	ND	ND

Camp Dresser McKee and Smith

BREWSTER VILLAGE WELL FIELD

TETRACHLOROETHENE ISOCONCENTRATION INTERMEDIATE WELLS

NOVEMBER 2012

FIGURE NO. 5

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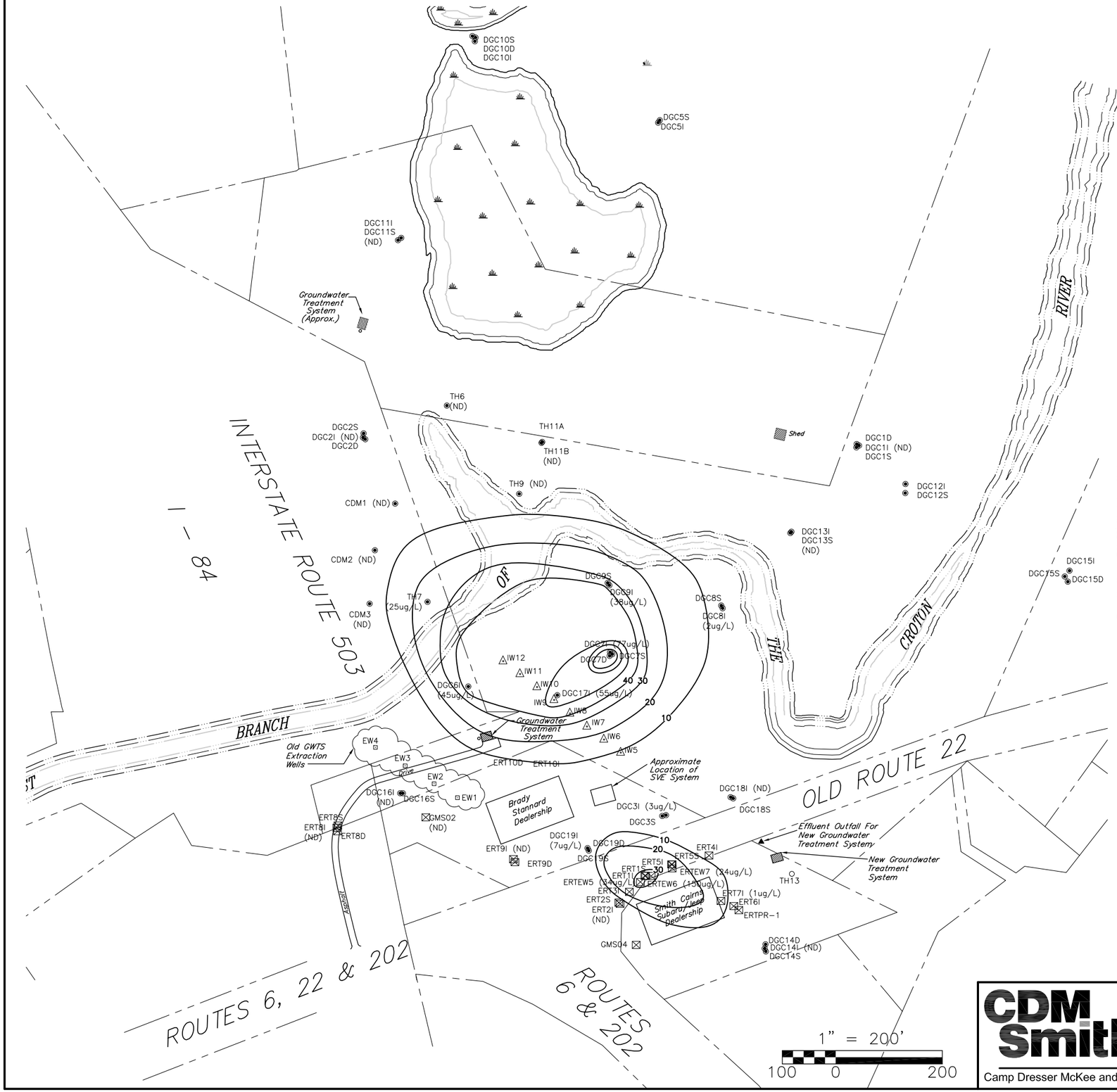

LEGEND

- DGC6I (45ug/L) — MONITORING WELL WITH DESIGNATION (TETRACHLOROETHENE CONCENTRATION, ug/L)
- EW1 — OLD GWTS EXTRACTION WELL WITH DESIGNATION
- IW1 — OLD GWTS INJECTION WELL WITH DESIGNATION
- ERT-1 — NEW GWTS EXTRACTION WELL WITH DESIGNATION
- APPROXIMATE PROPERTY LINE
- 20 — ISOCONCENTRATION CONTOUR LINE CONTOUR INTERVAL 10ug/L

THIS MAP WAS PREPARED FOR THE EXCLUSIVE USE OF AND IS CERTIFIED ONLY TO: SEVENSON ENVIRONMENTAL SERVICES, INC.

Groundwater Samples Collected November 2012			
	Tetrachloroethene	1,2-Dichloroethene (total)	Vinyl chloride
Well	(µg/L)	(µg/L)	(µg/L)
DGC-1I	7	ND	ND
DGC-2I	ND	ND	ND
DGC3I	5	3	ND
DGC6I	13	45	ND
DGC7I	ND	77	2
DGC8I	2	2	ND
DGC9I	6	38	ND
DGC11I	ND	ND	ND
DGC13I	ND	ND	ND
DGC14I	ND	ND	ND
DGC16I	11	ND	ND
DGC17I	5	55	ND
DGC18I	ND	ND	ND
DGC19I	4	7	1
CDM1	ND	ND	ND
CDM2	ND	ND	ND
CDM3	8	ND	ND
ERT-2I	ND	ND	ND
ERT-7I	2	1	ND
ERT-8I	2	ND	ND
ERT-9I	ND	ND	ND
ERT-EW5	530	34	3
ERT-EW6	10	150	81
ERT-EW7	57	24	2
GMS-02	4	ND	ND
TH-11B	ND	ND	ND
TH-6	ND	ND	ND
TH-7	29	25	4
TH-9	ND	ND	ND

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BREWSTER VILLAGE WELL FIELD

1,2-DICHLOROETHENE ISOCONCENTRATION INTERMEDIATE WELLS

NOVEMBER 2012

FIGURE NO. 6

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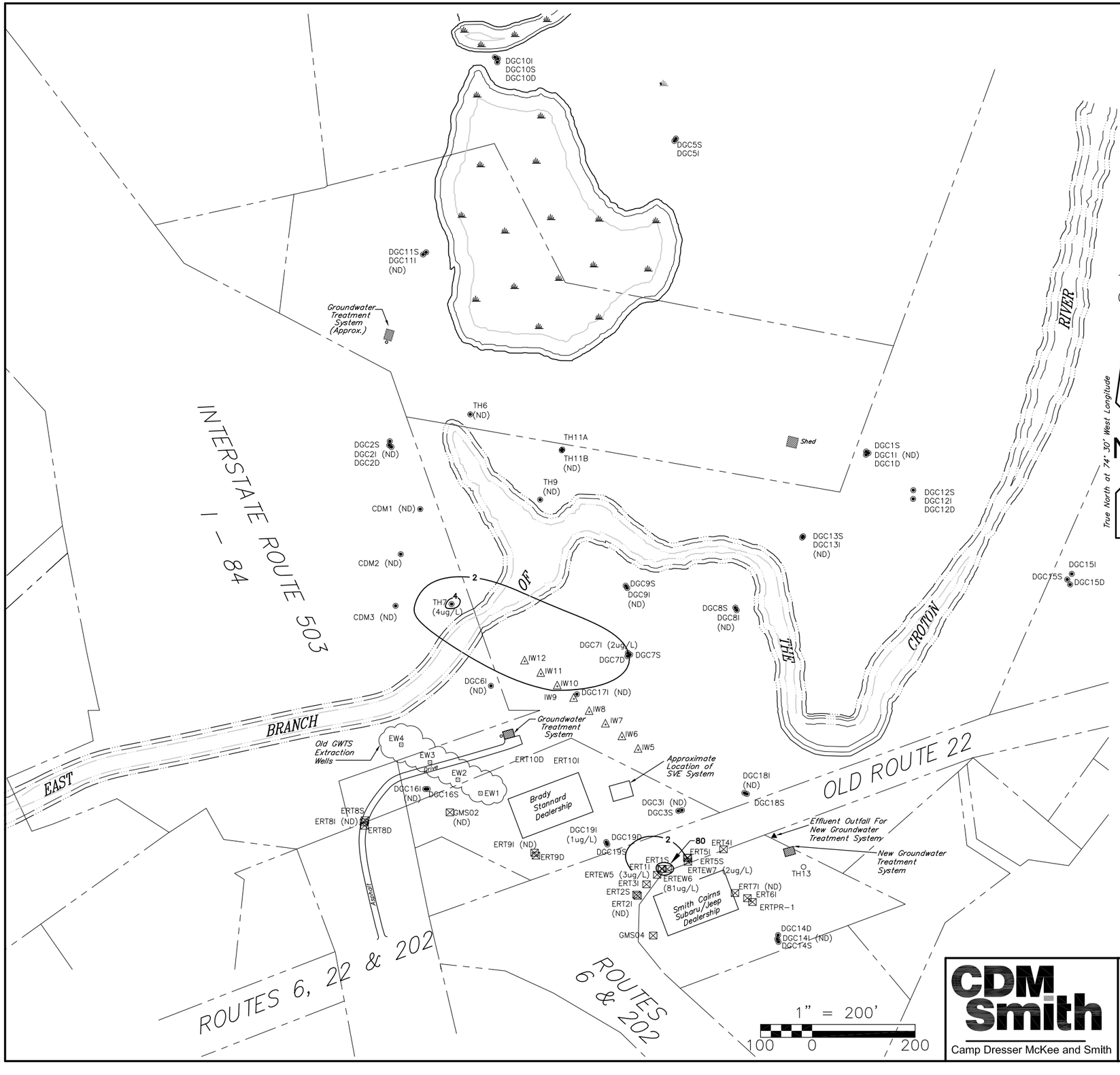

LEGEND

- TH7 (4ug/L) — MONITORING WELL WITH DESIGNATION (TETRACHLOROETHENE CONCENTRATION, ug/L)
- EW1 — OLD GWTS EXTRACTION WELL WITH DESIGNATION
- IW1 — OLD GWTS INJECTION WELL WITH DESIGNATION
- ERT-1 — NEW GWTS EXTRACTION WELL WITH DESIGNATION
- APPROXIMATE PROPERTY LINE
- 20 — ISOCONCENTRATION CONTOUR LINE CONTOUR INTERVAL 2ug/L

THIS MAP WAS PREPARED FOR THE EXCLUSIVE USE OF AND IS CERTIFIED ONLY TO: SEVENSON ENVIRONMENTAL SERVICES, INC.

Groundwater Samples Collected November 2012			
	Tetrachloroethene	1,2-Dichloroethene (total)	Vinyl chloride
Well	(µg/L)	(µg/L)	(µg/L)
DGC-1I	7	ND	ND
DGC-2I	ND	ND	ND
DGC3I	5	3	ND
DGC6I	13	45	ND
DGC7I	ND	77	2
DGC8I	2	2	ND
DGC9I	6	38	ND
DGC11I	ND	ND	ND
DGC13I	ND	ND	ND
DGC14I	ND	ND	ND
DGC16I	11	ND	ND
DGC17I	5	55	ND
DGC18I	ND	ND	ND
DGC19I	4	7	1
CDM1	ND	ND	ND
CDM2	ND	ND	ND
CDM3	8	ND	ND
ERT-2I	ND	ND	ND
ERT-7I	2	1	ND
ERT-8I	2	ND	ND
ERT-9I	ND	ND	ND
ERT-EW5	530	34	3
ERT-EW6	10	150	81
ERT-EW7	57	24	2
GMS-02	4	ND	ND
TH-11B	ND	ND	ND
TH-6	ND	ND	ND
TH-7	29	25	4
TH-9	ND	ND	ND

Camp Dresser McKee and Smith

BREWSTER VILLAGE WELL FIELD

VINYL CHLORIDE ISOCONCENTRATION INTERMEDIATE WELLS

NOVEMBER 2012

FIGURE NO. 7

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