THOMAS R. SUOZZI
COUNTY EXECUTIVE

RAYMOND A. RIBEIRO, P.E.
COMMISSIONER

COUNTY OF NASSAU
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590-2723

October 19, 2009

Cynthia Whitfield, P.E.
New York State Department of
Environmental Conservation
Division of Environmental Remediation, 12th Floor
625 Broadway
Albany, New York 12233-7011

Re: Fireman's Training Center (FTC)
Periodic Review Report – 2009

Dear Ms. Whitfield:

Please find enclosed two (2) copies of the 2009 "Periodic Review Report" and the Certification form for the Fireman's Training Center project. The report was prepared following the suggested outline provided in your May 14, 2009, "45-Day Reminder Notice: Site management Periodic Review."

If you have any questions regarding the report or activities at the site, please contact Kenneth G. Arnold, P.E. at (516) 571-6850.

Very truly yours,

Joseph L. Davenport, P.E.
Chief Sanitary Engineer
Acting Division Head

JLD:KGA:jb
Enclosures

c: Walter Parish, Hazardous Waste Remediation Engineer, NYSDEC, Region 1
Kenneth G. Arnold, Unit Head, Water/Wastewater Engineering Unit
Michael Flaherty, Hydrogeologist III

Enclosure 1

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Site Management Periodic Review Report Notice
Institutional and Engineering Controls Certification Form

Site Details **Box 1**

Site No. 130042

Site Name Nassau County Fire Training Center

Site Address: Winding Road Zip Code: 11714

City/Town: Old Bethpage

County: Nassau

Allowable Use(s) (if applicable, does not address local zoning):

Site Acreage: 12.0

Box 2

Verification of Site Details

	YES	NO
1. Are the Site Details above, correct?	☒	☐
If NO, are changes handwritten above or included on a separate sheet?	☐	
2. Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment since the initial/last certification?	☐	☒
If YES, is documentation or evidence that documentation has been previously submitted included with this certification?	☐	
3. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property since the initial/last certification?	☐	☒
If YES, is documentation (or evidence that documentation has been previously submitted) included with this certification?	☐	
4. If use of the site is restricted, is the curent use of the site consistent with those restrictions?	☒	☐
If NO, is an explanation included with this certification?	☐	
5. For non-significant-threat Brownfield Cleanup Program Sites subject to ECL 27-1415.7(c), has any new information revealed that assumptions made in the Qualitative Exposure Assessment regarding offsite contamination are no longer valid?	☐	☐ N/A
If YES, is the new information or evidence that new information has been previously submitted included with this Certification?	☐	
6. For non-significant-threat Brownfield Cleanup Program Sites subject to ECL 27-1415.7(c), are the assumptions in the Qualitative Exposure Assessment still valid (must be certified every five years)?	☐	☐ N/A
If NO, are changes in the assessment included with this certification?	☐	

SITE NO. 130042 **Box 3**

Description of Institutional Controls

Parcel	Institutional Control
S_B_L Image: **47-153-6**	Decision Document Soil Management Plan
S_B_L Image: **47-153-7**	Decision Document Soil Management Plan

Box 4

Description of Engineering Controls

Parcel	Engineering Control
S_B_L Image: **47-153-6**	Cover System Pump & Treat
S_B_L Image: **47-153-7**	Cover System Pump & Treat

Attach documentation if IC/ECs cannot be certified or why IC/ECs are no longer applicable. (See instructions)

Control Description for Site No. 130042

Parcel:

Parcel: 47-153-6

2/9/89 CO calls for Declaration of Covenants and Restrictions to follow deed, and specifically calls for supplemental action(s) if/as needed separate from re-openers for additional information not previously known. CO specifically identitifes a 30 year post active remediation maintain, monitor and report period 2/93 ROD calls for capping of shallow soils combined with deed restrictions to prevent future human exposure to site contaminants, GW P&T (on & off site), and periodic monitoring, reporting, and evaluation of remedy effectivness.

Parcel: 47-153-7

2/9/89 CO calls for Declaration of Covenants and Restrictions to follow deed, and specifically calls for supplemental action(s) if/as needed separate from re-openers for additional information not previously known. CO specifically identitifes a 30 year post active remediation maintain, monitor and report period. 2/93 ROD calls for capping of shallow soils combined with deed restrictions to prevent future human exposure to site contaminants, GW P&T (on & off site), and periodic monitoring, reporting, and evaluation of remedy effectivness.

Box 5

Periodic Review Report (PRR) Certification Statements

1. I certify by checking "YES" below that:

   a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the certification;

   b) to the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and the information presented is accurate and compete.

YES	NO
☒	☐

2. If this site has an IC/EC Plan (or equivalent as required in the Decision Document), for each Institutional or Engineering control listed in Boxes 3 and/or 4, I certify by checking "YES" below that all of the following statements are true:

   (a) the Institutional Control and/or Engineering Control(s) employed at this site is unchanged since the date that the Control was put in-place, or was last approved by the Department;

   (b) nothing has occurred that would impair the ability of such Control, to protect public health and the environment;

   (c) access to the site will continue to be provided to the Department, to evaluate the remedy, including access to evaluate the continued maintenance of this Control;

   (d) nothing has occurred that would constitute a violation or failure to comply with the Site Management Plan for this Control; and

   (e) if a financial assurance mechanism is required by the oversight document for the site, the mechanism remains valid and sufficient for its intended purpose established in the document.

YES	NO
☒	☐

3. If this site has an Operation and Maintenance (O&M) Plan (or equivalent as required in the Decision Document);

   I certify by checking "YES" below that the O&M Plan Requirements (or equivalent as required in the Decision Document) are being met.

YES	NO
☒	☐

4. If this site has a Monitoring Plan (or equivalent as required in the remedy selection document);

   I certify by checking "YES" below that the requirements of the Monitoring Plan (or equivalent as required in the Decision Document) is being met.

YES	NO
☒	☐

IC CERTIFICATIONS
SITE NO. 130042

Box 6

SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

I certify that all information and statements in Boxes 2 and/or 3 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Raymond A. Ribeiro, P.E. at 1194 Prospect Avenue, Westbury, NY 11590-2723,
print name print business address

am certifying as Commissioner of Public Works (Owner or Remedial Party)

for the Site named in the Site Details Section of this form.

Signature of Owner or Remedial Party Rendering Certification — Date: 10/7/09

IC/EC CERTIFICATIONS

Box 7

QUALIFIED ENVIRONMENTAL PROFESSIONAL (QEP) SIGNATURE

I certify that all information in Boxes 4 and 5 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Raymond A. Ribeiro, P.E. at 1194 Prospect Avenue, Westbury, NY 11590-2723,
print name print business address

am certifying as a Qualified Environmental Professional for the Department of Public Works

(Owner or Remedial Party) for the Site named in the Site Details Section of this form.

Signature of Qualified Environmental Professional, for the Owner or Remedial Party, Rendering Certification

STATE OF NEW YORK
RAYMOND A. RIBEIRO
No. 073665
LICENSED PROFESSIONAL ENGINEER

Date: 10/7/09

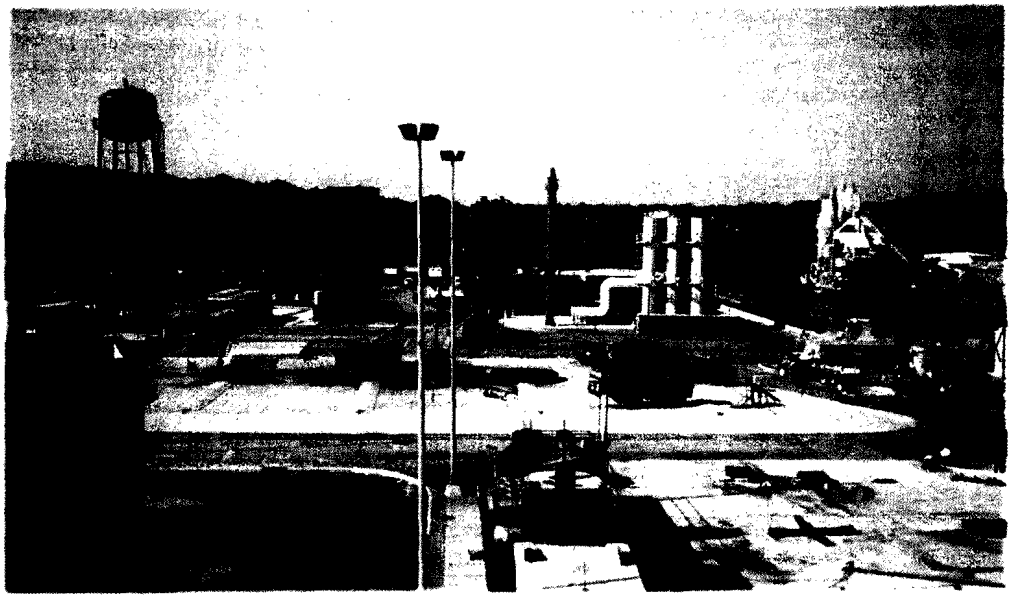
FIREMEN'S TRAINING CENTER
GROUNDWATER REMEDIATION

DEPARTMENT OF PUBLIC WORKS

Nassau County

Long Island, New York

Periodic Review Report



2009

1.0 INTRODUCTION

A. The Fireman's Training Center (FTC) has conducted fire training activities for County's seventy-one (71) fire districts since 1960. The site and facilities are owned by Nassau County, and the training activities and administrative functions are directed by the Vocational Education and Extension Board of Nassau County. Site operations have consisted of fire fighting exercises in open burn areas and building Mock-ups. Fuel oil (No. 2) and gasoline are the primary sources of ignition for training fires. From 1970 to 1980 various combustible organic solvents were also reported to have been mixed with oil and used in the structures being burned.

Training is presently conducted in three building mockups and three open burn areas, propane training areas were also added to the north side of the site in 1991. Until 1984, unburned fuel and solvents that mixed with fire fighting and cleanup wash water flowed over the FTC surface directly into nearby drywells. The dry wells were constructed with unlined, open bottoms and were conduits for downward migration of the liquids through the subsurface soils into the ground water. Additional subsurface contamination may have occurred by leakage of gasoline and oil from shallow underground pipes used to supply fuels to some burn area mock-ups.

Remedial activities at the site began in 1984 with the implementation of a drainage improvement contract. Work conducted under this contract segregated the storm water runoff from the active burn areas to an oil/water separator and a concrete holding basin that removed the oil prior to discharging to the sanitary sewer. This project eliminated all onsite drywells which had previously received contaminated runoff and separated clean surface runoff from water derived from training activities. All contaminated soils encountered during construction were stockpiled and removed. This project was completed in 1988 and the system is still in operation.

The RI/FS for the site was conducted between 1988 and 1992. Construction of the groundwater treatment facility and installation of all onsite and offsite groundwater recovery wells began in 1996. Groundwater treatment activities began in July 1999.

B. Treatment of both onsite and offsite groundwater at the site have been ongoing for over ten years. Over this time period progress in meeting remedial objectives has been made in the following areas:

- Over 4500 gallons of "floating" petroleum product have been removed from onsite groundwater.
- Onsite soil conditions have improved to the point were deed restrictions could be removed from two former "Burn Areas" (Appendix A).
- Total offsite influent concentrations have been reduced from a maximum concentration of 1,005 ppb (6/20/2000) to 36 ppb (6/16/2009).
- Total Volatile Organic Compound (TVOC), concentrations in offsite groundwater has been reduced from over 1400 ppb to less than 50 ppb at six of the seven Offsite Recovery Well (ORW), locations.
- Total Volatile Organic Compound (TVOC), concentrations in onsite groundwater has been reduced from parts per million (ppm) levels to less than 250 ppb (RW-1).
- **Onsite Groundwater Quality** has improved dramatically, data collected from nine (9) monitoring wells in October 2008 found six wells with TVOC concentrations below detectable limits (BDL) and three wells with TVOC concentrations ranging from (2 – 8 ppb), one of those wells found to be below detectable limits (W-35) originally had a TVOC of 2,784 ppb in June, 1999.
- **Offsite Groundwater Quality** has improved dramatically, data collected from twelve (12) monitoring wells in October 2008 found 5 wells with TVOC concentrations below detectable limits (BDL), five wells with TVOC concentrations ranging from (2 – 16 ppb) and two wells with TVOC concentrations above 200 ppb. Original TVOC concentrations in the offsite plume exceeded 1,000 ppb at some well locations.

C. The County of Nassau believes that treatment of the original offsite plume of volatile organic compounds which emanated from the Nassau County Fireman's Training Center also known as the Nassau County Fire Service Academy is essentially complete. This assertion is supported by the extremely low concentrations of TVOC's observed in the offsite influent. It is also supported by the results of the groundwater model prepared for the County by CDM in April 2008. *The County believes that the majority of the volatile organic contamination which is currently being treated by the groundwater remediation facility originated from sources other than the FTC located to the north and east of the offsite recovery well network.*

2.0 SITE OVERVIEW

A. The FTC is located on a 12-acre site on Winding Road near Round Swamp Road in Old Bethpage, New York. It is bordered on the north and west by the former Old Bethpage Landfill and on the south and east by Bethpage State Park (Figure 1). The site has been used since 1960 to conduct advanced fire fighting training for volunteer firemen, and continues today to serve these activities. Training exercises occur in open burn areas and in mock-up buildings located across the site (Figure 2).

Between 1970 and 1980, waste solvents, in addition to fuel oil and gasoline, were accepted at the site for use in training exercises. This practice was discontinued in 1980 and, since then, training exercises have been performed using only fuel oil and gasoline to ignite wooden pallets and straw.

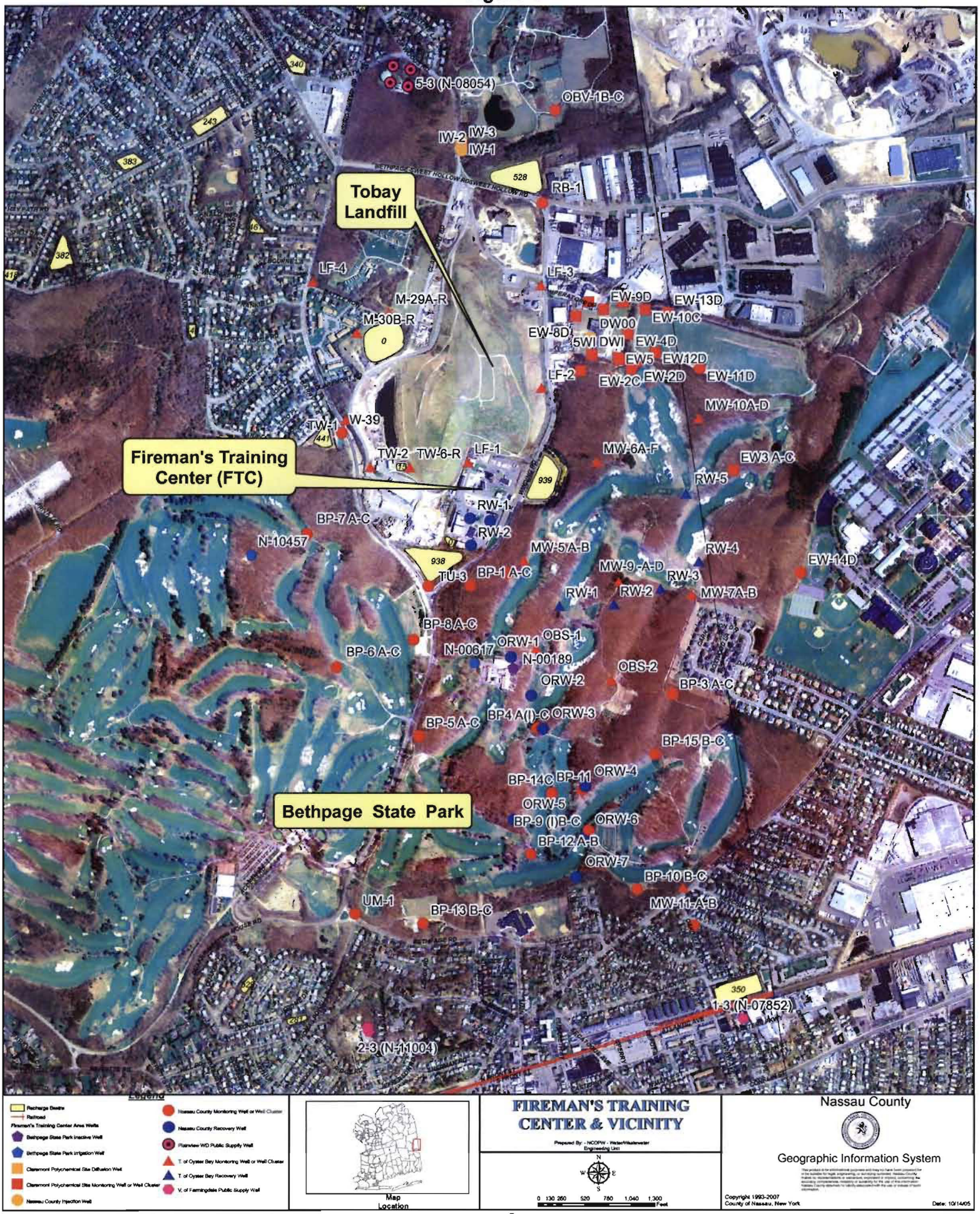
The site contamination occurred primarily in the open burn areas, where fuel was poured directly onto the ground, and in the mock-up fields. In the mock-up buildings, unburned fuel and solvents were washed out of the buildings into drywells after each training session. These unlined drywells inadvertently served as conduits, carrying contamination down to the groundwater and contaminating the soils beneath the site.

B. In 1984, site improvements were made by the County to cap the burn areas and seal the drainage system leading to the drywells. A new drainage system was installed, including an oil/water separator to treat training site runoff. The discharge of the oil/water separator is connected to the sanitary sewer system.

Based on the County's investigations conducted at the site, the New York State Department of Environmental Conservation (NYSDEC) added the FTC site to the States Registry of Inactive Hazardous Waste Disposal Sites in December 1987, and upgraded the site to Class 2 level, one that poses a significant threat to the public or the environment, in March 1988. The County signed an Order of Consent in February 1989, requiring a Remedial Investigation/Feasibility Study (RI/FS) to be performed. The RI/FS was completed in 1992.

A record of decision (ROD) that described the remedial program for the site was subsequently approved by the NYSDEC in February 1993. The ROD called for an asphalt/concrete cap with institutional controls for shallow soils, pumping and treating on-site groundwater using up to three extraction wells, and pumping and treating off-site groundwater using up to seven extraction wells. Remedial operations began in July 1999.

Figure 1



Legend

- Recharge Basins
- Railroad
- Fireman's Training Center Area Wells
- Bethpage State Park Inactive Well
- Bethpage State Park Irrigation Well
- Claremont Polychemical Site Diffusion Well
- Claremont Polychemical Site Monitoring Well or Well Cluster
- Nassau County Injection Well
- Nassau County Monitoring Well or Well Cluster
- Nassau County Recovery Well
- Plainview WD Public Supply Well
- T. of Oyster Bay Monitoring Well or Well Cluster
- T. of Oyster Bay Recovery Well
- V. of Farmingdale Public Supply Well

Map Location

FIREMAN'S TRAINING CENTER & VICINITY

Prepared By: - NCDPW - Water/Wastewater Engineering Unit

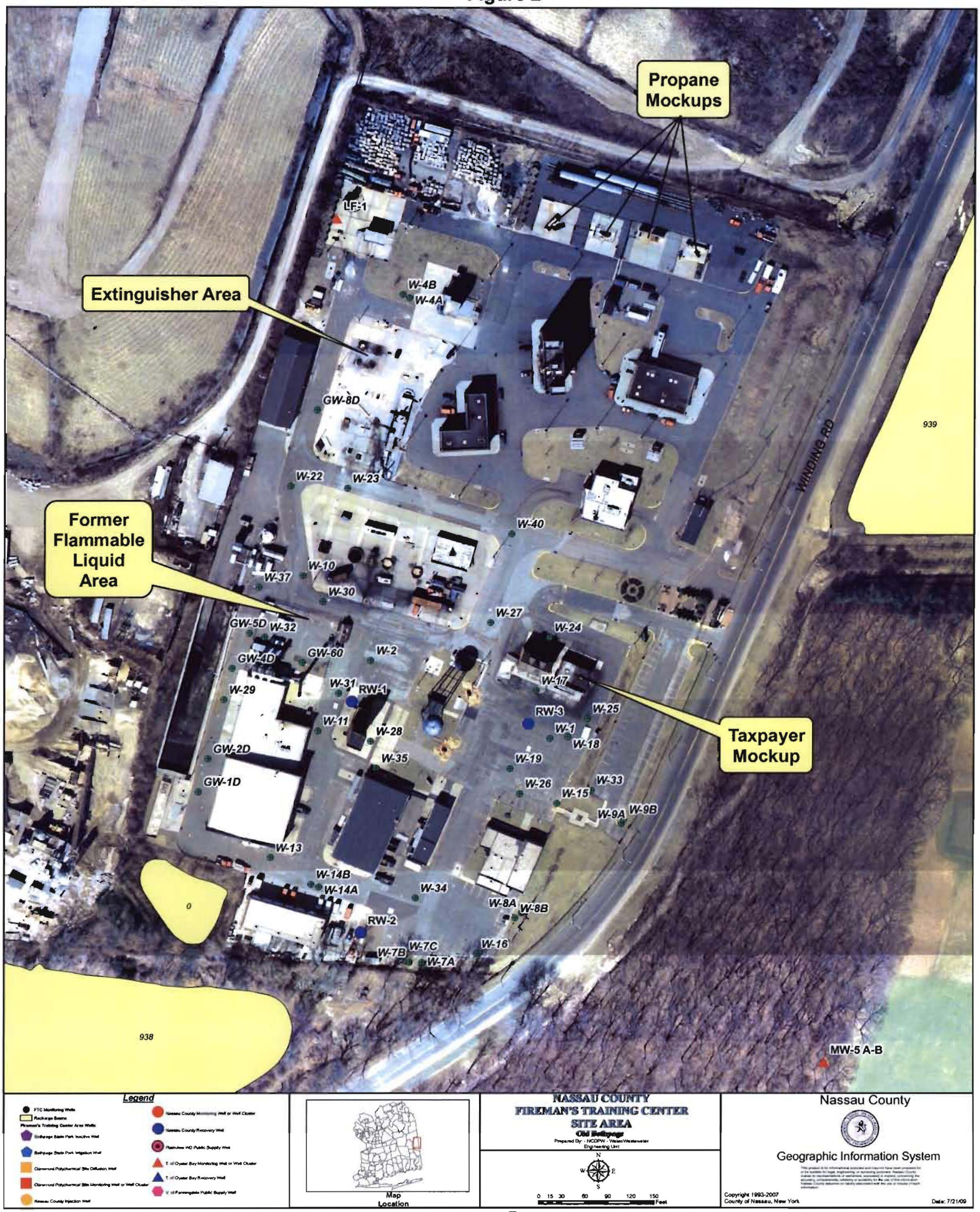
0 130 260 520 780 1,040 1,300 Feet

Nassau County

Geographic Information System

Date: 10/14/05

Figure 2


Propane Mockups
Extinguisher Area
Former Flammable Liquid Area
Taxpayer Mockup
LF-1
W-4B
W-4A
GW-8D
W-22
W-23
W-40
W-10
W-37
W-30
W-27
W-24
GW-5D
W-32
GW-4D
GW-60
W-2
W-31
RW-1
W-29
W-17
RW-3
W-25
W-1
W-18
W-11
W-28
GW-2D
W-35
W-19
GW-1D
W-26
W-33
W-15
W-9A
W-9B
W-13
W-14B
W-14A
W-34
W-8A
W-8B
RW-2
W-7B
W-7C
W-7A
W-16
939
938
0
WINDING RD
MW-5 A-B
Legend
Map Location
NASSAU COUNTY
FIREMAN'S TRAINING CENTER
SITE AREA
Old Bethpage
Prepared By - NCDPW - Water/Wastewater Engineering Unit
0 15 30 60 90 120 150 Feet
Nassau County
Geographic Information System
Copyright 1993-2007
County of Nassau, New York
Date: 7/21/09

The cleanup goals and remedial system termination criteria for the Fireman's Training Center Remediation are included in appendix B. The only significant changes to the selected remedy (pump & treat); involve the number and pumping configuration of the offsite recovery wells (ORW's) used for treatment and the discharge of treated effluent. The original treatment scheme called for the continuous pumping of the three onsite recovery wells (RW-1,2 and 3) and the simultaneous pumping of all seven offsite recovery wells (ORW-1,2,3,4,5,6 and 7). Over time the absence of floating petroleum product and both semi-volatile and volatile organics from onsite groundwater collected from RW-2 and RW-3 led to these wells being turned off. RW-1, the original onsite source area recovery well is the only onsite recovery well currently in service.

The suspected presence of volatile organic compounds derived from non-FTC sources in the offsite plume, led to the County undertaking a Modeling effort. The results of the groundwater model prepared by Camp, Dresser and McKee (CDM), consultants also led to the development of a more efficient pumping scheme using only offsite recovery wells (ORW-3, 4, 6 and 7). The modeling effort also verified that there are non-FTC sources impacting the remediation.

In order to enhance groundwater treatment operations using multiple wells, the County added an effluent connection to the sanitary sewer in July 2006. This connection was necessary due to the poor seasonal recharge characteristics of the existing offsite recharge basin. The addition of this connection allows for the discharge of treated effluent to both the offsite recharge basin and the sanitary sewer which increases Plant's reliability.

3.0 Remedy Performance, Effectiveness, and Protectiveness

The overall remedy performance selected for the FTC Remediation has been very effective over the 10 years of treatment operations. Overall onsite water quality has improved dramatically with many monitoring wells which formerly contained pure petroleum product or exhibited TVOC concentrations in the parts per million range currently containing groundwater which has TVOC concentrations below detectable limits (BDL). Offsite groundwater quality has also shown similar improvement with several monitoring wells which formerly exhibited TVOC concentrations exceeding 1,000 ppb currently below detectable limits. The 2008 sampling results for groundwater collected from both onsite and offsite monitoring wells are presented in the following tables. These tables list only those compounds that have historically been detected at the Firemen's Training Center site.

Review of the 2008 Onsite groundwater quality data indicates that seven of the nine onsite groundwater monitoring wells sampled has volatile and semi-volatile organic concentrations below the groundwater cleanup criteria established for the site.
Groundwater monitoring well FTC-W-32 had a TVOC concentration in groundwater of 48 ppb, two ppb below the guideline of 50 ppb, however groundwater collected from this well did exceed the individual cleanup guideline of 50 ppb established for 2-Methylnapthalene by 6 ppb.
Groundwater monitoring well FTC-W-35 had a TVOC concentration in groundwater of 104 ppb and was below detectable limits for all semi-volatile compounds listed in the site cleanup criteria.

Review of the 2008 Offsite groundwater quality data reveals that 11 of the 14 wells sampled had

Table 2a

2008 ONSITE GROUNDWATER SAMPLING RESULTS

	FTC-W-4A			FTC-W-4B			FTC-W-7B			FTC-W-9A		
	Baseline Water Quality	DATE SAMPLED		Baseline Water Quality	DATE SAMPLED		Baseline Water Quality	DATE SAMPLED		Baseline Water Quality	DATE SAMPLED	
VOLATILE ORGANICS COMPOUNDS	6/10/99	9/4/08		6/10/99	9/4/08		6/10/99	9/5/08		6/10/99	9/4/08	
1,1-Dichloroethane	BDL	BDL		BDL	BDL		BDL	BDL		BDL	BDL	
1,1-Dichloroethene	BDL	BDL		BDL	BDL		BDL	BDL		BDL	BDL	
1,2,3-Trichlorobenzene	BDL	BDL		BDL	BDL		BDL	BDL		BDL	BDL	
1,2,4,5-Tetramethylbenzene	NA	BDL		NA	BDL		NA	BDL		NA	BDL	
1,2,4-Trimethylbenzene	BDL	BDL		BDL	BDL		2.7	BDL		BDL	BDL	
1,2-Dichlorobenzene	BDL	BDL		2.1	BDL		BDL	BDL		BDL	BDL	
1,3,5-Trimethylbenzene	BDL	BDL		BDL	BDL		BDL	BDL		BDL	BDL	
1,4-Dichlorobenzene	BDL	BDL		7.2	BDL		BDL	4.2		BDL	BDL	
2-Methylnaphthalene	NA	BDL		NA	BDL		NA	BDL		NA	BDL	
4-Isopropytoluene	NA	BDL		NA	BDL		NA	BDL		NA	BDL	
Acetone	BDL	BDL		BDL	BDL		BDL	BDL		BDL	BDL	
Benzene	BDL	BDL		BDL	BDL		1.6	BDL		BDL	BDL	
c-1,2-Dichloroethene	BDL	Not Smpld 5th qtr well		BDL	Not Smpld 5th qtr well		2.1	Not Smpld 5th qtr well		BDL	Not Smpld 5th qtr well	
Chlorobenzene	BDL			1.8			BDL	3.6		BDL		
Chloroform	BDL			BDL			BDL	BDL		BDL		
Ethyl Benzene	BDL			BDL			BDL	BDL		BDL		
Hexachlorobutadiene	BDL	BDL		BDL	BDL		BDL	BDL		BDL	BDL	
Isopropylbenzene	BDL	BDL		BDL	BDL		1.5	BDL		BDL	BDL	
m,p-Xylene	BDL	BDL		BDL	BDL		6.6	BDL		BDL	BDL	
Methyl t-Butylether (MTBE)	BDL	BDL		BDL	BDL		BDL	BDL		BDL	BDL	
Methylene Chloride	BDL	3.3B		BDL	4B		BDL	5.3B		BDL	3.5B	
Naphthalene	BDL	BDL		BDL	BDL		BDL	BDL		BDL	BDL	
N-Butylbenzene	NA	BDL		NA	BDL		NA	BDL		NA	BDL	
n-Propylbenzene	BDL	BDL		BDL	BDL		1.4	BDL		BDL	BDL	
o-Xylene	BDL	BDL		BDL	BDL		BDL	BDL		BDL	BDL	
p-Diethylbenzene	NA	BDL		NA	BDL		NA	BDL		NA	BDL	
p-Ethyltoluene	NA	BDL		NA	BDL		NA	BDL		NA	BDL	
p-Isopropytoluene	BDL	BDL		BDL	BDL		BDL	BDL		BDL	BDL	
sec-Butyl Benzene	BDL	BDL		BDL	BDL		BDL	BDL		BDL	BDL	
tert-Butyl Benzene	BDL	BDL		BDL	BDL		BDL	BDL		BDL	BDL	
Tetrachloroethene	BDL	BDL		BDL	BDL		BDL	BDL		BDL	BDL	
Toluene	BDL	BDL		BDL	BDL		BDL	BDL		BDL	BDL	
Trichloroethene	BDL	BDL		BDL	BDL		BDL	BDL		BDL	BDL	
Vinyl Chloride	BDL	BDL		BDL	BDL		BDL	BDL		BDL	BDL	
SEMI-VOLATILE ORGANIC COMPOUNDS												
1,2-Dichlorobenzene	BDL	BDL		2.3	1.3		BDL	BDL		BDL	BDL	
1,3-Dichlorobenzene	BDL	BDL		BDL	BDL		BDL	BDL		BDL	BDL	
1,4-Dichlorobenzene	BDL	BDL		BDL	BDL		BDL	2.3J		BDL	BDL	
2,4-Dinitrotoluene	BDL	BDL		BDL	BDL		BDL	BDL		BDL	BDL	
2-Methylnaphthalene	NA	BDL		NA	BDL		NA	BDL		NA	BDL	
2-Methylphenol	NA	BDL		NA	BDL		NA	BDL		NA	BDL	
3+4-Methylphenol	NA	BDL		NA	BDL		NA	BDL		NA	BDL	
Acenaphthene	BDL	BDL		BDL	BDL		BDL	BDL		BDL	BDL	
Bis(2-Ethylhexyl)Phthalate	BDL	BDL		BDL	BDL		BDL	BDL		BDL	BDL	
Diethyl Phthalate	BDL	BDL		BDL	BDL		BDL	4.9J		BDL	BDL	
Fluorene	BDL	BDL		BDL	BDL		BDL	BDL		BDL	BDL	
Naphthalene	BDL	BDL		BDL	BDL		BDL	BDL		BDL	BDL	
Nitrobenzene	BDL	BDL		BDL	BDL		BDL	BDL		BDL	BDL	
N-Nitrosodi-n-Propylamine	BDL	BDL		BDL	BDL		BDL	BDL		BDL	BDL	
INORGANIC PARAMETERS												
ph	6.73	NA		7.02	NA		6.51	NA		6.28	NA	
Specific Conductance	264	NA		1460	NA		698	NA		324	NA	
Alkalinity as Calcium Carbonate	BDL	NA		414	NA		158	NA		88	NA	
B.O.D.	BDL	NA		3	NA		3	NA		BDL	NA	
Chemical Oxygen Demand	BDL	NA		60	NA		45	NA		BDL	NA	
Hardness, Total	79.5	NA		151	NA		87.7	NA		95.7	NA	
Nitrate as N	18.48	NA		1.02	NA		BDL	NA		0.6	NA	
Total Phosphorus as P	BDL	NA		BDL	NA		0.09	NA		0.05	NA	
Sodium, Total	14.5	5.79		142	29.1		61.6	35.8		125	19.7	
Total Kjeldahl	0.33	NA		45.1	NA		8.84	NA		0.62	NA	
Ammonia as N	BDL	NA		35.3	NA		8.84	NA		0.35	NA	
Sulfate	32.7	NA		29.5	NA		31.5	NA		24	NA	
Chloride	5	NA		162	NA		95	NA		22.5	NA	
Total Dissolved Solids	190	NA		630	NA		310	NA		164	NA	
Total Suspended Solids	BDL	NA		5.5	NA		44	NA		6	NA	
Arsenic	BDL	BDL		BDL	BDL		BDL	BDL		BDL	BDL	
Aluminum, Total	BDL	0.014		BDL	0.027		BDL	BDL		BDL	0.009	
Iron, Total	0.052	0.476		2.4	16.9		31.3	9.36		0.638	0.02	
Manganese, Total	0.034	0.038		3.09	1.26		3.1	1.49		0.565	0.011	
Nickel, Total	0.010	BDL		0.022	0.014		0.008	0.013		0.023	BDL	
Chromium, Total	BDL	BDL		0.002	BDL		0.009	BDL		BDL	BDL	

LABORATORIES: VOAs & Semi-Vols - American Analytical Laboratories, Farmingdale, N.Y
Inorganic - Nassau County DPW Special Projects Laboratory, Ceder Creek S T P., Wantagh, New York

NOTE: VOC and Semi Vol. results = ug/l
Inorganic = mg/l

Table 2b

2008 ONSITE GROUNDWATER SAMPLING RESULTS

	FTC-W-14B*			FTC-W-23*			FTC-W-31*			FTC-W-32			FTC-W-35		
	Baseline Water Quality	DATE SAMPLED		Baseline Water Quality	DATE SAMPLED		Baseline Water Quality	DATE SAMPLED		Baseline Water Quality	DATE SAMPLED		Baseline Water Quality	DATE SAMPLED	
VOLATILE ORGANICS COMPOUNDS	6/10/99	9/5/08		6/8/99	9/5/08		6/11/99	9/5/08		6/15/00	3/11/08	9/4/08	6/11/99	3/7/08	9/4/08
1,1-Dichloroethane	BDL	BDL		BDL	BDL		BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL
1,1-Dichloroethene	BDL	BDL		BDL	BDL		BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL
1,2,3-Trichlorobenzene	BDL	BDL		BDL	BDL		BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL
1,2,4,5-Tetramethylbenzene	NA	BDL		NA	BDL		NA	BDL		NA	12.0	2.1	NA	36.0	BDL
1,2,4-Trimethylbenzene	BDL	BDL		BDL	BDL		548	BDL		209	BDL	BDL	465	36.0	BDL
1,2-Dichlorobenzene	BDL	BDL		BDL	BDL		BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL
1,3,5-Trimethylbenzene	BDL	BDL		BDL	BDL		169	BDL		70.9	BDL	BDL	126	19.0	BDL
1,4-Dichlorobenzene	BDL	BDL		BDL	BDL		BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL
2-Methylnaphthalene	NA	BDL		NA	BDL		NA	BDL		NA	BDL	BDL	NA	BDL	BDL
4-Isopropyltoluene	NA	BDL		NA	BDL		NA	BDL		NA	BDL	BDL	NA	1.8	BDL
Acetone	BDL	BDL		BDL	BDL		BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL
Benzene	BDL	BDL		BDL	BDL		BDL	BDL		17.4	3.4	BDL	BDL	BDL	BDL
c-1,2-Dichloroethene	BDL	Not Smpld 5th Qtr. Well		BDL	Not Smpld 5th Qtr. Well		BDL	Not Smpld 5th Qtr. Well		BDL	BDL	BDL	BDL	BDL	BDL
Chlorobenzene	BDL			BDL			BDL			BDL	BDL	BDL	BDL	BDL	BDL
Chloroform	BDL			BDL			BDL			BDL	BDL	BDL	BDL	BDL	BDL
Ethyl Benzene	BDL			BDL			112			13.3	BDL	BDL	311	BDL	BDL
Hexachlorobutadiene	BDL			BDL			BDL			BDL	BDL	BDL	BDL	BDL	BDL
Isopropylbenzene	BDL	BDL		BDL	BDL		23.1	BDL		17.0	5.4	BDL	BDL	BDL	BDL
m,p-Xylene	BDL	BDL		BDL	BDL		415	BDL		33.8	1.3	BDL	823	BDL	BDL
Methyl t-Butylether (MTBE)	BDL	BDL		BDL	BDL		BDL	BDL		3.2	BDL	BDL	BDL	BDL	BDL
Methylene Chloride	BDL	6.2B		BDL	4.6B		BDL	5		BDL	BDL	3.2B	BDL	LA	4.1B
Naphthalene	BDL	BDL		BDL	BDL		106	BDL		BDL	BDL	BDL	140	BDL	BDL
n-Butylbenzene	NA	BDL		BDL	BDL		NA	BDL		NA	3.9	BDL	NA	1.5	BDL
n-Propylbenzene	BDL	BDL		BDL	BDL		65.7	BDL		39.9	7.6	BDL	62.2	BDL	BDL
o-Xylene	BDL	BDL		BDL	BDL		194	BDL		10.1	3.3	BDL	457	1.3	BDL
p-Diethylbenzene	NA	BDL		BDL	BDL		NA	BDL		NA	3.4	BDL	NA	BDL	BDL
p-Ethyltoluene	NA	BDL		NA	BDL		NA	BDL		NA	3.7	BDL	NA	8.0	BDL
p-Isopropyltoluene	BDL	BDL		BDL	BDL		21.8	BDL		12.7	BDL	BDL	7.3	BDL	BDL
sec-Butyl Benzene	BDL	BDL		BDL	BDL		BDL	BDL		BDL	2.8	BDL	BDL	BDL	BDL
tert-Butyl Benzene	BDL	BDL		BDL	BDL		BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL
Tetrachloroethene	BDL	BDL		BDL	BDL		BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL
Toluene	BDL	BDL		BDL	BDL		BDL	BDL		2.7	1.0	BDL	392	BDL	BDL
Trichloroethene	BDL	BDL		BDL	BDL		BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL
Vinyl Chloride	BDL	BDL		BDL	BDL		BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL
SEMI-VOLATILE ORGANIC COMPOUNDS															
1,2-Dichlorobenzene	BDL	BDL		BDL	BDL		BDL	BDL		BDL	BDL		BDL	BDL	BDL
1,3-Dichlorobenzene	BDL	BDL		BDL	BDL		BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL
1,4-Dichlorobenzene	BDL	BDL		BDL	BDL		BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL
2,4-Dinitrotoluene	BDL	BDL		BDL	BDL		3.9	BDL		1.8	BDL	BDL	BDL	BDL	BDL
2-Methylnaphthalene	NA	BDL		NA	BDL		NA	BDL		NA	56.0	BDL	NA	BDL	BDL
2-Methylphenol	NA	BDL		NA	BDL		NA	BDL		NA	BDL	BDL	NA	BDL	BDL
3+4-Methylphenol	NA	BDL		NA	BDL		NA	BDL		NA	BDL	BDL	NA	BDL	BDL
Acenaphthene	BDL	BDL		BDL	BDL		1.3	BDL		BDL	5.7	BDL	BDL	BDL	BDL
Anthracene	BDL	BDL		BDL	BDL		BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL
Diethyl Phthalate	BDL	BDL		BDL	BDL		BDL	16		BDL	BDL	BDL	BDL	BDL	BDL
Fluorene	BDL	BDL		BDL	BDL		2.0	BDL		1.8	5.5	.094J	BDL	BDL	BDL
Naphthalene	BDL	BDL		BDL	BDL		61.8	BDL		BDL	BDL	BDL	BDL	BDL	BDL
Nitrobenzene	BDL	BDL		BDL	BDL		BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL
Phenanthrene	BDL	BDL		BDL	BDL		BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL
INORGANIC PARAMETERS															
ph	6.17	NA		6.99	NA		6.48	NA		6.64	NA	NA	5.83	NA	NA
Specific Conductance	568	NA		832	NA		632	NA		776	NA	NA	260	NA	NA
Alkalinity as Calcium Carbonate	60	NA		182	NA		71	NA		179	NA	NA	56	NA	NA
B.O.D.	BDL	NA		BDL	NA		7	NA		5.2	NA	NA	6	NA	NA
Chemical Oxygen Demand	BDL	NA		BDL	NA		36	NA		54.9	NA	NA	BDL	NA	NA
Hardness, Total	190	NA		52.6	NA		50.8	NA		108	NA	NA	45	NA	NA
Nitrate as N	2.59	NA		4.07	NA		BDL	NA		BDL	NA	NA	1.72	NA	NA
Total Phosphorus as P	BDL	NA		BDL	NA		0.05	NA		0.06	NA	NA	BDL	NA	NA
Sodium, Total	23.9	10.2		106	32.0		80.5	21.9		56.7	NA	8.32	16.4	NA	5.22
Total Kjeldahl	0.42	NA		16.9	NA		6.23	NA		2.70	NA	NA	0.99	NA	NA
Ammonia as N	BDL	NA		16.9	NA		6.24	NA		2.69	NA	NA	0.76	NA	NA
Sulfate	158	NA		24.9	NA		33.4	NA		48.1	NA	NA	26	NA	NA
Chloride	20	NA		100	NA		80	NA		90	NA	NA	20	NA	NA
Total Dissolved Solids	347	NA		384	NA		306	NA		377	NA	NA	140	NA	NA
Total Suspended Solids	1	NA		1	NA		40	NA		102	NA	NA	8	NA	NA
Arsenic	BDL	BDL		BDL	BDL		BDL	BDL		BDL	NA	0.0358	BDL	NA	0.0362
Aluminum, Total	BDL	BDL		BDL	BDL		BDL	0.090		0.012	NA	0.0651	BDL	NA	0.281
Iron, Total	0.422	0.025		0.013	0.028		24.3	6.44		64.9	NA	48.1	20.4	NA	70.6
Manganese, Total	4.37	0.322		0.277	0.57		2.31	5.79		5.39	NA	2.210	3.25	NA	0.52
Nickel, Total	BDL	BDL		0.014	BDL		0.006	BDL		0.002	NA	0.0076	0.008	NA	0.0121
Chromium, Total	0.002	BDL		BDL	BDL		0.006	BDL		BDL	NA	BDL	0.005	NA	0.010

LABORATORIES: VOAs & Semi-Vols - American Analytical Laboratories, Farmingdale, N.Y
Inorganic - Nassau County DPW Special Projects Laboratory, Cedar Creek S.T.P., Wantagh, New York

NOTE: VOC and Semi Vol results = ug/l
Inorganic = mg/l

Table 3a

2008 OFFSITE GROUNDWATER SAMPLING RESULTS

	BP-3B*					BP-3C					BP-4B				
	Baseline Water Quality	DATE SAMPLED				Baseline Water Quality	DATE SAMPLED				Baseline Water Quality	DATE SAMPLED			
VOLATILE ORGANICS COMPOUNDS	11/00/90	4/17/08	10/10/08			11/00/90	4/17/08	10/9/08			6/8/99	3/4/08	9/10/08		
1,1,1 Trichloroethane	BDL	BDL	BDL			2.0	1.9	1.5			BDL	BDL	BDL		
1,1,1-Trichloromethane	NA	BDL	BDL			NA	BDL	BDL			BDL	BDL	BDL		
1,1,2-Trichloro-1,2,2-Trifluoroethane	NA	BDL	BDL			NA	1.7	BDL			NA	BDL	BDL		
1,1,2 Trichloroethane	BDL	BDL	BDL			BDL	BDL	BDL			BDL	BDL	BDL		
1,1-Dichloroethane	BDL	BDL	BDL			0.9	3.6	BDL			4.8	BDL	BDL		
1,1-Dichloroethene	BDL	BDL	BDL			BDL	1.3	BDL			4.4	BDL	BDL		
1,2,4-Trimethylbenzene	NA	BDL	BDL			BDL	BDL	BDL			BDL	BDL	BDL		
1,2-Dibromoethane	NA	BDL	BDL			NA	BDL	BDL			BDL	BDL	BDL		
1,2-Dichlorobenzene	BDL	BDL	BDL			BDL	BDL	BDL			BDL	BDL	BDL		
1,2-Dichloroethane	BDL	BDL	BDL			BDL	BDL	BDL			BDL	BDL	BDL		
1,3,5-Trimethylbenzene	NA	BDL	BDL			BDL	BDL	BDL			BDL	BDL	BDL		
1,4-Dichlorobenzene	BDL	BDL	BDL			NA	BDL	BDL			BDL	BDL	BDL		
Benzene	BDL	BDL	BDL			BDL	BDL	BDL			8.5	2.1	BDL		
Carbon Tetrachloride	NA	BDL	BDL			BDL	BDL	BDL			BDL	BDL	BDL		
Chlorobenzene	BDL	BDL	BDL			BDL	BDL	BDL			26.2	BDL	BDL		
Chlorodifluoromethane	NA	BDL	BDL			NA	BDL	BDL			NA	BDL	BDL		
Chloroform	BDL	BDL	BDL			BDL	BDL	BDL			BDL	BDL	BDL		
Chloromethane	NA	BDL	BDL			BDL	BDL	BDL			BDL	BDL	BDL		
cis-1,2-Dichloroethene	NA	5.3	3.3			11.0	95.0	99.0			117.0	1.6	BDL		
Dichlorodifluoromethane	NA	BDL	BDL			NA	BDL	BDL			BDL	BDL	BDL		
Ethyl Benzene	BDL	BDL	BDL			BDL	BDL	BDL			155.0	BDL	BDL		
Isopropylbenzene	NA	BDL	BDL			NA	BDL	BDL			9.8	BDL	BDL		
m,p-Xylene	BDL	BDL	BDL			NA	BDL	BDL			4.6	BDL	BDL		
Methyl t-Butylether (MTBE)	BDL	BDL	BDL			BDL	BDL	BDL			5.7	BDL	BDL		
Methylene Chloride	BDL	3.2B	BDL			BDL	4.3B	4.8B			BDL	BDL	3.7B		
Naphthalene	BDL	BDL	BDL			BDL	BDL	BDL			20.0	BDL	BDL		
n-Propylbenzene	NA	BDL	BDL			NA	BDL	BDL			BDL	BDL	BDL		
o-Xylene	2.0	BDL	BDL			NA	BDL	BDL			37.3	BDL	BDL		
p-Ethyltoluene	NA	BDL	BDL			NA	BDL	BDL			NA	BDL	BDL		
t -1,2-Dichloroethene	NA	BDL	BDL			BDL	BDL	BDL			BDL	BDL	BDL		
Tetrachloroethene	BDL	19.0	18.0			12.0	17.0	10.0			597.0	2.8	1.8		
Toluene	BDL	BDL	BDL			BDL	BDL	BDL			32.1	BDL	BDL		
Trichloroethene	BDL	BDL	BDL			3.0	9.8	12.0			BDL	BDL	BDL		
Trichlorofluoromethane	BDL	BDL	BDL			NA	BDL	BDL			BDL	BDL	BDL		
Vinyl Chloride	BDL	BDL	BDL			BDL	1.5	BDL			10.6	BDL	BDL		
SEMI-VOLATILE ORGANIC COMPOUNDS															
1,2-Dichlorobenzene	BDL	NA	NA			BDL	NA	NA			BDL	NA	NA		
2,4-Dinitrotoluene	BDL	NA	NA			BDL	NA	NA			BDL	NA	NA		
Bis(2-Ethylhexyl) Phthalate	BDL	NA	NA			BDL	NA	NA			BDL	NA	NA		
INORGANIC PARAMETERS															
ph	5.03	NA	NA			5.64	NA	NA			4.96	NA	NA		
Specific Conductance	81.8	NA	NA			30.0	NA	NA			248	NA	NA		
Alkalinity as Calcium Carbonate	BDL	NA	NA			BDL	NA	NA			9	NA	NA		
B.O.D.	BDL	NA	NA			1.0	NA	NA			BDL	NA	NA		
Chemical Oxygen Demand	BDL	NA	NA			40.6	NA	NA			BDL	NA	NA		
Hardness, Total	14.9	NA	NA			1.9	NA	NA			49.8	NA	NA		
Nitrate as N	4.15	NA	NA			BDL	NA	NA			0.53	NA	NA		
Total Phosphorus as P	BDL	NA	NA			BDL	NA	NA			BDL	NA	NA		
Sodium, Total	6.30	NA	2.2			1.91	NA	8.31			23.4	NA	13.8		
Total Kjeldahl	0.24	NA	NA			0.16	NA	NA			0.16	NA	NA		
Ammonia as N	BDL	NA	NA			BDL	NA	NA			BDL	NA	NA		
Sulfate	BDL	NA	NA			6.4	NA	NA			40.8	NA	NA		
Chloride	10.0	NA	NA			5.0	NA	NA			30	NA	NA		
Total Dissolved Solids	92	NA	NA			47	NA	NA			132	NA	NA		
Total Suspended Solids	BDL	NA	NA			1.0	NA	NA			BDL	NA	NA		
Aluminum, Total	BDL	NA	0.024			0.045	NA	0.028			BDL	NA	0.026		
Iron, Total	0.106	NA	0.020			1.39	NA	0.032			0.015	NA	0.012		
Manganese, Total	0.011	NA	0.012			0.006	NA	0.024			0.13	NA	0.360		
Nickel, Total	BDL	NA	0.031			BDL	NA	0.007			0.020	NA	0.008		
Chromium, Total	BDL	NA	0.008			BDL	NA	BDL			BDL	NA	BDL		

LABORATORIES: INORGANIC: Nassau County DPW Special Projects Laboratory, Ceder Creek S.T.P., Wantagh, New York
VOA & SEMI-VOL: American Analytical Laboratories, Farmingdale, N.Y.

NOTE: VOC and Semi Vol. results = ug/l
Inorganic = mg/l

Table 3b

2008 OFFSITE GROUNDWATER SAMPLING RESULTS

	BP-4C*					BP-9B*					BP-10C*					BP-12B				
	Baseline Water Quality	DATE SAMPLED				Baseline Water Quality	DATE SAMPLED				Baseline Water Quality	DATE SAMPLED				Baseline Water Quality	DATE SAMPLED			
VOLATILE ORGANICS COMPOUNDS	6/8/99					6/4/99		9/10/08			6/4/99	3/7/08	10/2/08			6/4/99	3/6/008	9/10/08		
1,1,1 Trichloroethane	BDL					BDL		BDL			BDL	BDL	BDL			BDL	BDL	BDL		
1,1,1-Trichloromethane	BDL					BDL		BDL			BDL	BDL	BDL			3.3	BDL	BDL		
1,1,2-Trichloro-1,2,2-Trifluoroethane	NA					NA		BDL			NA	BDL	BDL			NA	BDL	BDL		
1,1,2 Trichloroethane	BDL					BDL		BDL			BDL	BDL	BDL			BDL	BDL	BDL		
1,1-Dichloroethane	3.3					6.4		BDL			BDL	2.1	2.8			9.2	BDL	BDL		
1,1-Dichloroethene	4.0					3.6		BDL			BDL	BDL	BDL			BDL	BDL	BDL		
1,2,4-Trimethylbenzene	BDL					BDL		BDL			BDL	BDL	BDL			BDL	BDL	BDL		
1,2-Dibromoethane	BDL					BDL		BDL			BDL	BDL	BDL			BDL	BDL	BDL		
1,2-Dichlorobenzene	BDL					BDL		BDL			BDL	BDL	BDL			BDL	BDL	BDL		
1,2-Dichloroethane	BDL					BDL		BDL			BDL	BDL	BDL			BDL	BDL	BDL		
1,3,5-Trimethylbenzene	BDL					BDL		BDL			BDL	BDL	BDL			BDL	BDL	BDL		
1,4-Dichlorobenzene	BDL					BDL		BDL			BDL	BDL	BDL			BDL	BDL	BDL		
Benzene	9.0	Not				BDL	Not	1.7			BDL	BDL	BDL			BDL	BDL	BDL		
Carbon Tetrachloride	BDL	Smpld				BDL	Smpld	BDL			BDL	BDL	BDL			BDL	BDL	BDL		
Chlorobenzene	34.4	5th				BDL	5th	BDL			BDL	BDL	BDL			BDL	BDL	BDL		
Chlorodifluoromethane	NA	Qtr.				NA	Qtr.	BDL			NA	BDL	BDL			NA	BDL	BDL		
Chloroform	BDL	Well				BDL	Well	BDL			BDL	BDL	BDL			BDL	BDL	BDL		
Chloromethane	BDL					BDL		BDL			BDL	BDL	BDL			BDL	BDL	BDL		
cis-1,2-Dichloroethene	152.0					106.0		9.5			BDL	1.5	2.2			78.9	BDL	BDL		
Dichlorodifluoromethane	BDL					BDL		BDL			BDL	BDL	BDL			BDL	BDL	BDL		
Ethyl Benzene	206.0					BDL		BDL			BDL	BDL	BDL			BDL	BDL	BDL		
Isopropylbenzene	BDL					BDL		BDL			BDL	BDL	BDL			BDL	BDL	BDL		
m,p-Xylene	BDL					BDL		BDL			BDL	BDL	BDL			BDL	BDL	BDL		
Methyl t-Butylether (MTBE)	BDL					BDL		BDL			BDL	BDL	BDL			BDL	BDL	BDL		
Methylene Chloride	BDL					BDL		4B			BDL	2.1B	7.2B			BDL	3.2B	3.1B		
Naphthalene	BDL					BDL		BDL			BDL	BDL	BDL			BDL	BDL	BDL		
n-Propylbenzene	BDL					BDL		BDL			BDL	BDL	BDL			BDL	BDL	BDL		
o-Xylene	1.4					BDL		BDL			BDL	BDL	BDL			BDL	BDL	BDL		
p-Ethyltoluene	NA					NA		BDL			NA	BDL	BDL			NA	BDL	BDL		
t -1,2-Dichloroethene	BDL					BDL		BDL			BDL	BDL	BDL			BDL	BDL	BDL		
Tetrachloroethene	30.4					98.9		2.3			BDL	BDL	BDL			30.7	.89J	BDL		
Toluene	BDL					BDL		BDL			BDL	BDL	BDL			BDL	BDL	BDL		
Trichloroethene	BDL					BDL		BDL			BDL	BDL	BDL			19.8	BDL	BDL		
Trichlorofluoromethane	BDL					BDL		BDL			BDL	BDL	BDL			BDL	BDL	BDL		
Vinyl Chloride	5.0					BDL		2.3			BDL	BDL	BDL			BDL	BDL	BDL		
SEMI-VOLATILE ORGANIC COMPOUNDS																				
1,2-Dichlorobenzene	BDL					BDL		NA			NA	NA	NA			BDL	NA	NA		
2,4-Dinitrotoluene	3.9					BDL		NA			BDL	NA	NA			3.3	NA	NA		
Diethyl Phthalate	BDL					BDL		NA			BDL	NA	NA			BDL	NA	NA		
INORGANIC PARAMETERS																				
ph	5.08					4.97		NA			5	NA	NA			4.86	NA	NA		
Specific Conductance	119					89.6		NA			44.2	NA	NA			454	NA	NA		
Alkalinity as Calcium Carbonate	8					5		NA			BDL	NA	NA			BDL	NA	NA		
B.O.D.	BDL					BDL		NA			BDL	NA	NA			BDL	NA	NA		
Chemical Oxygen Demand	BDL					BDL		NA			BDL	NA	NA			BDL	NA	NA		
Hardness, Total	24.1					16.2		NA			6.7	NA	NA			41.2	NA	NA		
Nitrate as N	2.3					3.62		NA			1.8	NA	NA			3.53	NA	NA		
Total Phosphorus as P	BDL					BDL		NA			BDL	NA	NA			BDL	NA	NA		
Sodium, Total	10.3					L/A		11.20			LA	NA	7.36			L/A	NA	12.50		
Total Kjeldahl	BDL					0.13		NA			BDL	NA	NA			BDL	NA	NA		
Ammonia as N	BDL					BDL		NA			BDL	NA	NA			BDL	NA	NA		
Sulfate	5.06					BDL		NA			BDL	NA	NA			23.2	NA	NA		
Chloride	15					12.5		NA			7.5	NA	NA			95	NA	NA		
Total Dissolved Solids	64					48		NA			16	NA	NA			223	NA	NA		
Total Suspended Solids	BDL					BDL		NA			BDL	NA	NA			BDL	NA	NA		
Aluminum, Total	BDL					BDL		BDL			BDL	NA	0.038			BDL	NA	0.016		
Iron, Total	0.003					BDL		0.006			BDL	NA	0.018			BDL	NA	0.085		
Manganese, Total	0.005					0.003		0.042			0.001	NA	0.019			0.015	NA	0.024		
Nickel, Total	0.019					0.005		0.006			BDL	NA	0.006			0.011	NA	0.020		
Chromium, Total	BDL					BDL		BDL			BDL	NA	BDL			BDL	NA	0.017		

LABORATORIES: INORGANIC: Nassau County DPW Special Projects Laboratory, Ceder Creek S.T.P., Wantagh, New York
VOA & SEMI-VOL: American Analytical Laboratories, Farmingdale, N.Y.

NOTE: VOC and Semi Vol. results = ug/l
Inorganic = mg/l

Table 3c

2008 OFFSITE GROUNDWATER SAMPLING RESULTS

	BP-13B*				BP-13C*					BP-14B				BP-14C*				
	Baseline Water Quality	DATE SAMPLED			Baseline Water Quality	DATE SAMPLED			Baseline Water Quality	DATE SAMPLED				Baseline Water Quality	DATE SAMPLED			
VOLATILE ORGANICS COMPOUNDS	2/1/00		9/8/08		2/1/00		9/8/08		4/11/02	3/7/08	10/3/08			4/11/02	3/7/08	10/3/08		
1,1,1 Trichloroethane	BDL		BDL		BDL		BDL		50.6	9.7	6.6			BDL	9.7	BDL		
1,1,1-Trichloromethane	BDL		BDL		BDL		BDL		BDL	BDL	BDL			BDL	BDL	BDL		
1,1,2-Trichloro-1,2,2-Trifluoroethane	NA		BDL		NA		BDL		NA	BDL	BDL			NA	BDL	BDL		
1,1,2 Trichloroethane	BDL		BDL		BDL		BDL		BDL	BDL	BDL			BDL	BDL	BDL		
1,1-Dichloroethane	BDL		BDL		BDL		BDL		5.1	2.0	1.3			BDL	BDL	BDL		
1,1-Dichloroethene	BDL		BDL		BDL		BDL		25	6.1	4.3			BDL	BDL	BDL		
1,2,4-Trimethylbenzene	BDL		BDL		BDL		BDL		1.4	5.1	BDL			BDL	BDL	BDL		
1,2-Dibromoethane	BDL		BDL		BDL		BDL		BDL	BDL	BDL			BDL	BDL	BDL		
1,2-Dichlorobenzene	BDL		BDL		BDL		BDL		BDL	BDL	BDL			BDL	BDL	BDL		
1,2-Dichloroethane	BDL		BDL		BDL		BDL		15.4	7.2	5.7			BDL	BDL	BDL		
1,3,5-Trimethylbenzene	BDL		BDL		BDL		BDL		BDL	3.5	BDL			BDL	BDL	BDL		
1,4-Dichlorobenzene	BDL		BDL		BDL		BDL		BDL	BDL	BDL			BDL	BDL	BDL		
Benzene	BDL		BDL		BDL		BDL		83.7	190.0	150.0			BDL	BDL	BDL		
Carbon Tetrachloride	BDL	Not Smpld 5th Qtr. Well	BDL		BDL	Not Smpld 5th Qtr. Well	BDL		BDL	BDL	BDL			BDL	BDL	BDL		
Chlorobenzene	BDL		BDL		BDL		BDL		BDL	BDL	BDL			BDL	BDL	BDL		
Chlorodifluoromethane	NA		BDL		NA		BDL		NA	BDL	BDL			NA	BDL	BDL		
Chloroform	BDL		BDL		BDL		BDL		BDL	BDL	BDL			BDL	BDL	BDL		
Chloromethane	BDL		BDL		BDL		BDL		BDL	BDL	BDL			BDL	BDL	BDL		
cis-1,2-Dichloroethene	BDL		BDL		BDL		BDL		244	100.0	74.0			BDL	4.8	9.4		
Dichlorodifluoromethane	BDL		BDL		BDL		BDL		BDL	BDL	BDL			BDL	BDL	BDL		
Ethyl Benzene	BDL		BDL		BDL		BDL		BDL	BDL	BDL			BDL	BDL	BDL		
Isopropylbenzene	BDL		BDL		BDL		BDL		BDL	2.6	1.8			BDL	BDL	BDL		
m,p-Xylene	BDL		BDL		BDL		BDL		BDL	BDL	BDL			BDL	BDL	BDL		
Methyl t-Butylether (MTBE)	BDL		BDL		BDL		BDL		BDL	BDL	BDL			BDL	BDL	BDL		
Methylene Chloride	BDL		3.3B		BDL		4.3B		BDL	2.4B	5.3B			BDL	LA	8.1B		
Naphthalene	BDL		BDL		BDL		BDL		BDL	BDL	BDL			BDL	BDL	BDL		
n-Propylbenzene	BDL		BDL		BDL		BDL		BDL	BDL	BDL			BDL	BDL	BDL		
o-Xylene	BDL		BDL		BDL		BDL		4.3	5.9	3.6			BDL	BDL	BDL		
p-Ethyltoluene	NA		BDL		NA		BDL		NA	BDL	BDL			NA	BDL	BDL		
t -1,2-Dichloroethene	BDL		BDL		BDL		BDL		BDL	BDL	BDL			BDL	BDL	BDL		
Tetrachloroethene	BDL		BDL		BDL		BDL		375	260.0	140.0			BDL	2.4	6.4		
Toluene	BDL		BDL		BDL		BDL		BDL	BDL	BDL			BDL	BDL	BDL		
Trichloroethene	BDL		BDL		BDL		BDL		40.8	27.0	17.0			BDL	BDL	.66J		
Trichlorofluoromethane	BDL		BDL		BDL		BDL		BDL	BDL	BDL			BDL	BDL	BDL		
Vinyl Chloride	BDL		BDL		BDL		BDL		9.2	5.0	2.9			BDL	BDL	BDL		
SEMI-VOLATILE ORGANIC COMPOUNDS																		
1,2-Dichlorobenzene	NA		NA		NA		NA		BDL	NA	NA			NA	NA	NA		
2,4-Dinitrotoluene	BDL		NA		NA		NA		BDL	NA	NA			NA	NA	NA		
Bis(2-Ethylhexyl) Phthalate	BDL		NA		NA		NA		BDL	NA	NA			NA	NA	NA		
INORGANIC PARAMETERS																		
ph	NA		NA		NA		NA		5.64	NA	NA			NA	NA	NA		
Specific Conductance	NA		NA		NA		NA		30.0	NA	NA			NA	NA	NA		
Alkalinity as Calcium Carbonate	NA		NA		NA		NA		BDL	NA	NA			NA	NA	NA		
B.O.D.	NA		NA		NA		NA		1.0	NA	NA			NA	NA	NA		
Chemical Oxygen Demand	NA		NA		NA		NA		40.6	NA	NA			NA	NA	NA		
Hardness, Total	NA		NA		NA		NA		1.9	NA	NA			NA	NA	NA		
Nitrate as N	NA		NA		NA		NA		BDL	NA	NA			NA	NA	NA		
Total Phosphorus as P	NA		NA		NA		NA		BDL	NA	NA			NA	NA	NA		
Sodium, Total	NA		2.50		NA		0.541		1.91	NA	15.2			NA	NA	4.37		
Total Kjeldahl	NA		NA		NA		NA		0.16	NA	NA			NA	NA	NA		
Ammonia as N	NA		NA		NA		NA		BDL	NA	NA			NA	NA	NA		
Sulfate	NA		NA		NA		NA		6.4	NA	NA			NA	NA	NA		
Chloride	NA		NA		NA		NA		5.0	NA	NA			NA	NA	NA		
Total Dissolved Solids	NA		NA		NA		NA		47	NA	NA			NA	NA	NA		
Total Suspended Solids	NA		NA		NA		NA		1.0	NA	NA			NA	NA	NA		
Aluminum, Total	NA		0.014		NA		0.070		0.045	NA	0.015			NA	NA	0.014		
Iron, Total	NA		0.011		NA		0.025		1.39	NA	0.023			NA	NA	0.014		
Manganese, Total	NA		0.008		NA		BDL		0.006	NA	0.025			NA	NA	0.004		
Nickel, Total	NA		BDL		NA		BDL		BDL	NA	BDL			NA	NA	BDL		
Chromium, Total	NA		BDL		NA		BDL		BDL	NA	BDL			NA	NA	BDL		

LABORATORY: Nassau County DPW Special Projects Laboratory
Ceder Creek S.T.P., Wantagh, New York

Beginning in June (Semi-Vol) & July (VOAs)
American Analytical Laboratories, Farmingdale, N.Y.

NOTE: VOC and Semi Vol. results = ug/l
Inorganic = mg/l

Table 3d

2008 OFFSITE GROUNDWATER SAMPLING RESULTS

	BP-15B			BP-15C*		OBV-1B*		OBV-1C*	
	Baseline Water Quality	DATE SAMPLED		Baseline Water Quality	DATE SAMPLED	Baseline Water Quality	DATE SAMPLED	Baseline Water Quality	DATE SAMPLED
VOLATILE ORGANICS COMPOUNDS	10/28/05	3/11/08	9/29/08	10/28/05	9/30/08	9/19/05	9/30/08	9/19/05	9/11/08
1,1,1 Trichloroethane	22.1	17.0	14.0	BDL	BDL	1.6	BDL	4.8	4.4
1,1,1-Trichloromethane	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,1,2-Trichloro-1,2,2-Trifluoroethane	NA	3.3	BDL	NA	BDL	NA	BDL	NA	BDL
1,1,2 Trichloroethane	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,1-Dichloroethane	28.4	31.0	31.0	BDL	BDL	1.0	BDL	6.9	4.7
1,1-Dichloroethene	11.4	7.0	8.3	BDL	BDL	BDL	BDL	3.4	1.4
1,2 Dichloroethane	1.6	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,2,4-Trimethylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,2-Dibromoethane	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,2-Dichlorobenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,3,5-Trimethylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,4-Dichlorobenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzene	1.7	6.1	6.0	BDL	BDL	BDL	BDL	BDL	BDL
Carbon Tetrachloride	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chlorobenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chlorodifluoromethane	NA	BDL	BDL	NA	BDL	NA	BDL	NA	BDL
Chloroform	0.7	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chloromethane	1.8	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
cis-1,2-Dichloroethene	40.7	83.0	96.0	BDL	BDL	BDL	BDL	BDL	BDL
Dichlorodifluoromethane	10.0	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Ethyl Benzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Isopropylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
m,p-Xylene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Methyl t-Butylether (MTBE)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Methylene Chloride	5.0	9.7B	29B	BDL	4.6B	BDL	6.8B	BDL	4.5B
Naphthalene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
n-Propylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
o-Xylene	0.3	2.3	BDL	BDL	BDL	BDL	BDL	BDL	BDL
p-Ethyltoluene	NA	BDL	BDL	NA	BDL	NA	BDL	NA	BDL
t -1,2-Dichloroethene	0.7	1.3	BDL	BDL	BDL	BDL	BDL	BDL	1.9
Tetrachloroethene	7.5	40.0	40.0	BDL	BDL	BDL	BDL	BDL	BDL
Toluene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Trichloroethene	10.5	16.0	16.0	BDL	BDL	BDL	BDL	3.4	2.2
Trichlorofluoromethane	3.2	2.8	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Vinyl Chloride	8.8	21.0	27.0	BDL	BDL	BDL	BDL	BDL	BDL
SEMI-VOLATILE ORGANIC COMPOUNDS									
1,2-Dichlorobenzene	BDL	NA	NA	BDL	NA	BDL	NA	BDL	NA
2,4-Dinitrotoluene	BDL	NA	NA	BDL	NA	BDL	NA	BDL	NA
Bis(2-Ethylhexyl) Phthalate	BDL	NA	NA	BDL	NA	BDL	NA	BDL	NA
INORGANIC PARAMETERS									
ph	4.74	NA	NA	4.69	NA	5.17	NA	5.21	NA
Specific Conductance	192	NA	NA	52	NA	152	NA	140	NA
Alkalinity as Calcium Carbonate	7	NA	NA	BDL	NA	7	NA	5	NA
B.O.D.	3.4	NA	NA	BDL	NA	10	NA	3.6	NA
Chemical Oxygen Demand	BDL	NA	NA	BDL	NA	BDL	NA	BDL	NA
Hardness, Total	9.4	NA	NA	36.9	NA	35.7	NA	27.2	NA
Nitrate as N	0.79	NA	NA	0.7	NA	2.31	NA	8.15	NA
Total Phosphorus as P	BDL	NA	NA	BDL	NA	BDL	NA	BDL	NA
Sodium, Total	4.76	NA	20.40	17.4	5.51	10.9	6.44	13	12.9
Total Kjeldahl	0.15	NA	NA	BDL	NA	BDL	NA	BDL	NA
Ammonia as N	BDL	NA	NA	BDL	NA	BDL	NA	BDL	NA
Sulfate	BDL	NA	NA	BDL	NA	24.3	NA	BDL	NA
Chloride	45.0	NA	NA	5	NA	10	NA	10	NA
Total Dissolved Solids	90	NA	NA	37	NA	109	NA	110	NA
Total Suspended Solids	BDL	NA	NA	BDL	NA	2	NA	BDL	NA
Aluminum, Total	0.047	NA	0.023	0.037	0.033	0.17	0.049	0.051	0.072
Iron, Total	0.088	NA	0.013	0.026	0.017	0.388	0.058	0.039	0.256
Manganese, Total	0.024	NA	0.019	0.005	BDL	0.073	0.028	0.038	0.015
Nickel, Total	0.007	NA	BDL	0.002	BDL	0.005	BDL	0.003	0.008
Chromium, Total	BDL	NA	BDL	BDL	BDL	BDL	BDL	BDL	BDL

Not Smpld 5th Qtr. Well

LABORATORIES: INORGANIC: Nassau County DPW Special Projects Laboratory, Ceder Creek S.T.P., Wantagh, New York
VOA & SEMI-VOL: American Analytical Laboratories, Farmingdale, N.Y.

NOTE: VOC and Semi Vol. results = ug/l
Inorganic = mg/l

TVOC concentrations below the 50 ppb guideline established for the site. Two of the wells which exceeded the closure criteria for total organics BP-3C (127 ppb) and BP-15B (267 ppb) have been impacted by volatile organics originating from sources other than the FTC, based on composition of the sample and groundwater modeling. The third offsite monitoring well BP–14B had a TVOC concentration of 413 ppb.

The evaluation of remedy performance with regard to the occurrence and treatment of volatile organic compounds which originated at the FTC in offsite groundwater monitoring and recovery wells is complicated by the presence of multiple offsite sources of these compounds. Currently, there are at least three potential sources (Figure 3), including Old Bethpage Landfill, Claremont Polychemical Corp. and American Louvre Corp. which have contributed volatile organic compounds to local groundwater. During the ten years of groundwater treatment all offsite recovery wells have exhibited a decrease in TVOC concentrations; similarly total offsite influent concentrations have also decreased over this time period. Offsite influent concentrations for the ten years of treatment operations are presented in Figures 4 and 5. Review of Figure 4 indicates that largest reductions in offsite volatile organic compound concentrations in groundwater occurred in the first five years of treatment. Overall TVOC concentrations were reduced from a maximum of 1,005 ppb in June of 2000 to 30 ppb in July of 2004. Initially all seven offsite recovery wells were pumped in various configurations to identify those wells which had the highest total volatile organic compound concentrations. Offsite Recovery Wells ORW-3 and ORW-4 were pumped in almost all pumping schemes due to the highest overall initial volatile organic concentrations in groundwater. Between July 2003 and July 2004, overall reductions in offsite plume TVOC concentrations and restrictions in effluent discharge capacity caused by poor drainage characteristics in the offsite recharge basin led to a reduction in offsite pumpage. Hydraulic control of what was perceived to be the "lead edge" of the plume of volatile organics became the focus of the treatment program and offsite recovery wells ORW-5, 6 and 7 were employed for this purpose.

Figure 3

Trulite Louvre
(Formerly Filtron Corp.)
Hitemco
Corp.
Molloy Brothers
Moving & Storage
(Formerly Dyna Force Inc.)
SWEET HOLLOW RD
BETHPAGE-SWEET HOLLOW RD
CLAREMONT RD
528
Former
American Louvre
GEFA
Instrument Corp.
(Formerly Life Industries)
IMPERATORE CR
Mr. Bar-B-Que
(Formerly Captree
Chemical)
Former Claremont
Polychemical Corp.
SUFFOLK
COUNTY
0
Tobay
Landfill
15
939
Fireman's Training
Center (FTC)
0
938
ROUND SWAMP RD
Map
Location
Fireman's Training Center
Potential Upgradient
Sources
N
W
E
S
0 60 120 240 360 480 600
Feet
Nassau County
Geographic Information System
Copyright 1993-2007
County of Nassau, New York

Figure 4 FTC - Offsite Influent trends July 1999 - July 2004

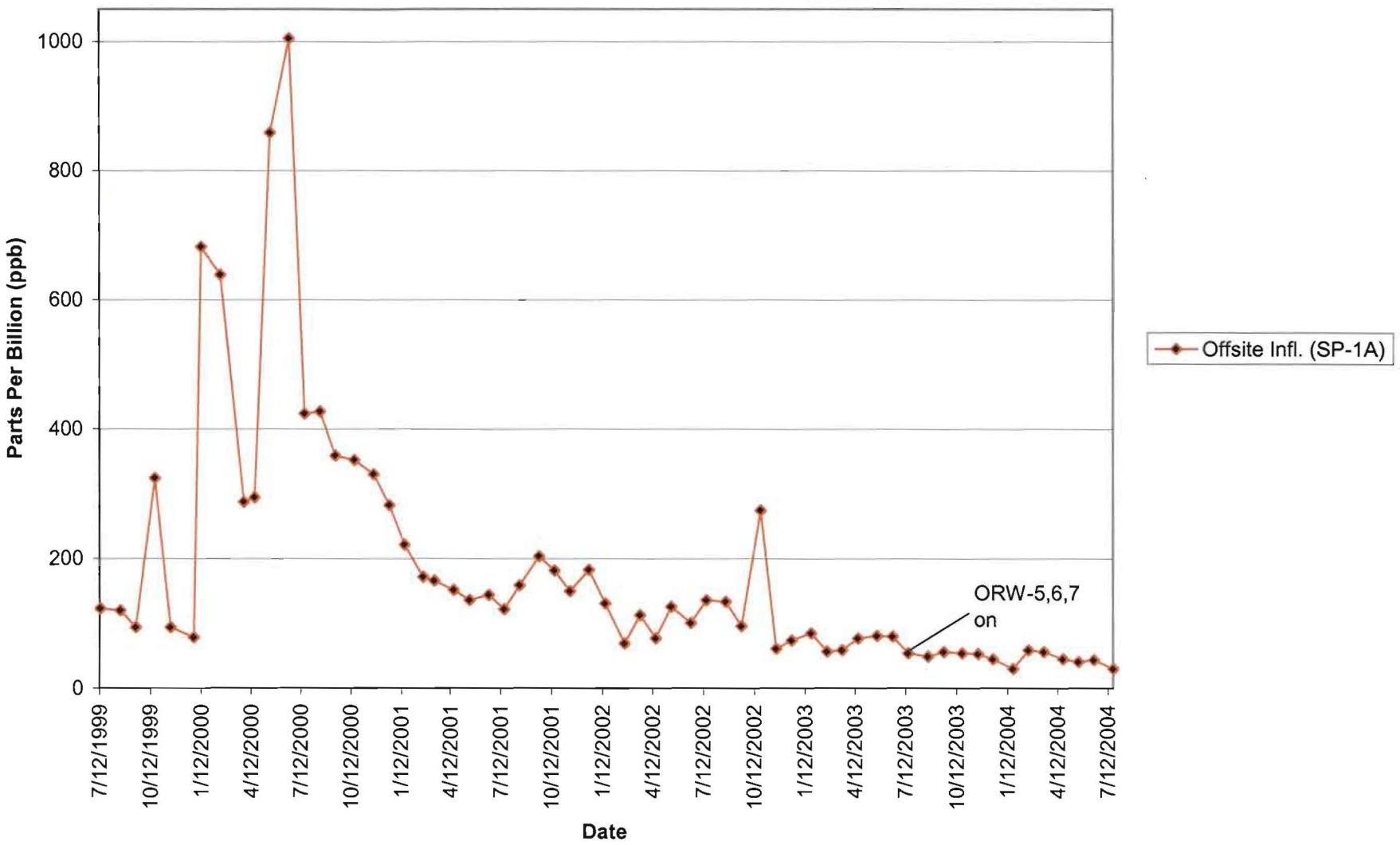
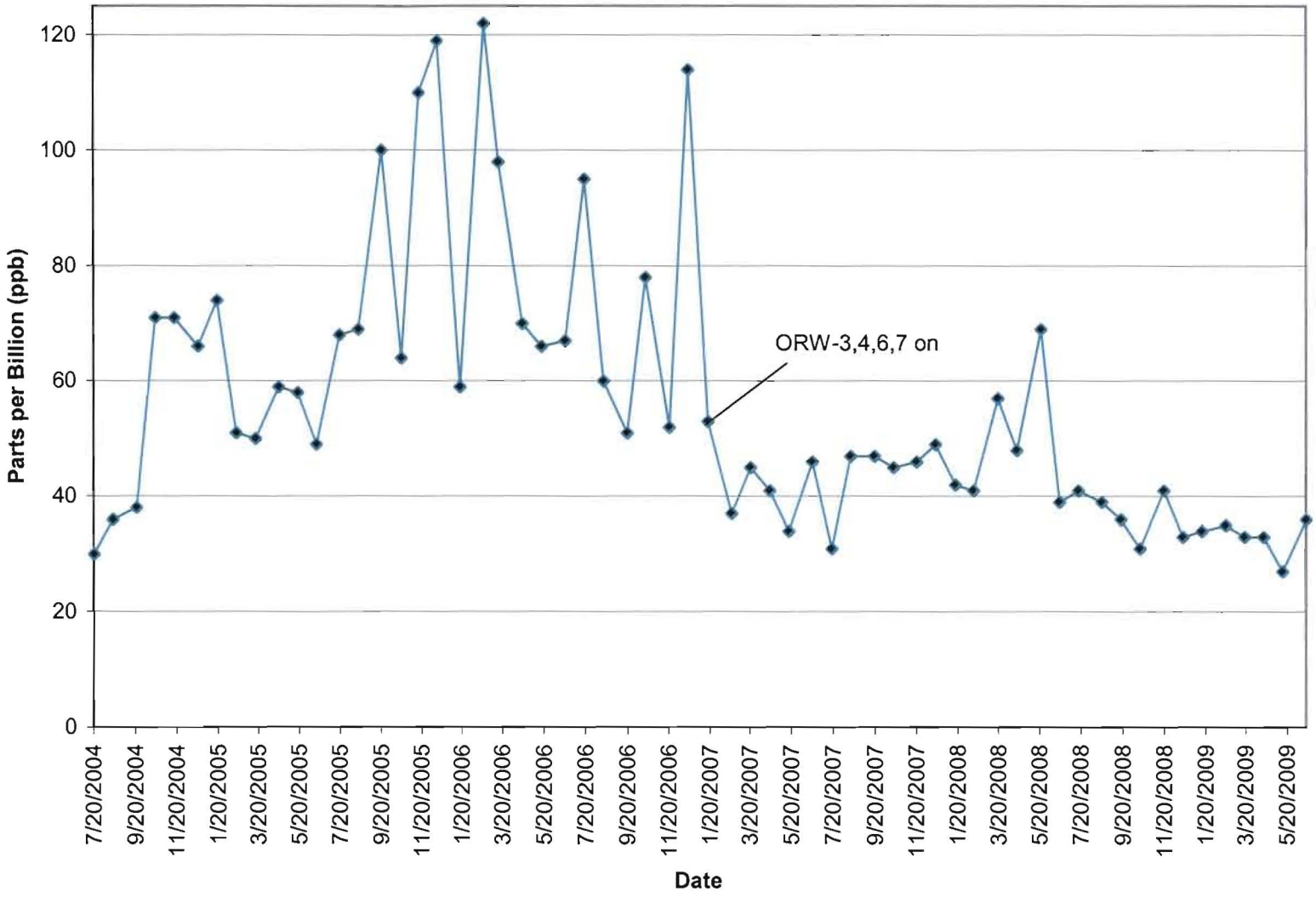


Figure 5 Offsite Influent Trends July 2004 - June 2009



Offsite influent concentration trends for the next five years of treatment are presented in Figure 5. During this period offsite influent concentrations ranged from 27 ppb to 122 ppb. Recharge restrictions continued to influence offsite pumpage and no more than two offsite recovery wells were pumped between January 2005 and August 2006. ORW-7 was pumped in tandem with ORW-6 and occasionally ORW-4. The County completed its effluent connection to the sanitary sewer in July 2006; this connection augmented the existing recharge basin and injection wells allowing for increased offsite pumpage. An offsite pumping scenario was developed as part of the CDM modeling effort to increase recovery efficiency using ORW-3, 4, 6 and ORW-7. This pumping scenario was initiated in August 2006; it has been employed continuously to date. TVOC concentrations in the offsite influent have primarily been below 50 ppb since January 2007.

A review of onsite remedy performance can also be made by examining monthly TVOC levels in onsite influent. Onsite influent trends for the first three years of treatment operations are provided in Figure 6. Onsite influent TVOC concentrations vary depending on which onsite well is being pumped. Onsite recovery well RW-1 was installed in the former flammable liquids area, which was historically impacted by gasoline and its break-down products; exhibited TVOC concentrations ranging from 43 ppb to 588 ppb during plant start up. In contrast, onsite recovery well RW-3, which was installed in a floating body of No. 2 fuel oil located in the Taxpayer Mock-up Burn Area exhibited TVOC concentrations ranging from 4 ppb to 27 ppb.

The duration of operation of each well was based on the need to depress the water table to enhance the recovery of free-phase product and the levels of volatile and semi-volatile organic compounds present in the influent. Each time recovery well RW-1 was pumped the levels of volatile organic compounds dropped within months to low ppb levels. Groundwater recovered from recovery well RW-3 had extremely low levels of volatile organic compounds but the well was operated as long as recoverable floating product was present.

Due to the absence of recoverable product in RW-3 and the low onsite levels of volatile organics observed in groundwater collected from RW-1 there was no onsite treatment of groundwater from November 18, 2002 through September 26, 2006. The onsite influent trends from September 2006 to the present are presented in Figure 7.

Review of Figure 7 indicates that there were two distinct periods of operation; the first was from September 26, 2006 through October 16, 2007 and the second was from July 15, 2008 through March 17, 2009. Both treatment periods reduced TVOC concentrations in the well but ended with mechanical failure of the submersible pump. These failures are caused by aggressive environmental conditions within the well. RW-1 is impacted by high concentrations of landfill leachate from the neighboring Town of Oyster Bay Landfill. The leachate has extremely high concentrations of Iron and Manganese which over time cause iron-fouling of the pump and its associated piping.

Figure 6 FTC - Onsite Influent Trends (July 1999 - December 2002)

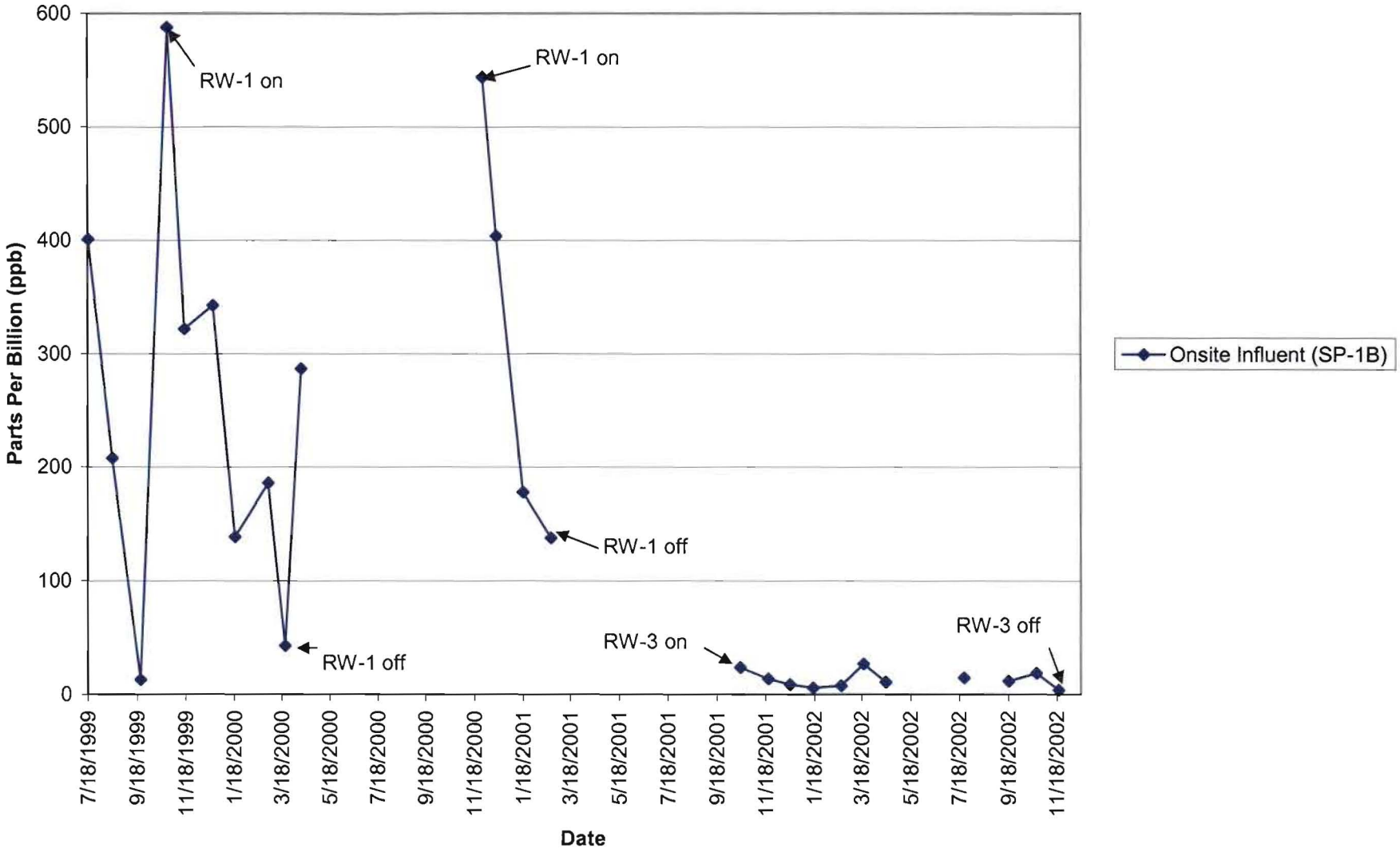
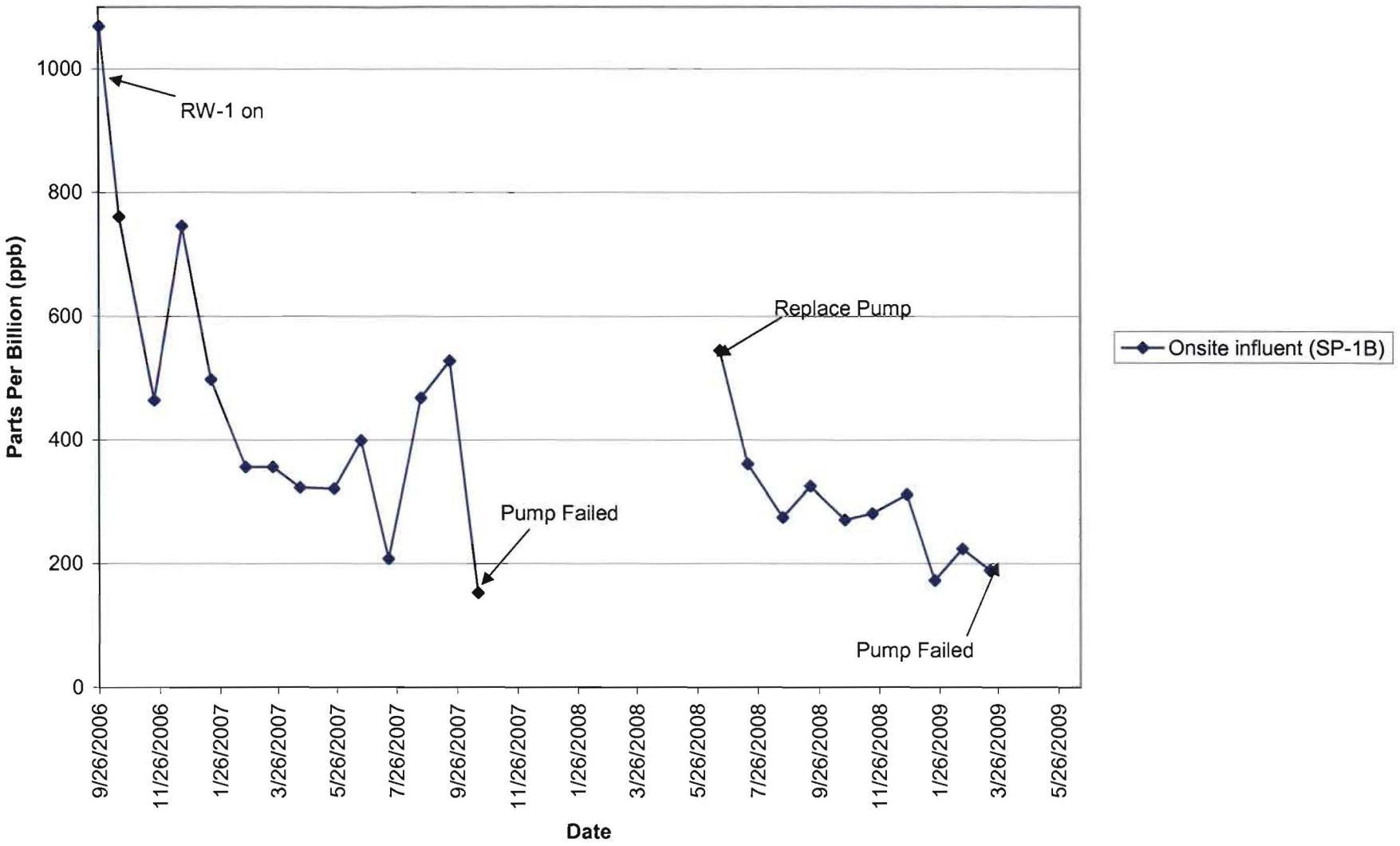
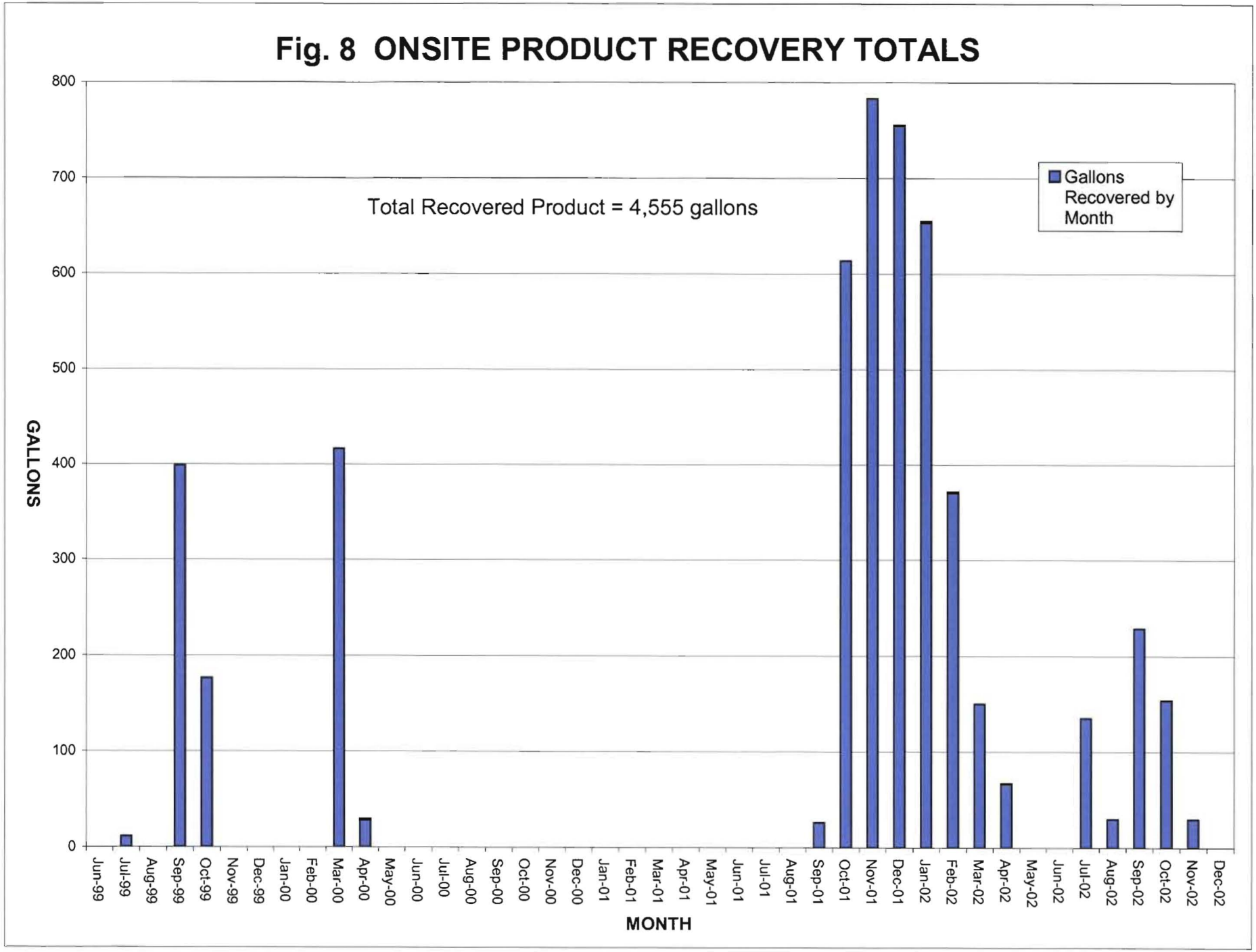


Figure 7 Onsite Influent Trends (Sept. 2006 - June 2009)



The product recovery system installed at the Nassau County Firemen's Training Center site has been extremely effective in removing free-phase petroleum product from onsite groundwater. The system operated from July 1999 through November 2002. The monthly product recovery totals are provided in figure 8. During the recovery period a total of 4,555 gallons of petroleum product (No. 2 fuel oil) was collected. The highest rates of recovery occurred between October 2001 and February 2002, this time period was marked by exceptionally low water table conditions which were further enhanced by pumpage at RW-3. The efficiency of the product removal and a natural rise in the local water table has prevented any free phase petroleum product from entering both the recovery and onsite monitoring wells since the end of 2002.

Fig. 8 ONSITE PRODUCT RECOVERY TOTALS



4.0 IC/EC Compliance Report (not applicable)

This section is not applicable as remediation at this site is governed by the terms outlined in the Record of Decision (ROD), prepared for the site and approved by NYSDEC in February 1993.

5.0 Monitoring Plan Compliance Report (not applicable)

This section is not applicable as remediation at this site is governed by the terms outlined in the Record of Decision (ROD), prepared for the site and approved by NYSDEC in February 1993.

6.0 Operation & Maintenance (O&M) Plan Compliance Report (not applicable)

This section is not applicable as remediation at this site is governed by the terms outlined in the Record of Decision (ROD), prepared for the site and approved by NYSDEC in February 1993.

7.0 Overall PRR Conclusions and Recommendations

A. Over the last 10 years the FTC Groundwater Remediation has operated in compliance with all aspects of the components outlined in the Record of Decision (ROD), signed with the New York State Department of Environmental Conservation in 1993. Onsite and offsite pumpage and effluent recharge have been modified over the course of treatment to improve the efficiency of groundwater recovery. The County will provide the NYSDEC with electronic summaries of groundwater data collected as part of the monitoring program since 2006.

B. The selected remedy for the site; cover system used in conjunction with a large scale pump and treat has proven to be highly effective in the ten years of groundwater treatment operations. Shallow onsite soils have been remediated to the point where no further treatment was required and deed restrictions could be removed (7/18/01). Over 4,500 gallons of floating petroleum product (No. 2 fuel oil), have been removed from onsite groundwater and measurable product has not been seen in any onsite monitoring wells since November 2002. Offsite influent concentrations have been below 50 ppb since May 2008 and Onsite VOC contamination in groundwater appears to be limited to two monitoring well locations (FTC-W 32, FTC-W-35) within the former flammable liquid area.

C. It is recommended that the frequency of submittal of the PRR for this site remain at one year. The County believes that the onsite cleanup of volatile organic contamination associated with the original spill is essentially complete with onsite contamination being confined to a relatively small zone within the original source area. Since 1992 overall source area contamination has been reduced from pure product with parts per million (ppm) levels in groundwater to less than 200 ppb. The County also believes that the offsite cleanup is nearing completion. Two of the three monitoring well locations with the highest levels of volatile organic contamination (BP-15B and BP-3C), have been impacted by sources other than the FTC. The remaining contaminated offsite monitoring well (BP-14B), has significant levels of volatile organics (> 400 ppb), which must continue to be treated, however this has become problematic and costly to the County due to the impact of the previously identified non-FTC sources. Offsite influent levels have been below 50 ppb for over a year, with the highest levels of volatile organic compounds being collected from recovery wells ORW-6 and ORW-7. Both of these wells have also been impacted by non-FTC sources. On numerous occasions, the County has brought up the issue of impacts from these non-FTC sources and the potential for financial assistance for the continued operation and maintenance at various Offsite Recovery Well locations including ORW-6 and ORW-7. The County is reaching a point in the remediation where a more localized treatment may be warranted for the contamination surrounding BP-14, resulting in the cessation of pumping from recovery wells ORW-6 and ORW-7.

Appendix A

THOMAS S. GULOTTA
COUNTY EXECUTIVE

JOSEPH G. PECORA, P.E.
COMMISSIONER

COUNTY OF NASSAU
DEPARTMENT OF PUBLIC WORKS
MINEOLA, NEW YORK 11501-4822

July 18, 2001

Mr. Carl Hoffman
New York State Department of
Environmental Conservation
Division of Environmental Remediation
Bureau of Hazardous Site Control
625 Broadway
Albany, NY 12233

Re: Deed Restrictions - Soil Quality Testing at Former Burn Areas
Nassau County Fireman's Training Center, Site #1-30-042

Dear Mr. Hoffman:

As I informed you several weeks ago, the Nassau County Department of Public Works (NCDPW), Water Resources Unit would be collecting soil samples at the Fireman's Training Center (FTC) site to monitor changes in the level of contamination relative to past sampling events. The site's contaminated soil areas were established in the FTC's Record of Decision (ROD), dated February 26, 1993. These areas are described below, in detail. All locations, the sampling, and analytical testing methods for this field work followed the site's State approved Remediation Monitoring Plan, dated September 1994. The following is a summary of the work and our findings.

Three former Burn Areas at the FTC were designated contaminated soil areas in the site's ROD. These areas are identified as the Mock-Up Field (MUF), Corrugated Metal Building Field (CMB), and the Burn Area Field (BAF), see attached site map, Numbers 1, 2 and 3. The following depth intervals were sampled at each specific location:

Sample Location	Depth Below Grade (ft.)
MUF-1	25-27
MUF-3	32-34
MUF-4	25-27
MUF-5	33-35
CMB-1	16-18
CMB-2	34-36
CMB-5	26-28
BAF-1	34-36
BAF-2	34-36
BAF-3	37-39*
BAF-4	30-32
BAF-5	32-34*

*Sampling interval adjusted based on field conditions

All soil samples were collected using decontaminated split spoons driven through hollow stem augers to the selected interval. The soil samples were then logged by NCDPW hydrogeologists and stored in coolers for delivery at the end of each day to Environmental Testing Labs of Farmingdale, NY, a New York State ELAP-CERTIFIED Laboratory.

The split spoon samples were collected at predetermined intervals throughout the vadose zone which matched locations with historically high levels of contamination. Each sample was analyzed for volatile and semi-volatile organic compounds using EPA methods 8260 and 8270B.

The results of the sample analyses are provided for your review in Tables 1 through 4 attached. Review of the semi-volatile organic analysis summary indicates that the concentrations of semi-volatile organic compounds in eleven of the twelve soil samples collected were found to be below both the recommended soil cleanup objectives and the recommended soil cleanup objectives to protect groundwater, as identified in the NYSDEC TAGM No. 4046. The concentration of 2-Methylnapalthalene in the BAF-3 boring at the 37-39 ft. interval was found to be 37.2 ppm or 0.80 ppm above the recommended soil cleanup objective of 36.4 ppm.

Review of the volatile organic analysis summary indicates that volatile organic compounds also were below the levels identified in the NYSDEC TAGM No. 4046 at all twelve sampling intervals with the exception of two compounds, Acetone and Methylene Chloride. Methylene Chloride concentrations in soil exceeded the recommended soil cleanup objective of 0.1 ppm at all five Burn Area Field boring locations and at one Mock-Up Field boring location (MUF-1, 25-27 ft.). Acetone exceeded its recommended soil cleanup objective of 0.2 ppm at the BAF-1, 37-39 ft. interval, and the BAF-5, 32-34 ft. interval, with values of .219 ppm and .230 ppm, respectively.

All methylene chloride results were "flagged" with a "B," indicating that the analyte was found in the associated method blank as well as the sample. The acetone results were "flagged" with a "J," indicating that it is an estimated value with a concentration found below the method detection limit. Both compounds at low concentrations may be lab artifacts which are not indicative of their actual presence in the soil sample.

A review of the results collected from the three most highly contaminated soil zones onsite support the contention that natural aeration of the vadose zone beneath the Fireman's Training Center has provided enough oxygen to maintain biological activity; thus, causing the breakdown of the volatile and semi-volatile organic compounds which were previously identified in the 1986 and 1994 soil sampling events. This most recent sampling event has demonstrated that the site's three designated soil contamination areas consistently show levels of contamination below the NYSDEC's TAGM 4046. Therefore, the NCDPW/Water Resources Unit respectfully requests the State's concurrence that the designated contaminated soil areas at the FTC site have met their remediation goals, and that all deed restrictions associated with these areas can be removed by the County.

If you have any questions regarding the above results or our request, please contact Mr. Michael Flaherty at (516) 571-6850.

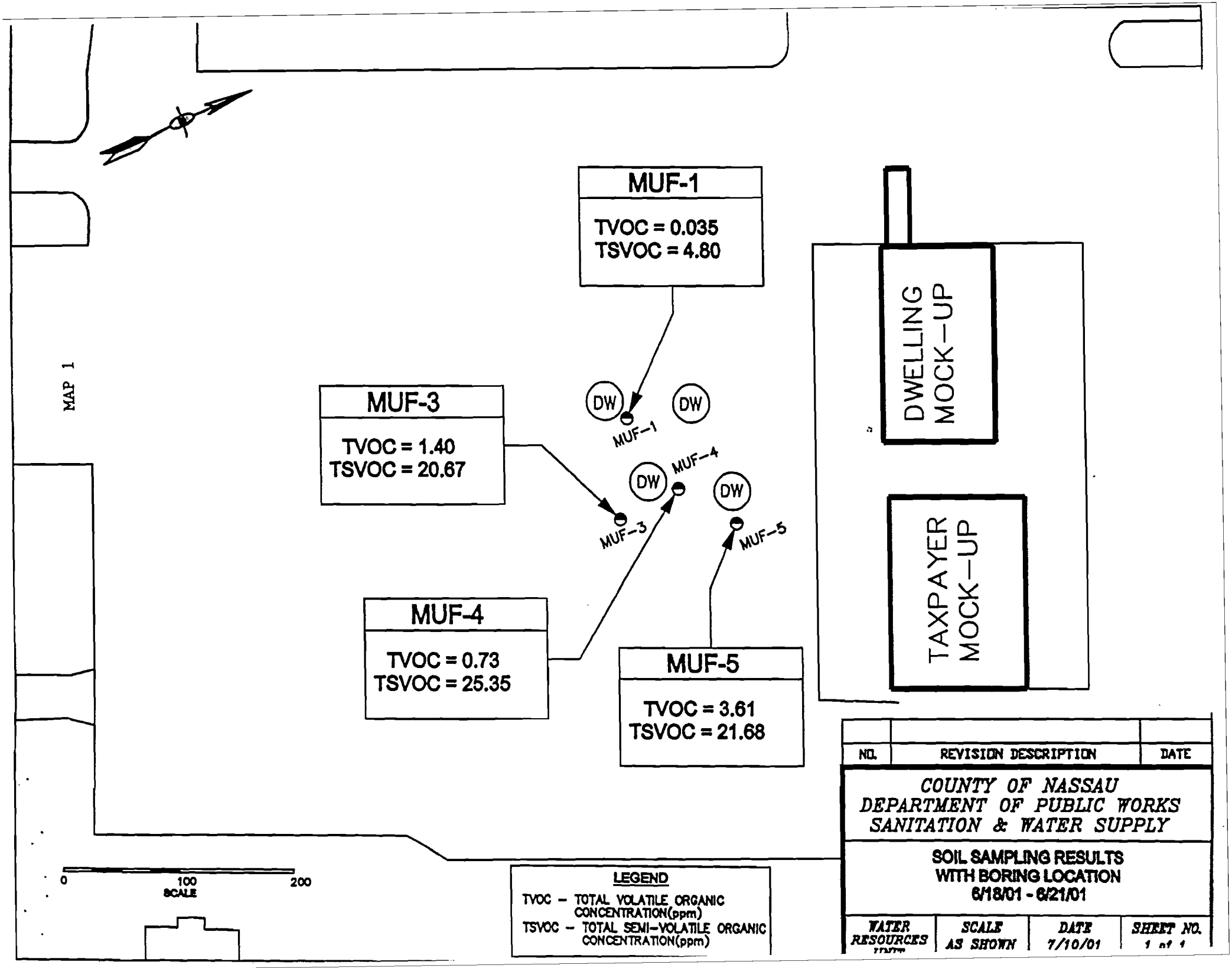
Very truly yours,

Peter J. Witkowski
Director of Hazardous Waste Services

PJW:MF:jb

Attachments

c: Joseph L. Davenport, Acting Division Head of Sanitation and Water Supply
Michael Flaherty, Hydrogeologist III ✓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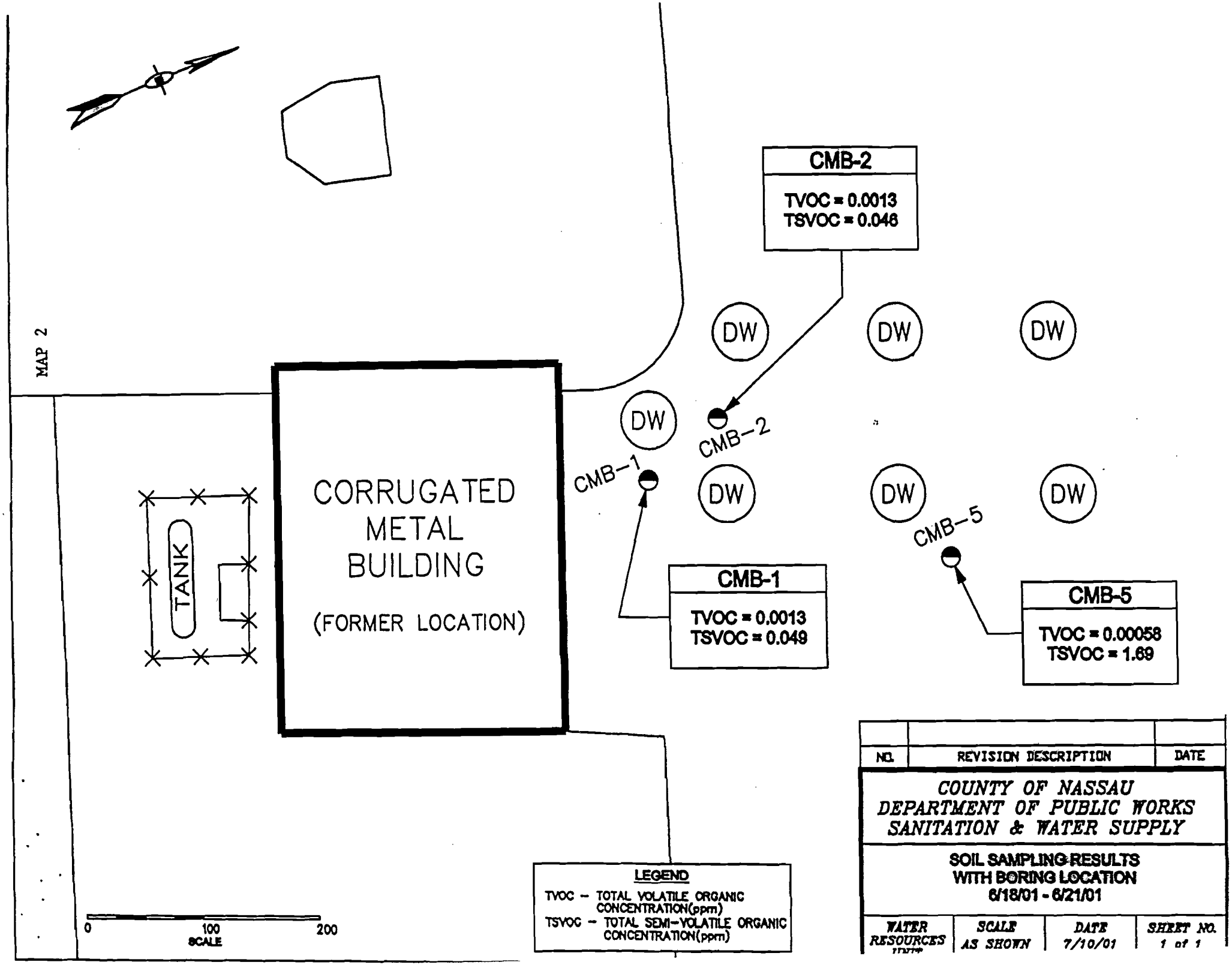
TSVOC = 4.80
MUF-3
TVOC = 1.40
TSVOC = 20.67
MUF-4
TVOC = 0.73
TSVOC = 25.35
MUF-5
TVOC = 3.61
TSVOC = 21.68
DW
DW
DW
DW
MUF-1
MUF-3
MUF-4
MUF-5
DWELLING MOCK-UP
TAXPAYER MOCK-UP
MAP 1
0
100
200
SCALE
LEGEND
TVOC - TOTAL VOLATILE ORGANIC CONCENTRATION(ppm)
TSVOC - TOTAL SEMI-VOLATILE ORGANIC CONCENTRATION(ppm)
NO.
REVISION DESCRIPTION
DATE
COUNTY OF NASSAU
DEPARTMENT OF PUBLIC WORKS
SANITATION & WATER SUPPLY
SOIL SAMPLING RESULTS
WITH BORING LOCATION
6/18/01 - 6/21/01
WATER RESOURCES
SCALE AS SHOWN
DATE 7/10/01
SHEET NO. 1 of 1



NO.	REVISION DESCRIPTION	DATE

COUNTY OF NASSAU
DEPARTMENT OF PUBLIC WORKS
SANITATION & WATER SUPPLY

SOIL SAMPLING RESULTS WITH BORING LOCATION 6/18/01 - 6/21/01

WATER RESOURCES	SCALE	DATE	SHEET NO.
	AS SHOWN	7/10/01	1 of 1

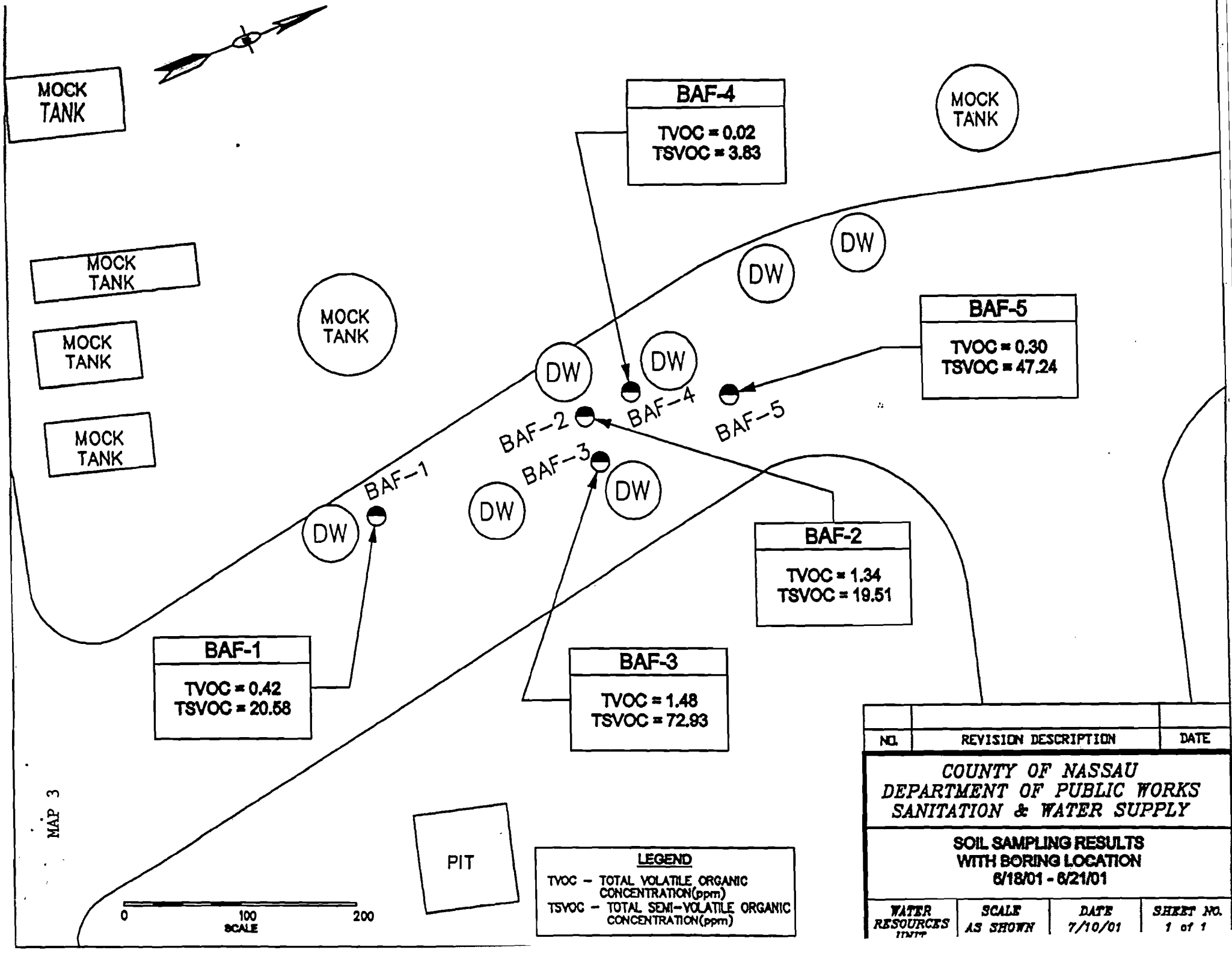

MOCK TANK
MOCK TANK
MOCK TANK
MOCK TANK
MOCK TANK
MOCK TANK
DW
DW
DW
DW
DW
DW
BAF-1
BAF-2
BAF-3
BAF-4
BAF-5
BAF-4
TVOC = 0.02
TSVOC = 3.83
BAF-5
TVOC = 0.30
TSVOC = 47.24
BAF-2
TVOC = 1.34
TSVOC = 19.51
BAF-1
TVOC = 0.42
TSVOC = 20.58
BAF-3
TVOC = 1.48
TSVOC = 72.93
PIT
MAP 3
0
100
200
SCALE
LEGEND
TVOC – TOTAL VOLATILE ORGANIC CONCENTRATION(ppm)
TSVOC – TOTAL SEMI-VOLATILE ORGANIC CONCENTRATION(ppm)
NO.
REVISION DESCRIPTION
DATE
COUNTY OF NASSAU
DEPARTMENT OF PUBLIC WORKS
SANITATION & WATER SUPPLY
SOIL SAMPLING RESULTS
WITH BORING LOCATION
6/18/01 - 6/21/01
WATER RESOURCES UNIT
SCALE AS SHOWN
DATE 7/10/01
SHEET NO. 1 of 1

TABLE 1

FTC - REMEDIATION
SEMIVOLATILE ORGANIC ANALYSIS SUMMARY
SOIL

SAMPLING DATE :6/18 -21/2001

	SOIL BORING							
COMPOUND (MG/KG):	BAF - 4 30 - 32 ft.	BAF - 5 32 - 34 ft.	MUF -1 25 -27 ft.	MUF -4 25 -27 ft.	MUF -5 33 -35 ft.	MUF -3 32 -34 ft.	Recommended Soil Cleanup Objective to Protect GW (ppm)	Recommended Soil Cleanup Objective (ppm)
Phenol	U	U	U	U	U	U	0.03	.03 or MDL
bis(2-Chloroethyl)Ether	U	U	U	U	U	U	NA	NA
2-Chlorophenol	U	U	U	U	U	U	0.8	0.8
1,3-Dichlorobenzene	U	U	U	U	U	U	1.55	1.6
1,4-Dichlorobenzene	U	U	U	U	U	U	8.5	8.5
1,2-Dichlorobenzene	U	U	U	U	U	U	7.9	7.9
2-Methylphenol	U	U	U	U	U	U	0.1	0.1 or MDL
2,2'-oxbis(1-Chloropropane)	U	U	U	U	U	U	NA	NA
4-Methylphenol	U	U	U	U	U	U	0.9	0.9
N-Nitroso-di-n-propylamine	U	U	U	U	U	U	NA	NA
Hexachloroethane	U	U	U	U	U	U	NA	NA
Nitrobenzene	U	U	U	U	U	U	0.2	0.2 or MDL
Isophorone	U	U	U	U	U	U	4.4	4.4
2-Nitrophenol	U	U	U	U	U	U	0.33	0.33 or MDL
2,4-Dimethylphenol	U	U	U	U	U	U	NA	NA
bis(2-Chloroethoxy)methane	U	U	U	U	U	U	NA	NA
2,4-Dichlorophenol	U	U	U	U	U	U	0.4	0.4
1,2,4-Trichlorobenzene	U	U	U	U	U	U	NA	NA
Naphthalene	U	0.787	0.267	0.538	0.727	2.65	13	13
4-Chloroaniline	U	U	U	U	U	U	0.22	0.22 or MDL
Hexachlorobutadiene	U	U	U	U	U	U	NA	NA
4-Chloro-3-methylphenol	U	U	U	U	U	U	0.24	0.24 or MDL
2-Methylnaphthalene	U	30.9	2.36	21.2	15.7	9.22	36.4	36.4
Hexachlorocyclopentadiene	U	U	U	U	U	U	NA	NA
2,4,6-Trichlorophenol	U	U	U	U	U	U	NA	NA
2,4,5-Trichlorophenol	U	U	U	U	U	U	0.1	0.1
2-Chloronaphthalene	U	U	U	U	U	U	NA	NA
2-Nitroaniline	U	U	U	U	U	U	0.43	0.43 or MDL
Dimethylphthalate	U	U	U	U	U	U	2.0	2.0
Acenaphthylene	0.604	1.72	0.247	0.569	0.359	1.1	41	41
2,6-Dinitrotoluene	U	U	U	U	U	U	1.0	1.0
3-Nitroaniline	U	U	U	U	U	U	0.5	0.5 or MDL
Acenaphthene	U	U	U	U	U	U	90	50*
2,4-Dinitrophenol	U	U	U	U	U	U	0.2	0.2 or MDL
4-Nitrophenol	U	U	U	U	U	U	0.1	0.1 or MDL
Dibenzofuran	U	U	U	U	0.385	U	6.2	6.2
2,4-Dinitrotoluene	U	U	U	U	U	U	NA	NA
Diethylphthalate	U	U	U	U	U	U	7.1	7.1
4-Chlorophenyl-phenylether	U	U	U	U	U	U	NA	NA
Fluorene	1.91	3.71	0.465	0.814	1.27	2.26	350	50*
4-Nitroanaline	U	U	U	U	U	U	NA	NA
4,6-Dinitro-2-Methylphenol	U	U	U	U	U	U	NA	NA
N-Nitrosodiphenylamine (1)	U	U	U	U	U	U	NA	NA
4-Bromophenyl-phenylether	U	U	U	U	U	U	NA	NA
Hexachlorobenzene	U	U	U	U	U	U	1.4	0.41
Pentachlorophenol	U	U	U	U	U	U	1.0	1.0 or MDL
Phenanthrene	0.456	8.2	1.09	1.74	2.41	4.01	220	50*
Anthracene	0.267	0.673	0.089	0.147	0.26	0.448	700	50*
Carbazole	U	U	U	U	U	U	NA	NA
Di-n-Butylphthalate	U	U	U	U	U	U	8.1	8.1
Fluoranthene	0.152	0.348	0.0595	0.0896	0.147	0.279	1900	50*
Pyrene	0.444	0.9	0.131	0.172	0.242	0.563	665	50*
Butylbenzylphthalate	U	U	U	U	U	U	122	50*
3,3'-Dichlorobenzidine	U	U	U	U	U	U	NA	NA
Benzo(a)anthracene	U	U	U	0.0094	0.0147	0.0219	3.0	^0.24 or MDL
Chrysene	U	U	U	0.0177	U	0.0447	0.4	0.4
bis(2-Ethylhexl)phthalate	U	U	0.0914	0.0514	0.145	0.0687	435	50*
Di-n-octylphthalate	U	U	U	U	U	U	120	50*
Benzo(b)fluoranthene	U	U	U	U	U	U	1.1	1.1
Benzo(k)fluoranthene	U	U	U	U	0.0088	U	1.1	1.1
Benzo(a)pyrene	U	U	U	U	0.0081	U	11	.061 or MDL
Indeno(1,2,3-cd)pyrene	U	U	U	U	U	U	3.2	3.2
Dibenzo(a,h)anthracene	U	U	U	U	U	U	165,000	.014 or MDL
Benzo(g,h,i)perylene	U	U	U	U	U	U	800	50*
TOTALS	3.833	47.238	4.7999	25.3481	21.6766	20.6653		

Note:
Samples Analyzed By:
Roy F. Weston
Lionville Analytical Laboratory
Samples Analyzed For:
TCL Semivolatiles

LEGEND
U = UNDETECTED
NA = NOT AVAILABLE
B - FOUND IN BLANK
J - ESTIMATED CONCENTRATION
MDL - METHOD DETECTION LIMIT
* - As per proposed TAGM, total VOC's <10ppm, Total Semi VOC's <500 ppm, and individual semi VOC's < 50 ppm

TABLE 2

FTC - REMEDIATION
SEMIVOLATILE ORGANIC ANALYSIS SUMMARY
SOIL

SAMPLING DATE :6/18- 6/21/2001

	SOIL BORING							
COMPOUND (MG/KG)	CMB -5 26 -28 ft.	CMB -2 34 -36 ft.	CMB - 1 16 -18 ft.	BAF - 1 34 - 36 ft.	BAF - 2 34 -36 ft.	BAF - 3 37 -39 ft.	Recommended Soil Cleanup Objectve to Protect GW (ppm)	Recommended Soil Cleanup Objective (ppm)
Phenol	U	U	U	U	U	U	0.03	.03 or MDL
bis(2-Chloroethyl)Ether	U	U	U	U	U	U	NA	NA
2-Chlorophenol	U	U	U	U	U	U	0.8	0.8
1,3-Dichlorobenzene	U	U	U	U	U	U	1.55	1.6
1,4-Dichlorobenzene	U	U	U	U	U	U	8.5	8.5
1,2-Dichlorobenzene	U	U	U	U	U	U	7.9	7.9
2-Methylphenol	U	U	U	U	U	U	0.1	0.1 or MDL
2,2'-oxbis(1-Chloropropane)	U	U	U	U	U	U	NA	NA
4-Methylphenol	U	U	U	U	U	U	0.9	0.9
N-Nitroso-di-n-propylamine	U	U	U	U	U	U	NA	NA
Hexachloroethane	U	U	U	U	U	U	NA	NA
Nitrobenzene	U	U	U	U	U	U	0.2	0.2 or MDL
Isophorone	U	U	U	U	U	U	4.4	4.4
2-Nitrophenol	U	U	U	U	U	U	0.33	0.33 or MDL
2,4-Dimethylphenol	U	U	U	U	U	U	NA	NA
bis(2-Chloroethoxy)methane	U	U	U	U	U	U	NA	NA
2,4-Dichlorophenol	U	U	U	U	U	U	0.4	0.4
1,2,4-Trichlorobenzene	U	U	U	U	U	U	NA	NA
Naphthalene	U	U	U	1.25	1.68	0.68	13	13
4-Chloroaniline	U	U	U	U	U	U	0.22	0.22 or MDL
Hexachlorobutadiene	U	U	U	U	U	U	NA	NA
4-Chloro-3-methylphenol	U	U	U	U	U	U	0.24	0.24 or MDL
2-Methylnaphthalene	U	U	U	12.9	11.1	37.2	36.4	36.4
Hexachlorocyclopentadiene	U	U	U	U	U	U	NA	NA
2,4,6-Trichlorophenol	U	U	U	U	U	U	NA	NA
2,4,5-Trichlorophenol	U	U	U	U	U	U	0.1	0.1
2-Chloronaphthalene	U	U	U	U	U	U	NA	NA
2-Nitroaniline	U	U	U	U	U	U	0.43	0.43 or MDL
Dimethylphthalate	U	U	U	U	U	U	2.0	2.0
Acenaphthylene	U	U	U	0.653	0.822	3.77	41	41
2,6-Dinitrotoluene	U	U	U	U	U	U	1.0	1.0
3-Nitroaniline	U	U	U	U	U	U	0.5	0.5 or MDL
Acenaphthene	U	U	U	U	U	U	90	50*
2,4-Dinitrophenol	U	U	U	U	U	U	0.2	0.2 or MDL
4-Nitrophenol	U	U	U	U	U	U	0.1	0.1 or MDL
Dibenzofuran	U	U	U	0.543	U	U	6.2	6.2
2,4-Dinitrotoluene	U	U	U	U	U	U	NA	NA
Diethylphthalate	1.4	0.0214	0.0238	U	U	U	7.1	7.1
4-Chlorophenyl-phenylether	U	U	U	U	U	U	NA	NA
Fluorene	U	U	U	1.29	1.58	8.42	350	50*
4-Nitroanaline	U	U	U	U	U	U	NA	NA
4,6-Dinitro-2-Methylphenol	U	U	U	U	U	U	NA	NA
N-Nitrosodiphenylamine (1)	U	U	U	U	U	U	NA	NA
4-Bromophenyl-phenylether	U	U	U	0.0196	U	U	NA	NA
Hexachlorobenzene	U	U	U	U	U	U	1.4	0.41
Pentachlorophenol	U	U	U	U	U	U	1.0	1.0 or MDL
Phenanthrene	0.0078	U	U	2.77	2.9	17.5	220	50*
Anthracene	U	U	U	0.393	0.522	1.54	700	50*
Carbazole	U	U	U	U	U	U	NA	NA
Di-n-Butylphthalate	0.022	U	0.0074	U	U	U	8.1	8.1
Fluoranthene	U	U	U	0.169	0.222	0.869	1900	50*
Pyrene	U	U	U	0.281	0.361	1.88	665	50*
Butylbenzylphthalate	U	U	U	U	U	U	122	50*
3,3'-Dichlorobenzidine	U	U	U	U	U	U	NA	NA
Benzo(a)anthracene	U	U	U	0.014	0.0196	0.181	3.0	^0.24 or MDL
Chrysene	U	U	U	0.0281	0.0407	0.275	0.4	0.4
bis(2-Ethylhexl)phthalate	0.259	0.0245	0.0175	0.118	0.131	0.261	435	50*
Di-n-octylphthalate	U	U	U	0.149	0.12	0.355	120	50*
Benzo(b)fluoranthene	U	U	U	U	U	U	1.1	1.1
Benzo(k)fluoranthene	U	U	U	U	U	U	1.1	1.1
Benzo(a)pyrene	U	U	U	U	0.013	U	11	.061 or MDL
Indeno(1,2,3-cd)pyrene	U	U	U	U	U	U	3.2	3.2
Dibenzo(a,h)anthracene	U	U	U	U	U	U	165,000	.014 or MDL
Benzo(g,h,i)perylene	U	U	U	U	U	U	800	50*
TOTALS	1.6888	0.0459	0.0487	20.5777	19.5113	72.931		

Note:
Samples Analyzed By:
Roy F. Weston
Lionville Analytical Laboratory
Samples Analyzed For:
TCL Semivolatiles

LEGEND
U = UNDETECTED
NA = NOT AVAILABLE
B - FOUND IN BLANK
J - ESTIMATED CONCENTRATION
MDL - METHOD DETECTION LIMIT
* - As per proposed TAGM, total VOC's <10ppm, Total Semi VOC's <500 ppm, and individual semi VOC's < 50 ppm

TABLE 4

FTC - REMEDIATION
VOLATILE ORGANIC ANALYSIS SUMMARY
SOIL

SAMPLING DATE :6/18 - 21/2001

	SOIL BORING							
COMPOUND (MG/KG)	BAF -4 30 - 32 ft.	BAF -5 32- 34 ft.	MUF -1 25 - 27 ft..	MUF -4 25 - 27 ft.	MUF -5 33 -35 ft.	MUF -3 32 -34 ft.	Recommended Soil Cleanup Objective to Protect GW(ppm)	Recommended Soil Cleanup Objective (ppm)
Dichlorodifloromethane	U	U	U	U	U	U		
Chloromethane	U	U	U	U	U	U		
Vinyl Chloride	U	U	U	U	U	U	0.12	0.2
Bromomethane	U	U	U	U	U	U		
Chloroethane	U	U	U	U	U	U	1.9	1.9
Trichlorflouromethane	U	U	U	U	U	U		
Acetone	U	.230J	U	U	U	U	0.11	0.2
1,1-Dicloroethane	U	U	U	U	U	U	0.2	0.2
Methlylene Chloride	.0162B	.488B	.0137B	.0074B	U	U	0.1	0.1
Carbon disulfide	U	U	U	U	U	U	2.7	2.7
t-1,2-Dichloroethane	U	U	U	U	U	U		
1,1-Dichloroethane	U	U	U	U	U	U	0.2	0.2
2-Butanone	U	U	U	U	U	U	0.3	0.3
Chloroform	U	U	U	U	U	U	0.3	0.3
1,1,1-Trichloroethane	U	U	U	U	U	U	0.76	0.8
Carbon Tetrachloride	U	U	U	U	U	U	0.6	0.6
1,2-Dichloroethane	U	U	U	U	U	U	0.1	0.1
Benzene	U	U	U	0.0038	U	U	0.06	0.06
Trichloroethene	U	U	U	U	U	U	0.7	0.7
1,2-Dichloropropane	U	U	U	U	U	U		
Bromodichloromethane	U	U	U	U	U	U		
4-Methly-2-Pentanone	U	U	U	U	U	U	1	1
2-Hexanone	U	U	U	U	U	U		
c-1,3-Dichloropropene	U	U	U	U	U	U		
Toluene	0.0035	U	U	0.0052	U	U	1.5	1.5
t-1,3-Dichloropropene	U	U	U	U	U	U		
1,1,2-Trichloroethane	U	U	U	U	U	U		
Tetrachloroethene	U	U	U	0.0015	U	U	1.4	1.4
Dibromochloromethane	U	U	U	U	U	U	N/A	N/A
1,2-Dibromomethane	U	U	U	U	U	U		
Chlorobenzene	U	U	U	U	U	U	1.7	1.7
Ethylbenzene	U	0.299	0.0168	0.15	0.393	0.233	5.5	5.5
m,p-xylene	0.011	U	0.0181	0.321	2.24	1.01	1.2	1.2
0-xylene	0.0046	U	U	0.247	0.841	0.157	1.2	1.2
Styrene	U	U	U	U	U	U		
Bromoform	U	U	U	U	U	U		
1,1,2,2-Tetrachloroethane	U	U	U	U	U	U	0.6	0.6
1,2,3-Trichloropropane	U	U	U	U	U	U	0.34	0.4
1,3-Dichlorobenzene	U	U	U	U	U	U	1.55	1.6
1,4-Dichlorobenzene	U	U	U	U	U	U	8.5	8.5
1,2-Dichlorobenzene	U	U	U	U	0.139	U	7.9	7.9
1,2-Dibromo-3-chloropropane	U	U	U	U	U	U		
TOTALS	0.0191	0.299	0.0349	0.7285	3.613	1.4		

Note:
Samples Analyzed By:
Roy F. Weston
Lionville Analytical Laboratory
Samples Analyzed For:
TCL Semivolatiles

LEGEND
U = UNDETECTED
NA = NOT AVAILABLE
B - FOUND IN BLANK
J - ESTIMATED CONCENTRATION
MDL - METHOD DETECTION LIMIT
* - As per proposed TAGM, total VOC's <10ppm, Total Semi VOC's <500 ppm, and individual semi VOC's < 50 ppm

volsoil2

Appendix B

2.5 Remedial System Termination

The standards/guideline values for VOCs and semi-VOCs presented in Table 2-3 are the criteria that must be achieved in the monitoring wells for termination of site remedial system operation. These criteria must be met for a period of 2 years (8 quarters) prior to termination of system operation, unless the zero slope condition for groundwater remediation is demonstrated.

The zero slope condition refers to a demonstrated condition at which contaminant concentrations in all termination monitoring wells (see Section 3.6) are lowered by the remediation, but do not achieve required standards and/or guidance values (see Table 2-5). Instead of continuing to be lowered, the concentrations reach a certain level and remain at that level during the two-year termination monitoring period. This condition is demonstrated if a plot of concentration versus time data for the two-year termination monitoring period indicates that the slope of the line is statistically indistinguishable from zero.

For the purposes of determining the zero slope condition, organic compound concentrations will be summed over each quarter to produce a total VOC (TVOC) concentration versus time plot for each termination monitoring well (i.e., 21 plots). It will be required that the zero slope condition exists in each termination monitoring well (see Section 3.6.2).

To determine whether the zero slope condition has been achieved, termination monitoring data will be tested for normality. The selected statistical test will be determined as follows:

1. Plot concentrations obtained over time on probability paper.
2. Evaluate for normality by an agreed-upon objective method.
3. If data is not normally distributed, transformations such as lognormal may be employed in an attempt to obtain a normal distribution. Transformed data will be tested for normality.
4. If the data is normally distributed, the most powerful parametric test will be used.
5. If the data is not normally distributed, an appropriate non-parametric test will be applied.

In addition, if one or more of the sample analytical results for termination monitoring do not meet the required criteria, the NCDPW may still seek termination of the remediation if all other data meets the criteria and it can be demonstrated, subject to NYSDEC concurrence, that the contamination in the non-complying wells is attributable to sources of contamination other than the FTC site. The NYSDEC will continue to make available to the NCDPW all data in existing files with respect to other potential sources of contamination including, without limitation, the Old Bethpage Solid Waste Disposal Complex (OBSWDC) (a/k/a the Old Bethpage Landfill) and the Claremont Polychemical Site.

NASSAU COUNTY FTC

GROUNDWATER CLEANUP CRITERIA

Constituents Identified In Risk Assessment	NYS State Groundwater Standards 6 NYCRR 703.5 (ug/l)
Volatile Compounds	
Benzene	0.7
Toluene	5
Ethyl Benzene	5
Xylenes (each Isomer)	5
Acetone	50*
Methyl Ethyl Ketone	50*
Carbon Disulfide	50*
Vinyl Chloride	2
Methylene Chloride	5
1,1-dichloroethene	5
1,1-dichloroethane	5
trans-1,2-dichloroethene	5
1,1,1-trichloroethane	5
Trichloroethene	5
Tetrachloroethene	5
2-hexanone	50
Total Volatiles	50
Semi-Volatile Compounds	
Phenanthrene	50*
Fluorene	50*
Naphthalene	50*
di-n-octyl phthalate	50*
2-methylnaphthalene	50*

* - NYS Drinking Water Standards 10 NYCRR 5-1 (ug/l)