

**FIREMEN'S TRAINING CENTER
GROUNDWATER REMEDIATION**

DEPARTMENT OF PUBLIC WORKS

Nassau County

Long Island, New York



**ANNUAL OPERATIONS
MONITORING SUMMARY**



2005

**Fireman's Training Center Groundwater Remediation
Annual Operations and Environmental
Monitoring Summary
For Year 2005**

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1.0 2005 Treatment Plant Operations

1.1 2005 Treatment Systems Configuration

The Firemen's Training Center Groundwater Remediation Facility (FTCGRF) was constructed to extract contaminated groundwater from three (3) on-site and seven (7) off-site recovery wells, treat the water to meet the State's required standards, and discharge the treated water to a County recharge basin and/or three (3) groundwater injection wells. For Operating Year (OY) 2005 (January 1, 2005 to December 31, 2005), the FTCGRF recovered groundwater solely from the off-site recovery well system. The recovered water was pumped via a force main to the FTCGRF located on the Fire Service Academy property on Winding Road. Once within the treatment facility, recovered water proceeded through the metals removal system without the addition of any chemicals to enhance precipitation. No chemicals were needed due to the low levels of Iron and Manganese (< 1.0 part per million) present in the raw off-site influent. Recovered water then proceeded through the facility's dual media sand filtration system to remove any suspended solids prior to air stripping treatment. The final step of treatment was air stripping, with a typical air to water ratio of 70 to 1. After air stripping, treated water was pumped from the facility's effluent wet well to a County recharge basin and to the site's three (3) groundwater injection wells.

1.2 Significant 2005 Operations Events

All off-site recovery wells were shut down for a total of thirty-five days during OY 2005 due to extremely high water level conditions in the off-site recharge basin.

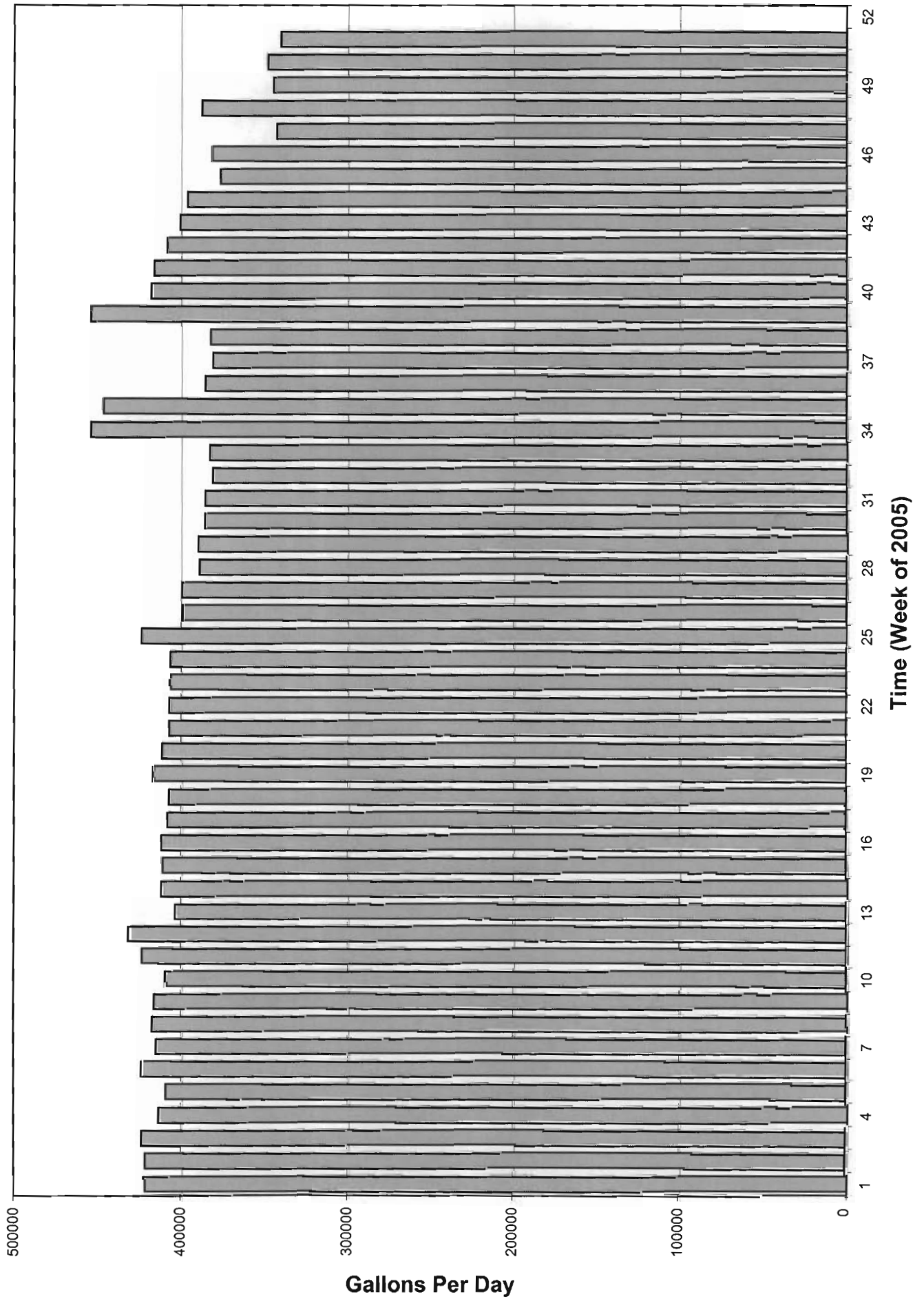
2.0 Treatment Plant Operations Monitoring Results

2.1 Total Flows and On-Line Performance

The FTCGRF completed 6.5 years of remediation at the end of OY 2005. During OY 2005, the facility recovered and treated a total of 129,647,300 gallons of contaminated groundwater. All recovered groundwater was pumped from the off-site (Plume) recovery well network. There was no on-site groundwater recovery in OY 2005. Figure 1 shows typical daily flow rates for each week of OY 2005. Detailed monthly summaries of flow are below:

MONTH	2005
JANUARY	11,019,900
FEBRUARY	11,581,000
MARCH	11,716,400
APRIL	10,179,950
MAY	12,547,850
JUNE	11,915,500
JULY	11,936,600
AUGUST	11,316,000
SEPTEMBER	11,974,400
OCTOBER	8,350,800
NOVEMBER	10,322,200
DECEMBER	6,786,700
TOTAL	129,647,300

Figure 1
FTC SITE - 2005 - PLUME INFLUENT FLOW



At the conclusion of OY 2005, the FTCGRF had treated 129,647,300 gallons of contaminated groundwater for a cumulative total of 1,491,758,708 gallons during the 6.5 years of remediation. A summary for each operating year is provided below:

<u>YEAR</u>	<u>ON-SITE FLOW</u>	<u>OFF-SITE FLOW</u>	<u>ANNUAL TOTAL</u>	<u>CUMULATIVE TOTAL</u>
2000	42,028,828	118,174,125	160,202,953	160,202,953
2001	27,345,799	366,308,198	393,653,997	553,856,950
2002	39,175,900	259,566,933	298,742,833	852,599,783
2003	0	279,493,225	279,493,225	1,132,093,008
2004	0	230,018,400	230,018,400	1,362,111,408
2005	0	129,647,300	129,647,300	1,491,758,708

The FTCGTF operated a total of 7,977 hours out of a possible 8,760 hours for the year. This resulted in an overall on-line performance of 91% during OY 2005. The majority of the system's downtime was due to weather related shutdowns, power loss from thunderstorms or effluent discharge shutdowns due to high recharge basin water levels as a result of heavy rain events. Detailed monthly summaries of on-line performance are presented in Appendix A.

2.2 Influent Water Quality Results

2.2.1 On-Site Influent Water Quality Results

There was no on-site groundwater treatment in OY 2005. Therefore, there are no on-site influent water quality results to report.

2.2.2 Off-Site Influent Quality Results

Off-site (Plume) influent water quality samples were collected on a weekly basis. The samples were analyzed for volatile organic compounds (VOC's), semi-volatile organic compounds (SVOC's), and metals. Detailed monthly summaries of the off-site influent quality results are presented in Appendix B.

The halogenated organics Tetrachloroethene, Trichloroethene and 1,2(Cis)-Dichloroethene were the major contaminants observed in the off-site influent. A weekly summary of individual VOC's is presented in Figure 2 and a weekly summary of total volatile organic compounds (TVOC's) is presented in Figure 3. The influent TVOC's average for OY 2005 was 69 ppb, this was significantly less than the off-site TVOC's average concentration for the first year of operation of 317.8 ppb.

No SVOC's were detected in the off-site influent during OY 2005.

Iron and Manganese were consistently detected in the off-site influent. Iron averaged 208 ppb and Manganese averaged 27 ppb during OY 2005. Nickel was also consistently detected in the off-site influent. Its concentrations ranged from 5 ppb to BDL. Aluminum and Chromium were occasionally detected in the off-site influent. The detected levels for Aluminum ranged from 46 ppb to BDL, and the detected range of concentrations for Chromium was 1 ppb to BDL.

Figure 2
FTC SITE - 2005 - PLUME INFLUENT VOC CONCENTRATIONS

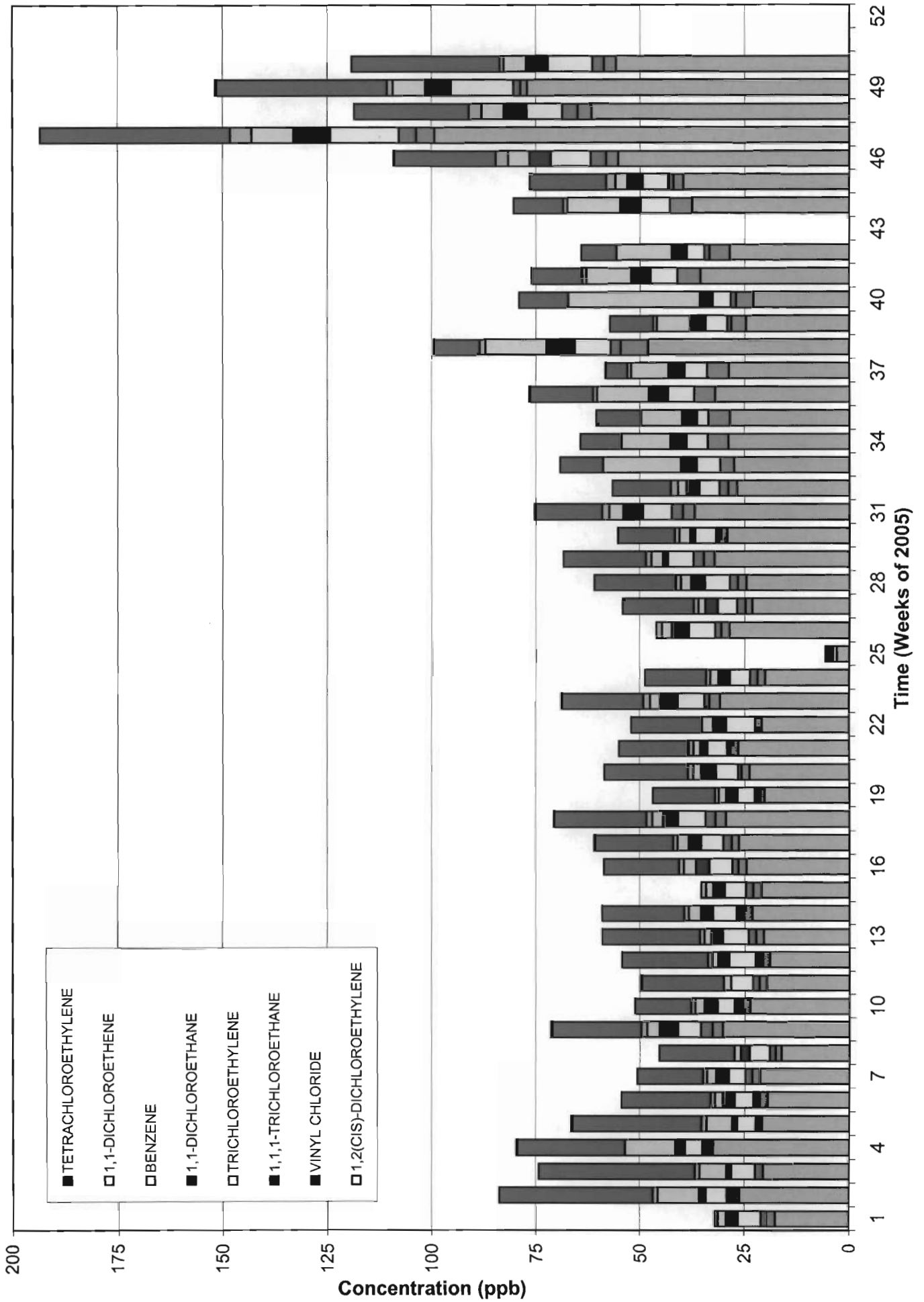
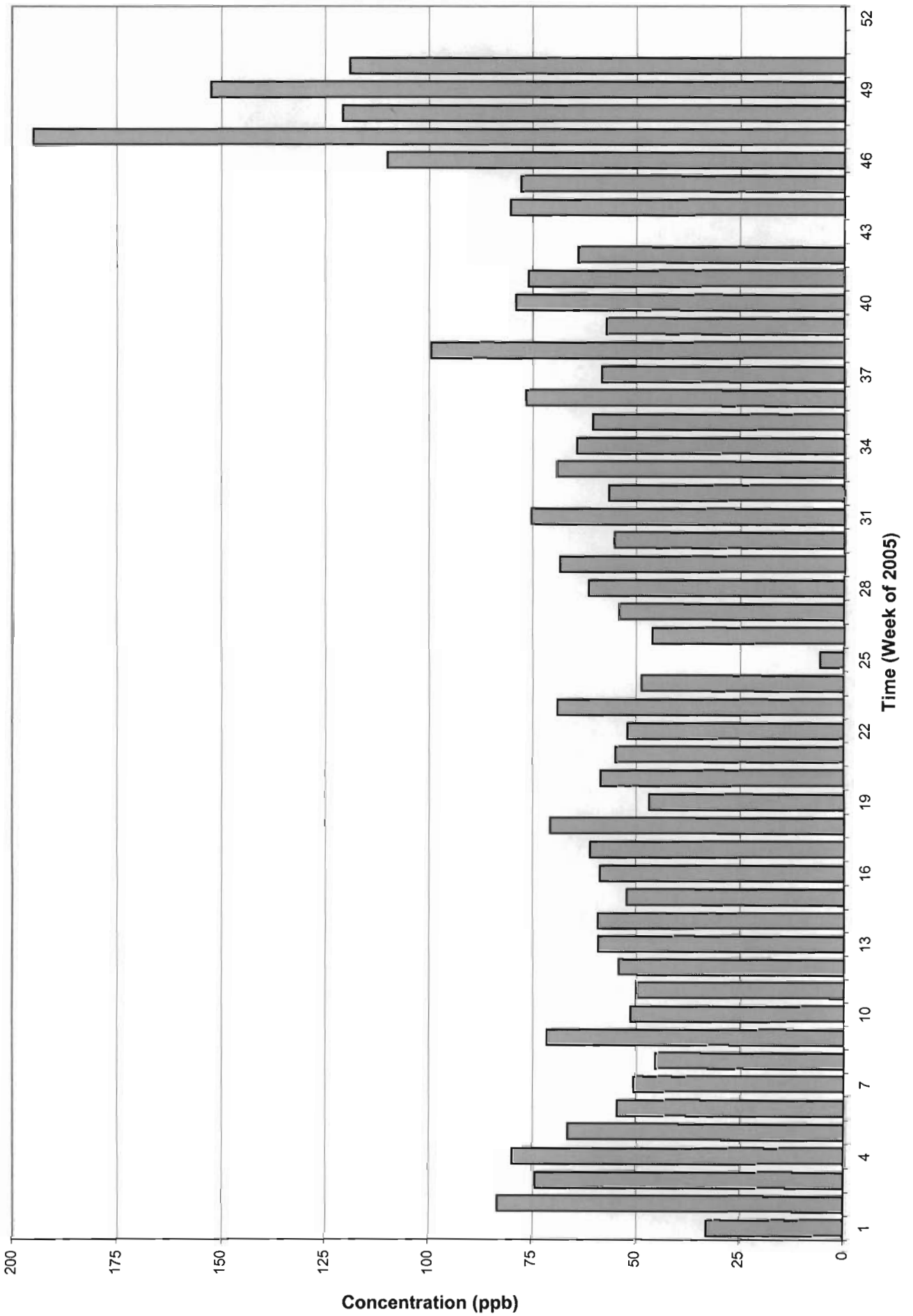


Figure 3
FTC SITE - 2005- PLUME INFLUENT TVOC CONCENTRATIONS



2.3 Recovery Well Data

Only the off-site recovery well system was utilized during OY 2005. The offsite recovery well system was operated in three different configurations during OY 2005. Due to effluent recharge limitations no more than two wells were operated in any of the pumping schemes. Offsite recovery wells ORW-3 and ORW-7 were pumped for the first four weeks of 2005. TVOC concentrations ranged from 64 ppb to 82 ppb in ORW-3 and from 74 ppb to 108 ppb in ORW-7, during this period.

During the next twenty-seven (27) weeks offsite recovery wells ORW-6 and ORW-7 were operated in tandem. Both recovery wells had a low level TVOC concentration of 8 ppb, while ORW-6 reached a high of 174 ppb and ORW-7 had a maximum influent concentration of 84 ppb. Offsite recovery wells ORW-4 and ORW-6 were operated together for the next thirteen (13) weeks. ORW-4 exhibited influent concentrations from 81 ppb to 220 ppb. The final six (6) weeks of the year recovery wells ORW-6 and ORW-7 were pumped together again with ORW-7 exhibiting influent concentrations ranging from 73 ppb to 99 ppb. Table 1 and Figure 4 present weekly summaries of the system's operation.

2.4 Petroleum Product Recovery Results

There was no petroleum product recovered during OY 2005. The cumulative amount of product recovered during the 6.5 years of the remediation is 5,032 gallons. Figure 5 presents historical monthly product recovery results for the entire remediation.

2.5 Effluent Water Quality Results

Effluent water quality samples were collected on a weekly basis. The samples were analyzed for VOC's, SVOC's and metals. Detailed monthly summaries of the effluent quality results are presented in Appendix C.

All samples analyzed during OY 2005 for VOC's were below the detection limits (BDL) for the constituents being monitored, with the exception of two samples collected one month apart on February 1 and March 1, 2005, when 1.5 ppb of m,p-xylene was detected. However, the 1.5 ppb level was still below the parameter's effluent discharge criteria of 5.0 ppb in both cases.

All samples analyzed during OY 2005 for SVOC's were below their detection limits (BDL) for the constituents being monitored.

Iron and Manganese were the two metals that were consistently detected in the facility's effluent. Both metals have an individual discharge limit of 600 ppb and a combined discharge limit of 1,000 ppb. These values were not exceeded during OY 2005.

Other metals that were consistently detected in the facility's effluent were Nickel, Chromium and Aluminum. The highest detected value for Nickel was 7 ppb, well below its discharge limit of 2,000 ppb. The highest detected level for Chromium was 2 ppb, also well below its discharge limit of 50 ppb. Aluminum's highest detected level was 27 ppb and, again, it was well below its discharge limit of 2,000 ppb.

Table 1
OFFSITE RECOVERY WELL
VOLATILE ORGANIC CONCENTRATIONS
2005

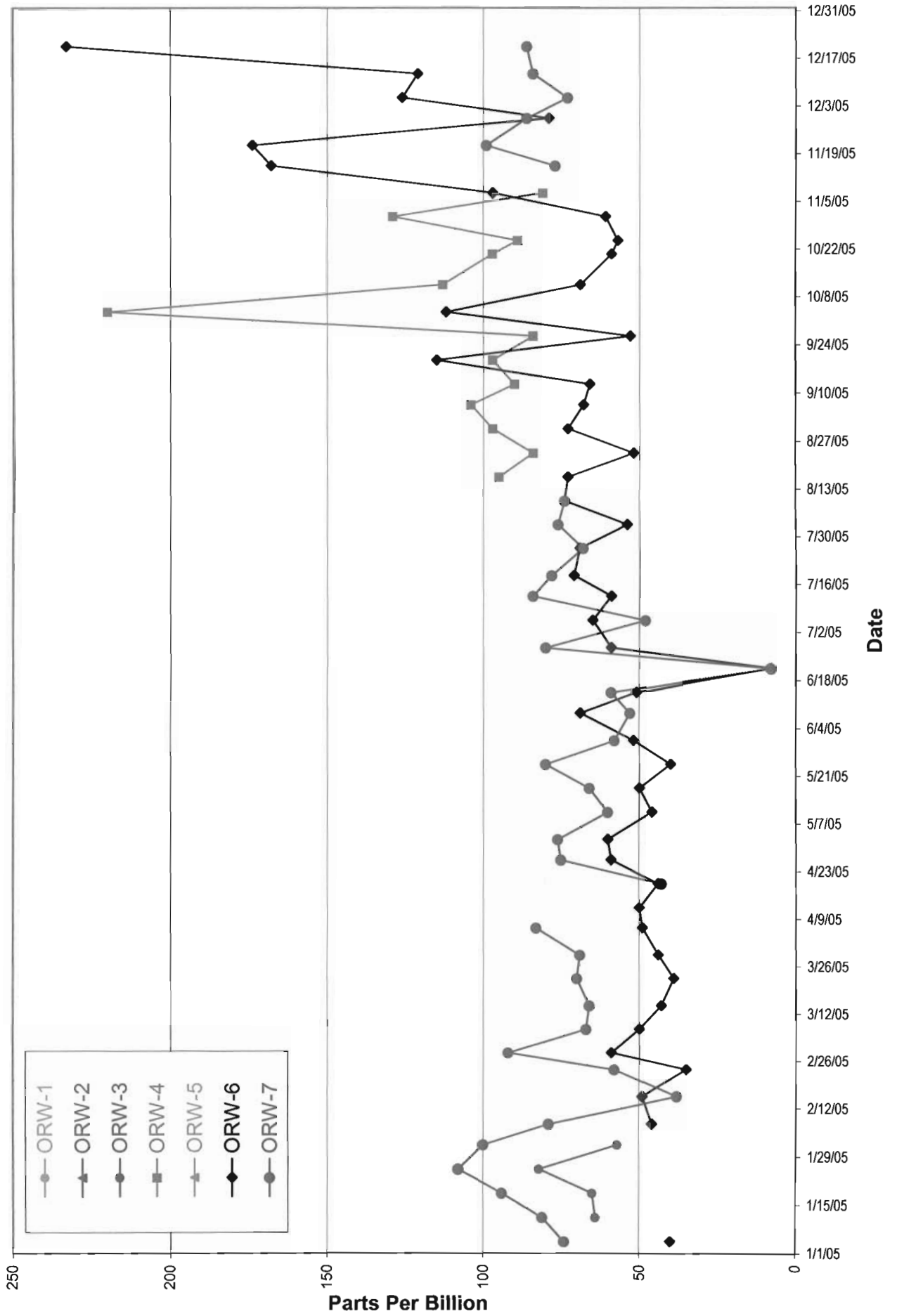
WELL No.	1/4/05	1/11/05	1/18/05	1/25/05	2/1/05	2/7/05	2/15/05	2/23/05	2/28/05	3/7/05	3/14/05	3/22/05	3/29/05	4/6/05	4/12/05	4/19/05	4/26/05	5/2/05
ORW-1	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
ORW-2	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
ORW-3	OFF	64	65	82	57	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
ORW-4	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
ORW-5	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
ORW-6	40	81	94	108	46	79	38	35	59	50	43	39	44	49	50	44	59	60
ORW-7	74	81	94	108	79	100	38	58	92	67	66	70	69	83	NR	43	75	76
RW-1	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
RW-2	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
RW-3	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF

WELL No.	5/10/05	5/17/05	5/24/05	5/31/05	6/8/05	6/14/05	6/21/05	6/27/05	7/5/05	7/12/05	7/18/05	7/26/05	8/2/05	8/9/05	8/16/05	8/23/05	8/30/05	9/6/05
ORW-1	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
ORW-2	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
ORW-3	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
ORW-4	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
ORW-5	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
ORW-6	46	50	40	52	69	51	8	59	65	59	71	69	54	74	73	52	73	68
ORW-7	60	66	80	58	53	59	8	80	48	84	78	68	76	74	74	74	73	88
RW-1	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
RW-2	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
RW-3	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF

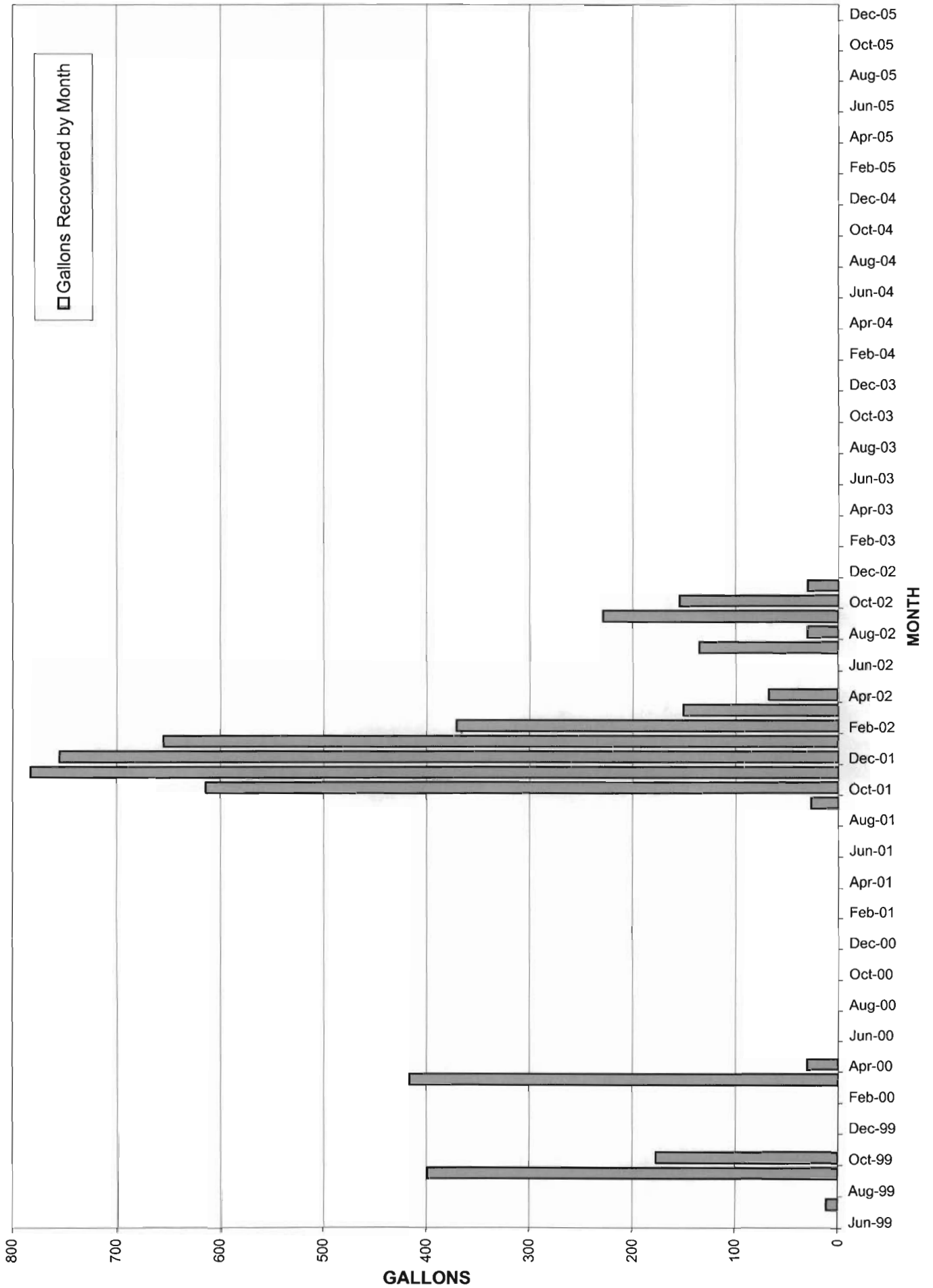
WELL No.	9/12/05	9/19/05	9/26/05	10/3/05	10/11/05	10/20/05	10/24/05	10/31/05	11/7/05	11/15/05	11/21/05	11/29/05	12/5/05	12/12/05	12/20/05	12/27/05
ORW-1	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
ORW-2	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
ORW-3	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
ORW-4	89.5	97	84	220	113	97	89	129	81	168	174	79	126	121	233	OFF
ORW-5	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
ORW-6	65.8	115	53	112	69	59	57	61	97	77	99	86	73	84	86	OFF
ORW-7	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
RW-1	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
RW-2	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
RW-3	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF

Results are parts per billion

Figure 4
Temporal Variations in Offsite Recovery Well TVOC's (ppb)
2005



**FIGURE 5
HISTORICAL ONSITE PRODUCT RECOVERY - 1999 to 2005**



2.6 Air Emissions Monitoring Results

Three compounds, Benzene, Vinyl Chloride and Tetrachloroethene were identified by the State as potential air contaminant sources resulting from the operation of the FTCGRF. No direct air emissions sampling is required at the FTCGRF; instead, air emissions rates are calculated based on a specific day's influent contaminant concentration and its associated fluid flow rate. The calculation assumes that 100% of the measured compound was removed by the air strippers and discharged to the atmosphere.

During OY 2005, the average calculated emission rate for Benzene was 0.0189 pounds per day (lbs/d). The highest calculated emission rate for Benzene was 0.1098 lbs/d, which represented approximately 1.1 % of the site's maximum allowable emission rate of 9.49 lbs/d. The average calculated emission rate for Vinyl Chloride was 0.0083 lbs/d. The highest calculated emission rate for Vinyl Chloride was 0.0208 lbs/d, which represented approximately 1.4 % of the site's maximum allowable emission rate of 1.50 lbs/d. The average calculated emission rate for Tetrachloroethene was 0.0587 lbs/d. The highest calculated emission rate for Tetrachloroethene was 0.1328 lbs/d, which represented approximately 0.1 % of the site's maximum allowable discharge rate of 93.96 lbs/d. The weekly air emissions data for these parameters are presented graphically in Figures 6, 7 and 8.

3.0 2005 Environmental Monitoring Program

3.1 2005 Environmental Monitoring Dates, Wells and Parameters

In compliance with the Fireman's Training Center Groundwater Remediation Project's (FTCGRP) Remediation Monitoring Plan (RMP), the County conducted four (4) sampling events in Monitoring Year (MY) 2005 (January 1, 2005 to December 31, 2005). The four (4) events were comprised of three (3) Quarterly (March, September and December) and one (1) Annual (June) sampling rounds. Quarterly sampling events analyzed groundwater for volatile organic compounds (VOC's) and semi-volatile organic compounds (SVOC's). The Annual sampling event included an expanded list of parameters, comparable to the baseline sampling round, which included alkalinity, BOD, COD, hardness, nitrate/nitrite, phosphorus, sodium, TKN/ammonia, sulfate, chloride, TDS, TSS, pH, conductivity and metals.

Both the on-site and off-site groundwater for the FTCGRP was sampled during MY 2005. The on-site monitoring well network consists of fourteen (14) Annual / eleven (11) Quarterly wells, (Figure 9); the off-site network consists of nineteen (19) Annual / seventeen (17) Quarterly wells, (Figure 10). Most of the monitoring wells are equipped with dedicated sampling devices (Grundfos Redi-flo 2 submersible pumps). (Appendix D).

Figure 6
FTC SITE - 2005 - AIR DISCHARGE - BENZENE

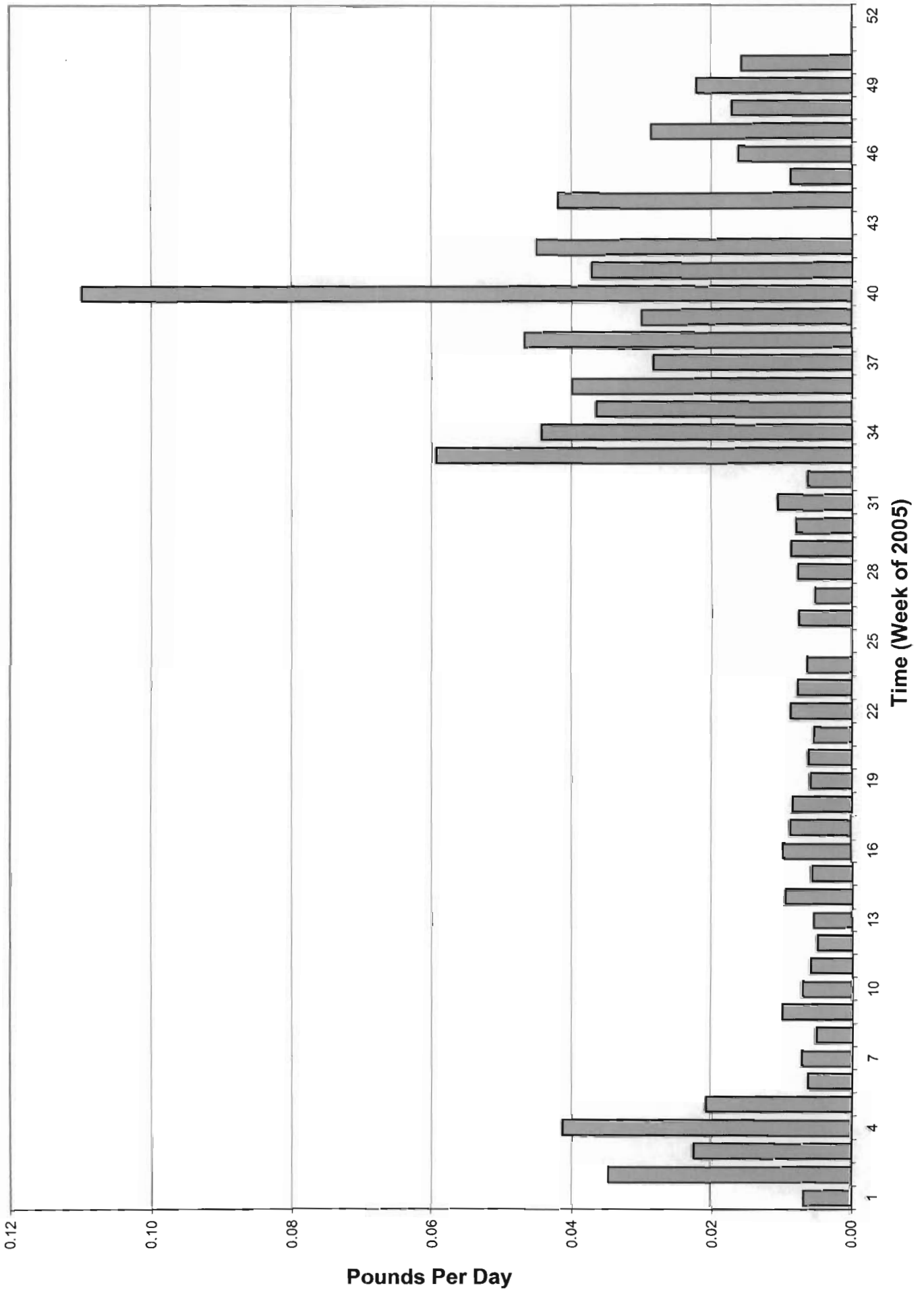


Figure 7
FTC SITE - 2005 - AIR DISCHARGE - TETRACHLOROETHENE

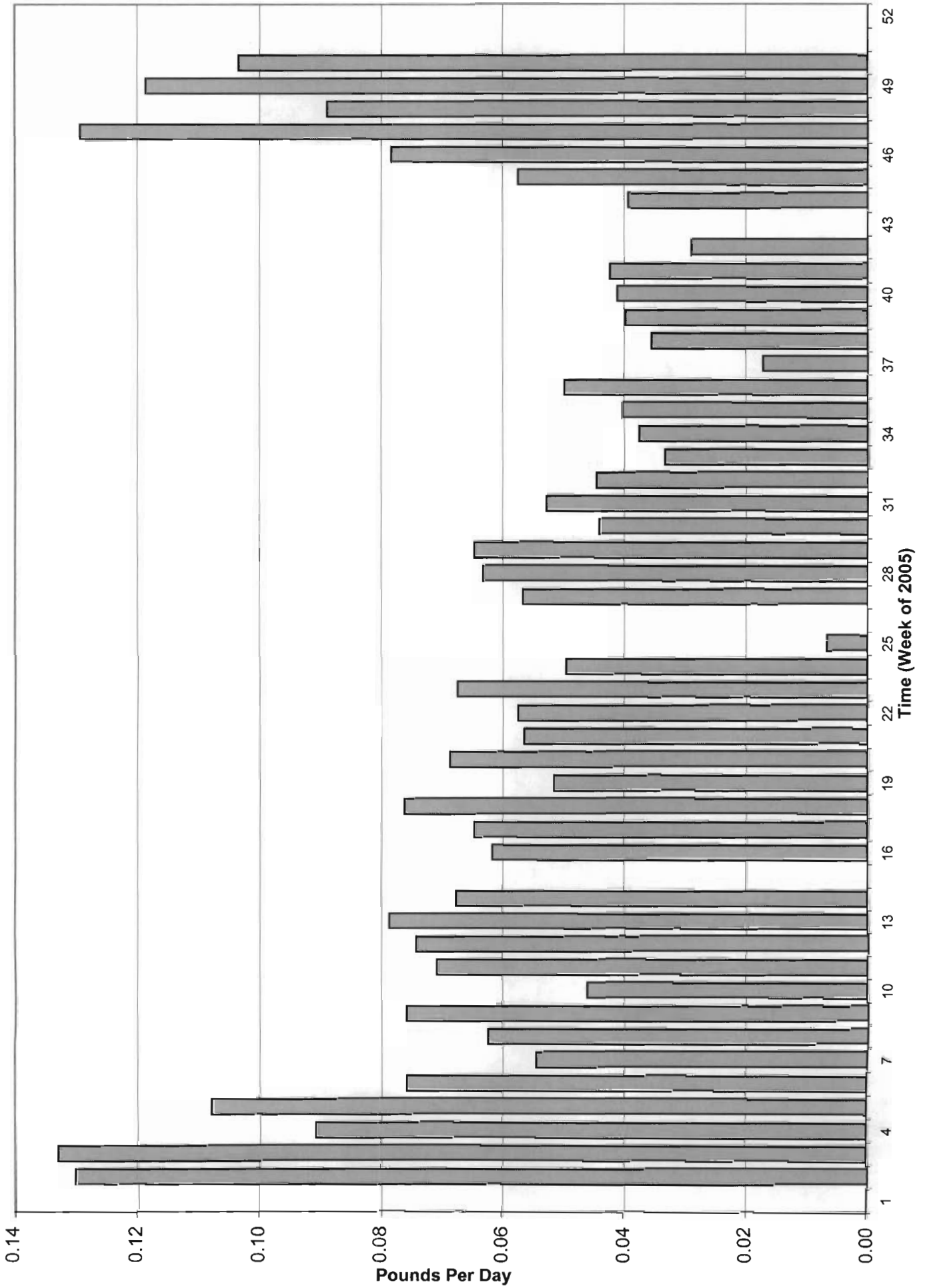


Figure 8
FTC SITE - 2005 - AIR DISCHARGE - VINYL CHLORIDE

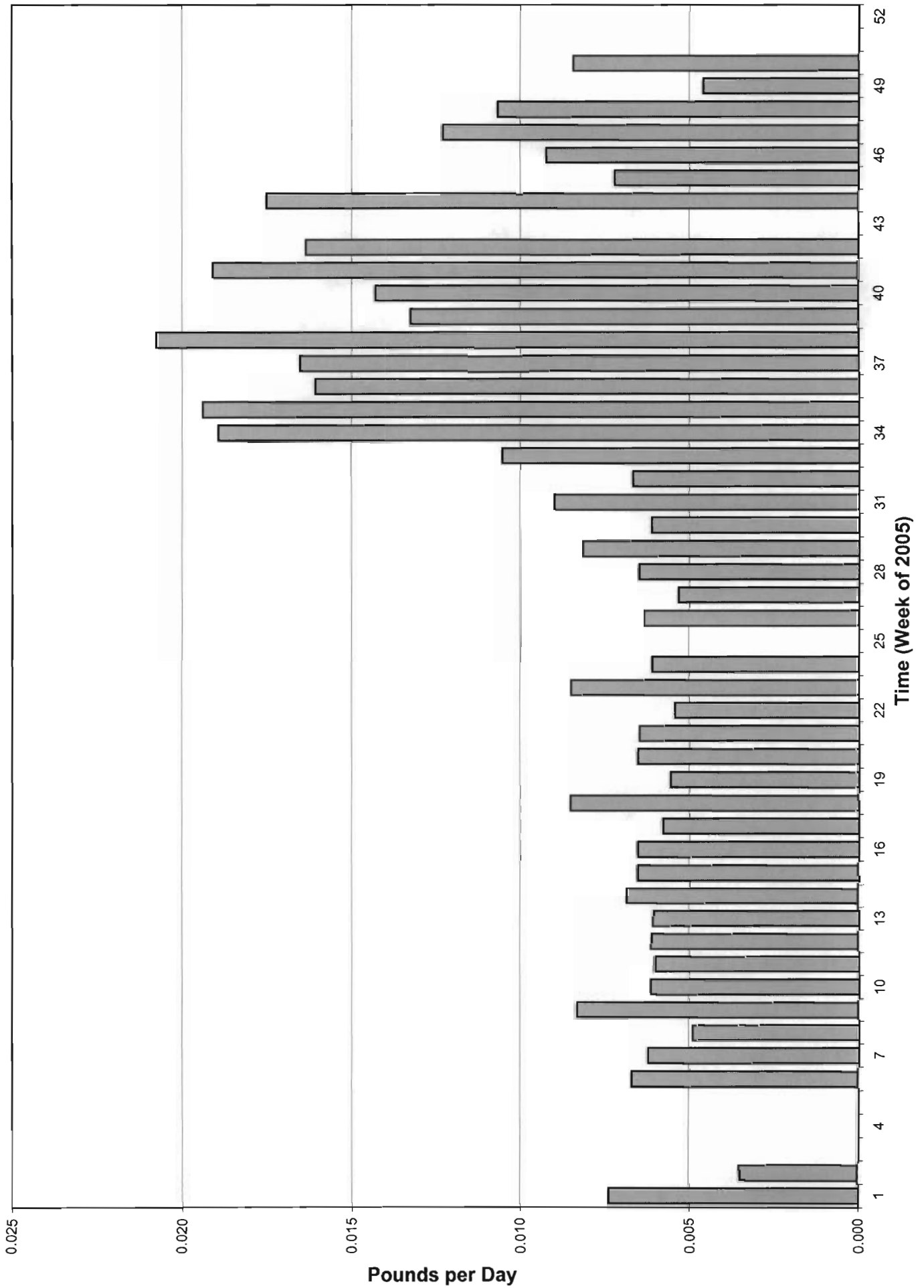
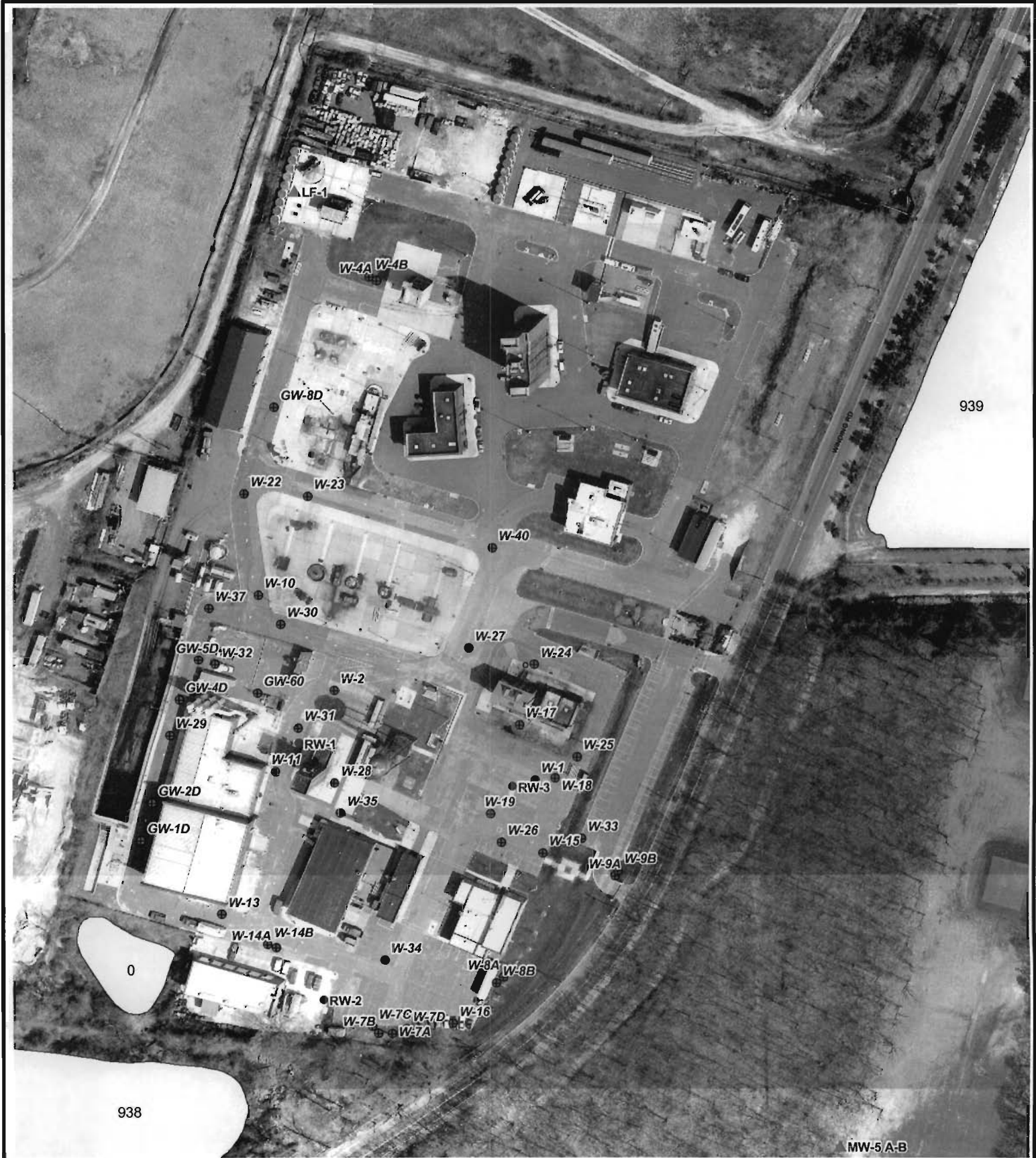


Figure 9



<p>Legend</p> <ul style="list-style-type: none"> ● FTC Monitoring Wells ■ Fireman's Training Center Area Wells ● Baitpage State Park Inactive Well ■ Baitpage State Park Irrigation Well ■ Clearmont Polychemical Site Diffusion Well ■ Clearmont Polychemical Site Monitoring Well or Well Cluster ■ Clearmont Polychemical Site Proposed 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 	<p>Map Location</p>	<p align="center">NASSAU COUNTY Fireman's Training Center Site Area Old Bethpage, NY Prepared By: - NCDPW - Water/Wastewater Engineering Unit</p> <p align="center"> 1 Inch equals 150 Feet </p>	<p align="center">Nassau County</p> <p align="center">Geographic Information System</p> <p align="right"> <small>Copyright 1993-2002 County of Nassau, New York</small> </p> <p align="right">Date: 10/14/2005</p>
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Figure 10



Legend

<ul style="list-style-type: none"> ● Fireman's Training Center Area Wells ○ Bethpage State Park Inactive Well ○ Bethpage State Park Irrigation Well □ Clearmont Polychemical Site I Offusion Well □ Clearmont Polychemical Site I Monitoring Well or Well Cluster ○ Nassau County Injection Well 	<ul style="list-style-type: none"> ● Nassau County Monitoring Well or Well Cluster ● Nassau County Recovery Well ● Plainville WD Public Supply Well ▲ T. of Oyster Bay Monitoring Well or Well Cluster ▲ T. of Oyster Bay Recovery Well ● V. of Farmingdale Retic. Supply Well
--	--



SITE PLAN
FIREMAN'S TRAINING CENTER

Prepared By: - NCDPW - Water/Wastewater Engineering Unit

1 Inch equals 1,300 Feet

Nassau County

Geographic Information System

Copyright 1993-2002
 County of Nassau, New York

Date: 10/14/2005

3.1.1 2005 Environmental Monitoring Special Notes

During MY 2005, there was one occasion when a specific monitoring well was not sampled. On-site monitoring well W-7A was not sampled for one (1) Quarterly sampling round in September due to a low water level well condition.

Four additional groundwater monitoring wells were installed during MY2005 to better define the extent of volatile organic contamination from sources other than the FTC affecting groundwater quality and the County's remedial efforts. OBV-1B and 1C were installed in Bethpage Village Restoration in late August and early September. BP-15B and 15C were installed in Bethpage State Park in October. Geological well logs for these four new wells are provided in Appendix E.

4.0 Environmental Monitoring Results

4.1 On-Site Quarterly and Annual Sampling Results

4.1.1 On-Site Volatile and Semi-Volatile Organic Sampling Results

Groundwater samples were collected from fourteen (14) monitoring wells for the one (1) Annual sampling event and from eleven (11) monitoring wells for the three (3) Quarterly sampling events, (Figure 9). The results of the Quarterly and Annual sampling rounds are presented in Table 2. Due to the large number of compounds analyzed, these tables include only those compounds that have been historically detected in groundwater at the Firemen's Training Center. The complete list of Analytes is provided in Appendix D.

During MY 2005, groundwater collected from the majority of onsite monitoring wells continued to exhibit low levels of volatile organic compounds. Ten of fourteen wells sampled were found to have volatile organic compound (VOC) concentrations below detectable limits (BDL) throughout the sampling year. A historical plot of FTC-W-31 is provided in Figure 11. Two wells had VOC concentrations detected below 10 ppb. Monitoring well FTC-W-4B had VOC concentrations below 5ppb in each of the four sampling events and FTC-W-7B had VOC concentrations below 5 ppb for three sampling rounds and had a total volatile organic compound (TVOC) concentration of 9.7 ppb in the final sampling round of MY 2005.

Table 2a 2005 ONSITE GROUNDWATER SAMPLING RESULTS

	FTC-W-4A				FTC-W-4B				FTC-W-7A				FTC-W-7B				
	Baseline Water Quality	DATE SAMPLED	DATE SAMPLED	DATE SAMPLED	Baseline Water Quality	DATE SAMPLED	DATE SAMPLED	DATE SAMPLED	Baseline Water Quality	DATE SAMPLED	DATE SAMPLED	DATE SAMPLED	Baseline Water Quality	DATE SAMPLED	DATE SAMPLED	DATE SAMPLED	
	6/10/99	4/1/05	6/21/05	9/26/05	12/22/05	6/10/99	4/1/05	6/21/05	9/26/05	12/22/05	3/20/05	6/24/05	9/22/05	12/19/05	3/20/05	6/24/05	9/22/05
VOLATILE ORGANICS COMPOUNDS	BDL	BDL	BDL	BDL	BDL	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	BDL	BDL	BDL	BDL	BDL
1,1-Dichloroethene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,1-Dichloroethane	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
c-1,2-Dichloroethene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Toluene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Trichloroethene	BDL	BDL	BDL	BDL	BDL	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	BDL	BDL	BDL	BDL	BDL
Chlorobenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Ethyl Benzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
m,p-Xylene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
o-Xylene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Isopropylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
n-Propylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,3,5-Trimethylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,2,4-Trimethylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
sec-Butyl Benzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
p-Isopropyltoluene	BDL	BDL	BDL	BDL	BDL	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	BDL	BDL	BDL	BDL	BDL
1,2-Dichlorobenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Hexachlorobutadiene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Naphthalene	BDL	BDL	BDL	BDL	BDL	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	BDL	BDL	BDL	BDL	BDL
Methyl t-Butyl ether (MTBE)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
SEMI-VOLATILE ORGANIC COMPOUNDS	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Acenaphthene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Nitrobenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,2-Dichlorobenzene	BDL	BDL	BDL	BDL	BDL	BDL	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	BDL	BDL	BDL	BDL	BDL
1,4-Dichlorobenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
2,4-Dinitrotoluene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Assorted Semi-Vols	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Bis(2-Ethylhexyl)Phthalate	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
N-Nitrosodi-n-Propylamine	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Fluorene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Naphthalene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
INORGANIC PARAMETERS	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
ph	6.73	NA	7.65	NA	NA	7.02	NA	6.99	NA	NA	NA	6.03	NA	NA	6.51	NA	6.46
Specific Conductance	264	NA	199	NA	NA	1460	NA	1160	NA	NA	NA	76	NA	NA	698	NA	1280
Alkalinity as Calcium Carbonate	BDL	NA	BDL	NA	NA	414	NA	288	NA	NA	NA	12	NA	NA	158	NA	330
B.O.D.	BDL	NA	BDL	NA	NA	3	NA	BDL	NA	NA	NA	BDL	NA	NA	3	NA	3
Chemical Oxygen Demand	BDL	NA	BDL	NA	NA	60	NA	43	NA	NA	NA	BDL	NA	NA	45	NA	38
Hardness, Total	79.5	NA	41.0	NA	NA	151	NA	120	NA	NA	NA	19.5	NA	NA	87.7	NA	168
Nitrate as N	18.48	NA	10.0	NA	NA	1.02	NA	1.09	NA	NA	NA	0.27	NA	NA	BDL	NA	BDL
Total Phosphorus as P	BDL	NA	BDL	NA	NA	BDL	NA	BDL	NA	NA	NA	BDL	NA	NA	0.09	NA	BDL
Sodium, Total	14.5	NA	17.4	NA	NA	142	NA	109	NA	NA	NA	4.87	NA	NA	61.6	NA	107
Total Kjeldahl	0.33	NA	BDL	NA	NA	45.1	NA	44.6	NA	NA	NA	BDL	NA	NA	8.84	NA	40.9
Ammonia as N	32.7	NA	24.6	NA	NA	35.3	NA	17.4	NA	NA	NA	BDL	NA	NA	8.84	NA	35.8
Sulfate	5	NA	5.0	NA	NA	162	NA	132	NA	NA	NA	10.3	NA	NA	31.5	NA	25
Chloride	190	NA	130	NA	NA	630	NA	477	NA	NA	NA	5	NA	NA	95	NA	160
Total Dissolved Solids	BDL	NA	BDL	NA	NA	5.5	NA	19	NA	NA	NA	3	NA	NA	310	NA	548
Total Suspended Solids	BDL	NA	BDL	NA	NA	BDL	NA	BDL	NA	NA	NA	BDL	NA	NA	44	NA	31
Arsenic	BDL	NA	BDL	NA	NA	BDL	NA	BDL	NA	NA	NA	0.022	NA	NA	BDL	NA	BDL
Aluminum, Total	BDL	NA	0.005	NA	NA	BDL	NA	0.006	NA	NA	NA	BDL	NA	NA	BDL	NA	BDL
Iron, Total	0.052	NA	0.097	NA	NA	2.4	NA	10	NA	NA	NA	0.012	NA	NA	31.3	NA	18.9
Manganese, Total	0.034	NA	0.044	NA	NA	3.09	NA	1.41	NA	NA	NA	0.003	NA	NA	3.1	NA	2.12
Nickel, Total	0.010	NA	BDL	NA	NA	0.022	NA	0.013	NA	NA	NA	BDL	NA	NA	0.008	NA	0.009
Chromium, Total	BDL	NA	0.001	NA	NA	0.002	NA	0.001	NA	NA	NA	BDL	NA	NA	0.009	NA	BDL

LABORATORY: 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

2005 ONSITE GROUNDWATER SAMPLING RESULTS

Table 2c

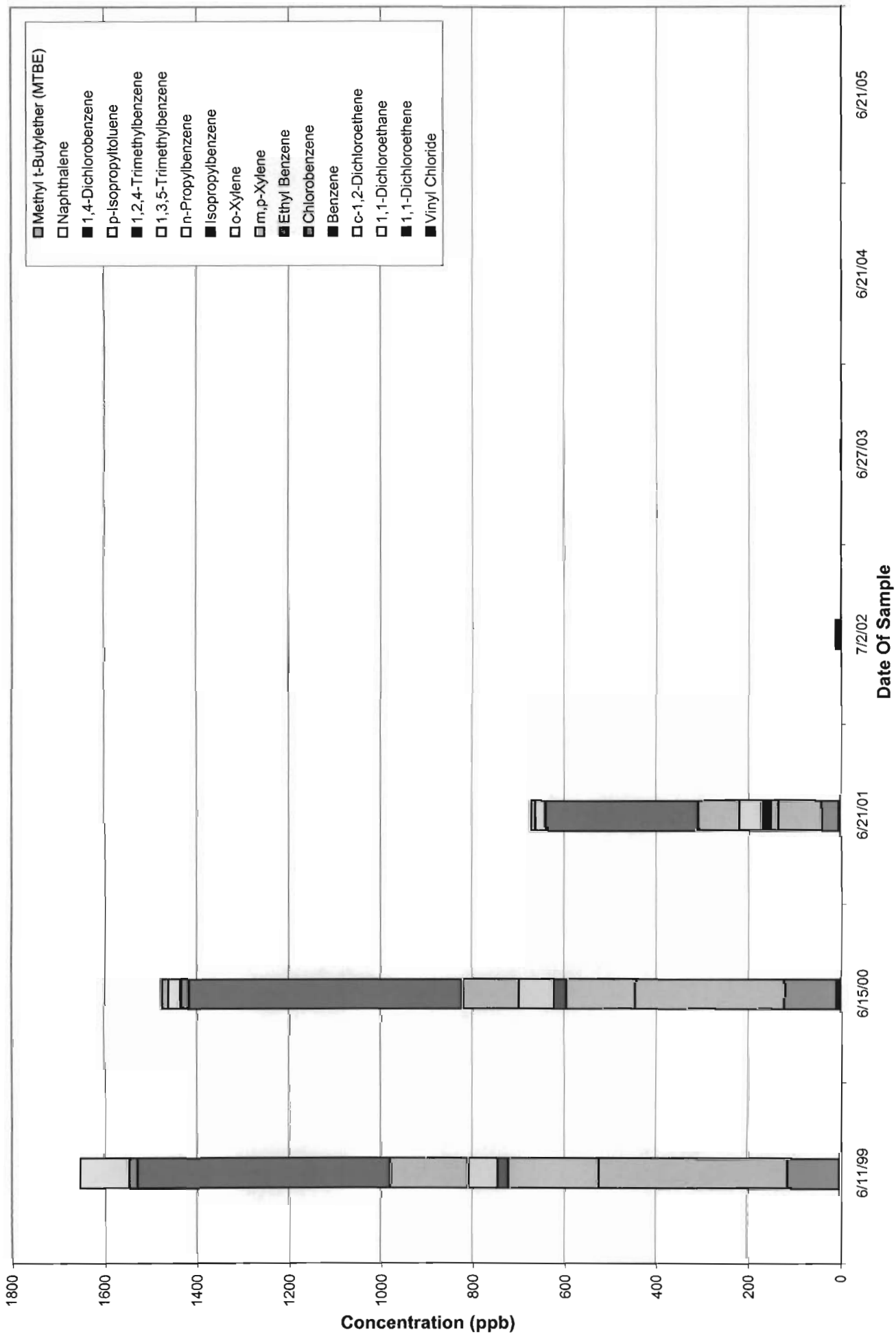
	FTC-W-14B			FTC-W-23			FTC-W-31			FTC-W-32			FTC-W-35		
	Baseline Water Quality	DATE SAMPLED		Baseline Water Quality	DATE SAMPLED		Baseline Water Quality	DATE SAMPLED		Baseline Water Quality	DATE SAMPLED		Baseline Water Quality	DATE SAMPLED	
	6/10/99	4/1/05		6/8/99	5/2/105		6/11/99	8/21/05		6/15/00	4/1/05		6/11/99	4/1/05	
VOLATILE ORGANICS COMPOUNDS															
Vinyl Chloride	BDL	BDL	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	BDL	BDL
1,1-Dichloroethane	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
c-1,2-Dichloroethene	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzene	BDL	BDL	BDL	BDL	BDL	Annual Sample Only	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Toluene	BDL	BDL	BDL	BDL	BDL	Annual Sample Only	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Trichloroethene	BDL	BDL	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	BDL	BDL
Chlorobenzene	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Ethyl Benzene	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
m,p-Xylene	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
o-Xylene	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Isopropylbenzene	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
n-Propylbenzene	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,3,5-Trimethylbenzene	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,2,4-Trimethylbenzene	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,1,2-Trichloroethane	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
p-Isopropyltoluene	BDL	BDL	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	BDL	BDL
1,2-Dichlorobenzene	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Dichlorodifluoromethane	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Naphthalene	BDL	BDL	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	BDL	BDL
Methyl t-Butylether (MTBE)	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
SEMI-VOLATILE ORGANIC COMPOUNDS															
Acenaphthene	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Nitrobenzene	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Diethyl Phthalate	BDL	BDL	BDL	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	BDL	BDL
1,4-Dichlorobenzene	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
2,4-Dinitrotoluene	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
D-n-Butyl Phthalate	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Anthracene	BDL	BDL	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	BDL	BDL
Fluorene	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Naphthalene	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
INORGANIC PARAMETERS															
pH	6.17	NA	6.10	NA	NA		6.99	6.80	6.80	6.28		6.84	NA	6.36	NA
Specific Conductance	568	NA	399	NA	NA		832	850	850	541		776	NA	406	NA
Alkalinity as Calcium Carbonate	60	NA	60.0	NA	NA		182	192	192	153		179	NA	135	NA
B.O.D.												5.2	NA	2	NA
Chemical Oxygen Demand												54.9	NA	43	NA
Hardness, Total	190	NA	92.1	NA	NA		52.6	114.0	127	132		108	NA	141	NA
Nitrate as N	2.59	NA	0.350	NA	NA		4.07	2.35				0.06	NA	1.13	NA
Total Phosphorus as P												0.06	NA	BDL	NA
Sodium, Total	23.9	NA	37.0	NA	NA		106	78.1				56.7	NA	18.3	NA
Total Kjeldahl	0.42	NA	0.18	NA	NA		16.9	21.2				2.70	NA	1.39	NA
Ammonia as N	158	NA	29.4	NA	NA		24.9	14.1				2.69	NA	1.12	NA
Sulfate	20	NA	65.0	NA	NA		100	32.5				48.1	NA	16.4	NA
Chloride	347	NA	220	NA	NA		384	360				377	NA	256	NA
Total Dissolved Solids	1	NA	BDL	NA	NA		1	2				102	NA	63	NA
Total Suspended Solids	BDL	NA	BDL	NA	NA		BDL	BDL				BDL	NA	0.015	NA
Arsenic	BDL	NA	BDL	NA	NA		BDL	0.002				0.012	NA	BDL	NA
Aluminum, Total	0.422	NA	0.007	NA	NA		0.013	0.165				64.9	NA	38.6	NA
Iron, Total	4.37	NA	0.585	NA	NA		0.217	7.21				5.39	NA	1.61	NA
Manganese, Total	BDL	NA	BDL	NA	NA		0.006	0.020				0.002	NA	0.001	NA
Nickel, Total	0.002	NA	0.001	NA	NA		BDL	0.001				BDL	NA	BDL	NA
Chromium, Total															

NOTE: VOC and Semi Vol. results = µg/l

Inorganic = mg/l

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

Figure 11
FTC-W-31
VOC CONCENTRATIONS
1999 to 2005



Two of the fourteen (14) onsite wells sampled during MY 2005 exhibited high levels of VOC's in groundwater. During the December 2005 sampling round monitoring well FTC-W-32 had a TVOC concentration of 2,638 ppb and monitoring well FTC-W-35 had a TVOC concentration of 3,509 ppb. Both wells exhibited large increases in total Xylene, Isopropylbenzene, 1,3,5Trimethylbenzene, 1,2,4Trimethylbenzene and Napthalene concentrations. This sudden increase in the concentration of petroleum related compounds in groundwater at these two locations reverses an overall downward trend which has been observed during the last four (4) years. Review of Figures 12 and 13 indicates that TVOC concentrations in well FTC-W-32 have been below 100 ppb over this time period, while TVOC concentrations in FTC-W-35 have been below 200 ppb for all but one sampling event (10/8/02).

This increase in TVOC concentrations appears to coincide with an unusually high onsite water table condition. Water table elevations in both wells exceeded 65 ft. above sea level, possibly causing a thin horizon of contaminated soil to become re-saturated, resulting in an increase in the concentration of these petroleum related compounds in groundwater.

Review of the semi-volatile organic compounds (SVOC) detected in onsite groundwater indicates that seven of the fourteen wells sampled had concentrations below detectable limits (BDL). Six wells had SVOC concentrations less than 10 ppb with no single compound having a concentration greater than 5 ppb. A single well, FTC-W-32 had a total SVOC concentration below 20 ppb with two compounds at concentrations greater than 5 ppb, Acenaphthene (9.4 ppb) and Nitrobenzene (16.5 ppb).

4.1.2 On-Site Inorganic Sampling Results

Inorganics were not part of the FTCGRP's remedial action, as specified in the site's Record of Decision. However, metals and other inorganic parameters were examined as part of the one (1) Annual on-site sampling round. The results of the MY 2005 inorganic analyses can be found in Table 2.

On-site groundwater was found to have elevated concentrations of Sodium, Ammonia, Iron and Manganese. All four (4) species are typically found in groundwater impacted by landfill leachate. Some of the highest onsite concentrations of Sodium (109 ppm) and Ammonia (14 ppm) were found in groundwater monitoring well W-4B. This well is located in the northwestern corner of the site at the base of the landfill.

Figure 12
FTC-W-32
VOC CONCENTRATIONS
1999 to 2005

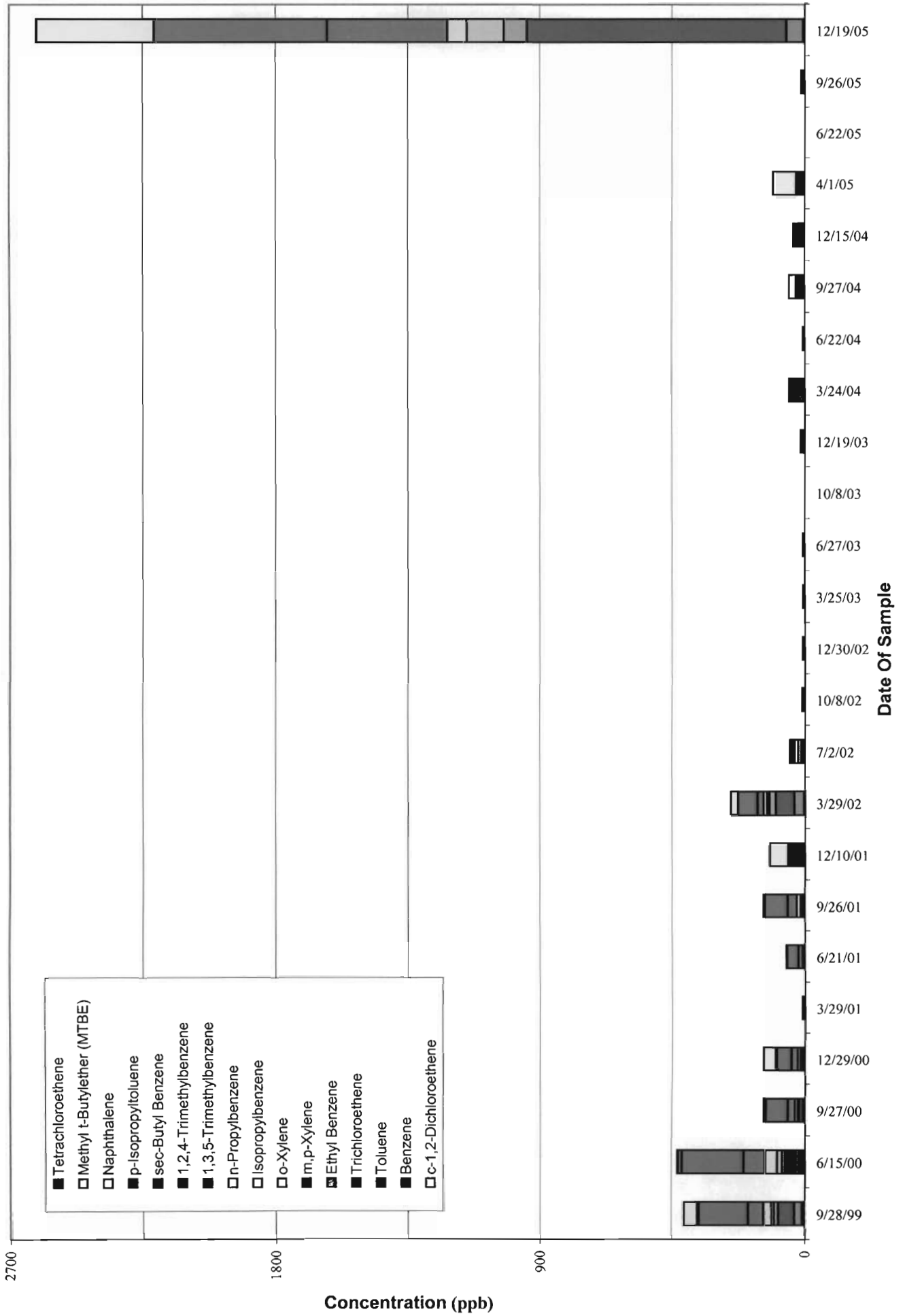
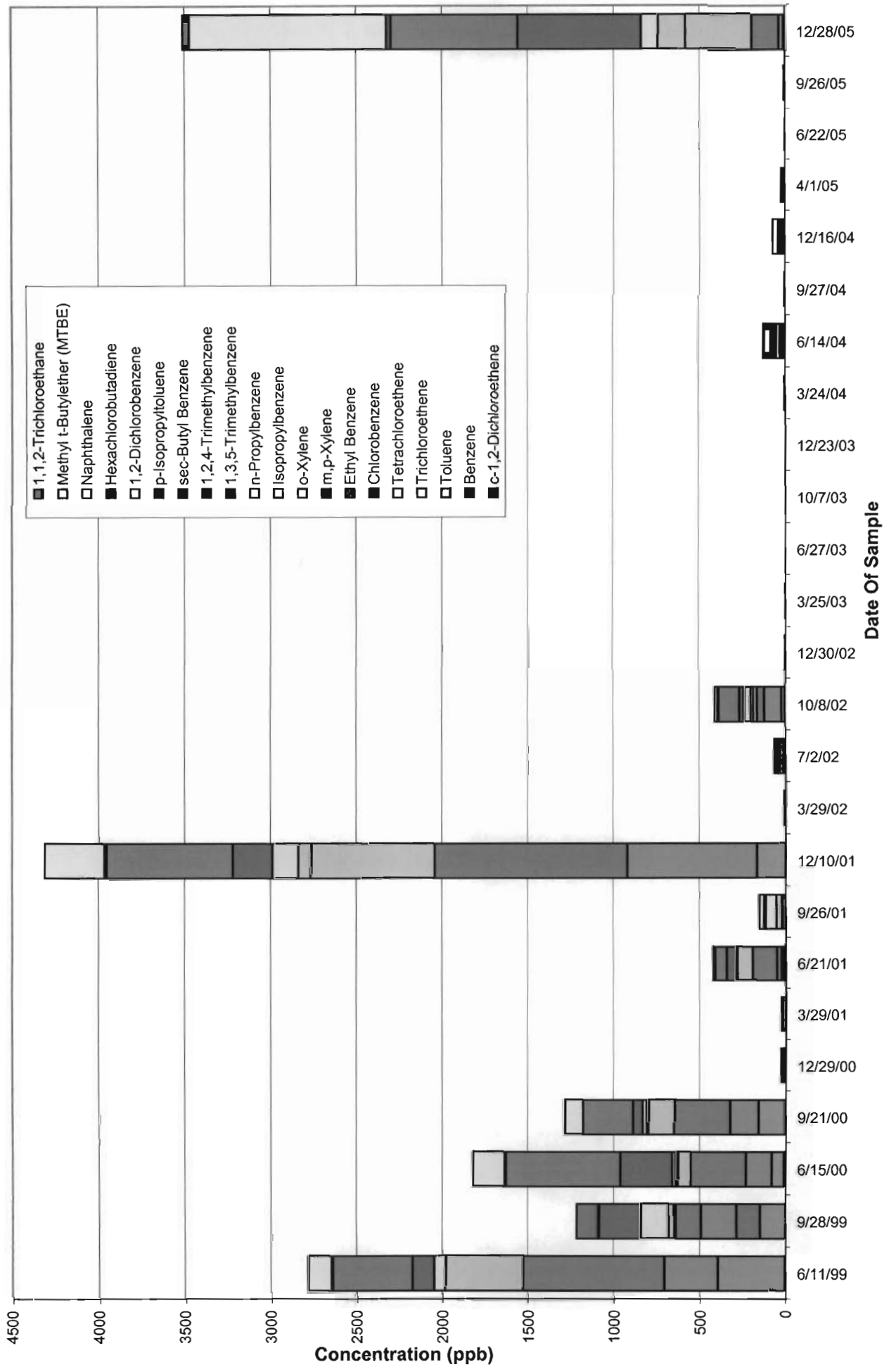


Figure 13
FTC-W-35
VOC CONCENTRATIONS
1999 to 2005



Groundwater collected from water table wells exhibited decreasing concentrations of some inorganic parameters with increasing distance from the landfill. Monitoring wells W-4B, W-23 and W-31 all exhibited decreasing concentrations of Sodium and Ammonia with increasing linear distance from the landfill. A similar pattern can be seen for the on-site Iron and Manganese results.

Deeper onsite wells do not reflect this pattern. Monitoring well cluster FTC-W-7A, B, C and D exhibit elevated concentrations of these inorganic compounds at depth even though they are over 1,800 ft. from the base of the landfill.

4.2 Off-site Quarterly and Annual Sampling Results

4.2.1 Off-Site Volatile and Semi-Volatile Organic Sampling Results

Groundwater samples were collected from nineteen (19) off-site monitoring wells for the one (1) annual sampling round and from seventeen (17) off-site monitoring wells for the three (3) quarterly sampling rounds, collected in 2005, (Figure 10). The results of the MY 2005 off-site annual and quarterly sampling rounds can be found in Table 3.

From information collected during the Remedial Investigation, (RI) phase of the FTCGRP it was determined that four (4) hydrogeologic zones can be delineated and used to evaluate water quality off-site. The four (4) zones are the “A” – water table, approximately 40 to 80 feet below grade (fbg), “B” – approximately 180 to 200 (fbg), “C” – approximately 280 to 300 fbg and the “D” – approximately 380 to 400 fbg. Following review of the offsite data, it was determined by the County and the NYSDEC that the majority of FTCGRP’s off-site contamination exists in the “B” hydrogeologic zone.

B Zone Water Quality

During MY 2005 the majority of the off-site contamination continued to be detected in five (5) monitoring wells located in the site’s designated “B” hydrogeologic zone, approximately –80ft. to -100 ft. msl. These wells, BP-3B, BP-4B, BP-9B, BP-12B and BP-14B, predominately detected halogenated VOC’s, which included: Tetrachloroethene, Trichloroethene, C-1,2- Dichloroethene, 1, 1- Dichloroethane and Vinyl Chloride. The historical VOC analytical results for the impacted monitoring wells are shown in figures 14, 15, 16, 17 and 18.

Monitoring wells BP-4B and BP-9B continued to show significant reduction in their overall level of contamination compared to their Baseline concentrations collected at the start of the remediation in 1999. BP-4B has gone from a TVOC level of over 1000 ppb in 1999 to less than a 100 ppb level in MY 2005. BP-9B showed a similar trend, going from over 500 ppb of TVOC’s during the early phase of the remediation to less than 100 ppb during the last three (3) sampling events of 2005. The only significant difference in samples collected from BP-4B and BP-9B was the number of compounds detected. Only four (4) compounds were detected in BP-4B throughout MY 2005, Tetrachloroethene, Trichloroethene, Cis-1,2-Dichloroethene and Benzene. While BP-9B detected seven (7) to nine (9) compounds. This difference in the number and type of detected compounds may be indicative of different sources for the compounds found in these wells.

Table 3a

2005 OFFSITE GROUNDWATER SAMPLING RESULTS

	BP-2A			BP-2B			BP-3A			BP-3B				
	Baseline Water Quality	DATE SAMPLED	Baseline Water Quality	DATE SAMPLED	DATE SAMPLED	Baseline Water Quality	DATE SAMPLED	DATE SAMPLED	Baseline Water Quality	DATE SAMPLED	DATE SAMPLED			
	6/8/99	6/27/05	6/8/99	3/31/05	6/27/05	9/22/05	12/21/05	4/14/05	7/21/05	2/2/06	4/14/05	7/21/05	10/6/05	2/2/06
VOLATILE ORGANICS COMPOUNDS														
Vinyl Chloride	BDL	BDL	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	BDL	BDL
1,1-Dichloroethane	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Methylene Chloride	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
t-1,2-Dichloroethene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
c-1,2-Dichloroethene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,2-Dichloroethane	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Toluene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chloroform	BDL	BDL	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	BDL	BDL
Chlorobenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Ethyl Benzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
m,p-Xylene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
o-Xylene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Isopropylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
n-Propylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Dichlorodifluoromethane	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Trichlorofluoromethane	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,1,1-Trichloroethane	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,1,2-Trichloroethane	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,2-Dibromoethane	BDL	BDL	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	BDL	BDL
1,2-Dichlorobenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Trichloroethene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,3,5-Trimethylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,2,4-Trimethylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Naphthalene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,1,1-Trichloromethane	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Methyl t-Butylether (MTBE)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Carbon Tetrachloride	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chloromethane	BDL	BDL	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	BDL	BDL	BDL
2,4-Dinitrotoluene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Bis(2-Ethylhexyl) Phthalate	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
INORGANIC PARAMETERS														
pH	6.32	6.3	6.68	NA	6.71	NA	NA	NA	NA	NA	NA	NA	5.65	NA
Specific Conductance	471	374	608	NA	497	NA	NA	NA	NA	NA	NA	NA	81.8	NA
Alkalinity as Calcium Carbonate	29	16	68	NA	LA	NA	NA	NA	NA	NA	NA	NA	64.5	NA
B.O.D.	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chemical Oxygen Demand	30.9	60.1	37	NA	72.5	NA	NA	NA	NA	NA	NA	NA	14.9	NA
Hardness, Total	1.97	2.75	BDL	BDL	0.34	NA	NA	NA	NA	NA	NA	NA	4.15	NA
Nitrate as N	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Total Phosphorus as P	49.3	40.2	60.9	NA	49.6	NA	NA	NA	NA	NA	NA	NA	6.30	NA
Sodium, Total	7.58	0.64	16.1	NA	4.71	NA	NA	NA	NA	NA	NA	NA	0.24	NA
Total Kjeldahl	7.58	0.64	16.1	NA	4.66	NA	NA	NA	NA	NA	NA	NA	0.24	NA
Ammonia as N	15.8	23.6	15.8	NA	27.7	NA	NA	NA	NA	NA	NA	NA	10.0	NA
Sulfate	90	68	110	NA	93	NA	NA	NA	NA	NA	NA	NA	92	NA
Chloride	196	211	237	NA	269	NA	NA	NA	NA	NA	NA	NA	48	NA
Total Dissolved Solids	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Total Suspended Solids	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Aluminum, Total	0.007	BDL	0.021	NA	0.037	NA	NA	NA	NA	NA	NA	NA	0.106	NA
Iron, Total	0.275	0.326	0.846	NA	0.751	NA	NA	NA	NA	NA	NA	NA	0.011	NA
Manganese, Total	0.009	BDL	BDL	BDL	0.001	NA	NA	NA	NA	NA	NA	NA	BDL	NA
Nickel, Total	BDL	0.001	BDL	NA	BDL	NA	NA	NA	NA	NA	NA	NA	BDL	NA
Chromium, Total	BDL	0.001	BDL	NA	BDL	NA	NA	NA	NA	NA	NA	NA	BDL	NA

LABORATORY: 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 3d

2005 OFFSITE GROUNDWATER SAMPLING RESULTS

	BP-128			BP-12C			BP-13B			BP-13C				
	Baseline Water Quality	DATE SAMPLED	12/21/05	3/30/05	6/17/05	9/23/05	6/15/00	3/30/05	6/17/05	9/23/05	12/28/05	4/6/05	6/23/05	9/23/05
VOLATILE ORGANICS COMPOUNDS														
Vinyl Chloride	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,1-Dichloroethane	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,1-Dichloroethane	9.2	2.2	2.1	1.5										
Methylene Chloride	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1-1,2-Dichloroethane	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
c-1,2-Dichloroethane	78.9	10.9	1.5	25.8	20.3									
1,2-Dichloroethane	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzene	BDL	1.9	BDL	26.8	34.1									
Toluene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chloroform	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Tetrachloroethene	BDL	30.7	5.7	0.7	8	11.5								
Chlorobenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Ethyl Benzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
m,p-Xylene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
o-Xylene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Isopropylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
n-Propylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Dichlorodifluoromethane	BDL	1.6	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Trichlorofluoromethane	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,1,1-Trichloroethane	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,1,2-Trichloroethane	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,2-Dibromoethane	BDL	BDL	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	BDL	BDL
1,2-Dichlorobenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Trichloroethene	19.8	3.7	BDL	8.2	6.4									
1,3,5-Trimethylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,2,4-Trimethylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Naphthalene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,1,1-Trichloroethane	3.3	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Methyl t-Butylether (MTBE)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Carbon Tetrachloride	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chloromethane	BDL	BDL	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	BDL	BDL	BDL
2,4-Dinitrotoluene	3.3	NA	BDL	NA	BDL	NA	BDL	NA	BDL	NA	BDL	NA	BDL	NA
Bis(2-Ethylhexyl) Phthalate	BDL	NA	BDL	NA	BDL	NA	BDL	NA	BDL	NA	BDL	NA	BDL	NA
INORGANIC PARAMETERS														
pH	4.86	NA	5.13	NA	NA	NA	4.93	NA	5.23	NA	NA	NA	5.03	NA
Specific Conductance	454	NA	478	NA	NA	34.0	NA	51.1	NA	NA	NA	85.3	28.8	NA
Alkalinity as Calcium Carbonate	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
B.O.D.	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chemical Oxygen Demand	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Hardness, Total	41.2	NA	40.5	NA	NA	3.8	NA	8.4	NA	NA	NA	15.4	1.3	NA
Nitrate as N	3.53	NA	3.47	NA	NA	1.02	NA	2.68	NA	NA	NA	4.35	0.29	NA
Total Phosphorus as P	L/A	NA	69.9	NA	NA	2.85	NA	4.66	NA	NA	NA	7.80	2.32	NA
Sodium, Total	BDL	NA	BDL	NA	NA	0.11	NA	BDL	NA	NA	NA	BDL	BDL	NA
Total Kjeldahl	BDL	NA	BDL	NA	NA	BDL	NA	BDL	NA	NA	NA	BDL	BDL	NA
Ammonia as N	BDL	NA	9.98	NA	NA	BDL	NA	BDL	NA	NA	NA	BDL	BDL	NA
Sulfate	23.2	NA	112.0	NA	NA	BDL	NA	BDL	NA	NA	NA	5.0	BDL	NA
Chloride	95	NA	249	NA	NA	43	NA	13	NA	NA	NA	66	20	NA
Total Dissolved Solids	223	NA	BDL	NA	NA	BDL	NA	BDL	NA	NA	NA	BDL	BDL	NA
Total Suspended Solids	BDL	NA	0.032	NA	NA	0.074	NA	0.027	NA	NA	NA	BDL	0.070	NA
Aluminum, Total	BDL	NA	0.015	NA	NA	0.002	NA	0.004	NA	NA	NA	BDL	0.022	NA
Iron, Total	BDL	NA	0.040	NA	NA	0.001	NA	0.001	NA	NA	NA	0.005	0.003	NA
Manganese, Total	0.015	NA	0.007	NA	NA	0.001	NA	BDL	NA	NA	NA	0.001	BDL	NA
Nickel, Total	0.011	NA	0.002	NA	NA	0.001	NA	BDL	NA	NA	NA	0.001	BDL	NA
Chromium, Total	BDL	NA	0.002	NA	NA	BDL	NA	BDL	NA	NA	NA	BDL	BDL	NA

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

NOTE: VOC and Inorganic = mg/l
NOTE: All results ug/l

Table 3e

2005 OFFSITE GROUNDWATER SAMPLING RESULTS

	BP-14B				BP-14C				RB-1		U-6A	
	Baseline Water Quality	DATE SAMPLED			Baseline Water Quality	DATE SAMPLED			Baseline Water Quality	DATE SAMPLED	Baseline Water Quality	DATE SAMPLED
	4/11/02	4/6/05	6/24/05	9/21/05	12/21/05	4/11/02	4/6/05	6/24/05	9/21/05	12/21/05	6/8/99	6/22/05
VOLATILE ORGANICS COMPOUNDS												
Vinyl Chloride	9.2	14.5	8.6	14.1	25.4	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,1-Dichloroethene	25	26.8	20.0	36.4	56.0	BDL	BDL	0.8	BDL	BDL	BDL	BDL
1,1-Dichloroethane	5.1	4.5	3.8	5.0	8.9	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Methylene Chloride	BDL	1.4	1.1	1.9	2.9	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,1,2-Dichloroethene	BDL	3.1	1.9	1.0	1.5	BDL	BDL	3.1	2.9	BDL	BDL	BDL
1,1,2-Dichloroethane	244	207	181	229	376	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,2-Dichloroethane	15.4	36.7	34.0	43.2	67.1	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzene	83.7	284	268	310	671	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Toluene	BDL	BDL	BDL	BDL	0.4	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chloroform	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Tetrachloroethene	375	526	413	259	697	BDL	BDL	3.4	3.5	1.8	5.8	BDL
Chlorobenzene	BDL	BDL	1.0	3.3	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Ethyl Benzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
m,p-Xylene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
o-Xylene	4.3	BDL	12.0	13.9	33.4	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Isopropylbenzene	BDL	0.9	BDL	BDL	3.4	BDL	BDL	BDL	BDL	BDL	BDL	BDL
n-Propylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Dichlorodifluoromethane	BDL	1.3	BDL	1.0	2.4	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Trichlorofluoromethane	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,1,1-Trichloroethane	50.6	38.4	30.9	29.4	59.8	BDL	0.8	BDL	1.3	BDL	BDL	BDL
1,1,2-Trichloroethane	BDL	5.0	1.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,2-Dibromoethane	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
1,2-Dichlorobenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Trichloroethene	40.8	44.5	34.3	43.8	73.7	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,3,5-Trimethylbenzene	1.4	4.2	BDL	2.9	9.9	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,2,4-Trimethylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Naphthalene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,1,1-Trichloromethane	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Methyl t-Butylether (MTBE)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Carbon Tetrachloride	BDL	BDL	6.4	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chloromethane	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
SEMI-VOLATILE ORGANIC COMPOUNDS												
1,2-Dichlorobenzene	BDL	NA	BDL	NA	NA	NA	NA	NA	NA	NA	BDL	BDL
2,4-Dinitrotoluene	BDL	NA	BDL	NA	NA	NA	NA	NA	NA	NA	BDL	BDL
Bis(2-Ethylhexyl) Phthalate	BDL	NA	BDL	NA	NA	NA	NA	NA	NA	NA	BDL	BDL
INORGANIC PARAMETERS												
pH	5.64	NA	5.75	NA	NA	NA	5.64	NA	NA	NA	5.58	6.12
Specific Conductance	30.0	NA	167	NA	NA	NA	63	NA	NA	NA	5103	450
Alkalinity as Calcium Carbonate	BDL	NA	11	NA	NA	NA	BDL	NA	NA	NA	17	10
B.O.D.	1.0	NA	BDL	NA	NA	NA	BDL	NA	NA	NA	BDL	BDL
Chemical Oxygen Demand	40.6	NA	BDL	NA	NA	NA	BDL	NA	NA	NA	BDL	BDL
Hardness, Total	1.9	NA	41	NA	NA	NA	11.6	NA	NA	NA	423	64.3
Nitrate as N	BDL	NA	1.84	NA	NA	NA	2.72	NA	NA	NA	3.77	1.50
Total Phosphorus as P	BDL	NA	BDL	NA	NA	NA	BDL	NA	NA	NA	BDL	BDL
Sodium, Total	1.91	NA	12.2	NA	NA	NA	5.7	NA	NA	NA	807	40.1
Total Kjeldahl	0.16	NA	0.17	NA	NA	NA	BDL	NA	NA	NA	0.1	BDL
Ammonia as N	BDL	NA	BDL	NA	NA	NA	BDL	NA	NA	NA	BDL	BDL
Sulfate	6.4	NA	20.5	NA	NA	NA	BDL	NA	NA	NA	BDL	BDL
Chloride	5.0	NA	23.0	NA	NA	NA	7.5	NA	NA	NA	1574	120
Total Dissolved Solids	47	NA	91	NA	NA	NA	52	NA	NA	NA	2888	242
Total Suspended Solids	1.0	NA	BDL	NA	NA	NA	BDL	NA	NA	NA	BDL	BDL
Aluminum, Total	0.045	NA	BDL	NA	NA	NA	BDL	NA	NA	NA	BDL	BDL
Iron, Total	1.39	NA	BDL	NA	NA	NA	BDL	NA	NA	NA	BDL	BDL
Manganese, Total	0.006	NA	0.011	NA	NA	NA	BDL	NA	NA	NA	0.040	0.014
Nickel, Total	BDL	NA	0.001	NA	NA	NA	BDL	NA	NA	NA	BDL	BDL
Chromium, Total	BDL	NA	BDL	NA	NA	NA	BDL	NA	NA	NA	BDL	0.002

LABORATORY: 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 3f

2005 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								
Vinyl Chloride	8.8	12/23/05	BDL	12/23/05	BDL	12/22/05	BDL	12/22/05
1,1-Dichloroethene	11.4	15.9	BDL	BDL	BDL	BDL	BDL	BDL
1,1-Dichloroethane	28.4	38.0	BDL	BDL	BDL	BDL	BDL	BDL
Methylene Chloride	5.0	12.5	BDL	BDL	BDL	BDL	BDL	BDL
1,1,2-Dichloroethene	0.7	BDL	BDL	BDL	BDL	BDL	BDL	BDL
c-1,2-Dichloroethane	40.7	75.8	BDL	BDL	BDL	BDL	BDL	BDL
1,2-Dichloroethane	1.6	2.1	BDL	BDL	BDL	BDL	BDL	BDL
Benzene	1.7	3.4	BDL	BDL	BDL	BDL	BDL	BDL
Toluene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chloroform	0.7	0.5	BDL	BDL	BDL	BDL	BDL	BDL
Tetrachloroethene	7.5	17.4	BDL	BDL	BDL	BDL	BDL	BDL
Chlorobenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Ethyl Benzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
m,p-Xylene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
o-Xylene	0.3	0.7	BDL	BDL	BDL	BDL	BDL	BDL
Isopropylbenzene	BDL	0.6	BDL	BDL	BDL	BDL	BDL	BDL
n-Propylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Dichlorodifluoromethane	10.0	13.7	BDL	BDL	BDL	BDL	BDL	BDL
Trichlorofluoromethane	22.1	22.6	BDL	BDL	BDL	BDL	BDL	BDL
1,1,1-Trichloroethane	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,1,2-Trichloroethane	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,2-Dibromoethane	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,4-Dichlorobenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,2-Dichlorobenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Trichloroethene	10.5	16.4	BDL	BDL	BDL	BDL	BDL	BDL
1,3,5-Trimethylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,2,4-Trimethylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Naphthalene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,1,1-Trichloroethane	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Methyl t-Butylether (MTBE)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Carbon Tetrachloride	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chloroethane	1.8	BDL	BDL	BDL	BDL	BDL	BDL	BDL
SEMI-VOLATILE ORGANIC COMPOUNDS								
1,2-Dichlorobenzene	BDL	NA	BDL	NA	BDL	NA	BDL	NA
2,4-Dinitrotoluene	BDL	NA	BDL	NA	BDL	NA	BDL	NA
Bis(2-Ethylhexyl) Phthalate	BDL	NA	BDL	NA	BDL	NA	BDL	NA
INORGANIC PARAMETERS								
ph	4.74	NA	4.69	NA	5.17	NA	5.21	NA
Specific Conductance	192	NA	52	NA	152	NA	140	NA
Alkalinity as Calcium Carbonate	7	NA	BDL	NA	7	NA	5	NA
B.O.D.	3.4	NA	BDL	NA	10	NA	3.6	NA
Chemical Oxygen Demand	BDL	NA	BDL	NA	BDL	NA	BDL	NA
Hardness, Total	9.4	NA	36.9	NA	35.7	NA	27.2	NA
Nitrate as N	0.79	NA	0.7	NA	2.31	NA	8.15	NA
Total Phosphorus as P	BDL	NA	BDL	NA	BDL	NA	BDL	NA
Sodium, Total	4.76	NA	17.4	NA	10.9	NA	13	NA
Total Kjeldahl	0.15	NA	BDL	NA	BDL	NA	BDL	NA
Ammonia as N	BDL	NA	BDL	NA	BDL	NA	BDL	NA
Sulfate	BDL	NA	BDL	NA	BDL	NA	BDL	NA
Chloride	45.0	NA	5	NA	10	NA	10	NA
Total Dissolved Solids	90	NA	37	NA	109	NA	110	NA
Total Suspended Solids	BDL	NA	BDL	NA	2	NA	BDL	NA
Aluminum, Total	0.047	NA	0.037	NA	0.17	NA	0.051	NA
Iron, Total	0.088	NA	0.026	NA	0.388	NA	0.039	NA
Manganese, Total	0.024	NA	0.005	NA	0.073	NA	0.038	NA
Nickel, Total	0.007	NA	0.002	NA	0.005	NA	0.003	NA
Chromium, Total	BDL	NA	BDL	NA	BDL	NA	BDL	NA

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

NOTE: VOC and Inorganic = mg/l
NOTE: All results ug/l

Figure 14
BP-3B
 VOC CONCENTRATIONS
 2003 to 2005

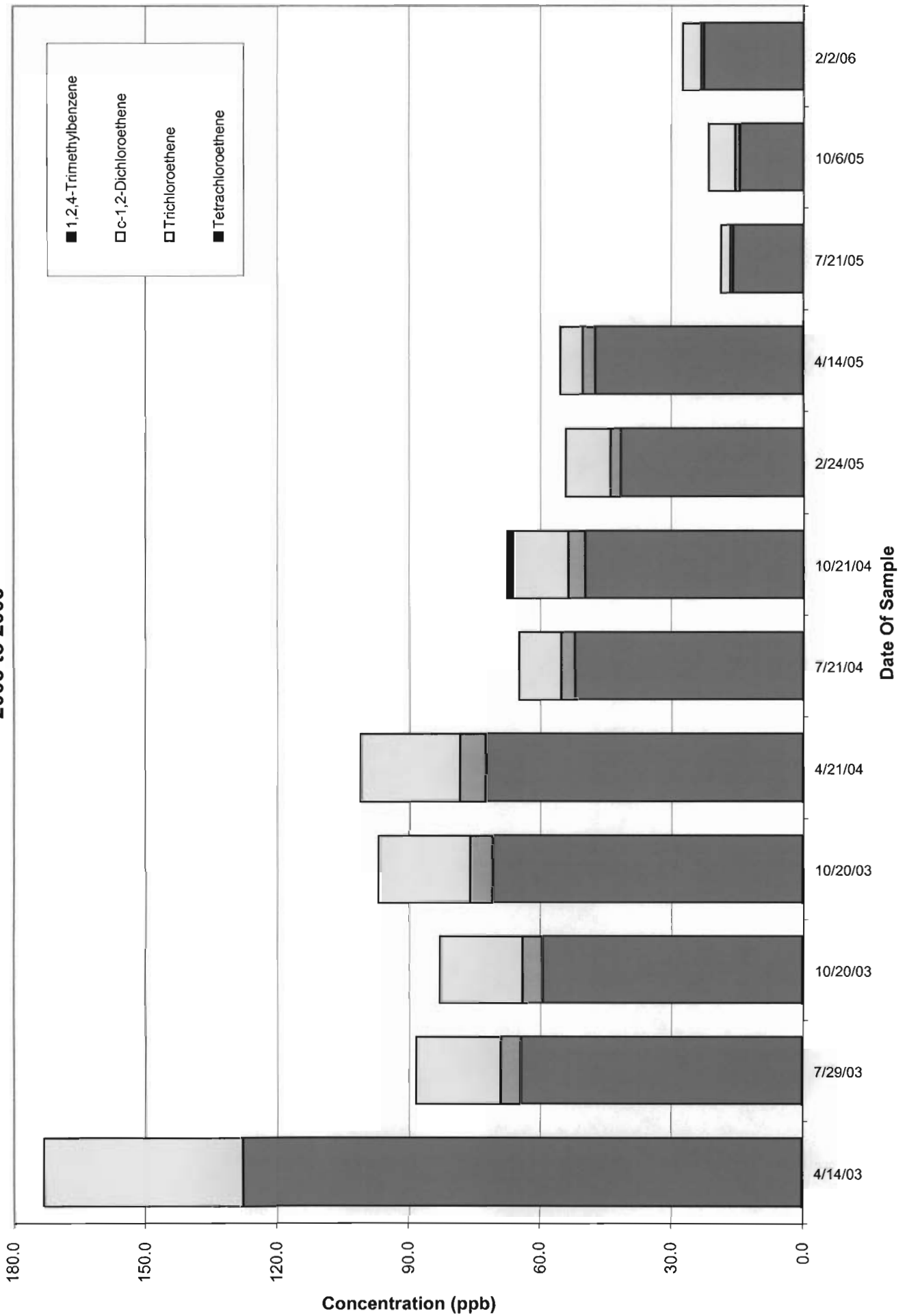


Figure 15
BP-4B
 VOC CONCENTRATIONS
 1999 to 2005

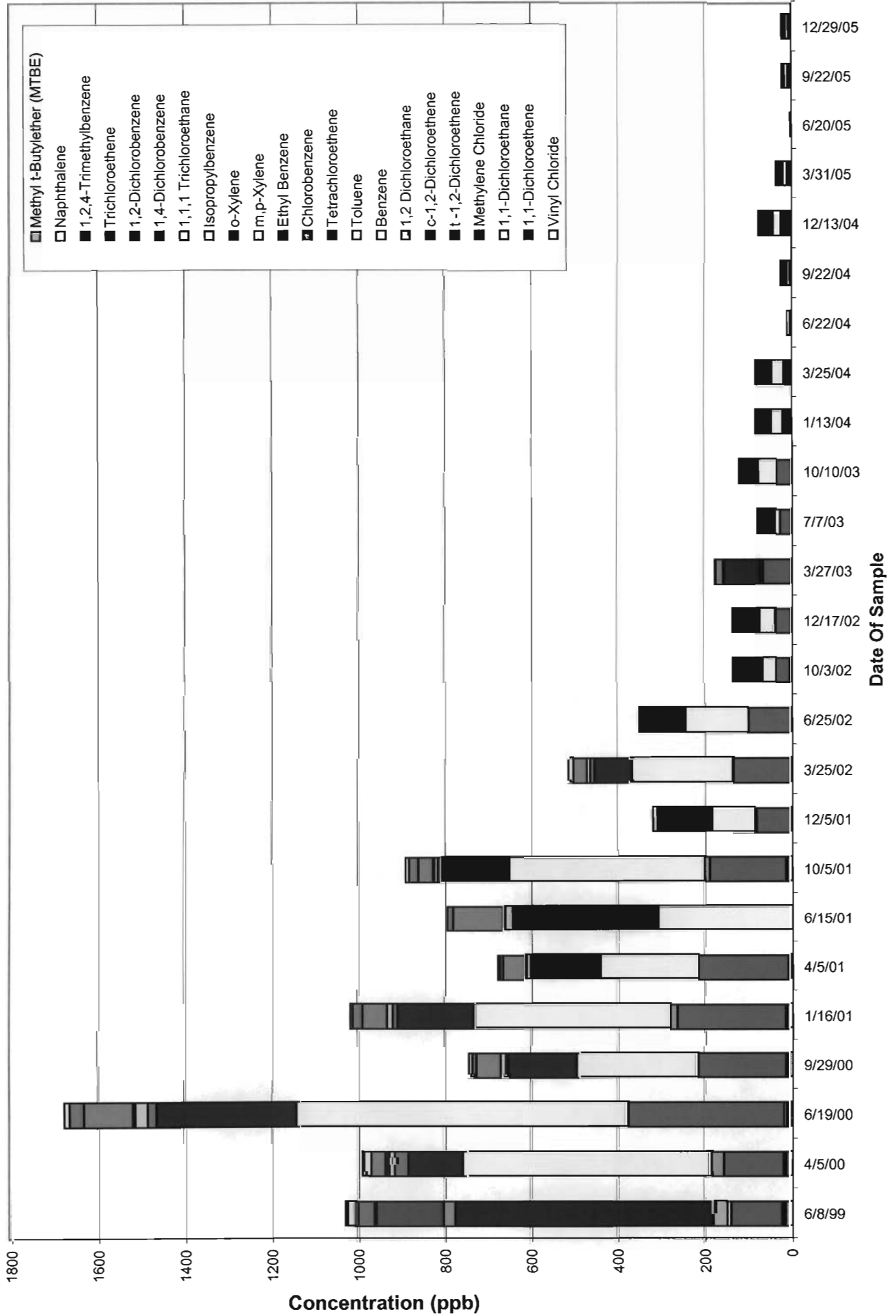


Figure 16
BP-9B
VOC CONCENTRATIONS
1999 to 2005

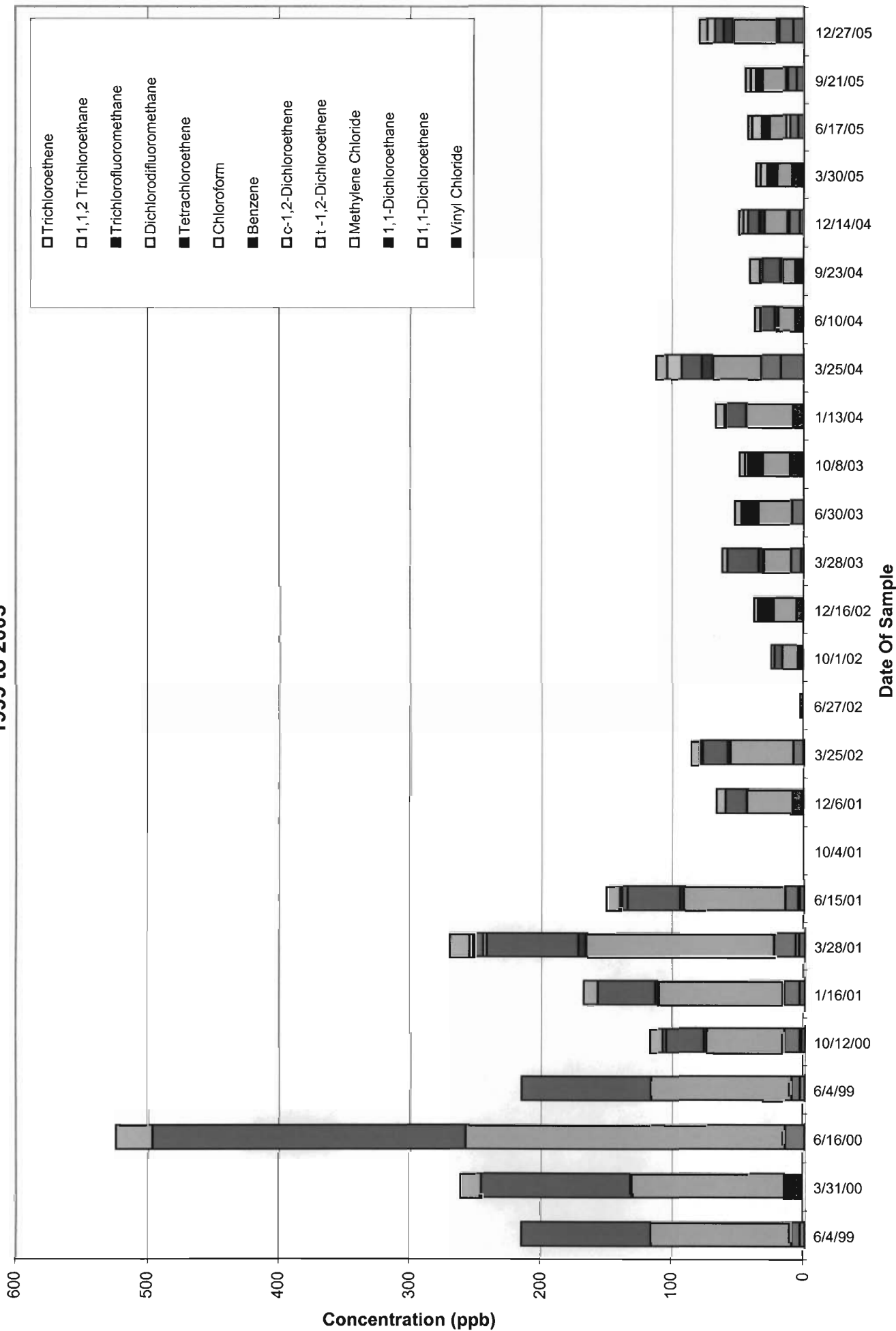


Figure 17
BP-12B
VOC CONCENTRATIONS
1999 to 2005

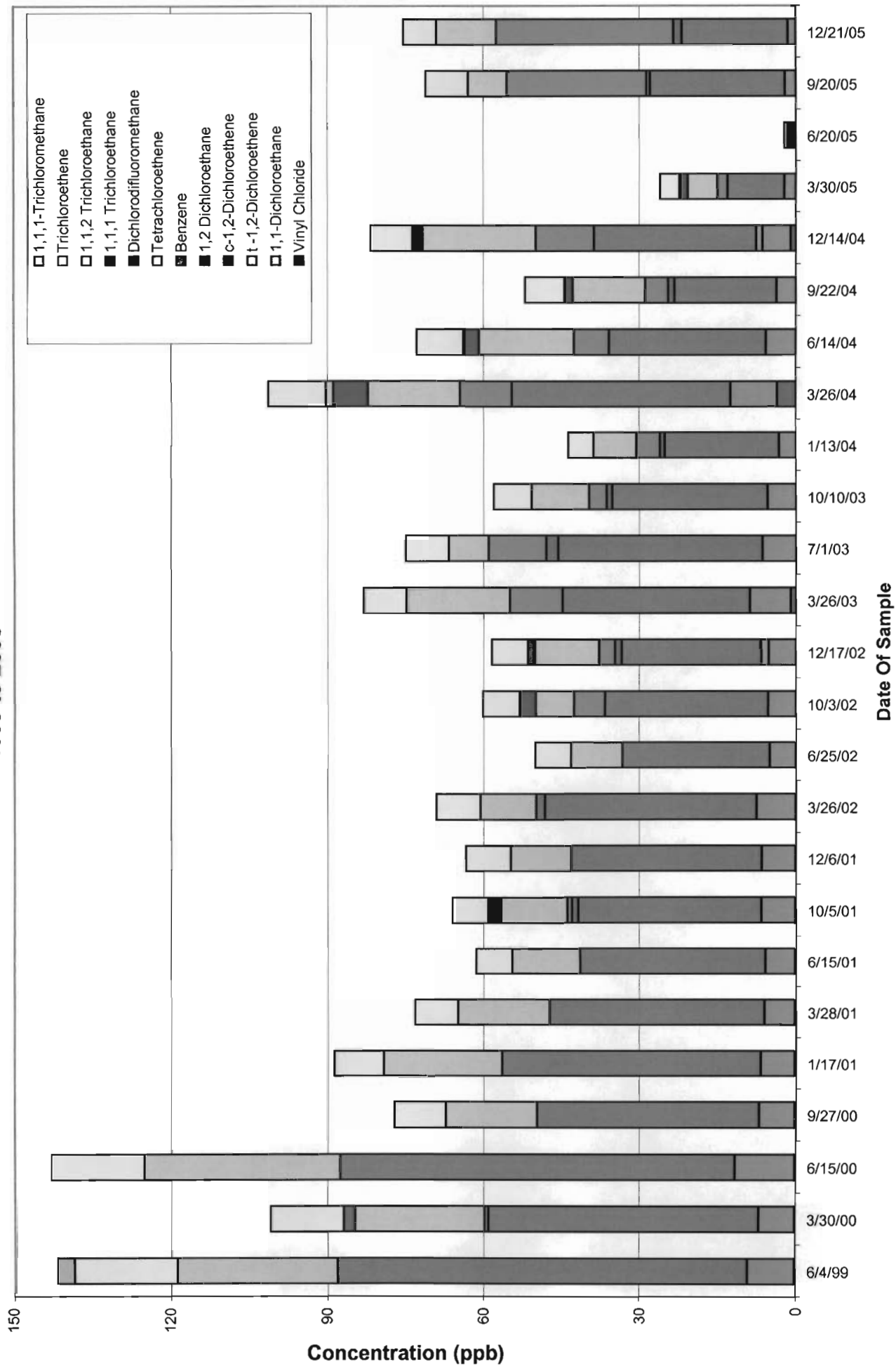
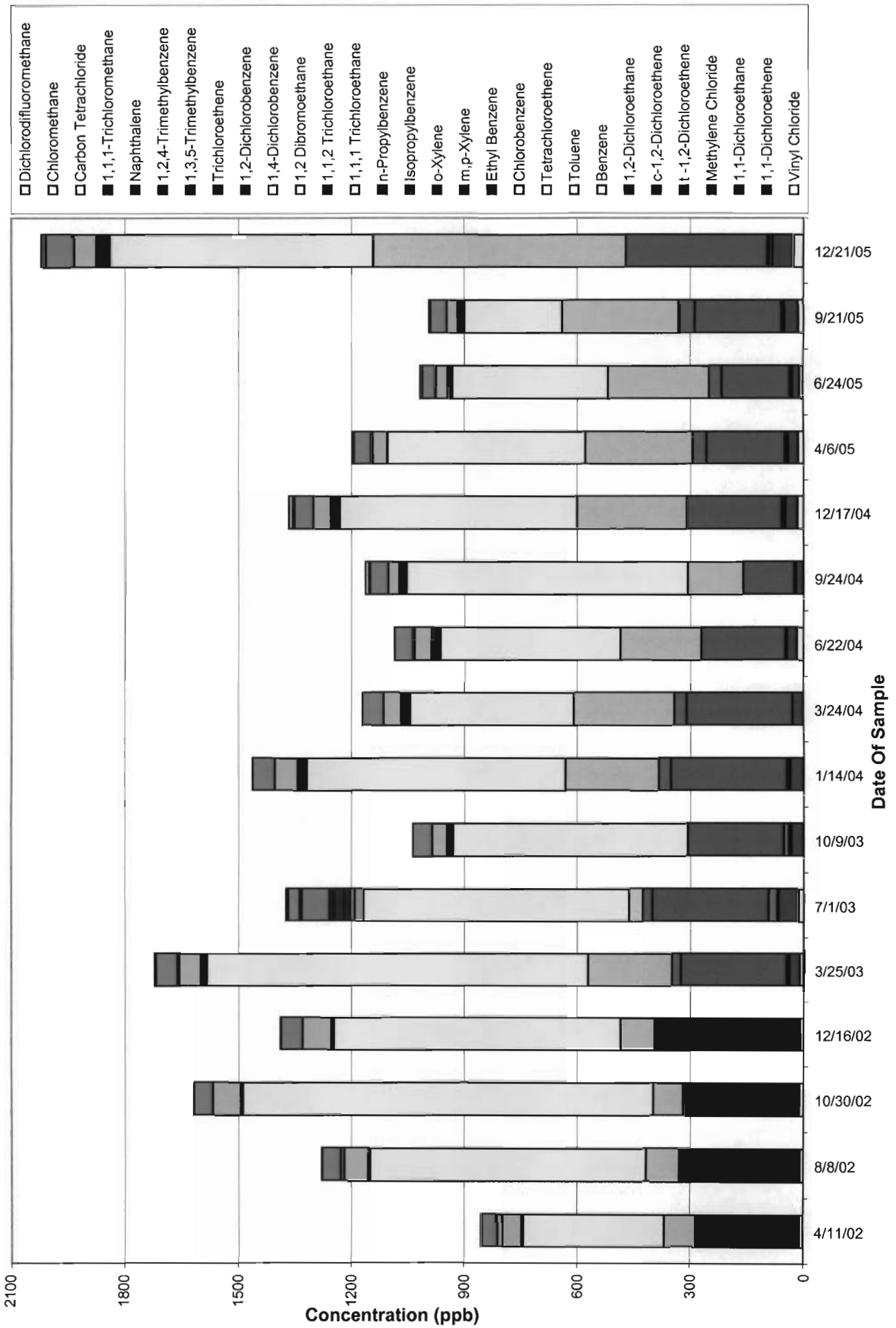


Figure 18
BP-14B
VOC CONCENTRATIONS
2002 to 2005



Monitoring well BP-12B (fig.17), located farther downgradient from the FTC, has remained somewhat steady in its TVOC levels (50 ppb to 100 ppb) over the course of the remediation, including MY 2005. Monitoring well BP-14B (fig. 18), was installed in 2002 to better define the local contamination downgradient of BP-4B. It is located near off-site recovery wells ORW-4, ORW-5 and ORW-6. This well continued to show high TVOC levels in MY 2005. Results of the MY 2005 sampling rounds for TVOC's in BP-14B ranged from 994 ppb to 2,022 ppb. The major portion of the contamination found in BP-14B is from three (3) VOC's: Tetrachloroethene (259 ppb to 697 ppb), Cis-1,2-Dichloroethene (181 ppb to 376 ppb) and Benzene (268 ppb to 671 ppb). All three compounds have been identified onsite and in groundwater downgradient of the former Claremont Polychemical site. Tetrachloroethylene is the most frequently detected compound and has been used to identify Claremont contamination within the recognized limits of the Town of Oyster Bay Landfill plume. The group of volatile organic compounds found in both BP-12B and BP-14B were similar to those detected in BP-9B where seven (7) or more compounds were consistently detected in MY 2005 samples.

Two new monitoring well clusters were added to the FTC monitoring well network in MY 2005. Each cluster included two new monitoring points in the "B" and "C" hydrogeologic zones. In addition to water level data, both clusters provide water quality information on potential sources of VOC concentration that do not originate at the Firemen's Training Center.

Monitoring well BP-15B was sampled following installation on October 28, 2005 to provide a baseline for comparison to future sampling events. The well was then sampled during the final quarter of MY 2005. Groundwater collected from BP-15B had a TVOC concentration of 234 ppb. This total was largely composed of halogenated organic compounds including cis-1,2 Dichloroethylene (76 ppb), 1,1 Dichloroethane (38 ppb), Tetrachloroethylene (17 ppb), 1,1,1 Trichloroethane (23 ppb) and Trichloroethylene (16 ppb). Dichlorodifluoromethane was also detected in this well at a concentration of 14 ppb.

Monitoring well BP-15B is located between monitoring well cluster BP-3 and offsite recovery well ORW-4. This well is not directly hydraulically downgradient of Firemen's Training Center and has most likely been impacted by other upgradient sources of VOC contamination.

Monitoring well OBV-1B was sampled on September 19, 2005 to provide a baseline for comparison to future sampling events. It was also sampled during the final quarter of MY 2005. Groundwater collected from OBV-1B was found to be below detectable limits for all compounds with the exception of 1,1 Dichloroethane (0.8 ppb).

Monitoring well OBV-1B located on Old Bethpage Village Restoration property, was installed upgradient of all known sources of VOC contamination.

C Zone Water Quality

Volatile organic compounds were detected in groundwater samples collected from five of the nine wells screened in the designated “C” hydrogeologic zone, approximately -180 ft. msl to -200 ft. msl, during MY 2005. These impacted wells included BP-3C, BP-4C, BP-10C, BP-14C and newly installed OBV-1C. Contamination in the “C” hydrogeologic zone is not attributable to activities at the Firemen’s Training Center. Regional water level survey data and recent groundwater modeling in the area beneath FTC and the Bethpage State Park indicate that contamination originating on the FTC site cannot migrate vertically into the “C” hydrogeologic zone.

During MY 2005, TVOC concentrations in monitoring well BP-3C ranged from 112 ppb to 268 ppb. Up to twelve (12) different volatile organic compounds were identified in groundwater samples collected from this well including: cis-1,2 Dichloroethylene (208 ppb), Trichloroethylene (15 ppb), Tetrachloroethylene (2 ppb), Dichlorodifluoromethane (14 ppb) and Vinyl Chloride (5 ppb). TVOC concentrations in monitoring well BP-4C also remained at significant levels with concentrations in groundwater ranging from 13 to 112 ppb. The majority of the VOC contamination in this well was attributable to Tetrachloroethylene (52 ppb) and cis-1,2 Dichloroethylene (36 ppb).

Groundwater collected from monitoring well BP-14C exhibited TVOC concentrations ranging from BDL to 8 ppb. Only three compounds were detected in this well, Tetrachloroethylene (3 ppb), cis-1,2 Dichloroethylene (4 ppb) and 1,1,1 Trichloroethane (1 ppb). It should be noted that all impacts to the “C” hydrogeologic zone wells are highly significant since there are no active County, Town or Federal groundwater recovery wells operating in this zone.

The final two wells affected by groundwater contamination in the “C” zone are separated by over 8,500 linear feet. Monitoring well OBV-1C was installed in County owned Old Bethpage Restoration Village property in September 2005. This well was installed upgradient of all known sources of VOC contamination to provide water level and water quality information used to aid in the delineation of non-FTC sources of VOCs. A baseline water quality sample, collected on September 19, 2005, had a TVOC concentration of 23 ppb. Detected VOCs included: Trichloroethylene (4 ppb), 1,1,1 Trichloroethane (6 ppb), Tetrachloroethylene (2 ppb), 1,1 Dichloroethane (6 ppb), and 1,1 Dichloroethene (5 ppb).

Monitoring well BP-10C was also impacted by VOCs in MY 2005. This well is located at the southern limits of known contamination, less than 1,000 feet from the Village of Farmingdale public supply well N-7852. Groundwater collected from monitoring well BP-10C exhibited TVOC concentrations ranging from 3 to 5 ppb. VOCs were detected in each of the four quarterly sampling rounds conducted in MY 2005. This follows the first detection of VOCs in this well on December 17, 2004. Groundwater collected from the well had been free of VOCs over the previous 13 years.

The four (4) remaining “C” zone monitoring wells (BP-9C, BP-12C, Bp-13C and BP-15C) had TVOC concentrations below detectable limits for all compounds analyzed (Appendix D)

4.2.2 Off-Site Inorganic Sampling Results

The inorganic groundwater sampling results are presented in Table 3. No inorganic parameters are included in the FTCGRP's remedial action, as described in the site's Record of Decision. Levels for all inorganic parameters analyzed for in MY 2005 were consistent with those found in natural groundwater on Long Island.

4.3 Quarterly and Annual Hydraulic Control Monitoring Effects

4.3.1 On-Site Hydraulic Effects

During MY 2005 there was no on-site groundwater being recovered; therefore, there were no on-site hydraulic control effects to report.

4.3.2 Off-Site Hydraulic Effects

Offsite hydraulic conditions are monitored quarterly to ensure that all operating recovery wells are effectively treating offsite contamination. In an effort to understand the interaction of the two major offsite treatment systems, (FTCGRP) and the Town of Oyster Bay's (TOBAY) recovery operation, Town and County personnel conduct comprehensive synoptic water level rounds in January, April, July and October of each year.

Physical limitations on the amount of treated water which can be effectively recharged to the aquifer system via the recharge basin and the (3) off-site injection wells located along Bethpage-Sweethollow Road result in occasional reductions in total flowrate and changes in the number and configuration of operating Off-site Recovery Wells (ORW) throughout the year.

During Monitoring Year (MY) 2005, the offsite treatment system operated in three different recovery configurations. During the winter ORW-3 and 7 were operated at a combined flowrate of 270 gpm. During springtime operation, recovery wells ORW -6 and 7 operated at 270 gpm. During the summer months again, recovery wells ORW-6 and 7 were pumped at the same combined flowrate. The fall configuration used recovery wells ORW-4 and 6 at a total flowrate of 275 gpm.

Either off-site recovery well ORW-6 or 7 were operated in all three configurations to maintain hydraulic influence on the lead edge of the known plume contamination.

All groundwater collection and treatment being conducted by Nassau County and the Town of Oyster Bay occurs in the B hydrogeologic zone.

Offsite pumping conditions in the “B” zone can be examined in detail by comparing water level data collected during each of the comprehensive synoptic water level rounds. Water level contours produced from the July 11, 2005 synoptic round are presented in figure 19.

Examination of the potentiometric surface prepared for the “B” zone on this date indicates that the overall flow direction is from north-northwest to south-southeast. Elevations range from 65 ft. msl. to 24 ft. msl. beneath Bethpage State Park. The regional groundwater contours are modified in the vicinity of both operating recovery systems.

The Town of Oyster Bay operated four of five recovery wells producing a “kidney-shaped” depression with observed recovery well head elevations between 46 and 50 ft. msl.

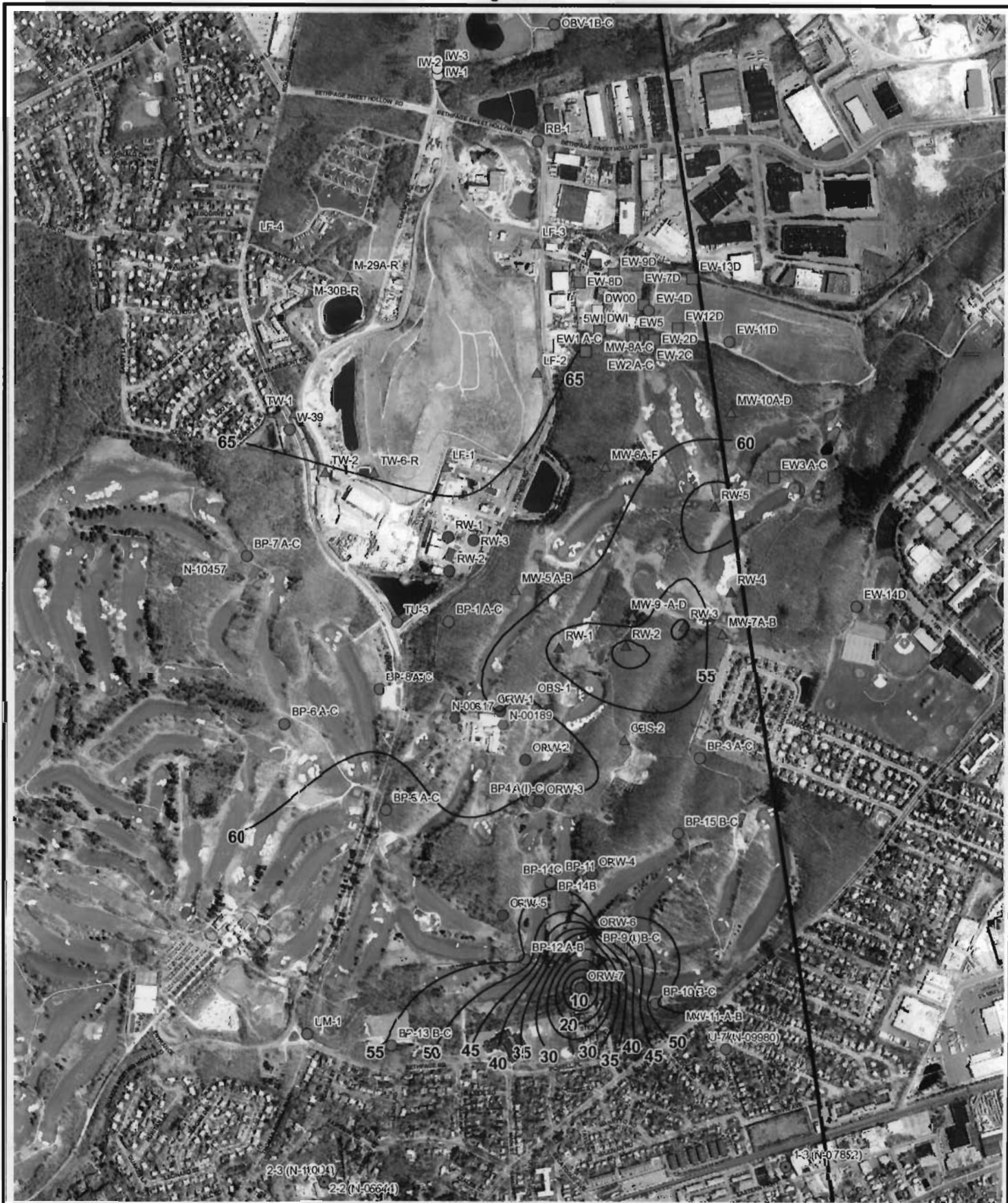
An ellipsoidal depression is formed in the vicinity of County recovery wells ORW-6 and 7.

Regional contours are modified at the 56 ft. msl. level and gradually “wrapped” around this hydraulic feature. The lowest elevation is observed at offsite recovery well ORW-7 (24 ft. msl.)

The regional flow pattern south of the Town’s recovery system has also been modified producing a southerly direction of flow.

The combined effect of the two systems alters the regional flow field, eventually producing a south-southwest flow direction between the systems, which is maintained south of ORW-7.

Figure 19



Legend

Railroad	Nassau County Monitoring Well or Well Cluster
Circle Post Map, July 2005	Nassau County Recovery Well
Fireman's Training Center Area Wells	Plainview WD Public Supply Well
Betspage State Park Inactive Well	Ft. Fanning WD Public Supply Well
Betspage State Park Irregular Well	Ft. Oyster Bay Monitoring Well Cluster
Chloroform/Polychemical Site Diffusion Well	Ft. Oyster Bay Recovery Well
Chloroform/Polychemical Site Monitoring Well or Well Cluster	Ft. Fanning Public Supply Well
Nassau County Injection Well	

Map Location

**FTC/BSP B-ZONE
POTENTIOMETRIC SURFACE
JULY 11, 2005**

Prepared By: - NCDPW - Water Resources
Engineering Unit

1 Inch equals 1,200 Feet

Nassau County

Geographic Information System

Copyright 1993-2002
County of Nassau, New York

Date: 9/14/2006

APPENDIX A
PLANT EFFICIENCY REPORTS
2005

PLANT EFFICIENCY

JANUARY 2005

DATE	HOURS OF OPERATION	EFFICIENCY OF OPERATION	REASON FOR OUTAGE
1	24	100.0%	
2	24	100.0%	
3	24	100.0%	
4	24	100.0%	
5	24	100.0%	
6	24	100.0%	
7	24	100.0%	
8	24	100.0%	
9	24	100.0%	
10	24	100.0%	
11	24	100.0%	
12	24	100.0%	
13	24	100.0%	
14	24	100.0%	
15	24	100.0%	
16	24	100.0%	
17	24	100.0%	
18	22	91.7%	RTU Faults
19	14	58.3%	RTU Faults
20	24	100.0%	
21	24	100.0%	
22	2	8.3%	RTU Faults
23	0	0.0%	RTU Faults
24	13	54.2%	RTU Faults
25	24	100.0%	
26	24	100.0%	
27	20	83.3%	RTU Faults
28	13	54.2%	RTU Faults
29	24	100.0%	
30	24	100.0%	
31	24	100.0%	
TOTAL HOURS IN THE MONTH	TOTAL HOURS OF OPERATION	EFFICIENCY OF MONTHLY OPERATION	
744	660	88.7%	

PLANT EFFICIENCY

FEBRUARY 2005

DATE	HOURS OF OPERATION	EFFICIENCY OF OPERATION	REASON FOR OUTAGE
1	24	100.0%	
2	24	100.0%	
3	24	100.0%	
4	24	100.0%	
5	24	100.0%	
6	24	100.0%	
7	24	100.0%	
8	24	100.0%	
9	24	100.0%	
10	24	100.0%	
11	24	100.0%	
12	24	100.0%	
13	24	100.0%	
14	24	100.0%	
15	24	100.0%	
16	24	100.0%	
17	24	100.0%	
18	24	100.0%	
19	24	100.0%	
20	24	100.0%	
21	24	100.0%	
22	24	100.0%	
23	24	100.0%	
24	24	100.0%	
25	24	100.0%	
26	24	100.0%	
27	24	100.0%	
28	24	100.0%	
TOTAL HOURS IN THE MONTH	TOTAL HOURS OF OPERATION	EFFICIENCY OF MONTHLY OPERATION	
672	672	100.0%	

PLANT EFFICIENCY

MARCH 2005

DATE	HOURS OF OPERATION	EFFICIENCY OF OPERATION	REASON FOR OUTAGE
1	24	100.0%	
2	24	100.0%	
3	24	100.0%	
4	24	100.0%	
5	24	100.0%	
6	24	100.0%	
7	24	100.0%	
8	24	100.0%	
9	24	100.0%	
10	24	100.0%	
11	24	100.0%	
12	24	100.0%	
13	24	100.0%	
14	24	100.0%	
15	24	100.0%	
16	24	100.0%	
17	24	100.0%	
18	24	100.0%	
19	24	100.0%	
20	24	100.0%	
21	24	100.0%	
22	24	100.0%	
23	24	100.0%	
24	24	100.0%	
25	24	100.0%	
26	24	100.0%	
27	24	100.0%	
28	24	100.0%	
29	5	20.8%	Heavy Rainfall - High Basin Level
30	0	0.0%	High Basin Level
31	0	0.0%	High Basin Level
TOTAL HOURS IN THE MONTH	TOTAL HOURS OF OPERATION	EFFICIENCY OF MONTHLY OPERATION	
744	677	91.0%	

PLANT EFFICIENCY

APRIL 2005

DATE	HOURS OF OPERATION	EFFICIENCY OF OPERATION	REASON FOR OUTAGE
1	0	0.0%	High Basin Level
2	0	0.0%	Heavy Rainfall - High Basin Level
3	0	0.0%	High Basin Level
4	0	0.0%	High Basin Level
5	18	75.0%	High Basin Level
6	24	100.0%	
7	24	100.0%	
8	24	100.0%	
9	24	100.0%	
10	24	100.0%	
11	24	100.0%	
12	24	100.0%	
13	24	100.0%	
14	24	100.0%	
15	24	100.0%	
16	24	100.0%	
17	24	100.0%	
18	24	100.0%	
19	24	100.0%	
20	24	100.0%	
21	24	100.0%	
22	24	100.0%	
23	24	100.0%	
24	24	100.0%	
25	24	100.0%	
26	24	100.0%	
27	24	100.0%	
28	24	100.0%	
29	24	100.0%	
30	24	100.0%	
TOTAL HOURS IN THE MONTH	TOTAL HOURS OF OPERATION	EFFICIENCY OF MONTHLY OPERATION	
720	618	85.8%	

PLANT EFFICIENCY

MAY 2005

DATE	HOURS OF OPERATION	EFFICIENCY OF OPERATION	REASON FOR OUTAGE
1	24	100.0%	
2	24	100.0%	
3	24	100.0%	
4	24	100.0%	
4	24	100.0%	
6	24	100.0%	
7	22	91.7%	IWWP-3 Tripped - High Intermediate Wet Well
8	24	100.0%	
9	24	100.0%	
10	24	100.0%	
11	24	100.0%	
12	24	100.0%	
13	24	100.0%	
14	24	100.0%	
15	24	100.0%	
16	24	100.0%	
17	24	100.0%	
18	24	100.0%	
19	24	100.0%	
20	24	100.0%	
21	24	100.0%	
22	24	100.0%	
23	24	100.0%	
24	24	100.0%	
25	24	100.0%	
26	24	100.0%	
27	24	100.0%	
28	24	100.0%	
29	24	100.0%	
30	24	100.0%	
31	24	100.0%	
TOTAL HOURS IN THE MONTH	TOTAL HOURS OF OPERATION	EFFICIENCY OF MONTHLY OPERATION	
744	742	99.7%	

PLANT EFFICIENCY

JUNE 2005

DATE	HOURS OF OPERATION	EFFICIENCY OF OPERATION	REASON FOR OUTAGE
1	24	100.0%	
2	24	100.0%	
3	24	100.0%	
4	24	100.0%	
5	24	100.0%	
6	24	100.0%	
7	24	100.0%	
8	24	100.0%	
9	24	100.0%	
10	24	100.0%	
11	24	100.0%	
12	24	100.0%	
13	24	100.0%	
14	24	100.0%	
15	24	100.0%	
16	24	100.0%	
17	24	100.0%	
18	24	100.0%	
19	24	100.0%	
20	24	100.0%	
21	24	100.0%	
22	24	100.0%	
23	24	100.0%	
24	24	100.0%	
25	24	100.0%	
26	24	100.0%	
27	24	100.0%	
28	24	100.0%	
29	24	100.0%	
30	24	100.0%	
TOTAL HOURS IN THE MONTH	TOTAL HOURS OF OPERATION	EFFICIENCY OF MONTHLY OPERATION	
720	720	100.0%	

PLANT EFFICIENCY

JULY 2005

DATE	HOURS OF OPERATION	EFFICIENCY OF OPERATION	REASON FOR OUTAGE
1	23.75	99.0%	Power Outage
2	24	100.0%	
3	24	100.0%	
4	24	100.0%	
5	24	100.0%	
6	24	100.0%	
7	24	100.0%	
8	24	100.0%	
9	24	100.0%	
10	24	100.0%	
11	24	100.0%	
12	24	100.0%	
13	24	100.0%	
14	24	100.0%	
15	24	100.0%	
16	24	100.0%	
17	24	100.0%	
18	24	100.0%	
19	24	100.0%	
20	24	100.0%	
21	24	100.0%	
22	24	100.0%	
23	24	100.0%	
24	24	100.0%	
25	24	100.0%	
26	24	100.0%	
27	24	100.0%	
28	24	100.0%	
29	24	100.0%	
30	24	100.0%	
31	24	100.0%	
TOTAL HOURS IN THE MONTH	TOTAL HOURS OF OPERATION	EFFICIENCY OF MONTHLY OPERATION	
744	743.75	100.0%	

PLANT EFFICIENCY

AUGUST 2005

DATE	HOURS OF OPERATION	EFFICIENCY OF OPERATION	REASON FOR OUTAGE
1	24	100.0%	
2	24	100.0%	
3	24	100.0%	
4	24	100.0%	
5	24	100.0%	
6	24	100.0%	
7	24	100.0%	
8	24	100.0%	
9	24	100.0%	
10	24	100.0%	
11	24	100.0%	
12	24	100.0%	
13	24	100.0%	
14	24	100.0%	
15	24	100.0%	
16	24	100.0%	
17	24	100.0%	
18	24	100.0%	
19	24	100.0%	
20	24	100.0%	
21	24	100.0%	
22	24	100.0%	
23	24	100.0%	
24	24	100.0%	
25	24	100.0%	
26	24	100.0%	
27	24	100.0%	
28	24	100.0%	
29	24	100.0%	
30	24	100.0%	
31	24	100.0%	
TOTAL HOURS IN THE MONTH	TOTAL HOURS OF OPERATION	EFFICIENCY OF MONTHLY OPERATION	
744	744	100.0%	

PLANT EFFICIENCY

SEPTEMBER 2005

DATE	HOURS OF OPERATION	EFFICIENCY OF OPERATION	REASON FOR OUTAGE
1	24	100.0%	
2	24	100.0%	
3	24	100.0%	
4	24	100.0%	
5	24	100.0%	
6	24	100.0%	
7	24	100.0%	
8	24	100.0%	
9	24	100.0%	
10	24	100.0%	
11	24	100.0%	
12	24	100.0%	
13	24	100.0%	
14	24	100.0%	
15	24	100.0%	
16	24	100.0%	
17	24	100.0%	
18	24	100.0%	
19	24	100.0%	
20	24	100.0%	
21	24	100.0%	
22	24	100.0%	
23	24	100.0%	
24	24	100.0%	
25	24	100.0%	
26	24	100.0%	
27	24	100.0%	
28	24	100.0%	
29	24	100.0%	
30	24	100.0%	
TOTAL HOURS IN THE MONTH	TOTAL HOURS OF OPERATION	EFFICIENCY OF MONTHLY OPERATION	
720	720	100.0%	

PLANT EFFICIENCY

OCTOBER 2005

DATE	HOURS OF OPERATION	EFFICIENCY OF OPERATION	REASON FOR OUTAGE
1	24	100.0%	
2	24	100.0%	
3	24	100.0%	
4	24	100.0%	
5	24	100.0%	
6	24	100.0%	
7	24	100.0%	
8	24	100.0%	
9	24	100.0%	
10	24	100.0%	
11	14.75	61.5%	Heavy Rainfall - High Basin Level
12	0	0.0%	Heavy Rainfall - High Basin Level
13	0	0.0%	Heavy Rainfall - High Basin Level
14	0	0.0%	Heavy Rainfall - High Basin Level
15	0	0.0%	High Basin Level
16	0	0.0%	High Basin Level
17	0	0.0%	High Basin Level
18	0	0.0%	High Basin Level
19	16.75	69.8%	High Basin Level
20	24	100.0%	
21	24	100.0%	
22	24	100.0%	
23	24	100.0%	
24	13.5	56.3%	High Basin Level
25	0	0.0%	High Basin Level
26	0	0.0%	High Basin Level
27	18.5	77.1%	High Basin Level
28	24	100.0%	
29	24	100.0%	
30	24	100.0%	
31	24	100.0%	
TOTAL HOURS IN THE MONTH	TOTAL HOURS OF OPERATION	EFFICIENCY OF MONTHLY OPERATION	
744	495.5	66.6%	

PLANT EFFICIENCY

NOVEMBER 2005

DATE	HOURS OF OPERATION	EFFICIENCY OF OPERATION	REASON FOR OUTAGE
1	24	100.0%	
2	24	100.0%	
3	24	100.0%	
4	24	100.0%	
5	24	100.0%	
6	24	100.0%	
7	24	100.0%	
8	24	100.0%	
9	24	100.0%	
10	24	100.0%	
11	24	100.0%	
12	24	100.0%	
13	24	100.0%	
14	24	100.0%	
15	24	100.0%	
16	24	100.0%	
17	24	100.0%	
18	24	100.0%	
19	24	100.0%	
20	24	100.0%	
21	24	100.0%	
22	24	100.0%	
23	24	100.0%	
24	24	100.0%	
25	24	100.0%	
26	24	100.0%	
27	24	100.0%	
28	24	100.0%	
29	24	100.0%	
30	24	100.0%	
TOTAL HOURS IN THE MONTH	TOTAL HOURS OF OPERATION	EFFICIENCY OF MONTHLY OPERATION	
720	720	100.0%	

PLANT EFFICIENCY

DECEMBER 2005

DATE	HOURS OF OPERATION	EFFICIENCY OF OPERATION	REASON FOR OUTAGE
1	24	100.0%	
2	24	100.0%	
3	24	100.0%	
4	24	100.0%	
5	24	100.0%	
6	24	100.0%	
7	24	100.0%	
8	24	100.0%	
9	9	37.5%	Heavy Rainfall - High Basin Level
10	0	0.0%	High Basin Level
11	18	75.0%	High Basin Level
12	24	100.0%	
13	24	100.0%	
14	24	100.0%	
15	24	100.0%	
16	7	29.2%	Heavy Rainfall - High Basin Level
17	0	0.0%	High Basin Level
18	0	0.0%	High Basin Level
19	17	70.8%	High Basin Level
20	24	100.0%	
21	24	100.0%	
22	24	100.0%	
23	24	100.0%	
24	24	100.0%	
25	6	25.0%	Planned Shutdown
26	0	0.0%	Planned Shutdown
27	0	0.0%	Planned Shutdown
28	0	0.0%	Planned Shutdown
29	0	0.0%	Planned Shutdown
30	0	0.0%	Planned Shutdown
31	0	0.0%	Planned Shutdown

TOTAL HOURS IN THE MONTH	TOTAL HOURS OF OPERATION	EFFICIENCY OF MONTHLY OPERATION
744	465	62.5%

YEARLY TOTALS

TOTAL HOURS IN THE YEAR	8760
TOTAL HOURS OF OPERATION	7977.25
EFFICIENCY OF OPERATION FOR 2005	91%

APPENDIX B
MONTHLY INFLUENT MONITORING REPORTS
2005

**NASSAU COUNTY FIREMAN'S TRAINING CENTER
GROUNDWATER REMEDIATION FACILITY
MONTHLY INFLUENT MONITORING REPORT**

JANUARY 2005

INFLUENT PARAMETER	UNITS	OFFSITE 1A 01/04/05	OFFSITE 1A 01/11/05	OFFSITE 1A 01/18/05	OFFSITE 1A 01/25/05
FLOW, DAILY AVG	GPD	306450	416800	417971	250943
FLOW, DAILY MAX	GPD	422400	422400	423500	413200
VINYL CHLORIDE	μ g/l	2.1	1.0	BDL	BDL
1,1-DICHLOROETHANE	μ g/l	2.9	1.6	1.2	2.3
1,2(TRANS)-DICHLOROETHYLENE	μ g/l	0.8	BDL	BDL	BDL
1,2(CIS)-DICHLOROETHYLENE	μ g/l	17.4	26.1	20.4	32.4
1,1,1-TRICHLOROETHANE	μ g/l	1.4	2.0	1.9	2.5
TRICHLOROETHYLENE	μ g/l	5.5	5.0	5.7	4.2
BENZENE	μ g/l	1.9	9.9	6.4	12.0
TETRACHLOROETHYLENE	μ g/l	BDL	36.9	37.6	26.3
TOLUENE	μ g/l	BDL	BDL	BDL	BDL
m,p-XYLENE	μ g/l	BDL	BDL	BDL	BDL
o-XYLENE	μ g/l	BDL	BDL	BDL	BDL
1,1-DICHLOROETHENE	μ g/l	0.8	1.1	1.0	BDL
METHYL ETHYL KEYTONE	μ g/l	BDL	BDL	BDL	BDL
ACETONE	μ g/l	BDL	BDL	BDL	BDL
CHLOROFORM	μ g/l	BDL	BDL	BDL	BDL
DICHLOROBROMOMETHANE	μ g/l	BDL	BDL	BDL	BDL
DIBROMOCHLOROMETHANE	μ g/l	BDL	BDL	BDL	BDL
NAPHTHALENE	μ g/l	BDL	BDL	BDL	BDL
TOTAL VOCs	μ g/l	32.8	83.6	74.2	79.7
PHENANTHRENE	μ g/l	BDL	BDL	BDL	BDL
FLUORENE	μ g/l	BDL	BDL	BDL	BDL
PYRENE	μ g/l	BDL	BDL	BDL	BDL
BIS(2-ETHLHEXYL)PHTHALATE	μ g/l	BDL	BDL	BDL	BDL
DI-N-OCTYL PHTHALATE	μ g/l	BDL	BDL	BDL	BDL
DIMETHYL PHTHALATE	μ g/l	BDL	BDL	BDL	BDL
DIETHYL PHTHALATE	μ g/l	BDL	BDL	BDL	BDL
IRON, TOTAL	μ g/l	218.000	233.000	219.000	219.000
MANGANESE, TOTAL	μ g/l	20.000	85.000	83.000	83.000
SUM IRON & MANGANESE	μ g/l	238.000	318.000	302.000	302.000
NICKEL, TOTAL	μ g/l	3.000	4.000	4.000	1.000
ARSENIC, TOTAL	μ g/l	BDL	BDL	BDL	BDL
ALUMINUM, TOTAL	μ g/l	BDL	BDL	BDL	BDL
CHROMIUM, TOTAL	μ g/l	BDL	BDL	BDL	BDL

**NASSAU COUNTY FIREMAN'S TRAINING CENTER
GROUNDWATER REMEDIATION FACILITY
MONTHLY INFLUENT MONITORING REPORT**

FEBRUARY 2005

INFLUENT PARAMETER	UNITS	OFFSITE 1A 02/01/05	OFFSITE 1A 02/08/05	OFFSITE 1A 02/15/05	OFFSITE 1A 02/23/05
FLOW, DAILY AVG	GPD	371843	417943	413457	412000
FLOW, DAILY MAX	GPD	410100	423900	415000	417300
VINYL CHLORIDE	μ g/l	BDL	1.9	1.8	1.4
1,1-DICHLOROETHANE	μ g/l	1.2	2.8	3.0	2.1
1,2(TRANS)-DICHLOROETHYLENE	μ g/l	BDL	BDL	BDL	BDL
1,2(CIS)-DICHLOROETHYLENE	μ g/l	20.8	19.5	21.3	16.2
1,1,1-TRICHLOROETHANE	μ g/l	1.5	1.5	1.7	1.4
TRICHLOROETHYLENE	μ g/l	4.4	4.5	4.0	4.8
BENZENE	μ g/l	6.1	1.8	2.1	1.5
TETRACHLOROETHYLENE	μ g/l	31.5	21.4	15.7	17.9
TOLUENE	μ g/l	BDL	BDL	BDL	BDL
m,p-XYLENE	μ g/l	BDL	BDL	BDL	BDL
o-XYLENE	μ g/l	BDL	BDL	BDL	BDL
1,1-DICHLOROETHENE	μ g/l	1.1	1.0	0.9	BDL
METHYL ETHYL KEYTONE	μ g/l	BDL	BDL	BDL	BDL
ACETONE	μ g/l	BDL	BDL	BDL	BDL
CHLOROFORM	μ g/l	BDL	BDL	BDL	BDL
DICHLOROBROMOMETHANE	μ g/l	BDL	BDL	BDL	BDL
DIBROMOCHLOROMETHANE	μ g/l	BDL	BDL	BDL	BDL
NAPHTHALENE	μ g/l	BDL	BDL	BDL	BDL
TOTAL VOCs	μ g/l	66.6	54.4	50.5	45.3
PHENANTHRENE	μ g/l	BDL	BDL	BDL	BDL
FLUORENE	μ g/l	BDL	BDL	BDL	BDL
PYRENE	μ g/l	BDL	BDL	BDL	BDL
BIS(2-ETHLHEXYL)PHTHALATE	μ g/l	BDL	BDL	BDL	BDL
DI-N-OCTYL PHTHALATE	μ g/l	BDL	BDL	BDL	BDL
DIMETHYL PHTHALATE	μ g/l	BDL	BDL	BDL	BDL
DIETHYL PHTHALATE	μ g/l	BDL	BDL	BDL	BDL
IRON, TOTAL	μ g/l	265.000	230.000	211.000	253.000
MANGANESE, TOTAL	μ g/l	82.000	20.000	19.000	18.000
SUM IRON & MANGANESE	μ g/l	347.000	250.000	230.000	271.000
NICKEL, TOTAL	μ g/l	4.000	3.000	3.000	3.000
ARSENIC, TOTAL	μ g/l	BDL	BDL	BDL	BDL
ALUMINUM, TOTAL	μ g/l	46.000	BDL	BDL	BDL
CHROMIUM, TOTAL	μ g/l	BDL	BDL	BDL	BDL

**NASSAU COUNTY FIREMAN'S TRAINING CENTER
GROUNDWATER REMEDIATION FACILITY
MONTHLY INFLUENT MONITORING REPORT**

MARCH 2005

INFLUENT PARAMETER	UNITS	OFFSITE 1A 03/01/05	OFFSITE 1A 03/08/05	OFFSITE 1A 03/15/05	OFFSITE 1A 03/22/05	OFFSITE 1A 03/29/05
FLOW, DAILY AVG	GPD	411350	408057	404629	403586	396100
FLOW, DAILY MAX	GPD	416200	409400	424200	431600	403400
VINYL CHLORIDE	μ g/l	2.4	1.8	1.7	1.7	1.8
1,1-DICHLOROETHANE	μ g/l	4.4	3.1	BDL	2.6	2.7
1,2(TRANS)-DICHLOROETHYLENE	μ g/l	BDL	BDL	BDL	BDL	BDL
1,2(CIS)-DICHLOROETHYLENE	μ g/l	30.2	23.7	19.7	19.0	20.4
1,1,1-TRICHLOROETHANE	μ g/l	2.8	1.9	1.6	1.7	1.8
TRICHLOROETHYLENE	μ g/l	5.5	4.1	5.2	6.3	6.2
BENZENE	μ g/l	2.9	2.1	1.7	1.4	1.6
TETRACHLOROETHYLENE	μ g/l	21.8	13.5	20.0	20.6	23.4
TOLUENE	μ g/l	BDL	BDL	BDL	BDL	BDL
m,p-XYLENE	μ g/l	BDL	BDL	BDL	BDL	BDL
o-XYLENE	μ g/l	BDL	BDL	BDL	BDL	BDL
1,1-DICHLOROETHENE	μ g/l	1.4	1.0	BDL	1.0	1.1
METHYL ETHYL KEYTONE	μ g/l	BDL	BDL	BDL	BDL	BDL
ACETONE	μ g/l	BDL	BDL	BDL	BDL	BDL
CHLOROFORM	μ g/l	BDL	BDL	BDL	BDL	BDL
DICHLOROBROMOMETHANE	μ g/l	BDL	BDL	BDL	BDL	BDL
DIBROMOCHLOROMETHANE	μ g/l	BDL	BDL	BDL	BDL	BDL
NAPHTHALENE	μ g/l	BDL	BDL	BDL	BDL	BDL
TOTAL VOCs	μ g/l	71.4	51.2	49.9	54.3	59.0
PHENANTHRENE	μ g/l	BDL	BDL	BDL	BDL	BDL
FLUORENE	μ g/l	BDL	BDL	BDL	BDL	BDL
PYRENE	μ g/l	BDL	BDL	BDL	BDL	BDL
BIS(2-ETHLHEXYL)PHTHALATE	μ g/l	BDL	BDL	BDL	BDL	BDL
DI-N-OCTYL PHTHALATE	μ g/l	BDL	BDL	BDL	BDL	BDL
DIMETHYL PHTHALATE	μ g/l	BDL	BDL	BDL	BDL	BDL
DIETHYL PHTHALATE	μ g/l	BDL	BDL	BDL	BDL	BDL
IRON, TOTAL	μ g/l	204.000	166.000			
MANGANESE, TOTAL	μ g/l	18.000	17.000			
SUM IRON & MANGANESE	μ g/l	222.000	183.000	0.000	0.000	0.000
NICKEL, TOTAL	μ g/l	2.000	3.000			
ARSENIC, TOTAL	μ g/l	BDL	BDL			
ALUMINUM, TOTAL	μ g/l	BDL	8.000			
CHROMIUM, TOTAL	μ g/l	BDL	BDL			

**NASSAU COUNTY FIREMAN'S TRAINING CENTER
GROUNDWATER REMEDIATION FACILITY
MONTHLY INFLUENT MONITORING REPORT**

APRIL 2005

INFLUENT PARAMETER	UNITS	OFFSITE 1A 04/06/05	OFFSITE 1A 04/12/05	OFFSITE 1A 04/19/05	OFFSITE 1A 04/26/05
FLOW, DAILY AVG	GPD	371800	411700	408000	406400
FLOW, DAILY MAX	GPD	411600	411800	411700	408000
VINYL CHLORIDE	μ g/l	2.0	1.9	1.9	1.7
1,1-DICHLOROETHANE	μ g/l	2.9	2.8	3.2	3.0
1,2(TRANS)-DICHLOROETHYLENE	μ g/l	BDL	BDL	BDL	BDL
1,2(CIS)-DICHLOROETHYLENE	μ g/l	23.1	21.0	24.5	26.3
1,1,1-TRICHLOROETHANE	μ g/l	1.8	1.8	1.5	2.0
TRICHLOROETHYLENE	μ g/l	5.6	5.0	5.4	5.3
BENZENE	μ g/l	2.8	1.7	2.9	2.6
TETRACHLOROETHYLENE	μ g/l	19.7	BDL	18.0	19.0
TOLUENE	μ g/l	BDL	16.9	BDL	BDL
m,p-XYLENE	μ g/l	BDL	BDL	BDL	BDL
o-XYLENE	μ g/l	BDL	BDL	BDL	BDL
1,1-DICHLOROETHENE	μ g/l	1.1	1.1	1.1	1.0
METHYL ETHYL KEYTONE	μ g/l	BDL	BDL	BDL	BDL
ACETONE	μ g/l	BDL	BDL	BDL	BDL
CHLOROFORM	μ g/l	BDL	BDL	BDL	BDL
DICHLOROBROMOMETHANE	μ g/l	BDL	BDL	BDL	BDL
DIBROMOCHLOROMETHANE	μ g/l	BDL	BDL	BDL	BDL
NAPHTHALENE	μ g/l	BDL	BDL	BDL	BDL
TOTAL VOCs	μ g/l	59.0	52.2	58.5	60.9
PHENANTHRENE	μ g/l	BDL	BDL	BDL	BDL
FLUORENE	μ g/l	BDL	BDL	BDL	BDL
PYRENE	μ g/l	BDL	BDL	BDL	BDL
BIS(2-ETHLHEXYL)PHTHALATE	μ g/l	BDL	BDL	BDL	BDL
DI-N-OCTYL PHTHALATE	μ g/l	BDL	BDL	BDL	BDL
DIMETHYL PHTHALATE	μ g/l	BDL	BDL	BDL	BDL
DIETHYL PHTHALATE	μ g/l	BDL	BDL	BDL	BDL
IRON, TOTAL	μ g/l	169.0	179.0	147.0	196.0
MANGANESE, TOTAL	μ g/l	17.0	17.0	16.0	18.0
SUM IRON & MANGANESE	μ g/l	186.0	196.0	163.0	214.0
NICKEL, TOTAL	μ g/l	BDL	2.0	4.0	3.0
ARSENIC, TOTAL	μ g/l	BDL	BDL	BDL	BDL
ALUMINUM, TOTAL	μ g/l	BDL	BDL	BDL	BDL
CHROMIUM, TOTAL	μ g/l	BDL	BDL	BDL	BDL

**NASSAU COUNTY FIREMAN'S TRAINING CENTER
GROUNDWATER REMEDIATION FACILITY
MONTHLY INFLUENT MONITORING REPORT**

MAY 2005

INFLUENT PARAMETER	UNITS	OFFSITE 1A 05/03/05	OFFSITE 1A 05/10/05	OFFSITE 1A 05/17/05	OFFSITE 1A 05/24/05	OFFSITE 1A 05/31/05
FLOW, DAILY AVG	GPD	406143	400986	407857	405400	404014
FLOW, DAILY MAX	GPD	407300	416900	411600	407100	407100
VINYL CHLORIDE	µ g/l	2.5	1.6	1.9	1.9	1.6
1,1-DICHLOROETHANE	µ g/l	3.5	2.7	3.6	1.7	3.1
1,2(TRANS)-DICHLOROETHYLENE	µ g/l	BDL	BDL	BDL	BDL	BDL
1,2(CIS)-DICHLOROETHYLENE	µ g/l	29.4	20.3	23.8	26.5	20.9
1,1,1-TRICHLOROETHANE	µ g/l	2.4	0.7	0.8	0.8	BDL
TRICHLOROETHYLENE	µ g/l	6.6	4.1	5.3	4.7	6.9
BENZENE	µ g/l	2.5	1.7	1.8	1.6	2.6
TETRACHLOROETHYLENE	µ g/l	22.4	14.8	20.0	16.6	16.9
TOLUENE	µ g/l	BDL	BDL	BDL	BDL	BDL
m,p-XYLENE	µ g/l	BDL	BDL	BDL	BDL	BDL
o-XYLENE	µ g/l	BDL	BDL	BDL	BDL	BDL
1,1-DICHLOROETHENE	µ g/l	1.4	0.9	1.2	1.1	BDL
METHYL ETHYL KEYTONE	µ g/l	BDL	BDL	BDL	BDL	BDL
ACETONE	µ g/l	BDL	BDL	BDL	BDL	BDL
CHLOROFORM	µ g/l	BDL	BDL	BDL	BDL	BDL
DICHLOROBROMOMETHANE	µ g/l	BDL	BDL	BDL	BDL	BDL
DIBROMOCHLOROMETHANE	µ g/l	BDL	BDL	BDL	BDL	BDL
NAPHTHALENE	µ g/l	BDL	BDL	BDL	BDL	BDL
TOTAL VOCs	µ g/l	70.7	46.8	58.4	54.9	52.0
PHENANTHRENE	µ g/l	BDL	BDL	BDL	BDL	BDL
FLUORENE	µ g/l	BDL	BDL	BDL	BDL	BDL
PYRENE	µ g/l	BDL	BDL	BDL	BDL	BDL
BIS(2-ETHLHEXYL)PHTHALATE	µ g/l	BDL	BDL	BDL	BDL	BDL
DI-N-OCTYL PHTHALATE	µ g/l	BDL	BDL	BDL	BDL	BDL
DIMETHYL PHTHALATE	µ g/l	BDL	BDL	BDL	BDL	BDL
DIETHYL PHTHALATE	µ g/l	BDL	BDL	BDL	BDL	BDL
IRON, TOTAL	µ g/l	177.0	223.0	189.0	155.0	161.0
MANGANESE, TOTAL	µ g/l	18.0	16.0	16.0	16.0	16.0
SUM IRON & MANGANESE	µ g/l	195.0	239.0	205.0	171.0	177.0
NICKEL, TOTAL	µ g/l	3.0	BDL	2.0	2.0	3.0
ARSENIC, TOTAL	µ g/l	BDL	BDL	BDL	BDL	BDL
ALUMINUM, TOTAL	µ g/l	BDL	BDL	BDL	BDL	BDL
CHROMIUM, TOTAL	µ g/l	BDL	BDL	BDL	BDL	BDL

**NASSAU COUNTY FIREMAN'S TRAINING CENTER
GROUNDWATER REMEDIATION FACILITY
MONTHLY INFLUENT MONITORING REPORT**

JUNE 2005

INFLUENT PARAMETER	UNITS	OFFSITE 1A 06/08/05	OFFSITE 1A 06/14/05	OFFSITE 1A 06/21/05	OFFSITE 1A 06/28/05
FLOW, DAILY AVG	GPD	400863	398117	395886	394300
FLOW, DAILY MAX	GPD	406900	406500	423800	399200
VINYL CHLORIDE	μ g/l	2.5	1.8	BDL	1.9
1,1-DICHLOROETHANE	μ g/l	4.2	2.7	BDL	4.1
1,2(TRANS)-DICHLOROETHYLENE	μ g/l	BDL	BDL	BDL	BDL
1,2(CIS)-DICHLOROETHYLENE	μ g/l	30.8	20.1	3.0	28.6
1,1,1-TRICHLOROETHANE	μ g/l	1.2	1.8	BDL	1.5
TRICHLOROETHYLENE	μ g/l	6.4	4.8	0.8	6.2
BENZENE	μ g/l	2.3	1.9	BDL	2.3
TETRACHLOROETHYLENE	μ g/l	19.9	14.6	1.9	BDL
TOLUENE	μ g/l	BDL	BDL	BDL	BDL
m,p-XYLENE	μ g/l	BDL	BDL	BDL	BDL
o-XYLENE	μ g/l	BDL	BDL	BDL	BDL
1,1-DICHLOROETHENE	μ g/l	1.6	1.0	BDL	1.4
METHYL ETHYL KEYTONE	μ g/l	BDL	BDL	BDL	BDL
ACETONE	μ g/l	BDL	BDL	BDL	BDL
CHLOROFORM	μ g/l	BDL	BDL	BDL	BDL
DICHLOROBROMOMETHANE	μ g/l	BDL	BDL	BDL	BDL
DIBROMOCHLOROMETHANE	μ g/l	BDL	BDL	BDL	BDL
NAPHTHALENE	μ g/l	BDL	BDL	BDL	BDL
TOTAL VOCs	μ g/l	68.9	48.7	5.7	46.0
PHENANTHRENE	μ g/l	BDL	BDL	BDL	BDL
FLUORENE	μ g/l	BDL	BDL	BDL	BDL
PYRENE	μ g/l	BDL	BDL	BDL	BDL
BIS(2-ETHLHEXYL)PHTHALATE	μ g/l	BDL	BDL	BDL	BDL
DI-N-OCTYL PHTHALATE	μ g/l	BDL	BDL	BDL	BDL
DIMETHYL PHTHALATE	μ g/l	BDL	BDL	BDL	BDL
DIETHYL PHTHALATE	μ g/l	BDL	BDL	BDL	BDL
IRON, TOTAL	μ g/l	173.0	215.0	157.0	132.0
MANGANESE, TOTAL	μ g/l	17.0	16.0	17.0	14.0
SUM IRON & MANGANESE	μ g/l	190.0	231.0	174.0	146.0
NICKEL, TOTAL	μ g/l	3.0	3.0	2.0	1.0
ARSENIC, TOTAL	μ g/l	BDL	4.0	BDL	BDL
ALUMINUM, TOTAL	μ g/l	BDL	BDL	2.0	5.0
CHROMIUM, TOTAL	μ g/l	BDL	BDL	BDL	BDL

**NASSAU COUNTY FIREMAN'S TRAINING CENTER
GROUNDWATER REMEDIATION FACILITY
MONTHLY INFLUENT MONITORING REPORT**

JULY 2005

INFLUENT PARAMETER	UNITS	OFFSITE 1A 07/05/05	OFFSITE 1A 07/12/05	OFFSITE 1A 07/19/05	OFFSITE 1A 07/26/05
FLOW, DAILY AVG	GPD	393000	385957	383729	382400
FLOW, DAILY MAX	GPD	399300	388900	389800	385900
VINYL CHLORIDE	μ g/l	1.6	2.0	2.5	1.9
1,1-DICHLOROETHANE	μ g/l	3.0	3.3	1.2	1.2
1,2(TRANS)-DICHLOROETHYLENE	μ g/l	BDL	0.5	BDL	BDL
1,2(CIS)-DICHLOROETHYLENE	μ g/l	23.1	24.5	32.1	29.1
1,1,1-TRICHLOROETHANE	μ g/l	2.0	2.0	2.5	0.7
TRICHLOROETHYLENE	μ g/l	4.6	5.9	6.1	5.0
BENZENE	μ g/l	1.6	2.4	2.7	2.5
TETRACHLOROETHYLENE	μ g/l	17.0	19.5	19.9	13.7
TOLUENE	μ g/l	BDL	BDL	BDL	BDL
m,p-XYLENE	μ g/l	BDL	BDL	BDL	BDL
o-XYLENE	μ g/l	BDL	BDL	BDL	BDL
1,1-DICHLOROETHENE	μ g/l	1.1	1.2	1.3	1.1
METHYL ETHYL KEYTONE	μ g/l	BDL	BDL	BDL	BDL
ACETONE	μ g/l	BDL	BDL	BDL	BDL
CHLOROFORM	μ g/l	BDL	BDL	BDL	BDL
DICHLOROBROMOMETHANE	μ g/l	BDL	BDL	BDL	BDL
DIBROMOCHLOROMETHANE	μ g/l	BDL	BDL	BDL	BDL
NAPHTHALENE	μ g/l	BDL	BDL	BDL	BDL
TOTAL VOCs	μ g/l	54.0	61.3	68.3	55.2
PHENANTHRENE	μ g/l	BDL	BDL	BDL	BDL
FLUORENE	μ g/l	BDL	BDL	BDL	BDL
PYRENE	μ g/l	BDL	BDL	BDL	BDL
BIS(2-ETHLHEXYL)PHTHALATE	μ g/l	BDL	BDL	BDL	2.9
DI-N-OCTYL PHTHALATE	μ g/l	BDL	BDL	BDL	BDL
DIMETHYL PHTHALATE	μ g/l	BDL	BDL	BDL	BDL
DIETHYL PHTHALATE	μ g/l	BDL	BDL	BDL	BDL
IRON, TOTAL	μ g/l	169.0	147.0	214.0	142.0
MANGANESE, TOTAL	μ g/l	16.0	17.0	17.0	16.0
SUM IRON & MANGANESE	μ g/l	185.0	164.0	231.0	158.0
NICKEL, TOTAL	μ g/l	2.0	3.0	3.0	3.0
ARSENIC, TOTAL	μ g/l	BDL	BDL	BDL	BDL
ALUMINUM, TOTAL	μ g/l	BDL	BDL	7.0	BDL
CHROMIUM, TOTAL	μ g/l	BDL	BDL	BDL	BDL

**NASSAU COUNTY FIREMAN'S TRAINING CENTER
GROUNDWATER REMEDIATION FACILITY
MONTHLY INFLUENT MONITORING REPORT**

AUGUST 2005

INFLUENT PARAMETER	UNITS	OFFSITE 1A 08/02/05	OFFSITE 1A 08/09/05	OFFSITE 1A 08/16/05	OFFSITE 1A 08/23/05	OFFSITE 1A 08/30/05
FLOW, DAILY AVG	GPD	381814	379157	249771	411400	420686
FLOW, DAILY MAX	GPD	385600	381100	382900	454071	446900
VINYL CHLORIDE	µ g/l	2.8	2.1	3.3	5.0	5.2
1,1-DICHLOROETHANE	µ g/l	4.7	3.1	3.8	3.9	3.6
1,2(TRANS)-DICHLOROETHYLENE	µ g/l	BDL	BDL	BDL	BDL	BDL
1,2(CIS)-DICHLOROETHYLENE	µ g/l	36.8	26.7	27.4	28.7	28.3
1,1,1-TRICHLOROETHANE	µ g/l	2.7	2.1	BDL	BDL	BDL
TRICHLOROETHYLENE	µ g/l	6.9	4.8	5.6	5.0	2.7
BENZENE	µ g/l	3.3	2.0	18.6	11.7	9.8
TETRACHLOROETHYLENE	µ g/l	16.4	14.0	10.4	9.9	10.8
TOLUENE	µ g/l	BDL	BDL	BDL	BDL	BDL
m,p-XYLENE	µ g/l	BDL	BDL	BDL	BDL	BDL
o-XYLENE	µ g/l	BDL	BDL	BDL	BDL	BDL
1,1-DICHLOROETHENE	µ g/l	1.7	1.7	BDL	BDL	BDL
METHYL ETHYL KEYTONE	µ g/l	BDL	BDL	BDL	BDL	BDL
ACETONE	µ g/l	BDL	BDL	BDL	BDL	BDL
CHLOROFORM	µ g/l	BDL	BDL	BDL	BDL	BDL
DICHLOROBROMOMETHANE	µ g/l	BDL	BDL	BDL	BDL	BDL
DIBROMOCHLOROMETHANE	µ g/l	BDL	BDL	BDL	BDL	BDL
NAPHTHALENE	µ g/l	BDL	BDL	BDL	BDL	BDL
TOTAL VOCs	µ g/l	75.3	56.5	69.1	64.2	60.4
PHENANTHRENE	µ g/l	BDL	BDL	BDL	BDL	BDL
FLUORENE	µ g/l	BDL	BDL	BDL	BDL	BDL
PYRENE	µ g/l	BDL	BDL	BDL	BDL	BDL
BIS(2-ETHLHEXYL)PHTHALATE	µ g/l	BDL	BDL	BDL	BDL	BDL
DI-N-OCTYL PHTHALATE	µ g/l	BDL	BDL	BDL	BDL	BDL
DIMETHYL PHTHALATE	µ g/l	BDL	BDL	BDL	BDL	BDL
DIETHYL PHTHALATE	µ g/l	BDL	BDL	BDL	BDL	BDL
IRON, TOTAL	µ g/l	131.0	170.0	539.0	326.0	279.0
MANGANESE, TOTAL	µ g/l	16.0	17.0	53.0	43.0	44.0
SUM IRON & MANGANESE	µ g/l	147.0	187.0	592.0	369.0	323.0
NICKEL, TOTAL	µ g/l	1.0	2.0	5.0	2.0	2.0
ARSENIC, TOTAL	µ g/l	BDL	BDL	BDL	BDL	BDL
ALUMINUM, TOTAL	µ g/l	BDL	BDL	BDL	BDL	BDL
CHROMIUM, TOTAL	µ g/l	BDL	BDL	BDL	BDL	BDL

**NASSAU COUNTY FIREMAN'S TRAINING CENTER
GROUNDWATER REMEDIATION FACILITY
MONTHLY INFLUENT MONITORING REPORT**

SEPTEMBER 2005

INFLUENT PARAMETER	UNITS	OFFSITE 1A 9/6/2005	OFFSITE 1A 9/13/2005	OFFSITE 1A 9/20/2005	OFFSITE 1A 9/27/2005
FLOW, DAILY AVG	GPD	381814	379157	249771	412343
FLOW, DAILY MAX	GPD	385600	381100	382900	454071
VINYL CHLORIDE	μ g/l	5.0	5.2	6.5	3.5
1,1-DICHLOROETHANE	μ g/l	4.6	3.8	6.8	3.7
1,2(TRANS)-DICHLOROETHYLENE	μ g/l	BDL	BDL	BDL	BDL
1,2(CIS)-DICHLOROETHYLENE	μ g/l	31.9	28.7	48.1	24.6
1,1,1-TRICHLOROETHANE	μ g/l	BDL	BDL	2.4	1.0
TRICHLOROETHYLENE	μ g/l	6.3	5.4	8.6	5.2
BENZENE	μ g/l	12.4	8.9	14.6	7.9
TETRACHLOROETHYLENE	μ g/l	15.5	5.4	11.1	10.5
TOLUENE	μ g/l	BDL	BDL	BDL	BDL
m,p-XYLENE	μ g/l	BDL	BDL	BDL	BDL
o-XYLENE	μ g/l	BDL	BDL	BDL	BDL
1,1-DICHLOROETHENE	μ g/l	0.9	0.9	1.4	0.8
METHYL ETHYL KEYTONE	μ g/l	BDL	BDL	BDL	BDL
ACETONE	μ g/l	BDL	BDL	BDL	BDL
CHLOROFORM	μ g/l	BDL	BDL	BDL	BDL
DICHLOROBROMOMETHANE	μ g/l	BDL	BDL	BDL	BDL
DIBROMOCHLOROMETHANE	μ g/l	BDL	BDL	BDL	BDL
NAPHTHALENE	μ g/l	BDL	BDL	BDL	BDL
TOTAL VOCs	μ g/l	76.6	58.3	99.5	57.2
PHENANTHRENE	μ g/l	BDL	BDL	BDL	BDL
FLUORENE	μ g/l	BDL	BDL	BDL	BDL
PYRENE	μ g/l	BDL	BDL	BDL	BDL
BIS(2-ETHLHEXYL)PHTHALATE	μ g/l	BDL	BDL	BDL	BDL
DI-N-OCTYL PHTHALATE	μ g/l	BDL	BDL	BDL	BDL
DIMETHYL PHTHALATE	μ g/l	BDL	BDL	BDL	BDL
DIETHYL PHTHALATE	μ g/l	BDL	BDL	BDL	BDL
IRON, TOTAL	μ g/l	307.0	298.0	282.0	319.0
MANGANESE, TOTAL	μ g/l	44.0	42.0	45.0	45.0
SUM IRON & MANGANESE	μ g/l	351.0	340.0	327.0	364.0
NICKEL, TOTAL	μ g/l	3.0	4.0	3.0	3.0
ARSENIC, TOTAL	μ g/l	BDL	BDL	BDL	BDL
ALUMINUM, TOTAL	μ g/l	6.0	9.0	12.0	11.0
CHROMIUM, TOTAL	μ g/l	1.0	BDL	BDL	2.0

**NASSAU COUNTY FIREMAN'S TRAINING CENTER
GROUNDWATER REMEDIATION FACILITY
MONTHLY INFLUENT MONITORING REPORT**

OCTOBER 2005

INFLUENT PARAMETER	UNITS	OFFSITE 1A 10/03/05	OFFSITE 1A 10/10/05	OFFSITE 1A 10/20/05	OFFSITE 1A 10/24/05	
FLOW, DAILY AVG	GPD	412657	413257	310867	399250	
FLOW, DAILY MAX	GPD	418100	416400	408500	400767	
VINYL CHLORIDE	µ g/l	4.1	5.5	4.8	<i>Date ?</i>	
1,1-DICHLOROETHANE	µ g/l	3.1	4.7	3.6		
1,2(TRANS)-DICHLOROETHYLENE	µ g/l	BDL	BDL	BDL		
1,2(CIS)-DICHLOROETHYLENE	µ g/l	22.9	35.5	28.5		
1,1,1-TRICHLOROETHANE	µ g/l	1.3	BDL	1.3		
TRICHLOROETHYLENE	µ g/l	4.3	6.4	4.2		
BENZENE	µ g/l	31.5	10.7	13.2		
TETRACHLOROETHYLENE	µ g/l	11.8	12.2	8.5		
TOLUENE	µ g/l	BDL	BDL	BDL		
m,p-XYLENE	µ g/l	BDL	BDL	BDL		
o-XYLENE	µ g/l	BDL	BDL	BDL		
1,1-DICHLOROETHENE	µ g/l	BDL	1.0	BDL		
METHYL ETHYL KEYTONE	µ g/l	BDL	BDL	BDL		
ACETONE	µ g/l	BDL	BDL	BDL		
CHLOROFORM	µ g/l	BDL	BDL	BDL		
DICHLOROBROMOMETHANE	µ g/l	BDL	BDL	BDL		
DIBROMOCHLOROMETHANE	µ g/l	BDL	BDL	BDL		
NAPHTHALENE	µ g/l	BDL	BDL	BDL		
TOTAL VOCs	µ g/l	79.0	76.0	64.1		0.0
PHENANTHRENE	µ g/l	BDL	BDL	BDL		BDL
FLUORENE	µ g/l	BDL	BDL	BDL	BDL	
PYRENE	µ g/l	BDL	BDL	BDL	BDL	
BIS(2-ETHLHEXYL)PHTHALATE	µ g/l	BDL	BDL	BDL	BDL	
DI-N-OCTYL PHTHALATE	µ g/l	BDL	BDL	BDL	BDL	
DIMETHYL PHTHALATE	µ g/l	BDL	BDL	BDL	BDL	
DIETHYL PHTHALATE	µ g/l	BDL	BDL	BDL	BDL	
IRON, TOTAL	µ g/l	275.0	270.0	378.0		
MANGANESE, TOTAL	µ g/l	42.0	47.0	45.0		
SUM IRON & MANGANESE	µ g/l	317.0	317.0	423.0		
NICKEL, TOTAL	µ g/l	4.0	4.0	4.0		
ARSENIC, TOTAL	µ g/l	BDL	BDL	BDL		
ALUMINUM, TOTAL	µ g/l	19.0	BDL	BDL		
CHROMIUM, TOTAL	µ g/l	BDL	BDL	BDL		

**NASSAU COUNTY FIREMAN'S TRAINING CENTER
GROUNDWATER REMEDIATION FACILITY
MONTHLY INFLUENT MONITORING REPORT**

NOVEMBER 2005

INFLUENT PARAMETER	UNITS	OFFSITE 1A 11/01/05	OFFSITE 1A 11/09/05	OFFSITE 1A 11/15/05	OFFSITE 1A 11/22/05	OFFSITE 1A 11/29/05
FLOW, DAILY AVG	GPD	281783	373725	372650	336543	344400
FLOW, DAILY MAX	GPD	396300	376700	381800	343000	387771
VINYL CHLORIDE	μ g/l	5.3	2.3	2.9	4.3	3.3
1,1-DICHLOROETHANE	μ g/l	4.9	3.7	5.1	8.9	5.5
1,2(TRANS)-DICHLOROETHYLENE	μ g/l	BDL	1.4	1.0	1.0	2.3
1,2(CIS)-DICHLOROETHYLENE	μ g/l	37.5	39.6	55.2	99.3	61.6
1,1,1-TRICHLOROETHANE	μ g/l	BDL	1.3	3.7	4.2	3.7
TRICHLOROETHYLENE	μ g/l	7.0	6.1	9.5	16.4	8.5
BENZENE	μ g/l	12.7	2.8	5.1	10.0	5.3
TETRACHLOROETHYLENE	μ g/l	11.9	18.3	24.6	45.2	27.5
TOLUENE	μ g/l	BDL	BDL	BDL	BDL	BDL
m,p-XYLENE	μ g/l	BDL	BDL	BDL	BDL	BDL
o-XYLENE	μ g/l	BDL	BDL	BDL	BDL	BDL
1,1-DICHLOROETHENE	μ g/l	1.0	2.3	3.0	5.1	3.1
METHYL ETHYL KEYTONE	μ g/l	BDL	BDL	BDL	BDL	BDL
ACETONE	μ g/l	BDL	BDL	BDL	BDL	BDL
CHLOROFORM	μ g/l	BDL	BDL	BDL	0.5	BDL
DICHLOROBROMOMETHANE	μ g/l	BDL	BDL	BDL	BDL	BDL
DIBROMOCHLOROMETHANE	μ g/l	BDL	BDL	BDL	BDL	BDL
NAPHTHALENE	μ g/l	BDL	BDL	BDL	BDL	BDL
TOTAL VOCs	μ g/l	80.3	77.8	110.1	194.9	120.8
PHENANTHRENE	μ g/l	BDL	BDL	BDL	BDL	BDL
FLUORENE	μ g/l	BDL	BDL	BDL	BDL	BDL
PYRENE	μ g/l	BDL	BDL	BDL	BDL	BDL
BIS(2-ETHLHEXYL)PHTHALATE	μ g/l	BDL	BDL	BDL	BDL	BDL
DI-N-OCTYL PHTHALATE	μ g/l	BDL	BDL	BDL	BDL	BDL
DIMETHYL PHTHALATE	μ g/l	BDL	BDL	BDL	BDL	BDL
DIETHYL PHTHALATE	μ g/l	BDL	BDL	BDL	BDL	BDL
IRON, TOTAL	μ g/l	315.0	466.0	210.0	184.0	190.0
MANGANESE, TOTAL	μ g/l	45.0	18.0	16.0	15.0	16.0
SUM IRON & MANGANESE	μ g/l	360.0	484.0	226.0	199.0	206.0
NICKEL, TOTAL	μ g/l	4.0	4.0	3.0	2.0	3.0
ARSENIC, TOTAL	μ g/l	BDL	BDL	BDL	BDL	BDL
ALUMINUM, TOTAL	μ g/l	10.0	BDL	BDL	41.0	2.0
CHROMIUM, TOTAL	μ g/l	BDL	BDL	BDL	BDL	BDL

**NASSAU COUNTY FIREMAN'S TRAINING CENTER
GROUNDWATER REMEDIATION FACILITY
MONTHLY INFLUENT MONITORING REPORT**

DECEMBER 2005

INFLUENT PARAMETER	UNITS	OFFSITE 1A 12/05/05	OFFSITE 1A 12/13/05	OFFSITE 1A 12/20/05	OFFSITE 1A 12/27/05
FLOW, DAILY AVG	GPD	341440	256925	190214	OFF
FLOW, DAILY MAX	GPD	345100	348400	340600	OFF
VINYL CHLORIDE	μ g/l	1.6	2.9		
1,1-DICHLOROETHANE	μ g/l	6.2	5.2		
1,2(TRANS)-DICHLOROETHYLENE	μ g/l	0.7	BDL		
1,2(CIS)-DICHLOROETHYLENE	μ g/l	77.0	55.7		
1,1,1-TRICHLOROETHANE	μ g/l	1.7	2.8		
TRICHLOROETHYLENE	μ g/l	15.0	10.6		
BENZENE	μ g/l	7.7	5.4		
TETRACHLOROETHYLENE	μ g/l	41.2	35.6		
TOLUENE	μ g/l	BDL	BDL		
m,p-XYLENE	μ g/l	BDL	BDL		
o-XYLENE	μ g/l	BDL	BDL		
1,1-DICHLOROETHENE	μ g/l	1.4	0.9		
METHYL ETHYL KEYTONE	μ g/l	BDL	BDL		
ACETONE	μ g/l	BDL	BDL		
CHLOROFORM	μ g/l	BDL	BDL		
DICHLOROBROMOMETHANE	μ g/l	BDL	BDL		
DIBROMOCHLOROMETHANE	μ g/l	BDL	BDL		
NAPHTHALENE	μ g/l	BDL	BDL		
TOTAL VOCs	μ g/l	152.5	119.1	0.0	
PHENANTHRENE	μ g/l	BDL	BDL		
FLUORENE	μ g/l	BDL	BDL		
PYRENE	μ g/l	BDL	BDL		
BIS(2-ETHLHEXYL)PHTHALATE	μ g/l	BDL	BDL		
DI-N-OCTYL PHTHALATE	μ g/l	BDL	BDL		
DIMETHYL PHTHALATE	μ g/l	BDL	BDL		
DIETHYL PHTHALATE	μ g/l	BDL	BDL		
IRON, TOTAL	μ g/l	131.0	169.0		
MANGANESE, TOTAL	μ g/l	16.0	16.0		
SUM IRON & MANGANESE	μ g/l	147.0	185.0		
NICKEL, TOTAL	μ g/l	3.0	3.0		
ARSENIC, TOTAL	μ g/l	BDL	BDL		
ALUMINUM, TOTAL	μ g/l	BDL	BDL		
CHROMIUM, TOTAL	μ g/l	1.0	BDL		

APPENDIX C
MONTHLY EFFLUENT MONITORING REPORTS
2005

**NASSAU COUNTY FIREMAN'S TRAINING CENTER
GROUNDWATER REMEDIATION FACILITY
MONTHLY EFFLUENT MONITORING REPORT
OUTFALL 001**

JANUARY 2005

EFFLUENT PARAMETER	DISCHARGE LIMITATIONS	UNITS	COMPT MDL	WEEK 1 1/4/05	WEEK 2 01/11/05	WEEK 3 01/18/05	WEEK 4 01/25/05
FLOW, DAILY AVG	MONITOR	GPD	NA	328600	416800	417971	250943
FLOW, DAILY MAX	MONITOR	GPD	NA	422400	422400	423500	413200
VINYL CHLORIDE	5	µ g/l	1.1	BDL	BDL	BDL	BDL
1,1-DICHLOROETHANE	5	µ g/l	1.1	BDL	BDL	BDL	BDL
1,2-(TRANS)-DICHLOROETHENE	5	µ g/l	1.1	BDL	BDL	BDL	BDL
1,2-(CIS)-DICHLOROETHENE	5	µ g/l	1.0	BDL	BDL	BDL	BDL
1,1,1-TRICHLOROETHANE	5	µ g/l	1.4	BDL	BDL	BDL	BDL
TRICHLOROETHENE	10	µ g/l	1.7	BDL	BDL	BDL	BDL
BENZENE	0.7	µ g/l	0.7	BDL	BDL	BDL	BDL
TETRACHLOROETHENE	5	µ g/l	1.2	BDL	BDL	BDL	BDL
TOLUENE	5	µ g/l	1.2	BDL	BDL	BDL	BDL
m,p-XYLENE	5	µ g/l	2.4	BDL	BDL	BDL	BDL
o-XYLENE	5	µ g/l	1.3	BDL	BDL	BDL	BDL
1,1-DICHLOROETHENE	5	µ g/l	1.2	BDL	BDL	BDL	BDL
METHYL ETHYL KEYTONE	50	µ g/l	10.0	BDL	BDL	BDL	BDL
ACETONE	50	µ g/l	10.0	BDL	BDL	BDL	BDL
CHLOROFORM	7	µ g/l	1.1	BDL	BDL	BDL	BDL
DICHLOROBROMOMETHANE	50	µ g/l	0.9	BDL	BDL	BDL	BDL
DIBROMOCHLOROMETHANE	50	µ g/l	0.7	BDL	BDL	BDL	BDL
NAPHTHALENE	10	µ g/l	1.7	BDL	BDL	BDL	BDL
TOTAL VOCs		µ g/l	0.0	0.0	0.0	0.0	0.0
PHENANTHRENE	50	µ g/l	1.0	BDL	BDL	BDL	BDL
FLUORENE	50	µ g/l	1.0	BDL	BDL	BDL	BDL
PYRENE	50	µ g/l	1.0	BDL	BDL	BDL	BDL
BIS(2-ETHYLHEXYL)PHTHALATE	4.3	µ g/l	1.0	BDL	BDL	BDL	BDL
DI-N-OCTYL PHTHALATE	50	µ g/l	1.0	BDL	BDL	BDL	BDL
DIMETHYL PHTHALATE	50	µ g/l	1.0	BDL	BDL	BDL	BDL
DIETHYL PHTHALATE	50	µ g/l	1.0	BDL	BDL	BDL	BDL
IRON, TOTAL	600	µ g/l	2.0	71.0	49.0	41.0	54.0
MANGANESE, TOTAL	600	µ g/l	1.0	26.0	88.0	85.0	86.0
SUM IRON & MANGANESE	1000	µ g/l	NA	97.0	137.0	126.0	140.0
NICKEL, TOTAL	2000	µ g/l	5.0	2.0	3.0	3.0	1.0
ARSENIC, TOTAL	50	µ g/l	48.0	BDL	BDL	BDL	BDL
ALUMINIUM, TOTAL	2000	µ g/l	40.0	BDL	BDL	BDL	BDL
CHROMIUM, TOTAL	50	µ g/l	2.0	BDL	BDL	BDL	BDL

**NASSAU COUNTY FIREMAN'S TRAINING CENTER
GROUNDWATER REMEDIATION FACILITY
MONTHLY EFFLUENT MONITORING REPORT
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FEBRUARY 2005

EFFLUENT PARAMETER	DISCHARGE LIMITATIONS	UNITS	COMPT MDL	WEEK 1	WEEK 2	WEEK 3	WEEK 4
				2/1/05	02/08/05	02/15/05	02/23/05
FLOW, DAILY AVG	MONITOR	GPD	NA	371843	417943	413457	412000
FLOW, DAILY MAX	MONITOR	GPD	NA	410100	423900	415000	413600
VINYL CHLORIDE	5	µ g/l	1.1	BDL	BDL	BDL	BDL
1,1-DICHLOROETHANE	5	µ g/l	1.1	BDL	BDL	BDL	BDL
1,2-(TRANS)-DICHLOROETHENE	5	µ g/l	1.1	BDL	BDL	BDL	BDL
1,2-(CIS)-DICHLOROETHENE	5	µ g/l	1.0	BDL	BDL	BDL	BDL
1,1,1-TRICHLOROETHANE	5	µ g/l	1.4	BDL	BDL	BDL	BDL
TRICHLOROETHENE	10	µ g/l	1.7	BDL	BDL	BDL	BDL
BENZENE	0.7	µ g/l	0.7	BDL	BDL	BDL	BDL
TETRACHLOROETHENE	5	µ g/l	1.2	BDL	BDL	BDL	BDL
TOLUENE	5	µ g/l	1.2	BDL	BDL	BDL	BDL
m,p-XYLENE	5	µ g/l	2.4	1.5	BDL	BDL	BDL
o-XYLENE	5	µ g/l	1.3	BDL	BDL	BDL	BDL
1,1-DICHLOROETHENE	5	µ g/l	1.2	BDL	BDL	BDL	BDL
METHYL ETHYL KEYTONE	50	µ g/l	10.0	BDL	BDL	BDL	BDL
ACETONE	50	µ g/l	10.0	BDL	BDL	BDL	BDL
CHLOROFORM	7	µ g/l	1.1	BDL	BDL	BDL	BDL
DICHLOROBROMOMETHANE	50	µ g/l	0.9	BDL	BDL	BDL	BDL
DIBROMOCHLOROMETHANE	50	µ g/l	0.7	BDL	BDL	BDL	BDL
NAPHTHALENE	10	µ g/l	1.7	BDL	BDL	BDL	BDL
TOTAL VOCs		µ g/l	0.0	0.0	0.0	0.0	0.0
PHENANTHRENE	50	µ g/l	1.0	BDL	BDL	BDL	BDL
FLUORENE	50	µ g/l	1.0	BDL	BDL	BDL	BDL
PYRENE	50	µ g/l	1.0	BDL	BDL	BDL	BDL
BIS(2-ETHYLHEXYL)PHTHALATE	4.3	µ g/l	1.0	BDL	BDL	BDL	BDL
DI-N-OCTYL PHTHALATE	50	µ g/l	1.0	BDL	BDL	BDL	BDL
DIMETHYL PHTHALATE	50	µ g/l	1.0	BDL	BDL	BDL	BDL
DIETHYL PHTHALATE	50	µ g/l	1.0	BDL	BDL	BDL	BDL
IRON, TOTAL	600	µ g/l	2.0	58.0	59.0	41.0	32.0
MANGANESE, TOTAL	600	µ g/l	1.0	84.0	22.0	22.0	21.0
SUM IRON & MANGANESE	1000	µ g/l	NA	142.0	81.0	63.0	53.0
NICKEL, TOTAL	2000	µ g/l	5.0	3.0	2.0	2.0	2.0
ARSENIC, TOTAL	50	µ g/l	48.0	BDL	BDL	BDL	BDL
ALUMINUM, TOTAL	2000	µ g/l	40.0	BDL	BDL	14.0	BDL
CHROMIUM, TOTAL	50	µ g/l	2.0	BDL	BDL	BDL	BDL

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MARCH 2005

EFFLUENT PARAMETER	DISCHARGE LIMITATIONS	UNITS	COMP'T MDL	WEEK 1 3/1/05	WEEK 2 03/08/05	WEEK 3 03/15/05	WEEK 4 03/22/05	WEEK 5 03/29/05
FLOW, DAILY AVG	MONITOR	GPD	NA	412017	408057	404629	403586	396100
FLOW, DAILY MAX	MONITOR	GPD	NA	416200	409400	424200	431600	403400
VINYL CHLORIDE	5	µ g/l	1.1	BDL	BDL	BDL	BDL	BDL
1,1-DICHLOROETHANE	5	µ g/l	1.1	BDL	BDL	BDL	BDL	BDL
1,2(TRANS)-DICHLOROETHENE	5	µ g/l	1.1	BDL	BDL	BDL	BDL	BDL
1,2(CIS)-DICHLOROETHENE	5	µ g/l	1.0	BDL	BDL	BDL	BDL	BDL
1,1,1-TRICHLOROETHANE	5	µ g/l	1.4	BDL	BDL	BDL	BDL	BDL
TRICHLOROETHENE	10	µ g/l	1.7	BDL	BDL	BDL	BDL	BDL
BENZENE	0.7	µ g/l	0.7	BDL	BDL	BDL	BDL	BDL
TETRACHLOROETHENE	5	µ g/l	1.2	BDL	BDL	BDL	BDL	BDL
TOLUENE	5	µ g/l	1.2	BDL	BDL	BDL	BDL	BDL
m,p-XYLENE	5	µ g/l	2.4	1.5	BDL	BDL	BDL	BDL
o-XYLENE	5	µ g/l	1.3	BDL	BDL	BDL	BDL	BDL
1,1-DICHLOROETHENE	5	µ g/l	1.2	BDL	BDL	BDL	BDL	BDL
METHYL ETHYL KEYTONE	50	µ g/l	10.0	BDL	BDL	BDL	BDL	BDL
ACETONE	50	µ g/l	10.0	BDL	BDL	BDL	BDL	BDL
CHLOROFORM	7	µ g/l	1.1	BDL	BDL	BDL	BDL	BDL
DICHLOROBROMOMETHANE	50	µ g/l	0.9	BDL	BDL	BDL	BDL	BDL
DIBROMOCHLOROMETHANE	50	µ g/l	0.7	BDL	BDL	BDL	BDL	BDL
NAPHTHALENE	10	µ g/l	1.7	BDL	BDL	BDL	BDL	BDL
TOTAL VOCs		µ g/l	0.0	0.0	0.0	0.0	0.0	0.0
PHENANTHRENE	50	µ g/l	1.0	BDL	BDL	BDL	BDL	BDL
FLUORENE	50	µ g/l	1.0	BDL	BDL	BDL	BDL	BDL
PYRENE	50	µ g/l	1.0	BDL	BDL	BDL	BDL	BDL
BIS(2-ETHYLHEXYL)PHTHALATE	4.3	µ g/l	1.0	BDL	BDL	BDL	BDL	BDL
DI-N-OCTYL PHTHALATE	50	µ g/l	1.0	BDL	BDL	BDL	BDL	BDL
DIMETHYL PHTHALATE	50	µ g/l	1.0	BDL	BDL	BDL	BDL	BDL
DIETHYL PHTHALATE	50	µ g/l	1.0	BDL	BDL	BDL	BDL	BDL
IRON, TOTAL	600	µ g/l	2.0	61.0	42.0	32.0	36.0	39.0
MANGANESE, TOTAL	600	µ g/l	1.0	20.0	20.0	19.0	20.0	19.0
SUM IRON & MANGANESE	1000	µ g/l	NA	81.0	62.0	51.0	56.0	58.0
NICKEL, TOTAL	2000	µ g/l	5.0	2.0	3.0	BDL	BDL	BDL
ARSENIC, TOTAL	50	µ g/l	48.0	BDL	BDL	BDL	BDL	BDL
ALUMINUM, TOTAL	2000	µ g/l	40.0	BDL	3.0	BDL	BDL	BDL
CHROMIUM, TOTAL	50	µ g/l	2.0	BDL	BDL	1.0	1.0	1.0

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APRIL 2005

EFFLUENT PARAMETER	DISCHARGE LIMITATIONS	UNITS	COMPT MDL	WEEK 1	WEEK 2	WEEK 3	WEEK 4
				4/6/05	04/12/05	04/19/05	04/26/05
FLOW, DAILY AVG	MONITOR	GPD	NA	371800	408750	409643	407357
FLOW, DAILY MAX	MONITOR	GPD	NA	50438	411800	411700	408000
VINYL CHLORIDE	5	µ g/l	1.1	BDL	BDL	BDL	BDL
1,1-DICHLOROETHANE	5	µ g/l	1.1	BDL	BDL	BDL	BDL
1,2-(TRANS)-DICHLOROETHENE	5	µ g/l	1.1	BDL	BDL	BDL	BDL
1,2-(CIS)-DICHLOROETHENE	5	µ g/l	1.0	BDL	BDL	BDL	BDL
1,1,1-TRICHLOROETHANE	5	µ g/l	1.4	BDL	BDL	BDL	BDL
TRICHLOROETHENE	10	µ g/l	1.7	BDL	BDL	BDL	BDL
BENZENE	0.7	µ g/l	0.7	BDL	BDL	BDL	BDL
TETRACHLOROETHENE	5	µ g/l	1.2	BDL	BDL	BDL	BDL
TOLUENE	5	µ g/l	1.2	BDL	BDL	BDL	BDL
m,p-XYLENE	5	µ g/l	2.4	BDL	BDL	BDL	BDL
o-XYLENE	5	µ g/l	1.3	BDL	BDL	BDL	BDL
1,1-DICHLOROETHENE	5	µ g/l	1.2	BDL	BDL	BDL	BDL
METHYL ETHYL KEYTONE	50	µ g/l	10.0	BDL	BDL	BDL	BDL
ACETONE	50	µ g/l	10.0	BDL	BDL	BDL	BDL
CHLOROFORM	7	µ g/l	1.1	BDL	BDL	BDL	BDL
DICHLOROBROMOMETHANE	50	µ g/l	0.9	BDL	BDL	BDL	BDL
DIBROMOCHLOROMETHANE	50	µ g/l	0.7	BDL	BDL	BDL	BDL
NAPHTHALENE	10	µ g/l	1.7	BDL	BDL	BDL	BDL
TOTAL VOCs		µ g/l	0.0	0.0	0.0	0.0	0.0
PHENANTHRENE	50	µ g/l	1.0	BDL	BDL	BDL	BDL
FLUORENE	50	µ g/l	1.0	BDL	BDL	BDL	BDL
PYRENE	50	µ g/l	1.0	BDL	BDL	BDL	BDL
BIS(2-ETHYLHEXYL)PHTHALATE	4.3	µ g/l	1.0	BDL	BDL	BDL	BDL
DI-N-OCTYL PHTHALATE	50	µ g/l	1.0	BDL	BDL	BDL	BDL
DIMETHYL PHTHALATE	50	µ g/l	1.0	BDL	BDL	BDL	BDL
DIETHYL PHTHALATE	50	µ g/l	1.0	BDL	BDL	BDL	BDL
IRON, TOTAL	600	µ g/l	2.0	61.0	35.0	33.0	43.0
MANGANESE, TOTAL	600	µ g/l	1.0	24.0	20.0	19.0	21.0
SUM IRON & MANGANESE	1000	µ g/l	NA	85.0	55.0	52.0	64.0
NICKEL, TOTAL	2000	µ g/l	5.0	BDL	2.0	2.0	2.0
ARSENIC, TOTAL	50	µ g/l	48.0	BDL	BDL	BDL	BDL
ALUMINIUM, TOTAL	2000	µ g/l	40.0	BDL	BDL	BDL	BDL
CHROMIUM, TOTAL	50	µ g/l	2.0	BDL	BDL	BDL	BDL

**NASSAU COUNTY FIREMAN'S TRAINING CENTER
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MAY 2005

EFFLUENT PARAMETER	DISCHARGE LIMITATIONS	UNITS	COMPT MDL	WEEK 1 5/3/05	WEEK 2 05/10/05	WEEK 3 05/17/05	WEEK 4 05/24/05	WEEK 5 05/31/05
FLOW, DAILY AVG	MONITOR	GPD	NA	406143	400986	407857	405400	404014
FLOW, DAILY MAX	MONITOR	GPD	NA	407300	416900	411600	407100	407100
VINYL CHLORIDE	5	µ g/l	1.1	BDL	BDL	BDL	BDL	BDL
1,1-DICHLOROETHANE	5	µ g/l	1.1	BDL	BDL	BDL	BDL	BDL
1,2-(TRANS)-DICHLOROETHENE	5	µ g/l	1.1	BDL	BDL	BDL	BDL	BDL
1,2-(CIS)-DICHLOROETHENE	5	µ g/l	1.0	BDL	BDL	BDL	BDL	BDL
1,1,1-TRICHLOROETHANE	5	µ g/l	1.4	BDL	BDL	BDL	BDL	BDL
TRICHLOROETHENE	10	µ g/l	1.7	BDL	BDL	BDL	BDL	BDL
BENZENE	0.7	µ g/l	0.7	BDL	BDL	BDL	BDL	BDL
TETRACHLOROETHENE	5	µ g/l	1.2	BDL	BDL	BDL	BDL	BDL
TOLUENE	5	µ g/l	1.2	BDL	BDL	BDL	BDL	BDL
m,p-XYLENE	5	µ g/l	2.4	BDL	BDL	BDL	BDL	BDL
o-XYLENE	5	µ g/l	1.3	BDL	BDL	BDL	BDL	BDL
1,1-DICHLOROETHENE	5	µ g/l	1.2	BDL	BDL	BDL	BDL	BDL
METHYL ETHYL KEYTONE	50	µ g/l	10.0	BDL	BDL	BDL	BDL	BDL
ACETONE	50	µ g/l	10.0	BDL	BDL	BDL	BDL	BDL
CHLOROFORM	7	µ g/l	1.1	BDL	BDL	BDL	BDL	BDL
DICHLOROBROMOMETHANE	50	µ g/l	0.9	BDL	BDL	BDL	BDL	BDL
DIBROMOCHLOROMETHANE	50	µ g/l	0.7	BDL	BDL	BDL	BDL	BDL
NAPHTHALENE	10	µ g/l	1.7	BDL	BDL	BDL	BDL	BDL
TOTAL VOCs		µ g/l	0.0	0.0	0.0	0.0	0.0	0.0
PHENANTHRENE	50	µ g/l	1.0	BDL	BDL	BDL	BDL	BDL
FLUORENE	50	µ g/l	1.0	BDL	BDL	BDL	BDL	BDL
PYRENE	50	µ g/l	1.0	BDL	BDL	BDL	BDL	BDL
BIS(2-ETHYLHEXYL)PHTHALATE	4.3	µ g/l	1.0	BDL	BDL	BDL	BDL	BDL
DI-N-OCTYL PHTHALATE	50	µ g/l	1.0	BDL	BDL	BDL	BDL	BDL
DIMETHYL PHTHALATE	50	µ g/l	1.0	BDL	BDL	BDL	BDL	BDL
DIETHYL PHTHALATE	50	µ g/l	1.0	BDL	BDL	BDL	BDL	BDL
IRON, TOTAL	600	µ g/l	2.0	32.0	35.0	28.0	25.0	36.0
MANGANESE, TOTAL	600	µ g/l	1.0	19.0	20.0	19.0	19.0	18.0
SUM IRON & MANGANESE	1000	µ g/l	NA	51.0	55.0	47.0	44.0	54.0
NICKEL, TOTAL	2000	µ g/l	5.0	3.0	BDL	1.0	2.0	4.0
ARSENIC, TOTAL	50	µ g/l	48.0	BDL	BDL	BDL	BDL	BDL
ALUMINUM, TOTAL	2000	µ g/l	40.0	BDL	BDL	BDL	BDL	BDL
CHROMIUM, TOTAL	50	µ g/l	2.0	BDL	BDL	BDL	BDL	BDL

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JUNE 2005

EFFLUENT PARAMETER	DISCHARGE LIMITATIONS	UNITS	COMPT MDL	WEEK 1 6/8/05	WEEK 2 06/14/05	WEEK 3 06/21/05	WEEK 4 06/28/05
FLOW, DAILY AVG	MONITOR	GPD	NA	400863	398117	395886	394300
FLOW, DAILY MAX	MONITOR	GPD	NA	406900	406500	423800	399200
VINYL CHLORIDE	5	µ g/l	1.1	BDL	BDL	BDL	BDL
1,1-DICHLOROETHANE	5	µ g/l	1.1	BDL	BDL	BDL	BDL
1,2-(TRANS)-DICHLOROETHENE	5	µ g/l	1.1	BDL	BDL	BDL	BDL
1,2-(CIS)-DICHLOROETHENE	5	µ g/l	1.0	BDL	BDL	BDL	BDL
1,1,1-TRICHLOROETHANE	5	µ g/l	1.4	BDL	BDL	BDL	BDL
TRICHLOROETHENE	10	µ g/l	1.7	BDL	BDL	BDL	BDL
BENZENE	0.7	µ g/l	0.7	BDL	BDL	BDL	BDL
TETRACHLOROETHENE	5	µ g/l	1.2	BDL	BDL	BDL	BDL
TOLUENE	5	µ g/l	1.2	BDL	BDL	BDL	BDL
m,p-XYLENE	5	µ g/l	2.4	BDL	BDL	BDL	BDL
o-XYLENE	5	µ g/l	1.3	BDL	BDL	BDL	BDL
1,1-DICHLOROETHENE	5	µ g/l	1.2	BDL	BDL	BDL	BDL
METHYL ETHYL KEYTONE	50	µ g/l	10.0	BDL	BDL	BDL	BDL
ACETONE	50	µ g/l	10.0	BDL	BDL	BDL	BDL
CHLOROFORM	7	µ g/l	1.1	BDL	BDL	BDL	BDL
DICHLOROBROMOMETHANE	50	µ g/l	0.9	BDL	BDL	BDL	BDL
DIBROMOCHLOROMETHANE	50	µ g/l	0.7	BDL	BDL	BDL	BDL
NAPHTHALENE	10	µ g/l	1.7	BDL	BDL	BDL	BDL
TOTAL VOCs		µ g/l	0.0	0.0	0.0	0.0	0.0
PHENANTHRENE	50	µ g/l	1.0	BDL	BDL	BDL	BDL
FLUORENE	50	µ g/l	1.0	BDL	BDL	BDL	BDL
PYRENE	50	µ g/l	1.0	BDL	BDL	BDL	BDL
BIS(2-ETHYLHEXYL)PHTHALATE	4.3	µ g/l	1.0	BDL	BDL	BDL	BDL
DI-N-OCTYL PHTHALATE	50	µ g/l	1.0	BDL	BDL	BDL	BDL
DIMETHYL PHTHALATE	50	µ g/l	1.0	BDL	BDL	BDL	BDL
DIETHYL PHTHALATE	50	µ g/l	1.0	BDL	BDL	BDL	BDL
IRON, TOTAL	600	µ g/l	2.0	26.0	27.0	34.0	19.0
MANGANESE, TOTAL	600	µ g/l	1.0	18.0	18.0	18.0	17.0
SUM IRON & MANGANESE	1000	µ g/l	NA	44.0	45.0	52.0	36.0
NICKEL, TOTAL	2000	µ g/l	5.0	3.0	2.0	1.0	2.0
ARSENIC, TOTAL	50	µ g/l	48.0	BDL	BDL	BDL	BDL
ALUMINUM, TOTAL	2000	µ g/l	40.0	BDL	BDL	BDL	2.0
CHROMIUM, TOTAL	50	µ g/l	2.0	BDL	BDL	1.0	BDL

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JULY 2005

EFFLUENT PARAMETER	DISCHARGE LIMITATIONS	UNITS	COMP'T MDL	WEEK 1 7/5/05	WEEK 2 07/12/05	WEEK 3 07/19/05	WEEK 4 07/26/05
FLOW, DAILY AVG	MONITOR	GPD	NA	393000	385957	383729	382400
FLOW, DAILY MAX	MONITOR	GPD	NA	399300	388900	389800	385900
VINYL CHLORIDE	5	µ g/l	1.1	BDL	BDL	BDL	BDL
1,1-DICHLOROETHANE	5	µ g/l	1.1	BDL	BDL	BDL	BDL
1,2(TRANS)-DICHLOROETHENE	5	µ g/l	1.1	BDL	BDL	BDL	BDL
1,2(CIS)-DICHLOROETHENE	5	µ g/l	1.0	BDL	BDL	BDL	BDL
1,1,1-TRICHLOROETHANE	5	µ g/l	1.4	BDL	BDL	BDL	BDL
TRICHLOROETHENE	10	µ g/l	1.7	BDL	BDL	BDL	BDL
BENZENE	0.7	µ g/l	0.7	BDL	BDL	BDL	BDL
TETRACHLOROETHENE	5	µ g/l	1.2	BDL	BDL	BDL	BDL
TOLUENE	5	µ g/l	1.2	BDL	BDL	BDL	BDL
m,p-XYLENE	5	µ g/l	2.4	BDL	BDL	BDL	BDL
o-XYLENE	5	µ g/l	1.3	BDL	BDL	BDL	BDL
1,1-DICHLOROETHENE	5	µ g/l	1.2	BDL	BDL	BDL	BDL
METHYL ETHYL KEYTONE	50	µ g/l	10.0	BDL	BDL	BDL	BDL
ACETONE	50	µ g/l	10.0	BDL	BDL	BDL	BDL
CHLOROFORM	7	µ g/l	1.1	BDL	BDL	BDL	BDL
DICHLOROBROMOMETHANE	50	µ g/l	0.9	BDL	BDL	BDL	BDL
DIBROMOCHLOROMETHANE	50	µ g/l	0.7	BDL	BDL	BDL	BDL
NAPHTHALENE	10	µ g/l	1.7	BDL	BDL	BDL	BDL
TOTAL VOCs		µ g/l	0.0	0.0	0.0	0.0	0.0
PHENANTHRENE	50	µ g/l	1.0	BDL	BDL	BDL	BDL
FLUORENE	50	µ g/l	1.0	BDL	BDL	BDL	BDL
PYRENE	50	µ g/l	1.0	BDL	BDL	BDL	BDL
BIS(2-ETHYLHEXYL)PHTHALATE	4.3	µ g/l	1.0	BDL	BDL	BDL	BDL
DI-N-OCTYL PHTHALATE	50	µ g/l	1.0	BDL	BDL	BDL	BDL
DIMETHYL PHTHALATE	50	µ g/l	1.0	BDL	BDL	BDL	BDL
DIETHYL PHTHALATE	50	µ g/l	1.0	BDL	BDL	BDL	BDL
IRON, TOTAL	600	µ g/l	2.0	26.0	44.0	44.0	30.0
MANGANESE, TOTAL	600	µ g/l	1.0	18.0	36.0	31.0	25.0
SUM IRON & MANGANESE	1000	µ g/l	NA	44.0	80.0	75.0	55.0
NICKEL, TOTAL	2000	µ g/l	5.0	2.0	4.0	2.0	2.0
ARSENIC, TOTAL	50	µ g/l	48.0	BDL	BDL	BDL	BDL
ALUMINUM, TOTAL	2000	µ g/l	40.0	BDL	BDL	4.0	BDL
CHROMIUM, TOTAL	50	µ g/l	2.0	BDL	BDL	BDL	BDL

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GROUNDWATER REMEDIATION FACILITY
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AUGUST 2005

EFFLUENT PARAMETER	DISCHARGE LIMITATIONS	UNITS	COMPT MDL	WEEK 1 8/2/05	WEEK 2 08/09/05	WEEK 3 08/16/05	WEEK 4 08/23/05	WEEK 5 08/30/05
FLOW, DAILY AVG	MONITOR	GPD	NA	381814	379157	249771	411400	420686
FLOW, DAILY MAX	MONITOR	GPD	NA	385600	381100	382900	454071	446900
VINYL CHLORIDE	5	µ g/l	1.1	BDL	BDL	BDL	BDL	BDL
1,1-DICHLOROETHANE	5	µ g/l	1.1	BDL	BDL	BDL	BDL	BDL
1,2-(TRANS)-DICHLOROETHENE	5	µ g/l	1.1	BDL	BDL	BDL	BDL	BDL
1,2-(CIS)-DICHLOROETHENE	5	µ g/l	1.0	BDL	BDL	BDL	BDL	BDL
1,1,1-TRICHLOROETHANE	5	µ g/l	1.4	BDL	BDL	BDL	BDL	BDL
TRICHLOROETHENE	10	µ g/l	1.7	BDL	BDL	BDL	BDL	BDL
BENZENE	0.7	µ g/l	0.7	BDL	BDL	BDL	BDL	BDL
TETRACHLOROETHENE	5	µ g/l	1.2	BDL	BDL	BDL	BDL	BDL
TOLUENE	5	µ g/l	1.2	BDL	BDL	BDL	BDL	BDL
m,p-XYLENE	5	µ g/l	2.4	BDL	BDL	BDL	BDL	BDL
o-XYLENE	5	µ g/l	1.3	BDL	BDL	BDL	BDL	BDL
1,1-DICHLOROETHENE	5	µ g/l	1.2	BDL	BDL	BDL	BDL	BDL
METHYL ETHYL KEYTONE	50	µ g/l	10.0	BDL	BDL	BDL	BDL	BDL
ACETONE	50	µ g/l	10.0	BDL	BDL	BDL	BDL	BDL
CHLOROFORM	7	µ g/l	1.1	BDL	BDL	BDL	BDL	BDL
DICHLOROBROMOMETHANE	50	µ g/l	0.9	BDL	BDL	BDL	BDL	BDL
DIBROMOCHLOROMETHANE	50	µ g/l	0.7	BDL	BDL	BDL	BDL	BDL
NAPHTHALENE	10	µ g/l	1.7	BDL	BDL	BDL	BDL	BDL
TOTAL VOCs		µ g/l	0.0	0.0	0.0	0.0	0.0	0.0
PHENANTHRENE	50	µ g/l	1.0	BDL	BDL	BDL	BDL	BDL
FLUORENE	50	µ g/l	1.0	BDL	BDL	BDL	BDL	BDL
PYRENE	50	µ g/l	1.0	BDL	BDL	BDL	BDL	BDL
BIS(2-ETHYLHEXYL)PHTHALATE	4.3	µ g/l	1.0	BDL	BDL	BDL	BDL	BDL
DI-N-OCTYL PHTHALATE	50	µ g/l	1.0	BDL	BDL	BDL	BDL	BDL
DIMETHYL PHTHALATE	50	µ g/l	1.0	BDL	BDL	BDL	BDL	BDL
DIETHYL PHTHALATE	50	µ g/l	1.0	BDL	BDL	BDL	BDL	BDL
IRON, TOTAL	600	µ g/l	2.0	26.0	44.0	13.0	70.0	38.0
MANGANESE, TOTAL	600	µ g/l	1.0	18.0	36.0	58.0	50.0	51.0
SUM IRON & MANGANESE	1000	µ g/l	NA	44.0	80.0	71.0	120.0	89.0
NICKEL, TOTAL	2000	µ g/l	5.0	2.0	4.0	4.0	2.0	4.0
ARSENIC, TOTAL	50	µ g/l	48.0	BDL	BDL	BDL	BDL	BDL
ALUMINUM, TOTAL	2000	µ g/l	40.0	BDL	BDL	BDL	BDL	BDL
CHROMIUM, TOTAL	50	µ g/l	2.0	BDL	BDL	BDL	BDL	BDL

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SEPTEMBER 2005

EFFLUENT PARAMETER	DISCHARGE LIMITATIONS	UNITS	COMP'T MDL	WEEK 1	WEEK 2	WEEK 3	WEEK 4
				9/6/2005	09/13/05	09/20/05	09/27/05
FLOW, DAILY AVG	MONITOR	GPD	NA	381814	379157	249771	454071
FLOW, DAILY MAX	MONITOR	GPD	NA	385600	381100	382900	412343
VINYL CHLORIDE	5	µ g/l	1.1	BDL	BDL	BDL	BDL
1,1-DICHLOROETHANE	5	µ g/l	1.1	BDL	BDL	BDL	BDL
1,2(TRANS)-DICHLOROETHENE	5	µ g/l	1.1	BDL	BDL	BDL	BDL
1,2(CIS)-DICHLOROETHENE	5	µ g/l	1.0	BDL	BDL	BDL	BDL
1,1,1-TRICHLOROETHANE	5	µ g/l	1.4	BDL	BDL	BDL	BDL
TRICHLOROETHENE	10	µ g/l	1.7	BDL	BDL	BDL	BDL
BENZENE	0.7	µ g/l	0.7	BDL	BDL	BDL	BDL
TETRACHLOROETHENE	5	µ g/l	1.2	BDL	BDL	BDL	BDL
TOLUENE	5	µ g/l	1.2	BDL	BDL	BDL	BDL
m,p-XYLENE	5	µ g/l	2.4	BDL	BDL	BDL	BDL
o-XYLENE	5	µ g/l	1.3	BDL	BDL	BDL	BDL
1,1-DICHLOROETHENE	5	µ g/l	1.2	BDL	BDL	BDL	BDL
METHYL ETHYL KEYTONE	50	µ g/l	10.0	BDL	BDL	BDL	BDL
ACETONE	50	µ g/l	10.0	BDL	BDL	BDL	BDL
CHLOROFORM	7	µ g/l	1.1	BDL	BDL	BDL	BDL
DICHLOROBROMOMETHANE	50	µ g/l	0.9	BDL	BDL	BDL	BDL
DIBROMOCHLOROMETHANE	50	µ g/l	0.7	BDL	BDL	BDL	BDL
NAPHTHALENE	10	µ g/l	1.7	BDL	BDL	BDL	BDL
TOTAL VOCs		µ g/l	0.0	0.0	0.0	0.0	0.0
PHENANTHRENE	50	µ g/l	1.0	BDL	BDL	BDL	BDL
FLUORENE	50	µ g/l	1.0	BDL	BDL	BDL	BDL
PYRENE	50	µ g/l	1.0	BDL	BDL	BDL	BDL
BIS(2-ETHLHEXYL)PHTHALATE	4.3	µ g/l	1.0	BDL	BDL	BDL	BDL
DI-N-OCTYL PHTHALATE	50	µ g/l	1.0	BDL	BDL	BDL	BDL
DIMETHYL PHTHALATE	50	µ g/l	1.0	BDL	BDL	BDL	BDL
DIETHYL PHTHALATE	50	µ g/l	1.0	BDL	BDL	BDL	BDL
IRON, TOTAL	600	µ g/l	2.0	27.0	46.0	61.0	32.0
MANGANESE, TOTAL	600	µ g/l	1.0	46.0	45.0	47.0	46.0
SUM IRON & MANGANESE	1000	µ g/l	NA	73.0	91.0	108.0	78.0
NICKEL, TOTAL	2000	µ g/l	5.0	3.0	7.0	3.0	2.0
ARSENIC, TOTAL	50	µ g/l	48.0	BDL	BDL	BDL	BDL
ALUMINUM, TOTAL	2000	µ g/l	40.0	BDL	20.0	4.0	BDL
CHROMIUM, TOTAL	50	µ g/l	2.0	1.0	BDL	BDL	2.0

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OCTOBER 2005

EFFLUENT PARAMETER	DISCHARGE LIMITATIONS	UNITS	COMPT MDL	WEEK 1 10/3/2005	WEEK 2 10/10/05	WEEK 3 10/20/05	WEEK 4 10/24/05
FLOW, DAILY AVG	MONITOR	GPD	NA	412657	413257	310867	399250
FLOW, DAILY MAX	MONITOR	GPD	NA	418100	416400	408500	400767
VINYL CHLORIDE	5	µ g/l	1.1	BDL	BDL	BDL	BDL
1,1-DICHLOROETHANE	5	µ g/l	1.1	BDL	BDL	BDL	BDL
1,2-(TRANS)-DICHLOROETHENE	5	µ g/l	1.1	BDL	BDL	BDL	BDL
1,2-(CIS)-DICHLOROETHENE	5	µ g/l	1.0	BDL	BDL	BDL	BDL
1,1,1-TRICHLOROETHANE	5	µ g/l	1.4	BDL	BDL	BDL	BDL
TRICHLOROETHENE	10	µ g/l	1.7	BDL	BDL	BDL	BDL
BENZENE	0.7	µ g/l	0.7	BDL	BDL	BDL	BDL
TETRACHLOROETHENE	5	µ g/l	1.2	BDL	BDL	BDL	BDL
TOLUENE	5	µ g/l	1.2	BDL	BDL	BDL	BDL
m,p-XYLENE	5	µ g/l	2.4	BDL	BDL	BDL	BDL
o-XYLENE	5	µ g/l	1.3	BDL	BDL	BDL	BDL
1,1-DICHLOROETHENE	5	µ g/l	1.2	BDL	BDL	BDL	BDL
METHYL ETHYL KEYTONE	50	µ g/l	10.0	BDL	BDL	BDL	BDL
ACETONE	50	µ g/l	10.0	BDL	BDL	BDL	BDL
CHLOROFORM	7	µ g/l	1.1	BDL	BDL	BDL	BDL
DICHLOROBROMOMETHANE	50	µ g/l	0.9	BDL	BDL	BDL	BDL
DIBROMOCHLOROMETHANE	50	µ g/l	0.7	BDL	BDL	BDL	BDL
NAPHTHALENE	10	µ g/l	1.7	BDL	BDL	BDL	BDL
TOTAL VOCs		µ g/l	0.0	0.0	0.0	0.0	0.0
PHENANTHRENE	50	µ g/l	1.0	BDL	BDL	BDL	BDL
FLUORENE	50	µ g/l	1.0	BDL	BDL	BDL	BDL
PYRENE	50	µ g/l	1.0	BDL	BDL	BDL	BDL
BIS(2-ETHYLHEXYL)PHTHALATE	4.3	µ g/l	1.0	BDL	BDL	BDL	BDL
DI-N-OCTYL PHTHALATE	50	µ g/l	1.0	BDL	BDL	BDL	BDL
DIMETHYL PHTHALATE	50	µ g/l	1.0	BDL	BDL	BDL	BDL
DIETHYL PHTHALATE	50	µ g/l	1.0	BDL	BDL	BDL	BDL
IRON, TOTAL	600	µ g/l	2.0	56.0	39.0	77.0	57.0
MANGANESE, TOTAL	600	µ g/l	1.0	47.0	48.0	53.0	48.0
SUM IRON & MANGANESE	1000	µ g/l	NA	103.0	87.0	130.0	105.0
NICKEL, TOTAL	2000	µ g/l	5.0	4.0	4.0	4.0	4.0
ARSENIC, TOTAL	50	µ g/l	48.0	BDL	BDL	BDL	BDL
ALUMINUM, TOTAL	2000	µ g/l	40.0	10.0	BDL	BDL	27.0
CHROMIUM, TOTAL	50	µ g/l	2.0	BDL	BDL	BDL	BDL

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NOVEMBER 2005

EFFLUENT PARAMETER	DISCHARGE LIMITATIONS	UNITS	COMPT MDL	WEEK 1 11/1/05	WEEK 2 11/09/05	WEEK 3 11/15/05	WEEK 4 11/22/05	WEEK 5 11/29/05
FLOW, DAILY AVG	MONITOR	GPD	NA	281783	373725	372650	336543	287771
FLOW, DAILY MAX	MONITOR	GPD	NA	396300	376700	381800	343000	344400
VINYL CHLORIDE	5	µ g/l	1.1	BDL	BDL	BDL	BDL	BDL
1,1-DICHLOROETHANE	5	µ g/l	1.1	BDL	BDL	BDL	BDL	BDL
1,2-(TRANS)-DICHLOROETHENE	5	µ g/l	1.1	BDL	BDL	BDL	BDL	BDL
1,2-(CIS)-DICHLOROETHENE	5	µ g/l	1.0	BDL	BDL	BDL	BDL	BDL
1,1,1-TRICHLOROETHANE	5	µ g/l	1.4	BDL	BDL	BDL	BDL	BDL
TRICHLOROETHENE	10	µ g/l	1.7	BDL	BDL	BDL	BDL	BDL
BENZENE	0.7	µ g/l	0.7	BDL	BDL	BDL	BDL	BDL
TETRACHLOROETHENE	5	µ g/l	1.2	BDL	BDL	BDL	BDL	BDL
TOLUENE	5	µ g/l	1.2	BDL	BDL	BDL	BDL	BDL
m,p-XYLENE	5	µ g/l	2.4	BDL	BDL	BDL	BDL	BDL
o-XYLENE	5	µ g/l	1.3	BDL	BDL	BDL	BDL	BDL
1,1-DICHLOROETHENE	5	µ g/l	1.2	BDL	BDL	BDL	BDL	BDL
METHYL ETHYL KEYTONE	50	µ g/l	10.0	BDL	BDL	BDL	BDL	BDL
ACETONE	50	µ g/l	10.0	BDL	BDL	BDL	BDL	BDL
CHLOROFORM	7	µ g/l	1.1	BDL	BDL	BDL	BDL	BDL
DICHLOROBROMOMETHANE	50	µ g/l	0.9	BDL	BDL	BDL	BDL	BDL
DIBROMOCHLOROMETHANE	50	µ g/l	0.7	BDL	BDL	BDL	BDL	BDL
NAPHTHALENE	10	µ g/l	1.7	BDL	BDL	BDL	BDL	BDL
TOTAL VOCs		µ g/l	0.0	0.0	0.0	0.0	0.0	0.0
PHENANTHRENE	50	µ g/l	1.0	BDL	BDL	BDL	BDL	BDL
FLUORENE	50	µ g/l	1.0	BDL	BDL	BDL	BDL	BDL
PYRENE	50	µ g/l	1.0	BDL	BDL	BDL	BDL	BDL
BIS(2-ETHYLHEXYL)PHTHALATE	4.3	µ g/l	1.0	BDL	BDL	BDL	BDL	BDL
DI-N-OCTYL PHTHALATE	50	µ g/l	1.0	BDL	BDL	BDL	BDL	BDL
DIMETHYL PHTHALATE	50	µ g/l	1.0	BDL	BDL	BDL	BDL	BDL
DIETHYL PHTHALATE	50	µ g/l	1.0	BDL	BDL	BDL	BDL	BDL
IRON, TOTAL	600	µ g/l	2.0	75.0	28.0	60.0	33.0	16.0
MANGANESE, TOTAL	600	µ g/l	1.0	47.0	18.0	19.0	17.0	20.0
SUM IRON & MANGANESE	1000	µ g/l	NA	122.0	46.0	79.0	50.0	36.0
NICKEL, TOTAL	2000	µ g/l	5.0	3.0	3.0	2.0	2.0	2.0
ARSENIC, TOTAL	50	µ g/l	48.0	BDL	BDL	BDL	BDL	BDL
ALUMINUM, TOTAL	2000	µ g/l	40.0	13.0	5.0	8.0	3.0	2.0
CHROMIUM, TOTAL	50	µ g/l	2.0	BDL	BDL	BDL	BDL	1.0

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DECEMBER 2005

EFFLUENT PARAMETER	DISCHARGE LIMITATIONS	UNITS	COMPT MDL	WEEK 1	WEEK 2	WEEK 3	WEEK 4
				12/5/05	12/13/05	12/20/06	12/27/06
FLOW, DAILY AVG	MONITOR	GPD	NA	341440	256925	190214	
FLOW, DAILY MAX	MONITOR	GPD	NA	345100	348400	340600	OFF
VINYL CHLORIDE	5	µ g/l	1.1	BDL	BDL	BDL	
1,1-DICHLOROETHANE	5	µ g/l	1.1	BDL	BDL	BDL	
1,2-(TRANS)-DICHLOROETHENE	5	µ g/l	1.1	BDL	BDL	BDL	
1,2-(CIS)-DICHLOROETHENE	5	µ g/l	1.0	BDL	BDL	BDL	
1,1,1-TRICHLOROETHANE	5	µ g/l	1.4	BDL	BDL	BDL	
TRICHLOROETHENE	10	µ g/l	1.7	BDL	BDL	BDL	
BENZENE	0.7	µ g/l	0.7	BDL	BDL	BDL	
TETRACHLOROETHENE	5	µ g/l	1.2	BDL	BDL	BDL	
TOLUENE	5	µ g/l	1.2	BDL	BDL	BDL	
m,p-XYLENE	5	µ g/l	2.4	BDL	BDL	BDL	
o-XYLENE	5	µ g/l	1.3	BDL	BDL	BDL	
1,1-DICHLOROETHENE	5	µ g/l	1.2	BDL	BDL	BDL	
METHYL ETHYL KEYTONE	50	µ g/l	10.0	BDL	BDL	BDL	
ACETONE	50	µ g/l	10.0	BDL	BDL	BDL	
CHLOROFORM	7	µ g/l	1.1	BDL	BDL	BDL	
DICHLOROBROMOMETHANE	50	µ g/l	0.9	BDL	BDL	BDL	
DIBROMOCHLOROMETHANE	50	µ g/l	0.7	BDL	BDL	BDL	
NAPHTHALENE	10	µ g/l	1.7	BDL	BDL	BDL	
TOTAL VOCs		µ g/l	0.0	0.0	0.0	0.0	
PHENANTHRENE	50	µ g/l	1.0	BDL	BDL	BDL	
FLUORENE	50	µ g/l	1.0	BDL	BDL	BDL	
PYRENE	50	µ g/l	1.0	BDL	BDL	BDL	
BIS(2-ETHYLHEXYL)PHTHALATE	4.3	µ g/l	1.0	BDL	BDL	BDL	
DI-N-OCTYL PHTHALATE	50	µ g/l	1.0	BDL	BDL	BDL	
DIMETHYL PHTHALATE	50	µ g/l	1.0	BDL	BDL	BDL	
DIETHYL PHTHALATE	50	µ g/l	1.0	BDL	BDL	BDL	
IRON, TOTAL	600	µ g/l	2.0	12.0	18.0	26.0	
MANGANESE, TOTAL	600	µ g/l	1.0	17.0	17.0	18.0	
SUM IRON & MANGANESE	1000	µ g/l	NA	29.0	35.0	44.0	
NICKEL, TOTAL	2000	µ g/l	5.0	2.0	2.0	3.0	
ARSENIC, TOTAL	50	µ g/l	48.0	BDL	BDL	BDL	
ALUMINUM, TOTAL	2000	µ g/l	40.0	BDL	BDL	BDL	
CHROMIUM, TOTAL	50	µ g/l	2.0	1.0	BDL	BDL	

APPENDIX D
GROUNDWATER MONITORING REQUIREMENTS
2005

Appendix D

GROUNDWATER MONITORING REQUIREMENTS

1.0 Quarterly and Annual Groundwater Monitoring Well Sampling and Testing Procedures

1.1 Sampling Equipment:

- Grundfos Redi-flo Variable Performance Pump installed in well.
- BMI/MP1 - 115V Converter with a motor lead extension cable.
- Generator or power source that provides 115 volts
- Solinst water level meter
- Discharge hose stored in the port opening of the well cap
- Discharge hose stand
- Stop watch and a bucket with a known volume.
- Disposable latex or vinyl sampling gloves.
- Cooler with ice packs.
- Sample containers with labels.
- Field book and pen.

1.2 Sampling Procedures:

- Open the well cover, unscrew and remove the discharge hose from the port opening. Confirm the well number on the metal tag or label.
- Take the depth to water reading through the port opening. Measure from the top edge of the well cover. Use well records to obtain the total depth of the well and calculate the fluid volume in the casing.
- Start the generator and allow it to idle until it runs smoothly. Connect the converter to power source.
- Connect the converter to the well cover receptacle using the motor lead extension cable. Connect the discharge hose to the well cover and position it in the desired direction of flow using the discharge hose stand.
- Select RF2M with the mode selection knob on the converter. The frequency display should read 0.0 (zero). Set the VFD speed dial to the midpoint (12 o'clock position) or approximately 220 Hz.

- Start the pump by moving the start/stop switch to the start position.
- Adjust the flow rate by turning the speed dial until the desired performance is attained. (48 Hz for minimum pumping to 400 Hz for maximum pumping)
- Use a stopwatch and a bucket of known volume to measure the rate of discharge in gallons per minute.
- Calculate the minimum pumping time by multiplying the fluid volume in the casing by three to obtain the volume to be purged and dividing by the flow rate. While purging continues measure the flow rate several times to insure the discharge rate is stable. All pertinent information must be recorded in the field book.
- Once the required volume is purged, label the sample containers. Decrease the flow rate to an appropriate sampling flow. Put on disposal latex or vinyl sampling gloves and fill the containers as per laboratory requirements. Place the samples in a cooler with ice packs.
- To stop the pump move the start/stop switch on the converter box to stop. Unplug all connections and then stop the generator. Return the discharge hose to the port, recap the connections and lock the well cover in place.

1.3 Quarterly and Annual Analytical Tests and Methodologies

All laboratory analyses to monitor the groundwater conditions for the FTC remediation project were conducted at the Nassau County Department of Public Works, Special Projects Laboratory located at Cedar Creek Waste Water Treatment Facility in Wantagh, New York (NCDPW-Lab). The NCDPW-Lab is a New York State Department of Health, Environmental Laboratory Approval Program (ELAP) certified laboratory for all of the analytical tests performed for the monitoring program.

Analysis of collected groundwater samples for the groundwater monitoring program included:

- VOCs (EPA 524); detailed list of parameters found in Table 1
- Semi-VOCs (EPA 525); detailed list of parameters found in Table 2
- Metals (EPA 200.7, 206.2, 239.2)
- Field parameters (pH, conductivity and temperature)
- Water quality parameters (alkalinity, biochemical oxygen demand [BOD], chemical oxygen demand [COD], hardness, nitrite, nitrate, phosphorus, sodium, total kjeldahl nitrogen [TKN], ammonia sulfate, chlorides, total organic carbon [TOC], total dissolved solids [TDS], and total suspended solids [TSS]).

1.4 Quarterly and Annual Floating Product Wells and Monitoring Procedures

All groundwater monitoring wells that have historically been impacted by floating petroleum product (No. 2 fuel oil, gasoline) has been included in the monitoring program. Product, if present, is measured in each well using the following procedures:

- Each well is located and identified on a site map.
- The well is opened at the surface and the self-sealing plug is removed.
- An electronic interface probe is introduced into the well and slowly lowered to the oil/water interface.
- Product is identified by an audible solid tone; the depth to product is then measured from the top of the casing to an accuracy of (+,-) .01 feet.
- The interface probe is then slowly lowered until an audible beeping tone is detected. The depth to water is then measured from the top of the casing to an accuracy of (+,-) .01 feet.
- The measurements are repeated to assure accuracy and the interface probe is removed.
- The self sealing cap is replaced and the well is closed.

1.5 Quarterly and Annual Hydraulic Control Monitoring

In addition to the recovery of volatile organic contamination within the FTC plume, an equally important factor is the hydraulic containment of the site's plume. In order to monitor the hydraulic containment of the FTC plume, the measurement of water levels is necessary to establish the groundwater flow direction(s) and gradient(s). From this information, the remediation's recovery well system can be monitored to confirm the effectiveness of the hydraulic containment under various conditions and to adjust and modify the recovery well system pumping to maintain hydraulic plume containment until remediation termination criteria are met.

Water levels were measured using a steel tape and chalk or with an electronic water level meter. All water level measurements are referenced to msl, as an elevation in feet (ft). The water level elevations are plotted on a site base map, according to depth. Contour lines, indicating areas of equal elevation are then drawn, from which groundwater flow direction(s) and gradient(s) can be established.

1.6 Groundwater Cleanup Criteria

The FTC Record of Decision (ROD) established the Groundwater Cleanup Criteria that need to be met for the FTC site to be deemed remediated. The FTC Site's specific list of compounds and their required concentrations to achieve the remediation's goals can be found in Table 3.

APPENDIX D

Table 1

Volatile Organic Compound Analysis

(EPA Method 524)

List Of Analytes

1,1,1,2-Tetrachloroethane	Carbon Tetrachloride
1,1,1-Trichloroethane	Chloroacetonitrile
1,1,2,2-Tetrachloroethane	Chlorobenzene
1,1,2-Trichloroethane	Chloroethane
1,1-Dichloro-2-Propanone	Chloroform
1,1-Dichloroethane	Chloromethane
1,1-Dichloroethene	Dibromochloromethane
1,1-Dichloropropene	Dibromomethane
1,2,3-Trichlorobenzene	Dichlorodifluoromethane
1,2,3-Trichloropropane	Ethyl Benzene
1,2,4-Trichlorobenzene	Ethyl Ether
1,2,4-Trimethylbenzene	Ethyl Methacrylate
1,2-Dibromo-3-Chloropropane	Hexachlorobutadiene
1,2-Dibromoethane	Hexachloroethane
1,2-Dichlorobenzene	Isopropylbenzene
1,2-Dichloroethane	m,p-Xylene
1,2-Dichloropropane	Methacrylonitrile
1,3,5-Trimethylbenzene	Methyl Acrylate
1,3-Dichlorobenzene	Methyl Methacrylate
1,3-Dichloropropane	Methyl tertiary-Butyl-Ether (MTBE)
1,4-Dichlorobenzene	Methylene Chloride
2 - Nitropropane	Naphthalene
2,2-Dichloropropane	n-Butylbenzene
2-Butanone	Nitrobenzene
2-Chlorotoluene	n-Propylbenzene
2-Hexanone	o-Xylene
4-Chlorotoluene	Pentachloroethane
4-Methyl-2-Pentanone	p-Isopropyltoluene
Acetone	Propionitrile
Acrylonitrile	sec-Butylbenzene
Allyl Chloride	Styrene
Benzene	tert-Butylbenzene
Bromobenzene	Tetrachloroethene
Bromochloromethane	Tetrahydrofuran
Bromodichloromethane	Toluene
Bromoform	trans-1,2-Dichloroethene
Bromomethane	trans-1,3-Dichloropropene
Butyl Chloride	Trans-1,4-Dichloro-2-Butene
cis-1,2-Dichloroethene	Trichloroethene
cis-1,3-Dichloropropene	Trichlorofluoromethane
Carbon Disulfide	Vinyl Chloride

Analyses conducted by NCDPW Environmental Laboratory

Standard Method 524 VOCs
 Revision 4 Update VOCs

APPENDIX D

Table 2

Semi-Volatile Organic Compound Analysis

Base/Neutrals

(EPA Method 525)

List of Analytes

4--Chloro-3-methylphenol	Benzo(s) pyrene
2-Chlorophenol	Bis (2-chloroethoxy) methane
2,4-Dichlorophenol	Bis (2-chloroethyl) ether
2,4-Dimethylphenol	Bis (2-ethylhexy) phthalate
4,6-Dinitro-2-methylphenol	Bis (2-chloroisopropyl) ether
2,4-Dinitrophenol	4-Bromophenyl (phenyl) ether
2-Nitrophenol	Butyl benzyl phthalate
4-Nitrophenol	2-Chloronaphthalene
Pentachlorophenol	4-Chlorophenyl (phenyl) ether
Phenol	Chrysene
2,4,6-Trichlorophenol	Dibenz (g,h) anthracene
Aldrin	Di-n-butyl phthalate
a-BHC	1,2-Dichlorobenzene
b-BHC	1,3-Dichlorobenzene
d-BHC	1,4-Dichlorobenzene
g-BHC	Diethyl phthalate
Chlordane	Dimethyl phthalate
4,4'-DDD	2,4-Dinitrotoluene
4,4'-DDE	2,6-Dinitrotoluene
4,4'-DDT	Di-n-octyl phthalate
Dieldrin	Fluoranthene
Endosulfan I	Fluorene
Endosulfan II	Hexachlorobenzene
Endosulfan sulfate	Hexachlorobutadiene
Endrin	Hexachlorocyclopentadiene
Endrin aldehyde	Hexachloroethane
Heptachlor	Indeno (1,2,3-cd) pyrene
Heptachlor epoxide(B)	Isophorone
Acenaphthene	Naphthalene
Acenaphthylene	Nitrobenzene
Anthracene	N-Nitrosodimethylamine
Azobenzene	N-Nitrosodi-n-propylamine
Benz(s) anthracene	N-Nitrosodiphanylemine
Benzo(b) fluoranthene	Phenanthrene
Benzo(k) fluoranthene	Pyrene
Benzo (g,h,i) perylene	1,2,4-Trichlorobenzene

APPENDIX D

Table 3

NASSAU COUNTY FTC GROUNDWATER CLEANUP CRITERIA	
Volatile Compounds Identified In Risk Assessment	NYS State Groundwater Standards 6 NYCRR 703.5 (ug/l)
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)

APPENDIX E
GEOLOGICAL WELL LOGS
FOR WELLS INSTALLED IN 2005



DEPARTMENT OF PUBLIC WORKS
DIVISION OF SANITATION & WATER SUPPLY
NASSAU COUNTY, NEW YORK



WELL LOG

PROJECT: FTC Upgraded Source(s)
 DATE PREPARED: 11/12/05 BY: M. Flaherty
 WELL NO.: BP-15B
 LOCATION: Bethpage St. Park (#13green)
 M.P. ELEVATION: approx. 98 ft. msl
 DRILLING STARTED: 10/7/05 ENDED: 10/12/05
 DRILLER: C. Stiebel, Delta Well and Pump
 TYPE OF RIG: Mud Rotary
 PAGE: 1 OF: 1

WELL DATA
 HOLE DIAM. (IN.) 7 7/8
 FINAL DEPTH (FT.) 235
 CASING DIAM. (IN.) 4
 CASING LENGTH (FT.) 210
 SCREEN SETTING (FT.) 210-230
 SCREEN SLOT & TYPE 10/32" SS
 WELL STATUS Monitoring

G W READING (1)		
DATE	DTW MP(2)	ELEV. W.T

SAMPLER
 TYPE: split spoon
 HAMMER: LB.
 FALL: Sampling Tools IN.

DEVELOPMENT
Air lift

DEPTH (FT.)	LITHOLOGY	SAMPLE DESCRIPTION	SAMPLE			
			NO	REC.	DEPTH	BLOWS

Note: well installed to
Total Depth (TD) using
 lithologic and geophysical
 data collected while drilling
BP-15C.

NOTES: (1) IN FEET RELATIVE TO A COMMON DATUM
 (2) FROM TOP OF PVC CASING



DEPARTMENT OF PUBLIC WORKS
DIVISION OF SANITATION & WATER SUPPLY
NASSAU COUNTY, NEW YORK



WELL LOG

PROJECT: Frc Upgradient Sources
 DATE PREPARED: 11/10/05 BY: M. Flaherty
 WELL NO: BP-15C
 LOCATION: Bethpage St. Park #3 gate
 M.P. ELEVATION: approx. 98 ft. msl
 DRILLING STARTED: 10/14/05 ENDED: 10/16/05
 DRILLER: C. Stebel, Delta Well & Pump
 TYPE OF RIG: Mud Rotary
 PAGE: 1 OF: 6

WELL DATA
 HOLE DIAM. (IN.) 1 7/8
 FINAL DEPTH (FT.) 330 (58 ft. S)
 CASING DIAM. (IN.) 4
 CASING LENGTH (FT.) 255
 SCREEN SETTING (FT.) 255-295
 SCREEN SLOT & TYPE 10 slot ss
 WELL STATUS Monitoring

G W READING (1)		
DATE	DTW MP(2)	ELEV. W.T

SAMPLER
 TYPE: split spoon
 HAMMER: LB.
 FALL: Sampling Jars IN.

DEVELOPMENT
Air lift

DEPTH (FT.)	LITHOLOGY	SAMPLE DESCRIPTION	SAMPLE			
			NO	REC.	DEPTH	BLOWS
0-10	Top Soil/loam	Tan, brown, dark brown loamy Top Soil				
10-20	Sand and Gravel	Tan, Brown, medium-coarse quartz sand with assorted gravel, granules some cobbles. (Trace orange clay) <u>from wash samples.</u>				
20-30	Orange Clay	orange, firm clay, some tan. <u>from wash samples</u>				
30-40	Tan Sand	Tan, fine-medium, well sorted, subangular-subround quartz sand.				
40-50	Tan Sand	Tan, dense, silty firm clay (2 in. recovery in drive shoe).	1	2"	43-45	—
50-60	Tan Sand	Tan, fine-medium, well sorted, subangular-subround quartz sand.				

NOTES: (1) IN FEET RELATIVE TO A COMMON DATUM
 (2) FROM TOP OF PVC CASING



DEPARTMENT OF PUBLIC WORKS
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NASSAU COUNTY, NEW YORK



WELL LOG

PROJECT: <u>FTC - Upgrade Sewer</u>		WELL DATA		G W READING (1)		
DATE PREPARED: <u>11/10/05</u> BY: <u>M. Flaherty</u>		HOLE DIAM. (IN.)	<u>7 7/8</u>	DATE	DTW MP(2)	ELEV. W.T.
WELL NO: <u>BP-15C</u>		FINAL DEPTH (FT.)	<u>330 (58' Sng)</u>			
LOCATION: <u>Bethpage St. Park</u>		CASING DIAM. (IN.)	<u>4</u>			
M.P. ELEVATION: <u>approx. 98 ft. nsl</u>		CASING LENGTH (FT.)	<u>255</u>			
DRILLING STARTED: <u>10/3/05</u> ENDED: <u>10/6/05</u>		SCREEN SETTING (FT.)	<u>255-295</u>			
DRILLER: <u>C. Stiebel, Delta Well & Pump</u>		SCREEN SLOT & TYPE	<u>10 slot (cs)</u>			
TYPE OF RIG: <u>Mud Rotary</u>		WELL STATUS	<u>Monitoring</u>	DEVELOPMENT		
PAGE: <u>2</u> OF: <u>6</u>		SAMPLER		Air lift		
		TYPE: <u>Split Spoon</u>				
		HAMMER: _____ LB.				
		FALL: <u>Sampling Jars</u> IN.				

DEPTH (FT.)	LITHOLOGY	SAMPLE DESCRIPTION	SAMPLE			
			NO	REC.	DEPTH	BLOWS
70	Tan Sand	Tan, cream, fine-medium, well sorted subangular-subround quartz sand (Clean, non-silty matrix). Sample saturated	2	6"	73-75 ft.	—
90	Tan Sand					
100						
110	Tan Sand (sm silty)	Tan, Buff, pink, multi-colored, banded, medium-coarse, some very coarse, subround quartz sand, some micaceous (biotite), trace lignite, some oxidized layers.	3	8"	102-105 ft.	—
120						

NOTES: (1) IN FEET RELATIVE TO A COMMON DATUM
(2) FROM TOP OF PVC CASING



DEPARTMENT OF PUBLIC WORKS
DIVISION OF SANITATION & WATER SUPPLY
NASSAU COUNTY, NEW YORK



WELL LOG

PROJECT: FTC - Upgrade Sources
DATE PREPARED: 11/10/05 BY: M. Flaherty
WELL NO: BP-15c
LOCATION: Bethpage St. Park
M.P. ELEVATION: approx. 98 ft. msl
DRILLING STARTED: 10/2/05 ENDED: 10/6/05
DRILLER: C. Stebel, Delta Well & Pump
TYPE OF RIG: mud rotary
PAGE: 3 OF: 6

WELL DATA

HOLE DIAM. (IN.) 7 1/8
FINAL DEPTH (FT.) 330 (5ft. Surf)
CASING DIAM. (IN.) 4
CASING LENGTH (FT.) 255
SCREEN SETTING (FT.) 255-295
SCREEN SLOT & TYPE 1/2 slot (S)
WELL STATUS Monitoring

G W READING (1)

DATE | DTW MP(2) | ELEV. W.T.

SAMPLER

TYPE: split spoon
HAMMER: _____ LB.
FALL: Sampling Jars IN.

DEVELOPMENT

Air lift

DEPTH (FT.)	LITHOLOGY	SAMPLE DESCRIPTION	SAMPLE			
			NO	REC.	DEPTH	BLOWS
130	Tan Silty Sand	(T) 8" Tan, buff, medium grained, well sorted, subangular-subround quartz sand banded w/tr. silt. 8" Cream, buff fine-medium, well sorted, subangular-subround, quartz sand, very clean matrix. (B) 4" Tan, buff, silty, fine, well sorted quartz sand. 2" soft, buff clay, 2" orange-buff well sorted, subangular-subround quartz sand.	4	24"	133-135	—
140	Tan Sand (sm silty)					
150						
160	Tan-Brown Clay	(T) 8" Tan, firm clay w/some finely laminated silty sand 4" Grey, fine-very fine, well sorted micaceous silty sand (B) 8" Tan, Brown, firm clay 4" Tan, Brown clay with finely laminated	5	24"	163-165	—
170						
180	Tan Sand (sm silty)					

NOTES: (1) IN FEET RELATIVE TO A COMMON DATUM
(2) FROM TOP OF PVC CASING



DEPARTMENT OF PUBLIC WORKS
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NASSAU COUNTY, NEW YORK



WELL LOG

PROJECT: Fre - Upgrade Sources
 DATE PREPARED: 11/10/05 BY: M. Fahren
 WELL NO: BP-15C
 LOCATION: Bethpage St. Park
 M.P. ELEVATION: Approx. 98 ft. MSL
 DRILLING STARTED: 10/3/05 ENDED: 10/6/05
 DRILLER: C. Stred, Delta Well & Pump
 TYPE OF RIG: Mud Rotary
 PAGE: 4 OF: 6

WELL DATA
 HOLE DIAM. (IN.) 7/8
 FINAL DEPTH (FT.) 330 (Sta. Sand)
 CASING DIAM. (IN.) 4
 CASING LENGTH (FT.) 255
 SCREEN SETTING (FT.) 255-295
 SCREEN SLOT & TYPE 10/64 (S)
 WELL STATUS Monitoring

G W READING (1)		
DATE	DTW MP(2)	ELEV. W.T

SAMPLER
 TYPE: Split Spoon
 HAMMER: LB.
 FALL: Sampling Jaws IN.

DEVELOPMENT
Air lift

DEPTH (FT.)	LITHOLOGY	SAMPLE DESCRIPTION	SAMPLE			
			NO	REC.	DEPTH	BLOWS
190	Grey Sand	Grey, Buff, fine-medium grained, well sorted, subangular-subround, micaceous quartz sand, trace silt	6	24"	193-195	—
210	Grey Clay	(T) 6" orange buff, fine, silty quartz sand, micaceous, 2" grey tan, laminated clay, 5" tan, cream, fine-medium, well sorted quartz sand, 3" grey clay, soft w/ some fine sand	7	16"	208-210	—
220	Tan Sand (sm silt)	Tan, Buff, Grey, Green (multi), fine-very fine, well sorted quartz sand with alternating layers of micaceous silt, soft, <u>not tight</u> .	8	24"	223-225	—
240	Tan Sand (sm silt)	Tan, Buff, fine-very fine, well sorted quartz sand, micaceous with large muscovite flakes, some silt, 1" tan soft clay @ bottom of core.	9	16"	238-240	—

NOTES: (1) IN FEET RELATIVE TO A COMMON DATUM
 (2) FROM TOP OF PVC CASING



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NASSAU COUNTY, NEW YORK



WELL LOG

PROJECT: <u>FTC - Upgradient Sources</u>		WELL DATA		G W READING (1)	
DATE PREPARED: <u>11/10/05</u> BY: <u>M. Flaherty</u>		HOLE DIAM. (IN.)	<u>7 1/4"</u>	DATE	
WELL NO: <u>BP-15c</u>		FINAL DEPTH (FT.)	<u>330 (5ft. Sup)</u>	DTW MP(2)	
LOCATION: <u>Bethpage St. Park</u>		CASING DIAM. (IN.)	<u>4</u>	ELEV. W.T	
M.P. ELEVATION: <u>APPROX. 98 ft. msl</u>		CASING LENGTH (FT.)	<u>255</u>		
DRILLING STARTED: <u>10/3/05</u> ENDED: <u>10/6/05</u>		SCREEN SETTING (FT.)	<u>255-295</u>		
DRILLER: <u>C. Stebel, Delta Well & Pump</u>		SCREEN SLOT & TYPE	<u>10 slot (S)</u>		
TYPE OF RIG: _____		WELL STATUS	<u>Monitoring</u>		
PAGE: <u>5</u> OF: <u>6</u>		SAMPLER		DEVELOPMENT	
		TYPE: <u>split spoon</u>		Air Lift.	
		HAMMER: _____ LB.			
		FALL: <u>Sampling Jaws</u> IN.			

DEPTH (FT.)	LITHOLOGY	SAMPLE DESCRIPTION	SAMPLE			
			NO	REC.	DEPTH	BLOWS
250	Tan Sand					
260		(T) 4" Red, orange, medium grained, well sorted, quartz sand, w/sub-angular clasts, some coarse 2" orange, buff fine-medium, moderately sorted, quartz sand w/oxidized concretions (B) 18" Tan, buff, fine-very fine, well sorted quartz sand TRSIF	10	29"	268-276	—
270	Tan Sand					
280	Tan Sand					
290						
300	Grey Clay (lignite)	Grey, Black, dense, lignitic clay (numerous large chunks), Bottom 2" Grey, Dark, fine-medium, well sorted quartz sand.	11	14"	298-300	—
310						

NOTES: (1) IN FEET RELATIVE TO A COMMON DATUM
(2) FROM TOP OF PVC CASING



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DIVISION OF SANITATION & WATER SUPPLY
NASSAU COUNTY, NEW YORK



WELL LOG

PROJECT: <u>FTC - Upgradient Sources</u>		WELL DATA		G W READING (1)	
DATE PREPARED: <u>11/10/05</u>	BY: <u>M. Flaherty</u>	HOLE DIAM. (IN.)	<u>1 1/8</u>	DATE	
WELL NO: <u>BP-15c</u>		FINAL DEPTH (FT.)	<u>330 (Sta. Log)</u>	DTW MP(2)	
LOCATION: <u>Delaney St. Park</u>		CASING DIAM. (IN.)	<u>4</u>	ELEV. W.T.	
M.P. ELEVATION: <u>approx. 98 ft.</u>		CASING LENGTH (FT.)	<u>255</u>		
DRILLING STARTED: <u>10/5/05</u>	ENDED: <u>10/6/05</u>	SCREEN SETTING (FT.)	<u>255-295</u>		
DRILLER: <u>C. Stebel, Delta Well & Pump</u>		SCREEN SLOT & TYPE	<u>10 slot (SS)</u>		
TYPE OF RIG: <u>Mid Rotary</u>		WELL STATUS	<u>Monitoring</u>		
PAGE: <u>6</u>	OF: <u>6</u>	SAMPLER		DEVELOPMENT	
		TYPE: <u>split spoon</u>		Air Lift	
		HAMMER: _____ LB.			
		FALL: <u>Sampling Jar</u> IN.			

DEPTH (FT.)	LITHOLOGY	SAMPLE DESCRIPTION	SAMPLE			
			NO	REC.	DEPTH	BLOWS
	Grey clay	Grey, dark grey, dense, hard tight clay.	12	12"	313-315	—
320	Grey Silt	Grey, Black, banded, silt, Soft, some moisture in sample.	13	24"	328-330	—
330	TD = 330 ft.					

NOTES: (1) IN FEET RELATIVE TO A COMMON DATUM
(2) FROM TOP OF PVC CASING



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DIVISION OF SANITATION & WATER SUPPLY
NASSAU COUNTY, NEW YORK



WELL LOG

PROJECT: <u>FC - Upgradient Source(s)</u>		WELL DATA		G W READING (1)		
DATE PREPARED: <u>11/10/05</u> BY: <u>M. Flaherty</u>		HOLE DIAM. (IN.)	<u>7 7/8</u>	DATE	DTW MP(2)	ELEV. W.T.
WELL NO: <u>OBV-1B</u>		FINAL DEPTH (FT.)	<u>193</u>			
LOCATION: <u>old Bethpage Village (Sark)</u>		CASING DIAM. (IN.)	<u>10 1/4</u>			
M.P. ELEVATION: <u>approx. 148 ft. msl</u>		CASING LENGTH (FT.)	<u>168</u>			
DRILLING STARTED: <u>8/24/05</u> ENDED: <u>9/1/05</u>		SCREEN SETTING (FT.)	<u>168-188</u>			
DRILLER: <u>K. Cronin, Decker Well and Pump</u>		SCREEN SLOT & TYPE	<u>10 slot (SS)</u>			
TYPE OF RIG: <u>Mud Rotary</u>		WELL STATUS	<u>Monitoring</u>	DEVELOPMENT		
PAGE: <u>1</u> OF: <u>1</u>		SAMPLER				
		TYPE: <u>Split Spoon</u>				
		HAMMER: _____ LB.				
		FALL: <u>Sampling Jar 5</u> IN.				

DEPTH (FT.)	LITHOLOGY	SAMPLE DESCRIPTION	SAMPLE			
			NO	REC.	DEPTH	BLOWS
10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193		<p><u>Note:</u> Well installed to Total Depth (TD) using lithologic and geophysical data collected while drilling <u>OBV-1C.</u></p>				

NOTES: (1) IN FEET RELATIVE TO A COMMON DATUM
(2) FROM TOP OF PVC CASING



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DIVISION OF SANITATION & WATER SUPPLY
NASSAU COUNTY, NEW YORK



WELL LOG

PROJECT: <u>FTC - upgradient Source</u>		WELL DATA		G W READING (1)		
DATE PREPARED: <u>9/21/05</u> BY: <u>M. Flaherty</u>		HOLE DIAM. (IN.)	<u>7 7/8</u>	DATE	DTW MP(2)	ELEV. W.T.
WELL NO: <u>OBV-1C</u>		FINAL DEPTH (FT.)	<u>300 ft.</u>			
LOCATION: <u>Old Bethpage Village (South)</u>		CASING DIAM. (IN.)	<u>4</u>			
M.P. ELEVATION: <u>approx. 148 ft. (MSL)</u>		CASING LENGTH (FT.)	<u>255 ft.</u>			
DRILLING STARTED: <u>8/16/05</u> ENDED: <u>8/23/05</u>		SCREEN SETTING (FT.)	<u>255-275</u>			
DRILLER: <u>Keith Conin, Delta Well Pump</u>		SCREEN SLOT & TYPE	<u>10 slot (SS)</u>			
TYPE OF RIG: <u>Mud Rotary</u>		WELL STATUS	<u>Monitoring</u>	DEVELOPMENT		
PAGE: <u>1</u> OF: <u>5</u>		SAMPLER		high capacity - air lift		
		TYPE: <u>split spoon</u>				
		HAMMER: <u>150</u> LB.				
		FALL: <u>Sampling Jars</u> IN.				

DEPTH (FT.)	LITHOLOGY	SAMPLE DESCRIPTION	SAMPLE			
			NO	REC.	DEPTH	BLOWS
	Top Soil					
	silty clay	Dry hard, silt and clay, near surface				- Wash Samples -
10	silty sand & gravel	Tan, Brown, silty quartz sand with coarse gravel.				
20	Multi-colored fine-medium quartz sand	Tan, some multi-colored fine quartz sand with some soft clay				- wash Samples -
30	Multi-colored quartz sand	Tan, white, some multi-colored, fine-medium grained quartz sand, some soft finely laminated silty, micaceous clay				- wash Samples -
40	Dark grey clay					- wash Samples
50		- Driller reports hardpan @ 53 ft. -				
60	Dark grey clay	Dark grey, grey, firm, dense clay				- wash Samples

NOTES: (1) IN FEET RELATIVE TO A COMMON DATUM
(2) FROM TOP OF PVC CASING



DEPARTMENT OF PUBLIC WORKS
DIVISION OF SANITATION & WATER SUPPLY
NASSAU COUNTY, NEW YORK



WELL LOG

PROJECT: FTC - upgrade of source
 DATE PREPARED: 9/21/05 BY: M. Flaherty
 WELL NO: OB11-1C
 LOCATION: Old Bethpage Village (S)
 M.P. ELEVATION: approx. 148 ft. (msl)
 DRILLING STARTED: 8/16/05 ENDED: 8/23/05
 DRILLER: Keith Conin, Delta Well
 TYPE OF RIG: Mud Rotary
 PAGE: 2 OF: 5

WELL DATA
 HOLE DIAM. (IN.) 7 7/8
 FINAL DEPTH (FT.) 300 ft.
 CASING DIAM. (IN.) 4
 CASING LENGTH (FT.) 255 ft.
 SCREEN SETTING (FT.) 255-275
 SCREEN SLOT & TYPE 10 slot (SS)
 WELL STATUS Monitoring

G W READING (1)

DATE	DTW MP(2)	ELEV. W.T.

SAMPLER
 TYPE: split spoon
 HAMMER: 150 LB.
 FALL: sample Jolt IN.

DEVELOPMENT
high capacity - air lift

DEPTH (FT.)	LITHOLOGY	SAMPLE DESCRIPTION	SAMPLE			
			NO	REC.	DEPTH	BLOWS
70	Grey Clay Tan sand and clay	- driller reports formation change @ 66 ft. Tan sand, alternating with Tan clay sand.			wash	Samples -
80	Tan Sand	Tan, fine-medium grained quartz sand, micaceous				
90	Tan Sand	Tan, fine-medium grained quartz sand	1	10"	88-90	-
100	Tan Sand	Tan, Buff, fine-medium, well sorted, subangular-subround quartz sand in a non-silty matrix.				
110	Tan Sand	Tan, Buff, fine-medium, well sorted, subangular-subround, quartz sand,				
120	Tan Sand	Tan, Buff, fine-medium, well sorted, subangular-subround quartz sand, some silty fine-very fine well sorted quartz sand	2	10"	118-120	-

NOTES: (1) IN FEET RELATIVE TO A COMMON DATUM
 (2) FROM TOP OF PVC CASING



DEPARTMENT OF PUBLIC WORKS
DIVISION OF SANITATION & WATER SUPPLY
NASSAU COUNTY, NEW YORK



WELL LOG

PROJECT: FIC - Upgradient Source
 DATE PREPARED: 9/21/05 BY: M. Flaherty
 WELL NO: DRN-1C
 LOCATION: Old Bethpage Village (S)
 M.P. ELEVATION: approx. 148 ft. msl
 DRILLING STARTED: 8/14/05 ENDED: 8/23/05
 DRILLER: Keith Cronin - Delta Well
 TYPE OF RIG: Mud Rotary
 PAGE: 3 OF: 5

WELL DATA

HOLE DIAM. (IN.) 7 1/8
 FINAL DEPTH (FT.) 300 ft.
 CASING DIAM. (IN.) 4 (PVC)
 CASING LENGTH (FT.) 255 ft.
 SCREEN SETTING (FT.) 255-275
 SCREEN SLOT & TYPE 10 silt (SS)
 WELL STATUS monitoring

G W READING (1)

DATE	DTW MP(2)	ELEV. WT

SAMPLER

TYPE: split spoon
 HAMMER: 150 LB.
 FALL: Sampling Tools IN.

DEVELOPMENT

High capacity - air lift

DEPTH (FT.)	LITHOLOGY	SAMPLE DESCRIPTION	SAMPLE			
			NO	REC.	DEPTH	BLOWS
130	Tan Sand	Tan, fine-medium, well sorted, subangular-subround quartz sand, occasional thin clay layers				
140	Tan Sand					
150	Tan Sand (occ. silt)	Tan, Buff, multi-colored, fine-very fine laminated quartz sand with silt.	3	24"	148-150	—
160						
170	Tan Sand (occ. silt)					
180	Tan Sand (occ. silt)	Tan, fine-medium well sorted, quartz sand with white, grey, buff very fine silty quartz sand	4	10"	178-180	—

NOTES: (1) IN FEET RELATIVE TO A COMMON DATUM
 (2) FROM TOP OF PVC CASING



DEPARTMENT OF PUBLIC WORKS
DIVISION OF SANITATION & WATER SUPPLY
NASSAU COUNTY, NEW YORK



WELL LOG

PROJECT: FTC - upgraded Source
 DATE PREPARED: 9/21/05 BY: M. Flaherty
 WELL NO: OSV-1C
 LOCATION: Old Bethpage Village (6)
 M.P. ELEVATION: approx. 148 ft. msl
 DRILLING STARTED: 8/16/05 ENDED: 8/23/05
 DRILLER: Keith Conin, Delta Well
 TYPE OF RIG: Med Rotary
 PAGE: 4 OF: 5

WELL DATA
 HOLE DIAM. (IN.) 7 7/8
 FINAL DEPTH (FT.) 300
 CASING DIAM. (IN.) 4 (PVC)
 CASING LENGTH (FT.) 255
 SCREEN SETTING (FT.) 255-275
 SCREEN SLOT & TYPE 10 slot (SS)
 WELL STATUS Monitoring

G W READING (1)		
DATE	DTW MP(2)	ELEV. WT

SAMPLER
 TYPE: Split Spoon
 HAMMER: 150 LB.
 FALL: Sampling Tars IN.

DEVELOPMENT
High Capacity -
air lift

DEPTH (FT.)	LITHOLOGY	SAMPLE DESCRIPTION	SAMPLE			
			NO	REC.	DEPTH	BLOWS
190	Brown Sand	Tan, Brown, fine-medium, well sorted, subangular-subround quartz sand, some silty.				
200	Brown Sand	Brown, Buff, fine-medium, some very fine, well sorted, micaceous, sub-angular-subround quartz sand				
210	Grey Clay	Grey, Buff, silty soft clay, thin limonite (oxidized hard @ 210 ft.)	5	14"	208-210	—
220	Sand and clay	Tan, Grey, clay with/alternating layers of Tan, fine-medium sand				
230	Tan Sand					
240	Brown "hard pan" Sand	Tan, Brown, Buff, fine-medium, some very fine, well sorted subangular-subround quartz sand (tight) oxidized @ 240 ft.	6	20"	238-240	—
	Tan Sand					

NOTES: (1) IN FEET RELATIVE TO A COMMON DATUM
 (2) FROM TOP OF PVC CASING



DEPARTMENT OF PUBLIC WORKS
DIVISION OF SANITATION & WATER SUPPLY
NASSAU COUNTY, NEW YORK



WELL LOG

PROJECT: Fr - upgraded Source

DATE PREPARED: 7/21/05 BY: M. Flaherty

WELL NO: OBU-1C

LOCATION: Old Bethpage Village (6)

M.P. ELEVATION: approx. 148 msl

DRILLING STARTED: 8/16/05 ENDED: 8/23/05

DRILLER: Keith Conin - Delta Well

TYPE OF RIG: Mud Rotary

PAGE: 5 OF: 5

WELL DATA

HOLE DIAM. (IN.) 7 7/8
FINAL DEPTH (FT.) 300
CASING DIAM. (IN.) 4 (PVC)
CASING LENGTH (FT.) 255
SCREEN SETTING (FT.) 255-275
SCREEN SLOT & TYPE 1/8 slot (SS)
WELL STATUS Monitoring

G W READING (1)

DATE	DTW	MP(2)	ELEV. W.1

SAMPLER

TYPE: split spoon
HAMMER: 150 LB.
FALL: splitting jaws IN.

DEVELOPMENT

High capacity
air lift

DEPTH (FT.)	LITHOLOGY	SAMPLE DESCRIPTION	SAMPLE			
			NO	REC.	DEPTH	BLOWS
250	Brown "hard Pan"	Brown, dense, oxidized sand layers - <u>very hard drilling</u>				
260	Tan Sand					
270		Tan, cream, buff, fine-medium, well sorted, subangular-subround, micaceous quartz sand, some silt	7	24"	268-270	—
280	Multi-Clay	(T) 12" multi-colored, finely laminated silt, 8" multi-colored, finely laminated clay, with carbonized "logs" (B) 4" multi-colored, fine-very fine laminated quartz sand with some silt	8	24"	283-285	—
290	Multi-Colored Silty Sand					
300	Silty Clay	Green, Gray, Buff, multi-colored, micaceous, fine-very fine quartz sand with alternating layers of silt 4" mottled grey-orange clay	9	24"	298-300	—

NOTES: (1) IN FEET RELATIVE TO A COMMON DATUM
(2) FROM TOP OF PVC CASING