FIREMEN'S TRAINING CENTER
GROUNDWATER REMEDIATION

# DEPARTMENT OF PUBLIC WORKS

## Nassau County

Long Island, New York

# ANNUAL OPERATIONS MONITORING SUMMARY

# 2006

# Fireman's Training Center Groundwater Remediation Annual Operations and Environmental Monitoring Summary For Year 2006

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# 1.0 2006 Treatment Plant Operations

## 1.1 Treatment Systems Configuration

The Firemen's Training Center Groundwater Remediation Facility (FTCGRF) was originally constructed to extract contaminated groundwater from up to 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) 2006 (January 1, 2006 to December 31, 2006), the FTCGRF recovered groundwater from both the off-site and on-site recovery well systems. 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. 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 originally 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 Operations Events

Onsite groundwater treatment was resumed on September 27, 2006, due to the presence of elevated levels of volatile organic compounds in groundwater collected from onsite monitoring wells during quarterly sampling. A plant effluent connection was made to the Nassau County Sanitary Sewer System on July 12, 2006. This connection allowed for a portion of the treated effluent to be diverted to the sanitary sewer. By diverting effluent flow, plant treatment capacity was increased allowing for the resumption of onsite treatment and for more efficient operation of the offsite recovery system by adding two additional offsite recovery wells at a combined flow rate of 300 gpm.

# 2.0 2006 Treatment Plant Operations Monitoring Results

## 2.1 Total Flows and On-Line Performance

The FTCGRF completed 7.5 years of remediation at the end of OY 2006. During OY 2006, the facility recovered and treated a total of 205,633,383 gallons of contaminated groundwater. 190,712,333 gallons were pumped from the off-site (Plume) recovery well network and 14,921,050 gallons were pumped from the on-site (Source) recovery well network.

Figure 1 shows typical daily flow rates for each week of OY 2006. Detailed monthly summaries of flow are below:

| MONTH | 2006 |
|---|---|
| JANUARY | 4,316,800 |
| FEBRUARY | 8,365,900 |
| MARCH | 10,577,900 |
| APRIL | 8,070,750 |
| MAY | 9,615,350 |
| JUNE | 9,882,700 |
| JULY | 8,426,033 |
| AUGUST | 25,174,900 |
| SEPTEMBER | 29,005,867 |
| OCTOBER | 30,988,233 |
| NOVEMBER | 29,670,200 |
| DECEMBER | 31,538,750 |
| **TOTAL** | 205,633,383 |

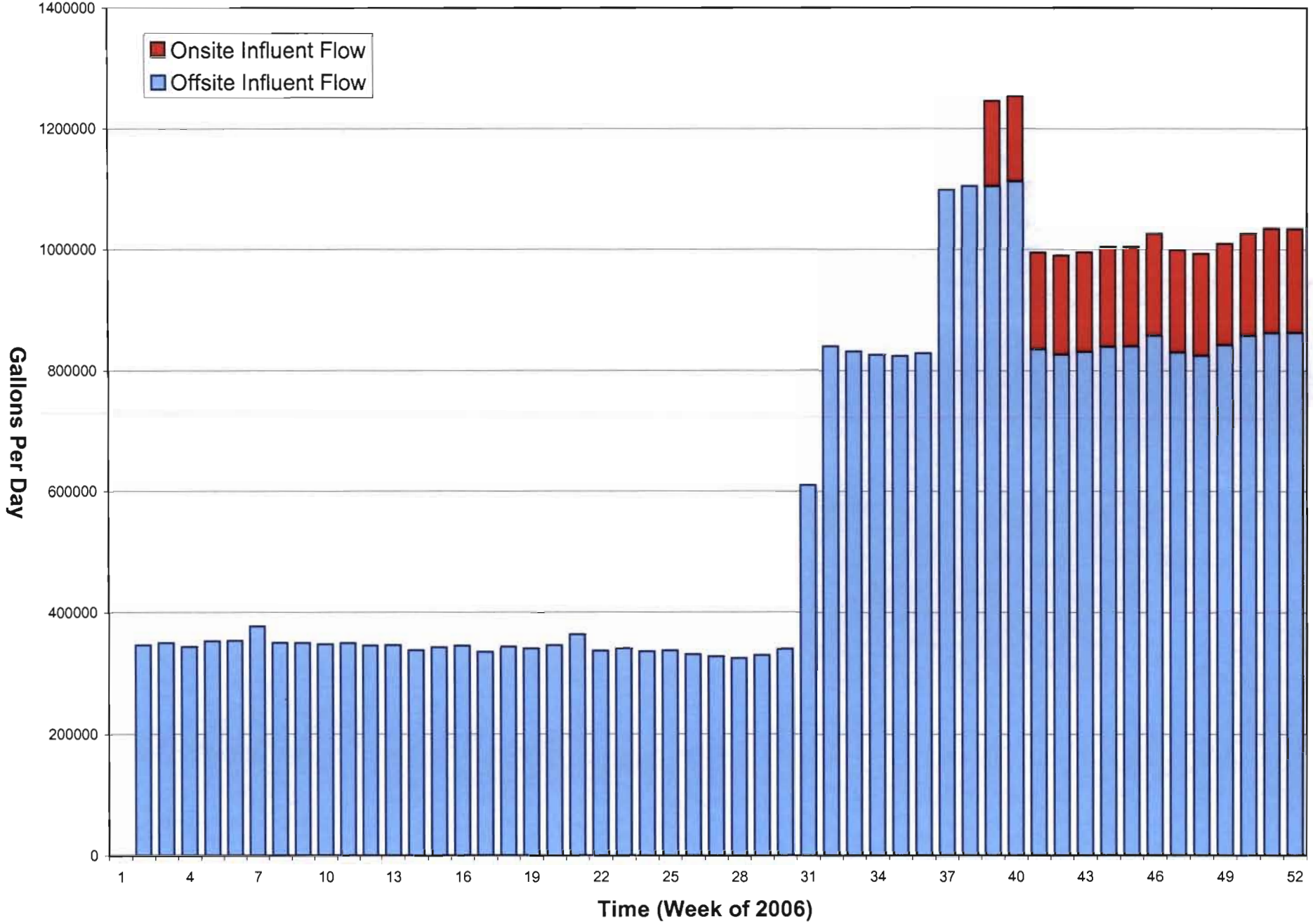
At the conclusion of OY 2006, the FTCGRF had treated 205,633,383 gallons of contaminated groundwater for a cumulative total of 1,697,392,091 gallons during the 7.5 years of remediation. A summary for each operating year is provided below:

| YEAR | ON-SITE FLOW | OFF-SITE FLOW | ANNUAL TOTAL | CUMULATIVE TOTAL |
|---|---|---|---|---|
| 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 |
| 2006 | 14,921,050 | 190,712,333 | 205,633,383 | 1,697,392,091 |

The FTCGTF operated a total of 7,997 hours out of a possible 8,760 hours for the year. This resulted in an overall on-line performance of 91% during OY 2006. The majority of system downtime was due to computer related shutdowns, 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.

Figure 1

# FTC SITE - 2006 - INFLUENT FLOW



## 2.2 Influent Water Quality Results

### 2.2.1 On-Site Influent Water Quality Results

On-site influent water quality samples were collected on a weekly basis, following the resumption of treatment on September 27, 2006. The samples were analyzed for volatile organic compounds (VOC's), Semi-volatile organic compounds (SVOC's) and metals. Detailed monthly data summaries are presented in Appendix B. The onsite recovery system was operated to treat onsite groundwater in the vicinity of the former flammable liquids training area, considered to be the most contaminated source on the FTC. The onsite influent concentrations of total volatile organic compounds (TVOC's) ranged from 464 ppb to 1,069 ppb, see Figure 2A. The influent collected from onsite recovery well RW-1, was comprised entirely of petroleum related compounds, up to fifteen individual compounds were detected including; Ethylbenzene, o,m,p Xylene, and 1,3,5 Trimethylbenzene, see Figure 3. The FTCGRF is required by the State to monitor seven SVOC's in it's effluent: Phenanthrene, Flourene, Pyrene, Bis(2-ethylhexl)phthalate, Di-N-octyl Phthalate and Diethyl Phthalate. Only Bis(2-ethylhexl)phthalate was detected in onsite effluent at concentrations ranging from 7.7 to 30 ppb.
The FTCGRF is also required by the state to monitor six metals in its discharge: iron, manganese, nickel arsenic, aluminum and chromium. Iron and manganese are naturally occurring metals in the soils and groundwater of Long Island. During OY 2006 the average influent concentration for iron was 20 ppm, and the average concentration for manganese was 3 ppm. These levels are somewhat elevated relative to native groundwater, however they reflect typical concentrations encountered at other Long Island groundwater remediation sites, especially those impacted by landfill leachate. Nickel was consistently observed in onsite influent samples with levels ranging from 2 ppb to 10 ppb. Arsenic was detected in all influent samples at concentrations ranging from 19 ppb to 47 ppb. Aluminum was also detected regularly while chromium was detected sporadically in the onsite influent. The highest level detected for aluminum was 44 ppb and for chromium 1 ppb. Both levels were well below the facilities discharge limits of 2,000 ppb and 50 ppb, respectively.

### 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 2B and a weekly summary of total volatile organic compounds (TVOC's) is presented in Figure 3. The influent TVOC's average for OY 2006 was 74 ppb, this was significantly less than the off-site TVOC's average concentration for the first year of operation of 317.8 ppb.

Figure 2A

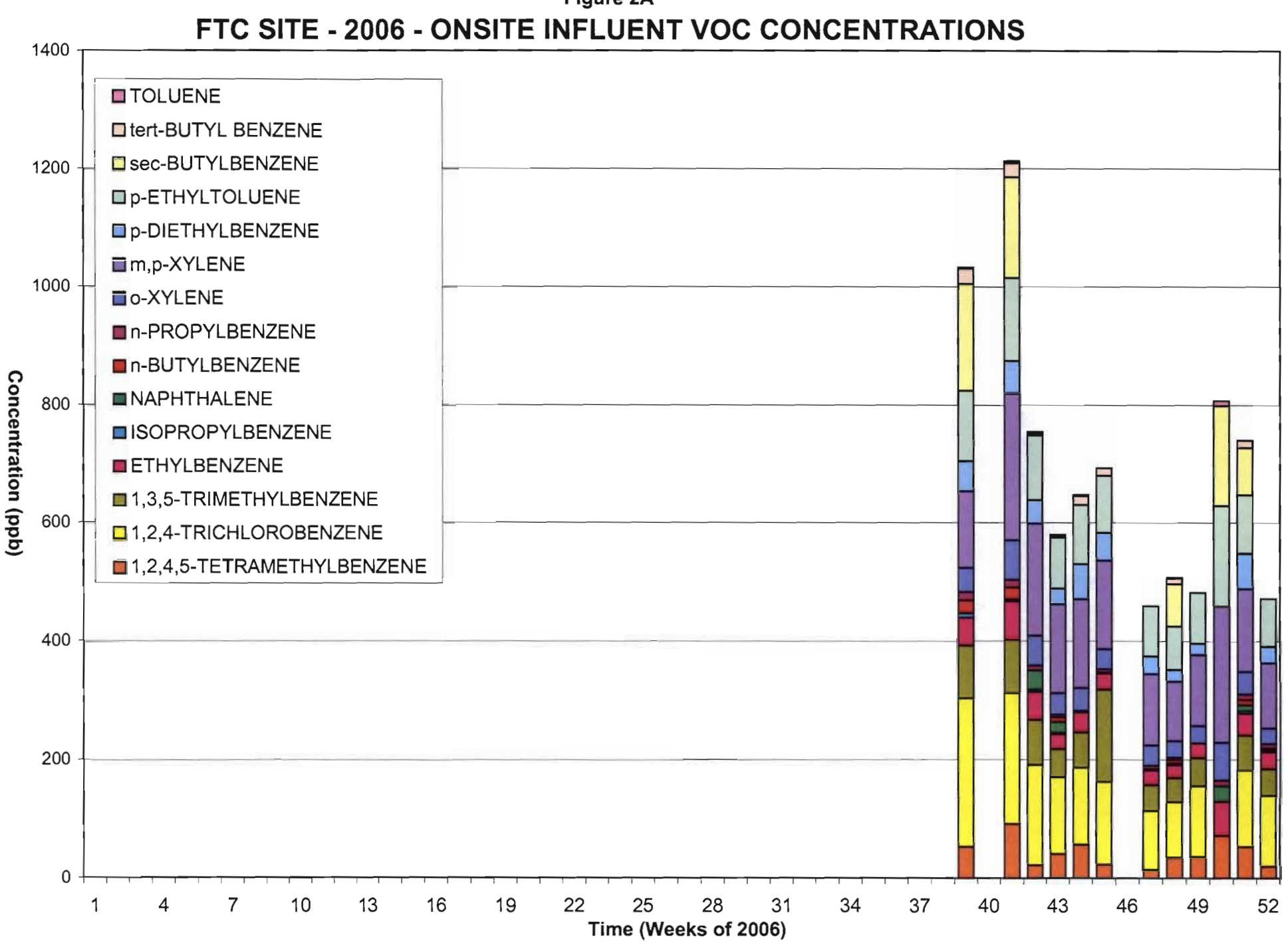

FTC SITE - 2006 - ONSITE INFLUENT VOC CONCENTRATIONS
TOLUENE
tert-BUTYL BENZENE
sec-BUTYLBENZENE
p-ETHYLTOLUENE
p-DIETHYLBENZENE
m,p-XYLENE
o-XYLENE
n-PROPYLBENZENE
n-BUTYLBENZENE
NAPHTHALENE
ISOPROPYLBENZENE
ETHYLBENZENE
1,3,5-TRIMETHYLBENZENE
1,2,4-TRICHLOROBENZENE
1,2,4,5-TETRAMETHYLBENZENE
Concentration (ppb)
0
200
400
600
800
1000
1200
1400
1
4
7
10
13
16
19
22
25
28
31
34
37
40
43
46
49
52
Time (Weeks of 2006)

Figure 3

## FTC SITE - 2006- INFLUENT TVOC CONCENTRATIONS

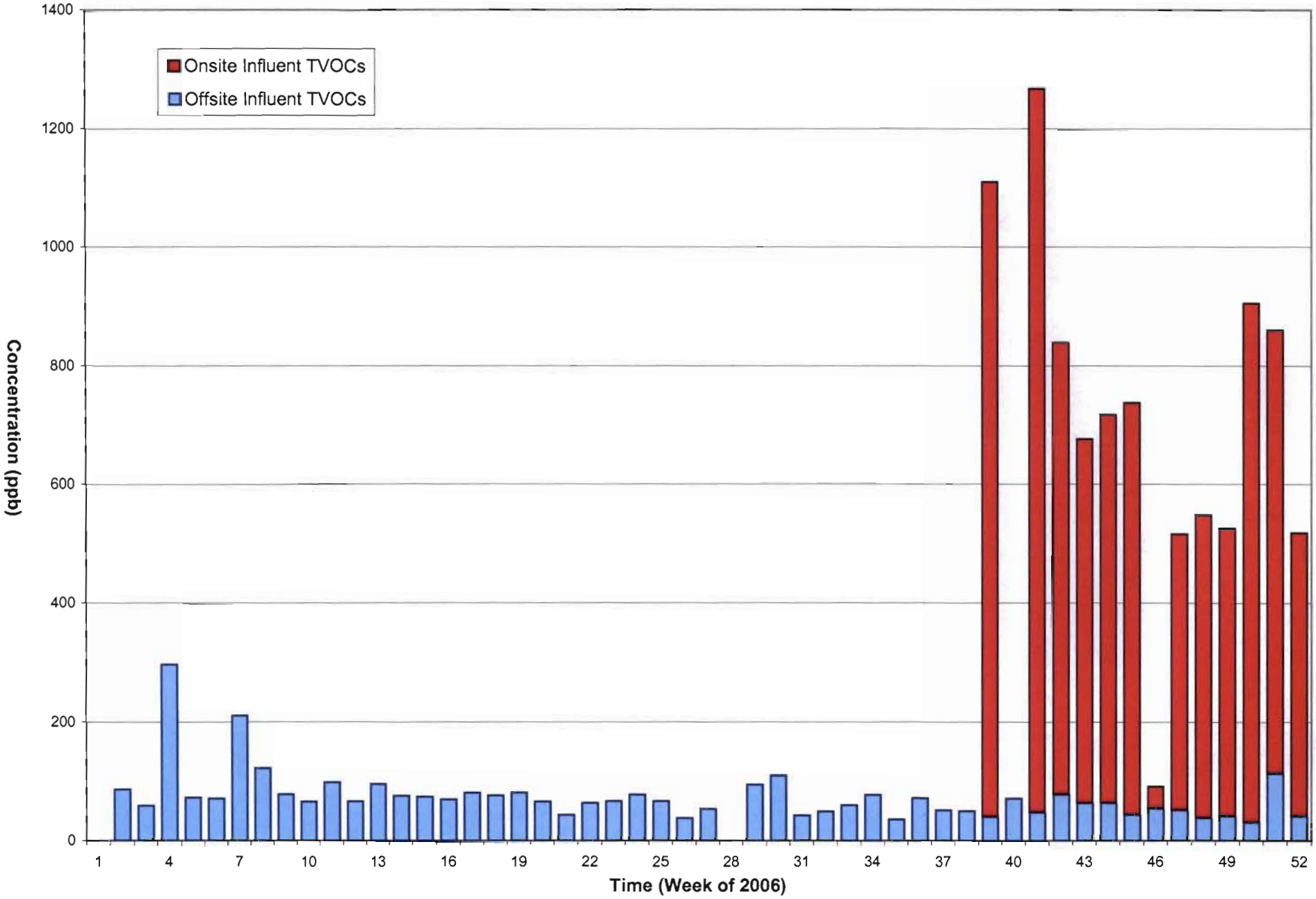
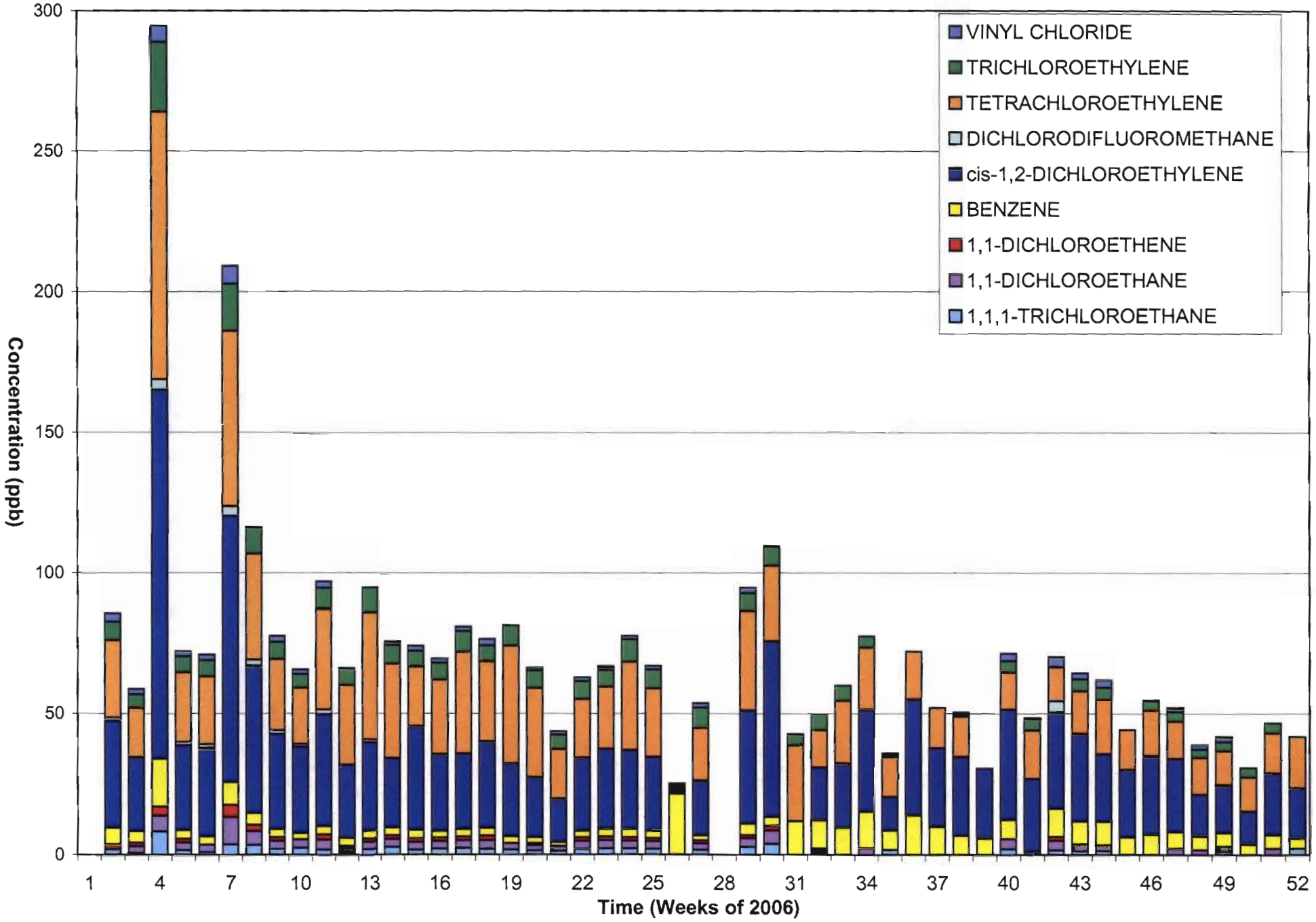


Figure 2B

# FTC SITE - 2006 - OFFSITE INFLUENT VOC CONCENTRATIONS



The only semi-volatile organic compound detected in off-site influent during OY 2006, was Di-N-Butyl Phthalate. This compound was detected once in an influent sample collected on January 17, 2006.

Iron and Manganese were consistently detected in the off-site influent. Iron averaged 217 ppb and Manganese averaged 70 ppb during OY 2006. Nickel was also consistently detected in the off-site influent. Its concentrations ranged from 6 ppb to BDL. Aluminum and Chromium were occasionally detected in the off-site influent. The detected levels for Aluminum ranged from 89 ppb to BDL, and the detected range of concentrations for Chromium was 3 ppb to BDL. Arsenic was never detected in offsite influent during OY 2006.

## 2.3 Recovery Well Data

Both the onsite and offsite recovery well systems were utilized during OY 2006. Onsite recovery well RW-1 resumed operation on September 27, 2006 in response to elevated levels of volatile organic compounds observed in nearby monitoring wells during one of the quarterly groundwater monitoring rounds. The offsite recovery well system was operated in six different configurations during OY 2006. Due to effluent recharge limitations no more than two wells were operated for the first seven months of OY 2006. Offsite recovery wells ORW-6 and ORW-7 were operated in tandem until July 3, 2006. TVOC concentrations ranged from 37 ppb to 201 ppb in ORW-6 and from 1 ppb to 130 ppb in ORW-7, during this period. The entire offsite recovery system was shut down for ten days to allow for the completion of a plant effluent connection to the Nassau County Sanitary sewer system. Following completion of this work a portion of the plant effluent was diverted to the County sewer, increasing the treatment capacity and allowing the operation of additional recovery wells. Three offsite wells were operated for the next two weeks with ORW-3 or ORW-4 being turned on and operated with ORW-6 and ORW-7. Following this test a four well configuration using ORW-3,4,6 and 7 was pumped for two weeks. The four well configuration was increased to five wells and ORW-1 was turned on and added to the pumping scheme for the next three weeks. The five well configuration was then reduced to four wells with ORW-3,4,6 and 7 operating for the next two months at a combined flow rate of 650 gpm and OY 2006 was completed with ORW-4,5,6 and 7 operating at a combined flow rate of 665 gpm. 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 2006. The cumulative amount of product recovered during the 7.5 years of the remediation is 5,032 gallons. Figure 5 presents historical monthly product recovery results for the entire remediation.

Table 1

# RECOVERY WELL
# VOLATILE ORGANIC CONCENTRATIONS
# 2006

| WELL No. | 1/3/06 | 1/10/06 | 1/17/06 | 1/23/06 | 1/30/06 | 2/7/06 | 2/14/06 | 2/21/06 | 2/28/06 | 3/7/06 | 3/13/06 | 3/20/06 | 3/27/06 | 4/3/06 | 4/10/06 | 4/17/06 | 4/25/06 | 5/1/06 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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 | OFF | 68 | 90 | 201 | 72 | 61 | 82 | 74 | 65 | 63 | 92 | 70 | 87 | 67 | 73 | 68 | 79 | 74 |
| ORW -7 | OFF | 92 | 99 | 99 | 89 | 84 | 74 | 91 | 1 | 81 | 82 | 93 | 92 | 84 | 89 | 86 | 92 | 94 |
| 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. | 5/8/06 | 5/15/06 | 5/22/06 | 5/30/06 | 6/5/06 | 6/13/06 | 6/19/06 | 6/26/06 | 7/3/06 | 7/10/06 | 7/18/06 | 7/24/06 | 8/1/06 | 8/7/06 | 8/14/06 | 8/21/06 | 8/28/06 | 9/6/06 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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 | 38 | 63 | 50 | 74 | 71 |
| ORW -4 | OFF | OFF | OFF | OFF | OFF | OFF | OFF | OFF | OFF | OFF | OFF | OFF | 47 | BDL | 58 | 66 | 86 | 92 |
| ORW-5 | OFF | OFF | OFF | OFF | OFF | OFF | OFF | OFF | OFF | OFF | OFF | OFF | OFF | OFF | OFF | OFF | OFF | OFF |
| ORW-6 | 69 | 61 | 37 | 65 | 69 | 68 | 63 | 95 | 49 | NA | 78 | 82 | 39 | 82 | 51 | 80 | 76 | 53 |
| ORW -7 | 100 | 91 | 48 | 83 | 89 | 85 | 83 | NA | 66 | NA | 114 | 130 | 61 | 62 | 81 | 116 | 47 | 100 |
| 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. | 9/11/06 | 9/19/06 | 9/26/06 | 10/2/06 | 10/10/06 | 10/16/06 | 10/24/06 | 10/30/06 | 11/6/06 | 11/13/06 | 11/20/06 | 11/27/06 | 12/5/06 | 12/11/06 | 12/18/06 | 12/26/06 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ORW -1 | BDL | 7 | 13 | 14 | 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 | 71 | 15 | 65 | 86 | 60 | 63 | 48 | 48 | 39 | 43 | 43 | 28 | 28 | OFF | OFF | OFF | | |
| ORW -4 | 72 | 80 | 82 | 142 | 77 | 100 | 73 | 75 | 60 | BDL | 70 | 41 | 53 | 87 | 90 | 70 | | |
| ORW-5 | OFF | OFF | OFF | OFF | OFF | OFF | OFF | OFF | OFF | OFF | OFF | OFF | OFF | BDL | 1 | 1 | | |
| ORW-6 | 55 | 67 | 60 | 90 | 67 | 137 | 68 | 64 | 52 | 55 | 59 | 43 | 35 | 74 | 81 | 57 | | |
| ORW -7 | 89 | 92 | 111 | 138 | 91 | 83 | 3 | 97 | 71 | 73 | 6 | 12 | 12 | 105 | 114 | 95 | | |
| RW-1 | OFF | OFF | 1,141 | OFF | 1,273 | 712 | 599 | 744 | 585 | 416 | 445 | 554 | 524 | 343 | 626 | 469 | | |
| 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)
# 2006

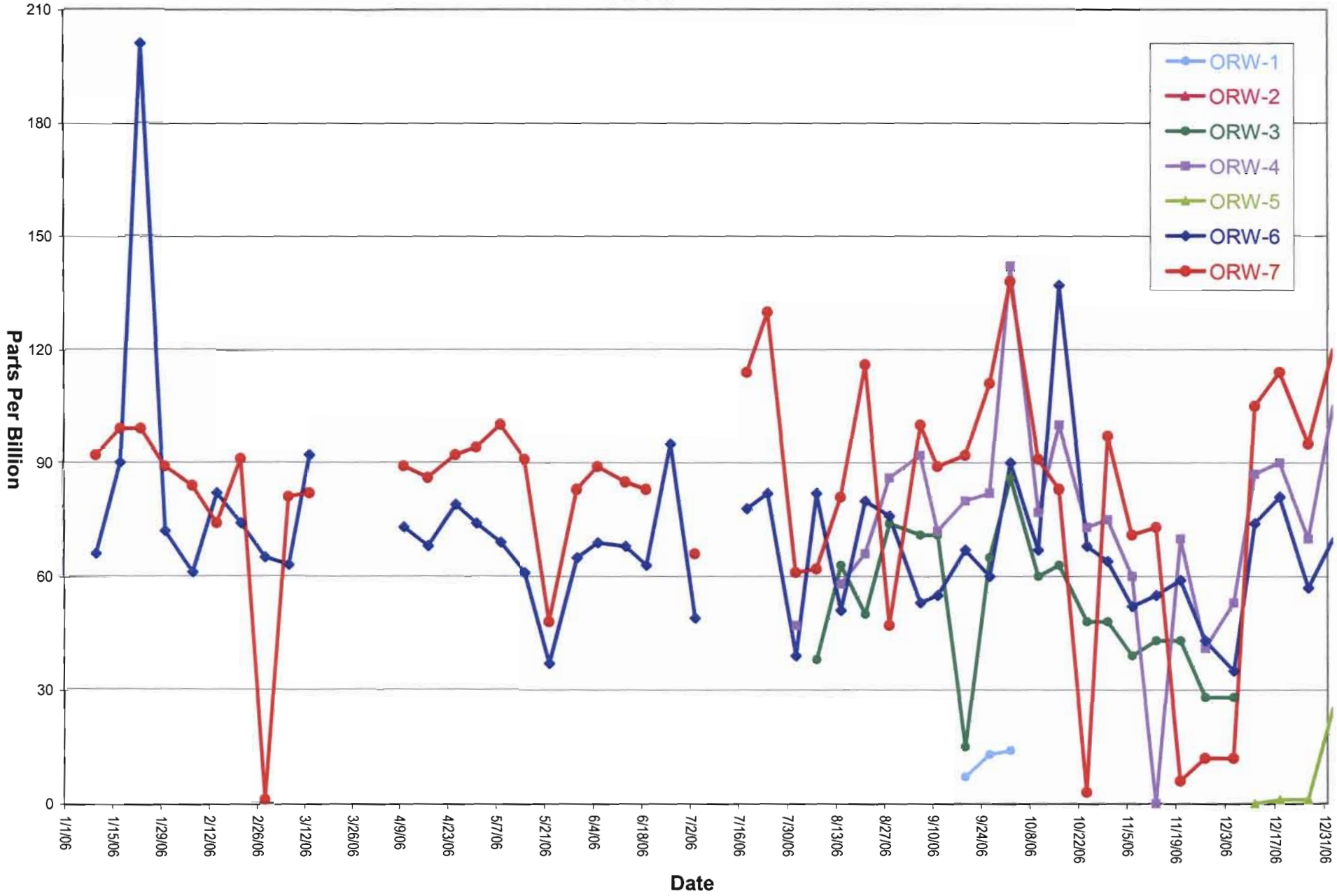
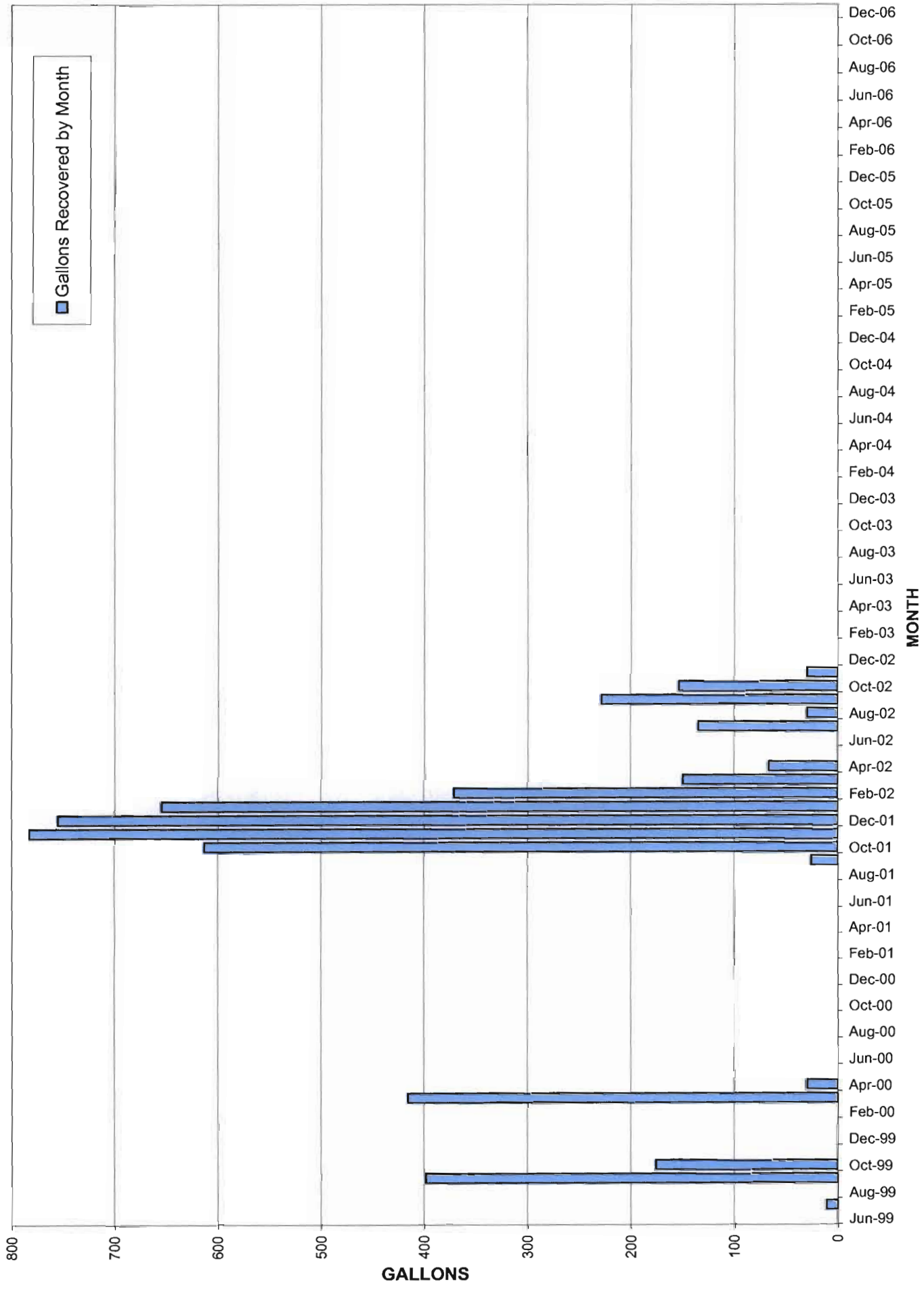


FIGURE 5

## HISTORICAL ONSITE PRODUCT RECOVERY - 1999 to 2006



## 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.

VOC's were detected in effluent samples three times during OY 2006. Toluene and Napthalene were detected at concentrations of 1.1 ppb and 1.9 respectively on October 16, 2006. Napthalene (3.9 ppb) and m,p Xylene (3.1 ppb), were detected in effluent samples collected on December 18, 2006. In both cases the detected volatile organic compounds did not exceed their respective discharge limitations. Five VOC's were detected in plant effluent on August 8, 2006. Two of the detected compounds, Cis 1,2- Dichloroethene (28 ppb) and Tetrachloroethene (36 ppb) exceeded there discharge limitation of 5 ppb.

SVOC's were detected in plant effluent samples on three occasions during OY 2006. Bis (2-ethylhexyl) phthalate was detected at a concentration of 2.9 ppb on October 10, 2006 and at a concentration of 6.2 ppb on November 6, 2006, the November detection exceeded the discharge limitation of 5 ppb.

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. The individual discharge limitation for Iron was exceeded on 10/10/06 with a detected concentration of 881 ppb. The individual discharge limitation for Manganese was exceeded twice on 11/20/06 and 11/27/06 with concentrations of 626 ppb and 621 ppb respectively. The combined discharge limitation for Iron and Manganese was exceeded on October 10, 2006 (1,389 ppb), October 16, 2006 (1,150 ppb) and November 20, 2006 (1,020).

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 5 ppb, also well below its discharge limit of 50 ppb. Aluminum's highest detected level was 67 ppb and, again, it was well below its discharge limit of 2,000 ppb.

## 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 2006, the average calculated emission rate for Benzene was 0.0309 pounds per day (lbs/d). The highest calculated emission rate for Benzene was 0.0968 lbs/d, which represented approximately 1.02 % of the site's maximum allowable emission rate of 9.49 lbs/d. The average calculated emission rate for Vinyl Chloride was 0.0052 lbs/d. The highest calculated emission rate for Vinyl Chloride was 0.0255 lbs/d, which represented approximately 1.70 % of the site's maximum allowable emission rate of 1.50 lbs/d. The average calculated emission rate for Tetrachloroethene was 0.0980 lbs/d. The highest calculated emission rate for Tetrachloroethene was 0.2721 lbs/d, which represented approximately 0.29 % 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 2006 Environmental Monitoring Program

## 3.1 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) 2006 (January 1, 2006 to December 31, 2006). 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 2006. 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).

### 3.1.1 Environmental Monitoring Special Notes

There were no special or unusual conditions to report for monitoring year 2006.

Figure 6

# FTC - 2006 - AIR DISCHARGE - BENZENE

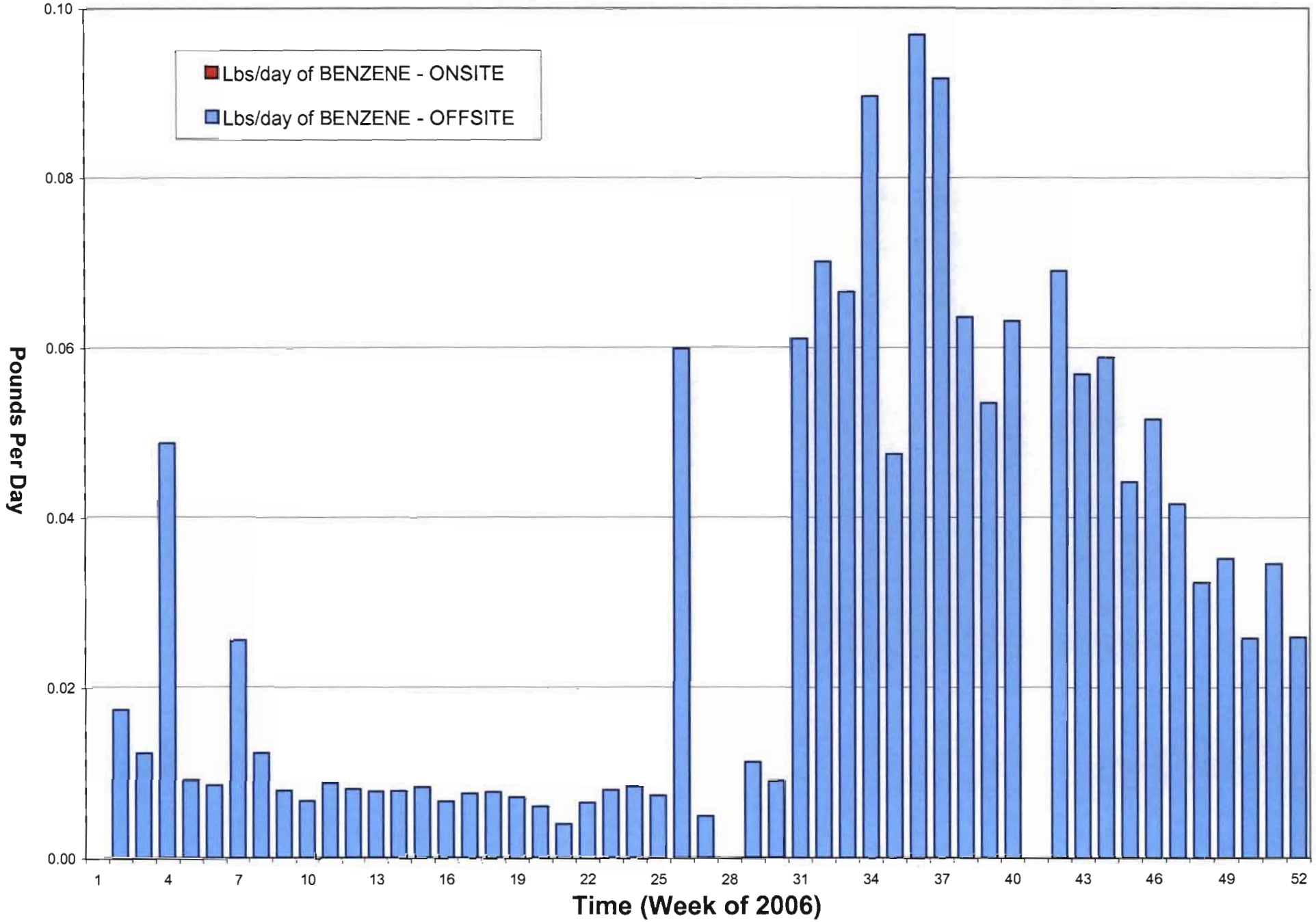


Figure 7

# FTC - 2006 - AIR DISCHARGE - TETRACHLOROETHENE

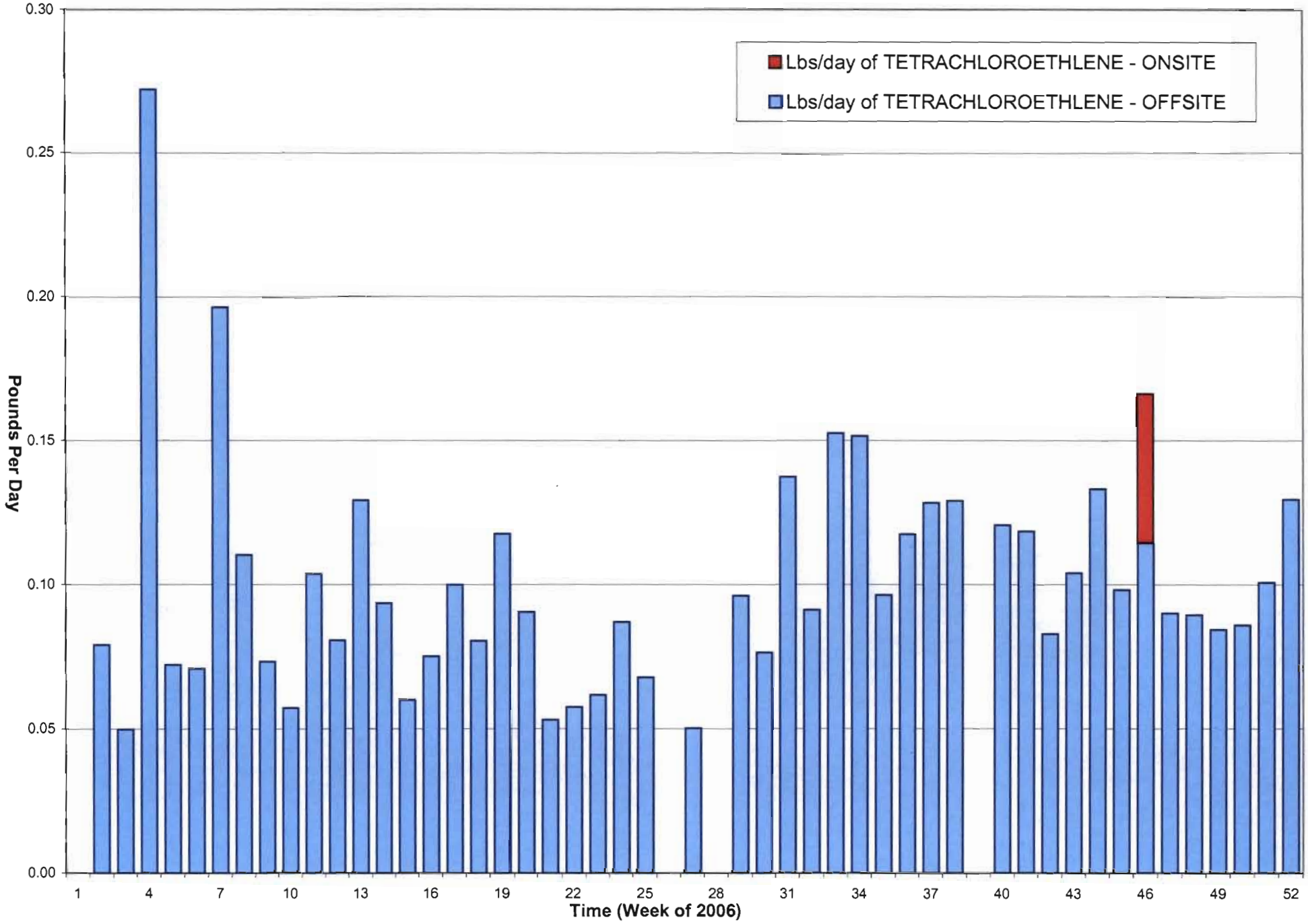
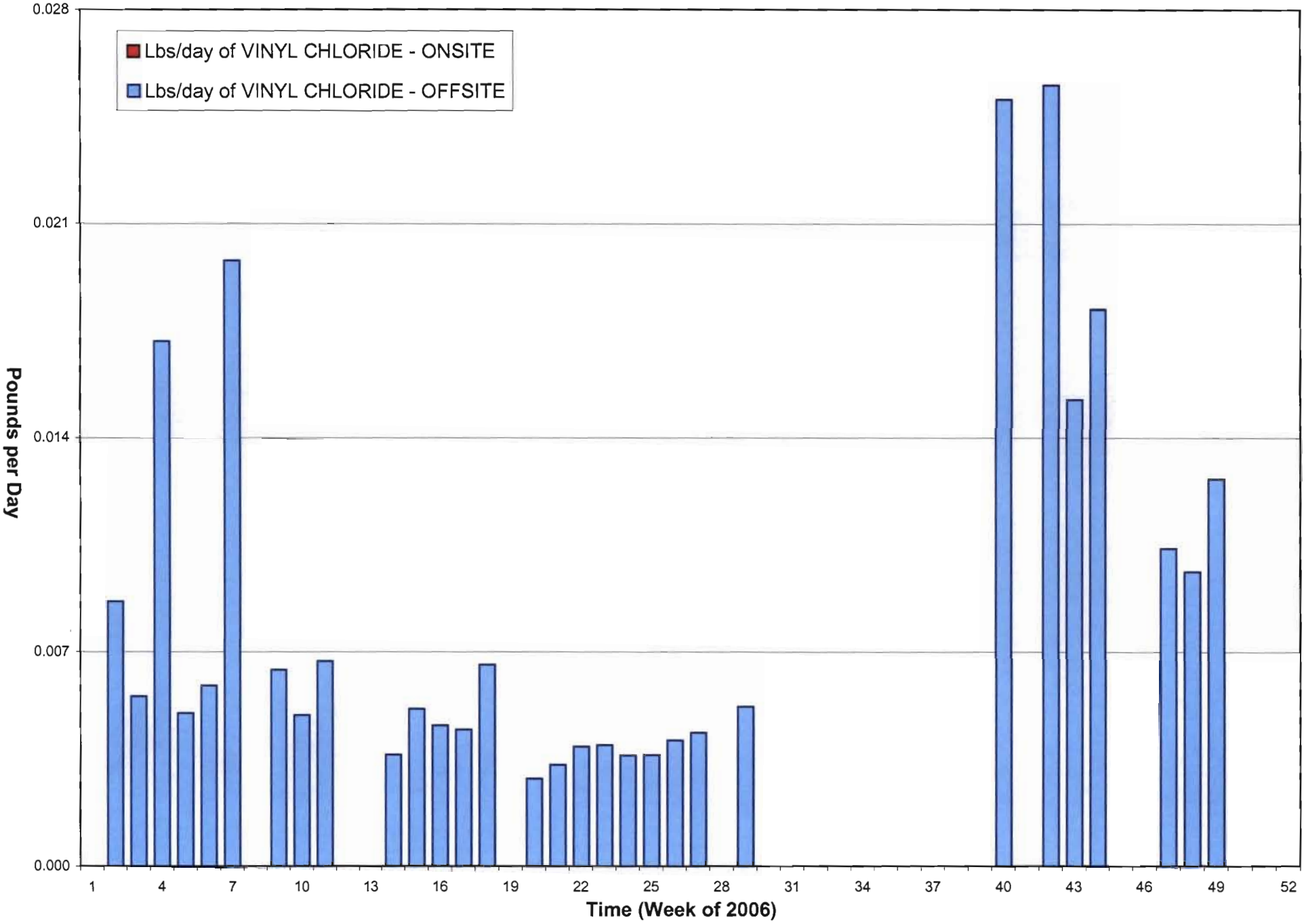


Figure 8

# FTC - 2006 - AIR DISCHARGE - VINYL CHLORIDE



# Figure 9


**Legend**

- FTC Monitoring Wells
- Fireman's Training Center Area Wells
- Bethpage State Park Inactive Well
- Bethpage State Park Irrigation Well
- Claremont Polychemical Site Diffusion Well
- Claremont Polychemical Site Monitoring Well or Well Cluster
- Claremont 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

Map Location

**NASSAU COUNTY**
**Fireman's Training Center Site Area**
Old Bethpage, NY
Prepared By: - NCDPW - Water/Wastewater Engineering Unit

N W E S

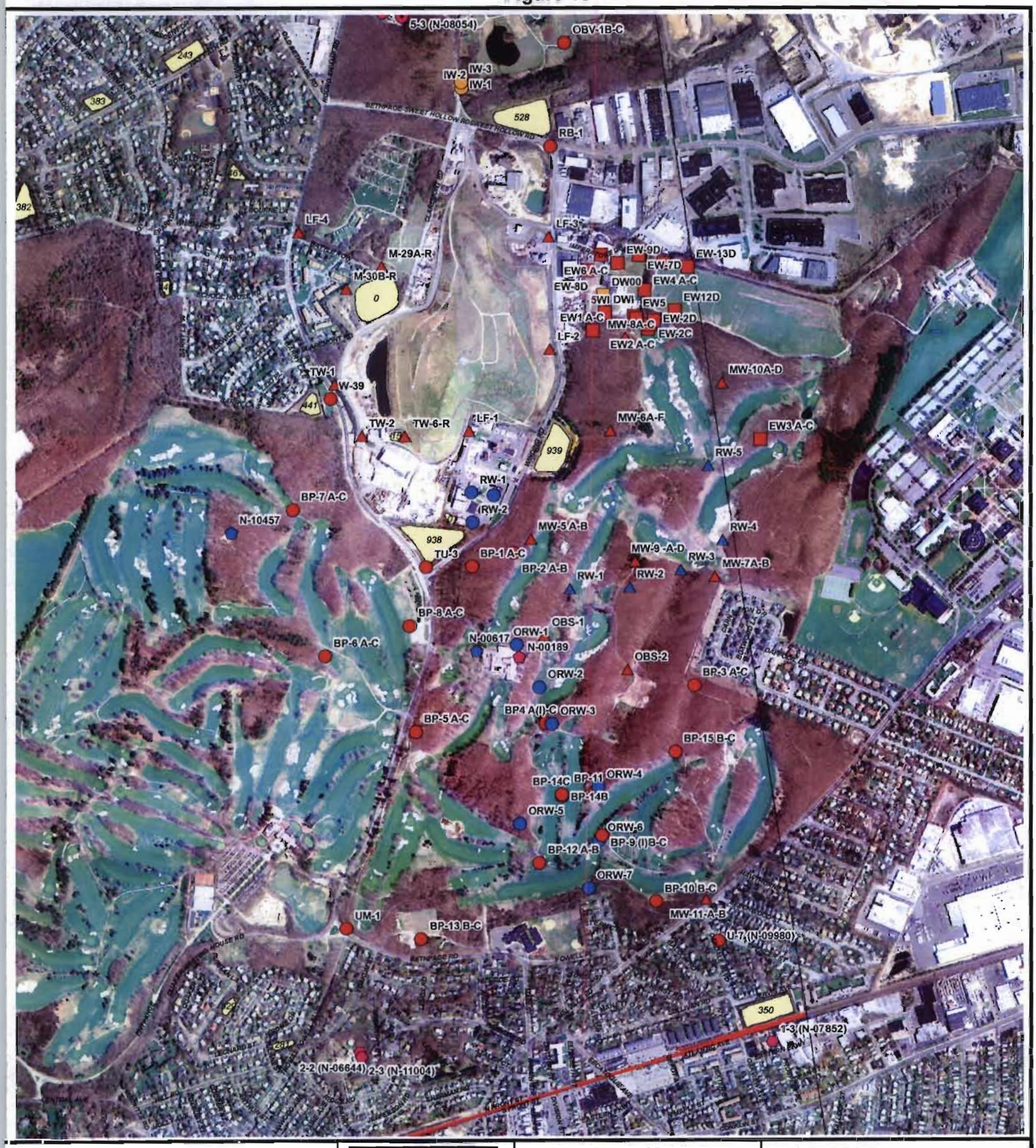
1 Inch equals 150 Feet

**Nassau County**
Geographic Information System



Date: 10/14/2005

Figure 10




## Legend

Fireman's Training Center Area Wells

- Bethpage State Park Inactive Well
- Bethpage State Park Irrigation Well
- Clairemont Polychemical Site Diffusion Well
- Clairemont Polychemical Site Monitoring Well or Well Cluster
- Nassau County Injection Well
- Nassau County Monitoring Well or Well Cluster
- Nassau County Recovery Well
- Plainview WD Public Supply Well
- T. of Oyster Bay Monitoring Well or Well Cluster
- T. of Oyster Bay Recovery Well
- V. of Farmingdale Public Supply Well

Map Location

# SITE PLAN FIREMAN'S TRAINING CENTER

Prepared By: - NCDPW - Water/Wastewater Engineering Unit

N W E S

1 Inch equals 1,300 Feet

Nassau County

Geographic Information System



Date: 10/14/2005

# 4.0 2006 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 2006, groundwater collected from the majority of onsite monitoring wells continued to exhibit low levels of volatile organic compounds. Six of fourteen wells sampled were found to have volatile organic compound (VOC) concentrations below detectable limits (BDL) throughout the sampling year. Two onsite monitoring wells exhibited elevated TVOC concentrations in MY 2006. Monitoring well FTC-W-23 had a TVOC concentration in groundwater of 62 ppb and onsite well FTC-W-32 had a TVOC concentration of 110 ppb on June 14, 2006. Napthalene was detected in both wells which had concentrations of 46 ppb and 88 ppb respectively.

Two of the fourteen (14) onsite wells sampled during MY 2006 exhibited high levels of VOC's in groundwater, while a third well exhibited elevated levels of VOC's during one sampling event. During the June 2006 sampling round monitoring well FTC-W-31 had a TVOC concentration of 913 ppb and monitoring well FTC-W-35 had TVOC concentrations of 2028 ppb in March, 1757 ppb in June and 5600 ppb in September. However, the TVOC concentration in this well dropped to 9 ppb in the December sampling round. Monitoring well FTC-W-32 had a TVOC concentration of 110 ppb during the June sampling round and dropped to below detectable limits (BDL), in the two subsequent rounds. Historical TVOC trends for FTC-W-31, FTC-W-32 and FTC-W-35 can be found in Figures 11, 12 and 13. FTC-W-31 and FTC-W-35 exhibited increases in total Xylene, Isopropylbenzene, 1,3,5Trimethylbenzene, 1,2,4Trimethylbenzene and Napthalene concentrations.

Review of the semi-volatile organic compounds (SVOC) detected in onsite groundwater indicates that eight of the fourteen wells sampled had concentrations below detectable limits (BDL). Four wells had total SVOC concentrations less than 15 ppb. A single well, FTC-W-35 had elevated total SVOC concentrations ranging from 30 ppb to 224 ppb. Three semi-volatile organic compounds made up the majority of the total detected in this well, Nitrobenzene, 2-Methylnapthalene and Napthalene.

Table 2a

# 2006 ONSITE GROUNDWATER SAMPLING RESULTS

| | FTC-W-4A | | | | | FTC-W-4B | | | | | FTC-W-7A | | | | | FTC-W-7B | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Baseline Water Quality | DATE SAMPLED | | | | Baseline Water Quality | DATE SAMPLED | | | | Baseline Water Quality | DATE SAMPLED | | | | Baseline Water Quality | DATE SAMPLED | | | |
| VOLATILE ORGANICS COMPOUNDS | 6/10/99 | 3/20/06 | 6/14/06 | 9/25/06 | 12/14/06 | 6/10/99 | 3/20/06 | 6/14/06 | 9/25/06 | 12/14/06 | 6/10/99 | 3/20/06 | 7/3/06 | 9/18/06 | 12/14/06 | 6/10/99 | 3/20/06 | 7/3/06 | 9/18/06 | 12/14/06 |
| 1,1-Dichloroethane | BDL | BDL | BDL | 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 | BDL | BDL | BDL |
| 1,1,2-Trichloroethane | BDL | BDL | BDL | 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 | BDL | BDL | BDL |
| 1,2,4,5-Tetramethylbenzene | NA | NA | NA | BDL | BDL | NA | NA | NA | BDL | BDL | NA | NA | NA | BDL | BDL | NA | NA | NA | BDL | BDL |
| 1,2,4-Trimethylbenzene | BDL | BDL | 1.7 | BDL | BDL | BDL | BDL | 0.9 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 2.7 | BDL | BDL | BDL | BDL |
| 1,2-Dichlorobenzene | BDL | BDL | BDL | BDL | BDL | 2.1 | BDL | 1.7 | BDL | 1.0 | BDL | BDL | BDL | BDL | BDL | BDL | 1.2 | BDL | BDL | BDL |
| 1,3,5-Trimethylbenzene | BDL | BDL | 0.5 | 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 | 7.2 | BDL | 3.1 | BDL | 3.2 | BDL | BDL | BDL | BDL | BDL | BDL | 4.1 | BDL | 3.6 | 2.3 |
| 2-Methylnaphthalene | NA | NA | NA | BDL | BDL | NA | NA | NA | BDL | BDL | NA | NA | NA | BDL | BDL | NA | NA | NA | BDL | BDL |
| 4-Isopropyltoluene | NA | NA | NA | BDL | BDL | NA | NA | NA | BDL | BDL | NA | NA | NA | BDL | BDL | NA | NA | NA | BDL | BDL |
| Benzene | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 1.6 | 0.7 | BDL | BDL | BDL |
| c-1,2-Dichloroethene | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 2.1 | 1.3 | BDL | BDL | BDL |
| Chlorobenzene | BDL | BDL | BDL | BDL | BDL | 1.8 | 2.0 | 2.4 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 2.9 | BDL | 2.6 | BDL |
| Chloroform | BDL | BDL | BDL | BDL | BDL | BDL | 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 | 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 | BDL | BDL | BDL |
| Hexachlorobutadiene | BDL | BDL | BDL | 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 | 1.5 | BDL | BDL | BDL | BDL |
| m,p-Xylene | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 6.6 | BDL | BDL | BDL | BDL |
| Methyl t-Butylether (MTBE) | BDL | BDL | BDL | BDL | BDL | BDL | 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 | BDL | BDL | 0.8 | BDL | BDL | BDL |
| Naphthalene | BDL | BDL | 14.2 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| N-Butylbenzene | NA | NA | NA | BDL | NA | NA | NA | NA | BDL | NA | NA | NA | NA | BDL | NA | NA | NA | NA | BDL | NA |
| n-Propylbenzene | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 1.4 | BDL | BDL | BDL | BDL |
| o-Xylene | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| p-Diethylbenzene | NA | NA | NA | BDL | BDL | NA | NA | NA | BDL | BDL | NA | NA | NA | BDL | BDL | NA | NA | NA | BDL | BDL |
| p-Ethyltoluene | NA | NA | NA | BDL | BDL | NA | NA | NA | BDL | BDL | NA | NA | NA | BDL | BDL | NA | NA | NA | BDL | BDL |
| p-Isopropyltoluene | BDL | BDL | BDL | 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 | BDL | BDL | BDL |
| Tetrachloroethene | BDL | BDL | BDL | 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 | BDL | BDL | BDL |
| Trichloroethene | BDL | BDL | BDL | 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 | BDL | BDL | BDL |
| SEMI-VOLATILE ORGANIC COMPOUNDS | | | | | | | | | | | | | | | | | | | | |
| 1,2-Dichlorobenzene | BDL | BDL | BDL | BDL | BDL | 2.3 | 2.0 | 3.1 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 1.9 | BDL | BDL | BDL |
| 1,3-Dichlorobenzene | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 1.4 | 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 | BDL | BDL | BDL |
| 2,4-Dinitrotoluene | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 2-Methylnaphthalene | NA | NA | NA | BDL | BDL | NA | NA | NA | BDL | BDL | NA | NA | NA | BDL | BDL | NA | NA | NA | BDL | BDL |
| 2-Methylphenol | NA | NA | NA | BDL | BDL | NA | NA | NA | BDL | BDL | NA | NA | NA | BDL | BDL | NA | NA | NA | BDL | BDL |
| 3+4-Methylphenol | NA | NA | NA | BDL | BDL | NA | NA | NA | BDL | BDL | NA | NA | NA | BDL | BDL | NA | NA | NA | BDL | BDL |
| Acenaphthene | BDL | BDL | BDL | 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 | BDL | BDL | BDL |
| Diethyl Phthalate | BDL | BDL | BDL | 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 | BDL | BDL | BDL |
| Naphthalene | BDL | BDL | BDL | 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 | BDL | BDL | BDL |
| N-Nitrosodi-n-Propylamine | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| INORGANIC PARAMETERS | | | | | | | | | | | | | | | | | | | | |
| ph | 6.73 | NA | 6.57 | NA | NA | 7.02 | NA | 7.26 | NA | NA | 5.57 | NA | 5.5 | NA | NA | 6.51 | NA | 6.57 | NA | NA |
| Specific Conductance | 264 | NA | 226 | NA | NA | 1460 | NA | 988 | NA | NA | 263 | NA | 100 | NA | NA | 698 | NA | 1040 | NA | NA |
| Alkalinity as Calcium Carbonate | BDL | NA | 8 | NA | NA | 414 | NA | 226 | NA | NA | 16 | NA | 5 | NA | NA | 158 | NA | 300 | NA | NA |
| B.O.D. | BDL | NA | BDL | NA | NA | 3 | NA | BDL | NA | NA | BDL | NA | BDL | NA | NA | 3 | NA | 3.8 | NA | NA |
| Chemical Oxygen Demand | BDL | NA | BDL | NA | NA | 60 | NA | 45 | NA | NA | BDL | NA | BDL | NA | NA | 45 | NA | 41 | NA | NA |
| Hardness, Total | 79.5 | NA | 59 | NA | NA | 151 | NA | 102 | NA | NA | 55.3 | NA | 19.9 | NA | NA | 87.7 | NA | 152 | NA | NA |
| Nitrate as N | 18.48 | NA | 15.5 | NA | NA | 1.02 | NA | 0.63 | NA | NA | 1.69 | NA | 0.29 | NA | NA | BDL | NA | BDL | NA | NA |
| Total Phosphorus as P | BDL | NA | BDL | NA | NA | BDL | NA | BDL | NA | NA | BDL | NA | BDL | NA | NA | 0.09 | NA | BDL | NA | NA |
| Sodium, Total | 14.5 | NA | 13.2 | NA | NA | 142 | NA | 100 | NA | NA | 21.9 | NA | 9.39 | NA | NA | 61.6 | NA | 77.5 | NA | NA |
| Total Kjeldahl | 0.33 | NA | 0.25 | NA | NA | 45.1 | NA | 27.1 | NA | NA | 0.21 | NA | 0.21 | NA | NA | 8.84 | NA | 30.4 | NA | NA |
| Ammonia as N | BDL | NA | BDL | NA | NA | 35.3 | NA | 27.7 | NA | NA | BDL | NA | BDL | NA | NA | 8.84 | NA | 12 | NA | NA |
| Sulfate | 32.7 | NA | 31.7 | NA | NA | 29.5 | NA | 10.7 | NA | NA | 29 | NA | 10 | NA | NA | 31.5 | NA | 26.8 | NA | NA |
| Chloride | 5 | NA | 5.0 | NA | NA | 162 | NA | 138 | NA | NA | 37.5 | NA | 15 | NA | NA | 95 | NA | 110 | NA | NA |
| Total Dissolved Solids | 190 | NA | 134 | NA | NA | 630 | NA | 428 | NA | NA | 137 | NA | 69 | NA | NA | 310 | NA | 454 | NA | NA |
| Total Suspended Solids | BDL | NA | 1.0 | NA | NA | 5.5 | NA | 27 | NA | NA | BDL | NA | BDL | NA | NA | 44 | NA | 24 | NA | NA |
| Arsenic | BDL | NA | BDL | NA | NA | BDL | NA | 0.010 | NA | NA | BDL | NA | BDL | NA | NA | BDL | NA | 0.017 | NA | NA |
| Aluminum, Total | BDL | NA | 0.011 | NA | NA | BDL | NA | BDL | NA | NA | BDL | NA | 0.113 | NA | NA | BDL | NA | BDL | NA | NA |
| Iron, Total | 0.052 | NA | 0.240 | NA | NA | 2.4 | NA | 13.2 | NA | NA | 0.005 | NA | 0.046 | NA | NA | 31.3 | NA | 14 | NA | NA |
| Manganese, Total | 0.034 | NA | 0.074 | NA | NA | 3.09 | NA | 1.23 | NA | NA | 0.003 | NA | 0.01 | NA | NA | 3.1 | NA | 156 | NA | NA |
| Nickel, Total | 0.010 | NA | BDL | NA | NA | 0.022 | NA | 0.012 | NA | NA | 0.012 | NA | BDL | NA | NA | 0.008 | NA | 0.007 | NA | NA |
| Chromium, Total | BDL | NA | 0.002 | NA | NA | 0.002 | NA | 0.003 | NA | NA | BDL | NA | 0.002 | NA | NA | 0.009 | NA | 0.001 | NA | NA |

LABORATORIES: Nassau County DPW Special Projects Laboratory, Ceder Creek S.T.P., Wantagh, New York
Beginning in June (Semi-Vol) & July (VOAs) American Analytical Laboratories, Farmingdale, N.Y.

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

NA - Not Analyzed
BDL - Below Detection Limits

Table 2b

# 2006 ONSITE GROUNDWATER SAMPLING RESULTS

| | FTC-W-7C | | | | | FTC-W-7D | | | FTC-W-9A | | | | | FTC-W-9B | | | | | FTC-W-14A | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Baseline Water Quality | DATE SAMPLED | | | | Baseline Water Quality | DATE SAMPLED | | Baseline Water Quality | DATE SAMPLED | | | | Baseline Water Quality | DATE SAMPLED | | | | Baseline Water Quality | DATE SAMPLED | | | |
| VOLATILE ORGANICS COMPOUNDS | 6/8/99 | 3/20/06 | 7/3/06 | 9/18/06 | 12/14/06 | 6/8/99 | 7/3/06 | | 6/10/99 | 3/20/06 | 6/14/06 | 9/18/06 | 12/14/06 | 6/10/99 | 3/20/06 | 6/14/06 | 9/18/06 | 12/14/06 | 6/10/99 | 3/31/06 | 7/3/06 | 9/25/06 | 12/15/06 |
| 1,1-Dichloroethane | 1.6 | BDL | BDL | BDL | BDL | 1.3 | 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 | BDL | BDL | BDL | BDL | BDL |
| 1,1,2-Trichloroethane | BDL | BDL | BDL | BDL | BDL | 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 | BDL | BDL | BDL | BDL | BDL |
| 1,2,4,5-Tetramethylbenzene | NA | NA | NA | BDL | BDL | NA | NA | | NA | NA | NA | BDL | BDL | NA | NA | NA | BDL | BDL | NA | NA | NA | BDL | BDL |
| 1,2,4-Trimethylbenzene | BDL | BDL | BDL | BDL | BDL | BDL | BDL | Annual Sample Only | 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 | 1.4 | 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 | BDL | BDL | BDL | BDL | BDL |
| 1,4-Dichlorobenzene | 2.2 | BDL | BDL | BDL | BDL | 1.4 | BDL | | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 2-Methylnaphthalene | NA | NA | NA | BDL | BDL | NA | NA | | NA | NA | NA | BDL | BDL | NA | NA | NA | BDL | BDL | NA | NA | NA | BDL | BDL |
| 4-Isopropyltoluene | NA | NA | NA | BDL | BDL | NA | NA | | NA | NA | NA | BDL | BDL | NA | NA | NA | BDL | BDL | NA | NA | NA | BDL | BDL |
| Benzene | 3.2 | BDL | BDL | BDL | BDL | BDL | BDL | | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| c-1,2-Dichloroethene | 4.7 | BDL | BDL | BDL | BDL | 3.6 | BDL | | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| Chlorobenzene | 1.2 | BDL | BDL | BDL | BDL | BDL | BDL | | BDL | 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 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| Dichlorodifluoromethane | BDL | BDL | BDL | BDL | BDL | 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 | BDL | BDL | BDL | BDL | BDL |
| Hexachlorobutadiene | BDL | BDL | BDL | BDL | BDL | BDL | BDL | | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| Isopropylbenzene | 3.0 | BDL | BDL | BDL | BDL | 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 | BDL | BDL | BDL | BDL | BDL |
| Methyl t-Butylether (MTBE) | 5.7 | BDL | BDL | BDL | BDL | BDL | BDL | | BDL | 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 | 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 | BDL | BDL | BDL | BDL | BDL |
| N-Butylbenzene | NA | NA | NA | BDL | NA | NA | NA | | NA | NA | NA | BDL | NA | NA | NA | NA | BDL | NA | NA | NA | NA | BDL | NA |
| n-Propylbenzene | BDL | BDL | BDL | BDL | BDL | 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 | BDL | BDL | BDL | BDL | BDL |
| p-Diethylbenzene | NA | NA | NA | BDL | BDL | NA | NA | | NA | NA | NA | BDL | BDL | NA | NA | NA | BDL | BDL | NA | NA | NA | BDL | BDL |
| p-Ethyltoluene | NA | NA | NA | BDL | BDL | NA | NA | | NA | NA | NA | BDL | BDL | NA | NA | NA | BDL | BDL | NA | NA | NA | BDL | BDL |
| p-Isopropyltoluene | BDL | BDL | BDL | BDL | BDL | BDL | BDL | | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| sec-Butyl Benzene | 1.3 | BDL | BDL | BDL | BDL | BDL | BDL | | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| Tetrachloroethene | 1.4 | BDL | BDL | BDL | BDL | 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 | BDL | BDL | BDL | BDL | BDL |
| Trichloroethene | BDL | BDL | BDL | BDL | BDL | BDL | BDL | | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| Vinyl Chloride | 1.2 | BDL | BDL | BDL | BDL | 2.4 | BDL | | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| SEMI-VOLATILE ORGANIC COMPOUNDS | | | | | | | | | | | | | | | | | | | | | | | |
| 1,2-Dichlorobenzene | 1.0 | BDL | BDL | BDL | BDL | 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 | 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 | 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 | BDL | BDL | BDL | BDL | BDL |
| 2-Methylnaphthalene | NA | NA | NA | BDL | BDL | NA | NA | | NA | NA | NA | BDL | BDL | NA | NA | NA | BDL | BDL | NA | NA | NA | BDL | BDL |
| 2-Methylphenol | NA | NA | NA | BDL | BDL | NA | NA | | NA | NA | NA | 5.5 | BDL | NA | NA | NA | BDL | BDL | NA | NA | NA | BDL | BDL |
| 3+4-Methylphenol | NA | NA | NA | BDL | BDL | NA | NA | | NA | NA | NA | 5.8 | BDL | NA | NA | NA | BDL | BDL | NA | NA | NA | BDL | BDL |
| Acenaphthene | BDL | BDL | BDL | BDL | BDL | 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 | 3.6 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 2.7 | BDL |
| Diethyl Phthalate | BDL | BDL | BDL | BDL | BDL | BDL | BDL | | BDL | 3.4 | 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 | BDL | BDL | BDL | BDL | BDL |
| Naphthalene | BDL | BDL | BDL | BDL | BDL | 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 | BDL | BDL | BDL | BDL | BDL |
| N-Nitrosodi-n-Propylamine | BDL | BDL | BDL | BDL | BDL | BDL | BDL | | BDL | BDL | 2.0 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| INORGANIC PARAMETERS | | | | | | | | | | | | | | | | | | | | | | | |
| ph | 5.71 | NA | 6.52 | NA | NA | 5.17 | 6.16 | | 6.28 | NA | 5.91 | NA | NA | 6.65 | NA | 6.24 | NA | NA | 6.42 | NA | 6.24 | NA | NA |
| Specific Conductance | 781 | NA | 795 | NA | NA | 486 | 425 | | 324 | NA | 508 | NA | NA | 564 | NA | 448 | NA | NA | 158 | NA | 196 | NA | NA |
| Alkalinity as Calcium Carbonate | 59 | NA | 90 | NA | NA | 14 | 8.0 | | 88 | NA | 82 | NA | NA | 40 | NA | 40 | NA | NA | 46 | NA | 29 | NA | NA |
| B.O.D. | 2 | NA | BDL | NA | NA | 2 | BDL | | BDL | NA | 9.0 | NA | NA | BDL | NA | BDL | NA | NA | BDL | NA | BDL | NA | NA |
| Chemical Oxygen Demand | BDL | NA | BDL | NA | NA | BDL | BDL | | BDL | NA | 81 | NA | NA | BDL | NA | BDL | NA | NA | BDL | NA | BDL | NA | NA |
| Hardness, Total | 181 | NA | 154 | NA | NA | 68.2 | 57.9 | | 95.7 | NA | 102 | NA | NA | 61.5 | NA | 53.1 | NA | NA | 47.5 | NA | 43.9 | NA | NA |
| Nitrate as N | 0.23 | NA | 0.7 | NA | NA | 1.57 | 2.45 | | 0.6 | NA | 2.15 | NA | NA | BDL | NA | BDL | NA | NA | 0.44 | NA | 1.1 | NA | NA |
| Total Phosphorus as P | BDL | NA | BDL | NA | NA | BDL | BDL | | 0.05 | NA | BDL | NA | NA | BDL | NA | BDL | NA | NA | 0.07 | NA | BDL | NA | NA |
| Sodium, Total | 60.4 | NA | 42.7 | NA | NA | 57.7 | 45.6 | | 125 | NA | 53.5 | NA | NA | 65.2 | NA | 54.9 | NA | NA | 11.4 | NA | 15.5 | NA | NA |
| Total Kjeldahl | 5.86 | NA | 18.9 | NA | NA | 1.15 | 1.75 | | 0.62 | NA | 1.13 | NA | NA | 4.74 | NA | 0.99 | NA | NA | 0.4 | NA | 0.34 | NA | NA |
| Ammonia as N | 5.86 | NA | 10.1 | NA | NA | 0.88 | 1.30 | | 0.35 | NA | 0.67 | NA | NA | 4.26 | NA | 0.91 | NA | NA | 0.15 | NA | BDL | NA | NA |
| Sulfate | 185 | NA | 74.2 | NA | NA | 49.4 | 11.9 | | 24 | NA | 30.6 | NA | NA | 25.1 | NA | 23.1 | NA | NA | 7.28 | NA | 10.1 | NA | NA |
| Chloride | 70 | NA | 65 | NA | NA | 80 | 100 | | 22.5 | NA | 70 | NA | NA | 120 | NA | 90 | NA | NA | 7.5 | NA | 28 | NA | NA |
| Total Dissolved Solids | 425 | NA | 397 | NA | NA | 248 | 262 | | 164 | NA | 293 | NA | NA | 264 | NA | 220 | NA | NA | 92 | NA | 115 | NA | NA |
| Total Suspended Solids | BDL | NA | BDL | NA | NA | BDL | 1 | | 6 | NA | 8 | NA | NA | BDL | NA | 1.0 | NA | NA | 20 | NA | 6 | NA | NA |
| Arsenic | BDL | NA | BDL | NA | NA | BDL | BDL | | BDL | NA | BDL | NA | NA | BDL | NA | BDL | NA | NA | BDL | NA | BDL | NA | NA |
| Aluminum, Total | BDL | NA | 0.009 | NA | NA | BDL | BDL | | BDL | NA | 0.001 | NA | NA | BDL | NA | BDL | NA | NA | BDL | NA | 0.125 | NA | NA |
| Iron, Total | 0.023 | NA | 0.108 | NA | NA | 0.013 | 0.016 | | 0.638 | NA | 5.35 | NA | NA | 0.013 | NA | 0.020 | NA | NA | 0.38 | NA | 0.371 | NA | NA |
| Manganese, Total | 4.46 | NA | 2.97 | NA | NA | 0.104 | 0.116 | | 0.565 | NA | 0.533 | NA | NA | 2.84 | NA | 2.36 | NA | NA | 0.59 | NA | 0.085 | NA | NA |
| Nickel, Total | 0.694 | NA | 0.010 | NA | NA | 0.012 | BDL | | 0.023 | NA | 0.012 | NA | NA | BDL | NA | BDL | NA | NA | 0.005 | NA | 0.002 | NA | NA |
| Chromium, Total | BDL | NA | BDL | NA | NA | BDL | BDL | | BDL | NA | 0.002 | NA | NA | BDL | NA | 0.002 | NA | NA | 0.008 | NA | 0.006 | NA | NA |

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

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

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

NA - Not Analyzed
BDL - Below Detection Limits

Table 2c

# 2006 ONSITE GROUNDWATER SAMPLING RESULTS

| | FTC-W-14B | | | | | FTC-W-23 | | | FTC-W-31 | | | | FTC-W-32 | | | | | FTC-W-35 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Baseline Water Quality | DATE SAMPLED | | | | Baseline Water Quality | DATE SAMPLED | | Baseline Water Quality | DATE SAMPLED | | | Baseline Water Quality | DATE SAMPLED | | | | Baseline Water Quality | DATE SAMPLED | | | |
| VOLATILE ORGANICS COMPOUNDS | 6/10/99 | 3/31/06 | 7/3/06 | 9/18/06 | 12/14/06 | 6/8/99 | 6/14/06 | | 6/11/99 | 6/14/06 | 9/25/06 | | 6/15/00 | 3/20/06 | 6/14/06 | 9/18/06 | 12/14/06 | 6/11/99 | 3/29/06 | 6/14/06 | 9/20/06 | 12/14/06 |
| 1,1-Dichloroethane | BDL | BDL | BDL | 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 | BDL | BDL | BDL |
| 1,1,2-Trichloroethane | BDL | BDL | BDL | 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 | BDL | BDL | BDL |
| 1,2,4,5-Tetramethylbenzene | NA | NA | NA | BDL | BDL | NA | NA | | NA | NA | 17.0 | | NA | NA | NA | BDL | BDL | NA | NA | NA | 200 | 6.5 |
| 1,2,4-Trimethylbenzene | BDL | BDL | BDL | BDL | BDL | BDL | 4.2 | Annual Sample Only | 548 | 167 | BDL | Annual Sample Only | 209 | BDL | 9.0 | BDL | BDL | 465 | 251.0 | 193 | 1300 | BDL |
| 1,2-Dichlorobenzene | BDL | BDL | BDL | 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 | 1.3 | | 169 | 120 | BDL | | 70.9 | BDL | 2.4 | BDL | BDL | 126 | 170.0 | 366 | 410 | BDL |
| 1,4-Dichlorobenzene | BDL | BDL | BDL | BDL | BDL | BDL | 1.1 | | BDL | BDL | BDL | | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 2-Methylnaphthalene | NA | NA | NA | BDL | BDL | NA | NA | | NA | NA | BDL | | NA | NA | NA | BDL | BDL | NA | NA | NA | BDL | BDL |
| 4-Isopropyltoluene | NA | NA | NA | BDL | BDL | NA | NA | | NA | NA | BDL | | NA | NA | NA | BDL | BDL | NA | NA | NA | 24 | BDL |
| Benzene | BDL | BDL | BDL | BDL | BDL | BDL | BDL | | BDL | 0.8 | BDL | | 17.4 | BDL | BDL | BDL | BDL | BDL | 0.6 | 0.6 | BDL | BDL |
| c-1,2-Dichloroethene | BDL | BDL | BDL | BDL | BDL | BDL | BDL | | BDL | 5.9 | BDL | | BDL | BDL | BDL | BDL | BDL | BDL | 3.2 | 4.7 | 12 | BDL |
| Chlorobenzene | BDL | BDL | BDL | BDL | BDL | BDL | BDL | | BDL | BDL | BDL | | BDL | BDL | BDL | BDL | BDL | BDL | 0.8 | BDL | BDL | BDL |
| Chloroform | BDL | BDL | BDL | BDL | BDL | BDL | 0.8 | | BDL | BDL | BDL | | BDL | BDL | BDL | BDL | BDL | BDL | 0.8 | 0.7 | BDL | BDL |
| Dichlorodifluoromethane | BDL | BDL | BDL | 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 | | 112 | 123 | BDL | | 13.3 | BDL | 1.5 | BDL | BDL | 311 | 286.0 | 162 | 350 | BDL |
| Hexachlorobutadiene | BDL | BDL | BDL | BDL | BDL | BDL | BDL | | BDL | BDL | BDL | | BDL | BDL | 2.4 | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| Isopropylbenzene | BDL | BDL | BDL | BDL | BDL | BDL | BDL | | 23.1 | 19.7 | BDL | | 17.0 | BDL | BDL | BDL | BDL | BDL | 54.3 | 45.5 | 48 | BDL |
| m,p-Xylene | BDL | BDL | BDL | BDL | BDL | BDL | 1.2 | | 415 | 117 | BDL | | 33.8 | BDL | 4.7 | BDL | BDL | 823 | 614.0 | 165 | 1700 | BDL |
| Methyl t-Butylether (MTBE) | BDL | BDL | BDL | BDL | BDL | BDL | 6.5 | | BDL | BDL | BDL | | 3.2 | 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 | BDL | BDL | BDL | BDL | BDL | BDL |
| Naphthalene | BDL | BDL | BDL | BDL | BDL | BDL | 46.1 | | 106 | 178 | BDL | | BDL | BDL | 87.7 | BDL | BDL | 140 | 428.0 | 485 | 320 | BDL |
| n-Butylbenzene | NA | NA | NA | BDL | NA | NA | NA | | NA | NA | BDL | | NA | NA | NA | BDL | BDL | NA | NA | NA | 80 | NA |
| n-Propylbenzene | BDL | BDL | BDL | BDL | BDL | BDL | BDL | | 65.7 | 62.7 | BDL | | 39.9 | 1.1 | 0.1 | BDL | BDL | 62.2 | BDL | 104 | 64 | BDL |
| o-Xylene | BDL | BDL | BDL | BDL | BDL | BDL | 0.3 | | 194 | 104 | BDL | | 10.1 | BDL | 1.4 | BDL | BDL | 457 | 193.0 | 160 | 330 | BDL |
| p-Diethylbenzene | NA | NA | NA | BDL | BDL | NA | NA | | NA | NA | BDL | | NA | NA | NA | BDL | BDL | NA | NA | NA | 180 | 2.3 |
| p-Ethyltoluene | NA | NA | NA | BDL | BDL | NA | NA | | NA | NA | BDL | | NA | NA | NA | BDL | BDL | NA | NA | NA | 570 | BDL |
| p-Isopropyltoluene | BDL | BDL | BDL | BDL | BDL | BDL | 0.5 | | 21.8 | 4.7 | BDL | | 12.7 | BDL | 1.1 | BDL | BDL | 7.3 | 6.6 | 6.0 | BDL | BDL |
| sec-Butyl Benzene | BDL | BDL | BDL | BDL | BDL | BDL | BDL | | BDL | 5.5 | BDL | | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 23.6 | BDL | BDL |
| Tetrachloroethene | BDL | BDL | BDL | 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 | 4.5 | BDL | | 2.7 | BDL | BDL | BDL | BDL | 392 | 18.9 | 40.6 | 12 | BDL |
| Trichloroethene | BDL | BDL | BDL | BDL | BDL | BDL | BDL | | BDL | BDL | BDL | | BDL | BDL | BDL | BDL | BDL | BDL | 0.9 | BDL | BDL | BDL |
| Vinyl Chloride | BDL | BDL | BDL | BDL | BDL | BDL | 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 | 1.2 | | 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 | BDL | BDL | BDL |
| 1,4-Dichlorobenzene | BDL | BDL | BDL | 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 | | 3.9 | BDL | BDL | | 1.8 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 2-Methylnaphthalene | NA | NA | NA | BDL | BDL | NA | NA | | NA | NA | 6.2 | | NA | NA | NA | BDL | BDL | NA | NA | NA | 44 | BDL |
| 2-Methylphenol | NA | NA | NA | BDL | BDL | NA | NA | | NA | NA | BDL | | NA | NA | NA | BDL | BDL | NA | NA | NA | BDL | BDL |
| 3+4-Methylphenol | NA | NA | NA | BDL | BDL | NA | NA | | NA | NA | BDL | | NA | NA | NA | BDL | BDL | NA | NA | NA | BDL | BDL |
| Acenaphthene | BDL | BDL | BDL | BDL | BDL | BDL | BDL | | 1.3 | BDL | BDL | | BDL | BDL | BDL | BDL | BDL | BDL | 1.0 | BDL | BDL | BDL |
| Anthracene | BDL | BDL | BDL | BDL | BDL | BDL | BDL | | BDL | BDL | BDL | | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| Di-n-Butyl Phthalate | BDL | BDL | BDL | 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 | | 2.0 | BDL | BDL | | 1.8 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| Naphthalene | BDL | BDL | BDL | BDL | BDL | BDL | BDL | | 61.8 | BDL | BDL | | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 180 | BDL |
| Nitrobenzene | BDL | BDL | BDL | BDL | BDL | BDL | BDL | | BDL | 12.4 | BDL | | BDL | BDL | BDL | BDL | BDL | BDL | 34.8 | 24.8 | BDL | BDL |
| Phenanthrene | BDL | BDL | BDL | BDL | BDL | BDL | BDL | | BDL | BDL | BDL | | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| INORGANIC PARAMETERS | | | | | | | | | | | | | | | | | | | | | | |
| ph | 6.17 | NA | 6.23 | NA | NA | 6.99 | 6.71 | | 6.48 | 6.34 | NA | | 6.64 | NA | 6.5 | NA | NA | 5.83 | NA | 6.25 | NA | NA |
| Specific Conductance | 568 | NA | 256 | NA | NA | 832 | 660 | | 632 | 470 | NA | | 776 | NA | 454 | NA | NA | 260 | NA | 405 | NA | NA |
| Alkalinity as Calcium Carbonate | 60 | NA | 47.0 | NA | NA | 182 | 136 | | 71 | 160 | NA | | 179 | NA | 174 | NA | NA | 56 | NA | 162 | NA | NA |
| B.O.D. | BDL | NA | BDL | NA | NA | BDL | BDL | | 7 | 3.0 | NA | | 5.2 | NA | BDL | NA | NA | 6 | NA | 7 | NA | NA |
| Chemical Oxygen Demand | BDL | NA | BDL | NA | NA | BDL | 31.0 | | 36 | 48.0 | NA | | 54.9 | NA | BDL | NA | NA | BDL | NA | 64 | NA | NA |
| Hardness, Total | 190 | NA | 48.8 | NA | NA | 52.6 | 98.7 | | 50.8 | 140 | NA | | 108 | NA | 154 | NA | NA | 45 | NA | 89.2 | NA | NA |
| Nitrate as N | 2.59 | NA | 0.490 | NA | NA | 4.07 | 1.93 | | BDL | 1.55 | NA | | BDL | NA | 0.63 | NA | NA | 1.72 | NA | BDL | NA | NA |
| Total Phosphorus as P | BDL | NA | BDL | NA | NA | BDL | BDL | | 0.05 | BDL | NA | | 0.06 | NA | BDL | NA | NA | BDL | NA | BDL | NA | NA |
| Sodium, Total | 23.9 | NA | 26.1 | NA | NA | 106 | 75.6 | | 80.5 | 25.0 | NA | | 56.7 | NA | 24.2 | NA | NA | 16.4 | NA | 24 | NA | NA |
| Total Kjeldahl | 0.42 | NA | 0.22 | NA | NA | 16.9 | 16.6 | | 6.23 | 2.16 | NA | | 2.70 | NA | 0.25 | NA | NA | 0.99 | NA | 2.17 | NA | NA |
| Ammonia as N | BDL | NA | BDL | NA | NA | 16.9 | 16.8 | | 6.24 | 1.74 | NA | | 2.69 | NA | 0.15 | NA | NA | 0.76 | NA | 1.9 | NA | NA |
| Sulfate | 158 | NA | 30.6 | NA | NA | 24.9 | 22.4 | | 33.4 | 20.5 | NA | | 48.1 | NA | 36.6 | NA | NA | 26 | NA | BDL | NA | NA |
| Chloride | 20 | NA | 20.0 | NA | NA | 100 | 115 | | 80 | 20.0 | NA | | 90.0 | NA | 5 | NA | NA | 20 | NA | 15 | NA | NA |
| Total Dissolved Solids | 347 | NA | 148 | NA | NA | 384 | 343 | | 306 | 239 | NA | | 377 | NA | 254 | NA | NA | 140 | NA | 195 | NA | NA |
| Total Suspended Solids | 1 | NA | BDL | NA | NA | 1 | BDL | | 40 | 36 | NA | | 102 | NA | 10 | NA | NA | 8 | NA | 80 | NA | NA |
| Arsenic | BDL | NA | BDL | NA | NA | BDL | BDL | | BDL | 0.036 | NA | | BDL | NA | 0.02 | NA | NA | BDL | NA | 0.026 | NA | NA |
| Aluminum, Total | BDL | NA | BDL | NA | NA | BDL | 0.006 | | BDL | 0.033 | NA | | 0.012 | NA | 0.005 | NA | NA | BDL | NA | BDL | NA | NA |
| Iron, Total | 0.422 | NA | 0.033 | NA | NA | 0.013 | 0.242 | | 24.3 | 30.5 | NA | | 64.9 | NA | 9.8 | NA | NA | 20.4 | NA | 54.1 | NA | NA |
| Manganese, Total | 4.37 | NA | 0.297 | NA | NA | 0.277 | 5.93 | | 2.31 | 1.320 | NA | | 5.39 | NA | 0.25 | NA | NA | 3.25 | NA | 2.68 | NA | NA |
| Nickel, Total | BDL | NA | 0.001 | NA | NA | 0.014 | 0.008 | | 0.006 | 0.012 | NA | | 0.002 | NA | BDL | NA | NA | 0.008 | NA | BDL | NA | NA |
| Chromium, Total | 0.002 | NA | 0.007 | NA | NA | BDL | 0.003 | | 0.006 | 0.003 | NA | | BDL | NA | 0.002 | NA | NA | 0.005 | NA | 0.002 | NA | NA |

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

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

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

NA - Not Analyzed

BDL - Below Detection Limits

Figure 11

# FTC-W-31
## VOC CONCENTRATIONS
## 1999 to 2006

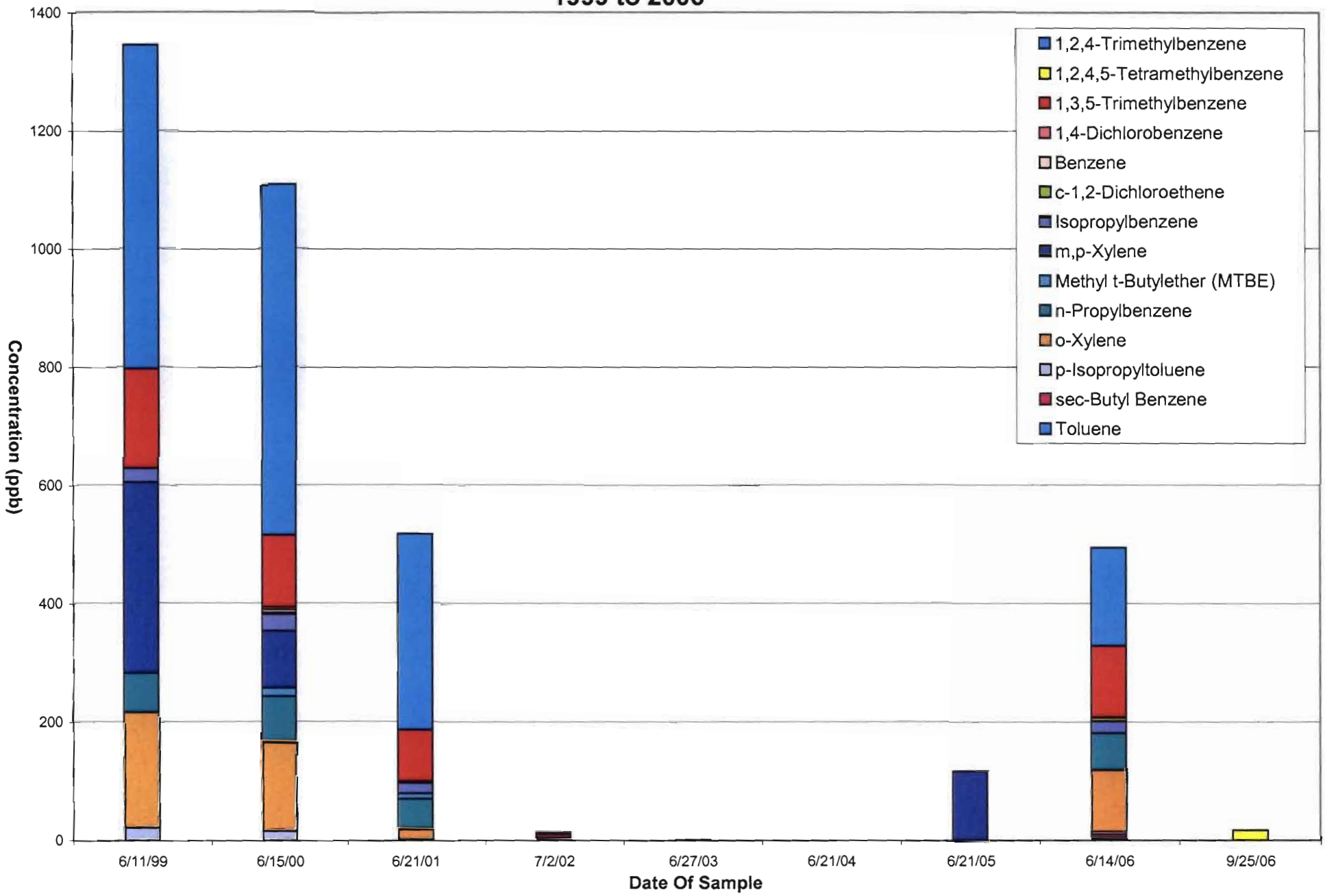


Figure 12

# FTC-W-32
## VOC CONCENTRATIONS
## 1999 to 2006

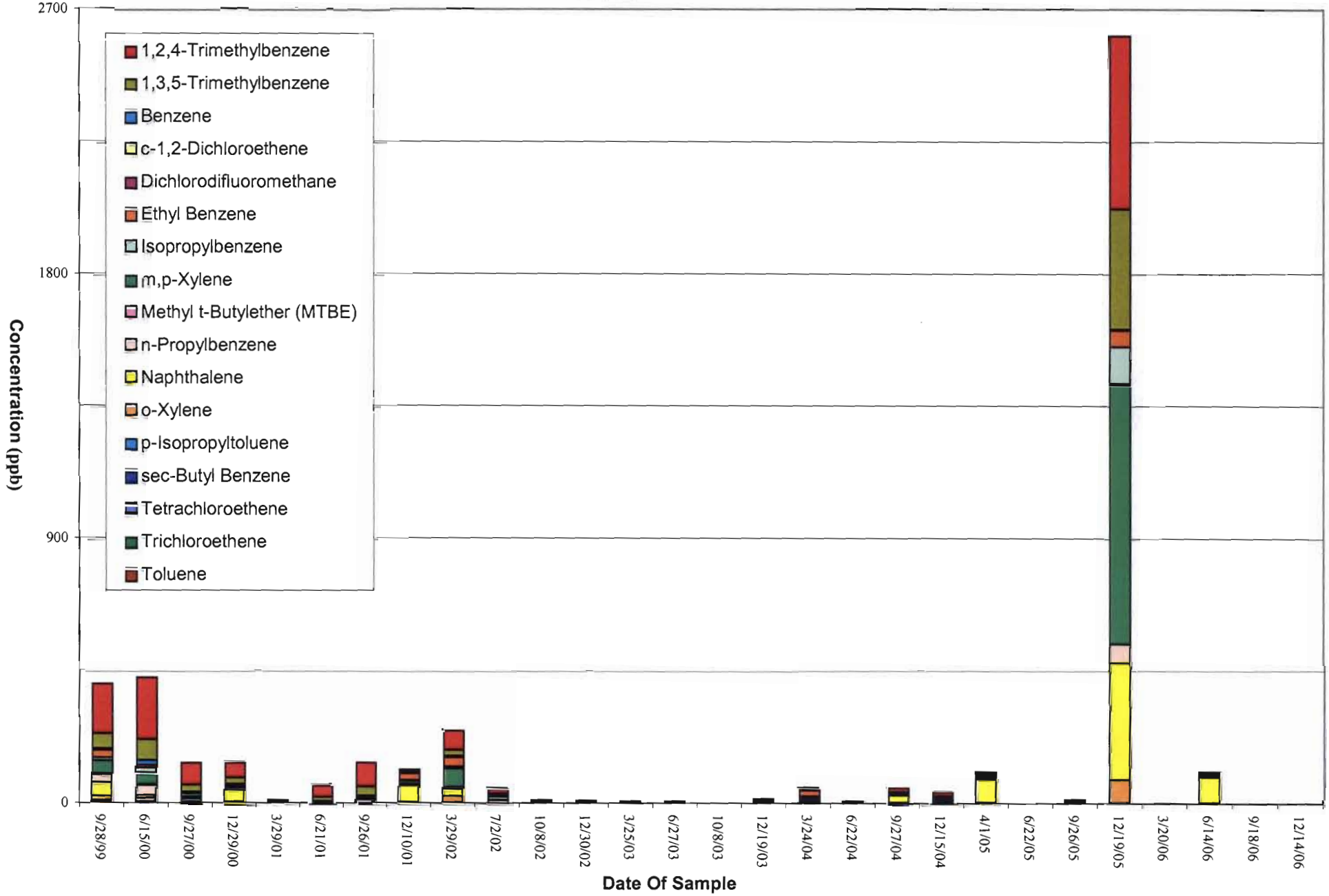
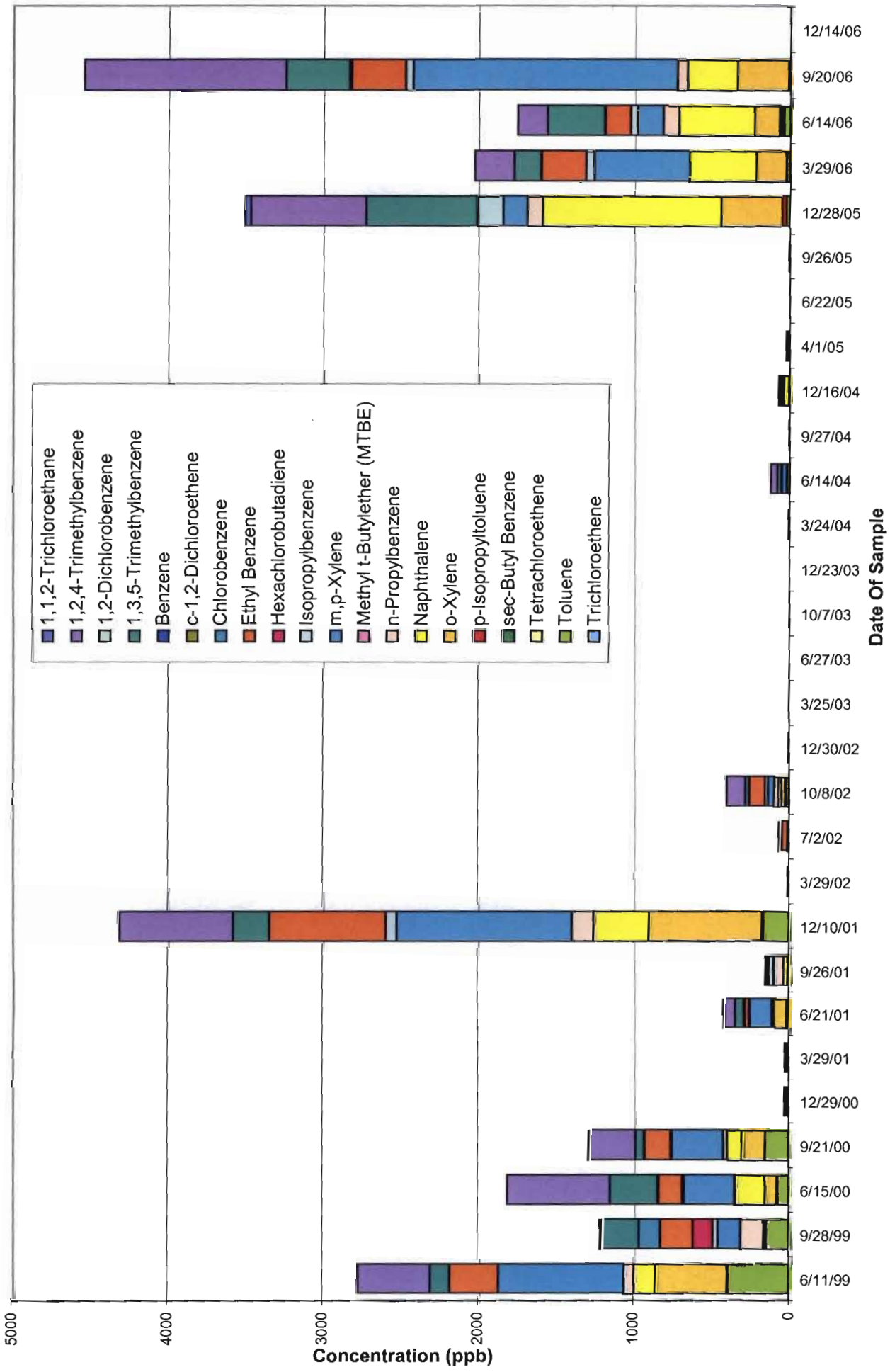


Figure 13

# FTC-W-35
## VOC CONCENTRATIONS
## 1999 to 2006



### 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 2006 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 (100 ppm) and Ammonia (28 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.

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 2006, (Figure 10). The results of the MY 2006 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.

Table 3a

# 2006 OFFSITE GROUNDWATER SAMPLING RESULTS

| | BP-2A | | | BP-2B | | | | | BP-3A | | | | | BP-3B | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Baseline Water Quality | DATE SAMPLED | | Baseline Water Quality | DATE SAMPLED | | | | Baseline Water Quality | | | | | Baseline Water Quality | DATE SAMPLED | | | |
| **VOLATILE ORGANICS COMPOUNDS** | 6/8/99 | 6/22/06 | | 6/8/99 | 3/21/06 | 6/22/06 | 9/19/06 | 12/18/06 | 11/00/90 | 4/13/06 | 7/27/06 | | 1/18/07 | 11/00/90 | 4/13/06 | 7/27/06 | 10/12/06 | 1/18/07 |
| 1,1,1-Trichloroethane | BDL | BDL | | 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 | NA | BDL | BDL | | BDL | NA | BDL | BDL | BDL | BDL |
| 1,1,2-Trichloroethane | BDL | BDL | Annual Sample Only | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | Not Part Of Routine Sampling Plan | 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 |
| 1,1-Dichloroethene | 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 | NA | BDL | BDL | | BDL | NA | BDL | BDL | BDL | BDL |
| 1,2-Dibromoethane | BDL | BDL | | BDL | BDL | BDL | BDL | BDL | NA | BDL | BDL | | BDL | NA | BDL | BDL | BDL | BDL |
| 1,2-Dichlorobenzene | BDL | BDL | | 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 | BDL | BDL |
| 1,3,5-Trimethylbenzene | BDL | BDL | | BDL | BDL | BDL | BDL | BDL | NA | BDL | BDL | | BDL | NA | BDL | BDL | BDL | BDL |
| 1,4-Dichlorobenzene | 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 |
| Carbon Tetrachloride | BDL | BDL | | BDL | BDL | BDL | BDL | BDL | NA | BDL | BDL | | BDL | NA | BDL | BDL | BDL | BDL |
| Chlorobenzene | BDL | BDL | | 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 | BDL | BDL |
| Chloromethane | BDL | BDL | | BDL | BDL | BDL | BDL | BDL | NA | BDL | BDL | | BDL | NA | BDL | BDL | BDL | BDL |
| cis-1,2-Dichloroethene | BDL | BDL | | BDL | BDL | BDL | BDL | BDL | NA | BDL | BDL | | BDL | NA | 5.0 | 3.1 | 2.6 | 4.2 |
| Dichlorodifluoromethane | BDL | BDL | | BDL | BDL | BDL | BDL | BDL | NA | BDL | BDL | | BDL | NA | BDL | BDL | BDL | BDL |
| Ethyl Benzene | BDL | BDL | | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | | BDL | BDL | BDL | BDL | BDL | BDL |
| Isopropylbenzene | BDL | BDL | | BDL | BDL | BDL | BDL | BDL | NA | BDL | BDL | | BDL | NA | BDL | BDL | BDL | BDL |
| m,p-Xylene | BDL | BDL | | 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 | BDL | BDL |
| Methylene Chloride | 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 |
| n-Propylbenzene | BDL | BDL | | BDL | BDL | BDL | BDL | BDL | NA | BDL | BDL | | BDL | NA | BDL | BDL | BDL | BDL |
| o-Xylene | BDL | BDL | | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | | BDL | 2.0 | BDL | BDL | BDL | BDL |
| p-Ethyltoluene | NA | NA | | NA | NA | NA | BDL | NA | NA | NA | NA | | BDL | NA | NA | NA | BDL | BDL |
| t -1,2-Dichloroethene | BDL | BDL | | BDL | BDL | BDL | BDL | BDL | NA | BDL | BDL | | BDL | NA | BDL | BDL | BDL | BDL |
| Tetrachloroethene | BDL | BDL | | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | | BDL | BDL | 27.6 | 21.0 | 7.3 | 30.0 |
| Toluene | 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 |
| Trichlorofluoromethane | 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 |
| **SEMI-VOLATILE ORGANIC COMPOUNDS** | | | | | | | | | | | | | | | | | | |
| 1,2-Dichlorobenzene | BDL | BDL | | 2.3 | NA | BDL | NA | NA | BDL | NA | NA | | NA | BDL | NA | BDL | NA | NA |
| 2,4-Dinitrotoluene | BDL | BDL | | BDL | NA | BDL | NA | NA | BDL | NA | NA | | NA | BDL | NA | BDL | NA | NA |
| Bis(2-Ethylhexyl) Phthalate | BDL | BDL | | BDL | NA | BDL | NA | NA | BDL | NA | BDL | | NA | BDL | NA | BDL | NA | NA |
| **INORGANIC PARAMETERS** | | | | | | | | | | | | | | | | | | |
| ph | 6.32 | 6.34 | | 6.68 | NA | 6.63 | NA | NA | | NA | 5.59 | | NA | 5.03 | NA | 5.38 | NA | NA |
| Specific Conductance | 471 | 438 | | 608 | NA | 497 | NA | NA | | NA | 61 | | NA | 81.8 | NA | 54 | NA | NA |
| Alkalinity as Calcium Carbonate | 29 | 29 | | 68 | NA | 50 | NA | NA | | NA | 5 | | NA | BDL | NA | BDL | NA | NA |
| B.O.D. | BDL | BDL | | BDL | NA | BDL | NA | NA | | NA | BDL | | NA | BDL | NA | BDL | NA | NA |
| Chemical Oxygen Demand | BDL | BDL | | BDL | NA | BDL | NA | NA | | NA | BDL | | NA | BDL | NA | BDL | NA | NA |
| Hardness, Total | 30.9 | 47 | | 37 | NA | 89.2 | NA | NA | | NA | 11.6 | | NA | 14.9 | NA | 8.35 | NA | NA |
| Nitrate as N | 1.97 | 4.73 | | BDL | NA | 3.48 | NA | NA | | NA | 0.21 | | NA | 4.15 | NA | 1.46 | NA | NA |
| Total Phosphorus as P | BDL | BDL | | BDL | NA | BDL | NA | NA | | NA | BDL | | NA | BDL | NA | BDL | NA | NA |
| Sodium, Total | 49.3 | 40.3 | | 60.9 | NA | 51.3 | NA | NA | | NA | 4.82 | | NA | 6.30 | NA | 4.91 | NA | NA |
| Total Kjeldahl | 7.58 | 0.46 | | 16.1 | NA | 1.93 | NA | NA | | NA | 0.30 | | NA | 0.24 | NA | 0.2 | NA | NA |
| Ammonia as N | 7.58 | 0.21 | | 16.1 | NA | 1.77 | NA | NA | | NA | 0.18 | | NA | BDL | NA | BDL | NA | NA |
| Sulfate | 15.8 | 28 | | 15.8 | NA | 28.7 | NA | NA | | NA | 11.0 | | NA | BDL | NA | BDL | NA | NA |
| Chloride | 90 | 85 | | 110 | NA | 95 | NA | NA | | NA | BDL | | NA | 10.0 | NA | 10 | NA | NA |
| Total Dissolved Solids | 196 | 253 | | 237 | NA | 269 | NA | NA | | NA | 35 | | NA | 92 | NA | 44 | NA | NA |
| Total Suspended Solids | BDL | BDL | | BDL | NA | BDL | NA | NA | | NA | BDL | | NA | BDL | NA | BDL | NA | NA |
| Aluminum, Total | BDL | 0.001 | | BDL | NA | BDL | NA | NA | | NA | 0.008 | | NA | BDL | NA | 0.011 | NA | NA |
| Iron, Total | 0.007 | BDL | | 0.021 | NA | 0.009 | NA | NA | | NA | 0.017 | | NA | 0.106 | NA | 0.020 | NA | NA |
| Manganese, Total | 0.275 | 0.479 | | 0.846 | NA | 0.838 | NA | NA | | NA | 0.006 | | NA | 0.011 | NA | 0.010 | NA | NA |
| Nickel, Total | 0.009 | BDL | | BDL | NA | BDL | NA | NA | | NA | BDL | | NA | BDL | NA | 0.032 | NA | NA |
| Chromium, Total | BDL | BDL | | BDL | NA | BDL | NA | NA | | NA | 0.002 | | NA | BDL | NA | 0.007 | NA | NA |

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

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

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

NA - Not Analyzed
BDL - Below Detection Limits

Table 3b

# 2006 OFFSITE GROUNDWATER SAMPLING RESULTS

| | BP-3C | | | | | BP-4B | | | | | BP-4C | | | | | BP-9B | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Baseline Water Quality | DATE SAMPLED | | | | Baseline Water Quality | DATE SAMPLED | | | | Baseline Water Quality | DATE SAMPLED | | | | Baseline Water Quality | DATE SAMPLED | | | |
| **VOLATILE ORGANICS COMPOUNDS** | 11/00/90 | 4/13/06 | 7/27/06 | 10/12/06 | 1/18/07 | 6/8/99 | 3/28/06 | 6/15/06 | 9/22/06 | 1/9/07 | 6/8/99 | 3/28/06 | 6/15/06 | 9/22/06 | 1/10/07 | 6/4/99 | 3/23/06 | 6/15/06 | 9/19/06 | 1/9/07 |
| 1,1,1-Trichloroethane | 2.0 | 5.6 | 4.3 | BDL | 2.5 | BDL | BDL | BDL | BDL | BDL | BDL | 1.0 | 0.8 | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 1,1,1-Trichloromethane | NA | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 1,1,2-Trichloroethane | BDL | 1.6 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 1,1-Dichloroethane | 0.9 | 3.0 | 7.4 | 1.2 | 3.3 | 4.8 | BDL | 5.2 | BDL | BDL | 3.3 | 1.2 | 1.3 | BDL | BDL | 6.4 | 5.6 | BDL | BDL | 5.4 |
| 1,1-Dichloroethene | BDL | 1.1 | BDL | BDL | 1.5 | 4.4 | BDL | BDL | BDL | BDL | 4.0 | BDL | BDL | BDL | BDL | 3.6 | BDL | BDL | BDL | BDL |
| 1,2,4-Trimethylbenzene | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0.9 | BDL | BDL | BDL | 4.6 | 0.8 | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 1,2-Dibromoethane | NA | BDL | BDL | 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 | BDL | BDL | BDL |
| 1,2-Dichloroethane | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 1.3 | BDL | BDL | BDL |
| 1,3,5-Trimethylbenzene | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0.8 | BDL | BDL | BDL | 4.6 | 0.7 | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 1,4-Dichlorobenzene | NA | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| Benzene | BDL | BDL | BDL | BDL | BDL | 8.5 | 4.4 | 3.3 | 6.1 | 5.1 | 9.0 | 6.4 | 5.5 | 5.6 | 4.5 | BDL | 4.7 | 10.1 | BDL | 2.7 |
| Carbon Tetrachloride | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| Chlorobenzene | BDL | BDL | BDL | BDL | BDL | 26.2 | BDL | BDL | BDL | BDL | 34.4 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| Chloroform | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0.5 | BDL | BDL | BDL |
| Chloromethane | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| cis-1,2-Dichloroethene | 11.0 | 99.9 | 200 | 38 | 110.0 | 117.0 | 3.2 | 13.8 | 5.4 | 3.9 | 152.0 | 17.3 | 17.4 | 25.0 | 20.0 | 106.0 | 18.9 | 5.8 | BDL | 18.0 |
| Dichlorodifluoromethane | NA | BDL | BDL | BDL | BDL | BDL | BDL | 2.9 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 3.1 | BDL | BDL | BDL |
| Ethyl Benzene | BDL | BDL | BDL | BDL | BDL | 155.0 | BDL | BDL | BDL | BDL | 206.0 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| Isopropylbenzene | NA | BDL | BDL | BDL | BDL | 9.8 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| m,p-Xylene | NA | BDL | BDL | BDL | BDL | 4.6 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| Methyl t-Butylether (MTBE) | BDL | BDL | BDL | BDL | BDL | 5.7 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| Methylene Chloride | BDL | 1.6 | BDL | BDL | 17* | BDL | BDL | BDL | BDL | NA | BDL | BDL | BDL | BDL | NA | BDL | BDL | BDL | BDL | NA |
| Naphthalene | BDL | BDL | BDL | BDL | BDL | 20.0 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| n-Propylbenzene | NA | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| o-Xylene | NA | BDL | BDL | BDL | BDL | 37.3 | BDL | BDL | BDL | BDL | 1.4 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| p-Ethyltoluene | NA | NA | NA | BDL | BDL | NA | NA | NA | BDL | BDL | NA | NA | NA | BDL | BDL | NA | NA | NA | BDL | BDL |
| t -1,2-Dichloroethene | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| Tetrachloroethene | 12.0 | 3.2 | 4.7 | 1.3 | 3.6 | 597.0 | 5.5 | 4.1 | 8.5 | 3.6 | 30.4 | 40.6 | 35.8 | 41.0 | 45.0 | 98.9 | 6.3 | 4.8 | BDL | 3.6 |
| Toluene | BDL | BDL | BDL | BDL | BDL | 32.1 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| Trichloroethene | 3.0 | 13.8 | 15.0 | 11.0 | 12.0 | BDL | 1.0 | 3.6 | 1.7 | BDL | BDL | 5.4 | 5.3 | 5.3 | 4.8 | BDL | 4.3 | BDL | BDL | 2.9 |
| Trichlorofluoromethane | NA | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| Vinyl Chloride | BDL | 1.3 | BDL | BDL | BDL | 10.6 | BDL | 3.3 | BDL | BDL | 5.0 | 1.1 | 1.2 | BDL | BDL | BDL | 4.0 | BDL | BDL | BDL |
| **SEMI-VOLATILE ORGANIC COMPOUNDS** | | | | | | | | | | | | | | | | | | | | |
| 1,2-Dichlorobenzene | BDL | NA | BDL | NA | NA | BDL | NA | BDL | NA | NA | BDL | NA | BDL | NA | NA | BDL | NA | BDL | NA | NA |
| 2,4-Dinitrotoluene | BDL | NA | BDL | NA | NA | BDL | NA | BDL | NA | NA | 3.9 | NA | BDL | NA | NA | BDL | NA | BDL | NA | NA |
| Diethyl Phthalate | BDL | NA | BDL | NA | NA | BDL | NA | BDL | NA | NA | BDL | NA | BDL | NA | NA | BDL | NA | BDL | NA | NA |
| **INORGANIC PARAMETERS** | | | | | | | | | | | | | | | | | | | | |
| ph | 5.64 | NA | 4.98 | NA | NA | 4.96 | NA | 5.10 | NA | NA | 5.08 | NA | 5.01 | NA | NA | 4.97 | NA | 4.98 | NA | NA |
| Specific Conductance | 30.0 | NA | 243 | NA | NA | 248 | NA | 313 | NA | NA | 119 | NA | 200 | NA | NA | 89.6 | NA | 226 | NA | NA |
| Alkalinity as Calcium Carbonate | BDL | NA | 5 | NA | NA | 9 | NA | 5.0 | NA | NA | 8 | NA | 6 | NA | NA | 5 | NA | 5 | NA | NA |
| B.O.D. | 1.0 | NA | NR | NA | NA | BDL | NA | BDL | NA | NA | BDL | NA | BDL | NA | NA | BDL | NA | BDL | NA | NA |
| Chemical Oxygen Demand | 40.6 | NA | BDL | NA | NA | BDL | NA | BDL | NA | NA | BDL | NA | BDL | NA | NA | BDL | NA | BDL | NA | NA |
| Hardness, Total | 1.9 | NA | 44.2 | NA | NA | 49.8 | NA | 54.5 | NA | NA | 24.1 | NA | 51.7 | NA | NA | 16.2 | NA | 38.3 | NA | NA |
| Nitrate as N | BDL | NA | 1.56 | NA | NA | 0.53 | NA | 2.55 | NA | NA | 2.3 | NA | 3.76 | NA | NA | 3.62 | NA | 2.23 | NA | NA |
| Total Phosphorus as P | BDL | NA | BDL | NA | NA | BDL | NA | BDL | NA | NA | BDL | NA | BDL | NA | NA | BDL | NA | BDL | NA | NA |
| Sodium, Total | 1.91 | NA | 21.1 | NA | NA | 23.4 | NA | 31.8 | NA | NA | 10.3 | NA | 14.0 | NA | NA | L/A | NA | 24.2 | NA | NA |
| Total Kjeldahl | 0.16 | NA | 0.21 | NA | NA | 0.16 | NA | 0.58 | NA | NA | BDL | NA | 0.14 | NA | NA | 0.13 | NA | 0.2 | NA | NA |
| Ammonia as N | BDL | NA | BDL | NA | NA | BDL | NA | 0.54 | NA | NA | BDL | NA | BDL | NA | NA | BDL | NA | BDL | NA | NA |
| Sulfate | 6.4 | NA | BDL | NA | NA | 40.8 | NA | 34.5 | NA | NA | 5.06 | NA | 13.6 | NA | NA | BDL | NA | BDL | NA | NA |
| Chloride | 5.0 | NA | 57.5 | NA | NA | 30 | NA | 65.0 | NA | NA | 15 | NA | 30.0 | NA | NA | 12.5 | NA | 48.0 | NA | NA |
| Total Dissolved Solids | 47 | NA | 158 | NA | NA | 132 | NA | 163 | NA | NA | 64 | NA | 128 | NA | NA | 48 | NA | 143 | NA | NA |
| Total Suspended Solids | 1.0 | NA | 1 | NA | NA | BDL | NA | 1.0 | NA | NA | BDL | NA | 1.0 | NA | NA | BDL | NA | BDL | NA | NA |
| Aluminum, Total | 0.045 | NA | 0.042 | NA | NA | BDL | NA | 0.018 | NA | NA | BDL | NA | 0.025 | NA | NA | BDL | NA | 0.016 | NA | NA |
| Iron, Total | 1.39 | NA | 0.135 | NA | NA | 0.015 | NA | 0.006 | NA | NA | 0.003 | NA | 0.039 | NA | NA | BDL | NA | 0.005 | NA | NA |
| Manganese, Total | 0.006 | NA | 0.023 | NA | NA | 0.13 | NA | 0.211 | NA | NA | 0.005 | NA | 0.023 | NA | NA | 0.003 | NA | 0.029 | NA | NA |
| Nickel, Total | BDL | NA | 0.021 | NA | NA | 0.020 | NA | 0.008 | NA | NA | 0.019 | NA | 0.004 | NA | NA | 0.005 | NA | 0.005 | NA | NA |
| Chromium, Total | BDL | NA | 0.016 | NA | NA | BDL | NA | 0.001 | NA | NA | BDL | NA | 0.001 | NA | NA | BDL | NA | 0.001 | NA | NA |

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

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

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

NA - Not Analyzed
BDL - Below Detection Limits

Table 3c

# 2006 OFFSITE GROUNDWATER SAMPLING RESULTS

| | BP-9C | | | | | BP-10B | | | | | BP-10C | | | | | BP-12A | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Baseline Water Quality | DATE SAMPLED | | | | Baseline Water Quality | DATE SAMPLED | | | | Baseline Water Quality | DATE SAMPLED | | | | Baseline Water Quality | DATE SAMPLED | | | |
| **VOLATILE ORGANICS COMPOUNDS** | 7/27/99 | 3/23/06 | 6/19/06 | 9/25/06 | 1/9/07 | 6/4/99 | 3/31/05 | 6/19/06 | 9/19/06 | 12/18/06 | 6/4/99 | 3/31/05 | 6/19/06 | 9/19/06 | 12/18/06 | 6/4/99 | 3/23/06 | 6/19/06 | 9/21/06 | 1/9/07 |
| 1,1,1-Trichloroethane | BDL | BDL | BDL | BDL | BDL | BDL | 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 | BDL | BDL | BDL | BDL | BDL | BDL |
| 1,1,2-Trichloroethane | BDL | BDL | BDL | 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 | 1.8 | 2.1 | BDL | 4.1 | 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 | BDL | BDL | BDL |
| 1,2,4-Trimethylbenzene | BDL | BDL | BDL | BDL | BDL | BDL | 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 | 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 | BDL | BDL | BDL |
| 1,2-Dichloroethane | BDL | BDL | BDL | 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 | BDL | BDL | BDL |
| 1,4-Dichlorobenzene | BDL | BDL | BDL | 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 | BDL | BDL | BDL |
| Carbon Tetrachloride | BDL | BDL | BDL | 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 | BDL | BDL | BDL |
| Chloroform | BDL | BDL | BDL | BDL | BDL | BDL | 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 | BDL | BDL | BDL | BDL | BDL | BDL |
| cis-1,2-Dichloroethene | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 2.4 | BDL | BDL | BDL | BDL | BDL |
| Dichlorodifluoromethane | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 1.5 | 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 | BDL | BDL | BDL |
| Isopropylbenzene | BDL | BDL | BDL | 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 | BDL | BDL | BDL |
| Methyl t-Butylether (MTBE) | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| Methylene Chloride | BDL | BDL | BDL | BDL | NA | BDL | BDL | BDL | BDL | NA | BDL | 0.6 | BDL | BDL | NA | BDL | BDL | BDL | BDL | NA |
| Naphthalene | BDL | BDL | BDL | 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 | BDL | BDL | BDL |
| o-Xylene | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| p-Ethyltoluene | NA | NA | NA | BDL | BDL | NA | NA | NA | BDL | BDL | NA | NA | NA | BDL | BDL | NA | NA | NA | BDL | BDL |
| t -1,2-Dichloroethene | BDL | BDL | BDL | 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 | BDL | BDL | BDL |
| Toluene | BDL | BDL | BDL | 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 | BDL | BDL | BDL |
| Trichlorofluoromethane | BDL | BDL | BDL | 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 | BDL | BDL | BDL |
| **SEMI-VOLATILE ORGANIC COMPOUNDS** | | | | | | | | | | | | | | | | | | | | |
| 1,2-Dichlorobenzene | NA | NA | BDL | NA | NA | NA | NA | BDL | NA | NA | NA | NA | BDL | NA | NA | NA | NA | BDL | NA | NA |
| 2,4-Dinitrotoluene | BDL | NA | BDL | NA | NA | BDL | NA | BDL | NA | NA | BDL | NA | BDL | NA | NA | BDL | NA | BDL | NA | NA |
| Bis(2-Ethylhexyl) Phthalate | BDL | NA | BDL | NA | NA | BDL | NA | BDL | NA | NA | BDL | NA | BDL | NA | NA | BDL | NA | BDL | NA | NA |
| **INORGANIC PARAMETERS** | | | | | | | | | | | | | | | | | | | | |
| ph | NA | NA | 5.77 | NA | NA | 5.21 | NA | 5.28 | NA | NA | 5 | NA | 4.93 | NA | NA | 5.2 | NA | 5.08 | NA | NA |
| Specific Conductance | NA | NA | 60 | NA | NA | 48.1 | NA | 52.0 | NA | NA | 44.2 | NA | 110 | NA | NA | 89 | NA | 113 | NA | NA |
| Alkalinity as Calcium Carbonate | NA | NA | 8 | NA | NA | BDL | NA | BDL | NA | NA | BDL | NA | BDL | NA | NA | BDL | NA | BDL | NA | NA |
| B.O.D. | NA | NA | BDL | NA | NA | BDL | NA | BDL | NA | NA | BDL | NA | BDL | NA | NA | BDL | NA | BDL | NA | NA |
| Chemical Oxygen Demand | NA | NA | BDL | NA | NA | BDL | NA | BDL | NA | NA | BDL | NA | BDL | NA | NA | BDL | NA | BDL | NA | NA |
| Hardness, Total | NA | NA | 14.5 | NA | NA | 8.8 | NA | 8.82 | NA | NA | 6.7 | NA | 21.3 | NA | NA | 15.8 | NA | 26.0 | NA | NA |
| Nitrate as N | NA | NA | 1.46 | NA | NA | 1.73 | NA | 2.06 | NA | NA | 1.8 | NA | 1.84 | NA | NA | 2.77 | NA | 10.90 | NA | NA |
| Total Phosphorus as P | NA | NA | BDL | NA | NA | BDL | NA | BDL | NA | NA | BDL | NA | BDL | NA | NA | BDL | NA | BDL | NA | NA |
| Sodium, Total | NA | NA | 3.94 | NA | NA | LA | NA | 4.40 | NA | NA | LA | NA | 8.16 | NA | NA | L/A | NA | 6.76 | NA | NA |
| Total Kjeldahl | NA | NA | BDL | NA | NA | BDL | NA | BDL | NA | NA | BDL | NA | 0.12 | NA | NA | BDL | NA | BDL | NA | NA |
| Ammonia as N | NA | NA | BDL | NA | NA | BDL | NA | BDL | NA | NA | BDL | NA | BDL | NA | NA | BDL | NA | BDL | NA | NA |
| Sulfate | NA | NA | 6.7 | NA | NA | BDL | NA | BDL | NA | NA | BDL | NA | BDL | NA | NA | 6.1 | NA | BDL | NA | NA |
| Chloride | NA | NA | 5.0 | NA | NA | 7.5 | NA | 8.0 | NA | NA | 7.5 | NA | 20.0 | NA | NA | 15 | NA | 5.0 | NA | NA |
| Total Dissolved Solids | NA | NA | 72.0 | NA | NA | 25 | NA | 55 | NA | NA | 16 | NA | 89 | NA | NA | 42 | NA | 93 | NA | NA |
| Total Suspended Solids | NA | NA | 15.0 | NA | NA | 2.5 | NA | 2.0 | NA | NA | BDL | NA | 2.0 | NA | NA | 2 | NA | 1 | NA | NA |
| Aluminum, Total | NA | NA | 0.199 | NA | NA | BDL | NA | 0.025 | NA | NA | BDL | NA | 0.019 | NA | NA | BDL | NA | 0.059 | NA | NA |
| Iron, Total | NA | NA | 0.090 | NA | NA | BDL | NA | 0.021 | NA | NA | BDL | NA | 0.009 | NA | NA | 0.098 | NA | 0.023 | NA | NA |
| Manganese, Total | NA | NA | 0.014 | NA | NA | 0.001 | NA | 0.002 | NA | NA | 0.001 | NA | 0.009 | NA | NA | 0.063 | NA | 0.020 | NA | NA |
| Nickel, Total | NA | NA | 0.001 | NA | NA | 0.005 | NA | 0.001 | NA | NA | BDL | NA | 0.002 | NA | NA | 0.113 | NA | 0.010 | NA | NA |
| Chromium, Total | NA | NA | 0.002 | NA | NA | BDL | NA | 0.001 | NA | NA | BDL | NA | 0.001 | NA | NA | 0.006 | NA | 0.004 | NA | NA |

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

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

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

NA - Not Analyzed
BDL - Below Detection Limits

Table 3d

# 2006 OFFSITE GROUNDWATER SAMPLING RESULTS

| | BP-12B | | | | | BP-12C | | | | | BP-13B | | | | | BP-13C | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Baseline Water Quality | DATE SAMPLED | | | | Baseline Water Quality | DATE SAMPLED | | | | Baseline Water Quality | DATE SAMPLED | | | | Baseline Water Quality | DATE SAMPLED | | | |
| VOLATILE ORGANICS COMPOUNDS | 6/4/99 | 3/22/06 | 6/16/06 | 9/21/06 | 12/21/06 | 6/15/00 | 3/22/06 | 6/16/06 | 9/21/06 | 1/9/07 | 2/1/00 | 3/24/06 | 6/20/06 | 9/20/06 | 12/27/06 | 2/1/00 | 3/24/06 | 6/20/06 | 11/2/06 | 12/27/06 |
| 1,1,1-Trichloroethane | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 1,1,1-Trichloromethane | 3.3 | BDL | BDL | BDL | BDL | BDL | 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 | BDL | BDL | BDL | BDL | BDL | BDL |
| 1,1-Dichloroethane | 9.2 | 0.8 | BDL | 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 | BDL | BDL | BDL |
| 1,2,4-Trimethylbenzene | BDL | BDL | BDL | BDL | BDL | BDL | 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 | 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 | BDL | BDL | BDL |
| 1,2-Dichloroethane | BDL | BDL | BDL | 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 | BDL | BDL | BDL |
| 1,4-Dichlorobenzene | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| Benzene | BDL | 3.9 | BDL | BDL | BDL | BDL | 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 | BDL | BDL | BDL | BDL | BDL | BDL |
| Chlorobenzene | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| Chloroform | BDL | 0.5 | BDL | BDL | BDL | BDL | 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 | BDL | BDL | BDL | BDL | BDL | BDL |
| cis-1,2-Dichloroethene | 78.9 | 6.9 | 2.7 | BDL | 1.4 | BDL | 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 | 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 | BDL | BDL | BDL |
| Isopropylbenzene | BDL | BDL | BDL | 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 | BDL | BDL | BDL |
| Methyl t-Butylether (MTBE) | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| Methylene Chloride | BDL | BDL | BDL | BDL | NA | BDL | BDL | BDL | BDL | NA | 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 | BDL | BDL | BDL |
| n-Propylbenzene | BDL | BDL | BDL | 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 | BDL | BDL | BDL |
| p-Ethyltoluene | NA | NA | NA | BDL | BDL | NA | NA | NA | BDL | BDL | NA | NA | NA | BDL | BDL | NA | NA | NA | BDL | BDL |
| t -1,2-Dichloroethene | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| Tetrachloroethene | 30.7 | 10.3 | 2.9 | 1.1 | 1.3 | 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 | BDL | BDL | BDL |
| Trichloroethene | 19.8 | 3.8 | 1.5 | BDL | BDL | BDL | 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 | 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 | BDL | BDL | BDL |
| **SEMI-VOLATILE ORGANIC COMPOUNDS** | | | | | | | | | | | | | | | | | | | | |
| 1,2-Dichlorobenzene | BDL | NA | BDL | NA | NA | BDL | NA | BDL | NA | NA | NA | NA | BDL | NA | NA | NA | NA | BDL | NA | NA |
| 2,4-Dinitrotoluene | 3.3 | NA | BDL | NA | NA | BDL | NA | BDL | NA | NA | BDL | NA | BDL | NA | NA | NA | NA | BDL | NA | NA |
| Bis(2-Ethylhexyl) Phthalate | BDL | NA | BDL | NA | NA | BDL | NA | BDL | NA | NA | BDL | NA | BDL | NA | NA | NA | NA | BDL | NA | NA |
| **INORGANIC PARAMETERS** | | | | | | | | | | | | | | | | | | | | |
| ph | 4.86 | NA | 4.91 | NA | NA | 4.93 | NA | 4.95 | NA | NA | NA | NA | 5.06 | NA | NA | NA | NA | 4.55 | NA | NA |
| Specific Conductance | 454 | NA | 414 | NA | NA | 34.0 | NA | 53 | NA | NA | NA | NA | 108 | NA | NA | NA | NA | 30 | NA | NA |
| Alkalinity as Calcium Carbonate | BDL | NA | BDL | NA | NA | BDL | NA | BDL | NA | NA | NA | NA | BDL | NA | NA | NA | NA | BDL | NA | NA |
| B.O.D. | BDL | NA | BDL | NA | NA | BDL | NA | BDL | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Chemical Oxygen Demand | BDL | NA | BDL | NA | NA | BDL | NA | 48.0 | NA | NA | NA | NA | BDL | NA | NA | NA | NA | BDL | NA | NA |
| Hardness, Total | 41.2 | NA | 34.7 | NA | NA | 3.8 | NA | 7.89 | NA | NA | NA | NA | 20.2 | NA | NA | NA | NA | 2.05 | NA | NA |
| Nitrate as N | 3.53 | NA | 3.51 | NA | NA | 1.02 | NA | 2.70 | NA | NA | NA | NA | 5.53 | NA | NA | NA | NA | 0.28 | NA | NA |
| Total Phosphorus as P | BDL | NA | 0.11 | NA | NA | BDL | NA | BDL | NA | NA | NA | NA | BDL | NA | NA | NA | NA | BDL | NA | NA |
| Sodium, Total | L/A | NA | 61.0 | NA | NA | 2.85 | NA | 4.82 | NA | NA | NA | NA | 9.22 | NA | NA | NA | NA | 2.28 | NA | NA |
| Total Kjeldahl | BDL | NA | 0.14 | NA | NA | 0.11 | NA | BDL | NA | NA | NA | NA | 0.51 | NA | NA | NA | NA | BDL | NA | NA |
| Ammonia as N | BDL | NA | BDL | NA | NA | BDL | NA | BDL | NA | NA | NA | NA | BDL | NA | NA | NA | NA | BDL | NA | NA |
| Sulfate | 23.2 | NA | 11.8 | NA | NA | BDL | NA | BDL | NA | NA | NA | NA | BDL | NA | NA | NA | NA | 5.8 | NA | NA |
| Chloride | 95 | NA | 98.0 | NA | NA | BDL | NA | 5.0 | NA | NA | NA | NA | 13.0 | NA | NA | NA | NA | BDL | NA | NA |
| Total Dissolved Solids | 223 | NA | 228 | NA | NA | 43 | NA | 58 | NA | NA | NA | NA | 75 | NA | NA | NA | NA | 24 | NA | NA |
| Total Suspended Solids | BDL | NA | BDL | NA | NA | BDL | NA | BDL | NA | NA | NA | NA | BDL | NA | NA | NA | NA | 2.0 | NA | NA |
| Aluminum, Total | BDL | NA | 0.031 | NA | NA | 0.074 | NA | 0.013 | NA | NA | NA | NA | 0.005 | NA | NA | NA | NA | 0.058 | NA | NA |
| Iron, Total | BDL | NA | 0.020 | NA | NA | 0.002 | NA | 0.033 | NA | NA | NA | NA | BDL | NA | NA | NA | NA | 0.021 | NA | NA |
| Manganese, Total | 0.015 | NA | 0.036 | NA | NA | 0.001 | NA | 0.001 | NA | NA | NA | NA | 0.007 | NA | NA | NA | NA | 0.003 | NA | NA |
| Nickel, Total | 0.011 | NA | 0.01 | NA | NA | 0.001 | NA | BDL | NA | NA | NA | NA | 0.001 | NA | NA | NA | NA | BDL | NA | NA |
| Chromium, Total | BDL | NA | 0.002 | NA | NA | BDL | NA | 0.001 | NA | NA | NA | NA | BDL | NA | NA | NA | NA | BDL | NA | NA |

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

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

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

NA - Not Analyzed
BDL - Below Detection Limits

Table 3e

# 2006 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 | |
| **VOLATILE ORGANICS COMPOUNDS** | 4/11/02 | 3/22/06 | 6/23/06 | 9/22/06 | 1/10/07 | 4/11/02 | 3/22/06 | 6/23/06 | 9/22/06 | 1/10/07 | 6/8/99 | 6/22/06 | | 6/8/99 | 6/22/06 | |
| 1,1,1-Trichloroethane | 50.6 | 20.9 | 19.1 | 16.0 | 26.0 | BDL | 1.0 | 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 | |
| 1,1,2-Trichloroethane | BDL | 3.1 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | Annual Sample Only | BDL | BDL | Annual Sample Only |
| 1,1-Dichloroethane | 5.1 | 3.3 | 3.8 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | | BDL | BDL | |
| 1,1-Dichloroethene | 25 | 16.1 | 13.8 | 21.0 | 16.0 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | | BDL | BDL | |
| 1,2,4-Trimethylbenzene | 1.4 | BDL | 3.9 | 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 | |
| 1,2-Dichlorobenzene | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | | BDL | BDL | |
| 1,2-Dichloroethane | 15.4 | 24.8 | BDL | 22.0 | 18.0 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | | BDL | BDL | |
| 1,3,5-Trimethylbenzene | BDL | BDL | BDL | 7.1 | 4.7 | 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 | |
| Benzene | 83.7 | BDL | 201.8 | 450.0 | 320.0 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | | BDL | BDL | |
| Carbon Tetrachloride | BDL | 3.5 | 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 | |
| Chloroform | 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 | |
| cis-1,2-Dichloroethene | 244 | 132 | 129.9 | 230.0 | 160.0 | BDL | 4.3 | 2.3 | 6.6 | 7.4 | BDL | BDL | | BDL | BDL | |
| Dichlorodifluoromethane | 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 | |
| Isopropylbenzene | BDL | BDL | 1.1 | 3.3 | 2.2 | 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 | |
| Methyl t-Butylether (MTBE) | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | | BDL | BDL | |
| Methylene Chloride | BDL | 1.0 | BDL | BDL | NA | BDL | BDL | BDL | BDL | NA | BDL | BDL | | BDL | BDL | |
| Naphthalene | 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 | |
| o-Xylene | 4.3 | 13.2 | 9.1 | 23.0 | 16.0 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | | BDL | BDL | |
| p-Ethyltoluene | NA | NA | NA | 5.5 | 3.6 | NA | NA | NA | BDL | BDL | NA | NA | | NA | NA | |
| t -1,2-Dichloroethene | BDL | 0.6 | 2.3 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | | BDL | BDL | |
| Tetrachloroethene | 375 | 243 | 276.1 | 350.0 | 290.0 | BDL | 5.2 | 2.2 | 2.8 | 4.8 | 5.8 | BDL | | 5.8 | BDL | |
| Toluene | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | | BDL | BDL | |
| Trichloroethene | 40.8 | 33.2 | 29.9 | 38.0 | 44.0 | BDL | 0.9 | BDL | BDL | BDL | BDL | BDL | | BDL | BDL | |
| Trichlorofluoromethane | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | | BDL | BDL | |
| Vinyl Chloride | 9.2 | 8.6 | BDL | 11.0 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | | BDL | BDL | |
| **SEMI-VOLATILE ORGANIC COMPOUNDS** | | | | | | | | | | | | | | | | |
| 1,2-Dichlorobenzene | BDL | NA | BDL | NA | NA | NA | NA | BDL | NA | NA | BDL | BDL | | BDL | BDL | |
| 2,4-Dinitrotoluene | BDL | NA | BDL | NA | NA | NA | NA | BDL | NA | NA | BDL | BDL | | BDL | BDL | |
| Bis(2-Ethylhexyl) Phthalate | BDL | NA | BDL | NA | NA | NA | NA | BDL | NA | NA | BDL | BDL | | BDL | BDL | |
| **INORGANIC PARAMETERS** | | | | | | | | | | | | | | | | |
| ph | 5.64 | NA | 5.08 | NA | NA | NA | NA | 5.11 | NA | NA | 5.58 | 6.54 | | 5.58 | 6.39 | |
| Specific Conductance | 30.0 | NA | 188 | NA | NA | NA | NA | 64 | NA | NA | 5103 | 308 | | 450 | 415 | |
| Alkalinity as Calcium Carbonate | BDL | NA | 9 | NA | NA | NA | NA | BDL | NA | NA | 17 | 38 | | 10 | 33 | |
| B.O.D. | 1.0 | NA | 4.0 | NA | NA | NA | NA | 4.0 | NA | NA | BDL | BDL | | BDL | BDL | |
| Chemical Oxygen Demand | 40.6 | NA | BDL | NA | NA | NA | NA | BDL | NA | NA | BDL | BDL | | BDL | BDL | |
| Hardness, Total | 1.9 | NA | 44.6 | NA | NA | NA | NA | 10.9 | NA | NA | 423 | 58.7 | | 64.3 | 58 | |
| Nitrate as N | BDL | NA | 1.57 | NA | NA | NA | NA | 2.78 | NA | NA | 3.77 | 1.13 | | 2.72 | 1.06 | |
| Total Phosphorus as P | BDL | NA | BDL | NA | NA | NA | NA | BDL | NA | NA | BDL | BDL | | BDL | BDL | |
| Sodium, Total | 1.91 | NA | 13.5 | NA | NA | NA | NA | 5.56 | NA | NA | 807 | 32.7 | | NA | 53.2 | |
| Total Kjeldahl | 0.16 | NA | 0.18 | NA | NA | NA | NA | 0.13 | NA | NA | 0.10 | 0.14 | | NA | 0.57 | |
| Ammonia as N | BDL | NA | BDL | NA | NA | NA | NA | BDL | NA | NA | BDL | BDL | | NA | 0.39 | |
| Sulfate | 6.4 | NA | 20.8 | NA | NA | NA | NA | BDL | NA | NA | BDL | 11.7 | | 5.41 | 13.7 | |
| Chloride | 5.0 | NA | 25.0 | NA | NA | NA | NA | 5.0 | NA | NA | 1574 | 55 | | 120 | 93 | |
| Total Dissolved Solids | 47 | NA | 127 | NA | NA | NA | NA | 84 | NA | NA | 2888 | 163 | | 242 | 217 | |
| Total Suspended Solids | 1.0 | NA | BDL | NA | NA | NA | NA | BDL | NA | NA | BDL | BDL | | 14.5 | 133 | |
| Aluminum, Total | 0.045 | NA | 0.009 | NA | NA | NA | NA | 0.008 | NA | NA | BDL | BDL | | BDL | 1.34 | |
| Iron, Total | 1.39 | NA | 0.004 | NA | NA | NA | NA | 0.010 | NA | NA | 0.008 | 0.041 | | 0.906 | 7.500 | |
| Manganese, Total | 0.006 | NA | 0.016 | NA | NA | NA | NA | 0.003 | NA | NA | 0.040 | BDL | | 0.060 | 0.476 | |
| Nickel, Total | BDL | NA | BDL | NA | NA | NA | NA | BDL | NA | NA | BDL | BDL | | 0.017 | 0.009 | |
| Chromium, Total | BDL | NA | BDL | NA | NA | NA | NA | BDL | NA | NA | BDL | BDL | | 0.002 | 0.003 | |

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

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

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

NA - Not Analyzed
BDL - Below Detection Limits

Table 3f

# 2006 OFFSITE GROUNDWATER SAMPLING RESULTS

| | BP-15B | | | | | BP-15C | | | | | OBV-1B | | | | | OBV-1C | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Baseline Water Quality | DATE SAMPLED | | | | Baseline Water Quality | DATE SAMPLED | | | | Baseline Water Quality | DATE SAMPLED | | | | Baseline Water Quality | DATE SAMPLED | | | |
| **VOLATILE ORGANICS COMPOUNDS** | 10/28/05 | 3/30/06 | 6/26/06 | 9/21/06 | 12/21/06 | 10/28/05 | 3/30/06 | 6/26/06 | 9/21/06 | 12/21/06 | 9/19/05 | 3/29/06 | 6/21/06 | 9/26/06 | 12/29/06 | 9/19/05 | 3/29/06 | 6/21/06 | 9/26/06 | 12/29/06 |
| 1,1,1-Trichloroethane | 22.1 | 21.4 | 7.9 | 18.0 | 22.0 | BDL | BDL | BDL | BDL | BDL | 1.6 | BDL | BDL | BDL | BDL | 4.8 | 4.5 | 3.3 | 7.0 | 11.0 |
| 1,1,1-Trichloromethane | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 1,1,2-Trichloroethane | BDL | BDL | 10.9 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 1,1-Dichloroethane | 28.4 | 31.3 | 19.9 | 52.0 | 35.0 | BDL | BDL | BDL | BDL | BDL | 1.0 | BDL | BDL | BDL | BDL | 6.9 | 5.8 | 5.4 | 6.4 | 14.0 |
| 1,1-Dichloroethene | 11.4 | 10.1 | 6.4 | 16.0 | 9.9 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 3.4 | 2.2 | 1.9 | BDL | 6.5 |
| 1,2,4-Trimethylbenzene | BDL | 4.3 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 5.0 | BDL | BDL | BDL |
| 1,2-Dibromoethane | BDL | BDL | BDL | BDL | 1.6 | 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 | BDL | BDL | BDL |
| 1,2-Dichloroethane | 1.6 | 2.0 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 1,3,5-Trimethylbenzene | BDL | 4.4 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 4.5 | BDL | BDL | BDL |
| 1,4-Dichlorobenzene | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| Benzene | 1.7 | 4.5 | BDL | 4.8 | 5.1 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| Carbon Tetrachloride | BDL | 3.5 | BDL | BDL | 97.0 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0.8 | BDL | BDL | BDL |
| Chlorobenzene | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| Chloroform | 0.7 | 0.8 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| Chloromethane | 1.8 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| cis-1,2-Dichloroethene | 40.7 | 61.1 | 33.1 | 97 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| Dichlorodifluoromethane | 10.0 | 13.8 | BDL | 25.0 | 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 | BDL | BDL | BDL |
| Isopropylbenzene | BDL | BDL | BDL | 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 | BDL | BDL | BDL |
| Methyl t-Butylether (MTBE) | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| Methylene Chloride | 5.0 | 8.6 | 5.7 | BDL | NA | BDL | BDL | BDL | BDL | NA | 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 | BDL | BDL | BDL |
| n-Propylbenzene | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| o-Xylene | 0.3 | BDL | BDL | 1.4 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| p-Ethyltoluene | NA | NA | NA | BDL | BDL | NA | NA | NA | BDL | BDL | NA | NA | NA | BDL | BDL | NA | NA | NA | BDL | BDL |
| t -1,2-Dichloroethene | 0.7 | 1.5 | 1.6 | BDL | 1.8 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| Tetrachloroethene | 7.5 | 28.2 | 24.3 | 34.0 | 39.0 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 2.3 | BDL | BDL | BDL |
| Toluene | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| Trichloroethene | 10.5 | 16.6 | 19.6 | 21.0 | 17.0 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 3.4 | 3.4 | 3.3 | BDL | BDL |
| Trichlorofluoromethane | 3.2 | 3.3 | 2.4 | BDL | 3.3 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| Vinyl Chloride | 8.8 | 14.9 | 10.2 | 20.0 | 17.0 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| **SEMI-VOLATILE ORGANIC COMPOUNDS** | | | | | | | | | | | | | | | | | | | | |
| 1,2-Dichlorobenzene | BDL | NA | BDL | NA | NA | BDL | NA | BDL | NA | NA | BDL | NA | BDL | NA | NA | BDL | NA | BDL | NA | NA |
| 2,4-Dinitrotoluene | BDL | NA | BDL | NA | NA | BDL | NA | BDL | NA | NA | BDL | NA | BDL | NA | NA | BDL | NA | BDL | NA | NA |
| Bis(2-Ethylhexyl) Phthalate | BDL | NA | BDL | NA | NA | BDL | NA | BDL | NA | NA | BDL | NA | BDL | NA | NA | BDL | NA | BDL | NA | NA |
| **INORGANIC PARAMETERS** | | | | | | | | | | | | | | | | | | | | |
| ph | 4.74 | NA | 4.96 | NA | NA | 4.69 | NA | 4.91 | NA | NA | 5.17 | NA | 4.99 | NA | NA | 5.21 | NA | 5.05 | NA | NA |
| Specific Conductance | 192 | NA | 216 | NA | NA | 52 | NA | 54 | NA | NA | 152 | NA | 162 | NA | NA | 140 | NA | 151 | NA | NA |
| Alkalinity as Calcium Carbonate | 7 | NA | 5 | NA | NA | BDL | NA | BDL | NA | NA | 7 | NA | BDL | NA | NA | 5 | NA | BDL | NA | NA |
| B.O.D. | 3.4 | NA | 2.6 | NA | NA | BDL | NA | 4.4 | NA | NA | 10 | NA | NA | NA | NA | 3.6 | NA | NA | NA | NA |
| Chemical Oxygen Demand | BDL | NA | BDL | NA | NA | BDL | NA | BDL | NA | NA | BDL | NA | BDL | NA | NA | BDL | NA | 38.0 | NA | NA |
| Hardness, Total | 9.4 | NA | 40.2 | NA | NA | 36.9 | NA | 9.3 | NA | NA | 35.7 | NA | 38.4 | NA | NA | 27.2 | NA | 27.6 | NA | NA |
| Nitrate as N | 0.79 | NA | 0.87 | NA | NA | 0.7 | NA | 0.87 | NA | NA | 2.31 | NA | 3.30 | NA | NA | 8.15 | NA | 7.64 | NA | NA |
| Total Phosphorus as P | BDL | NA | BDL | NA | NA | BDL | NA | BDL | NA | NA | BDL | NA | BDL | NA | NA | BDL | NA | BDL | NA | NA |
| Sodium, Total | 4.76 | NA | 18.1 | NA | NA | 17.4 | NA | 4.78 | NA | NA | 10.9 | NA | 11.6 | NA | NA | 13 | NA | 13.6 | NA | NA |
| Total Kjeldahl | 0.15 | NA | 0.23 | NA | NA | BDL | NA | 0.11 | NA | NA | BDL | NA | 0.21 | NA | NA | BDL | NA | BDL | NA | NA |
| Ammonia as N | BDL | NA | BDL | NA | NA | BDL | NA | BDL | NA | NA | BDL | NA | BDL | NA | NA | BDL | NA | BDL | NA | NA |
| Sulfate | BDL | NA | 5.9 | NA | NA | BDL | NA | 5.7 | NA | NA | 24.3 | NA | 18.3 | NA | NA | BDL | NA | BDL | NA | NA |
| Chloride | 45.0 | NA | 53.0 | NA | NA | 5 | NA | 5.0 | NA | NA | 10 | NA | 23.0 | NA | NA | 10 | NA | 13.0 | NA | NA |
| Total Dissolved Solids | 90 | NA | 120 | NA | NA | 37 | NA | 36 | NA | NA | 109 | NA | 102 | NA | NA | 110 | NA | 112 | NA | NA |
| Total Suspended Solids | BDL | NA | BDL | NA | NA | BDL | NA | BDL | NA | NA | 2 | NA | 1.0 | NA | NA | BDL | NA | 1.0 | NA | NA |
| Aluminum, Total | 0.047 | NA | 0.026 | NA | NA | 0.037 | NA | 0.038 | NA | NA | 0.17 | NA | 0.042 | NA | NA | 0.051 | NA | 0.008 | NA | NA |
| Iron, Total | 0.088 | NA | 0.205 | NA | NA | 0.026 | NA | 0.035 | NA | NA | 0.388 | NA | 0.492 | NA | NA | 0.039 | NA | 0.052 | NA | NA |
| Manganese, Total | 0.024 | NA | 0.014 | NA | NA | 0.005 | NA | 0.003 | NA | NA | 0.073 | NA | 0.062 | NA | NA | 0.038 | NA | 0.016 | NA | NA |
| Nickel, Total | 0.007 | NA | BDL | NA | NA | 0.002 | NA | BDL | NA | NA | 0.005 | NA | 0.001 | NA | NA | 0.003 | NA | BDL | NA | NA |
| Chromium, Total | BDL | NA | BDL | NA | NA | BDL | NA | BDL | NA | NA | BDL | NA | BDL | NA | NA | BDL | NA | BDL | NA | NA |

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

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

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

NA - Not Analyzed
BDL - Below Detection Limits

## B Zone Water Quality

During MY 2006 the majority of the off-site contamination continued to be detected in six (6) 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, BP-14B and BP-15 B, 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 most of 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 50 ppb level in MY 2006. BP-9B showed a similar trend, going from over 500 ppb of TVOC's during the early phase of the remediation to less than 50 ppb during the four sampling events of 2006. Samples collected from BP-4B and BP-9B varied in the number of compounds detected. From four (4) to nine (9) compounds were detected in BP-4B throughout MY 2006 including, Tetrachloroethene, Trichloroethene, Cis-1,2-Dichloroethene and Benzene. Groundwater samples collected from BP-9B contained from zero (0) to nine (9) compounds. This included the four major compounds found in BP-4B, but also included: 1,2 – Dichloroethane, Dichlorodifluoromethane and Vinyl Chloride. This difference in the number and type of detected compounds may be indicative of different sources for the organics found in each well.

Monitoring well BP-12B (fig.17), located farther downgradient from the FTC, also exhibited declines, in its TVOC levels ranging from 1 ppb to 26 ppb over the course of sampling during, including MY 2006. 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 2006. Results of the MY 2006 sampling rounds for TVOC's in BP-14B ranged from 503 ppb to 1,171 ppb. The major portion of the contamination found in BP-14B is from three (3) VOC's: Tetrachloroethene (243 ppb to 350 ppb), Cis-1,2-Dichloroethene (130 ppb to 230 ppb) and Benzene (BDL to 450 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.

Groundwater collected from BP-15B had a TVOC concentrations ranging from 142 ppb to 289 ppb during MY 2006. This total was largely composed of halogenated organic compounds including cis-1,2 Dichloroethylene (BDL - 97 ppb), 1,1 Dichloroethane (20 - 52 ppb), Tetrachloroethylene (24 - 39 ppb), 1,1,1 Trichloroethane (8 - 22 ppb) and Trichloroethylene (17 - 21 ppb). Dichlorodifluoromethane was also detected in this well at a concentrations ranging from 14 ppb to 25 ppb.

Figure 14

# BP-3B
## VOC CONCENTRATIONS
## 2003 to 2006

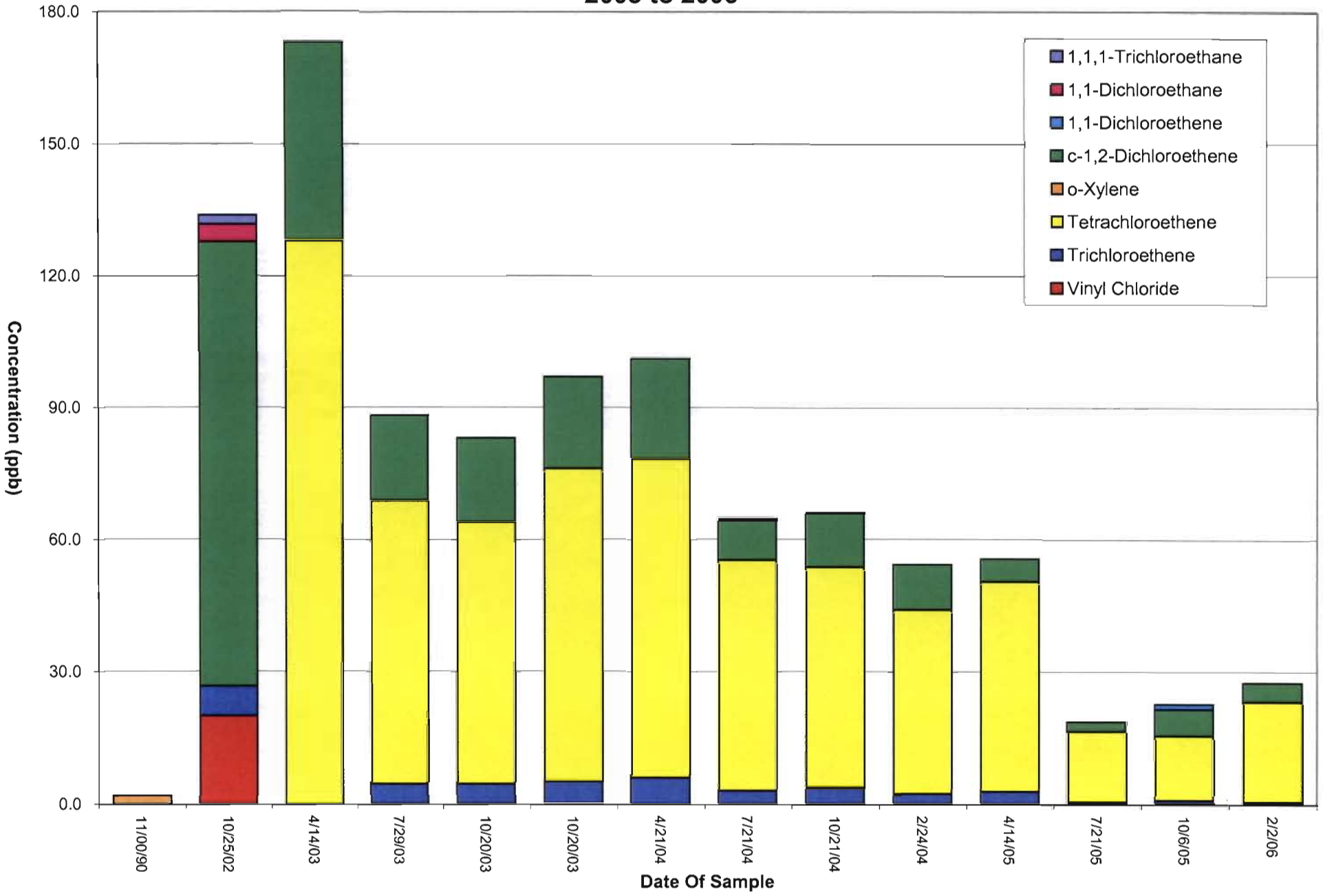


Figure 15

**BP-4B**

**VOC CONCENTRATIONS**

**1999 to 2006**

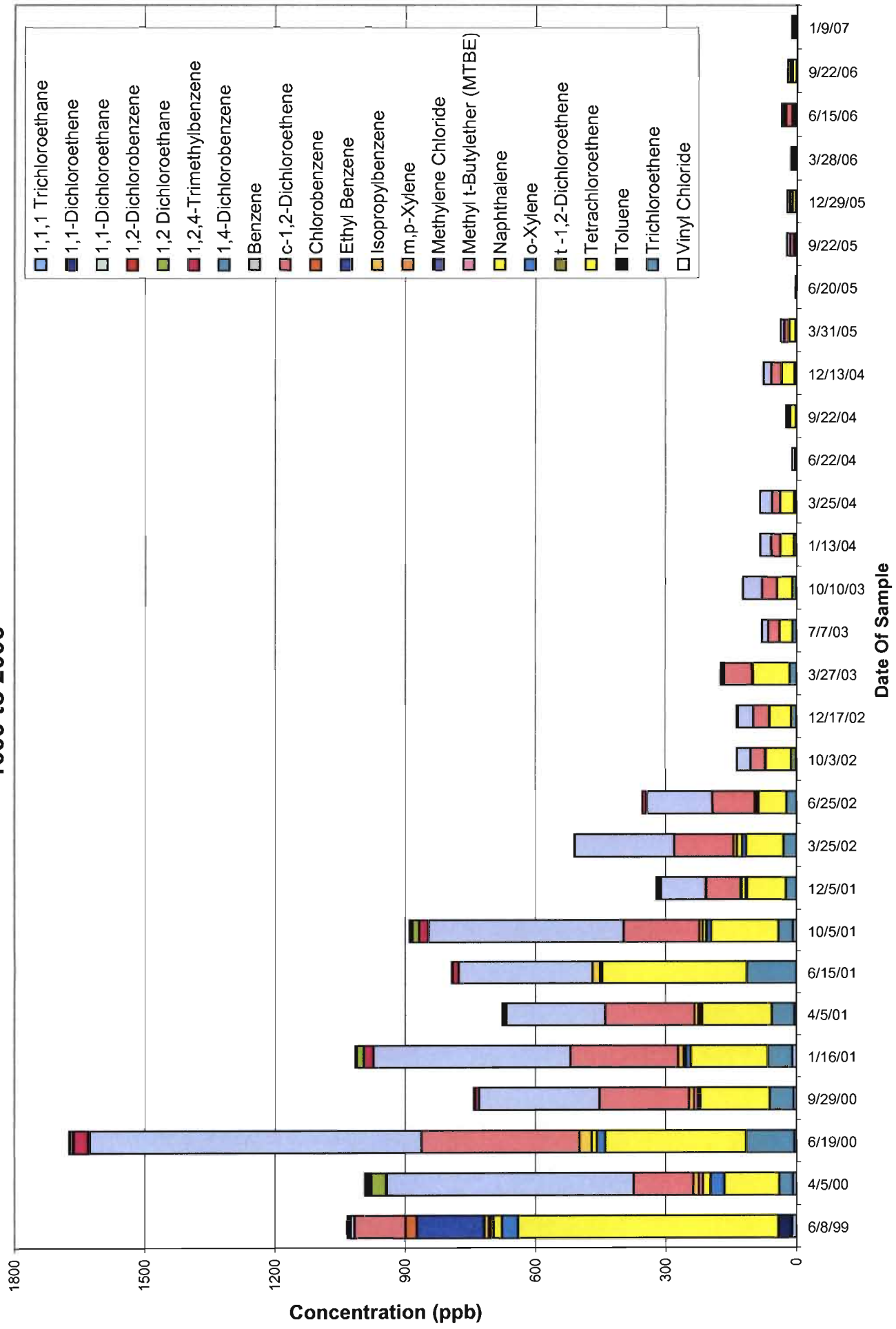


Figure 16

# BP-9B
# VOC CONCENTRATIONS
# 1999 to 2006

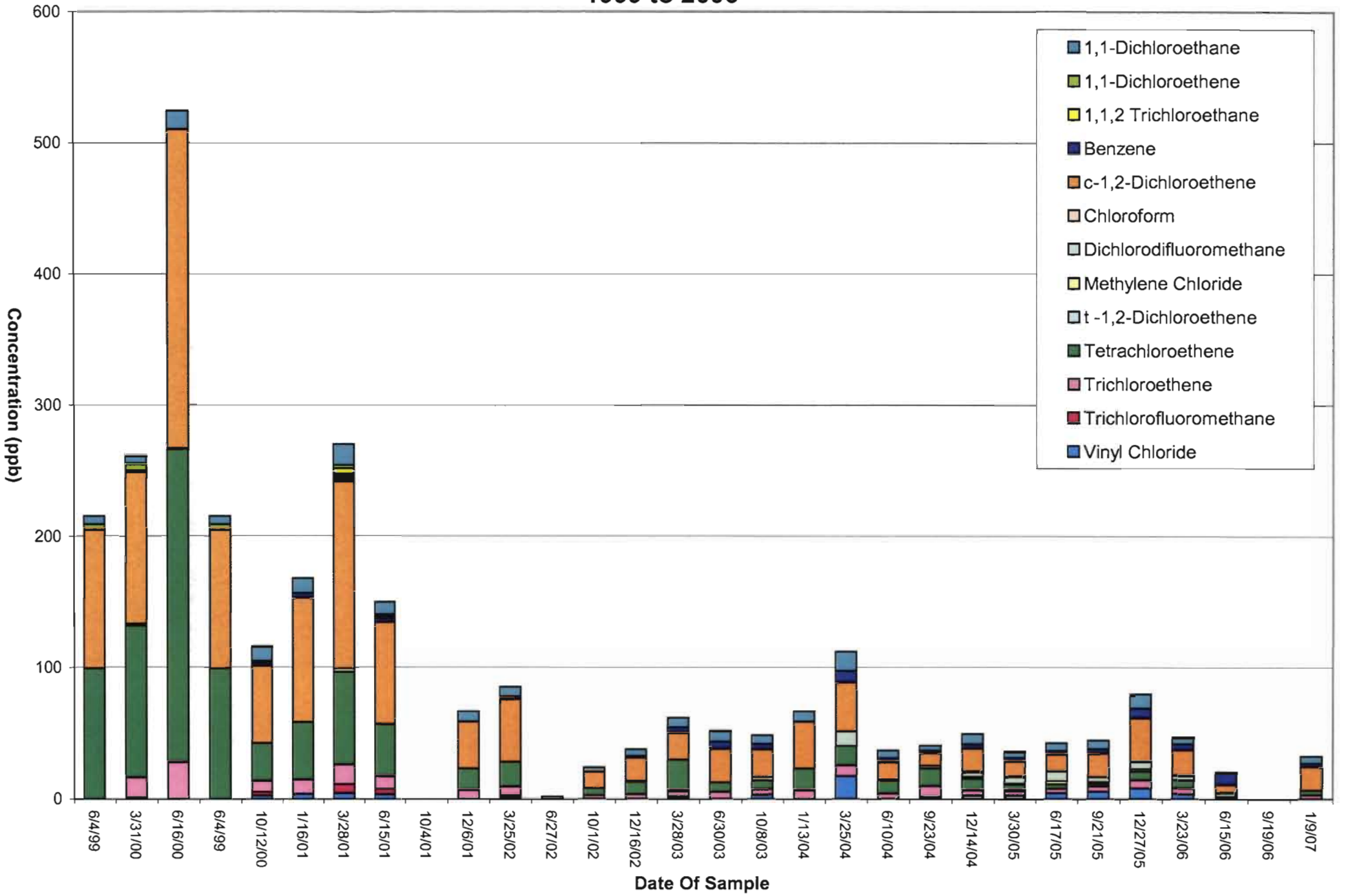


Figure 17

# BP-12B
## VOC CONCENTRATIONS
## 1999 to 2006

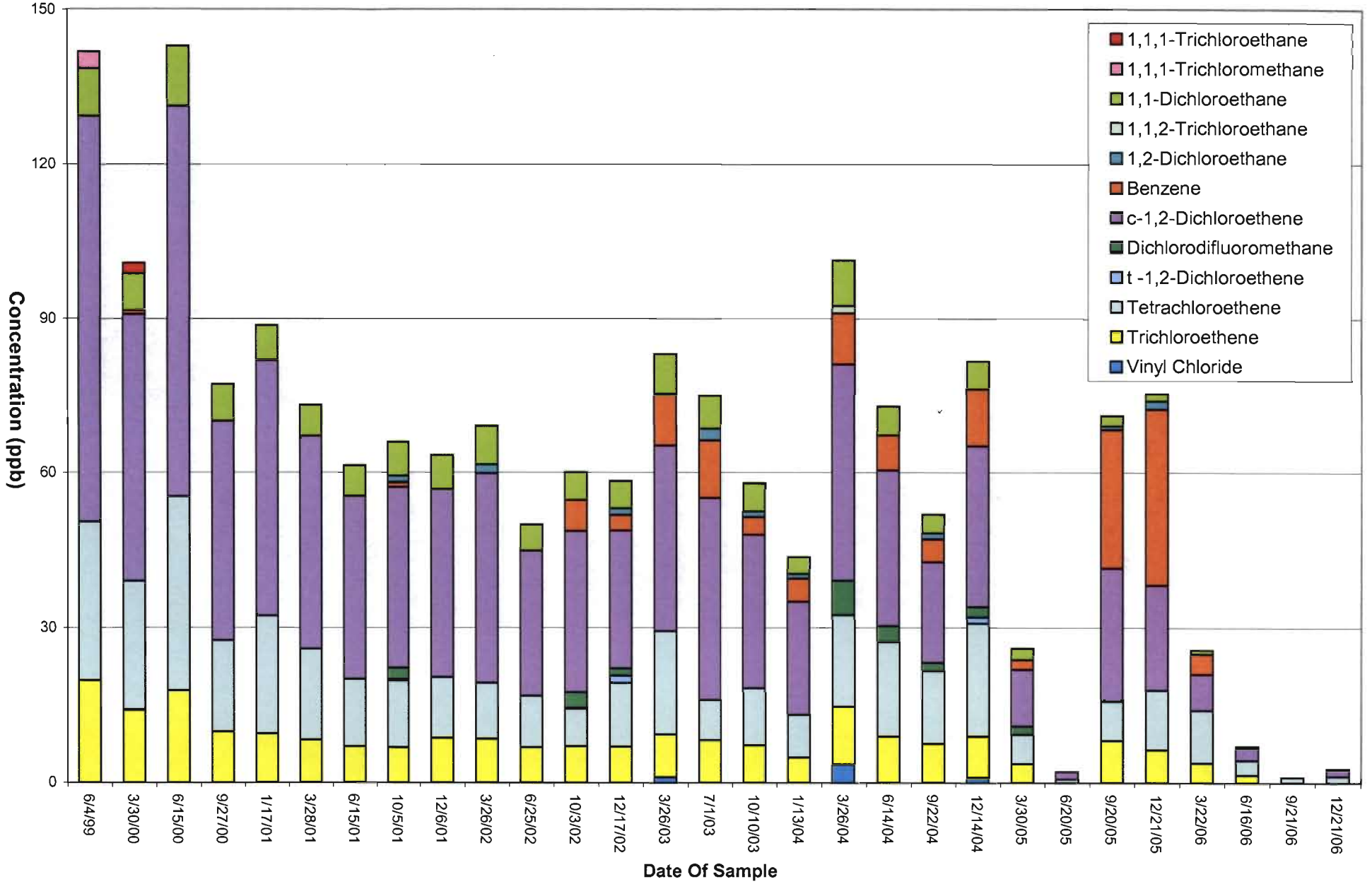
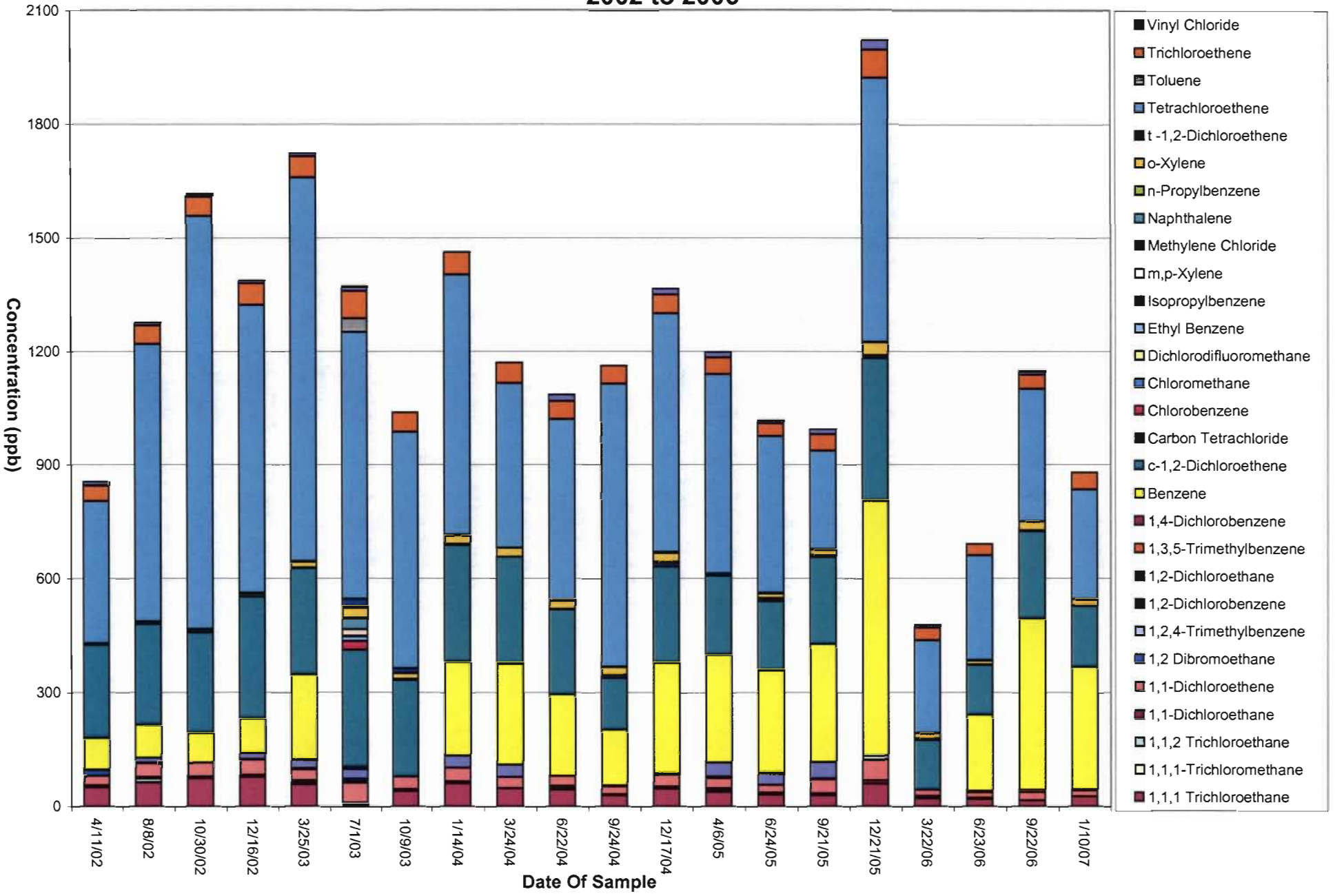


Figure 18

# BP-14B
## VOC CONCENTRATIONS
## 2002 to 2006



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.

Groundwater collected from OBV-1B was found to be below detectable limits for all volatile organic compounds during MY 2006.

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

There were no semi–volatile organic compounds detected in groundwater collected from any of the 24 off-site monitoring wells sampled in MY 2006.

## 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 2006. These impacted wells included BP-3C, BP-4C, BP-10C, BP-14C and 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 2006, TVOC concentrations in monitoring well BP-3C ranged from 52 ppb to 231 ppb. Up to nine (9) different volatile organic compounds were identified in groundwater samples collected from this well including: cis-1,2 Dichloroethylene (38 - 200 ppb), Trichloroethylene (11 - 15 ppb), Tetrachloroethylene (1 - 5 ppb), Vinyl Chloride (1 ppb). TVOC concentrations in monitoring well BP-4C also remained at significant levels with concentrations in groundwater ranging from 69 to 82 ppb. The majority of the VOC contamination in this well was attributable to Tetrachloroethylene (36 - 45 ppb) and cis-1,2 Dichloroethylene (17 - 25 ppb).

Groundwater collected from monitoring well BP-14C exhibited TVOC concentrations ranging from 5 ppb to 12 ppb. Only three compounds were detected in this well, Tetrachloroethylene (2 - 5 ppb), cis-1,2 Dichloroethylene (4 - 7 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 2006. 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. Detected VOCs included: Trichloroethylene (3 ppb), 1,1,1 Trichloroethane (3 - 11 ppb), Tetrachloroethylene (2 ppb), 1,1 Dichloroethane (5 - 14 ppb), and 1,1 Dichloroethene (2 - 7 ppb).

Monitoring well BP-10C was also impacted by VOCs in MY 2006. 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 2 to 7 ppb. VOCs were detected in three of the four quarterly sampling rounds conducted in MY 2006. 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 2006 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

Onsite groundwater treatment resumed on September 27, 2006 when recovery well RW-1 was turned on at a flowrate of 115 gpm. Groundwater flow conditions were allowed to stabilize for thirty days and water level measurements were collected from 22 wells screened beneath the former flammable liquids area on October 27, 2006. These water level measurements were then converted into groundwater elevations and a water table contour map was prepared. These contours are presented in Figure 19. Review of these contours indicates that recovery well RW-1 produces an area of hydraulic influence which is over 300 ft. The highest water table elevations were recorded in upgradient wells: W-22 (65.16 ft. msl), W-40 (65.04 ft. msl) and W-10 (65.04 ft. msl). The lowest water table elevation was recorded at recovery well RW-1 (51.34 ft. msl). Groundwater within the area of influence of RW-1 exhibits radial flow toward the well. There was no measurable petroleum product observed in the recovery well after thirty days of continuous operation.

Figure 19


**Legend**

- Contour Post Map Oct 2006
- PTC Monitoring Wells
- Fireman's Training Center Area Wells
- Bethpage State Park Inactive Well
- Bethpage State Park Irrigation Well
- Clairemont Polychemical Site Diffusion Well
- Clairemont Polychemical Site Monitoring Well or Well Cluster
- Clairemont 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

Map Location

**FIREMAN'S TRAINING CENTER ON SITE WATER TABLE CONTOURS OCT. 27,2006**

Old Bethpage, NY

Prepared By: - NCDPW - Water/Wastewater Engineering Unit

N W E S

1 inch equals 150 feet

**Nassau County**

Geographic Information System



Date: 6/21/2007

## 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.

Formerly, physical limitations on the amount of treated water which could be effectively recharged to the aquifer system via the recharge basin and the (3) off-site injection wells located along Bethpage-Sweethollow Road resulted in occasional reductions in total flowrate and changes in the number and configuration of operating Off-site Recovery Wells (ORW) throughout the year. The plant effluent sewer connection now supplements the existing recharge basin and wells, increasing total discharge and reducing the need to alter flow or change offsite pumping configurations.

During Monitoring Year (MY) 2006, the offsite treatment system operated in six different recovery configurations. For approximately seven (7), months ORW-6 and 7 were operated at a combined flowrate of 285 gpm. A three well configuration was then used for two weeks using either ORW-3 or ORW-4 in combination with ORW-6 and ORW-7 at a combined flow rate of 475 gpm. A four well configuration was then employed for two weeks using ORW-3,4,6 and ORW-7 at a combined flow rate of 645 gpm. A five well scheme was then tested adding ORW-1 to the previous configuration and increasing flow to 835 gpm. For the final three months of the year four wells were used for offsite recovery using ORW-3,4,6,7 or ORW-4,5,6,7 at a combined flow rate of 665 gpm.

Off-site recovery wells ORW-6 and 7 were operated in all six configurations to maintain hydraulic influence on the lead edge of the known plume of volatile organic 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 October 10, 2006 synoptic round are presented in figure 20.

Examination of the potentiometric surface prepared for the "B" zone on this date indicates that the overall regional flow direction is from north-northwest to south-southeast. Elevations range from 65 ft. msl. to 10 ft. msl. beneath Bethpage State Park. The regional groundwater contours are modified in the vicinity of both operating recovery systems.

Figure 20


## Legend

Freman's Training Center Area Wells
Bethpage State Park Inactive Well
Bethpage State Park Irrigation Well
Claremont Polychemical Site Diffusion Well
Claremont Polychemical Site Monitoring Well or Well Cluster
Nassau County Injection Well
Nassau County Monitoring Well or Well Cluster
Nassau County Recovery Well
Plainview WD Public Supply Well
S. Farmingdale 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
Contour Post Map Oct.06

Map Location

# FTC/BSP POTENTIOMETRIC SURFACE OCTOBER 10, 2006

Prepared By: - NCDPW- Water/Wastewater Engineering Unit

1 Inch equals 1,200 Feet

**Nassau County**

Geographic Information System



Date: 7/31/2007

The Town of Oyster Bay operated four of five recovery wells during this water level round producing a zone of depression with observed recovery well head elevations between 49 and 55 ft. msl.

The Town's recovery systems effects appear to have combined with those of the County recovery system to create a continuous zone of influence in the "B" hydrogeologic zone which extends from RW-1(Tobay), at its northern limit to ORW-7 (NCDPW), at its southern limit, a distance of over 4,000 linear feet.

Regional contours are modified at the 64 ft. msl. level and gradually "wrapped" around this hydraulic feature. The lowest elevation is observed at offsite recovery well ORW-7 (10 ft. msl.)

While operating in this configuration any volatile organic contamination which lies to the east, along the Suffolk County border would be drawn into both the Town and County recovery systems.

# APPENDIX A

PLANT EFFICIENCY REPORTS

2006

# PLANT EFFICIENCY

# JANUARY 2006

| DATE | HOURS OF OPERATION | EFFICIENCY OF OPERATION | REASON FOR OUTAGE |
|---|---|---|---|
| 1 | 0 | 0.0% | MCP-1B program problems |
| 2 | 0 | 0.0% | MCP-1B program problems |
| 3 | 0 | 0.0% | MCP-1B program problems |
| 4 | 0 | 0.0% | MCP-1B program problems |
| 5 | 0 | 0.0% | MCP-1B program problems |
| 6 | 0 | 0.0% | MCP-1B program problems |
| 7 | 0 | 0.0% | MCP-1B program problems |
| 8 | 0 | 0.0% | MCP-1B program problems |
| 9 | 18 | 75.0% | MCP-1B program problems |
| 10 | 24 | 100.0% | |
| 11 | 24 | 100.0% | |
| 12 | 24 | 100.0% | |
| 13 | 24 | 100.0% | |
| 14 | 6 | 25.0% | Heavy rain - high basin levels |
| 15 | 0 | 0.0% | High basin levels |
| 16 | 0 | 0.0% | High basin levels |
| 17 | 18 | 75.0% | High basin levels |
| 18 | 7 | 29.2% | Heavy rain - high basin levels |
| 19 | 0 | 0.0% | High basin levels |
| 20 | 0 | 0.0% | High basin levels |
| 21 | 18 | 75.0% | High basin levels |
| 22 | 24 | 100.0% | |
| 23 | 13 | 54.2% | Heavy rain - high basin levels |
| 24 | 0 | 0.0% | High basin levels |
| 25 | 0 | 0.0% | High basin levels |
| 26 | 18 | 75.0% | High basin levels |
| 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** | **338** | **45.4%** |

# PLANT EFFICIENCY

# FEBRUARY 2006

| DATE | HOURS OF OPERATION | EFFICIENCY OF OPERATION | REASON FOR OUTAGE |
|---|---|---|---|
| 1 | 24 | 100.0% | |
| 2 | 24 | 100.0% | |
| 3 | 24 | 100.0% | |
| 4 | 6 | 25.0% | Heavy rain - high basin levels |
| 5 | 0 | 0.0% | High basin levels |
| 6 | 18 | 75.0% | High basin levels |
| 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** | **624** | **92.9%** |

# PLANT EFFICIENCY

## MARCH 2006

| 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

## APRIL 2006

| DATE | HOURS OF OPERATION | EFFICIENCY OF OPERATION | REASON FOR OUTAGE |
|---|---|---|---|
| 1 | 24 | 100.0% | |
| 2 | 12 | 50.0% | Communication faults |
| 3 | 14 | 58.3% | Communication faults |
| 4 | 18 | 75.0% | Communication faults |
| 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** | **692** | **96.1%** |

# PLANT EFFICIENCY

## MAY 2006

| 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 | 20 | 83.3% | Communication faults |
| 7 | 18 | 75.0% | Communication faults |
| 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 | 14 | 58.3% | Heavy rain - high basin levels |
| 20 | 0 | 0.0% | High basin levels |
| 21 | 19 | 79.2% | High basin levels |
| 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** | **695** | **93.4%** |

# PLANT EFFICIENCY

## JUNE 2006

| 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 2006

| 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 | 8.3 | 34.4% | Contractor installing sewer line bypass |
| 8 | 0 | 0.0% | Contractor installing sewer line bypass |
| 9 | 0 | 0.0% | Contractor installing sewer line bypass |
| 10 | 0 | 0.0% | Contractor installing sewer line bypass |
| 11 | 0 | 0.0% | Contractor installing sewer line bypass |
| 12 | 0 | 0.0% | Contractor installing sewer line bypass |
| 13 | 5.5 | 22.9% | Computer problems |
| 14 | 0 | 0.0% | Computer problems |
| 15 | 0 | 0.0% | Computer problems |
| 16 | 0 | 0.0% | Computer problems |
| 17 | 18 | 75.0% | Computer problems |
| 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** | **511.75** | **68.8%** |

# PLANT EFFICIENCY

# AUGUST 2006

| 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 2006

| 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 2006

| 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

# NOVEMBER 2006

| 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 2006

| 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%** |

## YEARLY TOTALS

| | |
|---|---|
| TOTAL HOURS IN THE YEAR | 8760 |
| TOTAL HOURS OF OPERATION | 7996.75 |
| EFFICIENCY OF OPERATION FOR 2006 | 91% |

# APPENDIX B

MONTHLY INFLUENT MONITORING REPORTS

2006

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

## JANUARY 2006

| INFLUENT PARAMETER | WEEK 1 01/03/06 | | WEEK 2 01/10/06 | | WEEK 3 01/17/06 | | WEEK 4 01/23/06 | | WEEK 5 01/31/06 | |
|---|---|---|---|---|---|---|---|---|---|---|
| | ONSITE SP-1B | OFFSITE SP-1A | ONSITE SP-1B | OFFSITE SP-1A | ONSITE SP-1B | OFFSITE SP-1A | ONSITE SP-1B | OFFSITE SP-1A | ONSITE SP-1B | OFFSITE SP-1A |
| FLOW, DAILY AVG (GPD) | 0 | 0 | 0 | 51986 | 0 | 202771 | 0 | 112200 | 0 | 232538 |
| FLOW, DAILY MAX (GPD) | 0 | 0 | 0 | 345800 | 0 | 349600 | 0 | 343100 | 0 | 352300 |
| 1,1,1-TRICHLOROETHANE | - | - | - | 2.1 | - | 0.8 | - | 8.4 | - | 1.8 |
| 1,1-DICHLOROETHANE | - | - | - | BDL | - | 2.4 | - | 5.6 | - | 2.7 |
| 1,1-DICHLOROETHENE | - | - | - | 1.6 | - | 1.2 | - | 3.2 | - | 1.3 |
| 1,2,4,5-TETRAMETHYLBENZENE | - | - | - | NA | - | NA | - | NA | - | NA |
| 1,2,4-TRICHLOROBENZENE | - | - | - | BDL | - | BDL | - | BDL | - | BDL |
| 1,2-DICHLOROETHANE | - | - | - | BDL | - | BDL | - | BDL | - | BDL |
| 1,3,5-TRIMETHYLBENZENE | - | - | - | BDL | - | BDL | - | BDL | - | BDL |
| 1,3-DICHLOROBENZENE | - | - | - | BDL | - | BDL | - | BDL | - | BDL |
| 1,4-DICHLOROBENZENE | - | - | - | BDL | - | BDL | - | BDL | - | BDL |
| 2-CHLOROTOLUENE | - | - | - | BDL | - | BDL | - | BDL | - | BDL |
| 2-HEXANONE | - | - | - | BDL | - | BDL | - | BDL | - | BDL |
| 4-CHLOROTOLUENE | - | - | - | BDL | - | BDL | - | BDL | - | BDL |
| 4-ISOPROPYLTOLUENE | - | - | - | BDL | - | BDL | - | BDL | - | BDL |
| ACETONE | - | - | - | BDL | - | BDL | - | BDL | - | BDL |
| BENZENE | - | - | - | 6.0 | - | 4.2 | - | 17.0 | - | 3.1 |
| CHLORODIFLUOROMETHANE | - | - | - | BDL | - | BDL | - | BDL | - | BDL |
| CHLOROBENZENE | - | - | - | BDL | - | BDL | - | BDL | - | BDL |
| cis-1,2-DICHLOROETHYLENE | - | - | - | 37.8 | - | 26.2 | - | 131.0 | - | 30.1 |
| DIBROMOCHLOROMETHANE | - | - | - | BDL | - | BDL | - | BDL | - | BDL |
| DICHLOROBROMOMETHANE | - | - | - | BDL | - | BDL | - | BDL | - | BDL |
| DICHLORODIFLUOROMETHANE | - | - | - | 1.1 | - | BDL | - | 3.6 | - | 1.1 |
| ETHYLBENZENE | - | - | - | BDL | - | BDL | - | BDL | - | BDL |
| ISOPROPYLBENZENE | - | - | - | BDL | - | BDL | - | BDL | - | BDL |
| m,p-XYLENE | - | - | - | BDL | - | BDL | - | BDL | - | BDL |
| METHYL ETHYL KEYTONE | - | - | - | BDL | - | BDL | - | BDL | - | BDL |
| METHYL tert-BUTYL ETHER | - | - | - | BDL | - | BDL | - | BDL | - | BDL |
| METHYLENE CHLORIDE | - | - | - | 0.7 | - | BDL | - | 1.2 | - | 0.6 |
| NAPHTHALENE | - | - | - | BDL | - | BDL | - | BDL | - | BDL |
| n-BUTYLBENZENE | - | - | - | BDL | - | BDL | - | BDL | - | BDL |
| n-PROPYLBENZENE | - | - | - | BDL | - | BDL | - | BDL | - | BDL |
| o-XYLENE | - | - | - | BDL | - | BDL | - | BDL | - | BDL |
| p-DIETHYLBENZENE | - | - | - | NA | - | NA | - | NA | - | NA |
| p-ETHYLTOLUENE | - | - | - | NA | - | NA | - | NA | - | NA |
| sec-BUTYLBENZENE | - | - | - | BDL | - | BDL | - | BDL | - | BDL |
| tert-BUTYL BENZENE | - | - | - | BDL | - | BDL | - | BDL | - | BDL |
| TETRACHLOROETHYLENE | - | - | - | 27.4 | - | 17.1 | - | 95.1 | - | 24.5 |
| TOLUENE | - | - | - | BDL | - | BDL | - | BDL | - | BDL |
| trans-1,2-DICHLOROETHYLENE | - | - | - | BDL | - | BDL | - | BDL | - | BDL |
| TRICHLOROETHYLENE | - | - | - | 6.6 | - | 5.0 | - | 24.8 | - | 5.7 |
| VINYL CHLORIDE | - | - | - | 3.0 | - | 1.9 | - | 6.0 | - | 1.7 |
| **TOTAL VOCs** | 0.0 | 0.0 | 0.0 | 86.3 | 0.0 | 58.8 | 0.0 | 295.9 | 0.0 | 72.6 |
| 2-METHYLNAPHTHALENE | - | - | - | NA | - | NA | - | NA | - | NA |
| BIS(2-ETHLHEXYL)PHTHALATE | - | - | - | BDL | - | BDL | - | BDL | - | BDL |
| BUTYL BENZYL PHTHALATE | - | - | - | NA | - | NA | - | NA | - | NA |
| DIETHYL PHTHALATE | - | - | - | BDL | - | BDL | - | BDL | - | BDL |
| DIMETHYL PHTHALATE | - | - | - | BDL | - | BDL | - | BDL | - | BDL |
| DI-N-BUTYL PHTHALATE | - | - | - | BDL | - | 1.7 | - | BDL | - | BDL |
| DI-N-OCTYL PHTHALATE | - | - | - | BDL | - | BDL | - | BDL | - | BDL |
| FLUORENE | - | - | - | BDL | - | BDL | - | BDL | - | BDL |
| NAPHTHALENE | - | - | - | NA | - | NA | - | NA | - | NA |
| PHENANTHRENE | - | - | - | BDL | - | BDL | - | BDL | - | BDL |
| PYRENE | - | - | - | BDL | - | BDL | - | BDL | - | BDL |
| **TOTAL SEMI-VOLs** | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.7 | 0.0 | 0.0 | 0.0 | 0.0 |
| ALUMINUM, TOTAL | - | - | - | 0.020 | - | 0.089 | - | BDL | - | BDL |
| ARSENIC, TOTAL | - | - | - | BDL | - | BDL | - | BDL | - | BDL |
| CHROMIUM, TOTAL | - | - | - | BDL | - | 0.002 | - | BDL | - | BDL |
| IRON, TOTAL | - | - | - | 0.244 | - | 0.293 | - | 0.238 | - | 0.171 |
| MANGANESE, TOTAL | - | - | - | 0.017 | - | 0.017 | - | 0.017 | - | 0.017 |
| NICKEL, TOTAL | - | - | - | 0.004 | - | BDL | - | 0.004 | - | 0.003 |
| SUM IRON & MANGANESE | 0.000 | 0.000 | 0.000 | 0.261 | 0.000 | 0.310 | 0.000 | 0.255 | 0.000 | 0.188 |

Volatile organic units - µ g/l
Metal units - m g/l

BDL- Below Detection Limit
NA- Not Analyzed

LA- Lab Artifact

# NASSAU COUNTY FIREMAN'S TRAINING CENTER
# GROUNDWATER REMEDIATION FACILITY
# MONTHLY INFLUENT MONITORING REPORT FEBRUARY 2006

| INFLUENT PARAMETER | WEEK 1 02/07/06 | | WEEK 2 02/14/06 | | WEEK 3 02/21/06 | | WEEK 4 02/28/06 | |
|---|---|---|---|---|---|---|---|---|
| | ONSITE SP-1B | OFFSITE SP-1A | ONSITE SP-1B | OFFSITE SP-1A | ONSITE SP-1B | OFFSITE SP-1A | ONSITE SP-1B | OFFSITE SP-1A |
| FLOW, DAILY AVG (GPD) | 0 | 247029 | 0 | 253686 | 0 | 347186 | 0 | 347229 |
| FLOW, DAILY MAX (GPD) | 0 | 353200 | 0 | 376800 | 0 | 349650 | 0 | 349400 |
| 1,1,1-TRICHLOROETHANE | - | 1.0 | - | 3.8 | - | 3.6 | - | 2.1 |
| 1,1-DICHLOROETHANE | - | 2.7 | - | 9.7 | - | 5.0 | - | 3.0 |
| 1,1-DICHLOROETHENE | - | BDL | - | 4.3 | - | 2.2 | - | 1.3 |
| 1,2,4,5-TETRAMETHYLBENZENE | - | NA | - | NA | - | NA | - | NA |
| 1,2,4-TRICHLOROBENZENE | - | BDL | - | BDL | - | BDL | - | BDL |
| 1,2-DICHLOROETHANE | - | BDL | - | BDL | - | BDL | - | BDL |
| 1,3,5-TRIMETHYLBENZENE | - | BDL | - | BDL | - | BDL | - | BDL |
| 1,3-DICHLOROBENZENE | - | BDL | - | BDL | - | BDL | - | BDL |
| 1,4-DICHLOROBENZENE | - | BDL | - | BDL | - | BDL | - | BDL |
| 2-CHLOROTOLUENE | - | BDL | - | BDL | - | BDL | - | BDL |
| 2-HEXANONE | - | BDL | - | BDL | - | BDL | - | BDL |
| 4-CHLOROTOLUENE | - | BDL | - | BDL | - | BDL | - | BDL |
| 4-ISOPROPYLTOLUENE | - | BDL | - | BDL | - | BDL | - | BDL |
| ACETONE | - | BDL | - | BDL | - | BDL | - | BDL |
| BENZENE | - | 2.9 | - | 8.1 | - | 4.2 | - | 2.7 |
| CHLORODIFLUOROMETHANE | - | BDL | - | BDL | - | BDL | - | BDL |
| CHLOROBENZENE | - | BDL | - | BDL | - | BDL | - | BDL |
| cis-1,2-DICHLOROETHYLENE | - | 31.3 | - | 94.4 | - | 52.0 | - | 33.8 |
| DIBROMOCHLOROMETHANE | - | BDL | - | BDL | - | BDL | - | BDL |
| DICHLOROBROMOMETHANE | - | BDL | - | BDL | - | BDL | - | BDL |
| DICHLORODIFLUOROMETHANE | - | 1.2 | - | 3.3 | - | 2.0 | - | 1.3 |
| ETHYLBENZENE | - | BDL | - | BDL | - | BDL | - | BDL |
| ISOPROPYLBENZENE | - | BDL | - | BDL | - | BDL | - | BDL |
| m,p-XYLENE | - | BDL | - | BDL | - | BDL | - | BDL |
| METHYL ETHYL KEYTONE | - | BDL | - | BDL | - | BDL | - | BDL |
| METHYL tert-BUTYL ETHER | - | BDL | - | BDL | - | BDL | - | BDL |
| METHYLENE CHLORIDE | - | BDL | - | 1.5 | - | 5.7 | - | 0.6 |
| NAPHTHALENE | - | BDL | - | BDL | - | BDL | - | BDL |
| n-BUTYLBENZENE | - | BDL | - | BDL | - | BDL | - | BDL |
| n-PROPYLBENZENE | - | BDL | - | BDL | - | BDL | - | BDL |
| o-XYLENE | - | BDL | - | 0.3 | - | BDL | - | BDL |
| p-DIETHYLBENZENE | - | NA | - | NA | - | NA | - | NA |
| p-ETHYLTOLUENE | - | NA | - | NA | - | NA | - | NA |
| sec-BUTYLBENZENE | - | BDL | - | BDL | - | BDL | - | BDL |
| tert-BUTYL BENZENE | - | BDL | - | BDL | - | BDL | - | BDL |
| TETRACHLOROETHYLENE | - | 24.0 | - | 62.5 | - | 37.8 | - | 25.1 |
| TOLUENE | - | BDL | - | BDL | - | BDL | - | BDL |
| trans-1,2-DICHLOROETHYLENE | - | BDL | - | BDL | - | BDL | - | BDL |
| TRICHLOROETHYLENE | - | 5.8 | - | 16.6 | - | 9.4 | - | 6.1 |
| VINYL CHLORIDE | - | 2.0 | - | 6.3 | - | BDL | - | 2.2 |
| **TOTAL VOCs** | 0.0 | 70.9 | 0.0 | 210.8 | 0.0 | 121.9 | 0.0 | 78.2 |
| 2-METHYLNAPHTHALENE | - | NA | - | NA | - | NA | - | NA |
| BIS(2-ETHLHEXYL)PHTHALATE | - | BDL | - | BDL | - | BDL | - | BDL |
| BUTYL BENZYL PHTHALATE | - | NA | - | NA | - | NA | - | NA |
| DIETHYL PHTHALATE | - | BDL | - | BDL | - | BDL | - | BDL |
| DIMETHYL PHTHALATE | - | BDL | - | BDL | - | BDL | - | BDL |
| DI-N-BUTYL PHTHALATE | - | BDL | - | BDL | - | BDL | - | BDL |
| DI-N-OCTYL PHTHALATE | - | BDL | - | BDL | - | BDL | - | BDL |
| FLUORENE | - | BDL | - | BDL | - | BDL | - | BDL |
| NAPHTHALENE | - | NA | - | NA | - | NA | - | NA |
| PHENANTHRENE | - | BDL | - | BDL | - | BDL | - | BDL |
| PYRENE | - | BDL | - | BDL | - | BDL | - | BDL |
| **TOTAL SEMI-VOLs** | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| ALUMINUM, TOTAL | - | 0.009 | - | 0.007 | - | 0.001 | - | 0.008 |
| ARSENIC, TOTAL | - | BDL | - | BDL | - | BDL | - | BDL |
| CHROMIUM, TOTAL | - | BDL | - | BDL | - | BDL | - | 0.002 |
| IRON, TOTAL | - | 0.135 | - | 0.191 | - | 0.154 | - | 0.199 |
| MANGANESE, TOTAL | - | 0.016 | - | 0.017 | - | 0.016 | - | 0.016 |
| NICKEL, TOTAL | - | 0.004 | - | 0.002 | - | BDL | - | 0.003 |
| SUM IRON & MANGANESE | 0.000 | 0.151 | 0.000 | 0.208 | 0.000 | 0.170 | 0.000 | 0.215 |

Volatile organic units - µ g/l
Metal units - m g/l

BDL- Below Detection Limit
NA- Not Analyzed

LA- Lab Artifact

# NASSAU COUNTY FIREMAN'S TRAINING CENTER
# GROUNDWATER REMEDIATION FACILITY
# MONTHLY INFLUENT MONITORING REPORT MARCH 2006

| INFLUENT PARAMETER | WEEK 1 03/07/06 | | WEEK 2 03/14/06 | | WEEK 3 03/21/06 | | WEEK 4 03/27/06 | |
|---|---|---|---|---|---|---|---|---|
| | ONSITE SP-1B | OFFSITE SP-1A | ONSITE SP-1B | OFFSITE SP-1A | ONSITE SP-1B | OFFSITE SP-1A | ONSITE SP-1B | OFFSITE SP-1A |
| FLOW, DAILY AVG (GPD) | 0 | 344771 | 0 | 342157 | 0 | 341129 | 0 | 339033 |
| FLOW, DAILY MAX (GPD) | 0 | 347400 | 0 | 349000 | 0 | 345000 | 0 | 345900 |
| 1,1,1-TRICHLOROETHANE | - | 2.6 | - | 1.9 | - | BDL | - | 2.1 |
| 1,1-DICHLOROETHANE | - | 3.0 | - | 3.6 | - | 2.1 | - | 2.6 |
| 1,1-DICHLOROETHENE | - | BDL | - | 1.8 | - | 1.0 | - | 1.2 |
| 1,2,4,5-TETRAMETHYLBENZENE | - | NA | - | NA | - | NA | - | NA |
| 1,2,4-TRICHLOROBENZENE | - | BDL | - | 0.6 | - | BDL | - | BDL |
| 1,2-DICHLOROETHANE | - | BDL | - | BDL | - | BDL | - | BDL |
| 1,3,5-TRIMETHYLBENZENE | - | BDL | - | BDL | - | BDL | - | BDL |
| 1,3-DICHLOROBENZENE | - | BDL | - | BDL | - | BDL | - | BDL |
| 1,4-DICHLOROBENZENE | - | BDL | - | BDL | - | BDL | - | BDL |
| 2-CHLOROTOLUENE | - | BDL | - | BDL | - | BDL | - | BDL |
| 2-HEXANONE | - | BDL | - | BDL | - | BDL | - | BDL |
| 4-CHLOROTOLUENE | - | BDL | - | BDL | - | BDL | - | BDL |
| 4-ISOPROPYLTOLUENE | - | BDL | - | BDL | - | BDL | - | BDL |
| ACETONE | - | BDL | - | BDL | - | BDL | - | BDL |
| BENZENE | - | 2.3 | - | 3.0 | - | 2.8 | - | 2.7 |
| CHLORODIFLUOROMETHANE | - | BDL | - | BDL | - | BDL | - | BDL |
| CHLOROBENZENE | - | BDL | - | BDL | - | BDL | - | BDL |
| cis-1,2-DICHLOROETHYLENE | - | 30.5 | - | 39.4 | - | 26.1 | - | 31.4 |
| DIBROMOCHLOROMETHANE | - | BDL | - | BDL | - | BDL | - | BDL |
| DICHLOROBROMOMETHANE | - | BDL | - | BDL | - | BDL | - | BDL |
| DICHLORODIFLUOROMETHANE | - | 1.0 | - | 1.6 | - | BDL | - | 1.0 |
| ETHYLBENZENE | - | BDL | - | BDL | - | BDL | - | BDL |
| ISOPROPYLBENZENE | - | BDL | - | BDL | - | BDL | - | BDL |
| m,p-XYLENE | - | BDL | - | BDL | - | BDL | - | BDL |
| METHYL ETHYL KEYTONE | - | BDL | - | BDL | - | BDL | - | BDL |
| METHYL tert-BUTYL ETHER | - | BDL | - | BDL | - | BDL | - | BDL |
| METHYLENE CHLORIDE | - | BDL | - | 0.7 | - | BDL | - | 0.5 |
| NAPHTHALENE | - | BDL | - | BDL | - | BDL | - | BDL |
| n-BUTYLBENZENE | - | BDL | - | BDL | - | BDL | - | BDL |
| n-PROPYLBENZENE | - | BDL | - | BDL | - | BDL | - | BDL |
| o-XYLENE | - | BDL | - | BDL | - | BDL | - | BDL |
| p-DIETHYLBENZENE | - | NA | - | NA | - | NA | - | NA |
| p-ETHYLTOLUENE | - | NA | - | NA | - | NA | - | NA |
| sec-BUTYLBENZENE | - | BDL | - | BDL | - | BDL | - | BDL |
| tert-BUTYL BENZENE | - | BDL | - | BDL | - | BDL | - | BDL |
| TETRACHLOROETHYLENE | - | 19.7 | - | 35.6 | - | 28.0 | - | 44.8 |
| TOLUENE | - | BDL | - | BDL | - | BDL | - | BDL |
| trans-1,2-DICHLOROETHYLENE | - | BDL | - | BDL | - | BDL | - | BDL |
| TRICHLOROETHYLENE | - | 4.9 | - | 7.7 | - | 6.1 | - | 9.0 |
| VINYL CHLORIDE | - | 1.7 | - | 2.3 | - | BDL | - | BDL |
| **TOTAL VOCs** | 0.0 | 65.7 | 0.0 | 98.2 | 0.0 | 66.1 | 0.0 | 95.3 |
| 2-METHYLNAPHTHALENE | - | NA | - | NA | - | NA | - | NA |
| BIS(2-ETHLHEXYL)PHTHALATE | - | BDL | - | BDL | - | BDL | - | BDL |
| BUTYL BENZYL PHTHALATE | - | NA | - | NA | - | NA | - | NA |
| DIETHYL PHTHALATE | - | BDL | - | BDL | - | BDL | - | BDL |
| DIMETHYL PHTHALATE | - | BDL | - | BDL | - | BDL | - | BDL |
| DI-N-BUTYL PHTHALATE | - | BDL | - | BDL | - | BDL | - | BDL |
| DI-N-OCTYL PHTHALATE | - | BDL | - | BDL | - | BDL | - | BDL |
| FLUORENE | - | BDL | - | BDL | - | BDL | - | BDL |
| NAPHTHALENE | - | NA | - | NA | - | NA | - | NA |
| PHENANTHRENE | - | BDL | - | BDL | - | BDL | - | BDL |
| PYRENE | - | BDL | - | BDL | - | BDL | - | BDL |
| **TOTAL SEMI-VOLs** | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| ALUMINUM, TOTAL | - | 0.007 | - | 0.003 | - | 0.010 | - | 0.008 |
| ARSENIC, TOTAL | - | BDL | - | BDL | - | BDL | - | BDL |
| CHROMIUM, TOTAL | - | BDL | - | BDL | - | BDL | - | BDL |
| IRON, TOTAL | - | 0.202 | - | 0.165 | - | 0.203 | - | 0.134 |
| MANGANESE, TOTAL | - | 0.016 | - | 0.016 | - | 0.017 | - | 0.016 |
| NICKEL, TOTAL | - | 0.003 | - | 0.002 | - | 0.004 | - | 0.004 |
| SUM IRON & MANGANESE | 0.000 | 0.218 | 0.000 | 0.181 | 0.000 | 0.220 | 0.000 | 0.150 |

Volatile organic units - µ g/l  BDL- Below Detection Limit  LA- Lab Artifact

Metal units - m g/l  NA- Not Analyzed

# NASSAU COUNTY FIREMAN'S TRAINING CENTER
# GROUNDWATER REMEDIATION FACILITY
# MONTHLY INFLUENT MONITORING REPORT — APRIL 2006

| INFLUENT PARAMETER | WEEK 1 04/04/06 | | WEEK 2 04/11/06 | | WEEK 3 04/18/06 | | WEEK 4 04/25/06 | |
|---|---|---|---|---|---|---|---|---|
| | ONSITE SP-1B | OFFSITE SP-1A | ONSITE SP-1B | OFFSITE SP-1A | ONSITE SP-1B | OFFSITE SP-1A | ONSITE SP-1B | OFFSITE SP-1A |
| FLOW, DAILY AVG (GPD) | 0 | 297071 | 0 | 335000 | 0 | 337414 | 0 | 281957 |
| FLOW, DAILY MAX (GPD) | 0 | 337400 | 0 | 342200 | 0 | 344800 | 0 | 334600 |
| 1,1,1-TRICHLOROETHANE | - | 2.6 | - | 1.6 | - | 2.0 | - | 2.3 |
| 1,1-DICHLOROETHANE | - | 2.9 | - | 2.8 | - | 2.7 | - | 2.7 |
| 1,1-DICHLOROETHENE | - | 1.3 | - | 1.4 | - | 1.3 | - | 1.3 |
| 1,2,4,5-TETRAMETHYLBENZENE | - | NA | - | NA | - | NA | - | NA |
| 1,2,4-TRICHLOROBENZENE | - | BDL | - | BDL | - | BDL | - | BDL |
| 1,2-DICHLOROETHANE | - | BDL | - | BDL | - | BDL | - | BDL |
| 1,3,5-TRIMETHYLBENZENE | - | BDL | - | BDL | - | BDL | - | BDL |
| 1,3-DICHLOROBENZENE | - | BDL | - | BDL | - | BDL | - | BDL |
| 1,4-DICHLOROBENZENE | - | BDL | - | BDL | - | BDL | - | BDL |
| 2-CHLOROTOLUENE | - | BDL | - | BDL | - | BDL | - | BDL |
| 2-HEXANONE | - | BDL | - | BDL | - | BDL | - | BDL |
| 4-CHLOROTOLUENE | - | BDL | - | BDL | - | BDL | - | BDL |
| 4-ISOPROPYLTOLUENE | - | BDL | - | BDL | - | BDL | - | BDL |
| ACETONE | - | BDL | - | BDL | - | BDL | - | BDL |
| BENZENE | - | 2.8 | - | 2.9 | - | 2.3 | - | 2.7 |
| CHLORODIFLUOROMETHANE | - | BDL | - | BDL | - | BDL | - | BDL |
| CHLOROBENZENE | - | BDL | - | BDL | - | BDL | - | BDL |
| cis-1,2-DICHLOROETHYLENE | - | 24.7 | - | 36.8 | - | 27.5 | - | 27.0 |
| DIBROMOCHLOROMETHANE | - | BDL | - | BDL | - | BDL | - | BDL |
| DICHLOROBROMOMETHANE | - | BDL | - | BDL | - | BDL | - | BDL |
| DICHLORODIFLUOROMETHANE | - | BDL | - | BDL | - | BDL | - | BDL |
| ETHYLBENZENE | - | BDL | - | BDL | - | BDL | - | BDL |
| ISOPROPYLBENZENE | - | BDL | - | BDL | - | BDL | - | BDL |
| m,p-XYLENE | - | BDL | - | BDL | - | BDL | - | BDL |
| METHYL ETHYL KEYTONE | - | BDL | - | BDL | - | BDL | - | BDL |
| METHYL tert-BUTYL ETHER | - | BDL | - | BDL | - | BDL | - | BDL |
| METHYLENE CHLORIDE | - | BDL | - | BDL | - | BDL | - | BDL |
| NAPHTHALENE | - | BDL | - | BDL | - | BDL | - | BDL |
| n-BUTYLBENZENE | - | BDL | - | BDL | - | BDL | - | BDL |
| n-PROPYLBENZENE | - | BDL | - | BDL | - | BDL | - | BDL |
| o-XYLENE | - | BDL | - | BDL | - | BDL | - | BDL |
| p-DIETHYLBENZENE | - | NA | - | NA | - | NA | - | NA |
| p-ETHYLTOLUENE | - | NA | - | NA | - | NA | - | NA |
| sec-BUTYLBENZENE | - | BDL | - | BDL | - | BDL | - | BDL |
| tert-BUTYL BENZENE | - | BDL | - | BDL | - | BDL | - | BDL |
| TETRACHLOROETHYLENE | - | 33.2 | - | 21.0 | - | 26.1 | - | 35.8 |
| TOLUENE | - | BDL | - | BDL | - | BDL | - | BDL |
| trans-1,2-DICHLOROETHYLENE | - | BDL | - | BDL | - | BDL | - | BDL |
| TRICHLOROETHYLENE | - | 6.7 | - | 5.7 | - | 6.0 | - | 7.4 |
| VINYL CHLORIDE | - | 1.3 | - | 1.8 | - | 1.6 | - | 1.6 |
| **TOTAL VOCs** | 0.0 | 75.5 | 0.0 | 74.0 | 0.0 | 69.5 | 0.0 | 80.8 |
| 2-METHYLNAPHTHALENE | - | NA | - | NA | - | NA | - | NA |
| BIS(2-ETHLHEXYL)PHTHALATE | - | BDL | - | BDL | - | BDL | - | BDL |
| BUTYL BENZYL PHTHALATE | - | NA | - | NA | - | NA | - | NA |
| DIETHYL PHTHALATE | - | BDL | - | BDL | - | BDL | - | BDL |
| DIMETHYL PHTHALATE | - | BDL | - | BDL | - | BDL | - | BDL |
| DI-N-BUTYL PHTHALATE | - | BDL | - | BDL | - | BDL | - | BDL |
| DI-N-OCTYL PHTHALATE | - | BDL | - | BDL | - | BDL | - | BDL |
| FLUORENE | - | BDL | - | BDL | - | BDL | - | BDL |
| NAPHTHALENE | - | NA | - | NA | - | NA | - | NA |
| PHENANTHRENE | - | BDL | - | BDL | - | BDL | - | BDL |
| PYRENE | - | BDL | - | BDL | - | BDL | - | BDL |
| **TOTAL SEMI-VOLs** | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| ALUMINUM, TOTAL | - | 0.006 | - | 0.020 | - | 0.004 | - | 0.022 |
| ARSENIC, TOTAL | - | BDL | - | BDL | - | BDL | - | BDL |
| CHROMIUM, TOTAL | - | BDL | - | BDL | - | BDL | - | BDL |
| IRON, TOTAL | - | 0.229 | - | 0.154 | - | 0.226 | - | 0.416 |
| MANGANESE, TOTAL | - | 0.017 | - | 0.017 | - | 0.017 | - | 0.023 |
| NICKEL, TOTAL | - | 0.002 | - | 0.005 | - | 0.005 | - | 0.003 |
| SUM IRON & MANGANESE | 0.000 | 0.246 | 0.000 | 0.171 | 0.000 | 0.243 | 0.000 | 0.439 |

Volatile organic units - µ g/l
Metal units - m g/l
BDL- Below Detection Limit
NA- Not Analyzed
LA- Lab Artifact

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

**May 2006**

| INFLUENT PARAMETER | WEEK 1 05/02/06 | | WEEK 2 05/09/06 | | WEEK 3 05/16/06 | | WEEK 4 05/23/06 | | WEEK 5 05/30/06 | |
|---|---|---|---|---|---|---|---|---|---|---|
| | ONSITE SP-1B | OFFSITE SP-1A | ONSITE SP-1B | OFFSITE SP-1A | ONSITE SP-1B | OFFSITE SP-1A | ONSITE SP-1B | OFFSITE SP-1A | ONSITE SP-1B | OFFSITE SP-1A |
| FLOW, DAILY AVG (GPD) | 0 | 124713 | 0 | 315814 | 0 | 337200 | 0 | 242357 | 0 | 335457 |
| FLOW, DAILY MAX (GPD) | 0 | 343000 | 0 | 340000 | 0 | 345200 | 0 | 363400 | 0 | 336400 |
| 1,1,1-TRICHLOROETHANE | - | 1.9 | - | 1.7 | - | 1.4 | - | 1.2 | - | 1.9 |
| 1,1-DICHLOROETHANE | - | 3.1 | - | 2.3 | - | 1.9 | - | 1.7 | - | 2.9 |
| 1,1-DICHLOROETHENE | - | 1.7 | - | BDL | - | 0.8 | - | 0.1 | - | 1.3 |
| 1,2,4,5-TETRAMETHYLBENZENE | - | NA | - | NA | - | NA | - | NA | - | NA |
| 1,2,4-TRICHLOROBENZENE | - | BDL | - | BDL | - | BDL | - | BDL | - | BDL |
| 1,2-DICHLOROETHANE | - | BDL | - | BDL | - | BDL | - | BDL | - | BDL |
| 1,3,5-TRIMETHYLBENZENE | - | BDL | - | BDL | - | BDL | - | BDL | - | BDL |
| 1,3-DICHLOROBENZENE | - | BDL | - | BDL | - | BDL | - | BDL | - | BDL |
| 1,4-DICHLOROBENZENE | - | BDL | - | BDL | - | BDL | - | BDL | - | BDL |
| 2-CHLOROTOLUENE | - | BDL | - | BDL | - | BDL | - | BDL | - | BDL |
| 2-HEXANONE | - | BDL | - | BDL | - | BDL | - | BDL | - | BDL |
| 4-CHLOROTOLUENE | - | BDL | - | BDL | - | BDL | - | BDL | - | BDL |
| 4-ISOPROPYLTOLUENE | - | BDL | - | BDL | - | BDL | - | BDL | - | BDL |
| ACETONE | - | BDL | - | BDL | - | BDL | - | BDL | - | BDL |
| BENZENE | - | 2.7 | - | 2.5 | - | 2.1 | - | 1.3 | - | 2.3 |
| CHLORODIFLUOROMETHANE | - | BDL | - | BDL | - | BDL | - | BDL | - | BDL |
| CHLOROBENZENE | - | BDL | - | BDL | - | BDL | - | BDL | - | BDL |
| cis-1,2-DICHLOROETHYLENE | - | 30.9 | - | 26.0 | - | 21.4 | - | 15.7 | - | 26.2 |
| DIBROMOCHLOROMETHANE | - | BDL | - | BDL | - | BDL | - | BDL | - | BDL |
| DICHLOROBROMOMETHANE | - | BDL | - | BDL | - | BDL | - | BDL | - | BDL |
| DICHLORODIFLUOROMETHANE | - | BDL | - | BDL | - | BDL | - | BDL | - | BDL |
| ETHYLBENZENE | - | BDL | - | BDL | - | BDL | - | BDL | - | BDL |
| ISOPROPYLBENZENE | - | BDL | - | BDL | - | BDL | - | BDL | - | BDL |
| m,p-XYLENE | - | BDL | - | BDL | - | BDL | - | BDL | - | BDL |
| METHYL ETHYL KEYTONE | - | BDL | - | BDL | - | BDL | - | BDL | - | BDL |
| METHYL tert-BUTYL ETHER | - | BDL | - | BDL | - | BDL | - | BDL | - | BDL |
| METHYLENE CHLORIDE | - | BDL | - | BDL | - | BDL | - | BDL | - | BDL |
| NAPHTHALENE | - | BDL | - | BDL | - | BDL | - | BDL | - | BDL |
| n-BUTYLBENZENE | - | BDL | - | BDL | - | BDL | - | BDL | - | BDL |
| n-PROPYLBENZENE | - | BDL | - | BDL | - | BDL | - | BDL | - | BDL |
| o-XYLENE | - | BDL | - | BDL | - | BDL | - | BDL | - | BDL |
| p-DIETHYLBENZENE | - | NA | - | NA | - | NA | - | NA | - | NA |
| p-ETHYLTOLUENE | - | NA | - | NA | - | NA | - | NA | - | NA |
| sec-BUTYLBENZENE | - | BDL | - | BDL | - | BDL | - | BDL | - | BDL |
| tert-BUTYL BENZENE | - | BDL | - | BDL | - | BDL | - | BDL | - | BDL |
| TETRACHLOROETHYLENE | - | 28.1 | - | 41.5 | - | 31.4 | - | 17.5 | - | 20.5 |
| TOLUENE | - | BDL | - | BDL | - | BDL | - | BDL | - | BDL |
| trans-1,2-DICHLOROETHYLENE | - | BDL | - | BDL | - | BDL | - | BDL | - | 1.1 |
| TRICHLOROETHYLENE | - | 5.7 | - | 7.3 | - | 6.2 | - | 5.1 | - | 6.3 |
| VINYL CHLORIDE | - | 2.3 | - | BDL | - | 1.0 | - | 1.1 | - | 1.4 |
| **TOTAL VOCs** | 0.0 | 76.4 | 0.0 | 81.3 | 0.0 | 66.2 | 0.0 | 43.7 | 0.0 | 63.9 |
| 2-METHYLNAPHTHALENE | - | NA | - | NA | - | NA | - | NA | - | NA |
| BIS(2-ETHLHEXYL)PHTHALATE | - | BDL | - | BDL | - | BDL | - | BDL | - | BDL |
| BUTYL BENZYL PHTHALATE | - | NA | - | NA | - | NA | - | NA | - | NA |
| DIETHYL PHTHALATE | - | BDL | - | BDL | - | BDL | - | BDL | - | BDL |
| DIMETHYL PHTHALATE | - | BDL | - | BDL | - | BDL | - | BDL | - | BDL |
| DI-N-BUTYL PHTHALATE | - | BDL | - | BDL | - | BDL | - | BDL | - | BDL |
| DI-N-OCTYL PHTHALATE | - | BDL | - | BDL | - | BDL | - | BDL | - | BDL |
| FLUORENE | - | BDL | - | BDL | - | BDL | - | BDL | - | BDL |
| NAPHTHALENE | - | NA | - | NA | - | NA | - | NA | - | NA |
| PHENANTHRENE | - | BDL | - | BDL | - | BDL | - | BDL | - | BDL |
| PYRENE | - | BDL | - | BDL | - | BDL | - | BDL | - | BDL |
| **TOTAL SEMI-VOLs** | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| ALUMINUM, TOTAL | - | 0.031 | - | 0.032 | - | 0.007 | - | 0.002 | - | 0.003 |
| ARSENIC, TOTAL | - | BDL | - | BDL | - | BDL | - | BDL | - | BDL |
| CHROMIUM, TOTAL | - | BDL | - | 0.001 | - | BDL | - | BDL | - | 0.001 |
| IRON, TOTAL | - | 0.175 | - | 0.199 | - | 0.176 | - | 0.180 | - | 0.189 |
| MANGANESE, TOTAL | - | 0.017 | - | 0.018 | - | 0.018 | - | 0.017 | - | 0.017 |
| NICKEL, TOTAL | - | 0.003 | - | 0.003 | - | 0.004 | - | 0.003 | - | 0.002 |
| SUM IRON & MANGANESE | 0.000 | 0.192 | 0.000 | 0.217 | 0.000 | 0.194 | 0.000 | 0.197 | 0.000 | 0.206 |

Volatile organic units - µ g/l
Metal units - m g/l

BDL- Below Detection Limit
NA- Not Analyzed

LA- Lab Artifact

# NASSAU COUNTY FIREMAN'S TRAINING CENTER
# GROUNDWATER REMEDIATION FACILITY
# MONTHLY INFLUENT MONITORING REPORT — JUNE 2006

| INFLUENT PARAMETER | WEEK 1 06/06/06 | | WEEK 2 06/13/06 | | WEEK 3 06/20/06 | | WEEK 4 06/27/06 | |
|---|---|---|---|---|---|---|---|---|
| | ONSITE SP-1B | OFFSITE SP-1A | ONSITE SP-1B | OFFSITE SP-1A | ONSITE SP-1B | OFFSITE SP-1A | ONSITE SP-1B | OFFSITE SP-1A |
| FLOW, DAILY AVG (GPD) | 0 | 332614 | 0 | 330629 | 0 | 329086 | 0 | 327471 |
| FLOW, DAILY MAX (GPD) | 0 | 340700 | 0 | 335300 | 0 | 336900 | 0 | 330600 |
| 1,1,1-TRICHLOROETHANE | - | 2.1 | - | 2.1 | - | 1.9 | - | BDL |
| 1,1-DICHLOROETHANE | - | 2.9 | - | 2.8 | - | 2.8 | - | BDL |
| 1,1-DICHLOROETHENE | - | 1.3 | - | 1.2 | - | 1.1 | - | BDL |
| 1,2,4,5-TETRAMETHYLBENZENE | - | NA | - | NA | - | BDL | - | NA |
| 1,2,4-TRICHLOROBENZENE | - | BDL | - | BDL | - | BDL | - | BDL |
| 1,2-DICHLOROETHANE | - | BDL | - | BDL | - | BDL | - | BDL |
| 1,3,5-TRIMETHYLBENZENE | - | BDL | - | BDL | - | BDL | - | BDL |
| 1,3-DICHLOROBENZENE | - | BDL | - | BDL | - | BDL | - | BDL |
| 1,4-DICHLOROBENZENE | - | BDL | - | BDL | - | BDL | - | BDL |
| 2-CHLOROTOLUENE | - | BDL | - | BDL | - | BDL | - | BDL |
| 2-HEXANONE | - | BDL | - | BDL | - | BDL | - | BDL |
| 4-CHLOROTOLUENE | - | BDL | - | BDL | - | BDL | - | BDL |
| 4-ISOPROPYLTOLUENE | - | BDL | - | BDL | - | BDL | - | BDL |
| ACETONE | - | BDL | - | BDL | - | BDL | - | BDL |
| BENZENE | - | 2.8 | - | 3.0 | - | 2.6 | - | 21.7 |
| CHLORODIFLUOROMETHANE | - | BDL | - | BDL | - | BDL | - | BDL |
| CHLOROBENZENE | - | BDL | - | BDL | - | BDL | - | BDL |
| cis-1,2-DICHLOROETHYLENE | - | 28.6 | - | 28.1 | - | 26.4 | - | 1.0 |
| DIBROMOCHLOROMETHANE | - | BDL | - | BDL | - | BDL | - | BDL |
| DICHLOROBROMOMETHANE | - | BDL | - | BDL | - | BDL | - | BDL |
| DICHLORODIFLUOROMETHANE | - | BDL | - | BDL | - | BDL | - | BDL |
| ETHYLBENZENE | - | BDL | - | BDL | - | BDL | - | BDL |
| ISOPROPYLBENZENE | - | BDL | - | BDL | - | BDL | - | BDL |
| m,p-XYLENE | - | BDL | - | BDL | - | BDL | - | BDL |
| METHYL ETHYL KEYTONE | - | BDL | - | BDL | - | BDL | - | BDL |
| METHYL tert-BUTYL ETHER | - | BDL | - | BDL | - | BDL | - | BDL |
| METHYLENE CHLORIDE | - | BDL | - | BDL | - | BDL | - | BDL |
| NAPHTHALENE | - | BDL | - | BDL | - | BDL | - | BDL |
| n-BUTYLBENZENE | - | BDL | - | BDL | - | BDL | - | BDL |
| n-PROPYLBENZENE | - | BDL | - | BDL | - | BDL | - | BDL |
| o-XYLENE | - | BDL | - | BDL | - | BDL | - | BDL |
| p-DIETHYLBENZENE | - | NA | - | NA | - | BDL | - | NA |
| p-ETHYLTOLUENE | - | NA | - | NA | - | BDL | - | NA |
| sec-BUTYLBENZENE | - | BDL | - | BDL | - | BDL | - | BDL |
| tert-BUTYL BENZENE | - | BDL | - | BDL | - | BDL | - | BDL |
| TETRACHLOROETHYLENE | - | 21.7 | - | 31.1 | - | 24.1 | - | BDL |
| TOLUENE | - | BDL | - | BDL | - | BDL | - | BDL |
| trans-1,2-DICHLOROETHYLENE | - | BDL | - | BDL | - | BDL | - | 13.0 |
| TRICHLOROETHYLENE | - | 6.0 | - | 8.0 | - | 6.7 | - | 1.2 |
| VINYL CHLORIDE | - | 1.4 | - | 1.3 | - | 1.3 | - | 1.5 |
| **TOTAL VOCs** | 0.0 | 66.8 | 0.0 | 77.6 | 0.0 | 66.9 | 0.0 | 38.4 |
| 2-METHYLNAPHTHALENE | - | NA | - | NA | - | NA | - | NA |
| BIS(2-ETHLHEXYL)PHTHALATE | - | BDL | - | BDL | - | NA | - | BDL |
| BUTYL BENZYL PHTHALATE | - | NA | - | NA | - | NA | - | NA |
| DIETHYL PHTHALATE | - | BDL | - | BDL | - | NA | - | BDL |
| DIMETHYL PHTHALATE | - | BDL | - | BDL | - | NA | - | BDL |
| DI-N-BUTYL PHTHALATE | - | BDL | - | BDL | - | NA | - | BDL |
| DI-N-OCTYL PHTHALATE | - | BDL | - | BDL | - | NA | - | BDL |
| FLUORENE | - | BDL | - | BDL | - | NA | - | BDL |
| NAPHTHALENE | - | NA | - | NA | - | NA | - | NA |
| PHENANTHRENE | - | BDL | - | BDL | - | NA | - | BDL |
| PYRENE | - | BDL | - | BDL | - | NA | - | BDL |
| **TOTAL SEMI-VOLs** | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| ALUMINUM, TOTAL | - | 0.011 | - | 0.004 | - | 0.009 | - | 0.007 |
| ARSENIC, TOTAL | - | BDL | - | BDL | - | BDL | - | BDL |
| CHROMIUM, TOTAL | - | 0.001 | - | 0.002 | - | 0.002 | - | BDL |
| IRON, TOTAL | - | 0.173 | - | 0.203 | - | 0.162 | - | 0.168 |
| MANGANESE, TOTAL | - | 0.017 | - | 0.017 | - | 0.017 | - | 0.034 |
| NICKEL, TOTAL | - | 0.004 | - | 0.001 | - | 0.003 | - | 0.001 |
| SUM IRON & MANGANESE | 0.000 | 0.190 | 0.000 | 0.220 | 0.000 | 0.179 | 0.000 | 0.202 |

Volatile and Semi-Volatile Organic Units - µ g/l
Metal units - m g/l
BDL- Below Detection Limit
NA- Not Analyzed
LA- Lab Artifact

# NASSAU COUNTY FIREMAN'S TRAINING CENTER
# GROUNDWATER REMEDIATION FACILITY
# MONTHLY INFLUENT MONITORING REPORT — JULY 2006

| INFLUENT PARAMETER | WEEK 1 07/05/06 | | WEEK 2 07/11/06 | | WEEK 3 07/18/06 | | WEEK 4 07/25/06 | |
|---|---|---|---|---|---|---|---|---|
| | ONSITE SP-1B | OFFSITE SP-1A | ONSITE SP-1B | OFFSITE SP-1A | ONSITE SP-1B | OFFSITE SP-1A | ONSITE SP-1B | OFFSITE SP-1A |
| FLOW, DAILY AVG (GPD) | 0 | 326738 | 0 | 108806 | 0 | 61571 | 0 | 335300 |
| FLOW, DAILY MAX (GPD) | 0 | 327250 | 0 | 324200 | 0 | 329200 | 0 | 339300 |
| 1,1,1-TRICHLOROETHANE | - | 1.6 | - | - | - | 2.8 | - | 4.0 |
| 1,1-DICHLOROETHANE | - | 2.3 | - | - | - | 3.2 | - | 4.8 |
| 1,1-DICHLOROETHENE | - | 1.1 | - | - | - | 1.1 | - | 1.6 |
| 1,2,4,5-TETRAMETHYLBENZENE | - | NA | - | - | - | NA | - | NA |
| 1,2,4-TRICHLOROBENZENE | - | BDL | - | - | - | BDL | - | BDL |
| 1,2-DICHLOROETHANE | - | BDL | - | - | - | BDL | - | BDL |
| 1,3,5-TRIMETHYLBENZENE | - | BDL | - | - | - | BDL | - | BDL |
| 1,3-DICHLOROBENZENE | - | BDL | - | - | - | BDL | - | BDL |
| 1,4-DICHLOROBENZENE | - | BDL | - | - | - | BDL | - | BDL |
| 2-CHLOROTOLUENE | - | BDL | - | - | - | BDL | - | BDL |
| 2-HEXANONE | - | BDL | - | - | - | BDL | - | BDL |
| 4-CHLOROTOLUENE | - | BDL | - | - | - | BDL | - | BDL |
| 4-ISOPROPYLTOLUENE | - | BDL | - | - | - | BDL | - | BDL |
| ACETONE | - | BDL | - | - | - | BDL | - | BDL |
| BENZENE | - | 1.8 | - | - | - | 4.1 | - | 3.2 |
| CHLORODIFLUOROMETHANE | - | BDL | - | - | - | BDL | - | BDL |
| CHLOROBENZENE | - | BDL | - | - | - | BDL | - | BDL |
| cis-1,2-DICHLOROETHYLENE | - | 19.7 | - | - | - | 40.0 | - | 62.0 |
| DIBROMOCHLOROMETHANE | - | BDL | - | - | - | BDL | - | BDL |
| DICHLOROBROMOMETHANE | - | BDL | - | - | - | BDL | - | BDL |
| DICHLORODIFLUOROMETHANE | - | BDL | - | - | - | BDL | - | BDL |
| ETHYLBENZENE | - | BDL | - | - | - | BDL | - | BDL |
| ISOPROPYLBENZENE | - | BDL | - | - | - | BDL | - | BDL |
| m,p-XYLENE | - | BDL | - | - | - | BDL | - | BDL |
| METHYL ETHYL KEYTONE | - | BDL | - | - | - | BDL | - | BDL |
| METHYL tert-BUTYL ETHER | - | BDL | - | - | - | BDL | - | BDL |
| METHYLENE CHLORIDE | - | BDL | - | - | - | BDL | - | BDL |
| NAPHTHALENE | - | BDL | - | - | - | BDL | - | BDL |
| n-BUTYLBENZENE | - | BDL | - | - | - | BDL | - | BDL |
| n-PROPYLBENZENE | - | BDL | - | - | - | BDL | - | BDL |
| o-XYLENE | - | BDL | - | - | - | BDL | - | BDL |
| p-DIETHYLBENZENE | - | NA | - | - | - | NA | - | NA |
| p-ETHYLTOLUENE | - | NA | - | - | - | NA | - | NA |
| sec-BUTYLBENZENE | - | BDL | - | - | - | BDL | - | BDL |
| tert-BUTYL BENZENE | - | BDL | - | - | - | BDL | - | BDL |
| TETRACHLOROETHYLENE | - | 18.4 | - | - | - | 35.0 | - | 27.0 |
| TOLUENE | - | BDL | - | - | - | BDL | - | BDL |
| trans-1,2-DICHLOROETHYLENE | - | BDL | - | - | - | BDL | - | BDL |
| TRICHLOROETHYLENE | - | 7.2 | - | - | - | 6.6 | - | 7.0 |
| VINYL CHLORIDE | - | 1.6 | - | - | - | 1.9 | - | BDL |
| **TOTAL VOCs** | 0.0 | 53.7 | 0.0 | 0.0 | 0.0 | 94.7 | 0.0 | 109.6 |
| 2-METHYLNAPHTHALENE | - | NA | - | - | - | - | - | NA |
| BIS(2-ETHLHEXYL)PHTHALATE | - | BDL | - | - | - | - | - | BDL |
| BUTYL BENZYL PHTHALATE | - | NA | - | - | - | - | - | NA |
| DIETHYL PHTHALATE | - | BDL | - | - | - | - | - | BDL |
| DIMETHYL PHTHALATE | - | BDL | - | - | - | - | - | BDL |
| DI-N-BUTYL PHTHALATE | - | BDL | - | - | - | - | - | BDL |
| DI-N-OCTYL PHTHALATE | - | BDL | - | - | - | - | - | BDL |
| FLUORENE | - | BDL | - | - | - | - | - | BDL |
| NAPHTHALENE | - | NA | - | - | - | - | - | NA |
| PHENANTHRENE | - | BDL | - | - | - | - | - | BDL |
| PYRENE | - | BDL | - | - | - | - | - | BDL |
| **TOTAL VOCs** | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| ALUMINUM, TOTAL | - | BDL | - | - | - | 0.013 | - | 0.035 |
| ARSENIC, TOTAL | - | BDL | - | - | - | BDL | - | BDL |
| CHROMIUM, TOTAL | - | 0.001 | - | - | - | BDL | - | 0.003 |
| IRON, TOTAL | - | 0.135 | - | - | - | 0.164 | - | 0.158 |
| MANGANESE, TOTAL | - | 0.016 | - | - | - | 0.018 | - | 0.016 |
| NICKEL, TOTAL | - | 0.001 | - | - | - | 0.004 | - | 0.003 |
| SUM IRON & MANGANESE | 0.000 | 0.151 | 0.000 | 0.000 | 0.000 | 0.182 | 0.000 | 0.174 |

Volatile organic units - µ g/l  BDL- Below Detection Limit  LA- Lab Artifact

Metal units - m g/l  NA- Not Analyzed

Cedar Creek Lab - VOAs on 7/5

American Analytical Lab - VOA on 7/18 and Semi-vol & VOA on 7/25

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

## AUGUST 2006

| INFLUENT PARAMETER | WEEK 1 08/01/06 | | WEEK 2 08/08/06 | | WEEK 3 08/15/06 | | WEEK 4 08/22/06 | | WEEK 5 08/29/06 | |
|---|---|---|---|---|---|---|---|---|---|---|
| | ONSITE SP-1B | OFFSITE SP-1A | ONSITE SP-1B | OFFSITE SP-1A | ONSITE SP-1B | OFFSITE SP-1A | ONSITE SP-1B | OFFSITE SP-1A | ONSITE SP-1B | OFFSITE SP-1A |
| FLOW, DAILY AVG (GPD) | 0 | 567129 | 0 | 833900 | 0 | 826071 | 0 | 823429 | 0 | 790029 |
| FLOW, DAILY MAX (GPD) | 0 | 610100 | 0 | 840600 | 0 | 831800 | 0 | 826467 | 0 | 824600 |
| 1,1,1-TRICHLOROETHANE | - | BDL | - | BDL | - | BDL | - | BDL | - | 1.8 |
| 1,1-DICHLOROETHANE | - | BDL | - | 2.2 | - | BDL | - | 2.4 | - | BDL |
| 1,1-DICHLOROETHENE | - | BDL | - | BDL | - | BDL | - | BDL | - | BDL |
| 1,2,4,5-TETRAMETHYLBENZENE | - | BDL | - | BDL | - | BDL | - | BDL | - | BDL |
| 1,2,4-TRICHLOROBENZENE | - | BDL | - | BDL | - | BDL | - | BDL | - | BDL |
| 1,2-DICHLOROETHANE | - | BDL | - | BDL | - | BDL | - | BDL | - | BDL |
| 1,3,5-TRIMETHYLBENZENE | - | BDL | - | BDL | - | BDL | - | BDL | - | BDL |
| 1,3-DICHLOROBENZENE | - | BDL | - | BDL | - | BDL | - | BDL | - | BDL |
| 1,4-DICHLOROBENZENE | - | BDL | - | BDL | - | BDL | - | BDL | - | BDL |
| 2-CHLOROTOLUENE | - | BDL | - | BDL | - | BDL | - | BDL | - | BDL |
| 2-HEXANONE | - | BDL | - | BDL | - | BDL | - | BDL | - | BDL |
| 4-CHLOROTOLUENE | - | BDL | - | BDL | - | BDL | - | BDL | - | BDL |
| 4-ISOPROPYLTOLUENE | - | BDL | - | BDL | - | BDL | - | BDL | - | BDL |
| ACETONE | - | BDL | - | BDL | - | BDL | - | BDL | - | BDL |
| BENZENE | - | 12.0 | - | 10.0 | - | 9.6 | - | 13.0 | - | 6.9 |
| CHLORODIFLUOROMETHANE | - | BDL | - | BDL | - | BDL | - | BDL | - | BDL |
| CHLOROBENZENE | - | BDL | - | BDL | - | BDL | - | BDL | - | BDL |
| cis-1,2-DICHLOROETHYLENE | - | BDL | - | 19.0 | - | 23.0 | - | 36.0 | - | 12.0 |
| DIBROMOCHLOROMETHANE | - | BDL | - | BDL | - | BDL | - | BDL | - | BDL |
| DICHLOROBROMOMETHANE | - | BDL | - | BDL | - | BDL | - | BDL | - | BDL |
| DICHLORODIFLUOROMETHANE | - | BDL | - | BDL | - | BDL | - | BDL | - | BDL |
| ETHYLBENZENE | - | BDL | - | BDL | - | BDL | - | BDL | - | BDL |
| ISOPROPYLBENZENE | - | BDL | - | BDL | - | BDL | - | BDL | - | BDL |
| m,p-XYLENE | - | BDL | - | BDL | - | BDL | - | BDL | - | BDL |
| METHYL ETHYL KEYTONE | - | BDL | - | BDL | - | BDL | - | BDL | - | BDL |
| METHYL tert-BUTYL ETHER | - | BDL | - | BDL | - | BDL | - | BDL | - | BDL |
| METHYLENE CHLORIDE | - | BDL | - | LA | - | LA | - | LA | - | LA |
| NAPHTHALENE | - | BDL | - | BDL | - | BDL | - | BDL | - | BDL |
| n-BUTYLBENZENE | - | BDL | - | BDL | - | BDL | - | BDL | - | BDL |
| n-PROPYLBENZENE | - | BDL | - | BDL | - | BDL | - | BDL | - | BDL |
| o-XYLENE | - | BDL | - | BDL | - | BDL | - | BDL | - | BDL |
| p-DIETHYLBENZENE | - | BDL | - | BDL | - | BDL | - | BDL | - | BDL |
| p-ETHYLTOLUENE | - | BDL | - | BDL | - | BDL | - | BDL | - | BDL |
| sec-BUTYLBENZENE | - | BDL | - | BDL | - | BDL | - | BDL | - | BDL |
| tert-BUTYL BENZENE | - | BDL | - | BDL | - | BDL | - | BDL | - | BDL |
| TETRACHLOROETHYLENE | - | 27.0 | - | 13.0 | - | 22.0 | - | 22.0 | - | 14.0 |
| TOLUENE | - | BDL | - | BDL | - | BDL | - | BDL | - | BDL |
| trans-1,2-DICHLOROETHYLENE | - | BDL | - | BDL | - | BDL | - | BDL | - | BDL |
| TRICHLOROETHYLENE | - | 3.8 | - | 5.4 | - | 5.4 | - | 4.0 | - | 1.4 |
| VINYL CHLORIDE | - | BDL | - | BDL | - | BDL | - | BDL | - | BDL |
| **TOTAL VOCs** | 0.0 | 42.8 | 0.0 | 49.6 | 0.0 | 60.0 | 0.0 | 77.4 | 0.0 | 36.1 |
| 2-METHYLNAPHTHALENE | - | BDL | - | BDL | - | BDL | - | BDL | - | BDL |
| BIS(2-ETHLHEXYL)PHTHALATE | - | BDL | - | BDL | - | BDL | - | BDL | - | BDL |
| BUTYL BENZYL PHTHALATE | - | BDL | - | BDL | - | BDL | - | BDL | - | BDL |
| DIETHYL PHTHALATE | - | BDL | - | BDL | - | BDL | - | BDL | - | BDL |
| DIMETHYL PHTHALATE | - | BDL | - | BDL | - | BDL | - | BDL | - | BDL |
| DI-N-BUTYL PHTHALATE | - | BDL | - | BDL | - | BDL | - | BDL | - | BDL |
| DI-N-OCTYL PHTHALATE | - | BDL | - | BDL | - | BDL | - | BDL | - | BDL |
| FLUORENE | - | BDL | - | BDL | - | BDL | - | BDL | - | BDL |
| NAPHTHALENE | - | BDL | - | BDL | - | BDL | - | BDL | - | BDL |
| PHENANTHRENE | - | BDL | - | BDL | - | BDL | - | BDL | - | BDL |
| PYRENE | - | BDL | - | BDL | - | BDL | - | BDL | - | BDL |
| **TOTAL SEMI-VOLs** | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| ALUMINUM, TOTAL | - | 0.015 | - | 0.008 | - | 0.017 | - | 0.007 | - | 0.009 |
| ARSENIC, TOTAL | - | BDL | - | BDL | - | BDL | - | BDL | - | BDL |
| CHROMIUM, TOTAL | - | 0.002 | - | 0.001 | - | 0.001 | - | 0.002 | - | BDL |
| IRON, TOTAL | - | 0.295 | - | 0.058 | - | 0.217 | - | 0.207 | - | 0.297 |
| MANGANESE, TOTAL | - | 0.041 | - | 0.071 | - | 0.077 | - | 0.073 | - | 0.073 |
| NICKEL, TOTAL | - | 0.006 | - | 0.004 | - | 0.005 | - | 0.003 | - | 0.004 |
| SUM IRON & MANGANESE | 0.000 | 0.336 | 0.000 | 0.129 | 0.000 | 0.294 | 0.000 | 0.280 | 0.000 | 0.370 |

Volatile organic units - µ g/l
Metal units - m g/l

BDL- Below Detection Limit
NA- Not Analyzed

LA- Lab Artifact

# NASSAU COUNTY FIREMAN'S TRAINING CENTER
# GROUNDWATER REMEDIATION FACILITY
# MONTHLY INFLUENT MONITORING REPORT SEPTEMBER 2006

| INFLUENT PARAMETER | WEEK 1 09/06/06 | | WEEK 2 09/12/06 | | WEEK 3 09/19/06 | | WEEK 4 09/26/06 | |
|---|---|---|---|---|---|---|---|---|
| | ONSITE SP-1B | OFFSITE SP-1A | ONSITE SP-1B | OFFSITE SP-1A | ONSITE SP-1B | OFFSITE SP-1A | ONSITE SP-1B* | OFFSITE SP-1A |
| FLOW, DAILY AVG (GPD) | 0 | 605113 | 0 | 1048217 | 0 | 1095971 | 140800 | 1092086 |
| FLOW, DAILY MAX (GPD) | 0 | 829000 | 0 | 1099067 | 0 | 1105000 | 140800 | 1104633 |
| 1,1,1-TRICHLOROETHANE | - | BDL | - | BDL | - | BDL | BDL | BDL |
| 1,1-DICHLOROETHANE | - | BDL | - | BDL | - | BDL | BDL | BDL |
| 1,1-DICHLOROETHENE | - | BDL | - | BDL | - | BDL | BDL | BDL |
| 1,2,4,5-TETRAMETHYLBENZENE | - | BDL | - | BDL | - | BDL | 53.0 | BDL |
| 1,2,4-TRICHLOROBENZENE | - | BDL | - | BDL | - | BDL | 250.0 | BDL |
| 1,2-DICHLOROETHANE | - | BDL | - | BDL | - | BDL | BDL | BDL |
| 1,3,5-TRIMETHYLBENZENE | - | BDL | - | BDL | - | BDL | 89.0 | BDL |
| 1,3-DICHLOROBENZENE | - | BDL | - | BDL | - | BDL | BDL | BDL |
| 1,4-DICHLOROBENZENE | - | BDL | - | BDL | - | BDL | BDL | BDL |
| 2-CHLOROTOLUENE | - | BDL | - | BDL | - | BDL | 12.0 | BDL |
| 2-HEXANONE | - | BDL | - | BDL | - | BDL | BDL | BDL |
| 4-CHLOROTOLUENE | - | BDL | - | BDL | - | BDL | 19.0 | BDL |
| 4-ISOPROPYLTOLUENE | - | BDL | - | BDL | - | BDL | 4.9 | BDL |
| ACETONE | - | BDL | - | BDL | - | BDL | BDL | BDL |
| BENZENE | - | 14.0 | - | 10.0 | - | 6.9 | BDL | 5.8 |
| CHLORODIFLUOROMETHANE | - | BDL | - | BDL | - | BDL | BDL | BDL |
| CHLOROBENZENE | - | BDL | - | BDL | - | BDL | BDL | BDL |
| cis-1,2-DICHLOROETHYLENE | - | 41.0 | - | 28.0 | - | 28.0 | BDL | 25.0 |
| DIBROMOCHLOROMETHANE | - | BDL | - | BDL | - | BDL | BDL | BDL |
| DICHLOROBROMOMETHANE | - | BDL | - | BDL | - | BDL | BDL | BDL |
| DICHLORODIFLUOROMETHANE | - | BDL | - | BDL | - | BDL | BDL | BDL |
| ETHYLBENZENE | - | BDL | - | BDL | - | BDL | 47.0 | BDL |
| ISOPROPYLBENZENE | - | BDL | - | BDL | - | BDL | 7.6 | BDL |
| m,p-XYLENE | - | BDL | - | BDL | - | BDL | 130.0 | BDL |
| METHYL ETHYL KEYTONE | - | BDL | - | BDL | - | BDL | BDL | BDL |
| METHYL tert-BUTYL ETHER | - | BDL | - | BDL | - | BDL | BDL | BDL |
| METHYLENE CHLORIDE | - | BDL | - | LA | - | LA | LA | 10.0 |
| NAPHTHALENE | - | BDL | - | BDL | - | BDL | BDL | BDL |
| n-BUTYLBENZENE | - | BDL | - | BDL | - | BDL | 22.0 | BDL |
| n-PROPYLBENZENE | - | BDL | - | BDL | - | BDL | 14.0 | BDL |
| o-XYLENE | - | BDL | - | BDL | - | BDL | 41.0 | BDL |
| p-DIETHYLBENZENE | - | BDL | - | BDL | - | BDL | 51.0 | BDL |
| p-ETHYLTOLUENE | - | BDL | - | BDL | - | BDL | 120.0 | BDL |
| sec-BUTYLBENZENE | - | BDL | - | BDL | - | BDL | 180.0 | BDL |
| tert-BUTYL BENZENE | - | BDL | - | BDL | - | BDL | 26.0 | BDL |
| TETRACHLOROETHYLENE | - | 17.0 | - | 14.0 | - | 14.0 | BDL | BDL |
| TOLUENE | - | BDL | - | BDL | - | BDL | 2.8 | BDL |
| trans-1,2-DICHLOROETHYLENE | - | BDL | - | BDL | - | BDL | BDL | BDL |
| TRICHLOROETHYLENE | - | BDL | - | BDL | - | 1.6 | BDL | BDL |
| VINYL CHLORIDE | - | BDL | - | BDL | - | BDL | BDL | BDL |
| **TOTAL VOCs** | 0.0 | 72.0 | 0.0 | 52.0 | 0.0 | 50.5 | 1069.3 | 40.8 |
| 2-METHYLNAPHTHALENE | - | BDL | - | BDL | - | BDL | 19.0 | BDL |
| BIS(2-ETHLHEXYL)PHTHALATE | - | BDL | - | BDL | - | BDL | BDL | BDL |
| BUTYL BENZYL PHTHALATE | - | BDL | - | BDL | - | BDL | BDL | BDL |
| DIETHYL PHTHALATE | - | BDL | - | BDL | - | BDL | BDL | BDL |
| DIMETHYL PHTHALATE | - | BDL | - | BDL | - | BDL | BDL | BDL |
| DI-N-BUTYL PHTHALATE | - | BDL | - | BDL | - | BDL | BDL | BDL |
| DI-N-OCTYL PHTHALATE | - | BDL | - | BDL | - | BDL | BDL | BDL |
| FLUORENE | - | BDL | - | BDL | - | BDL | BDL | BDL |
| NAPHTHALENE | - | BDL | - | BDL | - | BDL | 26.0 | BDL |
| PHENANTHRENE | - | BDL | - | BDL | - | BDL | BDL | BDL |
| PYRENE | - | BDL | - | BDL | - | BDL | BDL | BDL |
| **TOTAL SEMI-VOLs** | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 45.0 | 0.0 |
| ALUMINUM, TOTAL | - | 0.010 | - | 0.010 | - | 0.007 | 0.006 | 0.007 |
| ARSENIC, TOTAL | - | BDL | - | BDL | - | BDL | 0.064 | BDL |
| CHROMIUM, TOTAL | - | 0.001 | - | BDL | - | BDL | BDL | BDL |
| IRON, TOTAL | - | 0.217 | - | 0.262 | - | 0.332 | 57.500 | 0.249 |
| MANGANESE, TOTAL | - | 0.075 | - | 0.506 | - | 0.472 | 3.170 | 0.459 |
| NICKEL, TOTAL | - | 0.004 | - | 0.003 | - | 0.003 | 0.002 | 0.005 |
| SUM IRON & MANGANESE | 0.000 | 0.292 | 0.000 | 0.768 | 0.000 | 0.804 | 60.670 | 0.708 |

Volatile organic units - µ g/l
Metal units - m g/l
BDL- Below Detection Limit
LA- Lab Artifact
* - Sample collected on 9/27/06 during one day start-up

# NASSAU COUNTY FIREMAN'S TRAINING CENTER
# GROUNDWATER REMEDIATION FACILITY
# MONTHLY INFLUENT MONITORING REPORT — OCTOBER 2006

| INFLUENT PARAMETER | WEEK 1 10/02/06 | | WEEK 2 10/10/06 | | WEEK 3 10/16/06 | | WEEK 4 10/24/06 | | WEEK 5 10/31/06 | |
|---|---|---|---|---|---|---|---|---|---|---|
| | ONSITE SP-1B | OFFSITE SP-1A | ONSITE SP-1B | OFFSITE SP-1A | ONSITE SP-1B | OFFSITE SP-1A | ONSITE SP-1B | OFFSITE SP-1A | ONSITE SP-1B | OFFSITE SP-1A |
| FLOW, DAILY AVG (GPD) | 26400 | 1046267 | 159150 | 835650 | 162283 | 824583 | 163113 | 827913 | 163143 | 830357 |
| FLOW, DAILY MAX (GPD) | 140800 | 1112967 | 159150 | 835650 | 163400 | 826900 | 164400 | 831100 | 164600 | 839867 |
| 1,1,1-TRICHLOROETHANE | - | 2.1 | BDL | BDL | BDL | 1.7 | BDL | 1.2 | BDL | 1.3 |
| 1,1-DICHLOROETHANE | - | 3.6 | BDL | 1.1 | BDL | 3.4 | BDL | 2.6 | BDL | 2.2 |
| 1,1-DICHLOROETHENE | - | BDL | BDL | BDL | BDL | 1.4 | BDL | BDL | BDL | BDL |
| 1,2,4,5-TETRAMETHYLBENZENE | - | BDL | 92.0 | BDL | 22.0 | BDL | 41.0 | BDL | 57.0 | BDL |
| 1,2,4-TRICHLOROBENZENE | - | BDL | 220.0 | BDL | 170.0 | BDL | 130.0 | BDL | 130.0 | BDL |
| 1,2-DICHLOROETHANE | - | BDL | BDL | BDL | BDL | 1.2 | BDL | BDL | BDL | BDL |
| 1,3,5-TRIMETHYLBENZENE | - | BDL | 90.0 | BDL | 75.0 | BDL | 47.0 | BDL | 59.0 | BDL |
| 1,3-DICHLOROBENZENE | - | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 1,4-DICHLOROBENZENE | - | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 2-CHLOROTOLUENE | - | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 2-HEXANONE | - | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 4-CHLOROTOLUENE | - | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 4-ISOPROPYLTOLUENE | - | BDL | 5.3 | BDL | 4.3 | BDL | 32.0 | BDL | 3.7 | BDL |
| ACETONE | - | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| BENZENE | - | 6.8 | BDL | BDL | BDL | 10.0 | BDL | 8.2 | BDL | 8.4 |
| CHLORODIFLUOROMETHANE | - | BDL | BDL | BDL | BDL | 2.7 | BDL | BDL | BDL | BDL |
| CHLOROBENZENE | - | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| cis-1,2-DICHLOROETHYLENE | - | 39.0 | BDL | 26.0 | BDL | 34.0 | BDL | 31.0 | BDL | 24.0 |
| DIBROMOCHLOROMETHANE | - | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| DICHLOROBROMOMETHANE | - | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| DICHLORODIFLUOROMETHANE | - | BDL | BDL | BDL | 2.1 | 3.9 | BDL | BDL | BDL | BDL |
| ETHYLBENZENE | - | BDL | 65.0 | BDL | 47.0 | BDL | 25.0 | BDL | 34.0 | BDL |
| ISOPROPYLBENZENE | - | BDL | 3.3 | BDL | 4.2 | BDL | 2.2 | BDL | 2.5 | BDL |
| m,p-XYLENE | - | BDL | 250.0 | BDL | 190.0 | BDL | 150.0 | BDL | 150.0 | BDL |
| METHYL ETHYL KEYTONE | - | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| METHYL tert-BUTYL ETHER | - | BDL | BDL | BDL | BDL | 1.2 | BDL | BDL | BDL | BDL |
| METHYLENE CHLORIDE | - | LA | LA | LA | BDL | LA | LA | LA | 1.9 | 2.2 |
| NAPHTHALENE | - | BDL | BDL | BDL | 32.0 | 2.0 | 18.0 | BDL | BDL | BDL |
| n-BUTYLBENZENE | - | BDL | 20.0 | BDL | BDL | BDL | 8.5 | BDL | BDL | BDL |
| n-PROPYLBENZENE | - | BDL | 13.0 | BDL | 8.4 | BDL | 4.3 | BDL | BDL | BDL |
| o-XYLENE | - | BDL | 67.0 | BDL | 50.0 | BDL | 36.0 | BDL | 38.0 | BDL |
| p-DIETHYLBENZENE | - | BDL | 55.0 | BDL | 40.0 | BDL | 27.0 | BDL | 60.0 | BDL |
| p-ETHYLTOLUENE | - | BDL | 140.0 | BDL | 110.0 | BDL | 86.0 | BDL | 100.0 | BDL |
| sec-BUTYLBENZENE | - | BDL | 170.0 | BDL | 1.8 | BDL | BDL | BDL | BDL | BDL |
| tert-BUTYL BENZENE | - | BDL | 24.0 | BDL | BDL | BDL | 3.2 | BDL | 15.0 | BDL |
| TETRACHLOROETHYLENE | - | 13.0 | BDL | 17.0 | BDL | 12.0 | BDL | 15.0 | BDL | 19.0 |
| TOLUENE | - | BDL | 3.9 | BDL | 4.3 | 1.1 | 1.8 | BDL | 2.3 | BDL |
| trans-1,2-DICHLOROETHYLENE | - | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| TRICHLOROETHYLENE | - | 4.1 | BDL | 4.4 | BDL | BDL | BDL | 4.2 | BDL | 4.4 |
| VINYL CHLORIDE | - | 2.7 | BDL | BDL | BDL | 3.7 | BDL | 2.2 | BDL | 2.6 |
| **TOTAL VOCs** | 0.0 | 71.3 | 1218.5 | 48.5 | 761.1 | 78.3 | 612.0 | 64.4 | 653.4 | 64.1 |
| 2-METHYLNAPHTHALENE | - | BDL | 17.0 | BDL | 15.0 | BDL | 13.0 | BDL | 14.0 | BDL |
| BIS(2-ETHLHEXYL)PHTHALATE | - | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 10.0 | BDL |
| BUTYL BENZYL PHTHALATE | - | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| DIETHYL PHTHALATE | - | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| DIMETHYL PHTHALATE | - | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| DI-N-BUTYL PHTHALATE | - | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| DI-N-OCTYL PHTHALATE | - | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| FLUORENE | - | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| NAPHTHALENE | - | BDL | 20.0 | BDL | 17.0 | BDL | 16.0 | BDL | 15.0 | BDL |
| PHENANTHRENE | - | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| PYRENE | - | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| **TOTAL SEMI-VOLs** | 0.0 | 0.0 | 37.0 | 0.0 | 32.0 | 0.0 | 29.0 | 0.0 | 39.0 | 0.0 |
| ALUMINUM, TOTAL | - | 0.003 | 0.033 | 0.009 | 0.044 | 0.007 | BDL | BDL | 0.015 | 0.012 |
| ARSENIC, TOTAL | - | BDL | 0.047 | BDL | 0.044 | BDL | 0.039 | BDL | 0.038 | BDL |
| CHROMIUM, TOTAL | - | 0.001 | BDL | 0.001 | BDL | BDL | BDL | BDL | 0.001 | BDL |
| IRON, TOTAL | - | 0.049 | 28.800 | 0.230 | 25.700 | 0.197 | 23.300 | 0.239 | 20.900 | 0.217 |
| MANGANESE, TOTAL | - | 0.443 | 2.850 | 0.079 | 3.250 | 0.077 | 3.510 | 0.080 | 3.460 | 0.073 |
| NICKEL, TOTAL | - | 0.001 | 0.006 | 0.006 | 0.005 | 0.004 | 0.007 | 0.005 | 0.007 | 0.005 |
| SUM IRON & MANGANESE | 0.000 | 0.492 | 31.650 | 0.309 | 28.950 | 0.274 | 26.810 | 0.319 | 24.360 | 0.290 |

Volatile organic units - µ g/l
Metal units - m g/l
BDL- Below Detection Limit
NA- Not Analyzed
LA- Lab Artifact

# NASSAU COUNTY FIREMAN'S TRAINING CENTER
# GROUNDWATER REMEDIATION FACILITY
# MONTHLY INFLUENT MONITORING REPORT NOVEMBER 2006

| INFLUENT PARAMETER | WEEK 1 11/06/06 | | WEEK 2 11/13/06 | | WEEK 3 11/20/06 | | WEEK 4 11/27/06 | |
|---|---|---|---|---|---|---|---|---|
| | ONSITE SP-1B | OFFSITE SP-1A | ONSITE SP-1B | OFFSITE SP-1A | ONSITE SP-1B | OFFSITE SP-1A | ONSITE SP-1B | OFFSITE SP-1A |
| FLOW, DAILY AVG (GPD) | 163267 | 833550 | 161443 | 824329 | 166457 | 825014 | 165271 | 823057 |
| FLOW, DAILY MAX (GPD) | 164167 | 840500 | 167900 | 858300 | 168700 | 830333 | 168000 | 824900 |
| 1,1,1-TRICHLOROETHANE | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 1,1-DICHLOROETHANE | BDL | BDL | BDL | BDL | BDL | 2.2 | BDL | 1.8 |
| 1,1-DICHLOROETHENE | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 1,2,4,5-TETRAMETHYLBENZENE | 23.0 | BDL | BDL | BDL | 14.0 | BDL | 35.0 | BDL |
| 1,2,4-TRICHLOROBENZENE | 140.0 | BDL | BDL | BDL | 100.0 | BDL | 94.0 | BDL |
| 1,2-DICHLOROETHANE | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 1,3,5-TRIMETHYLBENZENE | 155.0 | BDL | BDL | BDL | 44.0 | BDL | 41.0 | BDL |
| 1,3-DICHLOROBENZENE | BDL | BDL | BDL | BDL | 1.1 | BDL | BDL | BDL |
| 1,4-DICHLOROBENZENE | BDL | BDL | BDL | BDL | 1.1 | BDL | BDL | BDL |
| 2-CHLOROTOLUENE | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 2-HEXANONE | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 4-CHLOROTOLUENE | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 4-ISOPROPYLTOLUENE | BDL | BDL | BDL | BDL | 2.8 | BDL | 2.0 | BDL |
| ACETONE | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| BENZENE | BDL | 6.3 | BDL | 7.2 | BDL | 6.0 | BDL | 4.7 |
| CHLORODIFLUOROMETHANE | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| CHLOROBENZENE | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| cis-1,2-DICHLOROETHYLENE | BDL | 24.0 | BDL | 28.0 | BDL | 26.0 | BDL | 15.0 |
| DIBROMOCHLOROMETHANE | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| DICHLOROBROMOMETHANE | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| DICHLORODIFLUOROMETHANE | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| ETHYLBENZENE | 27.0 | BDL | BDL | BDL | 25.0 | BDL | 22.0 | BDL |
| ISOPROPYLBENZENE | 2.0 | BDL | BDL | BDL | 2.0 | BDL | 1.9 | BDL |
| m,p-XYLENE | 150.0 | BDL | BDL | BDL | 120.0 | BDL | 100.0 | BDL |
| METHYL ETHYL KEYTONE | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| METHYL tert-BUTYL ETHER | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| METHYLENE CHLORIDE | LA | LA | LA | LA | LA | LA | LA | LA |
| NAPHTHALENE | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| n-BUTYLBENZENE | BDL | BDL | BDL | BDL | BDL | BDL | 6.0 | BDL |
| n-PROPYLBENZENE | 5.3 | BDL | BDL | BDL | 5.3 | BDL | 3.8 | BDL |
| o-XYLENE | 34.0 | BDL | BDL | BDL | 34.0 | BDL | 28.0 | BDL |
| p-DIETHYLBENZENE | 47.0 | BDL | BDL | BDL | 30.0 | BDL | 20.0 | BDL |
| p-ETHYLTOLUENE | 97.0 | BDL | BDL | BDL | 85.0 | BDL | 73.0 | BDL |
| sec-BUTYLBENZENE | BDL | BDL | BDL | BDL | BDL | BDL | 72.0 | BDL |
| tert-BUTYL BENZENE | 13.0 | BDL | BDL | BDL | BDL | BDL | 9.7 | BDL |
| TETRACHLOROETHYLENE | BDL | 14.0 | 37.0 | 16.0 | BDL | 13.0 | BDL | 13.0 |
| TOLUENE | BDL | BDL | BDL | BDL | BDL | BDL | 1.2 | BDL |
| trans-1,2-DICHLOROETHYLENE | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| TRICHLOROETHYLENE | BDL | BDL | BDL | 3.6 | BDL | 3.4 | BDL | 3.0 |
| VINYL CHLORIDE | BDL | BDL | BDL | BDL | BDL | 1.5 | BDL | 1.4 |
| **TOTAL VOCs** | 693.3 | 44.3 | 37.0 | 54.8 | 464.3 | 52.1 | 509.6 | 38.9 |
| 2-METHYLNAPHTHALENE | 6.4 | BDL | 5.8 | BDL | 8.4 | BDL | BDL | BDL |
| BIS(2-ETHLHEXYL)PHTHALATE | 7.7 | BDL | BDL | BDL | BDL | BDL | BDL | 30.0 |
| BUTYL BENZYL PHTHALATE | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| DIETHYL PHTHALATE | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| DIMETHYL PHTHALATE | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| DI-N-BUTYL PHTHALATE | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| DI-N-OCTYL PHTHALATE | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| FLUORENE | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| NAPHTHALENE | 8.7 | BDL | 6.9 | BDL | 10.0 | BDL | BDL | BDL |
| PHENANTHRENE | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| PYRENE | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| **TOTAL SEMI-VOLs** | 22.8 | 0.0 | 12.7 | 0.0 | 18.4 | 0.0 | 0.0 | 30.0 |
| ALUMINUM, TOTAL | 0.007 | 0.013 | 0.004 | 0.006 | 0.006 | 0.011 | 0.010 | 0.009 |
| ARSENIC, TOTAL | 0.035 | BDL | 0.031 | BDL | 0.042 | BDL | 0.033 | BDL |
| CHROMIUM, TOTAL | BDL | 0.001 | 0.001 | BDL | BDL | BDL | 0.001 | BDL |
| IRON, TOTAL | 20.900 | 0.247 | 19.600 | 0.253 | 18.500 | 0.897 | 18.400 | 0.265 |
| MANGANESE, TOTAL | 3.670 | 0.076 | 3.680 | 0.076 | 3.860 | 0.083 | 4.040 | 0.079 |
| NICKEL, TOTAL | 0.008 | 0.004 | 0.002 | 0.005 | 0.007 | 0.005 | 0.007 | 0.005 |
| SUM IRON & MANGANESE | 24.570 | 0.323 | 23.280 | 0.329 | 22.360 | 0.980 | 22.440 | 0.344 |

Volatile organic units - µ g/l
Metal units - m g/l

BDL- Below Detection Limit
NA- Not Analyzed

LA- Lab Artifact

# NASSAU COUNTY FIREMAN'S TRAINING CENTER
# GROUNDWATER REMEDIATION FACILITY
# MONTHLY INFLUENT MONITORING REPORT DECEMBER 2006

| INFLUENT PARAMETER | WEEK 1 12/05/06 | | WEEK 2 12/11/06 | | WEEK 3 12/18/06 | | WEEK 4 12/26/06 | |
|---|---|---|---|---|---|---|---|---|
| | ONSITE SP-1B | OFFSITE SP-1A | ONSITE SP-1B | OFFSITE SP-1A | ONSITE SP-1B | OFFSITE SP-1A | ONSITE SP-1B | OFFSITE SP-1A |
| FLOW, DAILY AVG (GPD) | 159788 | 819050 | 166917 | 846983 | 167514 | 858386 | 169563 | 859738 |
| FLOW, DAILY MAX (GPD) | 166600 | 842800 | 168100 | 858100 | 171800 | 862600 | 171000 | 862900 |
| 1,1,1-TRICHLOROETHANE | BDL | 1.1 | BDL | BDL | BDL | BDL | BDL | 2.2 |
| 1,1-DICHLOROETHANE | BDL | 1.8 | BDL | BDL | BDL | 2.3 | BDL | BDL |
| 1,1-DICHLOROETHENE | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 1,2,4,5-TETRAMETHYLBENZENE | 36.0 | BDL | 72.0 | BDL | 53.0 | 59.0 | 20.0 | BDL |
| 1,2,4-TRICHLOROBENZENE | 120.0 | BDL | BDL | BDL | 130.0 | 2.1 | 120.0 | BDL |
| 1,2-DICHLOROETHANE | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 1,3,5-TRIMETHYLBENZENE | 47.0 | BDL | BDL | BDL | 58.0 | BDL | 45.0 | BDL |
| 1,3-DICHLOROBENZENE | BDL | BDL | 2.4 | BDL | BDL | BDL | BDL | BDL |
| 1,4-DICHLOROBENZENE | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 2-CHLOROTOLUENE | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 2-HEXANONE | BDL | BDL | 2.9 | BDL | BDL | BDL | BDL | BDL |
| 4-CHLOROTOLUENE | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 4-ISOPROPYLTOLUENE | 2.2 | BDL | 5.4 | BDL | 4.1 | 1.9 | 2.8 | BDL |
| ACETONE | BDL | BDL | 37.0 | BDL | BDL | BDL | BDL | BDL |
| BENZENE | BDL | 5.0 | BDL | 3.6 | BDL | 4.8 | BDL | 3.6 |
| CHLORODIFLUOROMETHANE | BDL | B | BDL | BDL | BDL | BDL | BDL | BDL |
| CHLOROBENZENE | BDL | BDL | BDL | BDL | BDL | BDL | 2.2 | BDL |
| cis-1,2-DICHLOROETHYLENE | BDL | 17.0 | BDL | 12.0 | BDL | 22.0 | BDL | 18.0 |
| DIBROMOCHLOROMETHANE | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| DICHLOROBROMOMETHANE | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| DICHLORODIFLUOROMETHANE | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| ETHYLBENZENE | 25.0 | BDL | 58.0 | BDL | 37.0 | BDL | 28.0 | BDL |
| ISOPROPYLBENZENE | BDL | BDL | BDL | BDL | 4.5 | BDL | 3.0 | BDL |
| m,p-XYLENE | 120.0 | BDL | 230.0 | BDL | 140.0 | BDL | 110.0 | BDL |
| METHYL ETHYL KEYTONE | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| METHYL tert-BUTYL ETHER | BDL | BDL | BDL | BDL | 1.8 | BDL | BDL | BDL |
| METHYLENE CHLORIDE | LA | LA | 19.0 | BDL | LA | LA | LA | BDL |
| NAPHTHALENE | BDL | BDL | 26.0 | BDL | 9.5 | BDL | BDL | BDL |
| n-BUTYLBENZENE | BDL | BDL | BDL | BDL | 9.0 | BDL | 3.6 | BDL |
| n-PROPYLBENZENE | BDL | BDL | 9.9 | BDL | 9.4 | BDL | 7.4 | BDL |
| o-XYLENE | 29.0 | BDL | 63.0 | BDL | 38.0 | BDL | 26.0 | BDL |
| p-DIETHYLBENZENE | 19.0 | BDL | BDL | BDL | 60.0 | 4.2 | 28.0 | BDL |
| p-ETHYLTOLUENE | 86.0 | BDL | 170.0 | BDL | 99.0 | BDL | 81.0 | BDL |
| sec-BUTYLBENZENE | BDL | BDL | 170.0 | BDL | 80.0 | BDL | BDL | BDL |
| tert-BUTYL BENZENE | BDL | BDL | BDL | BDL | 13.0 | BDL | BDL | BDL |
| TETRACHLOROETHYLENE | BDL | 12.0 | BDL | 12.0 | BDL | 14.0 | BDL | 18.0 |
| TOLUENE | BDL | BDL | 8.7 | BDL | BDL | BDL | BDL | BDL |
| trans-1,2-DICHLOROETHYLENE | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| TRICHLOROETHYLENE | BDL | 3.1 | BDL | 3.4 | BDL | 3.6 | BDL | BDL |
| VINYL CHLORIDE | BDL | 1.8 | BDL | BDL | BDL | BDL | BDL | BDL |
| **TOTAL VOCs** | 484.2 | 41.8 | 874.3 | 31.0 | 746.3 | 113.9 | 477.0 | 41.8 |
| 2-METHYLNAPHTHALENE | BDL | BDL | BDL | BDL | BDL | BDL | 7.2 | BDL |
| BIS(2-ETHLHEXYL)PHTHALATE | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| BUTYL BENZYL PHTHALATE | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| DIETHYL PHTHALATE | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| DIMETHYL PHTHALATE | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| DI-N-BUTYL PHTHALATE | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| DI-N-OCTYL PHTHALATE | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| FLUORENE | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| NAPHTHALENE | 6.3 | BDL | 6.5 | BDL | 6.2 | BDL | 9.5 | BDL |
| PHENANTHRENE | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| PYRENE | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| **TOTAL SEMI-VOLs** | 6.3 | 0.0 | 6.5 | 0.0 | 6.2 | 0.0 | 16.7 | 0.0 |
| ALUMINUM, TOTAL | 0.004 | 0.007 | 0.010 | 0.018 | 0.007 | 0.017 | 0.005 | 0.277 |
| ARSENIC, TOTAL | 0.035 | BDL | 0.019 | BDL | 0.037 | BDL | 0.026 | BDL |
| CHROMIUM, TOTAL | BDL | BDL | 0.001 | 0.002 | 0.001 | 0.002 | BDL | BDL |
| IRON, TOTAL | 16.300 | 0.240 | 15.000 | 0.395 | 15.300 | 0.340 | 13.900 | 0.381 |
| MANGANESE, TOTAL | 3.890 | 0.075 | 3.800 | 0.061 | 3.990 | 0.061 | 3.770 | 0.061 |
| NICKEL, TOTAL | 0.010 | 0.006 | 0.007 | 0.004 | 0.007 | 0.005 | 0.007 | 0.005 |
| SUM IRON & MANGANESE | 20.190 | 0.315 | 18.800 | 0.456 | 19.290 | 0.401 | 17.677 | 0.447 |

Volatile organic units - µ g/l BDL- Below Detection Limit LA- Lab Artifact

Metal units - m g/l NA- Not Analyzed

# APPENDIX C

MONTHLY EFFLUENT MONITORING REPORTS

2006

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

## JANUARY 2006

| EFFLUENT PARAMETER | DISCHARGE LIMITATIONS | UNITS | COMP'T MDL | WEEK 1 1/3/06 | WEEK 2 01/10/06 | WEEK 3 01/17/06 | WEEK 4 01/23/06 | WEEK 5 01/31/06 |
|---|---|---|---|---|---|---|---|---|
| FLOW, DAILY AVG | MONITOR | GPD | NA | * | 181950 | 202771 | 112200 | 232425 |
| FLOW, DAILY MAX | MONITOR | GPD | NA | * | 345800 | 349600 | 343100 | 352300 |
| 1,1,1-TRICHLOROETHANE | 5 | µ g/l | 1.4 | | BDL | BDL | BDL | BDL |
| 1,1-DICHLOROETHANE | 5 | µ g/l | 1.1 | | BDL | BDL | BDL | BDL |
| 1,1-DICHLOROETHENE | 5 | µ g/l | 1.2 | | BDL | BDL | BDL | BDL |
| 1,2(CIS)-DICHLOROETHENE | 5 | µ g/l | 1.0 | | BDL | BDL | BDL | BDL |
| 1,2(TRANS)-DICHLOROETHENE | 5 | µ g/l | 1.1 | | BDL | BDL | BDL | BDL |
| ACETONE | 50 | µ g/l | 10.0 | | BDL | BDL | BDL | BDL |
| BENZENE | 0.7 | µ g/l | 0.7 | | BDL | BDL | BDL | BDL |
| CHLOROFORM | 7 | µ g/l | 1.1 | | BDL | BDL | BDL | BDL |
| DIBROMOCHLOROMETHANE | 50 | µ g/l | 0.7 | | BDL | BDL | BDL | BDL |
| DICHLOROBROMOMETHANE | 50 | µ g/l | 0.9 | | BDL | BDL | BDL | BDL |
| m,p-XYLENE | 5 | µ g/l | 2.4 | | BDL | BDL | BDL | BDL |
| METHYL ETHYL KEYTONE | 50 | µ g/l | 10.0 | | BDL | BDL | BDL | BDL |
| NAPHTHALENE | 10 | µ g/l | 1.7 | | BDL | BDL | BDL | BDL |
| o-XYLENE | 5 | µ g/l | 1.3 | | 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 |
| TRICHLOROETHENE | 10 | µ g/l | 1.7 | | BDL | BDL | BDL | BDL |
| VINYL CHLORIDE | 5 | µ g/l | 1.1 | | BDL | BDL | BDL | BDL |
| TOTAL VOCs | | µ g/l | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| BIS(2-ETHLHEXYL)PHTHALATE | 4.3 | µ g/l | 1.0 | | BDL | BDL | BDL | BDL |
| DIETHYL PHTHALATE | 50 | µ g/l | 1.0 | | BDL | BDL | BDL | BDL |
| DIMETHYL PHTHALATE | 50 | µ g/l | 1.0 | | BDL | BDL | BDL | BDL |
| DI-N-OCTYL PHTHALATE | 50 | µ g/l | 1.0 | | BDL | BDL | BDL | BDL |
| FLUORENE | 50 | µ g/l | 1.0 | | BDL | BDL | BDL | BDL |
| PHENANTHRENE | 50 | µ g/l | 1.0 | | BDL | BDL | BDL | BDL |
| PYRENE | 50 | µ g/l | 1.0 | | BDL | BDL | BDL | BDL |
| IRON, TOTAL | 600 | µ g/l | 2.0 | | 39.0 | 84.0 | 19.0 | 31.0 |
| MANGANESE, TOTAL | 600 | µ g/l | 1.0 | | 34.0 | 31.0 | 21.0 | 19.0 |
| SUM IRON & MANGANESE | 1000 | µ g/l | NA | 0.0 | 73.0 | 115.0 | 40.0 | 50.0 |
| ALUMINUM, TOTAL | 2000 | µ g/l | 40.0 | | BDL | BDL | BDL | BDL |
| ARSENIC, TOTAL | 50 | µ g/l | 48.0 | | BDL | BDL | BDL | BDL |
| CHROMIUM, TOTAL | 50 | µ g/l | 2.0 | | BDL | 3.0 | BDL | 1.0 |
| NICKEL, TOTAL | 2000 | µ g/l | 5.0 | | 3.0 | 7.0 | 3.0 | 2.0 |

# NASSAU COUNTY FIREMAN'S TRAINING CENTER
# GROUNDWATER REMEDIATION FACILITY FEBRUARY 2006
# MONTHLY EFFLUENT MONITORING REPORT
# OUTFALL 001

| EFFLUENT PARAMETER | DISCHARGE LIMITATIONS | UNITS | COMP'T MDL | WEEK 1 2/7/06 | WEEK 2 02/14/06 | WEEK 3 02/21/06 | WEEK 4 02/28/06 |
|---|---|---|---|---|---|---|---|
| FLOW, DAILY AVG | MONITOR | GPD | NA | 247029 | 253686 | 347186 | 347229 |
| FLOW, DAILY MAX | MONITOR | GPD | NA | 353200 | 376800 | 349650 | 349400 |
| 1,1,1-TRICHLOROETHANE | 5 | µ g/l | 1.4 | BDL | BDL | BDL | BDL |
| 1,1-DICHLOROETHANE | 5 | µ g/l | 1.1 | BDL | BDL | BDL | BDL |
| 1,1-DICHLOROETHENE | 5 | µ g/l | 1.2 | BDL | BDL | BDL | BDL |
| 1,2(CIS)-DICHLOROETHENE | 5 | µ g/l | 1.0 | BDL | BDL | BDL | BDL |
| 1,2(TRANS)-DICHLOROETHENE | 5 | µ g/l | 1.1 | BDL | BDL | BDL | BDL |
| ACETONE | 50 | µ g/l | 10.0 | BDL | BDL | BDL | BDL |
| BENZENE | 0.7 | µ g/l | 0.7 | BDL | BDL | BDL | BDL |
| CHLOROFORM | 7 | µ g/l | 1.1 | BDL | BDL | BDL | BDL |
| DIBROMOCHLOROMETHANE | 50 | µ g/l | 0.7 | BDL | BDL | BDL | BDL |
| DICHLOROBROMOMETHANE | 50 | µ g/l | 0.9 | BDL | BDL | BDL | BDL |
| m,p-XYLENE | 5 | µ g/l | 2.4 | BDL | BDL | BDL | BDL |
| METHYL ETHYL KEYTONE | 50 | µ g/l | 10.0 | BDL | BDL | BDL | BDL |
| NAPHTHALENE | 10 | µ g/l | 1.7 | BDL | BDL | BDL | BDL |
| o-XYLENE | 5 | µ g/l | 1.3 | 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 |
| TRICHLOROETHENE | 10 | µ g/l | 1.7 | BDL | BDL | BDL | BDL |
| VINYL CHLORIDE | 5 | µ g/l | 1.1 | BDL | BDL | BDL | BDL |
| TOTAL VOCs | | µ g/l | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| BIS(2-ETHLHEXYL)PHTHALATE | 4.3 | µ g/l | 1.0 | BDL | BDL | BDL | BDL |
| DIETHYL PHTHALATE | 50 | µ g/l | 1.0 | BDL | BDL | BDL | BDL |
| DIMETHYL PHTHALATE | 50 | µ g/l | 1.0 | BDL | BDL | BDL | BDL |
| DI-N-OCTYL PHTHALATE | 50 | µ g/l | 1.0 | BDL | BDL | BDL | BDL |
| FLUORENE | 50 | µ g/l | 1.0 | BDL | BDL | BDL | BDL |
| PHENANTHRENE | 50 | µ g/l | 1.0 | BDL | BDL | BDL | BDL |
| PYRENE | 50 | µ g/l | 1.0 | BDL | BDL | BDL | BDL |
| IRON, TOTAL | 600 | µ g/l | 2.0 | 30.0 | 20.0 | 18.0 | 40.0 |
| MANGANESE, TOTAL | 600 | µ g/l | 1.0 | 17.0 | 18.0 | 17.0 | 23.0 |
| SUM IRON & MANGANESE | 1000 | µ g/l | NA | 47.0 | 38.0 | 35.0 | 63.0 |
| NICKEL, TOTAL | 2000 | µ g/l | 5.0 | 1.0 | 1.0 | BDL | 2.0 |
| ALUMINUM, TOTAL | 2000 | µ g/l | 40.0 | 9.0 | 8.0 | BDL | 67.0 |
| ARSENIC, TOTAL | 50 | µ g/l | 48.0 | BDL | BDL | BDL | BDL |
| CHROMIUM, TOTAL | 50 | µ g/l | 2.0 | 2.0 | BDL | BDL | 2.0 |

# NASSAU COUNTY FIREMAN'S TRAINING CENTER
# GROUNDWATER REMEDIATION FACILITY — MARCH 2006
# MONTHLY EFFLUENT MONITORING REPORT
# OUTFALL 001

| EFFLUENT PARAMETER | DISCHARGE LIMITATIONS | UNITS | COMP'T MDL | WEEK 1 3/7/06 | WEEK 2 03/14/06 | WEEK 3 03/21/06 | WEEK 4 03/28/06 |
|---|---|---|---|---|---|---|---|
| FLOW, DAILY AVG | MONITOR | GPD | NA | 344771 | 342157 | 341129 | 338586 |
| FLOW, DAILY MAX | MONITOR | GPD | NA | 347400 | 349000 | 345000 | 345900 |
| 1,1,1-TRICHLOROETHANE | 5 | µ g/l | 1.4 | BDL | BDL | BDL | BDL |
| 1,1-DICHLOROETHANE | 5 | µ g/l | 1.1 | BDL | BDL | BDL | BDL |
| 1,1-DICHLOROETHENE | 5 | µ g/l | 1.2 | BDL | BDL | BDL | BDL |
| 1,2(CIS)-DICHLOROETHENE | 5 | µ g/l | 1.0 | BDL | BDL | BDL | BDL |
| 1,2(TRANS)-DICHLOROETHENE | 5 | µ g/l | 1.1 | BDL | BDL | BDL | BDL |
| ACETONE | 50 | µ g/l | 10.0 | BDL | BDL | BDL | BDL |
| BENZENE | 0.7 | µ g/l | 0.7 | BDL | BDL | BDL | BDL |
| CHLOROFORM | 7 | µ g/l | 1.1 | BDL | BDL | BDL | BDL |
| DIBROMOCHLOROMETHANE | 50 | µ g/l | 0.7 | BDL | BDL | BDL | BDL |
| DICHLOROBROMOMETHANE | 50 | µ g/l | 0.9 | BDL | BDL | BDL | BDL |
| m,p-XYLENE | 5 | µ g/l | 2.4 | BDL | BDL | BDL | BDL |
| METHYL ETHYL KEYTONE | 50 | µ g/l | 10.0 | BDL | BDL | BDL | BDL |
| NAPHTHALENE | 10 | µ g/l | 1.7 | BDL | BDL | BDL | BDL |
| o-XYLENE | 5 | µ g/l | 1.3 | 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 |
| TRICHLOROETHENE | 10 | µ g/l | 1.7 | BDL | BDL | BDL | BDL |
| VINYL CHLORIDE | 5 | µ g/l | 1.1 | BDL | BDL | BDL | BDL |
| TOTAL VOCs | | µ g/l | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| BIS(2-ETHLHEXYL)PHTHALATE | 4.3 | µ g/l | 1.0 | BDL | BDL | BDL | BDL |
| DIETHYL PHTHALATE | 50 | µ g/l | 1.0 | BDL | BDL | BDL | BDL |
| DIMETHYL PHTHALATE | 50 | µ g/l | 1.0 | BDL | BDL | BDL | BDL |
| DI-N-OCTYL PHTHALATE | 50 | µ g/l | 1.0 | BDL | BDL | BDL | BDL |
| FLUORENE | 50 | µ g/l | 1.0 | BDL | BDL | BDL | BDL |
| PHENANTHRENE | 50 | µ g/l | 1.0 | BDL | BDL | BDL | BDL |
| PYRENE | 50 | µ g/l | 1.0 | BDL | BDL | BDL | BDL |
| IRON, TOTAL | 600 | µ g/l | 2.0 | 17.0 | 23.0 | 93.0 | 20.0 |
| MANGANESE, TOTAL | 600 | µ g/l | 1.0 | 17.0 | 19.0 | 17.0 | 17.0 |
| SUM IRON & MANGANESE | 1000 | µ g/l | NA | 34.0 | 42.0 | 110.0 | 37.0 |
| ALUMINUM, TOTAL | 2000 | µ g/l | 40.0 | 1.0 | 3.0 | 7.0 | 8.0 |
| ARSENIC, TOTAL | 50 | µ g/l | 48.0 | BDL | BDL | BDL | BDL |
| CHROMIUM, TOTAL | 50 | µ g/l | 2.0 | BDL | BDL | BDL | BDL |
| NICKEL, TOTAL | 2000 | µ g/l | 5.0 | 2.0 | 2.0 | 3.0 | 3.0 |

# NASSAU COUNTY FIREMAN'S TRAINING CENTER
# GROUNDWATER REMEDIATION FACILITY — APRIL 2006
# MONTHLY EFFLUENT MONITORING REPORT
# OUTFALL 001

| EFFLUENT PARAMETER | DISCHARGE LIMITATIONS | UNITS | COMP'T MDL | WEEK 1 4/4/06 | WEEK 2 04/11/06 | WEEK 3 04/18/06 | WEEK 4 04/25/06 |
|---|---|---|---|---|---|---|---|
| FLOW, DAILY AVG | MONITOR | GPD | NA | 297071 | 335000 | 337414 | 327183 |
| FLOW, DAILY MAX | MONITOR | GPD | NA | 337400 | 342200 | 344800 | 334600 |
| 1,1,1-TRICHLOROETHANE | 5 | µ g/l | 1.4 | BDL | BDL | BDL | BDL |
| 1,1-DICHLOROETHANE | 5 | µ g/l | 1.1 | BDL | BDL | BDL | BDL |
| 1,1-DICHLOROETHENE | 5 | µ g/l | 1.2 | BDL | BDL | BDL | BDL |
| 1,2(CIS)-DICHLOROETHENE | 5 | µ g/l | 1.0 | BDL | BDL | BDL | BDL |
| 1,2(TRANS)-DICHLOROETHENE | 5 | µ g/l | 1.1 | BDL | BDL | BDL | BDL |
| ACETONE | 50 | µ g/l | 10.0 | BDL | BDL | BDL | BDL |
| BENZENE | 0.7 | µ g/l | 0.7 | BDL | BDL | BDL | BDL |
| CHLOROFORM | 7 | µ g/l | 1.1 | BDL | BDL | BDL | BDL |
| DIBROMOCHLOROMETHANE | 50 | µ g/l | 0.7 | BDL | BDL | BDL | BDL |
| DICHLOROBROMOMETHANE | 50 | µ g/l | 0.9 | BDL | BDL | BDL | BDL |
| m,p-XYLENE | 5 | µ g/l | 2.4 | BDL | BDL | BDL | BDL |
| METHYL ETHYL KEYTONE | 50 | µ g/l | 10.0 | BDL | BDL | BDL | BDL |
| NAPHTHALENE | 10 | µ g/l | 1.7 | BDL | BDL | BDL | BDL |
| o-XYLENE | 5 | µ g/l | 1.3 | 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 |
| TRICHLOROETHENE | 10 | µ g/l | 1.7 | BDL | BDL | BDL | BDL |
| VINYL CHLORIDE | 5 | µ g/l | 1.1 | BDL | BDL | BDL | BDL |
| TOTAL VOCs | | µ g/l | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| BIS(2-ETHLHEXYL)PHTHALATE | 4.3 | µ g/l | 1.0 | BDL | BDL | BDL | BDL |
| DIETHYL PHTHALATE | 50 | µ g/l | 1.0 | BDL | BDL | BDL | BDL |
| DIMETHYL PHTHALATE | 50 | µ g/l | 1.0 | BDL | BDL | BDL | BDL |
| DI-N-OCTYL PHTHALATE | 50 | µ g/l | 1.0 | BDL | BDL | BDL | BDL |
| FLUORENE | 50 | µ g/l | 1.0 | BDL | BDL | BDL | BDL |
| PHENANTHRENE | 50 | µ g/l | 1.0 | BDL | BDL | BDL | BDL |
| PYRENE | 50 | µ g/l | 1.0 | BDL | BDL | BDL | BDL |
| IRON, TOTAL | 600 | µ g/l | 2.0 | 33.0 | 40.0 | 29.0 | 23.0 |
| MANGANESE, TOTAL | 600 | µ g/l | 1.0 | 19.0 | 37.0 | 25.0 | 22.0 |
| SUM IRON & MANGANESE | 1000 | µ g/l | NA | 52.0 | 77.0 | 54.0 | 45.0 |
| NICKEL, TOTAL | 2000 | µ g/l | 5.0 | 2.0 | 2.0 | 4.0 | 3.0 |
| ALUMINUM, TOTAL | 2000 | µ g/l | 40.0 | 16.0 | BDL | BDL | 17.0 |
| ARSENIC, TOTAL | 50 | µ g/l | 48.0 | 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 — MAY 2006
# MONTHLY EFFLUENT MONITORING REPORT
# OUTFALL 001

| EFFLUENT PARAMETER | DISCHARGE LIMITATIONS | UNITS | COMP'T MDL | WEEK 1 5/2/06 | WEEK 2 05/09/06 | WEEK 3 05/16/06 | WEEK 4 05/23/06 |
|---|---|---|---|---|---|---|---|
| FLOW, DAILY AVG | MONITOR | GPD | NA | 124713 | 315814 | 337200 | 335457 |
| FLOW, DAILY MAX | MONITOR | GPD | NA | 343000 | 340000 | 345200 | 336400 |
| 1,1,1-TRICHLOROETHANE | 5 | µ g/l | 1.4 | BDL | BDL | BDL | BDL |
| 1,1-DICHLOROETHANE | 5 | µ g/l | 1.1 | BDL | BDL | BDL | BDL |
| 1,1-DICHLOROETHENE | 5 | µ g/l | 1.2 | BDL | BDL | BDL | BDL |
| 1,2(CIS)-DICHLOROETHENE | 5 | µ g/l | 1.0 | BDL | BDL | BDL | BDL |
| 1,2(TRANS)-DICHLOROETHENE | 5 | µ g/l | 1.1 | BDL | BDL | BDL | BDL |
| ACETONE | 50 | µ g/l | 10.0 | BDL | BDL | BDL | BDL |
| BENZENE | 0.7 | µ g/l | 0.7 | BDL | BDL | BDL | BDL |
| CHLOROFORM | 7 | µ g/l | 1.1 | BDL | BDL | BDL | BDL |
| DIBROMOCHLOROMETHANE | 50 | µ g/l | 0.7 | BDL | BDL | BDL | BDL |
| DICHLOROBROMOMETHANE | 50 | µ g/l | 0.9 | BDL | BDL | BDL | BDL |
| m,p-XYLENE | 5 | µ g/l | 2.4 | BDL | BDL | BDL | BDL |
| METHYL ETHYL KEYTONE | 50 | µ g/l | 10.0 | BDL | BDL | BDL | BDL |
| NAPHTHALENE | 10 | µ g/l | 1.7 | BDL | BDL | BDL | BDL |
| o-XYLENE | 5 | µ g/l | 1.3 | 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 |
| TRICHLOROETHENE | 10 | µ g/l | 1.7 | BDL | BDL | BDL | BDL |
| VINYL CHLORIDE | 5 | µ g/l | 1.1 | BDL | BDL | BDL | BDL |
| TOTAL VOCs | | µ g/l | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| BIS(2-ETHLHEXYL)PHTHALATE | 4.3 | µ g/l | 1.0 | BDL | BDL | BDL | BDL |
| DIETHYL PHTHALATE | 50 | µ g/l | 1.0 | BDL | BDL | BDL | BDL |
| DIMETHYL PHTHALATE | 50 | µ g/l | 1.0 | BDL | BDL | BDL | BDL |
| DI-N-OCTYL PHTHALATE | 50 | µ g/l | 1.0 | BDL | BDL | BDL | BDL |
| FLUORENE | 50 | µ g/l | 1.0 | BDL | BDL | BDL | BDL |
| PHENANTHRENE | 50 | µ g/l | 1.0 | BDL | BDL | BDL | BDL |
| PYRENE | 50 | µ g/l | 1.0 | BDL | BDL | BDL | BDL |
| IRON, TOTAL | 600 | µ g/l | 2.0 | 86.0 | 29.0 | 31.0 | 22.0 |
| MANGANESE, TOTAL | 600 | µ g/l | 1.0 | 41.0 | 21.0 | 28.0 | 20.0 |
| SUM IRON & MANGANESE | 1000 | µ g/l | NA | 127.0 | 50.0 | 59.0 | 42.0 |
| ALUMINUM, TOTAL | 2000 | µ g/l | 40.0 | 5.0 | 3.0 | 18.0 | BDL |
| ARSENIC, TOTAL | 50 | µ g/l | 48.0 | BDL | BDL | BDL | BDL |
| CHROMIUM, TOTAL | 50 | µ g/l | 2.0 | BDL | 1.0 | BDL | BDL |
| NICKEL, TOTAL | 2000 | µ g/l | 5.0 | BDL | 2.0 | 2.0 | 2.0 |

# NASSAU COUNTY FIREMAN'S TRAINING CENTER
# GROUNDWATER REMEDIATION FACILITY — JUNE 2006
# MONTHLY EFFLUENT MONITORING REPORT
# OUTFALL 001

| EFFLUENT PARAMETER | DISCHARGE LIMITATIONS | UNITS | COMP'T MDL | WEEK 1 6/6/06 | WEEK 2 06/13/06 | WEEK 3 06/20/06 | WEEK 4 06/27/06 |
|---|---|---|---|---|---|---|---|
| FLOW, DAILY AVG | MONITOR | GPD | NA | 332300 | 330629 | 324086 | 327471 |
| FLOW, DAILY MAX | MONITOR | GPD | NA | 340700 | 335300 | 336900 | 330600 |
| 1,1,1-TRICHLOROETHANE | 5 | µ g/l | 1.4 | BDL | BDL | BDL | BDL |
| 1,1-DICHLOROETHANE | 5 | µ g/l | 1.1 | BDL | BDL | BDL | BDL |
| 1,1-DICHLOROETHENE | 5 | µ g/l | 1.2 | BDL | BDL | BDL | BDL |
| 1,2(CIS)-DICHLOROETHENE | 5 | µ g/l | 1.0 | BDL | BDL | BDL | BDL |
| 1,2(TRANS)-DICHLOROETHENE | 5 | µ g/l | 1.1 | BDL | BDL | BDL | BDL |
| ACETONE | 50 | µ g/l | 10.0 | BDL | BDL | BDL | BDL |
| BENZENE | 0.7 | µ g/l | 0.7 | BDL | BDL | BDL | BDL |
| CHLOROFORM | 7 | µ g/l | 1.1 | BDL | BDL | BDL | BDL |
| DIBROMOCHLOROMETHANE | 50 | µ g/l | 0.7 | BDL | BDL | BDL | BDL |
| DICHLOROBROMOMETHANE | 50 | µ g/l | 0.9 | BDL | BDL | BDL | BDL |
| m,p-XYLENE | 5 | µ g/l | 2.4 | BDL | BDL | BDL | BDL |
| METHYL ETHYL KEYTONE | 50 | µ g/l | 10.0 | BDL | BDL | BDL | BDL |
| NAPHTHALENE | 10 | µ g/l | 1.7 | BDL | BDL | BDL | BDL |
| o-XYLENE | 5 | µ g/l | 1.3 | 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 |
| TRICHLOROETHENE | 10 | µ g/l | 1.7 | BDL | BDL | BDL | BDL |
| VINYL CHLORIDE | 5 | µ g/l | 1.1 | BDL | BDL | BDL | BDL |
| TOTAL VOCs | | µ g/l | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| BIS(2-ETHLHEXYL)PHTHALATE | 4.3 | µ g/l | 1.0 | BDL | BDL | BDL | BDL |
| DIETHYL PHTHALATE | 50 | µ g/l | 1.0 | BDL | BDL | BDL | BDL |
| DIMETHYL PHTHALATE | 50 | µ g/l | 1.0 | BDL | BDL | BDL | BDL |
| DI-N-OCTYL PHTHALATE | 50 | µ g/l | 1.0 | BDL | BDL | BDL | BDL |
| FLUORENE | 50 | µ g/l | 1.0 | BDL | BDL | BDL | BDL |
| PHENANTHRENE | 50 | µ g/l | 1.0 | BDL | BDL | BDL | BDL |
| PYRENE | 50 | µ g/l | 1.0 | BDL | BDL | BDL | BDL |
| IRON, TOTAL | 600 | µ g/l | 2.0 | 35.0 | 148.0 | 23.0 | 35.0 |
| MANGANESE, TOTAL | 600 | µ g/l | 1.0 | 8.0 | 19.0 | 18.0 | 20.0 |
| SUM IRON & MANGANESE | 1000 | µ g/l | NA | 43.0 | 167.0 | 41.0 | 55.0 |
| ALUMINUM, TOTAL | 2000 | µ g/l | 40.0 | 13.0 | BDL | 3.0 | 5.0 |
| ARSENIC, TOTAL | 50 | µ g/l | 48.0 | BDL | BDL | BDL | BDL |
| CHROMIUM, TOTAL | 50 | µ g/l | 2.0 | 1.0 | 2.0 | 1.0 | BDL |
| NICKEL, TOTAL | 2000 | µ g/l | 5.0 | 2.0 | 1.0 | 1.0 | BDL |

# NASSAU COUNTY FIREMAN'S TRAINING CENTER
# GROUNDWATER REMEDIATION FACILITY — JULY 2006
# MONTHLY EFFLUENT MONITORING REPORT
# OUTFALL 001

| EFFLUENT PARAMETER | DISCHARGE LIMITATIONS | UNITS | COMP'T MDL | WEEK 1 7/5/06 | WEEK 2 * | WEEK 3 07/18/06 | WEEK 4 07/25/06 |
|---|---|---|---|---|---|---|---|
| FLOW, DAILY AVG | MONITOR | GPD | NA | 332300 | | 83372 | 335300 |
| FLOW, DAILY MAX | MONITOR | GPD | NA | 340700 | | 329200 | 339300 |
| 1,1,1-TRICHLOROETHANE | 5 | µ g/l | 1.4 | BDL | | BDL | BDL |
| 1,1-DICHLOROETHANE | 5 | µ g/l | 1.1 | BDL | | BDL | BDL |
| 1,1-DICHLOROETHENE | 5 | µ g/l | 1.2 | BDL | | BDL | BDL |
| 1,2(CIS)-DICHLOROETHENE | 5 | µ g/l | 1.0 | BDL | | BDL | BDL |
| 1,2(TRANS)-DICHLOROETHENE | 5 | µ g/l | 1.1 | BDL | | BDL | BDL |
| ACETONE | 50 | µ g/l | 10.0 | BDL | | BDL | BDL |
| BENZENE | 0.7 | µ g/l | 0.7 | BDL | | BDL | BDL |
| CHLOROFORM | 7 | µ g/l | 1.1 | BDL | | BDL | BDL |
| DIBROMOCHLOROMETHANE | 50 | µ g/l | 0.7 | BDL | | BDL | BDL |
| DICHLOROBROMOMETHANE | 50 | µ g/l | 0.9 | BDL | | BDL | BDL |
| m,p-XYLENE | 5 | µ g/l | 2.4 | BDL | | BDL | BDL |
| METHYL ETHYL KEYTONE | 50 | µ g/l | 10.0 | BDL | | BDL | BDL |
| NAPHTHALENE | 10 | µ g/l | 1.7 | BDL | | BDL | BDL |
| o-XYLENE | 5 | µ g/l | 1.3 | BDL | | BDL | BDL |
| TETRACHLOROETHENE | 5 | µ g/l | 1.2 | BDL | | BDL | BDL |
| TOLUENE | 5 | µ g/l | 1.2 | BDL | | BDL | BDL |
| TRICHLOROETHENE | 10 | µ g/l | 1.7 | BDL | | BDL | BDL |
| VINYL CHLORIDE | 5 | µ g/l | 1.1 | BDL | | BDL | BDL |
| TOTAL VOCs | | µ g/l | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| BIS(2-ETHLHEXYL)PHTHALATE | 4.3 | µ g/l | 1.0 | BDL | | BDL | BDL |
| DIETHYL PHTHALATE | 50 | µ g/l | 1.0 | BDL | | BDL | BDL |
| DIMETHYL PHTHALATE | 50 | µ g/l | 1.0 | BDL | | BDL | BDL |
| DI-N-OCTYL PHTHALATE | 50 | µ g/l | 1.0 | BDL | | BDL | BDL |
| FLUORENE | 50 | µ g/l | 1.0 | BDL | | BDL | BDL |
| PHENANTHRENE | 50 | µ g/l | 1.0 | BDL | | BDL | BDL |
| PYRENE | 50 | µ g/l | 1.0 | BDL | | BDL | BDL |
| IRON, TOTAL | 600 | µ g/l | 2.0 | 35.0 | | 15.0 | 219.0 |
| MANGANESE, TOTAL | 600 | µ g/l | 1.0 | 8.0 | | 25.0 | 42.0 |
| SUM IRON & MANGANESE | 1000 | µ g/l | NA | 43.0 | 0.0 | 40.0 | 261.0 |
| ALUMINUM, TOTAL | 2000 | µ g/l | 40.0 | 13.0 | | 1.0 | 51.0 |
| ARSENIC, TOTAL | 50 | µ g/l | 48.0 | BDL | | BDL | BDL |
| CHROMIUM, TOTAL | 50 | µ g/l | 2.0 | 1.0 | | 1.0 | 5.0 |
| NICKEL, TOTAL | 2000 | µ g/l | 5.0 | 2.0 | | 3.0 | 4.0 |

* Plant shut down for construction work on effluent piping

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

## AUGUST 2006

| EFFLUENT PARAMETER | DISCHARGE LIMITATIONS | UNITS | REPORTING LIMITS | WEEK 1 8/1/06 | WEEK 2* 08/08/06 | WEEK 3 08/15/06 | WEEK 4 08/22/06 | WEEK 5 08/29/06 |
|---|---|---|---|---|---|---|---|---|
| FLOW, DAILY AVG | MONITOR | GPD | NA | 567129 | 833900 | 826071 | 823429 | 790029 |
| FLOW, DAILY MAX | MONITOR | GPD | NA | 610100 | 840600 | 831800 | 826467 | 824600 |
| VINYL CHLORIDE | 5 | µ g/l | 1.0 | BDL | BDL | BDL | BDL | BDL |
| 1,1,1-TRICHLOROETHANE | 5 | µ g/l | 1.0 | BDL | BDL | BDL | BDL | BDL |
| 1,1-DICHLOROETHANE | 5 | µ g/l | 1.0 | BDL | 1.0 | BDL | BDL | BDL |
| 1,1-DICHLOROETHENE | 5 | µ g/l | 1.0 | BDL | 2.2 | BDL | BDL | BDL |
| 1,2(CIS)-DICHLOROETHENE | 5 | µ g/l | 1.0 | BDL | 28.0 | BDL | BDL | BDL |
| 1,2(TRANS)-DICHLOROETHENE | 5 | µ g/l | 1.0 | BDL | BDL | BDL | BDL | BDL |
| ACETONE | 50 | µ g/l | 2.0 | BDL | BDL | BDL | BDL | BDL |
| BENZENE | 0.7 | µ g/l | 1.0 | BDL | BDL | BDL | BDL | BDL |
| CHLOROFORM | 7 | µ g/l | 1.0 | BDL | BDL | BDL | BDL | BDL |
| DIBROMOCHLOROMETHANE | 50 | µ g/l | 1.0 | BDL | BDL | BDL | BDL | BDL |
| DICHLOROBROMOMETHANE | 50 | µ g/l | 1.0 | BDL | BDL | BDL | BDL | BDL |
| m,p-XYLENE | 5 | µ g/l | 2.0 | BDL | BDL | BDL | BDL | BDL |
| METHYL ETHYL KEYTONE | 50 | µ g/l | 3.0 | BDL | BDL | BDL | BDL | BDL |
| NAPHTHALENE | 10 | µ g/l | 1.0 | BDL | BDL | BDL | BDL | BDL |
| o-XYLENE | 5 | µ g/l | 1.0 | BDL | BDL | BDL | BDL | BDL |
| TETRACHLOROETHENE | 5 | µ g/l | 1.0 | BDL | 36.0 | BDL | BDL | BDL |
| TOLUENE | 5 | µ g/l | 1.0 | BDL | BDL | BDL | BDL | BDL |
| TRICHLOROETHENE | 10 | µ g/l | 1.0 | BDL | 5.5 | BDL | BDL | BDL |
| TOTAL VOCs | | µ g/l | 0.0 | 0.0 | 72.7 | 0.0 | 0.0 | 0.0 |
| BIS(2-ETHLHEXYL)PHTHALATE | 4.3 | µ g/l | 5.0 | BDL | BDL | BDL | BDL | BDL |
| DIETHYL PHTHALATE | 50 | µ g/l | 5.0 | 14.0 | BDL | BDL | BDL | BDL |
| DIMETHYL PHTHALATE | 50 | µ g/l | 5.0 | BDL | BDL | BDL | BDL | BDL |
| DI-N-OCTYL PHTHALATE | 50 | µ g/l | 5.0 | BDL | BDL | BDL | BDL | BDL |
| FLUORENE | 50 | µ g/l | 5.0 | BDL | BDL | BDL | BDL | BDL |
| PHENANTHRENE | 50 | µ g/l | 5.0 | BDL | BDL | BDL | BDL | BDL |
| PYRENE | 50 | µ g/l | 5.0 | BDL | BDL | BDL | BDL | BDL |
| IRON, TOTAL | 600 | µ g/l | 2.0 | 173.0 | 99.0 | 197.0 | 33.0 | 31.0 |
| MANGANESE, TOTAL | 600 | µ g/l | 1.0 | 34.0 | 60.0 | 73.0 | 70.0 | 74.0 |
| SUM IRON & MANGANESE | 1000 | µ g/l | NA | 207.0 | 159.0 | 270.0 | 103.0 | 105.0 |
| ALUMINUM, TOTAL | 2000 | µ g/l | 40.0 | 29.0 | 6.0 | 10.0 | 4.0 | 7.0 |
| ARSENIC, TOTAL | 50 | µ g/l | 48.0 | BDL | BDL | BDL | BDL | BDL |
| CHROMIUM, TOTAL | 50 | µ g/l | 2.0 | BDL | 1.0 | BDL | 1.0 | 2.0 |
| NICKEL, TOTAL | 2000 | µ g/l | 5.0 | 6.0 | 3.0 | 5.0 | 2.0 | 3.0 |

*On August 9, Stripper Tower #3 was removed from service for acid washing. Stripper Tower #1 was placed in service. No effluent limitations were exceeded once Stripper Towers were switched.

# NASSAU COUNTY FIREMAN'S TRAINING CENTER
# GROUNDWATER REMEDIATION FACILITY SEPTEMBER 2006
# MONTHLY EFFLUENT MONITORING REPORT
# OUTFALL 001

| EFFLUENT PARAMETER | DISCHARGE LIMITATIONS | UNITS | REPORTING LIMITS | WEEK 1 9/6/06 | WEEK 2 09/12/06 | WEEK 3 09/19/06 | WEEK 4 09/26/06 |
|---|---|---|---|---|---|---|---|
| FLOW, DAILY AVG | MONITOR | GPD | NA | 605113 | 1048217 | 1095971 | 1092086 |
| FLOW, DAILY MAX | MONITOR | GPD | NA | 829000 | 1099067 | 1105000 | 1104633 |
| 1,1,1-TRICHLOROETHANE | 5 | µ g/l | 1.0 | BDL | BDL | BDL | BDL |
| 1,1-DICHLOROETHANE | 5 | µ g/l | 1.0 | BDL | BDL | BDL | BDL |
| 1,1-DICHLOROETHENE | 5 | µ g/l | 1.0 | BDL | BDL | BDL | BDL |
| 1,2(CIS)-DICHLOROETHENE | 5 | µ g/l | 1.0 | BDL | BDL | BDL | BDL |
| 1,2(TRANS)-DICHLOROETHENE | 5 | µ g/l | 1.0 | BDL | BDL | BDL | BDL |
| ACETONE | 50 | µ g/l | 2.0 | BDL | BDL | BDL | BDL |
| BENZENE | 0.7 | µ g/l | 1.0 | BDL | BDL | BDL | BDL |
| CHLOROFORM | 7 | µ g/l | 1.0 | BDL | BDL | BDL | BDL |
| DIBROMOCHLOROMETHANE | 50 | µ g/l | 1.0 | BDL | BDL | BDL | BDL |
| DICHLOROBROMOMETHANE | 50 | µ g/l | 1.0 | BDL | BDL | BDL | BDL |
| m,p-XYLENE | 5 | µ g/l | 2.0 | BDL | BDL | BDL | BDL |
| METHYL ETHYL KEYTONE | 50 | µ g/l | 3.0 | BDL | BDL | BDL | BDL |
| NAPHTHALENE | 10 | µ g/l | 1.0 | BDL | BDL | BDL | BDL |
| o-XYLENE | 5 | µ g/l | 1.0 | BDL | BDL | BDL | BDL |
| TETRACHLOROETHENE | 5 | µ g/l | 1.0 | BDL | BDL | BDL | BDL |
| TOLUENE | 5 | µ g/l | 1.0 | BDL | BDL | BDL | BDL |
| TRICHLOROETHENE | 10 | µ g/l | 1.0 | BDL | BDL | BDL | BDL |
| VINYL CHLORIDE | 5 | µ g/l | 1.0 | BDL | BDL | BDL | BDL |
| TOTAL VOCs | | µ g/l | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| BIS(2-ETHLHEXYL)PHTHALATE | 4.3 | µ g/l | 5.0 | 1.7 "J" | BDL | BDL | BDL |
| DIETHYL PHTHALATE | 50 | µ g/l | 5.0 | BDL | BDL | BDL | BDL |
| DIMETHYL PHTHALATE | 50 | µ g/l | 5.0 | BDL | BDL | BDL | BDL |
| DI-N-OCTYL PHTHALATE | 50 | µ g/l | 5.0 | BDL | BDL | BDL | BDL |
| FLUORENE | 50 | µ g/l | 5.0 | BDL | BDL | BDL | BDL |
| PHENANTHRENE | 50 | µ g/l | 5.0 | BDL | BDL | BDL | BDL |
| PYRENE | 50 | µ g/l | 5.0 | BDL | BDL | BDL | BDL |
| IRON, TOTAL | 600 | µ g/l | 2.0 | 53.0 | 33.0 | 68.0 | 65.0 |
| MANGANESE, TOTAL | 600 | µ g/l | 1.0 | 75.0 | 467.0 | 486.0 | 450.0 |
| SUM IRON & MANGANESE | 1000 | µ g/l | NA | 128.0 | 500.0 | 554.0 | 515.0 |
| ALUMINUM, TOTAL | 2000 | µ g/l | 40.0 | 6.0 | 3.0 | 3.0 | 3.0 |
| ARSENIC, TOTAL | 50 | µ g/l | 48.0 | BDL | BDL | BDL | BDL |
| CHROMIUM, TOTAL | 50 | µ g/l | 2.0 | BDL | BDL | BDL | BDL |
| NICKEL, TOTAL | 2000 | µ g/l | 5.0 | 3.0 | 3.0 | 3.0 | 4.0 |

"J" Analyte detected below quantitation limits.

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

**OCTOBER 2006**

| EFFLUENT PARAMETER | DISCHARGE LIMITATIONS | UNITS | REPORTING LIMITS | WEEK 1 10/2/06 | WEEK 2 10/10/06 | WEEK 3 10/16/06 | WEEK 4 10/24/06 | WEEK 5 10/31/06 |
|---|---|---|---|---|---|---|---|---|
| FLOW, DAILY AVG | MONITOR | GPD | NA | 1046267 | 835650 | 824583 | 827913 | 830357 |
| FLOW, DAILY MAX | MONITOR | GPD | NA | 1112967 | 835650 | 826900 | 831100 | 839867 |
| 1,1,1-TRICHLOROETHANE | 5 | µ g/l | 1.0 | BDL | BDL | BDL | BDL | BDL |
| 1,1-DICHLOROETHANE | 5 | µ g/l | 1.0 | BDL | BDL | BDL | BDL | BDL |
| 1,1-DICHLOROETHENE | 5 | µ g/l | 1.0 | BDL | BDL | BDL | BDL | BDL |
| 1,2(CIS)-DICHLOROETHENE | 5 | µ g/l | 1.0 | BDL | BDL | BDL | BDL | BDL |
| 1,2(TRANS)-DICHLOROETHENE | 5 | µ g/l | 1.0 | BDL | BDL | BDL | BDL | BDL |
| ACETONE | 50 | µ g/l | 2.0 | BDL | BDL | BDL | BDL | BDL |
| BENZENE | 0.7 | µ g/l | 1.0 | BDL | BDL | BDL | BDL | BDL |
| CHLOROFORM | 7 | µ g/l | 1.0 | BDL | BDL | BDL | BDL | BDL |
| DIBROMOCHLOROMETHANE | 50 | µ g/l | 1.0 | BDL | BDL | BDL | BDL | BDL |
| DICHLOROBROMOMETHANE | 50 | µ g/l | 1.0 | BDL | BDL | BDL | BDL | BDL |
| m,p-XYLENE | 5 | µ g/l | 2.0 | BDL | BDL | BDL | BDL | BDL |
| METHYL ETHYL KEYTONE | 50 | µ g/l | 3.0 | BDL | BDL | BDL | BDL | BDL |
| NAPHTHALENE | 10 | µ g/l | 1.0 | BDL | BDL | 1.9 | BDL | BDL |
| o-XYLENE | 5 | µ g/l | 1.0 | BDL | BDL | BDL | BDL | BDL |
| TETRACHLOROETHENE | 5 | µ g/l | 1.0 | BDL | BDL | BDL | BDL | BDL |
| TOLUENE | 5 | µ g/l | 1.0 | BDL | BDL | 1.1 | BDL | BDL |
| TRICHLOROETHENE | 10 | µ g/l | 1.0 | BDL | BDL | BDL | BDL | BDL |
| VINYL CHLORIDE | 5 | µ g/l | 1.0 | BDL | BDL | BDL | BDL | BDL |
| TOTAL VOCs | | µ g/l | 0.0 | 0.0 | 0.0 | 3.0 | 0.0 | 0.0 |
| BIS(2-ETHLHEXYL)PHTHALATE | 4.3 | µ g/l | 5.0 | BDL | 2.9 "J" | BDL | BDL | 5.6 |
| DIETHYL PHTHALATE | 50 | µ g/l | 5.0 | BDL | BDL | BDL | BDL | BDL |
| DIMETHYL PHTHALATE | 50 | µ g/l | 5.0 | BDL | BDL | BDL | BDL | BDL |
| DI-N-OCTYL PHTHALATE | 50 | µ g/l | 5.0 | BDL | BDL | BDL | BDL | BDL |
| FLUORENE | 50 | µ g/l | 5.0 | BDL | BDL | BDL | BDL | BDL |
| PHENANTHRENE | 50 | µ g/l | 5.0 | BDL | BDL | BDL | BDL | BDL |
| PYRENE | 50 | µ g/l | 5.0 | BDL | BDL | BDL | BDL | BDL |
| IRON, TOTAL | 600 | µ g/l | 2.0 | 49.0 | 881.0 | 566.0 | 450.0 | 391.0 |
| MANGANESE, TOTAL | 600 | µ g/l | 1.0 | 443.0 | 508.0 | 584.0 | 540.0 | 562.0 |
| SUM IRON & MANGANESE | 1000 | µ g/l | NA | 492.0 | 1389.0 | 1150.0 | 990.0 | 953.0 |
| ALUMINUM, TOTAL | 2000 | µ g/l | 40.0 | 3.0 | BDL | BDL | BDL | 3.0 |
| ARSENIC, TOTAL | 50 | µ g/l | 48.0 | BDL | BDL | BDL | BDL | BDL |
| CHROMIUM, TOTAL | 50 | µ g/l | 2.0 | 1.0 | 1.0 | BDL | BDL | 1.0 |
| NICKEL, TOTAL | 2000 | µ g/l | 5.0 | 1.0 | 4.0 | 3.0 | 4.0 | 4.0 |

"J" Analyte detected below quantitation limits.

# NASSAU COUNTY FIREMAN'S TRAINING CENTER
# GROUNDWATER REMEDIATION FACILITY NOVEMBER 2006
# MONTHLY EFFLUENT MONITORING REPORT
# OUTFALL 001

| EFFLUENT PARAMETER | DISCHARGE LIMITATIONS | UNITS | REPORTING LIMITS | WEEK 1 11/6/06 | WEEK 2 11/13/06 | WEEK 3 11/20/06 | WEEK 4 11/27/06 |
|---|---|---|---|---|---|---|---|
| FLOW, DAILY AVG | MONITOR | GPD | NA | 833550 | 824329 | 825014 | 823057 |
| FLOW, DAILY MAX | MONITOR | GPD | NA | 840500 | 958300 | 830333 | 824900 |
| 1,1,1-TRICHLOROETHANE | 5 | µ g/l | 1.0 | BDL | BDL | BDL | BDL |
| 1,1-DICHLOROETHANE | 5 | µ g/l | 1.0 | BDL | BDL | BDL | BDL |
| 1,1-DICHLOROETHENE | 5 | µ g/l | 1.0 | BDL | BDL | BDL | BDL |
| 1,2(CIS)-DICHLOROETHENE | 5 | µ g/l | 1.0 | BDL | BDL | BDL | BDL |
| 1,2(TRANS)-DICHLOROETHENE | 5 | µ g/l | 1.0 | BDL | BDL | BDL | BDL |
| ACETONE | 50 | µ g/l | 2.0 | BDL | BDL | BDL | BDL |
| BENZENE | 0.7 | µ g/l | 1.0 | BDL | BDL | BDL | BDL |
| CHLOROFORM | 7 | µ g/l | 1.0 | BDL | BDL | BDL | BDL |
| DIBROMOCHLOROMETHANE | 50 | µ g/l | 1.0 | BDL | BDL | BDL | BDL |
| DICHLOROBROMOMETHANE | 50 | µ g/l | 1.0 | BDL | BDL | BDL | BDL |
| m,p-XYLENE | 5 | µ g/l | 2.0 | BDL | BDL | BDL | BDL |
| METHYL ETHYL KEYTONE | 50 | µ g/l | 3.0 | BDL | BDL | BDL | BDL |
| NAPHTHALENE | 10 | µ g/l | 1.0 | BDL | BDL | BDL | BDL |
| o-XYLENE | 5 | µ g/l | 1.0 | BDL | BDL | BDL | BDL |
| TETRACHLOROETHENE | 5 | µ g/l | 1.0 | BDL | BDL | BDL | BDL |
| TOLUENE | 5 | µ g/l | 1.0 | BDL | BDL | BDL | BDL |
| TRICHLOROETHENE | 10 | µ g/l | 1.0 | BDL | BDL | BDL | BDL |
| VINYL CHLORIDE | 5 | µ g/l | 1.0 | BDL | BDL | BDL | BDL |
| TOTAL VOCs | | µ g/l | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| BIS(2-ETHLHEXYL)PHTHALATE | 4.3 | µ g/l | 5.0 | 6.2 | BDL | BDL | BDL |
| DIETHYL PHTHALATE | 50 | µ g/l | 5.0 | BDL | BDL | BDL | BDL |
| DIMETHYL PHTHALATE | 50 | µ g/l | 5.0 | BDL | BDL | BDL | BDL |
| DI-N-OCTYL PHTHALATE | 50 | µ g/l | 5.0 | BDL | BDL | BDL | BDL |
| FLUORENE | 50 | µ g/l | 5.0 | BDL | BDL | BDL | BDL |
| PHENANTHRENE | 50 | µ g/l | 5.0 | BDL | BDL | BDL | BDL |
| PYRENE | 50 | µ g/l | 5.0 | BDL | BDL | BDL | BDL |
| IRON, TOTAL | 600 | µ g/l | 2.0 | 37.0 | 252.0 | 394.0 | 255.0 |
| MANGANESE, TOTAL | 600 | µ g/l | 1.0 | 594.0 | 582.0 | 626.0 | 621.0 |
| SUM IRON & MANGANESE | 1000 | µ g/l | NA | 631.0 | 834.0 | 1020.0 | 876.0 |
| ALUMINUM, TOTAL | 2000 | µ g/l | 40.0 | 5.0 | BDL | 3.0 | 2.0 |
| ARSENIC, TOTAL | 50 | µ g/l | 48.0 | BDL | BDL | BDL | BDL |
| CHROMIUM, TOTAL | 50 | µ g/l | 2.0 | BDL | BDL | BDL | BDL |
| NICKEL, TOTAL | 2000 | µ g/l | 5.0 | 4.0 | 4.0 | 7.0 | 4.0 |

# NASSAU COUNTY FIREMAN'S TRAINING CENTER
# GROUNDWATER REMEDIATION FACILITY DECEMBER 2006
# MONTHLY EFFLUENT MONITORING REPORT
# OUTFALL 001

| EFFLUENT PARAMETER | DISCHARGE LIMITATIONS | UNITS | REPORTING LIMITS | WEEK 1 12/5/06 | WEEK 2 12/11/06 | WEEK 3 12/18/06 | WEEK 4 12/26/06 |
|---|---|---|---|---|---|---|---|
| FLOW, DAILY AVG | MONITOR | GPD | NA | 819050 | 846983 | 858386 | 859738 |
| FLOW, DAILY MAX | MONITOR | GPD | NA | 842800 | 858100 | 862600 | 862900 |
| 1,1,1-TRICHLOROETHANE | 5 | µ g/l | 1.0 | BDL | BDL | BDL | BDL |
| 1,1-DICHLOROETHANE | 5 | µ g/l | 1.0 | BDL | BDL | BDL | BDL |
| 1,1-DICHLOROETHENE | 5 | µ g/l | 1.0 | BDL | BDL | BDL | BDL |
| 1,2(CIS)-DICHLOROETHENE | 5 | µ g/l | 1.0 | BDL | BDL | BDL | BDL |
| 1,2(TRANS)-DICHLOROETHENE | 5 | µ g/l | 1.0 | BDL | BDL | BDL | BDL |
| ACETONE | 50 | µ g/l | 2.0 | BDL | BDL | BDL | BDL |
| BENZENE | 0.7 | µ g/l | 1.0 | BDL | BDL | BDL | BDL |
| CHLOROFORM | 7 | µ g/l | 1.0 | BDL | BDL | BDL | BDL |
| DIBROMOCHLOROMETHANE | 50 | µ g/l | 1.0 | BDL | BDL | BDL | BDL |
| DICHLOROBROMOMETHANE | 50 | µ g/l | 1.0 | BDL | BDL | BDL | BDL |
| m,p-XYLENE | 5 | µ g/l | 2.0 | BDL | 3.1 | BDL | BDL |
| METHYL ETHYL KEYTONE | 50 | µ g/l | 3.0 | BDL | BDL | BDL | BDL |
| NAPHTHALENE | 10 | µ g/l | 1.0 | BDL | BDL | 3.9 | BDL |
| o-XYLENE | 5 | µ g/l | 1.0 | BDL | BDL | BDL | BDL |
| TETRACHLOROETHENE | 5 | µ g/l | 1.0 | BDL | BDL | BDL | BDL |
| TOLUENE | 5 | µ g/l | 1.0 | BDL | BDL | BDL | BDL |
| TRICHLOROETHENE | 10 | µ g/l | 1.0 | BDL | BDL | BDL | BDL |
| VINYL CHLORIDE | 5 | µ g/l | 1.0 | BDL | BDL | BDL | BDL |
| TOTAL VOCs | | µ g/l | 0.0 | 0.0 | 3.1 | 3.9 | 0.0 |
| BIS(2-ETHLHEXYL)PHTHALATE | 4.3 | µ g/l | 5.0 | BDL | BDL | BDL | BDL |
| DIETHYL PHTHALATE | 50 | µ g/l | 5.0 | BDL | BDL | BDL | BDL |
| DIMETHYL PHTHALATE | 50 | µ g/l | 5.0 | BDL | BDL | BDL | BDL |
| DI-N-OCTYL PHTHALATE | 50 | µ g/l | 5.0 | BDL | BDL | BDL | BDL |
| FLUORENE | 50 | µ g/l | 5.0 | BDL | BDL | BDL | BDL |
| PHENANTHRENE | 50 | µ g/l | 5.0 | BDL | BDL | BDL | BDL |
| PYRENE | 50 | µ g/l | 5.0 | BDL | BDL | BDL | BDL |
| IRON, TOTAL | 600 | µ g/l | 2.0 | 18.0 | 328.0 | 237.0 | 212.0 |
| MANGANESE, TOTAL | 600 | µ g/l | 1.0 | 528.0 | 541.0 | 540.0 | 501.0 |
| SUM IRON & MANGANESE | 1000 | µ g/l | NA | 546.0 | 869.0 | 777.0 | 713.0 |
| ALUMINUM, TOTAL | 2000 | µ g/l | 40.0 | BDL | 3.0 | BDL | 2.0 |
| ARSENIC, TOTAL | 50 | µ g/l | 48.0 | BDL | BDL | BDL | BDL |
| CHROMIUM, TOTAL | 50 | µ g/l | 2.0 | BDL | 1.0 | BDL | 2.0 |
| NICKEL, TOTAL | 2000 | µ g/l | 5.0 | 6.0 | 3.0 | 4.0 | 4.0 |

# APPENDIX D

GOUNDWATER MONITORING REQUIREMENTS

2006

# 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

Prior to June 2006 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. In June the Semi-VOCs analyses and in July the VOCs analyses were transferred to American Analytical Laboratories, 56 Toledo Street, Farmingdale, N.Y. (NYSDOH 11418).

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

- VOCs (EPA 524); detailed list of parameters analyzed by NCDPW-Lab found in Table 1a
  (EPA 8260); detailed list of parameters analyzed by Amer. Anal. Lab found in Table 1b
- Semi-VOCs (EPA 525); detailed list of parameters analyzed by NCDPW-Lab found in Table 2a
  (EPA 8270); detailed list of parameters analyzed by Amer. Anal. Lab found in Table 2b
- Metals (EPA 200.7, 206.2, 239.2) found in Table 3
- Field parameters (pH, conductivity and temperature)
- Water quality parameters found in Table 4

## 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 5.

Table 1a

# 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

Table 1b

# Volatile Organic Compound Analysis

(EPA Method 8260)

## List Of Analytes

| |
|---|
| 1,1,1,2-Tetrachloroethane |
| 1,1,1-Trichloroethane |
| 1,1,2,2-Tetrachloroethane |
| 1,1,2-Trichloro-1,2,2-trifluoroethane |
| 1,1,2-Trichloroethane |
| 1,1-Dichloroethane |
| 1,1-Dichloroethene |
| 1,1-Dichloropropene |
| 1,2,3-Trichlorobenzene |
| 1,2,3-Trichloropropane |
| 1,2,4,5-Tetramethylbenzene |
| 1,2,4-Trichlorobenzene |
| 1,2,4-Trimethylbenzene |
| 1,2-Dibromo-3-chloropropane |
| 1,2-Dibromoethane |
| 1,2-Dichlorobenzene |
| 1,2-Dichloroethane |
| 1,2-Dichloropropane |
| 1,3,5-Trimethylbenzene |
| 1,3-Dichlorobenzene |
| 1,3-dichloropropane |
| 1,4-Dichlorobenzene |
| 2,2-Dichloropropane |
| 2-Butanone |
| 2-Chloroethyl vinyl ether |
| 2-Chlorotoluene |
| 2-Hexanone |
| 2-Propanol |
| 4-Chlorotoluene |
| 4-Isopropyltoluene |
| 4-Methyl-2-pentanone |
| Acetone |
| Acrolein |
| Acrylonitrile |
| Benzene |
| Bromobenzene |
| Bromochloromethane |
| Bromodichloromethane |
| Bromoform |
| Bromomethane |
| Carbon disulfide |
| Carbon tetrachloride |

| |
|---|
| Chlorobenzene |
| Chlorodifluoromethane |
| Chloroethane |
| Chloroform |
| Chloromethane |
| cis-1,2-Dichloroethene |
| cis-1,3-Dichloropropene |
| Dibromochloromethane |
| Dibromomethane |
| Dichlorodifluoromethane |
| Diisopropyl ether |
| Ethanol |
| Ethyl acetate |
| Ethylbenzene |
| Freon-114 |
| Hexachlorobutadiene |
| Isopropyl acetate |
| Isopropylbenzene |
| m,p-Xylene |
| Methyl tert-butyl ether |
| Methylene chloride |
| n-Amyl acetate |
| Naphthalene |
| n-Butyl acetate |
| n-Butylbenzene |
| n-Propyl acetate |
| n-Propylbenzene |
| o-Xylene |
| p-Diethylbenzene |
| p-Ethyltoluene |
| sec-Butylbenzene |
| Styrene |
| t-Butyl alcohol |
| tert-Butylbenzene |
| Tetrachloroethene |
| Toluene |
| trans-1,2-Dichloroethene |
| trans-1,3-Dichloropropene |
| Trichloroethene |
| Trichlorofluoromethane |
| Vinyl acetate |
| Vinyl chloride |

Analyses conducted by American Analytical Laboratories

Table 2a

# Semi-Volatile Organic Compound Analysis
## Base/Neutrals
## (EPA Method 525)
## List of Analytes

| | |
|---|---|
| 2-Chlorophenol | Benzo(s) pyrene |
| 2-Nitrophenol | Bis (2-chloroethoxy) methane |
| 2,4-Dichlorophenol | Bis (2-chloroethyl) ether |
| 2,4-Dimethylphenol | Bis (2-ethylhexy) phthalate |
| 2,4-Dinitrophenol | Bis (2-chlorolsopropyl) ether |
| 2,4,6-Trichlorophenol | 4-Bromophenyl (phenyl) ether |
| 4,6-Dinitro-2-methylphenol | Butyl benzyl phthalate |
| 4-Chloro-3-methylphenol | 2-Chloronaphthalene |
| 4-Nitrophenol | 4-Chlorophenyl (phenyl) ether |
| Pentachlorophenol | Chrysene |
| Phenol | 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-Dintrotoluene |
| 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 |

Analyses conducted by NCDPW Environmental Laboratory

Table 2b

# Semi-Volatile Organic Compound Analysis
# Base/Neutrals
## (EPA Method 8270)
# List of Analytes

| |
|---|
| 1,2,4-Trichlorobenzene |
| 1,2-Dichlorobenzene |
| 1,3-Dichlorobenzene |
| 1,4-Dichlorobenzene |
| 2,4,5-Trichlorophenol |
| 2,4,6-Trichlorophenol |
| 2,4-Dichlorophenol |
| 2,4-Dimethylphenol |
| 2,4-Dinitrophenol |
| 2,4-Dinitrotoluene |
| 2,6-Dinitrotoluene |
| 2-Chloronaphthalene |
| 2-Chlorophenol |
| 2-Methylnaphthalene |
| 2-Methylphenol |
| 2-Nitroaniline |
| 2-Nitrophenol |
| 3,3´-Dichlorobenzidine |
| 3+4-Methylphenol |
| 3-Nitroaniline |
| 4,6-Dinitro-2-methylphenol |
| 4-Bromophenyl phenyl ether |
| 4-Chloro-3-methylphenol |
| 4-Chloroaniline |
| 4-Chlorophenyl phenyl ether |
| 4-Nitroaniline |
| 4-Nitrophenol |
| Acenaphthene |
| Acenaphthylene |
| Aniline |
| Anthracene |
| Azobenzene |
| Benzidine |
| Benzo(a)anthracene |
| Benzo(a)pyrene |
| Benzo(b)fluoranthene |

| |
|---|
| Benzo(g,h,i)perylene |
| Benzo(k)fluoranthene |
| Benzoic acid |
| Benzyl alcohol |
| Bis(2-chloroethoxy)methane |
| Bis(2-chloroethyl)ether |
| Bis(2-chloroisopropyl)ether |
| Bis(2-ethylhexyl)phthalate |
| Butyl benzyl phthalate |
| Carbazole |
| Chrysene |
| Dibenzo(a,h)anthracene |
| Dibenzofuran |
| Diethyl phthalate |
| Dimethyl phthalate |
| Di-n-butyl phthalate |
| Di-n-octyl phthalate |
| Fluoranthene |
| Fluorene |
| Hexachlorobenzene |
| Hexachlorobutadiene |
| Hexachlorocyclopentadiene |
| Hexachloroethane |
| Indeno(1,2,3-c,d)pyrene |
| Isophorone |
| Naphthalene |
| Nitrobenzene |
| N-Nitrosodimethylamine |
| N-Nitrosodi-n-propylamine |
| N-Nitrosodiphenylamine |
| Pentachlorophenol |
| Phenanthrene |
| Phenol |
| Pyrene |
| Pyridine |
| |

Analyses conducted by American Analytical Laboratories

Table 3

## Metals Analysis
## List of Analytes

| COMPOUND | UNIT | DETECTION LIMIT | ANAL METHOD |
|---|---|---|---|
| Aluminum, Total | mg/l | 0.002 | EPA 200.7 |
| Arsenic, Total | mg/l | 0.01 | EPA 200.7 |
| Chromium, Total | mg/l | 0.001 | EPA 200.7 |
| Iron, Total | mg/l | 0.001 | EPA 200.7 |
| Manganese, Total | mg/l | 0.001 | EPA 200.7 |
| Nickel, Total | mg/l | 0.002 | EPA 200.7 |
| Sodium, Total | mg/l | 0.001 | EPA 200.7 |

Table 4

## Inorganic Compound Analysis
## List of Analytes

| COMPOUND | UNIT | DETECTION LIMIT | ANAL METHOD |
|---|---|---|---|
| pH | - | | SM 17 4500B |
| Specific Conductance | micromhos | 0.5 | SM 17 2510B |
| Alkalinity as Calcium Carbonate | mg/l | 5 | SM 17 2320B |
| B.O.D. | mg/l | 2 | SM 17 (5210) |
| Chemical Oxygen Demand | mg/l | 25 | SM 17 5220B |
| Hardness, Total | mg/l | 1 | SM 17 2340 B |
| Nitrite as N | mg/l | 0.05 | ELAP 2489 |
| Nitrate as N | mg/l | 0.05 | ELAP 2489 |
| Total Phosphorus as P | mg/l | 0.05 | SM 16 424C |
| Total Kjeldahl - N | mg/l | 0.1 | ELAP 2489 |
| Ammonia as N | mg/l | 0.1 | ELAP 2489 |
| Sulfate | mg/l | 5 | ELAP 2489 |
| Chloride | mg/l | 3 | SM 17 4500B |
| Total Dissolved Solids | mg/l | 1 | SM 17 2540C |
| Total Suspended Solids | mg/l | 1 | SM 17 2540D |

Table 5

# NASSAU COUNTY FTC
# GROUNDWATER CLEANUP CRITERIA

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

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