



**CHESTER**  
ENVIRONMENTAL

Ref. No. 320000-15

March 23, 1994

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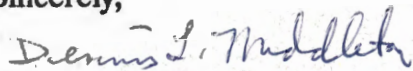
Dear Mr. Counterman:

Re: Transmittal of Corrected Sampling Visit  
Investigation Report  
Former Philips Display Components Facility  
Seneca Falls, New York  
NYD002246015

Chester Environmental recently submitted the RFA Sampling Visit Investigation Report for the Seneca Falls facility in Seneca Falls, New York to you by letter dated March 21, 1993. The text of the report was printed on paper labeled as "draft" in faded lettering. I have enclosed a corrected copy of the subject report for your files. Please discard the original submittal.

If I can be of further assistance or if there are any questions, please contact me at (412) 269-7615.

Sincerely,

  
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PHILIPS DISPLAY COMPONENTS COMPANY  
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WESTERN HW PROGRAMS  
DIVISION OF HAZARDOUS  
SUBSTANCES REGULATION

RCRA FACILITY ASSESSMENT  
SAMPLING VISIT INVESTIGATION REPORT

MARCH 1994



**CHESTER**  
ENVIRONMENTAL

**PHILIPS DISPLAY COMPONENTS COMPANY  
SENECA FALLS, NEW YORK**

**RCRA FACILITY ASSESSMENT  
SAMPLING VISIT INVESTIGATION REPORT**

**PREPARED BY:**

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**PROJECT NO.: 320000-15**

**MARCH 1994**



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## **PHILIPS DISPLAY COMPONENTS CO. SAMPLING VISIT INVESTIGATION REPORT**

### **EXECUTIVE SUMMARY**

The Sampling Visit Investigation (SVI) is a portion of a RCRA Facility Assessment (RFA) at the former Philips Display Components Company facility, located in Seneca Falls, New York. The work involved the sampling and analyses of soil at five potentially impacted sites and one background site at the facility. The five sites investigated are the Interim Storage Area, the Satellite Storage Area, the location of the former Underground Fuel Oil Tank, the Polychlorinated Biphenyl (PCB) Capacitor Storage Area, and an Open Burning Area. The background site is located on plant property, northeast of the plant buildings in an area which have historically been used for agriculture.

Select sumps, pits and floor drains were to be addressed during this investigation. However, the plant buildings were declared to be an inaccessible Solid Waste Management Unit (SWMU), therefore, no investigations beneath the floor slabs were undertaken. Consequently, the New York State Department of Environmental Conservation (NYSDEC) approved a proposal to have the sumps, trenches and floor drains backfilled with concrete to remove a potential source of groundwater to the inaccessible SWMU.

The analytical results from 14 soil samples collected from two background soil borings are summarized as follows.

- Concentrations of total cadmium were above published NYSDEC action levels in two soil samples. Cadmium was not detected in the remaining 12 samples. Cadmium was not detected in the leachate generated from all 14 samples using the Synthetic Precipitate Leaching Procedure (SPLP).
- Chromium concentrations from all background soil samples were consistently above the published NYSDEC action levels. Leachate concentrations derived from the SPLP also were above the drinking water action levels.

- Concentrations of total lead from background soils were slightly above the NYSDEC action level in two soil samples and below the level in the remaining 12 samples. However, the SPLP leachate concentrations for lead were all above the drinking water action level.
- Concentrations of total zinc in both the background soils and SPLP leachate concentrations were above the NYSDEC soil and groundwater action levels in all 14 samples.
- Background fluoride concentrations were below NYSDEC action levels in all background soil and SPLP leachate samples.

The results of the Synthetic Precipitation Leaching Procedure on the background soil samples predict that the concentrations of chromium, lead and zinc present at the Seneca Falls facility, will degrade groundwater quality to concentrations that exceed the NYSDEC action levels. However, a comparison of the metals concentrations in soils collected at monitoring well locations, with the analytical results of two rounds of groundwater sampling completed during the Supplementary Sampling Visit Investigation (SSVI) at those locations indicate otherwise. Soils collected at monitoring wells MW-20 through MW-29 had concentrations of metals similar to those detected at the background soil sampling locations. However, the analytical results of groundwater samples collected from these monitoring wells indicate that chromium, lead and zinc occur below detection limits or below NYSDEC action levels in all cases. Accordingly, Philips feels that the SPLP results do not reflect actual soil leaching results at the facility and concludes that the inorganics present in the soils are not contributing to groundwater degradation. Given the SPLP results and past concerns expressed by Philips regarding the reliability of the SPLP method for determining the potential for groundwater degradation, SPLP results should be regarded as unreliable and should not be considered for use in remediation at the Seneca Falls facility.

Four of the five sites investigated during this phase contained compounds of interest either below or slightly above action levels. Chester concludes that the Interim Storage Area, the Satellite Storage Area, the PCB Capacitor Storage Area and the Open Burning Area do not pose a risk to human health and the environment and no



additional work should be performed at these sites. The Underground Fuel Oil Tank Area contains concentrations of site related compounds that may require limited investigation.

## **1.0 INTRODUCTION**

Field activities were completed at the Philips Display Components Company former facility at Seneca Falls, New York, according to the scope of work presented in Volume II Sampling Visit Work Plan (SVWP) and the site specific Quality Assurance Project Plan (QAPjP). Both plans were approved by the New York State Department of Environmental Conservation (NYSDEC). Section 1 of this report briefly describes general features of the site and lists areas of the site where environmental issues have prompted investigations. Section 2 describes the activities completed during the Sampling Visit Investigation (SVI). Section 3 discusses the results of the soil analyses. Section 4 lists conclusions and recommendations.

### **1.1 Site History**

The facility was originally owned by the Rumsey Pump Company who sold the site to Sylvania in 1948. Sylvania manufactured television picture tubes at the facility from 1948 to 1960. In 1960 the plant was sold to GTE, who in turn, sold it to Philips Display Company in 1981. The original manufacturing by Sylvania was done in Buildings 1 through 5. Over time the facility was expanded to include Buildings 6 through 13. By 1972, GTE conducted most of its manufacturing operations in Buildings 8, 10, 10A, 11, and 13 (See Figure 1-1).

In 1981, Philips manufactured television picture tubes at the facility, which also served as headquarters for other Philips operations. Process waste was generated from television glass and metal tube component fabrication, cleaning, finishing, coating, and tube salvage operations. Philips ceased manufacturing activities in 1986 and sold the facility to the Seneca County Industrial Development Agency in 1989.

From 1948 to 1972, during Sylvania and GTE ownership and operation, the facility sewers discharged process waters to Van Cleef Lake and the Seneca River via several outfalls along the escarpment located south of the facility. The outfalls were not monitored before 1972. The sewers, sumps, and pits conveyed all process waste waters during this period. Many of the sumps, pits, and the drains in the original sewer system were filled with concrete and abandoned before Philips' ownership.

Investigation of the original sewer system before segregation in 1972 is addressed in the RCRA Facilities Assessment, Supplemental Sampling Visit Work Plan (RFA SSVWP).

In 1971 and 1972, GTE made changes to the facility process sewer system by segregating the process sewer lines that handled nontreated wastewater (storm water and floor drain runoff) from those sewer lines that handled wastewater to be treated. These changes were accomplished by the construction of an interceptor sewer line to the south of the facility and the construction of an Industrial Wastewater Treatment Plant (IWTP). The interceptor line was installed and a manhole constructed around each of the connections to outfalls 2, 3, 4, 4A, and 5. When the interceptor line was complete, The outfall sewer line was removed from inside the manhole, which allowed nontreated wastewater from the facility buildings to enter the interceptor line. The remaining portions of outfalls 2, 3, 4, 4A and 5 from the interceptor line to the discharge point were abandoned.

All wastewater to be treated was redirected to the IWTP via construction of segregated process lines, which were 4-inch diameter overhead manifolds throughout the plant and underfloor process sewer lines for Buildings 13 and 13A. The treated wastewaters from the IWTP were discharged through a 6-inch pipe to the interceptor line. Nontreated and treated wastewaters were conveyed by the interceptor line to the Wastewater Effluent Settling Lagoon, which was RCRA closed in 1987. The overflow from the Effluent Lagoon discharged to the New York State Pollution Discharge Elimination System (NYSPDES) outfall 001, which discharged to the Seneca River Barge Canal. The water discharged at NYSPDES 001 was monitored prior to being released to the canal.

## **1.2 Site Characteristics**

### **1.2.1 Description**

The facility is bordered by Van Cleef Lake and the Seneca River and Barge Canal to the south, undeveloped and agricultural land to the north and east, and residential areas to the west. The plant property encompasses approximately 85 acres. The

area under roof is approximately 13 acres. A plan view of the site is presented in Figure 1-1.

### **1.2.2 Surface Features**

The site topography is generally flat in the plant building and parking areas with the ground surface sloping gently south toward the Seneca River to the edge of the escarpment. At the escarpment, the land surface drops steeply to the Seneca River. The land surface east of Building 13 is marshy and well vegetated between Taravia Drive and the security fence. The ConRail tracks border the northwestern edge of the plant property.

### **1.2.3 Climatology**

Seneca County's climate has been classified as humid-continental. The local climate is slightly modified by the Finger Lakes which typically cause a longer growing season. The average length of growing season is 154 days, the mean dates of the last and first killing frosts being May 8 and October 9, respectively. Mean annual precipitation of Seneca County, as observed at four stations for different periods of record, is 33.39 inches and ranges from a low of 30.97 inches at Romulus, New York to a high of 35.28 inches at Ovid, New York. Approximately 30 percent of the total annual precipitation occurs during the summer months (June through August). The mean annual temperature is 47.8° F. The Maximum temperature recorded was 90° F. and the minimum -19° F.

### **1.2.4 Geologic Setting**

#### **Regional Geology**

The upland surfaces in the Seneca Falls area consist principally of a glacial till deposited during the Wisconsinian glacial epoch. Glacial till typically contains particle sizes ranging from clay sized grains to boulders. The tills are massive, unstratified and dense.

The bedrock underlying the till is sedimentary, with bedrock dipping 50 feet to the mile. The uppermost unit immediately below the site is the Bertie Limestone which is approximately 25 feet thick and composed of an impure magnesian limestone with thin shale interbeds. The Camillus Shale lies directly below the Bertie Limestone, is approximately 500 feet thick and consists of shale with thin beds of evaporitic gypsum and salt. The two units make up the Upper Silurian Salina Formation.

Both units are prone to solution cavities. In the Bertie Limestone the calcium and magnesian carbonates are prone to solution. In the Camillus shale, salt and gypsum are prone to solution. The occurrence of solution enhanced fractures in the two rock units have made the Salina Formation the most productive formation in Seneca County. Wells produce from five to 400 gallons per minute and average 45 gallons per minute. Water quality is generally poor due to hardness, high dissolved solids, the presence of hydrogen sulfide, and high levels of chloride.

#### Site Geology

The facility is underlain by glacial till which is believed to be approximately 20 to 35 feet thick. The till is massive, typically very stiff to dense, with occasional lenses of sand, silt or gravel. Particle size ranges from clay to boulders. The larger sized particles are mostly limestone with occasional metamorphic or igneous rocks.

Bedrock encountered in soil borings has been described as limestone with shale and gypsum partings. Some solution fractures have been encountered in the bedrock.

#### Hydrogeology

Ten groundwater monitoring wells were installed around the plant perimeter as part of the SSVWP to assess groundwater quality. The first groundwater bearing zone occurs in glacial till, approximately four to five feet below the surface. Figure 1-2 presents groundwater elevation contours constructed from water level data collected on June 14, 1993. The water level contour map indicates groundwater flow is towards the south and southeast with a hydraulic gradient of about 0.015 feet per foot.

Slug testing, performed as a part of previous investigations, indicates that the average hydraulic conductivity, of the upper 20 feet of till is  $3.7\text{E-}05$  cm/sec. Groundwater velocity, based on the average hydraulic conductivity, a 0.015 gradient, and an estimated effective porosity of 0.30, is calculated to be 2.1 feet per year.



## **2.0 SAMPLING VISIT INVESTIGATION**

Soil samples were collected from five areas where impacts were suspected at the facility. Background samples were collected in an area that was not impacted by plant activities. This section summarizes the field work and discusses the work completed in each area.

### **2.1 Field Activities**

Field work was implemented in May 1993 and included the drilling and sampling of twenty soil borings at six locations. Chester contracted Empire Soils Investigations to provide the drilling equipment and crew. Drilling at five of the sites was performed with a truck mounted drilling rig advancing 3-3/4-inch inside diameter hollow stem augers. One site was sampled by hand tools. Soil samples were obtained using split spoon samplers that were driven into the ground according to ASTM-D 1587. The site hydrogeologist logged the soils and collected soil samples selected for laboratory analyses.

All soil samples selected for analyses were placed into iced coolers and held under the Chain-of-Custody protocol required in the site specific Quality Assurance Project Plan (QAPjP). Samples were sent to Huntington Analytical Services in Middleport, New York, which is certified in the state of New York.

Analysis of the soils were performed according to the methods presented in Table 2-1. Background soils were analyzed for cadmium, chromium, fluoride, lead, and zinc for total and leachable metals. Soils collected from facility locations were analyzed for total metals, aromatic and halogenated volatiles, benzene, toluene, ethylbenzene and xylene (BTEX), and polychlorinated biphenyls (PCBs). Results of these analyses are presented in Section 4.0 of this report.

Decontamination procedures for sampling equipment were completed according to procedures in the QAPjP and consisted of a wash with tap water and non-phosphate detergent, a rinse with tap water, a rinse with 10% acid solution, several rinses with

tap water, a rinse with pesticide grade methanol, acetone, and again with methanol, a final rinse with distilled, analyte-free water. The sampling equipment was then air dried and wrapped in aluminum foil. The drilling equipment was steam cleaned at a decontamination pad. Decontamination liquids were drummed, tested and disposed.

On completion, the soil borings were backfilled with a bentonite-cement grout.

## **2.2 Background Sampling**

An area northeast of the plant was selected as a background area based on plant maps, aerial photographs and interviews with facility personnel. Background soil boring locations are shown in Figure 1-1. The area has historically been used for agriculture; no industrial use of this area is known. Samples were collected in this area on the assumption that the samples would be characteristic of native soils.

Fourteen background soil samples were collected from two soil borings, BS-SB1 and BS-SB2. Both borings were completed to a depth of 16 feet and encountered a stiff to hard, brown silty clay with minor amounts of sand and gravel. The clay unit was identified as a glacial till. No water was encountered during the drilling. The soil borings were backfilled with a bentonite-cement grout after they were completed. Soil boring logs are presented in Appendix A.

Continuous split spoon soil samples were collected at each of the boring locations. The soil samples were analyzed for cadmium, chromium, lead, zinc and fluoride on a totals basis. A leachate generated by the Draft EPA Method 1312, Synthetic Precipitation Leaching Procedure (SPLP) was extracted from each of the soil samples and analyzed for the same elements. NYSDEC requested that SPLP be run on background soils to evaluate the potential impact of constituents in soils on groundwater quality.

## **2.3 Interim Storage Area (SO1D)**

The interim storage area, designated as SO1D, was used to store empty drums of lacquer and hydrofluoric acid, and to store drums of waste paint. This area is located

immediately south of the Building 7 truck dock. Two borings were completed in this area from which four samples were collected and analyzed to assess shallow subsurface conditions. Soil samples from borings SO1D-SB1 and -SB2 were collected six and twelve inches below the base of the asphalt and subgrade using a split spoon sampler. At this level the soil borings encountered a gray-brown silty clay with minor amounts of gravel. The soil borings were backfilled with a bentonite cement grout. Soil boring locations are shown on Figure 2-1. Soil boring logs are presented in Appendix A.

The samples were analyzed for total cadmium, chromium, lead, zinc and fluoride as well as aromatic and halogenated volatile organics.

#### **2.4 Satellite Storage Area - Loading Dock South**

The loading dock south of Building 11 was used for temporary storage of drummed waste before off-site disposal. Plant records report spills, primarily of chlorinated solvents, in the area of the truck dock. The concrete truck ramp leading to the loading dock slopes down 3.5 feet to the base of the truck dock. Concrete along this ramp is cracked.

Three soil borings, SS12-SB1, -SB2, and -SB3, were drilled in the loading dock area from which six soil samples were collected. Soil boring locations are shown on Figure 2-2. Soil samples were collected immediately below the concrete in borings -SB1 and -SB2. Borings -SB1 and -SB2 are located near the base of the truck ramp at its lowest point, which is approximately 3.5 feet below surface grade. Boring -SB3 was positioned adjacent to the truck ramp at surface grade. Accordingly, -SB3 was advanced an additional 3.5 feet to collect a soil sample at the approximation elevation as those collected at -SB1 and -SB2. All three borings encountered a stiff to very stiff, brown silty clay with minor amounts of gravel. The soil in -SB1 and -SB2 was described as moist to wet. The soil at a depth of 5 feet in -SB3 was described as wet. Soil boring logs are presented in Appendix A.

Two soil samples were collected from each split spoon and analyzed for total cadmium, chromium, lead, zinc, and aromatic and halogenated volatile organics.

## **2.5 Underground Fuel Oil Tank**

In 1985, a 12,000 gallon underground fuel oil tank, located near the south eastern corner of Building 10 was removed along with any impacted soils that were encountered during the removal action.

Three soil borings, FOT-SB1, -SB2, and -SB3, were drilled in this area from which six soil samples were collected to confirm the removal of impacted soils from the excavation. Soil boring locations are shown on Figure 2-3. Soil samples were collected from depths of 0.5 to 2.0 feet in -SB1 and -SB2 and from 2 to 4 feet in -SB3 to confirm the removal of shallow impacted soils. A deeper sample, 15 to 17 feet, was collected from all three borings to assess conditions in natural soil below the tank excavation.

Soil boring -SB2 encountered fill material, consisting of a brown-gray silty sand and gravel to a depth of 14 feet. Immediately below that was one foot of concrete. A brown silty clay was sampled below the concrete. Soil borings -SB1 and SB3 encountered a gray-brown silty clay with minor amounts of gravel. This soil type continued to a depth of 17 feet. The soils collected at that depth were described as moist to wet.

Soil samples were analyzed for benzene, toluene, ethylbenzene, and xylene (BTEX) and semi-volatile organics. Soil boring logs are presented in Appendix A.

## **2.6 PCB Capacitor Storage Area**

Twenty three PCB capacitors were removed from service in the Electrical Distribution Area, between Building 7 and Building 8. The capacitors were drummed with oil contaminated clean-up materials and packed with absorbent materials. After the removal and clean-up activities, a small area of the transformer yard appeared to be discolored due to oil spillage.



Four soil borings were drilled to a depth of approximately three feet from which eight soil samples were collected. Soil boring locations are shown on Figure 2-4. Two of the borings, PCS-SB1 and -SB2, were completed inside the fenced area at the oil stained locations. Borings PCS-SB3 and -SB4 were completed downgradient of the storage yard, just outside the fence. Two soil samples were collected at each location. The soil borings encountered a crushed stone fill about one foot thick on the surface. In borings -SB1 and -SB2 this gravel was stained with oil. Below that was a brown-gray, silty clay with minor amounts of gravel. In soil borings -SB1 and -SB2 the top 0.5 foot of soil was oil stained. Both these borings met refusal at 2.5 feet. Soil boring logs are presented in Appendix A.

In each boring, one sample was collected just below the gravel fill and another sample was collected immediately below that. The soil samples were analyzed for PCBs.

## **2.7 Open Burning Area**

Before the 1969 installation of the Aqueous Organic Incinerator, lacquer wastes were incinerated in an area south of Building 13. An above-ground, 30,000 gallon, liquid propane storage tank was built at the site. Later the propane storage tank was decommissioned and removed.

To assess potential impacts to the soil, six soil borings were drilled at locations randomly located on a grid and nine soil samples collected. The six soil borings were drilled at the locations shown in Figure 2-5. Borings OBA-SB1 through -SB6 were completed to a depth of 6.5 feet. Soil samples were collected continuously at 1.5 foot intervals starting at 0.5 feet below ground surface. The borings encountered a brown silty clay with varying amounts of gravel. Wet soils were encountered about 4 to 5 feet below the surface. Soil boring logs are presented in Appendix A.

A Flame Ionization Detector (FID) was used to conduct head space analyses on each split spoon sample. Samples with head space readings 5 ppm above background ambient air were selected for analysis. In the event no headspace readings were above 5 ppm at a single boring, the sample with the highest reading was selected, or a

sample was selected at random. Soil samples were analyzed for aromatic and halogenated volatile organics.

## **2.8 Sumps and Drains**

The sampling of selected pits, sumps, floor drains, and trenches was to be part of this investigation. However, the areas inside the plant buildings were designated as an inaccessible Solid Waste Management Unit (SWMU). As a result, the proposed sampling was removed from the investigation. A detailed description of the work performed on the units inside the plant buildings will be presented in the Supplementary Sampling Visit Investigation Report.

## **2.9 Inaccessible SWMU-Groundwater Monitoring Program**

A Supplemental Sampling Visit Work Plan (SSVWP) was prepared to address the facility sewers which handled all process wastewater prior to 1972, nine former UST locations and the inaccessible SWMU designation for the plant buildings. As part of the inaccessible SWMU designation, monitoring wells were installed around the plant buildings to monitor the local groundwater regime. The Supplemental Sampling Visit Investigation (SSVI) has been completed. The Supplemental Sampling Visit Report will be submitted in March 1994 and will include details of field activities and the results of those field activities which address the facility sewers, the former UST's and the inaccessible SWMU. Mention of this work is made because the results of the groundwater monitoring program are pertinent to and included in the discussion of inorganic background concentrations.



### **3.0 ANALYTICAL RESULTS**

#### **3.1 Background**

Soil samples were collected at borings BS-SB1 and BS-SB2 to a depth of 16 feet. The total soil column, consisting of nine soil samples from each boring, was analyzed on a total dry weight basis for total metals; fluoride, cadmium, chromium, lead, and zinc. A leachate, generated by the Synthetic Precipitation Leaching Procedure (SPLP), was analyzed for the same elements. A summary of the analytical results is shown on Table 3-1. All the analytical results are presented in Appendix B.

##### **3.1.1 Total Metals**

###### **Cadmium**

Cadmium was detected in two of the 14 soil samples at levels of 1.7 and 1.3 mg/Kg. Cadmium was not detected in the remaining seven background soil samples. The NYSDEC action level for cadmium in soils is 1 mg/Kg.

###### **Chromium**

Chromium was detected in excess of the NYSDEC action level of 10 mg/Kg in all 14 background soil samples. Chromium concentrations ranged from 12.3 to 26.4 mg/Kg.

Because the NYSDEC action level for total chromium was exceeded in all 14 background samples, an average background concentration was calculated. The average total chromium concentration was 16.0 mg/Kg. The standard deviation, using the 14 background samples was 5.2 mg/Kg. Two standard deviations above the average were used to approximate a 95% confidence interval. The resultant concentration is 26.3 mg/Kg. Two standard deviations above the average background value will encompass a range of values that would normally fall within background concentrations.

### Lead

Lead was detected in all 14 background soil samples. Only the 0 to 2-foot soil sample from both -SB1 and -SB2 were higher than the NYSDEC action level of 30 mg/kg. However, the average lead concentration using all background soil samples was 15.9 mg/Kg.

### Zinc

The 20 mg/Kg NYSDEC action level for zinc was exceeded in all 14 background soil samples. Zinc concentrations ranged from 49.3 to 33.1 mg/Kg.

Because the NYSDEC action level for total zinc was exceeded in all 14 background samples, an average background concentration was calculated. The average total zinc concentration was 41.0 mg/Kg with a standard deviation of 10.4 mg/Kg. Two standard deviations above the average were used to approximate a 95% confidence interval, the resultant concentration is 61.7 mg/Kg. Two standard deviations above the average background value will encompass a range of values that would normally fall within background concentrations.

### Fluoride

The average total fluoride background concentrations averaged 1.6 mg/Kg which is below the NYSDEC action level of 30 mg/Kg.

Concentrations of chromium, lead, and zinc occurred at higher concentrations in the 0 to 2-foot soil samples from -SB1 and -SB2. The remaining samples, collected lower in the soil column, generally displayed lower concentrations. The occurrence of chromium, lead, zinc, and fluoride throughout the soil column suggests the four elements are naturally occurring. However, the scattered occurrence of cadmium at concentrations slightly above its detection limit of 1 mg/Kg does not exclude it from being an element naturally occurring in the soil at concentrations above the NYSDEC action level.

### **3.1.2 SPLP Leachate**

The Synthetic Precipitation Leachate Procedure (SPLP) was performed on all the background soil samples. The SPLP is a draft EPA method which was requested by the NYSDEC in an attempt to evaluate the potential for metals in the soils to impact groundwater. Philips submitted a letter of concern to the NYSDEC regarding the reliability of the SPLP method to adequately determine the leaching potential of site soils and its impact on groundwater quality.

The following are the results from the SPLP on background soils:

- Cadmium was not detected in any of the leachates from the eight soil samples.
- Chromium was detected in the leachate from all the soil samples. All the leachate concentrations exceeded the NYSDEC groundwater action level of 0.05 mg/L.
- Lead leachate concentrations exceeded the NYSDEC groundwater action level of 0.015 mg/L in all the samples. The designation of "J" adjacent to the concentrations indicates the values for lead are between the EPA method detection limit and the detection limit of the analytical device.
- The NYSDEC groundwater action level of 0.30 mg/L for zinc leachate concentrations was exceeded in all the samples.
- Fluoride leachate concentrations did not exceed the NYSDEC ground water action level of 1.5 mg/L.

### **3.1.3 Inaccessible SWMU-Groundwater Monitoring**

Analytical results from soil samples collected during completion of soil borings to accommodate the 10 monitoring wells installed during the Supplemental Sampling Visit Investigation indicates that inorganic compounds of cadmium, chromium, fluoride, lead, and zinc occur in concentrations similar to concentrations in

background soil samples. Groundwater analyses from two rounds of groundwater sampling indicate that the concentrations of aqueous inorganic compounds occur either below detection limits or at concentrations below the NYSDEC action levels. The analytical results for inorganics in soils are presented in Table 3-2; the analytical results for the first and second rounds of groundwater sampling are presented in Tables 3-3 and 3-4, respectively. Analytical results are presented in Appendix B.

The following discussion presents the analytical results on the soils and groundwaters collected from the 10 monitoring wells installed during the SSVI.

### Cadmium

Cadmium was detected in four of the 24 soil samples collected from monitoring well borings. Concentrations above the detection limit ranged from 1.2 to 18.8 mg/Kg. These concentrations are generally above background concentrations of 1.3 to 1.7 mg/Kg and the NYSDEC action level of 1 mg/Kg. However, Cadmium was not detected in any of the groundwater samples.

### Chromium

Chromium was detected in all twenty-four soil samples collected from monitoring well locations. Concentrations ranged from 8.9 to 25 mg/Kg, which are similar to the background average of 16 mg/Kg and below two standard deviations from the mean of 26.3 mg/Kg. Twenty-three of the soil samples had concentrations of cadmium above the NYSDEC action level of 10 mg/Kg.

Chromium was detected in groundwater from only one well, MW-25, from the first sampling event, at a concentration of 16 ug/L. This concentration is below the NYSDEC action level of 50 ug/L. Chromium was not detected in the second round of groundwater sampling.

### Lead

Lead was detected in twenty-three of the twenty-four soil samples collected from monitoring well locations; concentrations ranged from 9.2 to 275 mg/Kg. There were four values above the NYSDEC action limit of 30 mg/Kg.

Lead was detected in groundwater in only one well, MW-27, from the first sampling event, at a concentration of 6 ug/L. In the second sampling event, lead was detected in six wells at concentrations ranging from 4.0 to 13.6 ug/L, however, lead was detected in the rinsate sample during this round. Based on lead in the rinsate blank, the lead values have been qualified as non-detect. Lead concentrations for both sampling events were below the NYSDEC action level of 15 ug/L.

### Zinc

Zinc was detected in all 24 soil samples collected from monitoring well locations at concentrations ranging from 31.8 to 150 mg/Kg, all above the NYSDEC action level of 20 mg/L. Thirteen of the 24 samples were below the average background concentration of 41.0 mg/Kg, whereas, 18 of the 24 soil samples, which include the previous 13 samples, were below the background mean plus two standard deviations (61.7 mg/Kg).

Zinc was not detected in groundwaters collected from the ten newly installed monitoring wells during the first sampling event. However, zinc was detected in three wells, (MW-22, MW-25, and MW-29) at concentrations ranging from 24.1 to 25.7 ug/L. These concentrations are well below the NYSDEC action level for zinc of 300 ug/L.

### Fluoride

Fluoride was detected in all soil samples collected from monitoring well locations, at concentrations ranging from 0.59 to 7.6 mg/Kg. These concentrations are above the background average of 1.6 mg/Kg, but below the NYSDEC soil action level 30 mg/Kg.



Fluoride was detected in groundwater samples collected during both sampling events at concentrations ranging from 150 to 1120 ug/L. These concentrations are well below the NYSDEC action level for fluoride 1500 ug/L.

### **3.2 Interim Storage Area (SO1D)**

Two samples were collected from each of the two soil borings drilled in the Interim Storage Area (SO1D). Samples were collected 1.0 to 1.5 feet and 1.5 to 2.0 feet below the asphalt. The borings are designated SO1D-SB1 and SO1D-SB2. The samples were analyzed for total cadmium, chromium, lead, and zinc, aromatic volatiles and halogenated volatiles. A summary of the analytical results is shown on Table 3-5. The analytical results are presented in Appendix B.

#### **3.2.1 Total Metals**

Cadmium was not detected in any soil samples. Chromium concentrations ranged from 24.9 to 37.1 mg/kg, which are above the NYSDEC action level of 10 mg/Kg. However, these concentrations are similar to the average background concentration plus two standard deviations (26.3 mg/Kg) and the concentrations detected in the both background soil samples collected from 0 to 2 feet (26 mg/Kg and 30 mg/Kg). Lead concentrations ranged from 32.0 to 43.7 mg/kg, which are slightly above the action level of 30 mg/Kg for lead and similar to the 0 to 2 foot soil samples collected from the background borings (30 mg/Kg and 34 mg/kg). Zinc concentrations ranged from 60 to 88.2 mg/Kg, which are above the NYSDEC action level of 20 mg/Kg, but similar to the background average plus two standard deviations (61.7 mg/Kg) within the range of the 0 to 2 foot background samples (49 mg/Kg to 75 mg/Kg).

#### **3.2.2 Aromatic and Halogenated Volatiles**

Four halogenated volatile compounds only were detected: xylene, vinyl chloride, cis-1,2-dichloroethene (cis-1,2-DCE) and trichloroethene (TCE). Xylene was at a concentration of 55.6 ug/Kg in the 1.0 to 1.5 foot interval in boring SO1D-SB1. This



concentration is below the NYSDEC action level of 1200 ug/Kg. No other compounds were detected in samples from boring SO1D-SB1.

Vinyl chloride, cis-1,2-DCE, and TCE were detected in samples from SO1D-SB2. The only constituent above NYSDEC action levels is cis-1,2-DCE at 236 ug/Kg (1.0 to 1.5-foot sample) and 208 ug/Kg (1.5 to 2-foot) sample. Both concentrations of cis-1,2-DCE were above the NYSDEC action level of 100 ug/Kg.

Vinyl chloride was detected in -SB2 at a concentration of 110 ug/Kg in 1.5 to 2-foot interval, which is below the 200 ug/Kg action level.

TCE was detected in the 1.0 to 1.5 foot interval in boring -SB2, which was below the NYSDEC action level of 700 ug/Kg.

### **3.3 Satellite Storage Area - Loading Dock South**

Three soil borings, SS12-SB1, -SB2, and -SB3, were drilled in the satellite storage area. Two soil samples were collected and analyzed for volatile organics and metals at each boring. A summary of the analytical results is shown on Table 3-6. All the analytical results are presented in Appendix B.

#### **3.3.1 Total Metals**

Cadmium was not detected in any soil samples collected from the Satellite Storage Area.

Chromium was detected in all samples. Chromium concentrations ranged from 11.8 to 18.6 mg/Kg, which were above the NYSDEC action level of 10 mg/Kg, but below the background average plus two standard deviations of 26.3 mg/Kg.

Lead was detected in all samples. Concentrations ranged from 11.9 to 18.2 mg/Kg. The samples were below the NYSDEC action level of 30 mg/Kg for lead. Zinc was detected in all samples. Zinc concentrations ranged from 31.3 to 41.9 mg/Kg, which are above the NYSDEC action level of 20 mg/Kg, but below the average plus two

standard deviations of 61.7 mg/Kg. Zinc was also detected in the rinsate blank at a concentration of 0.0259 mg/L.

### **3.3.2 Halogenated Volatiles**

Four halogenated organic constituents were detected in the soil samples: TCE, 1,1-dichloroethane (1,1-DCA), 1,1-trichloroethane (1,1,1-TCA), and cis-1,2-DCE.

TCE was detected in three of borings; concentrations ranged from 5.7 ug/Kg to 20.4 ug/Kg. These concentrations were below the action level of 700 ug/Kg.

The constituent 1,1-DCA was detected in the 3.5 to 4.5 foot sample from boring SS12-SB3 at a concentration of 11.3 ug/Kg, which is below the action level of 200 ug/Kg.

Concentrations of 1,1,1-TCA were detected in two borings at concentrations ranging from 7.9 to 11.5 ug/Kg, which are below the action level of 800 ug/Kg.

The compound cis-1,2-DCE was detected in two borings. Concentrations ranged from 5.7 to 11.1 ug/Kg, which are below the action level of 100 ug/Kg.

### **3.4 Underground Fuel Oil Tank**

Three soil borings, FOT-SB1, -SB2, and -SB3, were completed in the area of the former fuel oil tank. A shallow and a deep soil sample was collected from each boring and analyzed for benzene, toluene, ethylbenzene, xylene (BTEX) and halogenated volatiles. A summary of the analytical results is presented on Table 3-7. All the analytical results are presented in Appendix B.

#### **3.4.1 BTEX and Halogenated Volatiles**

The BTEX compounds were not detected in any of the soil samples from the fuel oil tank investigation. However, halogenated volatiles were detected in the shallow samples from FOT-SB2 and -SB3. Nineteen halogenated volatiles were detected in

the shallow soil sample from 0.5 to 2.0 feet in -SB2. Six compounds are above action levels: benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, chrysene, and dibenz(a,h)anthracene. Eight halogenated volatiles were detected in the shallow soil sample from 2 to 4 feet in -SB3. None of the constituent concentrations are above NYSDEC action levels. Halogenated volatiles were not detected in the deeper samples in the Underground Fuel Oil Tank Area.

### **3.5 PCB Capacitor Storage Area**

Two soil samples were collected from each of the four soil borings, PCS-SB1 through -SB4, completed in the PCB Capacitor Storage Area. Analytical results indicate PCB was not detected in these samples. Analytical results are shown in Appendix B.

### **3.6 Open Burning Area**

Six soil borings, OBA-SB1 through -SB6, were completed in the open burning area. Head space analysis was performed on all samples collected. Samples that exhibited elevated head space readings were selected for laboratory analysis. The result of the head space analysis is presented in Table 3-8. The head space screening identified nine samples for laboratory analysis. The highest reading observed (78 ppm) was obtained from the 0.5 to 2.0 depth sample from boring -SB4. All other head space readings were below 30 ppm. A summary of the analytical results is shown on Table 3-9. All the analytical results are presented in Appendix B.

Methylene chloride was detected in all nine soil samples at concentrations from 28 to 45 ug/Kg. This parameter is a typical laboratory contaminant. Because the laboratory method blank contained methylene chloride, the compound is considered nondetected. The trip blank and rinsate blank did not contain methylene chloride. Regardless of source, these concentrations of methylene chloride are below the NYSDEC Action Level of 100 ug/kg. Trichloroethene was detected in only the 2.0 to 3.5 foot sample from boring OBA-SB1 at a concentration of 8.4 ug/Kg which is below the 700 ug/kg Action Level.

### 3.7 Field Quality Control Samples

Rinsate Blanks and trip blanks were collected as described in the Quality Assurance Project Plan (QAPjP). All the blanks were aqueous. The following elements or compounds were detected in the field blanks:

- Rinsate Blank (RB)-01 was sampled for metals on a total and SPLP leachate basis. The analyses indicated 0.028 mg/L zinc on a totals basis and 0.02 mg/L zinc in the leachate.
- RB-03 was analyzed for the same parameters and contained 0.10 mg/L fluoride on a totals basis.
- RB-20 was analyzed for metals on a totals basis and contained 0.026 mg/L zinc.
- RB-12 was analyzed for semi-volatiles and contained 7 ug/L bis(2-ethylhexyl)phthalate, a common laboratory contaminant.

No contaminants were detected in rinsate blanks RB-13, RB-21, RB-23 and trip blanks TB-07, TB-14, TB-16.

### 3.8 Results of Sample Verification

This section summarizes the findings of the third party independent data validation reports for the analytical data collected for the Seneca Falls, New York RFA under the SVWP. Since the QAPjP required only twenty-five percent of one-time sampling data be validated by a third party independent data validator, only a representative portion of the SVWP generated data were arbitrarily selected for data validation. Data validation reports were generated by AWD Technologies, Inc. for three of the data packages produced by the analytical laboratory as part of the SVWP, Huntington Analytical Services (data package numbers 93-0809, 93-0661 and 93-0723). Data package number 93-0809 consisted of nine surface and subsurface soils collected from the area designated as the Open Burning Area (OBA), one

equipment rinsate blank, and one trip blank analyzed for volatile organics by EPA Methods 8010 and 8020. Data package number 93-0661 consisted of seventeen surface and subsurface soils primarily from the area designated as the site Background Soil Area (BS), three equipment blanks, and one trip blank. The background soil samples were analyzed for cadmium, chromium, lead, zinc, and fluoride both as totals and also following Synthetic Precipitate Leaching Procedure (SPLP) extraction. Combined data package number 93-0723/13 which contains samples from the SVWP and samples from the Supplemental Site Visit Work Plan (SSVWP) is presented under separate cover for this site. Samples pertaining to the SVWP in this combined data package consisted of eight surface and subsurface soils from the area designated as the PCB Capacitor Storage (PCS), six surface and subsurface soils from the area designated as the Fuel Oil Tank (FOT), three rinsate blanks, and one trip blank. The PCS samples and related blanks were analyzed for polychlorinated biphenyls only, and the FOT samples and relative blanks were analyzed for aromatic volatile organics by EPA Method 8020 and for semivolatile organics by EPA Method 8270.

The data generated was first reviewed for technical completeness according to requirements specified in the applicable analytical methods and/or the site-specific QAPjP. The review of the technical completeness of the referenced data packages identified the following:

- An end-run continuing calibration verification (CCV) analysis for Method 8020 and an initial CCV analysis for Method 8010 in 93-0809 was lost due to computer or analytical errors.
- The frequencies of CCV for the volatile organic compound (VOC) analyses in all data packages were approximately half the frequency specified in the QAPjP.
- Low level gas chromatographic (GC) organic analytical results could not be confirmed by manual calculation. The laboratory explained that the intercept for the linear regression was forced through zero causing differences in

computer-generated and hand calculated concentrations, particularly at low concentrations.

- Surrogates were not added to any of the initial calibration standards for the VOC analyses in any of the data packages. The laboratory calculated the surrogate recoveries from the responses in the one-point daily calibration standard.
- The laboratory miscalculated most of the percent relative standard deviations (%RSD) in the VOC initial calibrations for both data packages. The validator examined the acceptance of the initial calibrations by evaluating the correlation coefficients of the fit of the linear regression of the five-point calibration responses.
- The laboratory used the method-specified number of three standards and a blank instead of the QAPjP-specified number of four standards and a blank for the graphite furnace atomic absorption (GFAA) analysis for lead.
- The laboratory reported the same detection limits for the aqueous blank samples as the solid samples for the VOC analyses even though aqueous detection limits are normally lower than for solid samples. The soil samples received a five-fold dilution to report the client-required detection limits. The validator reviewed the blank sample results from raw sample data for their impact to associated environmental samples.
- VOC, CCV summaries were not submitted by the laboratory for data package number 93-0661. The validator calculated recoveries from the CCV analyses raw data.
- A matrix spike/matrix spike duplicate (MS/MSD) analysis was performed for solid samples in data package number 93-0661. However, the laboratory did not supply the raw data or a summary of the results of the VOC MS/MSD analyses.



- An initial calibration %RSD summary was not supplied by the laboratory for the GC/MS semivolatile organic analyses in data package number 93-0661. The validator calculated the %RSDs for the method-specified CCC compounds finding them all acceptable. The validator assumed from this fact that the entire initial calibration was acceptable.
- A continuing calibration verification (CCV) analysis for Method 8270 in 93-0723 was not provided. The validator calculated percent differences (%Ds) for the CCC compounds. Since none were outside QC limits, the validator assumed the continuing calibration was valid.
- The laboratory used a surrogate spike amount for the acid compounds in the semivolatile analyses of 150 ug/ml rather than the method-specified 200 ug/ml. In addition, the base neutral surrogate spike was twice the QAPjP specified amounts.
- The mass spectral identification raw data were not provided for the positive detections of the semivolatile analyses in data package numbers 93-0713 and 93-0723. Therefore, the validator could not confirm the semivolatile identifications in these data packages.
- The laboratory did not follow the QAPjP matrix spike concentration guidance for the 8010 and 8020 analyses.
- An initial calibration provided by the laboratory associated with some of the Method 8020 results in data package number 93-0723 was performed after the samples were analyzed. Since CCVs were analyzed at the beginning and end of the run and were within limits, the validator did not qualify associated sample results.
- An initial calibration blank was not run after the initial calibration verification of the fluoride analysis in data package number 93-0713. In addition, the number of samples between the initial calibration verification and the

subsequent CCV for the fluoride analyses in this package slightly exceeded the QAPjP recommended frequency.

- An initial calibration for PCBs 1016, 1221, and 1232 were not provided with data package number 93-0713/23. However, continuing calibrations were provided and the validator used these chromatograms to check for PCB pattern recognition. No PCB patterns were matched from the continuing calibration chromatograms to the sample chromatograms.
- Retention time and percent difference summaries were not provided for the PCB analyses in work order number 93-0713/23. The validator examined these criteria from raw data and found them acceptable.

The validator did not believe that any of these issues related to technical completeness of the SVWP analytical data were singularly or cumulatively significant enough to reject any sample data. Many of these problems resulted in the validator qualifying the associated sample results and/or detection limits as estimated. In many cases listed above, the validator recalculated or determined results of the environmental sample results and/or the associated QC analyses from raw sample data or via an alternative QC evaluation measure. The validator concluded that the data in the three validation reports should be accepted for intended uses as qualified.

Following review for technical completeness, the validator evaluated QC analyses associated with chemical analyses of the environmental samples in the three referenced data packages. This evaluation provides an examination of the accuracy of the analytical data based on the results of the associated QC analyses according to requirements specified in the QAPjP, the analytical method, and/or the National Functional Guidelines for evaluating Organic (Viar and Co., Eds. 6/91) and Inorganic (Viar and Co., Eds. 7/88) Analyses.

Following evaluation of the QC analyses concerning the precision and/or accuracy of the selected SSVWP analytical data, the following major problem was noted. Major problems were classified in these reviews as QC limit violations that resulted in data rejection.

- The aromatic volatile target compound styrene was not found in the Method 8020 continuing calibration analysis on instrument "F" pertaining to data package number 93-0723. In addition, there was no evidence of styrene being run in the Method 8020 initial or continuing calibration analyses on instrument "19" in the same data package. As a result, the results reported by the laboratory in 93-0723 are invalid and the results are rejected by the validator. All of the affected results were reported by the laboratory as nondetected.

The following minor and typical QC issues were noted by the validator which did not result in data rejection, but may have resulted in corrections in results reported and/or resulted in data qualifications indicating estimated data.

- Blank contamination of methylene chloride was identified in laboratory and field blanks in data package numbers 93-0809 and 93-0713/23. The validator appropriately qualified impacted associated methylene chloride results as nondetected. The validator had to identify some of these blank contaminants from the raw data due to the high detection limits reported for aqueous samples for the VOC analyses (see note above).
- Rinsate blank contamination was identified for zinc in data package number 93-0713. The validator qualified impacted associated results as nondetected.
- The soil laboratory duplicate RPD for zinc exceeded the 35 percent QC limit in data package number 93-0713. Associated positive and nondetected zinc results were qualified as estimated in this sample set.
- An aqueous laboratory duplicate analysis of zinc in data package number 93-0713 exceeded the +/- MDL difference QC limit. The only impacted result (a rinsate blank) was qualified as estimated.
- An 8020 chromatogram for sample FOT-SB3-02 showed a late eluting baseline rise that was excessive. The validator qualified the late eluting

compounds, 1,2-dichlorobenzene, 1,3-dichlorobenzene, and 1,4-dichlorobenzene as estimated.

- Bis(2-ethylhexyl)phthalate blank contamination was noted in rinsate blank RB-12 in work order 93-0713/23. The validator qualified impacted associated results as nondetected.
- Minor qualifications for continuing calibration limit exceedances were noted for volatile and semivolatile analyses in all data packages. The validator qualified associated results as estimated.
- Low level positively detected bis(2-ethylhexyl)phthalate results in a soil field duplicate pair in data package number 93-0661 were not comparable. On the basis of this variability, the validator qualified the bis(2-ethylhexyl)phthalate results in the field duplicate pair as estimated.
- Analytical post digestion spikes exceeded the upper QC limit for lead in data package number 93-0661. The lead results affected by this problem were qualified as estimated.
- The validator had qualified VOC results for the two field blank samples in data package number 93-0809 as estimated due to an assumed holding time violation. However, the samples were preserved and no holding time exceedance occurred. Therefore, no qualifications were necessary.

All of these qualification actions were typical in nature for the types of analyses validated. None of the QC limit exceedances, other than for styrene, were severe enough to require rejection of environmental sample results. The validator took the appropriate qualification actions according to requirements of the U.S. EPA Functional Guidelines for Evaluating Organic and Inorganic Analyses.

None of the problems identified by the validator appear to be significant enough to limit the use of the data for site characterization purposes, except for the rejected styrene analyses. Although a number of minor analytical and QC problems were

noted, the data appear to be reproducible and comparable. This conclusion is based on consistency noted in sample parameters and concentrations reported in site areas of concern and by evaluation of the majority of the QC measures that indicate that the precision and accuracy of the data are acceptable.



## **4.0 SUMMARY AND CONCLUSIONS**

For data presented in this report, Chester considered action levels for both inorganic and organic constituents when evaluating the need for additional investigation of a specific area. The need for further investigation of inorganics was based on NYSDEC action levels for cadmium, lead, and fluoride and average background concentrations plus two standard deviations for chromium and zinc. The discussion on background soil concentrations presented below provides Chester's reasoning for selecting these action levels.

### **4.1 Background Soil Concentrations**

Concentrations of inorganic elements in background soils occurred bimodally, that is shallow soils exhibited almost double the concentrations of chromium, fluoride, lead and zinc than those found in deeper soils. This situation may be due in part to the use of fertilizers when the area was used as farmland and in part to industrialization in the northeast. This pattern has been noted in other areas where potential inorganic contamination was investigated. Chester feels this bimodal distribution of elements occurs as the result of conditions unrelated to the operation of the facility.

The SPLP is a draft EPA test method (Method 1312) that was required by the NYSDEC as part of the investigative program at the Seneca Falls facility to assess the potential for constituent migration to groundwater. Philips submitted a letter to the NYSDEC expressing their concern regarding the reliability of the SPLP method to adequately determine the leaching potential of site soils and its impact on groundwater quality.

The results of the SPLP tests indicate that leachate concentrations for cadmium and fluoride were either below detection limits or below NYSDEC action levels. Leachate concentrations for chromium, lead and zinc were about 1% of the total soil concentration for each metal resulting in leachate concentrations exceeding NYSDEC action levels. However, a comparison of chromium, lead and zinc concentrations which exceed action levels in soils collected at monitoring well

locations, with the analytical results of two rounds of groundwater sampling indicate otherwise. Soils collected at monitoring well locations MW-20 through MW-29 contained concentrations of these metals above action levels and similar to those detected at the background soil sampling locations. Based upon the SPLP results from background soil samples, groundwater samples would potentially show exceedances of NYSDEC action levels at monitoring well locations. The analytical results from the two rounds of groundwater sampling show that the concentrations of these metals are either below detection limits or below NYSDEC action levels. Accordingly, the SPLP protocol is too rigorous and does not accurately represent the leaching potential of site soils. The SPLP data will be disregarded for future use.

#### **4.1.1 Cadmium**

Total cadmium was detected slightly above the detection limit of 1 mg/Kg in two of the eight background soil samples. Chester concludes that the NYSDEC action level of 1 mg/Kg in soils and 0.005 mg/L in groundwater should be used when evaluating this element.

#### **4.1.2 Chromium**

The average total chromium concentration in 14 background soil samples was 16.0 mg/Kg. The standard deviation, using 14 background samples, was 5.2 mg/Kg. Two standard deviations above the average were used to approximate a 95% confidence interval. The resultant concentration is 26.3 mg/Kg. This concentration is above the NYSDEC action limit of 10 mg/Kg. Analytical results from groundwater sampling indicate that groundwater, located below soils containing concentrations of chromium similar to 26.3 mg/Kg, do not contain levels of chromium above drinking water standards. Chester concludes that the higher background level of 26.3 mg/Kg does not degrade the groundwater quality and should replace the NYSDEC level of 10 mg/Kg in evaluation of data collected at the Seneca Falls facility.

#### **4.1.3 Lead**

The average total lead concentration in 14 background soil samples was 15.9 mg/Kg. This average is below the NYSDEC action level of 30 mg/Kg. Groundwater analytical results indicate that the groundwater below soils containing concentrations of lead similar to NYSDEC action levels does not exceed the drinking water standards. Chester recommends that the NYSDEC action level of 30 mg/Kg be used when evaluating the presence of lead in the soils.

#### **4.1.4 Zinc**

Average total zinc concentration in 14 background samples was 41.0 mg/Kg with a standard deviation of 10.4 mg/Kg. Two standard deviations above the average were used to approximate a 95% confidence interval, the resultant concentration is 61.7 mg/Kg. The average background concentration is above the NYSDEC action limit of 20 mg/Kg. However, analytical results indicate that groundwater below soils containing concentrations of zinc similar to the average plus two standard deviations (61.7 mg/Kg) does not exceed drinking water standards for zinc. Chester concludes that the average background concentration plus two standard deviations (61.7 mg/Kg) does not degrade the groundwater, is below soil health based ingestion level of 20,000 mg/Kg, and should be used in place of the NYSDEC level of 20 mg/Kg to evaluate the presence of zinc in the soil.

#### **4.1.5 Fluoride**

Average total fluoride background concentrations averaged 1.6 mg/Kg, which is below the NYSDEC action level of 30 mg/Kg. Chester recommends that the NYSDEC action level be used when evaluating the presence of this element.

### **4.2 Interim Storage Area (SO1D)**

Concentrations of chromium, lead, and zinc were above the NYSDEC action levels and slightly above background evaluation criteria for soils. However, the soil samples were collected at a depth interval of 1 to 2 feet. The metals concentrations

found in soils from Area SO1D are close to the concentrations of metals determined from background soil samples collected from 0 to 2-feet. Chester feels the elevated concentrations of metals in near surface soils in Area SO1D are a background condition, and should not be cause for additional action.

The concentration of cis-1,2-DCE was above the NYSDEC action level. Chester concludes that a single compound slightly above NYSDEC action levels does not constitute a significant risk to human health and the environment. Chester recommends that no additional action be taken at this location.

#### **4.3 Satellite Storage Area - Loading Dock South**

Four halogenated volatiles, 1,1,1-TCA, cis-1,2-DCE, 1,1-DCA and TCE, were detected in the soils at concentrations well below NYSDEC action levels. Total lead levels were below the NYSDEC action level of 30 mg/Kg. Chester concludes that the soils at this site will not constitute a risk to human health and environment and recommends that no additional action be taken at this location.

#### **4.4 Underground Fuel Oil Tank**

Semi-volatile compounds were encountered in one shallow soil sample at levels above the NYSDEC action levels. No semi-volatiles were detected in soil samples below the base of the tank excavation. Recently, during the excavation and installation of a storm sewer line, petroleum impacted soils were encountered in this area. The vertical and horizontal extent of impacted soils was not determined during this work. The sewer trench was lined with plastic to prevent contamination of the newly placed clean fill and to act as a marker for future work in this area.

Chester recommends that a further assessment of the site be made.

#### **4.5 PCB Capacitor Storage Area**

Polychlorinated biphenols (PCBs) were not detected in the soil samples at the former PCB capacitor storage area. Chester concludes that the area has been

cleaned to appropriate levels and recommends that no additional activity be implemented at the former PCB capacitor site.

#### **4.6 Open Burning Area**

The organic compound TCE was detected in one soil sample at a concentration well below NYSDEC action levels. Methylene chloride was detected in all nine soil samples at concentrations below the NYSDEC action levels. Because the laboratory method blank contained methylene chloride, whereas the trip blank and equipment blank did not, Chester concludes the incidence of methylene chloride in the soil samples was the result of laboratory cross contamination and is not site related. Chester concludes that the soils at the former open burning area do not constitute a threat to human health and the environment and recommends that no additional activity be implemented at the site.

#### **References**

Mozola, Andrew J., The Groundwater Resources of Seneca County, New York, Bulletin GW-26, Albany, New York, 1951.





TABLE 2-1

**RFA SAMPLING VISIT INVESTIGATION  
SENECA FALLS, NEW YORK**

**SAMPLE ANALYSIS SUMMARY**

Area of Investigation	No. of Samples ++	No. of Borings	Parameter	Analytical Method
Interim Storage Area/Soils	4	2	Total Chromium	SW6010
			Total Lead	SW6010
			Aromatic Volatiles	SW8020
			Halogenated Volatiles	SW8010
Satellite Storage Area-Loading Dock/Soils	6	3	Total Chromium	SW6010
			Total Lead	SW6010
			Aromatic Volatiles	SW8020
			Halogenated Volatiles	SW8010
Fuel Oil Tank/Soils	6	3	BETX(*1)	SW8020
			Semivolatiles	SW8270
Open Burning Area/Soils	9	6	Aromatic Volatiles	SW8020
			Halogenated Volatiles	SW8010
PCB Capacitor	8	4	Polychlorinated Biphenyls	SW8080
Background Sampling Soils	14	2	Fluoride	EPA 1312/340.2 (*2)
			Cadmium	EPA 1312/200.7 (*2)
			Chromium	EPA 1312/200.7 (*2)
			Lead	EPA 1312/239.2 (*2)
			Zinc	EPA 1312/200.7 (*2)
			Total Fluoride (*3)	EPA 340.2
			Total Cadmium	SW6010
			Total Chromium	SW6010
			Total Lead	SW6010
			Total Zinc	SW6010

(\*1) Aromatic volatile compounds toluene, benzene, ethylbenzene, and total xylenes .

(\*2) The listed metals and fluoride soil sample analyses will be extracted using SW1312 -Synthetic Precipitation Leaching Procedure prior to sample analysis

(\*3) Soil fluoride analysis performed by extraction shake method, described in Chester Laboratory's Standard Operating Procedure

++ The number of samples does not include field QC samples.

TABLE 3-1  
TOTAL & SPLP LEACHATE INORGANIC  
CONCENTRATIONS DETECTED IN  
SITE BACKGROUND SOILS

PHILIPS DISPLAY COMPONENTS COMPANY  
SENECA FALLS, NEW YORK

FIELD SAMPLE ID:			BS-SB1-01	BS-SB1-03	BS-SB1-04	BS-SB1-05	BS-SB1-06
SAMPLE INTERVAL:			0-2'	4-6'	6-8'	8-10'	10-12'
LABORATORY SAMPLE ID:			0661-01	0661-02	0661-03	0661-04	0661-05
DATE SAMPLED:			5-03-93	5-03-93	5-03-93	5-03-93	5-03-93
DATE ANALYZED:			5-21-93	5-21-93	5-21-93	5-21-93	5-21-93
% SOLID:			80.3	90.7	90.9	90.1	89.2
DILUTION FACTOR:			1X	1X	1X	1X	1X/2X (Pb)
UNITS	WET WEIGHT DETECTION LIMIT	NYSDEC ACTION LEVEL	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
<b>TOTALS</b>							
CADMIUM	1.0	1.0	1.7	ND	1.3	ND	ND
CHROMIUM	2.0	10.0	26.4	12.3	15.4	13.5	13.1
LEAD	8.0	30.0	30.3	10.8	13.9	12.6	11.1
ZINC	4.0	20.0	49.3	33.1	35.6	35.3	38.6
FLUORIDE	0.4	30.0	1.0	1.1	1.2	1.1	1.8
UNITS	DETECTION LIMIT	NYSDEC ACTION LEVEL	mg/L	mg/L	mg/L	mg/L	mg/L
<b>SPLP LEACHATES</b>							
CADMIUM	0.005	0.005	ND	ND	ND	ND	ND
CHROMIUM	0.01	0.050	0.26	0.11	0.11	0.12	0.11
LEAD	0.003	0.015	0.045 J	0.040 J	0.038 J	0.059 J	0.041 J
ZINC	0.02	0.3	0.53	0.37	0.48	0.47	0.49
FLUORIDE	0.1	1.5	0.17	0.14	0.15	0.16	0.16

**NOTES**

- All aqueous lead analyses were performed on 5/13/93 and all fluoride analyses were performed on 5/27/93.
- All metals were analyzed by Method 6010 except aqueous lead results (Method 7421). All fluoride results by Method 340.2.
- Detection limits for the aqueous blanks reported with the total metals results are actually those reported for the SPLP analyses.
- The soil sample positive detections reported are in dry weight concentrations.
- Action Levels for SPLP analyses are the groundwater Action Levels for the associated compound.

**KEY**

SPLP = Synthetic Precipitate Leaching Procedure  
ND = Not Detected  
--- = Not applicable

ug/Kg = Microgram per kilogram (part per billion solid)  
mg/L = Milligram per Liter (part per million aqueous)  
ug/L = Microgram per Liter (part per billion aqueous)

TABLE 3-1  
TOTAL & SPLP LEACHATE INORGANIC  
CONCENTRATIONS DETECTED IN  
SITE BACKGROUND SOILS

PHILIPS DISPLAY COMPONENTS COMPANY  
SENECA FALLS, NEW YORK

FIELD SAMPLE ID:			BS-SB1-07	BS-SB1-08	BS-SB2-01	BS-SB2-02	BS-SB2-03
SAMPLE INTERVAL:			12-13.5'	14-16'	0-2'	2-4'	4-6'
LABORATORY SAMPLE ID:			0661-06	0661-07	0661-08	0661-09	0661-10
DATE SAMPLED:			5-03-93	5-03-93	5-03-93	5-03-93	5-03-93
DATE ANALYZED:			5-21-93	5-21-93	5-21-93	5-21-93	5-21-93
% SOLID:			89.8	89.5	79.1	89.3	90
DILUTION FACTOR:			1X/2X (Pb)	1X	1X	1X	1X
UNITS	WET WEIGHT DETECTION LIMIT	NYSDEC ACTION LEVEL	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
<b>TOTALS</b>							
CADMIUM	1.0	1.0	ND	ND	ND	ND	ND
CHROMIUM	2.0	10.0	13.4	14.0	30.2	16.0	14.9
LEAD	8.0	30.0	10.8	14.8	34.0	14.3	16.7
ZINC	4.0	20.0	41.5	35.0	75.9	37.8	37.2
FLUORIDE	0.4	30.0	1.8	2.2	1.7	2.0	1.9
UNITS	DETECTION LIMIT	NYSDEC ACTION LEVEL	mg/L	mg/L	mg/L	mg/L	mg/L
<b>SPLP LEACHATES</b>							
CADMIUM	0.005	0.005	ND	ND	ND	ND	ND
CHROMIUM	0.01	0.050	0.12	0.08	0.28	0.08	0.09
LEAD	0.003	0.015	0.051 J	0.055 J	0.056 J	0.028 J	0.042 J
ZINC	0.02	0.3	0.46	0.36	0.64	0.29	0.36
FLUORIDE	0.1	1.5	0.18	0.20	0.27	0.22	0.19

**NOTES**

- All aqueous lead analyses were performed on 5/13/93 and all fluoride analyses were performed on 5/27/93.
- All metals were analyzed by Method 6010 except aqueous lead results (Method 7421). All fluoride results by Method 340.2.
- Detection limits for the aqueous blanks reported with the total metals results are actually those reported for the SPLP analyses.
- The soil sample positive detections reported are in dry weight concentrations.
- Action Levels for SPLP analyses are the groundwater Action Levels for the associated compound.

**KEY**

SPLP = Synthetic Precipitate Leaching Procedure  
ND = Not Detected  
--- = Not applicable

ug/Kg = Microgram per kilogram (part per billion solid)  
mg/L = Milligram per Liter (part per million aqueous)  
ug/L = Microgram per Liter (part per billion aqueous)

TABLE 3-1  
TOTAL & SPLP LEACHATE INORGANIC  
CONCENTRATIONS DETECTED IN  
SITE BACKGROUND SOILS

PHILIPS DISPLAY COMPONENTS COMPANY  
SENECA FALLS, NEW YORK

FIELD SAMPLE ID:			BS-SB2-05	BS-SB2-06	BS-SB2-07	BS-SB2-08	RB-01
SAMPLE INTERVAL:			8-10'	10-11.5'	11.5-13'	14.5-16'	----
LABORATORY SAMPLE ID:			0661-11	0661-12	0661-13	0661-14	0661-19
DATE SAMPLED:			5-03-93	5-03-93	5-03-93	5-03-93	5-03-93
DATE ANALYZED:			5-21-93	5-21-93	5-21-93	5-21-93	5-21-93
% SOLID:			90	90.1	89.6	89.8	----
DILUTION FACTOR:			1X	1X	1X/2X (Pb)	1X/5X (Pb)	1X
UNITS	WET WEIGHT DETECTION LIMIT	NYSDEC ACTION LEVEL	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/L
<b>TOTALS</b>							
CADMIUM	1.0	1.0	ND	ND	ND	ND	ND
CHROMIUM	2.0	10.0	13.3	14.1	13.8	13.4	ND
LEAD	8.0	30.0	14.5	11.5	13.2	14.7	ND
ZINC	4.0	20.0	37.9	37.5	39.6	39.6	0.03
FLUORIDE	0.4	30.0	2.1	2.0	2.1	2.3	----
UNITS	DETECTION LIMIT	NYSDEC ACTION LEVEL	mg/L	mg/L	mg/L	mg/L	mg/L
<b>SPLP LEACHATES</b>							
CADMIUM	0.005	0.005	ND	ND	ND	ND	ND
CHROMIUM	0.01	0.050	0.09	0.09	0.09	0.10	ND
LEAD	0.003	0.015	0.046 J	0.052 J	0.052 J	0.053 J	ND
ZINC	0.02	0.3	0.37	0.39	0.40	0.37	0.02
FLUORIDE	0.1	1.5	0.18	0.18	0.20	0.22	----

**NOTES**

- All aqueous lead analyses were performed on 5/13/93 and all fluoride analyses were performed on 5/27/93.
- All metals were analyzed by Method 6010 except aqueous lead results (Method 7421). All fluoride results by Method 340.2.
- Detection limits for the aqueous blanks reported with the total metals results are actually those reported for the SPLP analyses.
- The soil sample positive detections reported are in dry weight concentrations.
- Action Levels for SPLP analyses are the groundwater Action Levels for the associated compound.
- Sample RB-01 is an equipment rinsate blank.

**KEY**

SPLP = Synthetic Precipitate Leaching Procedure  
ND = Not Detected  
---- = Not applicable

ug/Kg = Microgram per kilogram (part per billion solid)  
mg/L = Milligram per Liter (part per million aqueous)  
ug/L = Microgram per Liter (part per billion aqueous)



TABLE 3-1  
TOTAL & SPLP LEACHATE INORGANIC  
CONCENTRATIONS DETECTED IN  
SITE BACKGROUND SOILS

PHILIPS DISPLAY COMPONENTS COMPANY  
SENECA FALLS, NEW YORK

FIELD SAMPLE ID: RB-03  
SAMPLE INTERVAL: —  
LABORATORY SAMPLE ID: 0661-21  
DATE SAMPLED: 5-03-93  
DATE ANALYZED: 5-27-93  
% SOLID: —  
DILUTION FACTOR: 1X

UNITS	WET WEIGHT DETECTION LIMIT	NYSDEC ACTION LEVEL	mg/L
<b>TOTALS</b>			
CADMIUM	1.0	1.0	—
CHROMIUM	2.0	10.0	—
LEAD	8.0	30.0	—
ZINC	4.0	20.0	—
FLUORIDE	0.4	30.0	0.1 U

UNITS	DETECTION LIMIT	NYSDEC ACTION LEVEL	
<b>SPLP LEACHATES</b>			
CADMIUM	0.005	0.005	—
CHROMIUM	0.01	0.050	—
LEAD	0.003	0.015	—
ZINC	0.02	0.3	—
FLUORIDE	0.1	1.5	—

**NOTES**

- All aqueous lead analyses were performed on 5/13/93 and all fluoride analyses were performed on 5/27/93.
- All metals were analyzed by Method 6010 except aqueous lead results (Method 7421). All fluoride results by Method 340.2.
- Detection limits for the aqueous blanks reported with the total metals results are actually those reported for the SPLP analyses.
- The soil sample positive detections reported are in dry weight concentrations.
- Action Levels for SPLP analyses are the groundwater Action Levels for the associated compound.
- Sample RB-03 is an equipment rinsate blank.

**KEY**

SPLP = Synthetic Precipitate Leaching Procedure  
ND = Not Detected  
— = Not applicable

ug/Kg = Microgram per kilogram (part per billion solid)  
mg/L = Milligram per Liter (part per million aqueous)  
ug/L = Microgram per Liter (part per billion aqueous)

TABLE 3-2  
TOTAL INORGANIC  
CONCENTRATIONS DETECTED IN  
MONITORING WELL BORING SOILS

PHILIPS DISPLAY COMPONENTS COMPANY  
SENECA FALLS, NEW YORK

FIELD SAMPLE ID:			MW20-SB-03	MW20-SB-04	MW21-SB-04	MW21-SB-05	MW21-SB-06
SAMPLE INTERVAL:			4-6'	6-8'	6-8'	8-10'	8-10'
LABORATORY ID:			0669-01	0669-02	0680-03	0680-04	0680-05
DATE SAMPLED:			5/04/93	5/04/93	5/05/93	5/05/93	5/05/93
DATE ANALYZED:			5/25/93	5/25/93	5/25/93	5/25/93	5/25/93
% SOLID:			82.1%	89.3%	89.3%	90.4%	89.9%
DILUTION FACTOR:			1	1	1	1	1
UNITS	WET WEIGHT DETECTION LIMIT (mg/Kg)	NYSDEC ACTION LEVEL (mg/Kg)	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
PARAMETER							
CADMIUM	1.0	1.0	ND	1.3	ND	ND	ND
CHROMIUM	2.0	10.0	27.3	11.9	11.6	11.5	11.5
LEAD	8.0	30.0	28.7	10.3	9.3	11.5	10.0
ZINC	4.0	20.0	74.3	36.8	33.5	46.0	35.2
FLUORIDE	0.4	30.0	2.1	2.4	1.0	1.4	1.3

**NOTES**

- Fluoride analyses were performed on 5/27, 6/1, or 6/14/93.
- All metals were analyzed by Method 6010 and fluoride results were analyzed by Method 340.2.
- Detection limits for the aqueous blanks reported are 1/200th of the soil limits in units of ug/L.
- The positive detections reported are in dry weight concentrations.
- Sample MW21-SB-06 is a field duplicate of MW21-SB-05.

**KEY**

- ND = Not Detected
- ug/Kg = Microgram per kilogram (part per billion solid)
- ug/L = Microgram per Liter (part per billion aqueous)

TABLE 3-2  
TOTAL INORGANIC  
CONCENTRATIONS DETECTED IN  
MONITORING WELL BORING SOILS

PHILIPS DISPLAY COMPONENTS COMPANY  
SENECA FALLS, NEW YORK

FIELD SAMPLE ID:			MW22-SB-04	MW22-SB-05	MW23-SB-05	MW23-SB-06	MW24-SB-04
SAMPLE INTERVAL:			6-8'	8-10'	8-10'	10-12'	6-8'
LABORATORY ID:			0680-06	0680-07	0687-03	0687-04	0687-05
DATE SAMPLED:			5/05/93	5/05/93	05/06/93	05/06/93	05/07/93
DATE ANALYZED:			5/25/93	5/25/93	5/25/93	5/25/93	5/25/93
% SOLID:			90.2%	90.5%	88.9%	90.0%	84.7%
DILUTION FACTOR:			1	1	1	1	1
UNITS	WET WEIGHT DETECTION LIMIT (mg/Kg)	NYSDEC ACTION LEVEL (mg/Kg)	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
PARAMETER							
CADMIUM	1.0	1.0	ND	ND	ND	ND	1.2
CHROMIUM	2.0	10.0	13.1	11.9	11.8	9.0	18.5
LEAD	8.0	30.0	14.7	10.6	12.2	ND	275.5
ZINC	4.0	20.0	34.3	31.8	43.9	33.6	150.0
FLUORIDE	0.4	30.0	1.9	3.0	2.0	1.6	7.7

**NOTES**

- Fluoride analyses were performed on 5/27, 6/1, or 6/14/93.
- All metals were analyzed by Method 6010 and fluoride results were analyzed by Method 340.2.
- Detection limits for the aqueous blanks reported are 1/200th of the soil limits in units of ug/L.
- The positive detections reported are in dry weight concentrations.

**KEY**

- ND = Not Detected
- ug/Kg = Microgram per kilogram (part per billion solid)
- ug/L = Microgram per Liter (part per billion aqueous)

TABLE 3-2  
TOTAL INORGANIC  
CONCENTRATIONS DETECTED IN  
MONITORING WELL BORING SOILS

PHILIPS DISPLAY COMPONENTS COMPANY  
SENECA FALLS, NEW YORK

FIELD SAMPLE ID:			MW24-SB-05	MW24-SB-06	MW24A-SB-04	MW24A-SB-05	MW25-SB-02
SAMPLE INTERVAL:			8-10'	10-12'	6-8'	8-10'	2-4'
LABORATORY ID:			0687-06	0687-07	0713-07	0713-08	0713-11
DATE SAMPLED:			05/07/93	05/07/93	5/10/93	5/10/93	5/11/93
DATE ANALYZED:			5/25/93	5/27/93	6/01/93	6/01/93	6/01/93
% SOLID:			90.7%	90.1%	83.7%	90.5%	87.6%
DILUTION FACTOR:			1	1	1	1	1
UNITS	WET WEIGHT DETECTION LIMIT (mg/Kg)	NYSDEC ACTION LEVEL (mg/Kg)	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
<u>PARAMETER</u>							
CADMIUM	1.0	1.0	ND	---	ND	ND	8.6
CHROMIUM	2.0	10.0	12.3	---	26.7	12.9	17.8
LEAD	8.0	30.0	17.1	---	39.1	11.7	20.4
ZINC	4.0	20.0	45.0	---	71.0	37.1	79.9
FLUORIDE	0.4	30.0	2.3	2.1	2.4	2.5	5.9

NOTES

- Fluoride analyses were performed on 5/27, 6/1, or 6/14/93.
- All metals were analyzed by Method 6010 and fluoride results were analyzed by Method 340.2.
- Detection limits for the aqueous blanks reported are 1/200th of the soil limits in units of ug/L.
- The positive detections reported are in dry weight concentrations.
- Metal results for sample MW24-SB-06 were not performed as requested by the project manager.

KEY

- ND = Not Detected
- ug/Kg = Microgram per kilogram (part per billion solid)
- ug/L = Microgram per Liter (part per billion aqueous)

TABLE 3-2  
TOTAL INORGANIC  
CONCENTRATIONS DETECTED IN  
MONITORING WELL BORING SOILS

PHILIPS DISPLAY COMPONENTS COMPANY  
SENECA FALLS, NEW YORK

FIELD SAMPLE ID:			MW25-SB-05	MW26-SB-02	MW26-SB-03	MW26-SB-06	MW27-SB-02
SAMPLE INTERVAL:			8-10'	2-4'	2-4'	8-10'	2-4'
LABORATORY ID:			0713-12	0713-14	0713-13	0713-15	0723-01
DATE SAMPLED:			5/11/93	5/11/93	5/11/93	5/11/93	5/12/93
DATE ANALYZED:			6/01/93	6/01/93	6/01/93	6/01/93	6/02/93
% SOLID:			92.3%	86.8%	88.4%	88.7%	85.7%
DILUTION FACTOR:			1	1	1	1	1
UNITS	WET WEIGHT DETECTION LIMIT (mg/Kg)	NYSDEC ACTION LEVEL (mg/Kg)	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
PARAMETER							
CADMIUM	1.0	1.0	ND	ND	ND	ND	ND
CHROMIUM	2.0	10.0	12.0	13.5	12.9	11.2	23.1
LEAD	8.0	30.0	11.9	12.8	13.3	15.2	33.2
ZINC	4.0	20.0	34.7	37.4	37.2	42.4	50.0
FLUORIDE	0.4	30.0	1.0	1.5	1.4	0.6	1.0

**NOTES**

- Fluoride analyses were performed on 5/27, 6/1, or 6/14/93.
- All metals were analyzed by Method 6010 and fluoride results were analyzed by Method 340.2.
- Detection limits for the aqueous blanks reported are 1/200th of the soil limits in units of ug/L.
- The positive detections reported are in dry weight concentrations.
- Sample MW26-SB-03 is a field duplicate of MW26-SB-02.

**KEY**

- ND = Not Detected
- ug/Kg = Microgram per kilogram (part per billion solid)
- ug/L = Microgram per Liter (part per billion aqueous)



TABLE 3-2  
TOTAL INORGANIC  
CONCENTRATIONS DETECTED IN  
MONITORING WELL BORING SOILS

PHILIPS DISPLAY COMPONENTS COMPANY  
SENECA FALLS, NEW YORK

FIELD SAMPLE ID:			MW27-SB-05	MW28-SB-02	MW28-SB-05	MW29-SB-02	MW29-SB-05
SAMPLE INTERVAL:			8-10'	2-4'	8-10'	2-4'	8-10'
LABORATORY ID:			0723-02	0839-06	0839-07	0839-08	0839-09
DATE SAMPLED:			5/12/93	6/03/93	6/03/93	6/03/93	6/03/93
DATE ANALYZED:			6/02/93	6/29/93	6/29/93	6/29/93	6/29/93
% SOLID:			89.8%	80.5%	90.2%	79.8%	91.2%
DILUTION FACTOR:			1	1	1	1	1
UNITS			mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
PARAMETER	WET WEIGHT DETECTION LIMIT (mg/Kg)	NYSDEC ACTION LEVEL (mg/Kg)					
CADMIUM	1.0	1.0	ND	ND	ND	18.8	ND
CHROMIUM	2.0	10.0	14.8	24.2	11.0	24.0	12.0
LEAD	8.0	30.0	12.6	29.0	13.1	36.9	16.1
ZINC	4.0	20.0	40.1	67.2	38.9	147.4	37.4
FLUORIDE	0.4	30.0	1.1	3.6	1.0	4.2	2.3

NOTES

- Fluoride analyses were performed on 5/27, 6/1, or 6/14/93.
- All metals were analyzed by Method 6010 and fluoride results were analyzed by Method 340.2.
- Detection limits for the aqueous blanks reported are 1/200th of the soil limits in units of ug/L.
- The positive detections reported are in dry weight concentrations.

KEY

- ND = Not Detected
- ug/Kg = Microgram per kilogram (part per billion solid)
- ug/L = Microgram per Liter (part per billion aqueous)

TABLE 3-2  
TOTAL INORGANIC  
CONCENTRATIONS DETECTED IN  
MONITORING WELL BORING SOILS

PHILIPS DISPLAY COMPONENTS COMPANY  
SENECA FALLS, NEW YORK

FIELD SAMPLE ID:			RB-04	RB-05	RB-06	RB-07	RB-09
SAMPLE INTERVAL:			---	---	---	---	---
LABORATORY ID:			0669-03	0680-02	0687-02	0687-08	0713-09
DATE SAMPLED:			5/04/93	5/05/93	05/06/93	05/07/93	5/10/93
DATE ANALYZED:			5/25/93	5/25/93	5/25/93	5/25/93	6/01/93
% SOLID:			---	---	---	---	---
DILUTION FACTOR:			1	1	1	1	1
UNITS	WET WEIGHT DETECTION LIMIT (mg/Kg)	NYSDEC ACTION LEVEL (mg/Kg)	ug/L	ug/L	ug/L	ug/L	ug/L
PARAMETER							
CADMIUM	1.0	1.0	ND	12.3	ND	ND	ND
CHROMIUM	2.0	10.0	ND	20.4	ND	ND	ND
LEAD	8.0	30.0	ND	ND	ND	ND	ND
ZINC	4.0	20.0	ND	29.0	ND	ND	ND
FLUORIDE	0.4	30.0	ND	ND	ND	ND	ND

**NOTES**

- Fluoride analyses were performed on 5/27, 6/1, or 6/14/93.
- All metals were analyzed by Method 6010 and fluoride results were analyzed by Method 340.2.
- Detection limits for the aqueous blanks reported are 1/200th of the soil limits in units of ug/L.
- The positive detections reported are in dry weight concentrations.
- Samples RB-04, RB-05, RB-06, RB-07, and RB-09 are equipment rinsate blanks.

**KEY**

- ND = Not Detected
- = Not Applicable
- ug/L = Microgram per Liter (part per billion aqueous)

TABLE 3-3  
INORGANIC  
CONCENTRATIONS DETECTED IN GROUNDWATER  
(ROUND1) COLLECTED JUNE 14-16, 1993

PHILIPS DISPLAY COMPONENTS COMPANY  
SENECA FALLS, NEW YORK

FIELD SAMPLE ID:			MW01-GW-01	MW08-GW-01	MW20-GW-01	MW21-GW-01	MV22-GW-01
LABORATORY SAMPLE ID:			0896-05	0902-09	0896-01	0896-03	0902-03
DATE SAMPLED:			6/15/93	6/16/93	6/14/93	6/15/93	6/16/93
DATE ANALYZED:			6/29/93	6/29/93	6/29/93	6/29/93	6/29/93
DILUTION FACTOR:			1X	1X/10X (Pb)	1X	1X	1X
UNITS	UNDILUTED DETECTION LIMIT (ug/L)	NYSDEC ACTION LEVEL (ug/L)	ug/L	ug/L	ug/L	ug/L	ug/L
PARAMETER							
CADMIUM	5	5	ND	ND	ND	ND	ND
CHROMIUM	10	50	ND	13	ND	ND	ND
LEAD	3	15	ND	ND	ND	ND	ND
ZINC	20	300	ND	34	ND	ND	ND
FLUORIDE	100	1500	220	1,120	390	300	660

**NOTES**

- Lead analyses were performed on 6/25 or 6/29/93. Fluoride analyses were performed on 6/22/93.
- Cadmium, chromium, and zinc were analyzed by Method 6010.
- Lead was analyzed by Method 7421 and fluoride was analyzed by Method 340.2.

**KEY**

ND = Not Detected  
ug/L = Microgram per Liter (part per billion aqueous)

TABLE 3-3  
INORGANIC  
CONCENTRATIONS DETECTED IN GROUNDWATER  
(ROUND1) COLLECTED JUNE 14-16, 1993

PHILIPS DISPLAY COMPONENTS COMPANY  
SENECA FALLS, NEW YORK

FIELD SAMPLE ID:			MW23-GW-01	MW23-GW-01D	MW24-GW-01	MW25-GW-01	MW26-GW-01
LABORATORY SAMPLE ID:			0902-01	0902-02	0902-08	0902-04	0896-04
DATE SAMPLED:			6/16/93	6/16/93	6/16/93	6/16/93	6/15/93
DATE ANALYZED:			6/29/93	6/29/93	6/29/93	6/29/93	6/29/93
DILUTION FACTOR:			1X	1X	1X	1X	1X
UNITS	UNDILUTED DETECTION LIMIT (ug/L)	NYSDEC ACTION LEVEL (ug/L)	ug/L	ug/L	ug/L	ug/L	ug/L
PARAMETER							
CADMIUM	5	5	ND	ND	ND	ND	ND
CHROMIUM	10	50	ND	ND	ND	16	ND
LEAD	3	15	ND	ND	ND	ND	ND
ZINC	20	300	ND	ND	ND	ND	ND
FLUORIDE	100	1500	320	310	740	590	160

**NOTES**

- Lead analyses were performed on 6/25 or 6/29/93. Fluoride analyses were performed on 6/22/93.
- Cadmium, chromium, and zinc were analyzed by Method 6010.
- Lead was analyzed by Method 7421 and fluoride was analyzed by Method 340.2.
- Sample MW23-GW-01D is a field duplicate of MW23-GW-01.

**KEY**

ND = Not Detected  
ug/L = Microgram per Liter (part per billion aqueous)

TABLE 3-3  
INORGANIC  
CONCENTRATIONS DETECTED IN GROUNDWATER  
(ROUND1) COLLECTED JUNE 14-16, 1993

PHILIPS DISPLAY COMPONENTS COMPANY  
SENECA FALLS, NEW YORK

FIELD SAMPLE ID:			MW27-GW-01	MW28-GW-01	MW29-GW-01	RB-27	RB-28
LABORATORY SAMPLE ID:			0902-05	0902-07	0902-06	0896-02	0896-06
DATE SAMPLED:			6/16/93	6/16/93	6/16/93	6/14/93	6/15/93
DATE ANALYZED:			6/29/93	6/29/93	6/29/93	6/29/93	6/29/93
DILUTION FACTOR:			1X	1X	1X	1X	1X
UNITS	UNDILUTED DETECTION LIMIT (ug/L)	NYSDEC ACTION LEVEL (ug/L)	ug/L	ug/L	ug/L	ug/L	ug/L
PARAMETER							
CADMIUM	5	5	ND	ND	ND	ND	ND
CHROMIUM	10	50	ND	ND	ND	ND	ND
LEAD	3	15	6	ND	ND	ND	ND
ZINC	20	300	ND	ND	ND	ND	ND
FLUORIDE	100	1500	450	220	480	ND	ND

NOTES

- Lead analyses were performed on 6/25 or 6/29/93. Fluoride analyses were performed on 6/22/93.
- Cadmium, chromium, and zinc were analyzed by Method 6010.
- Lead was analyzed by Method 7421 and fluoride was analyzed by Method 340.2.
- Samples RB-27 and RB-28 are equipment rinsate blanks.

KEY

ND = Not Detected  
ug/L = Microgram per Liter (part per billion aqueous)

TABLE 3-3  
INORGANIC  
CONCENTRATIONS DETECTED IN GROUNDWATER  
(ROUND1) COLLECTED JUNE 14-16, 1993

PHILIPS DISPLAY COMPONENTS COMPANY  
SENECA FALLS, NEW YORK

FIELD SAMPLE ID: RB-29  
LABORATORY SAMPLE ID: 0902-10  
DATE SAMPLED: 6/16/93  
DATE ANALYZED: 6/29/93  
DILUTION FACTOR: 1X

UNITS	UNDILUTED DETECTION LIMIT (ug/L)	NYSDEC ACTION LEVEL (ug/L)	ug/L
PARAMETER			
CADMIUM	5	5	ND
CHROMIUM	10	50	ND
LEAD	3	15	ND
ZINC	20	300	ND
FLUORIDE	100	1500	ND

**NOTES**

- Lead analyses were performed on 6/25 or 6/29/93. Fluoride analyses were performed on 6/22/93.
- Cadmium, chromium, and zinc were analyzed by Method 6010.
- Lead was analyzed by Method 7421 and fluoride was analyzed by Method 340.2.
- Sample RB-29 is an equipment rinsate blank.

**KEY**

ND = Not Detected  
ug/L = Microgram per Liter (part per billion aqueous)



TABLE 3-4  
INORGANIC  
CONCENTRATIONS DETECTED IN GROUNDWATER  
(ROUND 2) COLLECTED JULY 21, 1993

PHILIPS DISPLAY COMPONENTS COMPANY  
SENECA FALLS, NEW YORK

FIELD SAMPLE ID:			MW1-GW-02	MW20-GW-02	MW21-GW-02	MW22-GW-02	MW22-GW-02D
LABORATORY SAMPLE ID:			1057-12	1057-02	1057-01	1057-06	1057-07
DATE SAMPLED:			7/21/93	7/21/93	7/21/93	7/21/93	7/21/93
DATE ANALYZED:			08/05/93	08/05/93	08/05/93	08/05/93	08/05/93
DILUTION FACTOR:			1X/2X (Pb)	1X	1X	1X	1X/2X (Pb)
UNITS	UNDILUTED DETECTION LIMIT (ug/L)	NYSDEC ACTION LEVEL (ug/L)	ug/L	ug/L	ug/L	ug/L	ug/L
PARAMETER							
CADMIUM	5	5	ND	ND	ND	ND	ND
CHROMIUM	10	50	ND	ND	ND	ND	ND
LEAD	3	15	6.8 U	4.0 U	ND	7.6 U	13.6 U
ZINC	20	300	24.1	ND	ND	ND	23.6
FLUORIDE	100	1500	240.0	386.0	280.0	660.0	670.0

NOTES

- All positive lead results are qualified as non-detected in this round due to the rinsate blank concentration detected.
- All lead analyses were performed on 8/02-03/93 and all fluoride analyses were performed on 7/27/93.
- Cadmium, chromium, and zinc were analyzed by Method 6010.
- Lead was analyzed by Method 7421 and fluoride was analyzed by Method 340.2.
- Sample MW22-GW-02D is a field duplicate of MW22-GW-02.

KEY

ND = Not Detected

ug/L = Microgram per Liter (part per billion aqueous)

U = Data user qualified lead results as nondetected due to rinsate blank contamination (RB-30).

TABLE 3-4  
INORGANIC  
CONCENTRATIONS DETECTED IN GROUNDWATER  
(ROUND 2) COLLECTED JULY 21, 1993

PHILIPS DISPLAY COMPONENTS COMPANY  
SENECA FALLS, NEW YORK

FIELD SAMPLE ID:			MW23-GW-02	MW24-GW-02	MW25-GW-02	MW26-GW-02	MW27-GW-02
LABORATORY SAMPLE ID:			1057-05	1057-13	1057-08	1057-04	1057-09
DATE SAMPLED:			7/21/93	7/21/93	7/21/93	7/21/93	7/21/93
DATE ANALYZED:			08/05/93	08/05/93	08/05/93	08/05/93	08/05/93
DILUTION FACTOR:			1X	1X/2X(Pb)	1X	1X	1X
UNITS	UNDILUTED DETECTION LIMIT (ug/L)	NYSDEC ACTION LEVEL (ug/L)	ug/L	ug/L	ug/L	ug/L	ug/L
PARAMETER							
CADMIUM	5	5	ND	ND	ND	ND	ND
CHROMIUM	10	50	ND	ND	ND	ND	ND
LEAD	3	15	ND	ND	5.7 U	4.5 U	ND
ZINC	20	300	ND	ND	24.1	ND	ND
FLUORIDE	100	1500	310.0	710.0	580.0	150.0	480.0

NOTES

- All positive lead results are qualified as non-detected in this round due to the rinsate blank concentration detected.
- All lead analyses were performed on 8/02-03/93 and all fluoride analyses were performed on 7/27/93.
- Cadmium, chromium, and zinc were analyzed by Method 6010.
- Lead was analyzed by Method 7421 and fluoride was analyzed by Method 340.2.

KEY

ND = Not Detected

ug/L = Microgram per Liter (part per billion aqueous)

U = Data user qualified lead results as nondetected due to rinsate blank contamination (RB-30).

TABLE 3-4  
INORGANIC  
CONCENTRATIONS DETECTED IN GROUNDWATER  
(ROUND 2) COLLECTED JULY 21, 1993

PHILIPS DISPLAY COMPONENTS COMPANY  
SENECA FALLS, NEW YORK

FIELD SAMPLE ID:			MW28-GW-02	MW29-GW-02	RB-30
LABORATORY SAMPLE ID:			1057-10	1057-11	1057-03
DATE SAMPLED:			7/21/93	7/21/93	7/21/93
DATE ANALYZED:			08/05/93	08/05/93	08/05/93
DILUTION FACTOR:			1X	1X/2X (Pb)	1X
UNITS	UNDILUTED DETECTION LIMIT (ug/L)	NYSDEC ACTION LEVEL (ug/L)	ug/L	ug/L	ug/L
PARAMETER					
CADMIUM	5	5	ND	ND	ND
CHROMIUM	10	50	ND	ND	ND
LEAD	3	15	ND	8.6 U	3.6
ZINC	20	300	ND	25.7	ND
FLUORIDE	100	1500	210.0	444.0	ND

NOTES

- All positive lead results are qualified as non-detected in this round due to the rinsate blank concentration detected.
- All lead analyses were performed on 8/02-03/93 and all fluoride analyses were performed on 7/27/93.
- Cadmium, chromium, and zinc were analyzed by Method 6010.
- Lead was analyzed by Method 7421 and fluoride was analyzed by Method 340.2.
- Sample RB-30 is an equipment rinsate blank.

KEY

ND = Not Detected

ug/L = Microgram per Liter (part per billion aqueous)

U = Data user qualified lead results as nondetected due to rinsate blank contamination (RB-30).

**TABLE 3-5  
INORGANIC  
CONCENTRATIONS DETECTED IN  
INTERIM STORAGE AREA SOILS**

**PHILIPS DISPLAY COMPONENTS COMPANY  
SENECA FALLS, NEW YORK**

FIELD SAMPLE ID:			S01D-SB1-01	S01D-SB1-02	S01D-SB2-01	S01D-SB2-02	RB-21
SAMPLE INTERVAL:			1.0-1.5'	1.5-2.0'	1.0-1.5'	1.5-2.0'	---
LABORATORY SAMPLE ID:			0795-19	0795-20	0795-17	0795-18	0795-28
DATE SAMPLED:			5-26-93	5-26-93	5-26-93	5-26-93	5-26-93
DATE ANALYZED:			6-16-93	6-16-93	6-16-93	6-16-93	6-16-93
% SOLID:			78	82	90.3	78.2	---
DILUTION FACTOR:			1	1	1	1	1
UNITS	WET WEIGHT DETECTION LIMIT	NYSDEC ACTION LEVEL	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/L
6010 PARAMETER							
CADMIUM	1.0	1.0	ND	ND	ND	ND	ND
CHROMIUM	2.0	10.0	35.8	24.9	30.0	87.1	ND
LEAD	8.0	30.0	43.6	32.0	38.2	43.7	ND
ZINC	4.0	20.0	89.1	60.0	70.0	88.2	ND

**NOTES**

- All four metals reported were analyzed by EPA Method 6010.
- Field blank association with these particular samples is not absolute.
- The positive detections reported are in dry weight concentrations.
- Sample RB-21 is an equipment rinsate blank.

**KEY**

- ND = Not Detected
- ug/Kg = Microgram per kilogram (part per billion solid)
- ug/L = Microgram per Liter (part per billion aqueous)
- = Not applicable

TABLE 3-5  
VOLATILE ORGANIC  
CONCENTRATIONS DETECTED IN  
INTERIM STORAGE AREA SOILS

PHILIPS DISPLAY COMPONENTS COMPANY  
SENECA FALLS, NEW YORK

FIELD SAMPLE ID:			S01D-SB1-01	S01D-SB1-02	S01D-SB2-01	S01D-SB2-02	RB-21
SAMPLE INTERVAL:			1.0-1.5'	1.5-2.0'	1.0-1.5'	1.5-2.0'	---
LABORATORY SAMPLE ID:			93079519	93079520	93079517	93079518	93079528
DATE SAMPLED:			5-26-93	5-26-93	5-26-93	5-26-93	5-26-93
DATE ANALYZED:			5-30-93	5-30-93	5-30-93	5-30-93	6-1-93
% SOLIDS:			78.0	82.0	90.3	78.2	---
DILUTION FACTORS:			5X	5X	5X	5X	1X
UNITS	WET WEIGHT DETECTION	NYSDEC ACTION LEVEL	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/L
<u>8010 PARAMETER</u>	LIMIT	LEVEL					
VINYL CHLORIDE	20	200	ND	ND	ND	110	ND
cis-1,2-DICHLOROETHENE	5	100	ND	ND	236	208	ND
TRICHLOROETHENE	5	700	ND	ND	12.4	ND	ND
<u>8020 PARAMETER</u>							
TOTAL XYLENES	30	1200	55.6	ND	ND	ND	ND

**NOTES**

- Wet weight detection limits reported have the 5X dilution for soils incorporated.
- Field blank association with these particular samples is not absolute.
- The positive detections reported have been corrected to dry weight concentrations.
- Sample RB-21 is an equipment rinsate blank.

**KEY**

ND = Not Detected at the limit reported  
ug/Kg = Microgram per kilogram (part per billion solid)  
ug/L = Microgram per Liter (part per billion aqueous)  
--- = Not applicable

TABLE 3-5  
VOLATILE ORGANIC  
CONCENTRATIONS DETECTED IN  
INTERIM STORAGE AREA SOILS

PHILIPS DISPLAY COMPONENTS COMPANY  
SENECA FALLS, NEW YORK

FIELD SAMPLE ID:	TB-14		
SAMPLE INTERVAL:	----		
LABORATORY SAMPLE ID:	93079529		
DATE SAMPLED:	5-26-93		
DATE ANALYZED:	6-1-93		
% SOLIDS:	----		
DILUTION FACTORS:	1X		
UNITS	WET WEIGHT DETECTION LIMIT	NYSDEC ACTION LEVEL	ug/L
<u>8010 PARAMETER</u>			
VINYL CHLORIDE	20	200	ND
cis-1,2-DICHLOROETHENE	5	100	ND
TRICHLOROETHENE	5	700	ND
<u>8020 PARAMETER</u>			
TOTAL XYLENES	30	1200	ND

**NOTES**

- Wet weight detection limits reported have the 5X dilution for soils incorporated.
- Field blank association with these particular samples is not absolute.
- The positive detections reported have been corrected to dry weight concentrations.
- Sample TB-14 is a trip blank.

**KEY**

ND = Not Detected at the limit reported  
 ug/Kg = Microgram per kilogram (part per billion solid)  
 ug/L = Microgram per Liter (part per billion aqueous)  
 ---- = Not applicable



TABLE 3-6  
INORGANIC  
CONCENTRATIONS DETECTED IN  
SATELLITE STORAGE AREA SOILS

PHILIPS DISPLAY COMPONENTS COMPANY  
SENECA FALLS, NEW YORK

FIELD SAMPLE ID:			SS12-SB1-01	SS12-SB1-02	SS12-SB2-01	SS12-SB2-02	SS12-SB2-03
SAMPLE INTERVAL:			0.5-1.0'	1.0-1.5'	0.5-1.0'	0.5-1.0'	1.0-1.5'
LABORATORY SAMPLE ID:			0795-04	0795-05	0795-01	0795-02	0795-03
DATE SAMPLED:			5-25-93	5-25-93	5-25-93	5-25-93	5-25-93
DATE ANALYZED:			6-16-93	6-16-93	6-16-93	6-16-93	6-16-93
% SOLID:			89.7%	89.0%	92.3%	90.8%	89.7%
DILUTION FACTOR:			1	1	1	1	1
UNITS	WET WEIGHT DETECTION LIMIT (mg/Kg)	NYSDEC ACTION LEVEL (mg/Kg)	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
6010 PARAMETER							
CADMIUM	1.0	1.0	ND	ND	ND	ND	ND
CHROMIUM	2.0	10.0	16.3	14.2	15.5	18.6	11.8
LEAD	8.0	30.0	14.4	15.8	11.9	14.3	12.3
ZINC	4.0	20.0	34.9	38.0	34.7	41.9	31.3

**NOTES**

- All four metals reported were analyzed by EPA Method 6010.
- Field blank association with these particular samples is not absolute.
- The positive detections are in dry weight concentrations.
- Sample SS12-SB2-02 is a field duplicate of SS12-SB2-01.

**KEY**

- ND = Not Detected
- ug/Kg = Microgram per kilogram (part per billion solid)
- ug/L = Microgram per Liter (part per billion aqueous)
- = Not applicable

TABLE 3-6  
INORGANIC  
CONCENTRATIONS DETECTED IN  
SATELLITE STORAGE AREA SOILS

PHILIPS DISPLAY COMPONENTS COMPANY  
SENECA FALLS, NEW YORK

FIELD SAMPLE ID:			SS12-SB3-01	SS12-SB3-02	RB-20
SAMPLE INTERVAL:			3.5-4.5'	4.5-5.5'	----
LABORATORY SAMPLE ID:			0795-06	0795-07	0795-12
DATE SAMPLED:			5-25-93	5-25-93	5-25-93
DATE ANALYZED:			6-16-93	6-16-93	6-16-93
% SOLID:			89.3%	90.6%	----
DILUTION FACTOR:			1	1	1
UNITS	WET WEIGHT DETECTION LIMIT (mg/Kg)	NYSDEC ACTION LEVEL (mg/Kg)	mg/Kg	mg/Kg	mg/L
6010 PARAMETER					
CADMIUM	1.0	1.0	ND	ND	ND
CHROMIUM	2.0	10.0	14.6	12.0	ND
LEAD	8.0	30.0	18.2	13.4	ND
ZINC	4.0	20.0	33.5	38.1	0.03

**NOTES**

- All four metals reported were analyzed by EPA Method 6010.
- Field blank association with these particular samples is not absolute.
- The positive detections reported are in dry weight concentrations.
- Sample RB-20 is an equipment rinsate blank.

**KEY**

- ND = Not Detected
- ug/Kg = Microgram per kilogram (part per billion solid)
- ug/L = Microgram per Liter (part per billion aqueous)
- = Not applicable

TABLE 3-6  
VOLATILE ORGANIC  
CONCENTRATIONS DETECTED IN  
SATELLITE STORAGE AREA SOILS

PHILIPS DISPLAY COMPONENTS COMPANY  
SENECA FALLS, NEW YORK

FIELD SAMPLE ID:			SS12-SB1-01	SS12-SB1-02	SS12-SB2-01	SS12-SB2-02	SS12-SB2-03
SAMPLE INTERVAL:			0.5-1.0'	1.0-1.5'	0.5-1.0'	0.5-1.0'	1.0-1.5'
LABORATORY SAMPLE ID:			93079504	93079505	93079501	93079502	93079503
DATE SAMPLED:			5-25-93	5-25-93	5-25-93	5-25-93	5-25-93
DATE ANALYZED:			5-28-93	5-28-93	5-28-93	5-28-93	5-28-93
% SOLIDS:			89.7	89	92.3	90.8	89.7
DILUTION FACTORS:			5X	5X	5X	5X	5X
UNITS	WET WEIGHT DETECTION LIMIT (ug/Kg)	NYSDEC ACTION LEVEL (ug/Kg)	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
8010 PARAMETER							
1,1-DICHLOROETHANE	5	200	ND	ND	ND	ND	ND
cis-1,2-DICHLOROETHENE	5	800	5.7	ND	ND	ND	ND
1,1,1-TRICHLOROETHANE	5	800	11.5	ND	7.9	8.7	ND
TRICHLOROETHENE	5	700	14.0	5.7	6.8	ND	ND

**NOTES**

- Wet weight detection limits reported have the 5X dilution for soils incorporated.
- Field blank association with these particular samples is not absolute.
- The positive detections reported have been corrected to dry weight concentrations.
- Sample SS12-SB2-02 is a field duplicate of SS12-SB2-01.

**KEY**

ND = Not Detected at the limit reported  
ug/Kg = Microgram per kilogram (part per billion solid)  
ug/L = Microgram per Liter (part per billion aqueous)  
---- = Not applicable

TABLE 3-6  
VOLATILE ORGANIC  
CONCENTRATIONS DETECTED IN  
SATELLITE STORAGE AREA SOILS

PHILIPS DISPLAY COMPONENTS COMPANY  
SENECA FALLS, NEW YORK

FIELD SAMPLE ID:			SS12-SB3-01	SS12-SB3-02	RB-20
SAMPLE INTERVAL:			3.5-4.5'	4.5-5.5'	----
LABORATORY SAMPLE ID:			93079506	93079507	93079512
DATE SAMPLED:			5-25-93	5-25-93	5-25-93
DATE ANALYZED:			5-28-93	5-29-93	5-28-93
% SOLIDS:			89.3	90.6	----
DILUTION FACTORS:			5X	5X	1X
UNITS	WET WEIGHT DETECTION LIMIT	NYSDEC ACTION LEVEL	ug/Kg	ug/Kg	ug/L
8010 PARAMETER	(ug/Kg)	(ug/Kg)			
1,1-DICHLOROETHANE	5	200	11.3	ND	ND
cis-1,2-DICHLOROETHENE	5	800	11.1	ND	ND
1,1,1-TRICHLOROETHANE	5	800	ND	ND	ND
TRICHLOROETHENE	5	700	20.2	20.4	ND

**NOTES**

- Wet weight detection limits reported have the 5X dilution for soils incorporated.
- Field blank association with these particular samples is not absolute.
- The positive detections reported have been corrected to dry weight concentrations.
- Sample RB-20 is an equipment rinsate blank.

**KEY**

ND = Not Detected at the limit reported  
 ug/Kg = Microgram per kilogram (part per billion solid)  
 ug/L = Microgram per Liter (part per billion aqueous)  
 ---- = Not applicable

TABLE 3-7  
SEMIVOLATILE ORGANIC  
CONCENTRATIONS DETECTED IN  
FUEL OIL TANK AREA SOILS

PHILIPS DISPLAY COMPONENTS COMPANY  
SENECA FALLS, NEW YORK

FIELD SAMPLE ID:			FOT-SB1-01	FOT-SB1-02	FOT-SB2-01	FOT-SB2-05	FOT-SB3-02	FOT-SB3-03
SAMPLE INTERVAL:			0.5-2.0'	15-17'	0.5-2.0'	15-17'	2-4'	15-17'
LABORATORY SAMPLE ID:			93072315	93072316	93072308	93072309	93072310	93072311
DATE SAMPLED:			5-14-93	5-14-93	5-13-93	5-13-93	5-13-93	5-13-93
DATE EXTRACTED:			5-19-93	5-19-93	5-20-93	5-20-93	5-20-93	5-20-93
% SOLIDS:			90.3	91.0	90.5	89.1	93.9	91.2
DILUTION FACTOR(S):			1X	1X	1X	1X	1X	1X
UNITS	WET WEIGHT DETECTION LIMIT	NYSDEC ACTION LEVEL	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
8270 BASE/NEUTRAL PARAMETER	(ug/Kg)	(ug/Kg)						
ACENAPHTHENE	330	50000	ND	ND	1768	ND	149 J	ND
ACENAPHTHYLENE	330	41000	ND	ND	265 J	ND	ND	ND
ANTHRACENE	330	50000	ND	ND	4862	ND	160 J	ND
BENZO(a)ANTHRACENE	330	MDL	ND	ND	11050	ND	ND	ND
BENZO(b)FLUORANTHENE	330	1100	ND	ND	9171	ND	ND	ND
BENZO(k)FLUORANTHENE	330	1100	ND	ND	7956	ND	ND	ND
BENZO(a)PYRENE	330	MDL	ND	ND	10718	ND	149 J	ND
BENZO(g,h,i)PERYLENE	330	50000	ND	ND	6519	ND	ND	ND
BIS(2-ETHYLHEXYL)PHTHALATE	330	50000	ND	ND	ND	ND	447 U	ND
CHRYSENE	330	400	ND	ND	11050	ND	ND	ND
DIBENZ(a,h)ANTHRACENE	330	MDL	ND	ND	1989	ND	ND	ND
DIBENZOFURAN	330	6200	ND	ND	1657	ND	ND	ND
FLUORANTHENE	330	50000	ND	ND	24309 J	ND	330 J	ND
FLUORENE	330	50000	ND	ND	2210	ND	ND	ND
INDENO(1,2,3-cd)PYRENE	330	32000	ND	ND	5856	ND	ND	ND
2-METHYL NAPHTHALENE	330	36400	ND	ND	508	ND	458	ND
NAPHTHALENE	330	13000	ND	ND	1436	ND	ND	ND
PHENANTHRENE	330	50000	ND	ND	19890	ND	394	ND
PYRENE	330	50000	ND	ND	24309	ND	234 J	ND
CARBAZOLE	330	----	ND	ND	3094	ND	ND	ND

**NOTES**

- Action levels listed as "MDL" are less than the detection limit.
- Field blank association with these particular samples is not absolute.
- The positive detections reported have been corrected to dry weight.

**KEY**

- ND = Not Detected
- = Not applicable
- ug/L = Microgram per Liter
- ug/Kg = Microgram per kilogram
- J = Estimated value
- U = Qualified as nondetected

TABLE 3-7  
SEMIVOLATILE ORGANIC  
CONCENTRATIONS DETECTED IN  
FUEL OIL TANK AREA SOILS

PHILIPS DISPLAY COMPONENTS COMPANY  
SENECA FALLS, NEW YORK

FIELD SAMPLE ID:			RB-12	RB-13	TB-07
SAMPLE INTERVAL:			----	----	----
LABORATORY SAMPLE ID:			93072312	93072317	93072318
DATE SAMPLED:			5-13-93	5-14-93	5-14-93
DATE EXTRACTED:			5-17,19-93	5-17,19-93	5-20-93
% SOLIDS:			----	----	----
DILUTION FACTOR(S):			1X	1X	1X
UNITS	WET WEIGHT DETECTION LIMIT (ug/Kg)	NYSDEC ACTION LEVEL (ug/Kg)	ug/L	ug/L	ug/L
8270 BASE/NEUTRAL PARAMETER					
ACENAPHTHENE	330	50000	ND	ND	----
ACENAPHTHYLENE	330	41000	ND	ND	----
ANTHRACENE	330	50000	ND	ND	----
BENZO(a)ANTHRACENE	330	MDL	ND	ND	----
BENZO(b)FLUORANTHENE	330	1100	ND	ND	----
BENZO(k)FLUORANTHENE	330	1100	ND	ND	----
BENZO(a)PYRENE	330	MDL	ND	ND	----
BENZO(g,h,i)PERYLENE	330	50000	ND	ND	----
BIS(2-ETHYLHEXYL)PHTHALATE	330	50000	7 J	ND	----
CHRYSENE	330	400	ND	ND	----
DIBENZ(a,h)ANTHRACENE	330	MDL	ND	ND	----
DIBENZOFURAN	330	6200	ND	ND	----
FLUORANTHENE	330	50000	ND	ND	----
FLUORENE	330	50000	ND	ND	----
INDENO(1,2,3-cd)PYRENE	330	32000	ND	ND	----
2-METHYL NAPHTHALENE	330	36400	ND	ND	----
NAPHTHALENE	330	13000	ND	ND	----
PHENANTHRENE	330	50000	ND	ND	----
PYRENE	330	50000	ND	ND	----
CARBAZOLE	330	----	ND	ND	----

**NOTES**

- Action levels listed as "MDL" are less than the detection limit.
- Field blank association with these particular samples is not absolute.
- The positive detections reported have been corrected to dry weight.
- Samples RB-12 and RB-13 are rinsate blanks and TB-07 is a trip blank.

**KEY**

- ND = Not Detected
- = Not applicable
- ug/L = Microgram per Liter
- ug/Kg = Microgram per kilogram
- J = Estimated value
- U = Qualified as nondetected



**TABLE 3-8**  
**FORMER OPEN BURNING AREA**  
**HEADSPACE READINGS**  
**SAMPLING VISIT INVESTIGATION**  
**PHILIPS DISPLAY COMPONENTS**

DEPTH-ft	0.5-2.0	2.0-3.5	3.5-5.0	5.0-6.5
BORING				
OBA-SB1	0.0	1.0	0.0	0.0
OBA-SB2	4.8	1.1	2.6	2.8
OBA-SB3	9.8	30.0	3.2	18.0
OBA-SB4	78.0	6.4	2.0	0.0
OBA-SB5	0.0	5.1	4.2	0.0
OBA-SB6	2.8	0.0	8.1	1.1

**NOTES:** All readings are expressed in parts-per-million (ppm)

**TABLE 3-9  
VOLATILE ORGANIC  
CONCENTRATIONS DETECTED IN  
OPEN BURNING AREA SOILS**

**PHILIPS DISPLAY COMPONENTS COMPANY  
SENECA FALLS, NEW YORK**

FIELD SAMPLE ID:			OBA-SB1-02	OBA-SB2-01	OBA-SB3-01	OBA-SB3-02	OBA-SB3-04
SAMPLE INTERVAL:			2.0-3.5'	0.5-2.0'	0.5-2.0'	2.0-3.5'	5.0-6.5'
LABORATORY SAMPLE ID:			93080907	93080908	93080905	93080906	93080911
DATE SAMPLED:			5-28-93	5-28-93	5-28-93	5-28-93	5-28-93
DATE EXTRACTED:			6-04-93	6-04-93	6-04-93	6-04-93	6-05-93
% SOLIDS:			91.3	91.8	90.4	89.6	92.3
DILUTION FACTORS:			5X	5X	5X	5X	5X
UNITS	WET WEIGHT DETECTION LIMIT	NYSDEC ACTION LEVEL	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
8010 PARAMETER	(ug/Kg)	(ug/Kg)					
METHYLENE CHLORIDE	10	100	38.4 UJ	33.2 UJ	34.6 UJ	33.3 UJ	28.0 UJ
TRICHLOROETHENE	5	700	8.4 J	ND	ND	ND	ND

**NOTES**

- Wet weight detection limits reported have the 5X dilution for soils incorporated.
- The positive detections reported have been corrected to dry weight concentrations.
- The methylene chloride positive results are probably due to laboratory blank contamination. The laboratory reported these results as detects. However, the validator qualified these results as nondetected and estimated.

**KEY**

ND = Not Detected at the limit reported  
 ug/Kg = Microgram per kilogram (part per billion solid)  
 ug/L = Microgram per Liter (part per billion aqueous)  
 ---- = Not applicable

UJ = Validator qualified as nondetected and estimated.  
 J = Validator qualified as estimated.

TABLE 3-9  
VOLATILE ORGANIC  
CONCENTRATIONS DETECTED IN  
OPEN BURNING AREA SOILS

PHILIPS DISPLAY COMPONENTS COMPANY  
SENECA FALLS, NEW YORK

FIELD SAMPLE ID:			OBA-SB4-01	OBA-SB4-02	OBA-SB5-02	OBA-SB6-03	RB-23
SAMPLE INTERVAL:			0.5-2.0'	2.0-3.5'	2.0-3.5'	3.5-5.0'	----
LABORATORY SAMPLE ID:			93080903	93080904	93080902	93080901	93080909
DATE SAMPLED:			5-28-93	5-28-93	5-28-93	5-28-93	5-28-93
DATE EXTRACTED:			6-04-93	6-04-93	6-04-93	6-04-93	6-05-93
% SOLIDS:			92.6	89.8	90.5	89.8	----
DILUTION FACTORS:			5X	5X	5X	5X	1X
UNITS	WET WEIGHT DETECTION LIMIT	NYSDEC ACTION LEVEL	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/L
8010 PARAMETER	(ug/Kg)	(ug/Kg)					
METHYLENE CHLORIDE	10	100	36.4 UJ	45.0 UJ	43.4 UJ	43.8 UJ	ND
TRICHLOROETHENE	5	700	ND	ND	ND	ND	ND

**NOTES**

- Wet weight detection limits reported have the 5X dilution for soils incorporated.
- The positive detections reported have been corrected to dry weight concentrations.
- The methylene chloride positive results are probably due to laboratory blank contamination. The laboratory reported these results as detects. However, the validator qualified these results as nondetected and estimated.
- Sample RB-23 is an equipment rinsate blank.

**KEY**

ND = Not Detected at the limit reported  
ug/Kg = Microgram per kilogram (part per billion solid)  
ug/L = Microgram per Liter (part per billion aqueous)  
---- = Not applicable

UJ = Validator qualified as nondetected and estimated.  
J = Validator qualified as estimated.

TABLE 3-9  
VOLATILE ORGANIC  
CONCENTRATIONS DETECTED IN  
OPEN BURNING AREA SOILS

PHILIPS DISPLAY COMPONENTS COMPANY  
SENECA FALLS, NEW YORK

FIELD SAMPLE ID:	TB-16		
SAMPLE INTERVAL:	---		
LABORATORY SAMPLE ID:	93080910		
DATE SAMPLED:	5-28-93		
DATE EXTRACTED:	6-05-93		
% SOLIDS:	---		
DILUTION FACTORS: .	1X		
UNITS	WET WEIGHT DETECTION LIMIT	NYSDEC ACTION LEVEL	ug/L
<u>8010 PARAMETER</u>	(ug/Kg)	(ug/Kg)	
METHYLENE CHLORIDE	10	100	ND
TRICHLOROETHENE	5	700	ND

**NOTES**

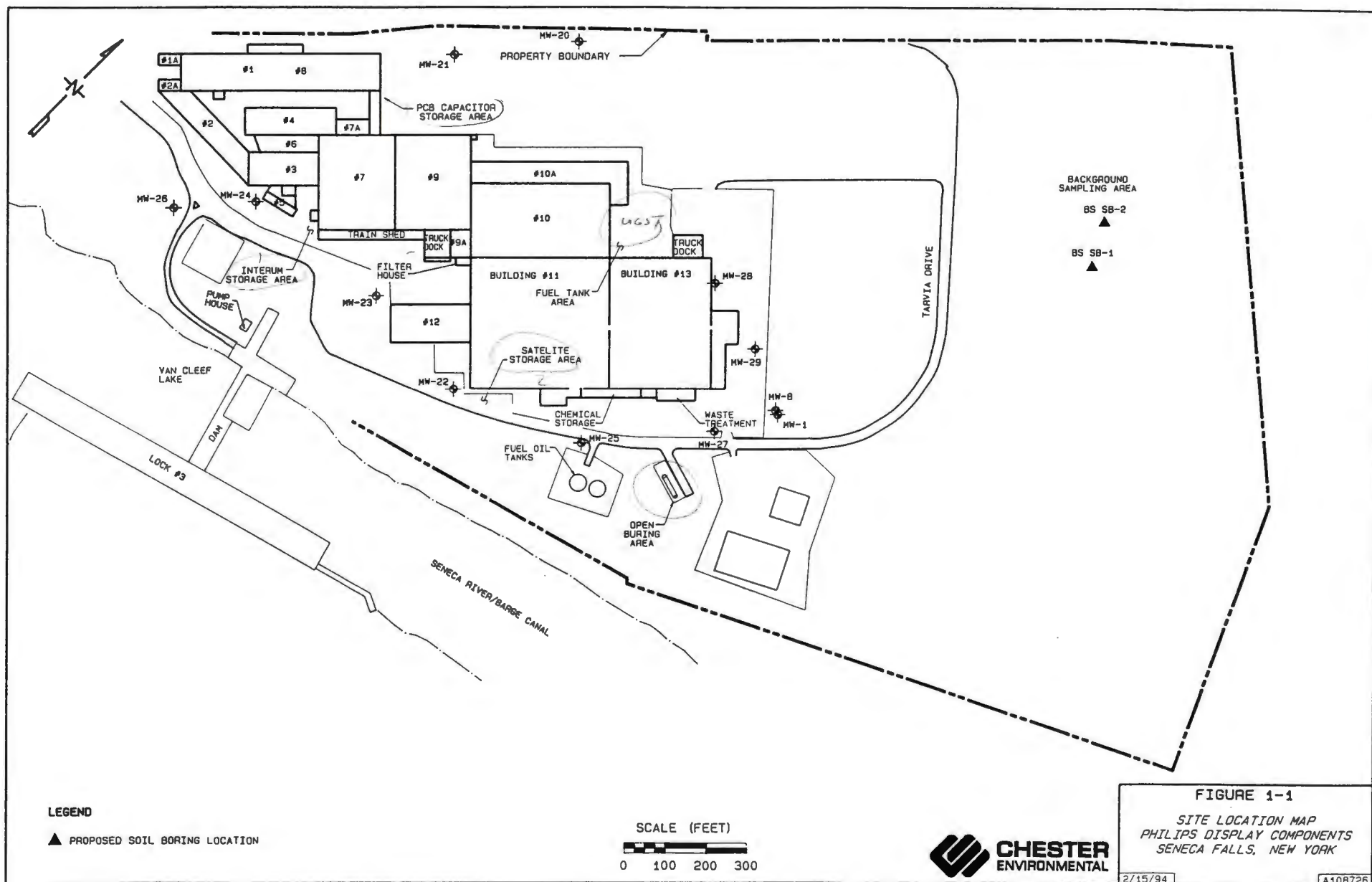
- Wet weight detection limits reported have the 5X dilution for soils incorporated.
- The positive detections reported have been corrected to dry weight concentrations.
- The methylene chloride positive results are probably due to laboratory blank contamination. The laboratory reported these results as detects. However, the validator qualified these results as nondetected and estimated.
- Sample TB-16 is a trip blank.

**KEY**

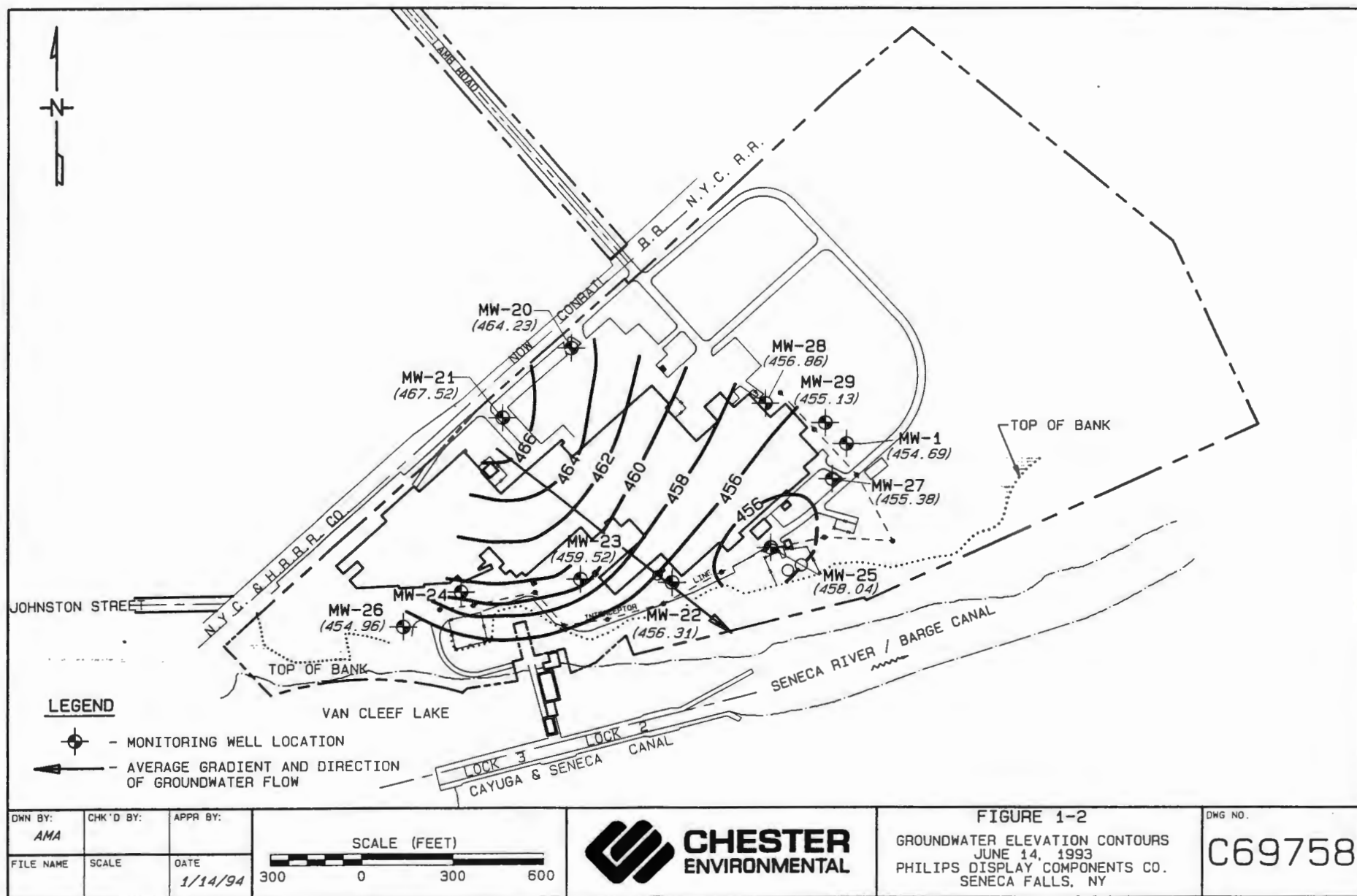
ND = Not Detected at the limit reported  
ug/Kg = Microgram per kilogram (part per billion solid)  
ug/L = Microgram per Liter (part per billion aqueous)  
--- = Not applicable

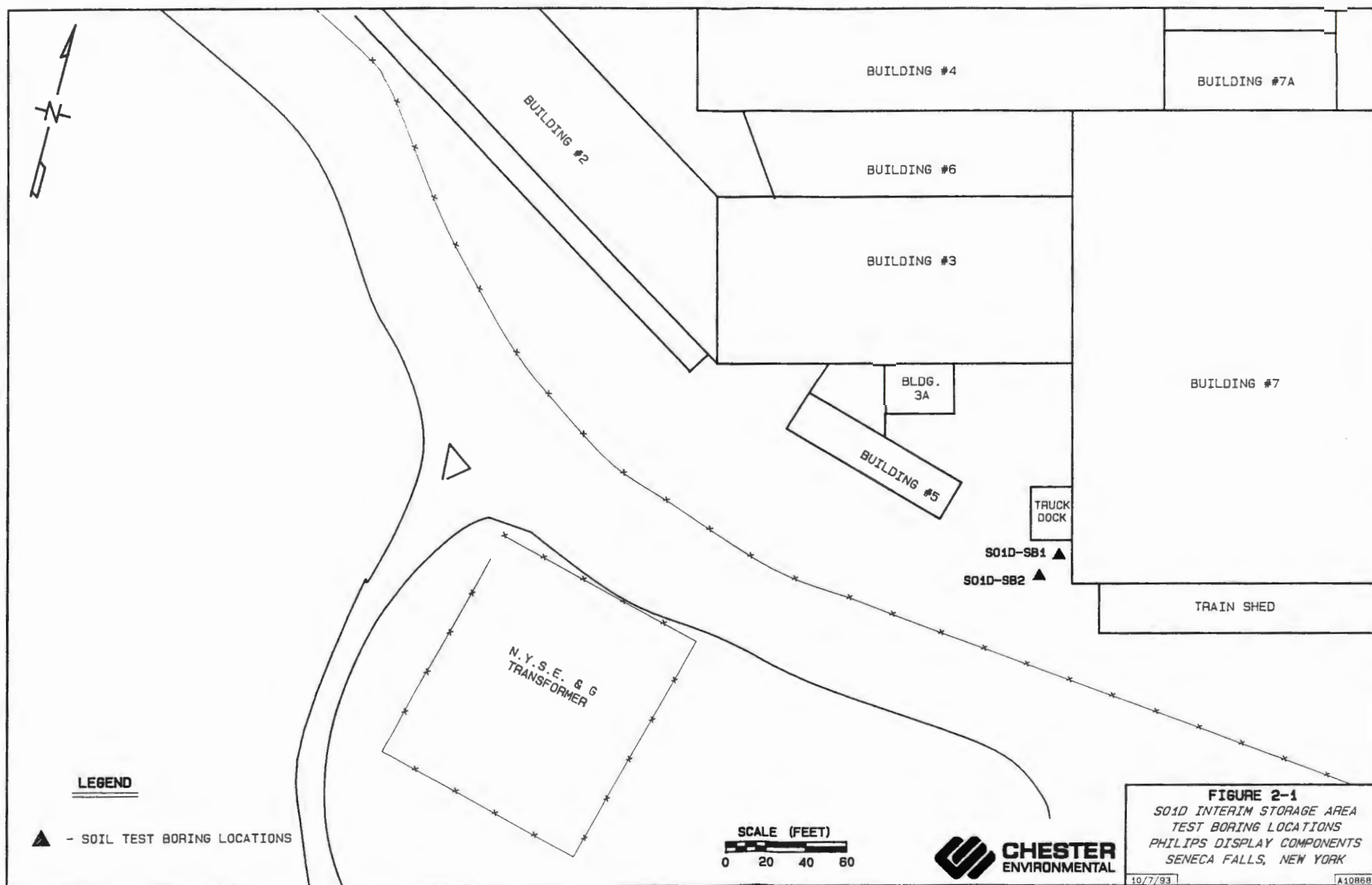
UJ = Validator qualified as nondetected and estimated.  
J = Validator qualified as estimated.

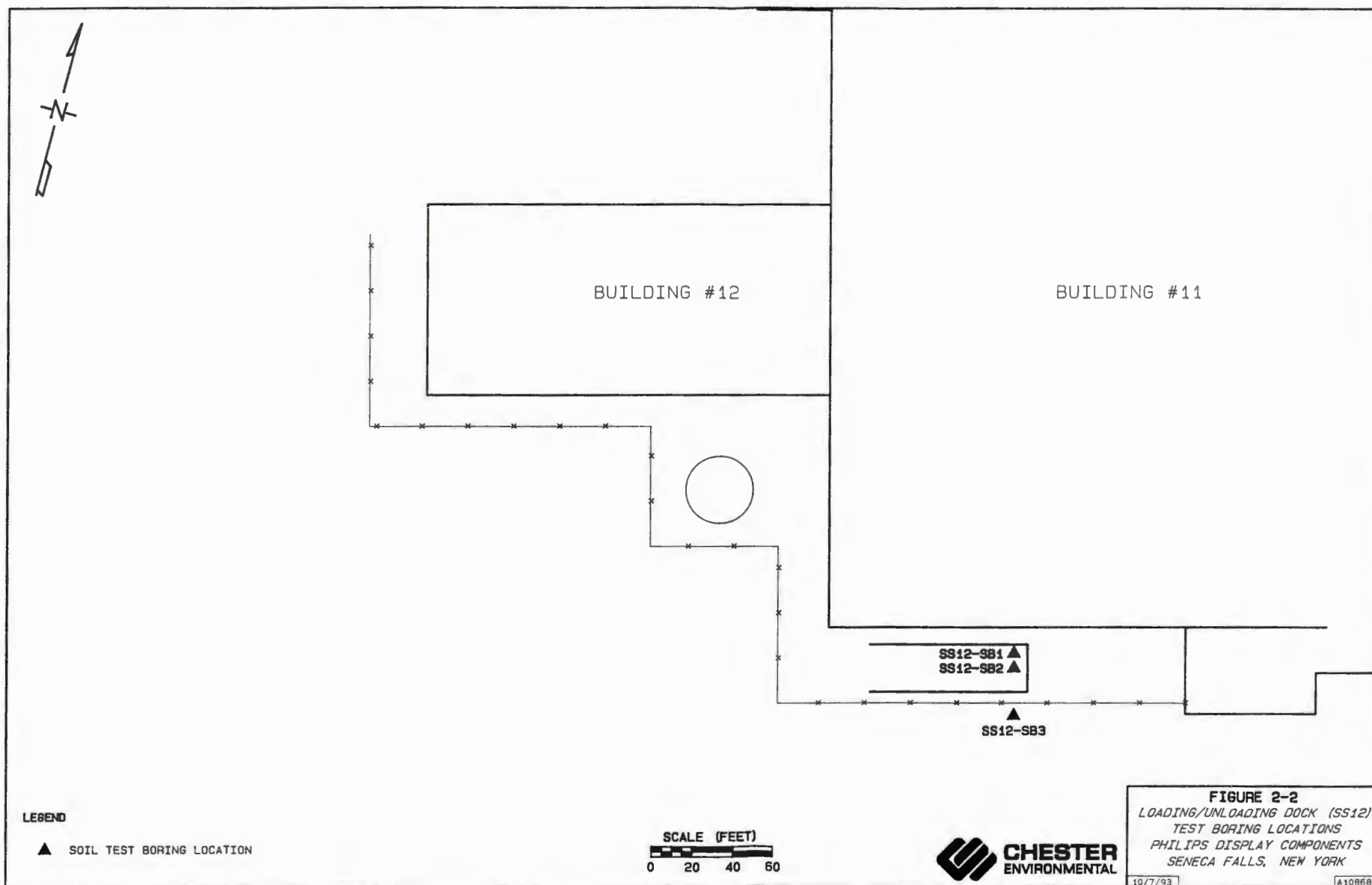


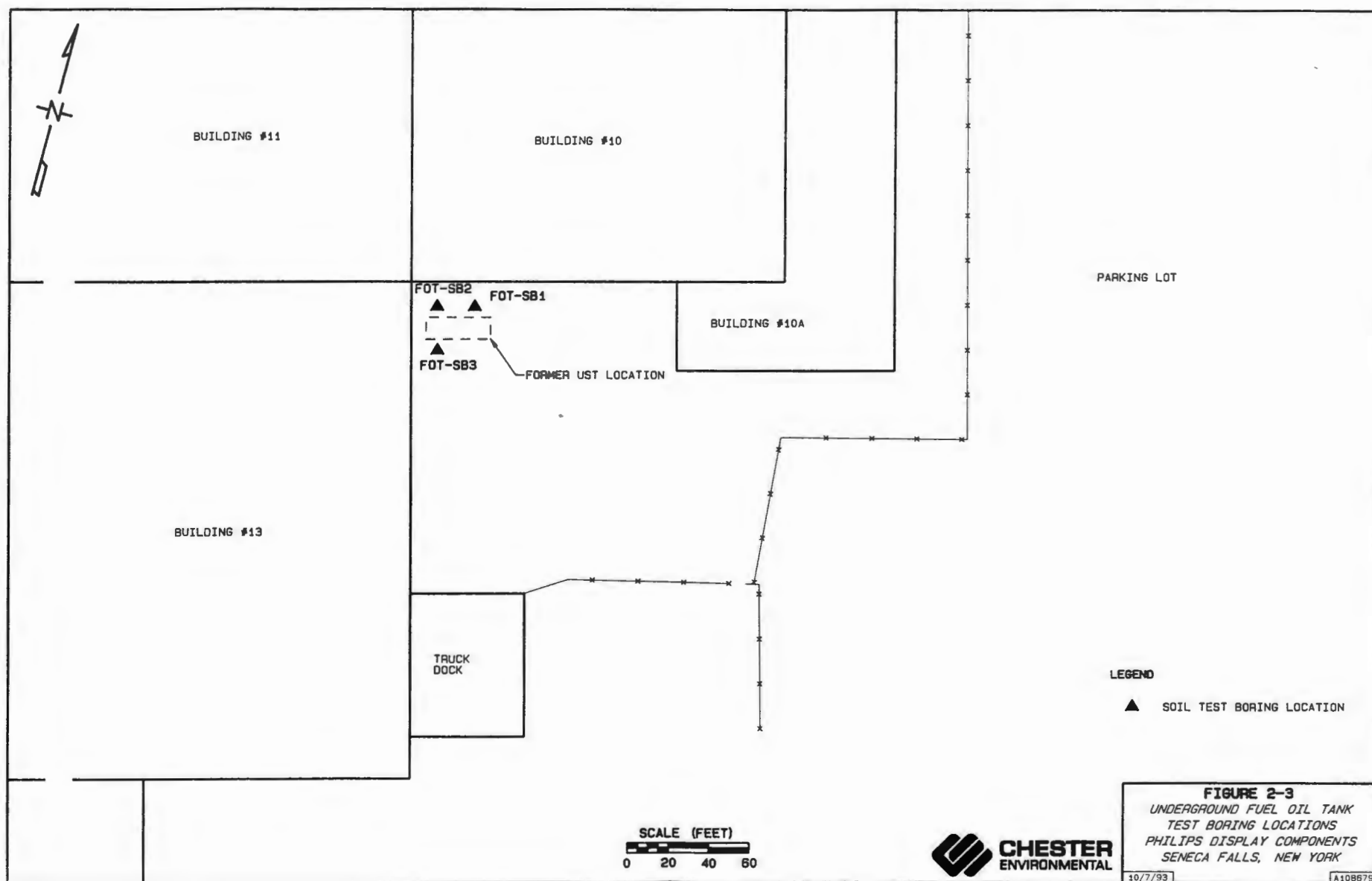












# HUNTINGDON ANALYTICAL SERVICES

Sample Delivery Group No.: 02

## ANALYSIS PERFORMED ON TOTALS

FIELD SAMPLE ID:	METHOD BLANK	METHOD BLANK	BS-SB1-01	BS-SB1-03	BS-SB1-04
LABORATORY ID:	0661-MB	0661-MB	0661-01	0661-02	0661-03
DATE SAMPLED:			5/03/93	5/03/93	5/03/93
DATE ANALYZED:	5/21/93	5/21/93	5/21/93	5/21/93	5/21/93
% SOLID:	100%	LIQUID BLANK	80.3%	90.7%	90.9%
DILUTION FACTOR:	1	1	1	1	1
PARAMETER	RESULT ug/kg	RESULT ug/L	RESULT ug/kg	RESULT ug/kg	RESULT ug/kg
CADMIUM METHOD 6010	1,000 U	5.00 U	1,660	1,100 U	1,270
CHROMIUM METHOD 6010	2,000 U	10.0 U	26,400	12,300	15,400
LEAD METHOD 6010	8,000 U	40.0 U	30,300	10,800	13,900
ZINC METHOD 6010	4,000 U	20.0 U	49,300	33,100	35,600
FLUORIDE METHOD 340.2		100 U	1,040	1,140	1,170

NOTE: FLUORIDE ANALYSIS PERFORMED 5/27/93.

000012

# HUNTINGDON ANALYTICAL SERVICES

Sample Delivery Group No.: 02

## ANALYSIS PERFORMED ON TOTALS

FIELD SAMPLE ID:	BS-SB1-05	BS-SB1-06	BS-SB1-07	BS-SB1-08	BS-SB2-01
LABORATORY ID:	0661-04	0661-05	0661-06	0661-07	0661-08
DATE SAMPLED:	5/03/93	5/03/93	5/03/93	5/03/93	5/03/93
DATE ANALYZED:	5/21/93	5/21/93	5/21/93	5/21/93	5/21/93
% SOLID:	90.1%	89.2%	89.8%	89.5%	79.1%
DILUTION FACTOR:	1	1	1	1	1

PARAMETER	RESULT ug/kg		RESULT ug/kg		RESULT ug/kg		RESULT ug/kg		RESULT ug/kg	
CADMIUM METHOD 6010	1,080	U	1,080	U	1,070	U	1,070	U	1,240	U
CHROMIUM METHOD 6010	13,500		13,100		13,400		14,000		30,200	
LEAD METHOD 6010	12,600		11,100		10,800		14,800		34,000	
ZINC METHOD 6010	35,300		38,600		41,500		35,000		75,900	
FLUORIDE METHOD 340.2	1,110		1,820		1,800		2,230		1,700	

NOTE: FLUORIDE ANALYSIS PERFORMED 5/27/93.

000013



# HUNTINGDON ANALYTICAL SERVICES

Sample Delivery Group No.: 02

## ANALYSIS PERFORMED ON TOTALS

FIELD SAMPLE ID:	BS-SB2-02	BS-SB2-03	BS-SB2-05	BS-SB2-06	BS-SB2-07
LABORATORY ID:	0661-09	0661-10	0661-11	0661-12	0661-13
DATE SAMPLED:	5/03/93	5/03/93	5/03/93	5/03/93	5/03/93
DATE ANALYZED:	5/21/93	5/21/93	5/21/93	5/21/93	5/21/93
% SOLID:	89.3%	90.0%	90.0%	90.1%	89.6%
DILUTION FACTOR:	1	1	1	1	1

PARAMETER	RESULT ug/kg		RESULT ug/kg		RESULT ug/kg		RESULT ug/kg		RESULT ug/kg	
CADMIUM METHOD 6010	1,090	U	1,070	U	1,090	U	1,110	U	1,110	U
CHROMIUM METHOD 6010	16,000		14,900		13,300		14,100		13,800	
LEAD METHOD 6010	14,300		16,700		14,500		11,500		13,200	
ZINC METHOD 6010	37,800		37,200		37,900		37,500		39,600	
FLUORIDE METHOD 340.2	2,030		1,910		2,130		1,990		2,070	

NOTE: FLUORIDE ANALYSIS PERFORMED 5/27/93.

000014

# HUNTINGDON ANALYTICAL SERVICES

Sample Delivery Group No.: 02

## ANALYSIS PERFORMED ON TOTALS

FIELD SAMPLE ID:	BS-SB2-08	RB-01	RB-03
LABORATORY ID:	0661-14	0661-19	0661-21
DATE SAMPLED:	5/03/93	5/03/93	5/03/93
DATE ANALYZED:	5/21/93	5/21/93	5/27/93
% SOLID:	89.8%	LIQUID SAMPLE	LIQUID SAMPLE
DILUTION FACTOR:	1	1	1
PARAMETER	RESULT ug/kg	RESULT ug/L	
CADMIUM METHOD 6010	1,070 U	5.00 U	
CHROMIUM METHOD 6010	13,400	10.0 U	
LEAD METHOD 6010	14,700	40.0 U	
ZINC METHOD 6010	39,600	27.7 KMS 10/5/93	
FLUORIDE METHOD 340.2	2,300		100.0 U

NOTE: FLUORIDE ANALYSIS PERFORMED 5/27/93.

000015

# HUNTINGDON ANALYTICAL SERVICES

Sample Delivery Group No.: 02

## ANALYSIS PERFORMED ON SPLP EXTRACT

FIELD SAMPLE ID:		METHOD BLANK	BS-SB1-01	BS-SB1-03	BS-SB1-04	BS-SB1-05
LABORATORY ID:		0661-MB	0661-01	0661-02	0661-03	0661-04
DATE SAMPLED:			5/03/93	5/03/93	5/03/93	5/03/93
DATE ANALYZED:		5/21/93	5/21/93	5/21/93	5/21/93	5/21/93
DILUTION FACTOR:		1	1	1	1	1
PARAMETER		RESULT mg/L	RESULT mg/L	RESULT mg/L	RESULT mg/L	RESULT mg/L
CADMIUM METHOD 6010		0.005	U 0.005	U 0.005	U 0.005	U 0.005
CHROMIUM METHOD 6010		0.01	U 0.26	0.11	0.11	0.12
ZINC METHOD 6010		0.02	U 0.53	0.37	0.48	0.47
DATE ANALYZED		5/13/93	5/13/93	5/13/93	5/13/93	5/13/93
DILUTION FACTOR:		1	1	1	1	1
LEAD METHOD 7420		0.003	0.045	0.040	0.038	0.059
DATE ANALYZED:		5/27/93	5/27/93	5/27/93	5/27/93	5/27/93
DILUTION FACTOR:		1	1	1	1	1
FLUORIDE METHOD 340.2		0.10	U 0.17	0.14	0.15	0.16

000008

# HUNTINGDON ANALYTICAL SERVICES

Sample Delivery Group No.: 02

## ANALYSIS PERFORMED ON SPLP EXTRACT

	FIELD SAMPLE ID:	BS-SB1-06	BS-SB1-07	BS-SB1-08	BS-SB2-01	BS-SB2-02
	LABORATORY ID:	0661-05	0661-06	0661-07	0661-08	0661-09
	DATE SAMPLED:	5/03/93	5/03/93	5/03/93	5/03/93	5/03/93
	DATE ANALYZED:	5/21/93	5/21/93	5/21/93	5/21/93	5/21/93
	DILUTION FACTOR:	1	1	1	1	1
PARAMETER	RESULT	RESULT	RESULT	RESULT	RESULT	RESULT
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
CADMIUM METHOD 6010	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
CHROMIUM METHOD 6010	0.11	0.12	0.08	0.28	0.08	
ZINC METHOD 6010	0.49	0.46	0.36	0.64	0.29	
	DATE ANALYZED	5/13/93	5/13/93	5/13/93	5/13/93	5/13/93
	DILUTION FACTOR:	2	2	1	1	1
LEAD METHOD 7420	0.041	0.051	0.055	0.056	0.028	
	DATE ANALYZED:	5/27/93	5/27/93	5/27/93	5/27/93	5/27/93
	DILUTION FACTOR:	1	1	1	1	1
FLUORIDE METHOD 340.2	0.16	0.18	0.20	0.27	0.22	

000009

# HUNTINGDON ANALYTICAL SERVICES

Sample Delivery Group No.: 02

## ANALYSIS PERFORMED ON SPLP EXTRACT

FIELD SAMPLE ID:	BS-SB2-03	BS-SB2-05	BS-SB2-06	BS-SB2-07	BS-SB2-08
LABORATORY ID:	0661-10	0661-11	0661-12	0661-13	0661-14
DATE SAMPLED:	5/03/93	5/03/93	5/03/93	5/03/93	5/03/93
DATE ANALYZED:	5/21/93	5/21/93	5/21/93	5/21/93	5/21/93
DILUTION FACTOR:	1	1	1	1	1

PARAMETER	RESULT mg/L	RESULT mg/L	RESULT mg/L	RESULT mg/L	RESULT mg/L
CADMIUM METHOD 6010	0.005	0.005 U	0.005 U	0.005 U	0.005 U
CHROMIUM METHOD 6010	0.09	0.09	0.09	0.09	0.10
ZINC METHOD 6010	0.36	0.37	0.39	0.40	0.37
DATE ANALYZED	5/13/93	5/13/93	5/13/93	5/13/93	5/13/93
DILUTION FACTOR:	1	1	1	2	5
LEAD METHOD 7420	0.042	0.046	0.052	0.052	0.053
DATE ANALYZED:	5/27/93	5/27/93	5/27/93	5/27/93	5/27/93
DILUTION FACTOR:	1	1	1	1	1
FLUORIDE METHOD 340.2	0.19	0.18	0.18	0.20	0.22

000010

# HUNTINGDON ANALYTICAL SERVICES

Sample Delivery Group No.: 02

## ANALYSIS PERFORMED ON SPLP EXTRACT

FIELD SAMPLE ID: RB-01  
LABORATORY ID: 0661-19  
DATE SAMPLED: 5/03/93  
DATE ANALYZED: 5/21/93  
DILUTION FACTOR: 1

PARAMETER	RESULT mg/L	
CADMIUM METHOD 6010	0.005	U
CHROMIUM METHOD 6010	0.01	U
ZINC METHOD 6010	0.02	

DATE ANALYZED 5/13/93  
DILUTION FACTOR: 1

LEAD METHOD 7420	0.003	U
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DATE ANALYZED:  
DILUTION FACTOR:

FLUORIDE METHOD 340.2

000011



## INTERIM STORAGE AREA SOILS

# HUNTINGDON ANALYTICAL SERVICES

Sample Delivery Group No.: 15

METHOD 8010

PURGEABLE HALOCARBONS

FIELD SAMPLE ID:	S01D-SB2-02	S01D-SB1-01	S01D-SB1-02
LABORATORY ID:	93079518	93079519	93079520
DATE SAMPLED:	5-26-93	5-26-93	5-26-93
DATE EXTRACTED:	5-30-93	5-30-93	5-30-93
% SOLIDS:	78.2	78.0	82.0
DILUTION FACTORS:	5X	5X	5X

PARAMETER	RESULT ug/kg		RESULT ug/kg		RESULT ug/kg		MDL ug/kg
CHLOROMETHANE	20.0	U	20.0	U	20.0	U	20.0
BROMOMETHANE	50.0	U	50.0	U	50.0	U	50.0
VINYL CHLORIDE	86.0		20.0	U	20.0	U	20.0
CHLOROETHANE	20.0	U	20.0	U	20.0	U	20.0
METHYLENE CHLORIDE	10.0	U	10.0	U	10.0	U	10.0
TRICHLOROFLUOROMETHANE	5.0	U	5.0	U	5.0	U	5.0
1,1-DICHLOROETHENE	5.0	U	5.0	U	5.0	U	5.0
1,1-DICHLOROETHANE	5.0	U	5.0	U	5.0	U	5.0
cis-1,2-DICHLOROETHENE	163		5.0	U	5.0	U	5.0
trans-1,2-DICHLOROETHENE	5.0	U	5.0	U	5.0	U	5.0
CHLOROFORM	5.0	U	5.0	U	5.0	U	5.0
1,2-DICHLOROETHANE	5.0	U	5.0	U	5.0	U	5.0
1,1,1-TRICHLOROETHANE	5.0	U	5.0	U	5.0	U	5.0
CARBON TETRACHLORIDE	5.0	U	5.0	U	5.0	U	5.0
BROMODICHLOROMETHANE	10.0	U	10.0	U	10.0	U	10.0
1,2-DICHLOROPROPANE	10.0	U	10.0	U	10.0	U	10.0
CIS-1,3-DICHLOROPROPENE	20.0	U	20.0	U	20.0	U	20.0
TRICHLOROETHENE	5.0	U	5.0	U	5.0	U	5.0
TRANS-1,3-DICHLOROPROPENE	20.0	U	20.0	U	20.0	U	20.0
DIBROMOCHLOROMETHANE	10.0	U	10.0	U	10.0	U	10.0
1,1,2-TRICHLOROETHANE	5.0	U	5.0	U	5.0	U	5.0
2-CHLOROETHYL VINYL ETHER	50.0	U	50.0	U	50.0	U	50.0
BROMOFORM	20.0	U	20.0	U	20.0	U	20.0
1,1,2,2-TETRACHLOROETHANE	3.0	U	3.0	U	3.0	U	3.0
TETRACHLOROETHENE	3.0	U	3.0	U	3.0	U	3.0
CHLOROBENZENE	20.0	U	20.0	U	20.0	U	20.0
1,4-DICHLOROBENZENE	15.0	U	15.0	U	15.0	U	15.0
1,2-DICHLOROBENZENE	15.0	U	15.0	U	15.0	U	15.0
1,3-DICHLOROBENZENE	15.0	U	15.0	U	15.0	U	15.0

## SURROGATE % RECOVERY

CHLOROBROMOMETHANE(47/155)  
1-CHLORO-2-BROMOPROPANE(34/160)  
1,4-DICHLOROBUTANE(24/138)

111  
85  
76

80  
80  
77

81  
81  
73

000008

# HUNTINGDON ANALYTICAL SERVICES

Sample Delivery Group No.: 15

METHOD 8010

PURGEABLE HALOCARBONS

FIELD SAMPLE ID:	S01D-SB2-01
LABORATORY ID:	93079517
DATE SAMPLED:	5-26-93
DATE EXTRACTED:	5-30-93
% SOLIDS:	90.3
DILUTION FACTORS:	5X

PARAMETER	RESULT ug/kg	MDL ug/kg
CHLOROMETHANE	20.0 U	20.0
BROMOMETHANE	50.0 U	50.0
VINYL CHLORIDE	20.0 U	20.0
CHLOROETHANE	20.0 U	20.0
METHYLENE CHLORIDE	10.0 U	10.0
TRICHLOROFLUOROMETHANE	5.0 U	5.0
1,1-DICHLOROETHENE	5.0 U	5.0
1,1-DICHLOROETHANE	5.0 U	5.0
cis-1,2-DICHLOROETHENE	21.8	5.0
trans-1,2-DICHLOROETHENE	5.0 U	5.0
CHLOROFORM	5.0 U	5.0
1,2-DICHLOROETHANE	5.0 U	5.0
1,1,1-TRICHLOROETHANE	5.0 U	5.0
CARBON TETRACHLORIDE	5.0 U	5.0
BROMODICHLOROMETHANE	10.0 U	10.0
1,2-DICHLOROPROPANE	10.0 U	10.0
CIS-1,3-DICHLOROPROPENE	20.0 U	20.0
TRICHLOROETHENE	11.2	5.0
TRANS-1,3-DICHLOROPROPENE	20.0 U	20.0
DIBROMOCHLOROMETHANE	10.0 U	10.0
1,1,2-TRICHLOROETHANE	5.0 U	5.0
2-CHLOROETHYL VINYL ETHER	50.0 U	50.0
BROMOFORM	20.0 U	20.0
1,1,2,2-TETRACHLOROETHANE	3.0 U	3.0
TETRACHLOROETHENE	3.0 U	3.0
CHLOROBENZENE	20.0 U	20.0
1,4-DICHLOROBENZENE	15.0 U	15.0
1,2-DICHLOROBENZENE	15.0 U	15.0
1,3-DICHLOROBENZENE	15.0 U	15.0
SURROGATE % RECOVERY		
CHLOROBROMOMETHANE(47/155)	83	
1-CHLORO-2-BROMOPROPANE(34/160)	81	
1,4-DICHLOROBUTANE(24/138)	71	

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SATELLITE STORAGE AREA SOILS

# HUNTINGDON ANALYTICAL SERVICES

Sample Delivery Group No.: 15

METHOD 8010

PURGEABLE HALOCARBONS

FIELD SAMPLE ID:	SS12-SB2-01	SS12-SB2-02	SS12-SB2-03	SS12-SB1-01
LABORATORY ID:	93079501	93079502	93079503	93079504
DATE SAMPLED:	5-25-93	5-25-93	5-25-93	5-25-93
DATE EXTRACTED:	5-28-93	5-28-93	5-28-93	5-28-93
% SOLIDS:	92.3	90.8	89.7	89.7
DILUTION FACTORS:	5X	5X	5X	5X

PARAMETER	RESULT		RESULT		RESULT		RESULT		MDL
	ug/kg		ug/kg		ug/kg		ug/kg		ug/kg
CHLOROMETHANE	20.0	U	20.0	U	20.0	U	20.0	U	20.0
BROMOMETHANE	50.0	U	50.0	U	50.0	U	50.0	U	50.0
VINYL CHLORIDE	20.0	U	20.0	U	20.0	U	20.0	U	20.0
CHLOROETHANE	20.0	U	20.0	U	20.0	U	20.0	U	20.0
METHYLENE CHLORIDE	10.0	U	10.0	U	10.0	U	10.0	U	10.0
TRICHLOROFLUOROMETHANE	5.0	U	5.0	U	5.0	U	5.0	U	5.0
1,1-DICHLOROETHENE	5.0	U	5.0	U	5.0	U	5.0	U	5.0
1,1-DICHLOROETHANE	5.0	U	5.0	U	5.0	U	5.0	U	5.0
cis-1,2-DICHLOROETHENE	5.0	U	5.0	U	5.0	U	5.1	U	5.0
trans-1,2-DICHLOROETHENE	5.0	U	5.0	U	5.0	U	5.0	U	5.0
CHLOROFORM	5.0	U	5.0	U	5.0	U	5.0	U	5.0
1,2-DICHLOROETHANE	5.0	U	5.0	U	5.0	U	5.0	U	5.0
1,1,1-TRICHLOROETHANE	7.3	U	7.9	U	5.0	U	10.3	U	5.0
CARBON TETRACHLORIDE	5.0	U	5.0	U	5.0	U	5.0	U	5.0
BROMODICHLOROMETHANE	10.0	U	10.0	U	10.0	U	10.0	U	10.0
1,2-DICHLOROPROPANE	10.0	U	10.0	U	10.0	U	10.0	U	10.0
CIS-1,3-DICHLOROPROPENE	20.0	U	20.0	U	20.0	U	20.0	U	20.0
TRICHLOROETHENE	6.3	U	5.0	U	5.0	U	12.6	U	5.0
TRANS-1,3-DICHLOROPROPENE	20.0	U	20.0	U	20.0	U	20.0	U	20.0
DIBROMOCHLOROMETHANE	10.0	U	10.0	U	10.0	U	10.0	U	10.0
1,1,2-TRICHLOROETHANE	5.0	U	5.0	U	5.0	U	5.0	U	5.0
2-CHLOROETHYL VINYL ETHER	50.0	U	50.0	U	50.0	U	50.0	U	50.0
BROMOFORM	20.0	U	20.0	U	20.0	U	20.0	U	20.0
1,1,2,2-TETRACHLOROETHANE	3.0	U	3.0	U	3.0	U	3.0	U	3.0
TETRACHLOROETHENE	3.0	U	3.0	U	3.0	U	3.0	U	3.0
CHLOROBENZENE	20.0	U	20.0	U	20.0	U	20.0	U	20.0
1,4-DICHLOROBENZENE	15.0	U	15.0	U	15.0	U	15.0	U	15.0
1,2-DICHLOROBENZENE	15.0	U	15.0	U	15.0	U	15.0	U	15.0
1,3-DICHLOROBENZENE	15.0	U	15.0	U	15.0	U	15.0	U	15.0

## SURROGATE % RECOVERY

CHLOROBROMOMETHANE(47/155)  
 1-CHLORO-2-BROMOPROPANE(34/160)  
 1,4-DICHLOROBUTANE(24/138)

89  
 89  
 84

127  
 96  
 93

94  
 93  
 86

100  
 99  
 88

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# HUNTINGDON ANALYTICAL SERVICES

Sample Delivery Group No.: 15

METHOD 8010

PURGEABLE HALOCARBONS

FIELD SAMPLE ID:	SS12-SB1-02	SS12-SB3-01	SS12-SB3-02
LABORATORY ID:	93079505	93079506	93079507
DATE SAMPLED:	5-25-93	5-25-93	5-25-93
DATE EXTRACTED:	5-28-93	5-28-93	5-29-93
% SOLIDS:	89.0	89.3	90.6
DILUTION FACTORS:	5X	5X	5X

PARAMETER	RESULT ug/kg		RESULT ug/kg		RESULT ug/kg		MDL ug/kg
CHLOROMETHANE	20.0	U	20.0	U	20.0	U	20.0
BROMOMETHANE	50.0	U	50.0	U	50.0	U	50.0
VINYL CHLORIDE	20.0	U	20.0	U	20.0	U	20.0
CHLOROETHANE	20.0	U	20.0	U	20.0	U	20.0
METHYLENE CHLORIDE	10.0	U	10.0	U	10.0	U	10.0
TRICHLOROFLUOROMETHANE	5.0	U	5.0	U	5.0	U	5.0
1,1-DICHLOROETHENE	5.0	U	5.0	U	5.0	U	5.0
1,1-DICHLOROETHANE	5.0	U	10.1		5.0	U	5.0
cis-1,2-DICHLOROETHENE	5.0	U	9.9		5.0	U	5.0
trans-1,2-DICHLOROETHENE	5.0	U	5.0	U	5.0	U	5.0
CHLOROFORM	5.0	U	5.0	U	5.0	U	5.0
1,2-DICHLOROETHANE	5.0	U	5.0	U	5.0	U	5.0
1,1,1-TRICHLOROETHANE	5.0	U	5.0	U	5.0	U	5.0
CARBON TETRACHLORIDE	5.0	U	5.0	U	5.0	U	5.0
BROMODICHLOROMETHANE	10.0	U	10.0	U	10.0	U	10.0
1,2-DICHLOROPROPANE	10.0	U	10.0	U	10.0	U	10.0
CIS-1,3-DICHLOROPROPENE	20.0	U	20.0	U	20.0	U	20.0
TRICHLOROETHENE	5.1		18.0		18.5		5.0
TRANS-1,3-DICHLOROPROPENE	20.0	U	20.0	U	20.0	U	20.0
DIBROMOCHLOROMETHANE	10.0	U	10.0	U	10.0	U	10.0
1,1,2-TRICHLOROETHANE	5.0	U	5.0	U	5.0	U	5.0
2-CHLOROETHYL VINYL ETHER	50.0	U	50.0	U	50.0	U	50.0
BROMOFORM	20.0	U	20.0	U	20.0	U	20.0
1,1,2,2-TETRACHLOROETHANE	3.0	U	3.0	U	3.0	U	3.0
TETRACHLOROETHENE	3.0	U	3.0	U	3.0	U	3.0
CHLOROBENZENE	20.0	U	20.0	U	20.0	U	20.0
1,4-DICHLOROBENZENE	15.0	U	15.0	U	15.0	U	15.0
1,2-DICHLOROBENZENE	15.0	U	15.0	U	15.0	U	15.0
1,3-DICHLOROBENZENE	15.0	U	15.0	U	15.0	U	15.0

## SURROGATE % RECOVERY

CHLOROBROMOMETHANE(47/155)	93	115	92
1-CHLORO-2-BROMOPROPANE(34/160)	94	93	92
1,4-DICHLOROBUTANE(24/138)	88	89	85

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UNDERGROUND FUEL OIL TANK SOILS

## HUNTINGDON ANALYTICAL SERVICES

PAGE 1 OF 2

Sample Delivery Group No.: 07

METHOD 8270

SEMIVOLATILE ORGANICS

FIELD SAMPLE ID:	RB-12	RB-13	----
LABORATORY SAMPLE ID:	93072312	93072317	SBLKW1
DATE SAMPLED:	5-13-93	5-14-93	----
DATE EXTRACTED:	5-17-93	5-17-93	5-17-93
DILUTION FACTOR(S):	1	1	1

PARAMETER	RESULT ug/L		RESULT ug/L		RESULT ug/L		MDL ug/L	
ACENAPHTHENE -----	10	U	10	U	10	U	10	U
ACENAPHTHYLENE -----	10	U	10	U	10	U	10	U
ANTHRACENE -----	10	U	10	U	10	U	10	U
BENZO(a)ANTHRACENE -----	10	U	10	U	10	U	10	U
BENZO(b)FLUORANTHENE -----	10	U	10	U	10	U	10	U
BENZO(k)FLUORANTHENE -----	10	U	10	U	10	U	10	U
BENZO(a)PYRENE -----	10	U	10	U	10	U	10	U
BENZO(g,h,i)PERYLENE -----	10	U	10	U	10	U	10	U
BENZOIC ACID -----	50	U	50	U	50	U	50	U
BENZYL ALCOHOL -----	10	U	10	U	10	U	10	U
BIS(2-CHLOROETHOXY)METHANE -----	10	U	10	U	10	U	10	U
BIS(2-CHLOROETHYL)ETHER -----	10	U	10	U	10	U	10	U
BIS(2-CHLOROISOPROPYL)ETHER -----	10	U	10	U	10	U	10	U
BIS(2-ETHYLHEXYL)PHTHALATE -----	7	J	10	U	8	J	10	U
BUTYLBENZYL PHTHALATE -----	10	U	10	U	10	U	10	U
4-BROMOPHENYL-PHENYL ETHER -----	10	U	10	U	10	U	10	U
4-CHLOROANILINE -----	10	U	10	U	10	U	10	U
2-CHLORONAPHTHALENE -----	10	U	10	U	10	U	10	U
4-CHLOROPHENYL-PHENYL ETHER -----	10	U	10	U	10	U	10	U
CHRYSENE -----	10	U	10	U	10	U	10	U
DIBENZ(a,h)ANTHRACENE -----	10	U	10	U	10	U	10	U
DIBENZOFURAN -----	10	U	10	U	10	U	10	U
DI-N-BUTYL PHTHALATE -----	10	U	10	U	10	U	10	U
1,2-DICHLOROBENZENE -----	10	U	10	U	10	U	10	U
1,3-DICHLOROBENZENE -----	10	U	10	U	10	U	10	U
1,4-DICHLOROBENZENE -----	10	U	10	U	10	U	10	U
3,3-DICHLOROBENZIDINE -----	20	U	20	U	20	U	20	U
DIETHYL PHTHALATE -----	10	U	10	U	10	U	10	U
DIMETHYL PHTHALATE -----	10	U	10	U	10	U	10	U
2,4-DINITROTOLUENE -----	10	U	10	U	10	U	10	U
2,6-DINITROTOLUENE -----	10	U	10	U	10	U	10	U
DI-N-OCTYL PHTHALATE -----	10	U	10	U	10	U	10	U
FLUORANTHENE -----	10	U	10	U	10	U	10	U
FLUORENE -----	10	U	10	U	10	U	10	U
HEXACHLOROBENZENE -----	10	U	10	U	10	U	10	U
HEXACHLOROBUTADIENE -----	10	U	10	U	10	U	10	U
HEXACHLOROCYCLOPENTADIENE -----	10	U	10	U	10	U	10	U
HEXACHLOROETHANE -----	10	U	10	U	10	U	10	U
INDENO(1,2,3-cd)PYRENE -----	10	U	10	U	10	U	10	U

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## HUNTINGDON ANALYTICAL SERVICES

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Sample Delivery Group No.: 07

METHOD 8270

SEMIVOLATILE ORGANICS

FIELD SAMPLE ID:	RB-12	RB-13	----
LABORATORY SAMPLE ID:	93072312	93072317	SBLKW1
DATE SAMPLED:	5-13-93	5-14-93	----
DATE EXTRACTED:	5-17-93	5-17-93	5-17-93
DILUTION FACTOR(S):	1	1	1

PARAMETER	RESULT ug/L		RESULT ug/L		RESULT ug/L		MDL ug/L	
ISOPHORONE -----	10	U	10	U	10	U	10	U
2-METHYL NAPHTHALENE -----	10	U	10	U	10	U	10	U
NAPHTHALENE -----	10	U	10	U	10	U	10	U
2-NITROANILINE -----	50	U	50	U	50	U	50	U
3-NITROANILINE -----	50	U	50	U	50	U	50	U
4-NITROANILINE -----	50	U	50	U	50	U	50	U
NITROBENZENE -----	10	U	10	U	10	U	10	U
N-NITROSODIPHENYLAMINE -----	10	U	10	U	10	U	10	U
N-NITROS-DI-N-PROPYLAMINE -----	10	U	10	U	10	U	10	U
PHENANTHRENE -----	10	U	10	U	10	U	10	U
PYRENE -----	10	U	10	U	10	U	10	U
1,2,4-TRICHLOROBENZENE -----	10	U	10	U	10	U	10	U
CARBAZOLE -----	10	U	10	U	10	U	10	U

ACID COMPOUNDS	RESULT ug/L		RESULT ug/L		RESULT ug/L		RESULT ug/L	
4-CHLORO-3-METHYLPHENOL -----	10	U	10	U	10	U	10	U
2-CHLOROPHENOL -----	10	U	10	U	10	U	10	U
2,4-DICHLOROPHENOL -----	10	U	10	U	10	U	10	U
2,4-DIMETHYL PHENOL -----	10	U	10	U	10	U	10	U
2,4-DINITROPHENOL -----	50	U	50	U	50	U	50	U
4,6-DINITRO-2-METHYLPHENOL -----	50	U	50	U	50	U	50	U
2-METHYL PHENOL -----	10	U	10	U	10	U	50	U
4-METHYL PHENOL -----	10	U	10	U	10	U	10	U
2-NITROPHENOL -----	10	U	10	U	10	U	10	U
4-NITROPHENOL -----	50	U	50	U	50	U	50	U
PENTACHLOROPHENOL -----	50	U	50	U	50	U	50	U
PHENOL -----	10	U	10	U	10	U	10	U
2,4,5-TRICHLOROPHENOL -----	50	U	50	U	50	U	50	U
2,4,6-TRICHLOROPHENOL -----	10	U	10	U	10	U	10	U

SURROGATE % RECOVERY	% REC	% REC	% REC	CONTROL LIMITS
NITROBENZENE (d5)	73	66	71	16 -- 146
2-FLUOROBIPHENYL	77	75	75	21 -- 113
TERPHENYL (d14)	94	98	90	12 -- 146
PHENOL (d5)	33	31	30	11 -- 104
2-FLUOROPHENOL	64	58	58	17 -- 117
2,4,6-TRIBROMOPHENOL	80	75	63	22 -- 144
2-CHLOROPHENOL (d4)	77	73	72	20 -- 130
1,2-DICHLOROBENZENE (d4)	69	64	66	20 -- 130

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## HUNTINGDON ANALYTICAL SERVICES

PAGE 1 OF 2

Sample Delivery Group No.: 08

METHOD 8270

SEMIVOLATILE ORGANICS

X

FIELD SAMPLE ID:	FOT-SB2-01	FOT-SB2-05	FOT-SB3-02
LABORATORY SAMPLE ID:	93072308	93072309	93072310
DATE SAMPLED:	5-10-93	5-10-93	5-10-93
DATE EXTRACTED:	5-20-93	5-20-93	5-20-93
% SOLIDS:	90.5	89.1	93.9
DILUTION FACTOR(S):	1	1	1

PARAMETER	RESULT ug/kg		RESULT ug/kg		RESULT ug/kg		MDL ug/kg
ACENAPHTHENE	1,600		330	U	330	U	330
ACENAPHTHYLENE	240	J	330	U	330	U	330
ANTHRACENE	4,400		330	U	150	J	330
BENZO(a)ANTHRACENE	10,000		330	U	330	U	330
BENZO(b)FLUORANTHENE	8,300		330	U	330	U	330
BENZO(k)FLUORANTHENE	7,200		330	U	330	U	330
BENZO(a)PYRENE	9,700		330	U	140	J	330
BENZO(g,h,i)PERYLENE	5,900		330	U	330	U	330
BENZOIC ACID	1,600	U	1,600	U	1,600	U	1,600
BENZYL ALCOHOL	330	U	330	U	330	U	330
BIS(2-CHLOROETHOXY)METHANE	330	U	330	U	330	U	330
BIS(2-CHLOROETHYL)ETHER	330	U	330	U	330	U	330
BIS(2-CHLOROISOPROPYL)ETHER	330	U	330	U	330	U	330
BIS(2-ETHYLHEXYL)PHTHALATE	330	U	330	U	420		330
BUTYLBENZYL PHTHALATE	330	U	330	U	330	U	330
4-BROMOPHENYL-PHENYL ETHER	330	U	330	U	330	U	330
4-CHLOROANILINE	330	U	330	U	330	U	330
2-CHLORONAPHTHALENE	330	U	330	U	330	U	330
4-CHLOROPHENYL-PHENYL ETHER	330	U	330	U	330	U	330
CHRYSENE	10,000		330	U	330	U	330
DIBENZ(a,h)ANTHRACENE	1,800		330	U	330	U	330
DIBENZOFURAN	1,500		330	U	140	J	330
DI-N-BUTYLPHTHALATE	330	U	330	U	330	U	330
1,2-DICHLOROBENZENE	330	U	330	U	330	U	330
1,3-DICHLOROBENZENE	330	U	330	U	330	U	330
1,4-DICHLOROBENZENE	330	U	330	U	330	U	330
3,3'-DICHLOROBENZIDINE	660	U	660	U	660	U	660
DIETHYL PHTHALATE	330	U	330	U	330	U	330
DIMETHYL PHTHALATE	330	U	330	U	330	U	330
2,4-DINITROTOLUENE	330	U	330	U	330	U	330
2,6-DINITROTOLUENE	330	U	330	U	330	U	330
DI-N-OCTYL PHTHALATE	330	U	330	U	330	U	330
FLUORANTHENE	22,000		330	U	310	J	330
FLUORENE	2,000		330	U	330	U	330
HEXACHLOROBENZENE	330	U	330	U	330	U	330
HEXACHLOROBUTADIENE	330	U	330	U	330	U	330
HEXACHLOROCYCLOPENTADIENE	330	U	330	U	330	U	330
HEXACHLOROETHANE	330	U	330	U	330	U	330
INDENO(1,2,3-cd)PYRENE	5,300		330	U	330	U	330

000010



## HUNTINGDON ANALYTICAL SERVICES

PAGE 2 OF 2

Sample Delivery Group No.: 08

METHOD 8270

SEMI-VOLATILE ORGANICS

FIELD SAMPLE ID:	FOT-SB2-01	FOT-SB2-05	FOT-SB3-02
LABORATORY SAMPLE ID:	93072308	93072309	93072310
DATE SAMPLED:	5-10-93	5-10-93	5-10-93
DATE EXTRACTED:	5-20-93	5-20-93	5-20-93
% SOLIDS:	90.5	89.1	93.9
DILUTION FACTOR(S):	1	1	1

PARAMETER	RESULT ug/kg		RESULT ug/kg		RESULT ug/kg		MDL ug/kg
ISOPHORONE	330	U	330	U	330	U	330
2-METHYL NAPHTHALENE	460		330	U	430		330
NAPHTHALENE	1,300		330	U	330	U	330
2-NITROANILINE	1,600	U	1,600	U	1,600	U	1,600
3-NITROANILINE	1,600	U	1,600	U	1,600	U	1,600
4-NITROANILINE	1,600	U	1,600	U	1,600	U	1,600
NITROBENZENE	330	U	330	U	330	U	330
N-NITROSODIPHENYLAMINE	330	U	330	U	330	U	330
N-NITROS-DI-N-PROPYLAMINE	330	U	330	U	330	U	330
PHENANTHRENE	18,000		330	U	370		330
PYRENE	22,000		330	U	220	J	330
1,2,4-TRICHLOROBENZENE	330	U	330	U	330	U	330
CARBAZOLE	2,800		330	U	330	U	330

ACID COMPOUNDS	RESULT ug/kg		RESULT ug/kg		RESULT ug/kg		RESULT ug/kg
4-CHLORO-3-METHYLPHENOL	330	U	330	U	330	U	330
2-CHLOROPHENOL	330	U	330	U	330	U	330
2,4-DICHLOROPHENOL	330	U	330	U	330	U	330
2,4-DIMETHYL PHENOL	330	U	330	U	330	U	330
2,4-DINITROPHENOL	1,600	U	1,600	U	1,600	U	1,600
4,6-DINITRO-2-METHYLPHENOL	1,600	U	1,600	U	1,600	U	1,600
2-METHYL PHENOL	330	U	330	U	330	U	330
4-METHYL PHENOL	330	U	330	U	330	U	330
2-NITROPHENOL	330	U	330	U	330	U	330
4-NITROPHENOL	1,600	U	1,600	U	1,600	U	1,600
PENTACHLOROPHENOL	1,600	U	1,600	U	1,600	U	1,600
PHENOL	330	U	330	U	330	U	330
2,4,5-TRICHLOROPHENOL	1,600	U	1,600	U	1,600	U	1,600
2,4,6-TRICHLOROPHENOL	330	U	330	U	330	U	330

SURROGATE % RECOVERY	% REC	% REC	% REC	CONTROL LIMITS
NITROBENZENE (d5)	56	63	76	54 -- 143
2-FLUOROBIPHENYL	67	68	82	43 -- 125
TERPHENYL (d14)	41	80	60	25 -- 139
PHENOL (d5)	52	59	68	40 -- 135
2-FLUOROPHENOL	68	74	79	48 -- 140
2,4,6-TRIBROMOPHENOL	27	61	24	18 -- 141
2-CHLOROPHENOL (d4)	59	65	68	43 -- 124
1,2-DICHLOROBENZENE (d4)	58	64	71	38 -- 129

000011

## HUNTINGDON ANALYTICAL SERVICES

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Sample Delivery Group No.: 08

METHOD 8270

SEMIVOLATILE ORGANICS

FIELD SAMPLE ID:	FOT-SB3-03	VO9-SB2-01	VO9-SB2-02
LABORATORY SAMPLE ID:	93072311	93072313	93072314
DATE SAMPLED:	5-10-93	5-10-93	5-10-93
DATE EXTRACTED:	5-20-93	5-20-93	5-19-93
% SOLIDS:	91.2	82.5	88.7
DILUTION FACTOR(S):	1	1	1

PARAMETER	RESULT ug/kg		RESULT ug/kg		RESULT ug/kg		MDL ug/kg
ACENAPHTHENE	330	U	330	U	330	U	330
ACENAPHTHYLENE	330	U	330	U	330	U	330
ANTHRACENE	330	U	330	U	330	U	330
BENZO(a)ANTHRACENE	330	U	330	U	330	U	330
BENZO(b)FLUORANTHENE	330	U	330	U	330	U	330
BENZO(k)FLUORANTHENE	330	U	330	U	330	U	330
BENZO(a)PYRENE	330	U	330	U	330	U	330
BENZO(g,h,i)PERYLENE	330	U	330	U	330	U	330
BENZOIC ACID	1,600	U	1,600	U	1,600	U	1,600
BENZYL ALCOHOL	330	U	330	U	330	U	330
BIS(2-CHLOROETHOXY)METHANE	330	U	330	U	330	U	330
BIS(2-CHLOROETHYL)ETHER	330	U	330	U	330	U	330
BIS(2-CHLOROISOPROPYL)ETHER	330	U	330	U	330	U	330
BIS(2-ETHYLHEXYL)PHTHALATE	330	U	330	U	330	U	330
BUTYLBENZYL PHTHALATE	330	U	330	U	330	U	330
4-BROMOPHENYL-PHENYL ETHER	330	U	330	U	330	U	330
4-CHLOROANILINE	330	U	330	U	330	U	330
2-CHLORONAPHTHALENE	330	U	330	U	330	U	330
4-CHLOROPHENYL-PHENYL ETHER	330	U	330	U	330	U	330
CHRYSENE	330	U	330	U	330	U	330
DIBENZ(a,h)ANTHRACENE	330	U	330	U	330	U	330
DIBENZOFURAN	330	U	330	U	330	U	330
DI-N-BUTYLPHTHALATE	330	U	330	U	330	U	330
1,2-DICHLOROBENZENE	330	U	330	U	330	U	330
1,3-DICHLOROBENZENE	330	U	330	U	330	U	330
1,4-DICHLOROBENZENE	330	U	330	U	330	U	330
3,3'-DICHLOROBENZIDINE	660	U	660	U	660	U	660
DIETHYL PHTHALATE	330	U	330	U	330	U	330
DIMETHYL PHTHALATE	330	U	330	U	330	U	330
2,4-DINITROTOLUENE	330	U	330	U	330	U	330
2,6-DINITROTOLUENE	330	U	330	U	330	U	330
DI-N-OCTYL PHTHALATE	330	U	330	U	330	U	330
FLUORANTHENE	330	U	330	U	330	U	330
FLUORENE	330	U	330	U	330	U	330
HEXACHLOROBENZENE	330	U	330	U	330	U	330
HEXACHLOROBUTADIENE	330	U	330	U	330	U	330
HEXACHLOROCYCLOPENTADIENE	330	U	330	U	330	U	330
HEXACHLOROETHANE	330	U	330	U	330	U	330
INDENO(1,2,3-cd)PYRENE	330	U	330	U	330	U	330

000012



## HUNTINGDON ANALYTICAL SERVICES

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Sample Delivery Group No.: 08

METHOD 8270

SEMIVOLATILE ORGANICS

FIELD SAMPLE ID:	FOT-SB3-03	VO9-SB2-01	VO9-SB2-02
LABORATORY SAMPLE ID:	93072311	93072313	93072314
DATE SAMPLED:	5-10-93	5-10-93	5-10-93
DATE EXTRACTED:	5-20-93	5-20-93	5-19-93
% SOLIDS:	91.2	82.5	88.7
DILUTION FACTOR(S):	1	1	1

PARAMETER	RESULT ug/kg		RESULT ug/kg		RESULT ug/kg		MDL ug/kg
ISOPHORONE	330	U	330	U	330	U	330
2-METHYL NAPHTHALENE	330	U	330	U	330	U	330
NAPHTHALENE	330	U	330	U	330	U	330
2-NITROANILINE	1,600	U	1,600	U	1,600	U	1,600
3-NITROANILINE	1,600	U	1,600	U	1,600	U	1,600
4-NITROANILINE	1,600	U	1,600	U	1,600	U	1,600
NITROBENZENE	330	U	330	U	330	U	330
N-NITROSODIPHENYLAMINE	330	U	330	U	330	U	330
N-NITROS-DI-N-PROPYLAMINE	330	U	330	U	330	U	330
PHENANTHRENE	330	U	330	U	330	U	330
PYRENE	330	U	330	U	330	U	330
1,2,4-TRICHLOROBENZENE	330	U	330	U	330	U	330
CARBAZOLE	330	U	330	U	330	U	330

ACID COMPOUNDS	RESULT ug/kg		RESULT ug/kg		RESULT ug/kg		RESULT ug/kg
4-CHLORO-3-METHYLPHENOL	330	U	330	U	330	U	330
2-CHLOROPHENOL	330	U	330	U	330	U	330
2,4-DICHLOROPHENOL	330	U	330	U	330	U	330
2,4-DIMETHYL PHENOL	330	U	330	U	330	U	330
2,4-DINITROPHENOL	1,600	U	1,600	U	1,600	U	1,600
4,6-DINITRO-2-METHYLPHENOL	1,600	U	1,600	U	1,600	U	1,600
2-METHYL PHENOL	330	U	330	U	330	U	330
4-METHYL PHENOL	330	U	330	U	330	U	330
2-NITROPHENOL	330	U	330	U	330	U	330
4-NITROPHENOL	1,600	U	1,600	U	1,600	U	1,600
PENTACHLOROPHENOL	1,600	U	1,600	U	1,600	U	1,600
PHENOL	330	U	330	U	330	U	330
2,4,5-TRICHLOROPHENOL	1,600	U	1,600	U	1,600	U	1,600
2,4,6-TRICHLOROPHENOL	330	U	330	U	330	U	330

SURROGATE % RECOVERY	% REC	% REC	% REC	CONTROL LIMITS
NITROBENZENE (d5)	67	70	74	54 - 143
2-FLUOROBIPHENYL	70	72	76	43 - 125
TERPHENYL (d14)	91	79	89	25 - 139
PHENOL (d5)	64	65	67	40 - 135
2-FLUOROPHENOL	80	85	87	48 - 140
2,4,6-TRIBROMOPHENOL	61	64	56	18 - 141
2-CHLOROPHENOL (d4)	70	72	75	43 - 124
1,2-DICHLOROBENZENE (d4)	67	72	74	38 - 129

000013

## HUNTINGDON ANALYTICAL SERVICES

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Sample Delivery Group No.: 08

METHOD 8270

SEMIVOLATILE ORGANICS

FIELD SAMPLE ID:	FOT-SB1-01	FOT-SB1-02	----
LABORATORY SAMPLE ID:	93072315	93072316	SBLKS3
DATE SAMPLED:	5-11-93	5-11-93	----
DATE EXTRACTED:	5-19-93	5-19-93	5-18-93
% SOLIDS:	90.3	91.0	----
DILUTION FACTOR(S):	1	1	1

PARAMETER	RESULT ug/kg		RESULT ug/kg		RESULT ug/kg		MDL ug/kg
ACENAPHTHENE -----	330	U	330	U	330	U	330 U
ACENAPHTHYLENE -----	330	U	330	U	330	U	330 U
ANTHRACENE -----	330	U	330	U	330	U	330 U
BENZO(a)ANTHRACENE -----	330	U	330	U	330	U	330 U
BENZO(b)FLUORANTHENE -----	330	U	330	U	330	U	330 U
BENZO(k)FLUORANTHENE -----	330	U	330	U	330	U	330 U
BENZO(a)PYRENE -----	330	U	330	U	330	U	330 U
BENZO(g,h,i)PERYLENE -----	330	U	330	U	330	U	330 U
BENZOIC ACID -----	1,600	U	1,600	U	1,600	U	1,600 U
BENZYL ALCOHOL -----	330	U	330	U	330	U	330 U
BIS(2-CHLOROETHOXY)METHANE ---	330	U	330	U	330	U	330 U
BIS(2-CHLOROETHYL)ETHER -----	330	U	330	U	330	U	330 U
BIS(2-CHLOROISOPROPYL)ETHER ---	330	U	330	U	330	U	330 U
BIS(2-ETHYLHEXYL)PHTHALATE -----	330	U	330	U	330	U	330 U
BUTYLBENZYL PHTHALATE -----	330	U	330	U	330	U	330 U
4-BROMOPHENYL-PHENYL ETHER ---	330	U	330	U	330	U	330 U
4-CHLOROANILINE -----	330	U	330	U	330	U	330 U
2-CHLORONAPHTHALENE -----	330	U	330	U	330	U	330 U
4-CHLOROPHENYL-PHENYL ETHER ---	330	U	330	U	330	U	330 U
CHRYSENE -----	330	U	330	U	330	U	330 U
DIBENZ(a,h)ANTHRACENE -----	330	U	330	U	330	U	330 U
DIBENZOFURAN -----	330	U	330	U	330	U	330 U
DI-N-BUTYLPHTHALATE -----	330	U	330	U	330	U	330 U
1,2-DICHLOROBENZENE -----	330	U	330	U	330	U	330 U
1,3-DICHLOROBENZENE -----	330	U	330	U	330	U	330 U
1,4-DICHLOROBENZENE -----	330	U	330	U	330	U	330 U
3,3'-DICHLOROBENZIDINE -----	660	U	660	U	660	U	660 U
DIETHYL PHTHALATE -----	330	U	330	U	330	U	330 U
DIMETHYL PHTHALATE -----	330	U	330	U	330	U	330 U
2,4-DINITROTOLUENE -----	330	U	330	U	330	U	330 U
2,6-DINITROTOLUENE -----	330	U	330	U	330	U	330 U
DI-N-OCTYL PHTHALATE -----	330	U	330	U	330	U	330 U
FLUORANTHENE -----	330	U	330	U	330	U	330 U
FLUORENE -----	330	U	330	U	330	U	330 U
HEXACHLOROBENZENE -----	330	U	330	U	330	U	330 U
HEXACHLOROBUTADIENE -----	330	U	330	U	330	U	330 U
HEXACHLOROCYCLOPENTADIENE ---	330	U	330	U	330	U	330 U
HEXACHLOROETHANE -----	330	U	330	U	330	U	330 U
INDENO(1,2,3-cd)PYRENE -----	330	U	330	U	330	U	330 U

000014

## HUNTINGDON ANALYTICAL SERVICES

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Sample Delivery Group No.: 08

METHOD 8270  
SEMIVOLATILE ORGANICS

FIELD SAMPLE ID:	FOT-SB1-01	FOT-SB1-02	---
LABORATORY SAMPLE ID:	93072315	93072316	SBLKS3
DATE SAMPLED:	5-11-93	5-11-93	---
DATE EXTRACTED:	5-19-93	5-19-93	5-18-93
% SOLIDS:	90.3	91.0	---
DILUTION FACTOR(S):	1	1	1

PARAMETER	RESULT ug/kg		RESULT ug/kg		RESULT ug/kg		MDL ug/kg
ISOPHORONE	330	U	330	U	330	U	330
2-METHYL NAPHTHALENE	330	U	330	U	330	U	330
NAPHTHALENE	330	U	330	U	330	U	330
2-NITROANILINE	1,600	U	1,600	U	1,600	U	1,600
3-NITROANILINE	1,600	U	1,600	U	1,600	U	1,600
4-NITROANILINE	1,600	U	1,600	U	1,600	U	1,600
NITROBENZENE	330	U	330	U	330	U	330
N-NITROSODIPHENYLAMINE	330	U	330	U	330	U	330
N-NITROS-DI-N-PROPYLAMINE	330	U	330	U	330	U	330
PHENANTHRENE	330	U	330	U	330	U	330
PYRENE	330	U	330	U	330	U	330
1,2,4-TRICHLOROBENZENE	330	U	330	U	330	U	330
CARBAZOLE	330	U	330	U	330	U	330

ACID COMPOUNDS	RESULT ug/kg		RESULT ug/kg		RESULT ug/kg		RESULT ug/kg
4-CHLORO-3-METHYLPHENOL	330	U	330	U	330	U	330
2-CHLOROPHENOL	330	U	330	U	330	U	330
2,4-DICHLOROPHENOL	330	U	330	U	330	U	330
2,4-DIMETHYL PHENOL	330	U	330	U	330	U	330
2,4-DINITROPHENOL	1,600	U	1,600	U	1,600	U	1,600
4,6-DINITRO-2-METHYLPHENOL	1,600	U	1,600	U	1,600	U	1,600
2-METHYL PHENOL	330	U	330	U	330	U	330
4-METHYL PHENOL	330	U	330	U	330	U	330
2-NITROPHENOL	330	U	330	U	330	U	330
4-NITROPHENOL	1,600	U	1,600	U	1,600	U	1,600
PENTACHLOROPHENOL	1,600	U	1,600	U	1,600	U	1,600
PHENOL	330	U	330	U	330	U	330
2,4,5-TRICHLOROPHENOL	1,600	U	1,600	U	1,600	U	1,600
2,4,6-TRICHLOROPHENOL	330	U	330	U	330	U	330

SURROGATE % RECOVERY	% REC	% REC	% REC	CONTROL LIMITS
NITROBENZENE (d5)	65	47	62	54 -- 143
2-FLUOROBIPHENYL	72	58	67	43 -- 125
TERPHENYL (d14)	82	87	93	25 -- 139
PHENOL (d5)	62	46	60	40 -- 135
2-FLUOROPHENOL	79	53	73	48 -- 140
2,4,6-TRIBROMOPHENOL	50	48	64	18 -- 141
2-CHLOROPHENOL (d4)	68	48	64	43 -- 124
1,2-DICHLOROBENZENE (d4)	66	47	65	38 -- 129

000015

# HUNTINGDON ANALYTICAL SERVICES

Sample Delivery Group No.: 08

METHOD 8020

PURGEABLE AROMATICS

FIELD SAMPLE ID:	FOT-SB2-01	FOT-SB2-05
LABORATORY SAMPLE ID:	93072308	93072309
DATE SAMPLED:	5-10-93	5-10-93
DATE EXTRACTED:	5-20-93	5-20-93
% SOLIDS:	90.5	89.1
DILUTION FACTOR(S):	5X	5X

PARAMETER	RESULT ug/kg	RESULT ug/kg	MDL ug/kg
BENZENE _____	20 U	20 U	20
TOLUENE _____	20 U	20 U	20
ETHYL BENZENE _____	20 U	20 U	20
TOTAL XYLENES _____	30 U	30 U	30
STYRENE _____	30 U	30 U	30
CHLOROBENZENE _____	20 U	20 U	20
1,4-DICHLOROBENZENE _____	40 U	40 U	40
1,3-DICHLOROBENZENE _____	40 U	40 U	40
1,2-DICHLOROBENZENE _____	40 U	40 U	40

SURROGATE % RECOVERY

A,A,A-TRIFLUOROTOLUENE(24/109)	79	88
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000027

# HUNTINGDON ANALYTICAL SERVICES

Sample Delivery Group No.: 08

METHOD 8020

PURGEABLE AROMATICS

FIELD SAMPLE ID:	FOT-SB3-02	FOT-SB3-03
LABORATORY SAMPLE ID:	93072310	93072311
DATE SAMPLED:	5-10-93	5-10-93
DATE EXTRACTED:	5-20-93	5-20-93
% SOLIDS:	93.9	91.2
DILUTION FACTOR(S):	5X	5X

PARAMETER	RESULT ug/kg		RESULT ug/kg		MDL ug/kg
BENZENE _____	20	U	20	U	20
TOLUENE _____	20	U	20	U	20
ETHYL BENZENE _____	20	U	20	U	20
TOTAL XYLENES _____	30	U	30	U	30
STYRENE _____	30	U	30	U	30
CHLOROBENZENE _____	20	U	20	U	20
1,4-DICHLOROBENZENE _____	40	U	40	U	40
1,3-DICHLOROBENZENE _____	40	U	40	U	40
1,2-DICHLOROBENZENE _____	40	U	40	U	40

## SURROGATE % RECOVERY

A.A.A-TRIFLUOROTOLUENE(24/109)	94	79
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000028

# HUNTINGDON ANALYTICAL SERVICES

Sample Delivery Group No.: 08

METHOD 8020

PURGEABLE AROMATICS

FIELD SAMPLE ID:	FOT-SB1-01	FOT-SB1-02	---	---
LABORATORY SAMPLE ID:	93072315	93072316	BLANK	BLANK
DATE SAMPLED:	5-11-93	5-11-93	---	---
DATE EXTRACTED:	5-19-93	5-19-93	5-19-93	5-19-93
% SOLIDS:	90.3	91.0	---	---
DILUTION FACTOR(S):	5X	5X	1X	1X

PARAMETER	RESULT ug/kg		RESULT ug/kg		RESULT ug/kg		RESULT ug/kg		MDL ug/kg
BENZENE _____	20	U	20	U	20	U	20	U	20
TOLUENE _____	20	U	20	U	20	U	20	U	20
ETHYL BENZENE _____	20	U	20	U	20	U	20	U	20
TOTAL XYLENES _____	30	U	30	U	30	U	30	U	30
STYRENE _____	30	U	30	U	30	U	30	U	30
CHLOROBENZENE _____	20	U	20	U	20	U	20	U	20
1,4-DICHLOROBENZENE _____	40	U	40	U	40	U	40	U	40
1,3-DICHLOROBENZENE _____	40	U	40	U	40	U	40	U	40
1,2-DICHLOROBENZENE _____	40	U	40	U	40	U	40	U	40

## SURROGATE % RECOVERY

A.A.A-TRIFLUOROTOLUENE(24/109)	94	77	100	98
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000029

# HUNTINGDON ANALYTICAL SERVICES

Sample Delivery Group No.: 08

METHOD 8010

PURGEABLE HALOCARBONS

FIELD SAMPLE ID:	TB-07	---
LABORATORY ID:	93072318	BLANK
DATE SAMPLED:	5-14-93	---
DATE EXTRACTED:	5-20-93	5-19-93
% SOLIDS:	---	---
DILUTION FACTORS:	1X	1X

PARAMETER	RESULT ug/L	RESULT ug/L	MDL ug/L
CHLOROMETHANE	20.0 U	20.0 U	20.0
BROMOMETHANE	50.0 U	50.0 U	50.0
VINYL CHLORIDE	20.0 U	20.0 U	20.0
CHLOROETHANE	20.0 U	20.0 U	20.0
METHYLENE CHLORIDE	10.0 U	11.9	10.0
TRICHLOROFLUOROMETHANE	5.0 U	5.0 U	5.0
1,1-DICHLOROETHENE	5.0 U	5.0 U	5.0
1,1-DICHLOROETHANE	5.0 U	5.0 U	5.0
cis-1,2-DICHLOROETHENE	5.0 U	5.0 U	5.0
trans-1,2-DICHLOROETHENE	5.0 U	5.0 U	5.0
CHLOROFORM	5.0 U	5.0 U	5.0
1,2-DICHLOROETHANE	5.0 U	5.0 U	5.0
1,1,1-TRICHLOROETHANE	5.0 U	5.0 U	5.0
CARBON TETRACHLORIDE	5.0 U	5.0 U	5.0
BROMODICHLOROMETHANE	10.0 U	10.0 U	10.0
1,2-DICHLOROPROPANE	10.0 U	10.0 U	10.0
CIS-1,3-DICHLOROPROPENE	20.0 U	20.0 U	20.0
TRICHLOROETHENE	5.0 U	5.0 U	5.0
TRANS-1,3-DICHLOROPROPENE	20.0 U	20.0 U	20.0
DIBROMOCHLOROMETHANE	10.0 U	10.0 U	10.0
1,1,2-TRICHLOROETHANE	5.0 U	5.0 U	5.0
2-CHLOROETHYL VINYL ETHER	50.0 U	50.0 U	50.0
BROMOFORM	20.0 U	20.0 U	20.0
1,1,2,2-TETRACHLOROETHANE	3.0 U	3.0 U	3.0
TETRACHLOROETHENE	3.0 U	3.0 U	3.0
CHLOROBENZENE	20.0 U	20.0 U	20.0
1,4-DICHLOROBENZENE	15.0 U	15.0 U	15.0
1,2-DICHLOROBENZENE	15.0 U	15.0 U	15.0
1,3-DICHLOROBENZENE	15.0 U	15.0 U	15.0

## SURROGATE % RECOVERY

CHLOROBROMOMETHANE(66/136)	62	92
1-CHLORO-2-BROMOPROPANE(62/135)	63	96
1,4-DICHLOROBUTANE(61/131)	59	105

000030



# HUNTINGDON ANALYTICAL SERVICES

Sample Delivery Group No.:07

METHOD 8080

POLYCHLORINATED BIPHENYLS

FIELD SAMPLE ID:	PCS-SB1-01	PCS-SB1-02	PCS-SB2-01	PCS-SB2-02	----
LABORATORY ID:	93071316	93071317	93071318	93071319	BLANK
DATE SAMPLED:	5-11-93	5-11-93	5-11-93	5-11-93	----
DATE EXTRACTED:	5-17-93	5-17-93	5-17-93	5-17-93	5-17-93
% SOLIDS:	80.0	85.8	78.1	90.4	----
DILUTION FACTORS:	1X	1X	1X	1X	1X

ANALYTE	RESULT ug/g		RESULT ug/g		RESULT ug/g		RESULT ug/g		RESULT ug/g		MDL ug/g
PCB-1016 -----	<0.20	U	<0.20	U	<0.20	U	<0.20	U	<0.20	U	0.20
PCB-1221 -----	<0.20	U	<0.20	U	<0.20	U	<0.20	U	<0.20	U	0.20
PCB-1232 -----	<0.20	U	<0.20	U	<0.20	U	<0.20	U	<0.20	U	0.20
PCB-1242 -----	<0.20	U	<0.20	U	<0.20	U	<0.20	U	<0.20	U	0.20
PCB-1248 -----	<0.20	U	<0.20	U	<0.20	U	<0.20	U	<0.20	U	0.20
PCB-1254 -----	<0.20	U	<0.20	U	<0.20	U	<0.20	U	<0.20	U	0.20
PCB-1260 -----	<0.20	U	<0.20	U	<0.20	U	<0.20	U	<0.20	U	0.20

## SURROGATE % RECOVERY:

DiButyl Chlorendate(42/138):	73	83	79	78	77
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000033

# HUNTINGDON ANALYTICAL SERVICES

Sample Delivery Group No.:08

METHOD 8080

POLYCHLORINATED BIPHENYLS

FIELD SAMPLE ID:	PCS-SB3-01	PCS-SB3-02	PCS-SB4-01	PCS-SB4-02	----
LABORATORY ID:	93072303	93072304	93072305	93072306	BLANK
DATE SAMPLED:	5-12-93	5-12-93	5-12-93	5-12-93	----
DATE EXTRACTED:	5-17-93	5-17-93	5-17-93	5-17-93	5-17-93
% SOLIDS:	86.3	87.7	89.9	83.8	----
DILUTION FACTORS:	1X	1X	1X	1X	1X

ANALYTE	RESULT ug/g		RESULT ug/g		RESULT ug/g		RESULT ug/g		RESULT ug/g		MDL ug/g
PCB-1016 -----	<0.20	U	<0.20	U	<0.20	U	<0.20	U	<0.20	U	0.20
PCB-1221 -----	<0.20	U	<0.20	U	<0.20	U	<0.20	U	<0.20	U	0.20
PCB-1232 -----	<0.20	U	<0.20	U	<0.20	U	<0.20	U	<0.20	U	0.20
PCB-1242 -----	<0.20	U	<0.20	U	<0.20	U	<0.20	U	<0.20	U	0.20
PCB-1248 -----	<0.20	U	<0.20	U	<0.20	U	<0.20	U	<0.20	U	0.20
PCB-1254 -----	<0.20	U	<0.20	U	<0.20	U	<0.20	U	<0.20	U	0.20
PCB-1260 -----	<0.20	U	<0.20	U	<0.20	U	<0.20	U	<0.20	U	0.20

## SURROGATE % RECOVERY:

DiButyl Chlorendate(42/138):	91	98	101	71	77
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000035

# HUNTINGDON ANALYTICAL SERVICES

Sample Delivery Group No.:08

METHOD 608

POLYCHLORINATED BIPHENYLS

FIELD SAMPLE ID: RB-11 ----  
LABORATORY ID: 93072307 BLANK  
DATE SAMPLED: 5-12-93 ----  
DATE EXTRACTED: 5-17-93 5-17-93  
% SOLIDS: ----  
DILUTION FACTORS: 1X 1X

ANALYTE	RESULT ug/L		RESULT ug/L		MDL ug/L
PCB-1016 -----	<0.50	U	<0.50	U	0.50
PCB-1221 -----	<0.50	U	<0.50	U	0.50
PCB-1232 -----	<0.50	U	<0.50	U	0.50
PCB-1242 -----	<0.50	U	<0.50	U	0.50
PCB-1248 -----	<0.50	U	<0.50	U	0.50
PCB-1254 -----	<1.0	U	<1.0	U	1.0
PCB-1260 -----	<1.0	U	<1.0	U	1.0

## SURROGATE % RECOVERY:

DiButyl Chlorendate(45/139): 83 80

000036

# HUNTINGDON ANALYTICAL SERVICES

Sample Delivery Group No.:07

METHOD 608

POLYCHLORINATED BIPHENYLS

FIELD SAMPLE ID:	RB-10	----
LABORATORY ID:	93071320	BLANK
DATE SAMPLED:	5-11-93	----
DATE EXTRACTED:	5-17-93	5-17-93
% SOLIDS:	----	----
DILUTION FACTORS:	1X	1X

ANALYTE	RESULT ug/L		RESULT ug/L		MDL ug/L
PCB-1016 -----	<0.50	U	<0.50	U	0.50
PCB-1221 -----	<0.50	U	<0.50	U	0.50
PCB-1232 -----	<0.50	U	<0.50	U	0.50
PCB-1242 -----	<0.50	U	<0.50	U	0.50
PCB-1248 -----	<0.50	U	<0.50	U	0.50
PCB-1254 -----	<1.0	U	<1.0	U	1.0
PCB-1260 -----	<1.0	U	<1.0	U	1.0

## SURROGATE % RECOVERY:

DiButyl Chlorendate(45/139):	78	80
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000034

# HUNTINGDON ANALYTICAL SERVICES

Sample Delivery Group No.: 07

METHOD 8010

PURGEABLE HALOCARBONS

FIELD SAMPLE ID:	RB-10	---
LABORATORY ID:	93071320	BLANK
DATE SAMPLED:	5-10-93	---
DATE EXTRACTED:	5-18-93	5-17-93
% SOLIDS:	---	---
DILUTION FACTORS:	1X	1X

PARAMETER	RESULT ug/L	RESULT ug/L	MDL ug/L
CHLOROMETHANE	20.0 U	20.0 U	20.0
BROMOMETHANE	50.0 U	50.0 U	50.0
VINYL CHLORIDE	20.0 U	20.0 U	20.0
CHLOROETHANE	20.0 U	20.0 U	20.0
METHYLENE CHLORIDE	14.1	10.0 U	10.0
TRICHLOROFLUOROMETHANE	5.0 U	5.0 U	5.0
1,1-DICHLOROETHENE	5.0 U	5.0 U	5.0
1,1-DICHLOROETHANE	5.0 U	5.0 U	5.0
cis-1,2-DICHLOROETHENE	5.0 U	5.0 U	5.0
trans-1,2-DICHLOROETHENE	5.0 U	5.0 U	5.0
CHLOROFORM	5.0 U	5.0 U	5.0
1,2-DICHLOROETHANE	5.0 U	5.0 U	5.0
1,1,1-TRICHLOROETHANE	5.0 U	5.0 U	5.0
CARBON TETRACHLORIDE	5.0 U	5.0 U	5.0
BROMODICHLOROMETHANE	10.0 U	10.0 U	10.0
1,2-DICHLOROPROPANE	10.0 U	10.0 U	10.0
CIS-1,3-DICHLOROPROPENE	20.0 U	20.0 U	20.0
TRICHLOROETHENE	5.0 U	5.0 U	5.0
TRANS-1,3-DICHLOROPROPENE	20.0 U	20.0 U	20.0
DIBROMOCHLOROMETHANE	10.0 U	10.0 U	10.0
1,1,2-TRICHLOROETHANE	5.0 U	5.0 U	5.0
2-CHLOROETHYL VINYL ETHER	50.0 U	50.0 U	50.0
BROMOFORM	20.0 U	20.0 U	20.0
1,1,2,2-TETRACHLOROETHANE	3.0 U	3.0 U	3.0
TETRACHLOROETHENE	3.0 U	3.0 U	3.0
CHLOROBENZENE	20.0 U	20.0 U	20.0
1,4-DICHLOROBENZENE	15.0 U	15.0 U	15.0
1,2-DICHLOROBENZENE	15.0 U	15.0 U	15.0
1,3-DICHLOROBENZENE	15.0 U	15.0 U	15.0
SURROGATE % RECOVERY			
CHLOROBROMOMETHANE(66/136)	97	77	
1-CHLORO-2-BROMOPROPANE(62/135)	97	102	
1,4-DICHLOROBUTANE(61/131)	80	101	

000025

FIELD SAMPLE ID: RB-10  
LABORATORY ID: 0713-20  
DATE SAMPLED: 5/11/93  
DATE ANALYZED: 6/01/93  
% SOLID: LIQUID  
DILUTION FACTOR: 1

PARAMETER	RESULT ug/L
CADMIUM METHOD 6010	5.00 U
CHROMIUM METHOD 6010	10.0 U
LEAD METHOD 6010	40.0 U
ZINC METHOD 6010	20.0 U

DATE ANALYZED: 6/01/93  
DILUTION FACTOR: 1

FLUORIDE METHOD 340.2	100.0 U
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DATE ANALYZED:

# HUNTINGDON ANALYTICAL SERVICES

Sample Delivery Group No.: 08

METHOD 8020

PURGEABLE AROMATICS

FIELD SAMPLE ID: RB-11  
LABORATORY SAMPLE ID: 93072307  
DATE SAMPLED: 5-12-93  
DATE EXTRACTED: 5-20-93  
% SOLIDS: —  
DILUTION FACTOR(S): 1X

PARAMETER	RESULT	MDL
	ug/L	ug/L
BENZENE	20 U	20
TOLUENE	20 U	20
ETHYL BENZENE	20 U	20
TOTAL XYLENES	30 U	30
STYRENE	30 U	30
CHLOROBENZENE	20 U	20
4-DICHLOROBENZENE	40 U	40
1,3-DICHLOROBENZENE	40 U	40
2-DICHLOROBENZENE	40 U	40

## SURROGATE % RECOVERY

1,1,1-TRICHLOROTOLUENE(68/124) 80



# HUNTINGDON ANALYTICAL SERVICES

Sample Delivery Group No.: 08

METHOD 8010

PURGEABLE HALOCARBONS

FIELD SAMPLE ID:	RB-11	---
LABORATORY ID:	93072307	BLANK
DATE SAMPLED:	5-12-93	---
DATE EXTRACTED:	5-20-93	5-19-93
% SOLIDS:	---	---
DILUTION FACTORS:	1X	1X

PARAMETER	RESULT		RESULT	MDL
	ug/L		ug/L	ug/L
CHLOROMETHANE	20.0 U		20.0 U	20.0
BROMOMETHANE	50.0 U		50.0 U	50.0
VINYL CHLORIDE	20.0 U		20.0 U	20.0
CHLOROETHANE	20.0 U		20.0 U	20.0
METHYLENE CHLORIDE	12.6		11.9	10.0
TRICHLOROFLUOROMETHANE	5.0 U		5.0 U	5.0
1,1-DICHLOROETHENE	5.0 U		5.0 U	5.0
1,1-DICHLOROETHANE	5.0 U		5.0 U	5.0
cis-1,2-DICHLOROETHENE	5.0 U		5.0 U	5.0
trans-1,2-DICHLOROETHENE	5.0 U		5.0 U	5.0
CHLOROFORM	5.0 U		5.0 U	5.0
1,2-DICHLOROETHANE	5.0 U		5.0 U	5.0
1,1,1-TRICHLOROETHANE	5.0 U		5.0 U	5.0
CARBON TETRACHLORIDE	5.0 U		5.0 U	5.0
BROMODICHLOROMETHANE	10.0 U		10.0 U	10.0
1,2-DICHLOROPROPANE	10.0 U		10.0 U	10.0
CIS-1,3-DICHLOROPROPENE	20.0 U		20.0 U	20.0
TRICHLOROETHENE	5.0 U		5.0 U	5.0
TRANS-1,3-DICHLOROPROPENE	20.0 U		20.0 U	20.0
DIBROMOCHLOROMETHANE	10.0 U		10.0 U	10.0
1,1,2-TRICHLOROETHANE	5.0 U		5.0 U	5.0
2-CHLOROETHYL VINYL ETHER	50.0 U		50.0 U	50.0
BROMOFORM	20.0 U		20.0 U	20.0
1,1,2,2-TETRACHLOROETHANE	3.0 U		3.0 U	3.0
TETRACHLOROETHENE	3.0 U		3.0 U	3.0
CHLOROBENZENE	20.0 U		20.0 U	20.0
1,4-DICHLOROBENZENE	15.0 U		15.0 U	15.0
1,2-DICHLOROBENZENE	15.0 U		15.0 U	15.0
1,3-DICHLOROBENZENE	15.0 U		15.0 U	15.0

## SURROGATE % RECOVERY

CHLOROBROMOMETHANE(66/136)	85	92
1-CHLORO-2-BROMOPROPANE(62/135)	87	96
1,4-DICHLOROBUTANE(61/131)	79	105

000030

# HUNTINGDON ANALYTICAL SERVICES

Sample Delivery Group No.: 08

## ANALYSIS PERFORMED ON TOTALS

FIELD SAMPLE ID:	METHOD BLANK	METHOD BLANK			RB-11
LABORATORY ID:	0723-MB	0723-MB			0723-07
DATE SAMPLED:					5/12/93
DATE ANALYZED:	6/02/93	6/02/93			6/02/93
% SOLID:	100%	LIQUID BLANK			LIQUID
DILUTION FACTOR:	1	1			1
PARAMETER	RESULT		RESULT		RESULT
	ug/kg		ug/L		ug/L
CADMIUM METHOD 6010	1,000	U	5.00	U	5.00 U
CHROMIUM METHOD 6010	2,000	U	10.0	U	10.0 U
LEAD METHOD 6010	8,000	U	40.0	U	40.0 U
ZINC METHOD 6010	4,000	U	20.0	U	20.0 U
DATE ANALYZED:			6/01/93		6/01/93
DILUTION FACTOR:			1		1
FLUORIDE METHOD 340.2			100.0	U	100.0 U

000040

# HUNTINGDON ANALYTICAL SERVICES

Sample Delivery Group No.: 08

METHOD 8020

PURGEABLE AROMATICS

FIELD SAMPLE ID:	—	—
LABORATORY SAMPLE ID:	BLANK	BLANK
DATE SAMPLED:	—	—
DATE EXTRACTED:	5-19-93	5-19-93
% SOLIDS:	—	—
DILUTION FACTOR(S):	1X	1X

PARAMETER	RESULT ug/L		RESULT ug/L		MDL ug/L
BENZENE	20	U	20	U	20
TOLUENE	20	U	20	U	20
ETHYL BENZENE	20	U	20	U	20
TOTAL XYLENES	30	U	30	U	30
STYRENE	30	U	30	U	30
CHLOROBENZENE	20	U	20	U	20
1,4-DICHLOROBENZENE	40	U	40	U	40
1,3-DICHLOROBENZENE	40	U	40	U	40
1,2-DICHLOROBENZENE	40	U	40	U	40

## SURROGATE % RECOVERY

A.A.A-TRICHLOROTOLUENE(68/124)	98	100
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000032

OPEN BURNING AREA SOILS

# HUNTINGDON ANALYTICAL SERVICES

Sample Delivery Group No.: 17

METHOD 8010

PURGEABLE HALOCARBONS

FIELD SAMPLE ID:	OBA-SB6-03	OBA-SB5-02	OBA-SB4-01	OBA-SB4-02
LABORATORY ID:	93080901	93080902	93080903	93080904
DATE SAMPLED:	5-28-93	5-28-93	5-28-93	5-28-93
DATE EXTRACTED:	6-04-93	6-04-93	6-04-93	6-04-93
% SOLIDS:	89.8	90.5	92.6	89.8
DILUTION FACTORS:	5X	5X	5X	5X

PARAMETER	RESULT ug/kg		RESULT ug/kg		RESULT ug/kg		RESULT ug/kg		MDL ug/kg
CHLOROMETHANE	20.0	U	20.0	U	20.0	U	20.0	U	20.0
BROMOMETHANE	50.0	U	50.0	U	50.0	U	50.0	U	50.0
VINYL CHLORIDE	20.0	U	20.0	U	20.0	U	20.0	U	20.0
CHLOROETHANE	20.0	U	20.0	U	20.0	U	20.0	U	20.0
METHYLENE CHLORIDE	39.3		39.3		33.7		40.4		10.0
TRICHLOROFLUOROMETHANE	5.0	U	5.0	U	5.0	U	5.0	U	5.0
1,1-DICHLOROETHENE	5.0	U	5.0	U	5.0	U	5.0	U	5.0
1,1-DICHLOROETHANE	5.0	U	5.0	U	5.0	U	5.0	U	5.0
cis-1,2-DICHLOROETHENE	5.0	U	5.0	U	5.0	U	5.0	U	5.0
trans-1,2-DICHLOROETHENE	5.0	U	5.0	U	5.0	U	5.0	U	5.0
CHLOROFORM	5.0	U	5.0	U	5.0	U	5.0	U	5.0
1,2-DICHLOROETHANE	5.0	U	5.0	U	5.0	U	5.0	U	5.0
1,1,1-TRICHLOROETHANE	5.0	U	5.0	U	5.0	U	5.0	U	5.0
CARBON TETRACHLORIDE	5.0	U	5.0	U	5.0	U	5.0	U	5.0
BROMODICHLOROMETHANE	10.0	U	10.0	U	10.0	U	10.0	U	10.0
1,2-DICHLOROPROPANE	10.0	U	10.0	U	10.0	U	10.0	U	10.0
CIS-1,3-DICHLOROPROPENE	20.0	U	20.0	U	20.0	U	20.0	U	20.0
TRICHLOROETHENE	5.0	U	5.0	U	5.0	U	5.0	U	5.0
TRANS-1,3-DICHLOROPROPENE	20.0	U	20.0	U	20.0	U	20.0	U	20.0
DIBROMOCHLOROMETHANE	10.0	U	10.0	U	10.0	U	10.0	U	10.0
1,1,2-TRICHLOROETHANE	5.0	U	5.0	U	5.0	U	5.0	U	5.0
2-CHLOROETHYL VINYL ETHER	50.0	U	50.0	U	50.0	U	50.0	U	50.0
BROMOFORM	20.0	U	20.0	U	20.0	U	20.0	U	20.0
1,1,2,2-TETRACHLOROETHANE	3.0	U	3.0	U	3.0	U	3.0	U	3.0
TETRACHLOROETHENE	3.0	U	3.0	U	3.0	U	3.0	U	3.0
CHLOROBENZENE	20.0	U	20.0	U	20.0	U	20.0	U	20.0
1,4-DICHLOROBENZENE	15.0	U	15.0	U	15.0	U	15.0	U	15.0
1,2-DICHLOROBENZENE	15.0	U	15.0	U	15.0	U	15.0	U	15.0
1,3-DICHLOROBENZENE	15.0	U	15.0	U	15.0	U	15.0	U	15.0

## SURROGATE % RECOVERY

CHLOROBROMOMETHANE(47/155)	114	122	104	116
1-CHLORO-2-BROMOPROPANE(34/160)	112	126	97	119
1,4-DICHLOROBUTANE(24/138)	110	118	64	114

NOTE: Methylene chloride results should be viewed with caution due to laboratory background.

000004

# HUNTINGDON ANALYTICAL SERVICES

Sample Delivery Group No.: 17

METHOD 8010

PURGEABLE HALOCARBONS

FIELD SAMPLE ID:	OBA-SB3-01	OBA-SB3-02	OBA-SB1-02	OBA-SB2-01
LABORATORY ID:	93080905	93080906	93080907	93080908
DATE SAMPLED:	5-28-93	5-28-93	5-28-93	5-28-93
DATE EXTRACTED:	6-04-93	6-04-93	6-04-93	6-04-93
% SOLIDS:	90.4	89.6	91.3	91.8
DILUTION FACTORS:	5X	5X	5X	5X

PARAMETER	RESULT		RESULT		RESULT		RESULT		MDL
	ug/kg		ug/kg		ug/kg		ug/kg		ug/kg
CHLOROMETHANE	20.0	U	20.0	U	20.0	U	20.0	U	20.0
BROMOMETHANE	50.0	U	50.0	U	50.0	U	50.0	U	50.0
VINYL CHLORIDE	20.0	U	20.0	U	20.0	U	20.0	U	20.0
CHLOROETHANE	20.0	U	20.0	U	20.0	U	20.0	U	20.0
METHYLENE CHLORIDE	31.3		29.8		35.1		30.5		10.0
TRICHLOROFLUOROMETHANE	5.0	U	5.0	U	5.0	U	5.0	U	5.0
1,1-DICHLOROETHENE	5.0	U	5.0	U	5.0	U	5.0	U	5.0
1,1-DICHLOROETHANE	5.0	U	5.0	U	5.0	U	5.0	U	5.0
cis-1,2-DICHLOROETHENE	5.0	U	5.0	U	5.0	U	5.0	U	5.0
trans-1,2-DICHLOROETHENE	5.0	U	5.0	U	5.0	U	5.0	U	5.0
CHLOROFORM	5.0	U	5.0	U	5.0	U	5.0	U	5.0
1,2-DICHLOROETHANE	5.0	U	5.0	U	5.0	U	5.0	U	5.0
1,1,1-TRICHLOROETHANE	5.0	U	5.0	U	5.0	U	5.0	U	5.0
CARBON TETRACHLORIDE	5.0	U	5.0	U	5.0	U	5.0	U	5.0
BROMODICHLOROMETHANE	10.0	U	10.0	U	10.0	U	10.0	U	10.0
1,2-DICHLOROPROPANE	10.0	U	10.0	U	10.0	U	10.0	U	10.0
CIS-1,3-DICHLOROPROPENE	20.0	U	20.0	U	20.0	U	20.0	U	20.0
TRICHLOROETHENE	5.0	U	5.0	U	7.7		5.0	U	5.0
TRANS-1,3-DICHLOROPROPENE	20.0	U	20.0	U	20.0	U	20.0	U	20.0
DIBROMOCHLOROMETHANE	10.0	U	10.0	U	10.0	U	10.0	U	10.0
1,1,2-TRICHLOROETHANE	5.0	U	5.0	U	5.0	U	5.0	U	5.0
2-CHLOROETHYL VINYL ETHER	50.0	U	50.0	U	50.0	U	50.0	U	50.0
BROMOFORM	20.0	U	20.0	U	20.0	U	20.0	U	20.0
1,1,2,2-TETRACHLOROETHANE	3.0	U	3.0	U	3.0	U	3.0	U	3.0
TETRACHLOROETHENE	3.0	U	3.0	U	3.0	U	3.0	U	3.0
CHLOROBENZENE	20.0	U	20.0	U	20.0	U	20.0	U	20.0
1,4-DICHLOROBENZENE	15.0	U	15.0	U	15.0	U	15.0	U	15.0
1,2-DICHLOROBENZENE	15.0	U	15.0	U	15.0	U	15.0	U	15.0
1,3-DICHLOROBENZENE	15.0	U	15.0	U	15.0	U	15.0	U	15.0

## SURROGATE % RECOVERY

CHLOROBROMOMETHANE(47/155)	74	82	85	77
1-CHLORO-2-BROMOPROPANE(34/160)	84	81	81	76
1,4-DICHLOROBUTANE(24/138)	81	74	76	75

NOTE: Methylene chloride results should be viewed with caution due to laboratory background.

000005

# HUNTINGDON ANALYTICAL SERVICES

Sample Delivery Group No.: 17

METHOD 8010

PURGEABLE HALOCARBONS

FIELD SAMPLE ID:	OBA-SB3-04	—
LABORATORY ID:	93080911	BLANK
DATE SAMPLED:	5-28-93	—
DATE EXTRACTED:	6-05-93	6-04-93
% SOLIDS:	92.3	—
DILUTION FACTORS:	5X	1X

PARAMETER	RESULT ug/kg		RESULT ug/kg		MDL ug/kg
CHLOROMETHANE	20.0	U	20.0	U	20.0
BROMOMETHANE	50.0	U	50.0	U	50.0
VINYL CHLORIDE	20.0	U	20.0	U	20.0
CHLOROETHANE	20.0	U	20.0	U	20.0
METHYLENE CHLORIDE	25.8		10.0	U	10.0
TRICHLOROFLUOROMETHANE	5.0	U	5.0	U	5.0
1,1-DICHLOROETHENE	5.0	U	5.0	U	5.0
1,1-DICHLOROETHANE	5.0	U	5.0	U	5.0
cis-1,2-DICHLOROETHENE	5.0	U	5.0	U	5.0
trans-1,2-DICHLOROETHENE	5.0	U	5.0	U	5.0
CHLOROFORM	5.0	U	5.0	U	5.0
1,2-DICHLOROETHANE	5.0	U	5.0	U	5.0
1,1,1-TRICHLOROETHANE	5.0	U	5.0	U	5.0
CARBON TETRACHLORIDE	5.0	U	5.0	U	5.0
BROMODICHLOROMETHANE	10.0	U	10.0	U	10.0
1,2-DICHLOROPROPANE	10.0	U	10.0	U	10.0
CIS-1,3-DICHLOROPROPENE	20.0	U	20.0	U	20.0
TRICHLOROETHENE	5.0	U	5.0	U	5.0
TRANS-1,3-DICHLOROPROPENE	20.0	U	20.0	U	20.0
DIBROMOCHLOROMETHANE	10.0	U	10.0	U	10.0
1,1,2-TRICHLOROETHANE	5.0	U	5.0	U	5.0
2-CHLOROETHYL VINYL ETHER	50.0	U	50.0	U	50.0
BROMOFORM	20.0	U	20.0	U	20.0
1,1,2,2-TETRACHLOROETHANE	3.0	U	3.0	U	3.0
TETRACHLOROETHENE	3.0	U	3.0	U	3.0
CHLOROBENZENE	20.0	U	20.0	U	20.0
1,4-DICHLOROBENZENE	15.0	U	15.0	U	15.0
1,2-DICHLOROBENZENE	15.0	U	15.0	U	15.0
1,3-DICHLOROBENZENE	15.0	U	15.0	U	15.0

## SURROGATE % RECOVERY

CHLOROBROMOMETHANE(47/155)	76	120
1-CHLORO-2-BROMOPROPANE(34/160)	78	123
1,4-DICHLOROBUTANE(24/138)	69	125

NOTE: Methylene chloride results should be viewed with caution due to laboratory background.

000006



# HUNTINGDON ANALYTICAL SERVICES

Sample Delivery Group No.: 17

METHOD 8010

PURGEABLE HALOCARBONS

FIELD SAMPLE ID:	RB-23	TB-16	—
LABORATORY ID:	93080909	93080910	BLANK
DATE SAMPLED:	5-28-93	5-28-93	—
DATE EXTRACTED:	6-05-93	6-05-93	6-04-93
% SOLIDS:	—	—	—
DILUTION FACTORS:	1X	1X	1X

PARAMETER	RESULT ug/L		RESULT ug/L		RESULT ug/L		MDL ug/L
CHLOROMETHANE	20.0	U	20.0	U	20.0	U	20.0
BROMOMETHANE	50.0	U	50.0	U	50.0	U	50.0
VINYL CHLORIDE	20.0	U	20.0	U	20.0	U	20.0
CHLOROETHANE	20.0	U	20.0	U	20.0	U	20.0
METHYLENE CHLORIDE	10.0	U	10.0	U	10.0	U	10.0
TRICHLOROFLUOROMETHANE	5.0	U	5.0	U	5.0	U	5.0
1,1-DICHLOROETHENE	5.0	U	5.0	U	5.0	U	5.0
1,1-DICHLOROETHANE	5.0	U	5.0	U	5.0	U	5.0
cis-1,2-DICHLOROETHENE	5.0	U	5.0	U	5.0	U	5.0
trans-1,2-DICHLOROETHENE	5.0	U	5.0	U	5.0	U	5.0
CHLOROFORM	5.0	U	5.0	U	5.0	U	5.0
1,2-DICHLOROETHANE	5.0	U	5.0	U	5.0	U	5.0
1,1,1-TRICHLOROETHANE	5.0	U	5.0	U	5.0	U	5.0
CARBON TETRACHLORIDE	5.0	U	5.0	U	5.0	U	5.0
BROMODICHLOROMETHANE	10.0	U	10.0	U	10.0	U	10.0
1,2-DICHLOROPROPANE	10.0	U	10.0	U	10.0	U	10.0
CIS-1,3-DICHLOROPROPENE	20.0	U	20.0	U	20.0	U	20.0
TRICHLOROETHENE	5.0	U	5.0	U	5.0	U	5.0
TRANS-1,3-DICHLOROPROPENE	20.0	U	20.0	U	20.0	U	20.0
DIBROMOCHLOROMETHANE	10.0	U	10.0	U	10.0	U	10.0
1,1,2-TRICHLOROETHANE	5.0	U	5.0	U	5.0	U	5.0
2-CHLOROETHYL VINYL ETHER	50.0	U	50.0	U	50.0	U	50.0
BROMOFORM	20.0	U	20.0	U	20.0	U	20.0
1,1,2,2-TETRACHLOROETHANE	3.0	U	3.0	U	3.0	U	3.0
TETRACHLOROETHENE	3.0	U	3.0	U	3.0	U	3.0
CHLOROBENZENE	20.0	U	20.0	U	20.0	U	20.0
1,4-DICHLOROBENZENE	15.0	U	15.0	U	15.0	U	15.0
1,2-DICHLOROBENZENE	15.0	U	15.0	U	15.0	U	15.0
1,3-DICHLOROBENZENE	15.0	U	15.0	U	15.0	U	15.0
SURROGATE % RECOVERY							
CHLOROBROMOMETHANE(66/136)	74		75		120		
1-CHLORO-2-BROMOPROPANE(62/135)	76		74		123		
1,4-DICHLOROBUTANE(61/131)	82		79		125		

000007

# HUNTINGDON ANALYTICAL SERVICES

Sample Delivery Group No.: 17

METHOD 8020

PURGEABLE AROMATICS

FIELD SAMPLE ID:	OBA-SB6-03	OBA-SB5-02	OBA-SB4-01	OBA-SB4-02
LABORATORY SAMPLE ID:	93080901	93080902	93080903	93080904
DATE SAMPLED:	5-28-93	5-28-93	5-28-93	5-28-93
DATE EXTRACTED:	6-04-93	6-04-93	6-04-93	6-04-93
% SOLIDS:	89.8	90.5	92.6	89.8
DILUTION FACTOR(S):	5X	5X	5X	5X

PARAMETER	RESULT ug/kg		RESULT ug/kg		RESULT ug/kg		RESULT ug/kg		MDL ug/kg
BENZENE _____	20	U	20	U	20	U	20	U	20
TOLUENE _____	20	U	20	U	20	U	20	U	20
ETHYL BENZENE _____	20	U	20	U	20	U	20	U	20
TOTAL XYLENES .....	30	U	30	U	30	U	30	U	30
STYRENE _____	30	U	30	U	30	U	30	U	30
CHLOROBENZENE _____	20	U	20	U	20	U	20	U	20
1,4-DICHLOROBENZENE _____	40	U	40	U	40	U	40	U	40
1,3-DICHLOROBENZENE _____	40	U	40	U	40	U	40	U	40
1,2-DICHLOROBENZENE _____	40	U	40	U	40	U	40	U	40

## SURROGATE % RECOVERY

A.A.A-TRICHLOROTOLUENE(24/109)	113	107	86	108
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000008

# HUNTINGDON ANALYTICAL SERVICES

Sample Delivery Group No.: 17

METHOD 8020

PURGEABLE AROMATICS

FIELD SAMPLE ID:	OBA-SB3-01	OBA-SB3-02	OBA-SB1-02	OBA-SB2-01
LABORATORY SAMPLE ID:	93080905	93080906	93080907	93080908
DATE SAMPLED:	5-28-93	5-28-93	5-28-93	5-28-93
DATE EXTRACTED:	6-04-93	6-04-93	6-04-93	6-04-93
% SOLIDS:	90.4	89.6	91.3	91.8
DILUTION FACTOR(S):	5X	5X	5X	5X

PARAMETER	RESULT ug/kg		RESULT ug/kg		RESULT ug/kg		RESULT ug/kg		MDL ug/kg
BENZENE _____	20	U	20	U	20	U	20	U	20
TOLUENE _____	20	U	20	U	20	U	20	U	20
ETHYL BENZENE _____	20	U	20	U	20	U	20	U	20
TOTAL XYLENES _____	30	U	30	U	30	U	30	U	30
STYRENE _____	30	U	30	U	30	U	30	U	30
CHLOROBENZENE _____	20	U	20	U	20	U	20	U	20
1,4-DICHLOROBENZENE _____	40	U	40	U	40	U	40	U	40
1,3-DICHLOROBENZENE _____	40	U	40	U	40	U	40	U	40
1,2-DICHLOROBENZENE _____	40	U	40	U	40	U	40	U	40

## SURROGATE % RECOVERY

A.A.A-TRICHLOROTOLUENE(24/109)	95	106	107	98
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000009

# HUNTINGDON ANALYTICAL SERVICES

Sample Delivery Group No.: 17

METHOD 8020

PURGEABLE AROMATICS

FIELD SAMPLE ID:	OBA-SB3-04	—
LABORATORY SAMPLE ID:	93080911	BLANK
DATE SAMPLED:	5-28-93	—
DATE EXTRACTED:	6-05-93	6-04-93
% SOLIDS:	92.3	—
DILUTION FACTOR(S):	5X	1X

PARAMETER	RESULT ug/kg		RESULT ug/kg		MDL ug/kg
BENZENE	20	U	20	U	20
TOLUENE	20	U	20	U	20
ETHYL BENZENE	20	U	20	U	20
TOTAL XYLENES	30	U	30	U	30
STYRENE	30	U	30	U	30
CHLOROBENZENE	20	U	20	U	20
1,4-DICHLOROBENZENE	40	U	40	U	40
1,3-DICHLOROBENZENE	40	U	40	U	40
1,2-DICHLOROBENZENE	40	U	40	U	40

## SURROGATE % RECOVERY

A.A.A-TRICHLOROTOLUENE(24/109)	105	116
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000010

# HUNTINGDON ANALYTICAL SERVICES

Sample Delivery Group No.: 17

METHOD 8020

PURGEABLE AROMATICS

FIELD SAMPLE ID:	RB-23	TB-16	—
LABORATORY SAMPLE ID:	93080909	93080910	BLANK
DATE SAMPLED:	5-28-93	5-28-93	—
DATE EXTRACTED:	6-05-93	6-05-93	6-03-93
% SOLIDS:	—	—	—
DILUTION FACTOR(S):	1X	1X	1X

PARAMETER	RESULT ug/L	RESULT ug/L	RESULT ug/L	MDL ug/L
BENZENE	20 U	20 U	20 U	20
TOLUENE	20 U	20 U	20 U	20
ETHYL BENZENE	20 U	20 U	20 U	20
TOTAL XYLENES	30 U	30 U	30 U	30
STYRENE	30 U	30 U	30 U	30
CHLOROBENZENE	20 U	20 U	20 U	20
1,4-DICHLOROBENZENE	40 U	40 U	40 U	40
1,3-DICHLOROBENZENE	40 U	40 U	40 U	40
1,2-DICHLOROBENZENE	40 U	40 U	40 U	40

## SURROGATE % RECOVERY

A.A.A-TRICHLOROTOLUENE(68/124)	94	93	116
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000011

## MONITORING WELL SOILS

# HUNTINGDON ANALYTICAL SERVICES

Sample Delivery Group No.: 02

METHOD 8020

PURGEABLE AROMATICS

FIELD SAMPLE ID:	MW20-SB-03	MW20-SB-04	---
LABORATORY SAMPLE ID:	93066901	93066902	BLANK
DATE SAMPLED:	5-4-93	5-4-93	---
DATE EXTRACTED:	5-8-93	5-9-93	5-8-93
% SOLIDS:	82.1	89.3	---
DILUTION FACTOR(S):	1X	1X	1X

PARAMETER	RESULT ug/kg		RESULT ug/kg		RESULT ug/kg		MDL ug/kg
BENZENE _____	20	U	20	U	20	U	20
TOLUENE _____	20	U	20	U	20	U	20
ETHYL BENZENE _____	20	U	20	U	20	U	20
TOTAL XYLENES _____	30	U	30	U	30	U	30
STYRENE _____	30	U	30	U	30	U	30
CHLOROBENZENE _____	20	U	20	U	20	U	20
1,4-DICHLOROBENZENE _____	40	U	40	U	40	U	40
1,3-DICHLOROBENZENE _____	40	U	40	U	40	U	40
1,2-DICHLOROBENZENE _____	40	U	40	U	40	U	40

## SURROGATE % RECOVERY

A.A.A-TRICHLOROTOLUENE(24/109)	89	60	101
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000003



# HUNTINGDON ANALYTICAL SERVICES

Sample Delivery Group No.: 04

METHOD 8020

PURGEABLE AROMATICS

FIELD SAMPLE ID:	MW21-SB-04	MW21-SB-05	MW21-SB-06	MW22-SB-04
LABORATORY SAMPLE ID:	93068003	93068004	93068005	93068006
DATE SAMPLED:	5-5-93	5-5-93	5-5-93	5-5-93
DATE EXTRACTED:	5-10-93	5-11-93	5-11-93	5-11-93
% SOLIDS:	89.3	90.4	89.9	90.2
DILUTION FACTOR(S):	1X	1X	1X	1X

PARAMETER	RESULT		RESULT		RESULT		RESULT		MDL
	ug/kg		ug/kg		ug/kg		ug/kg		ug/kg
BENZENE _____	20	U	20	U	20	U	20	U	20
TOLUENE _____	20	U	20	U	20	U	20	U	20
ETHYL BENZENE _____	20	U	20	U	20	U	20	U	20
TOTAL XYLENES _____	30	U	30	U	30	U	30	U	30
STYRENE _____	30	U	30	U	30	U	30	U	30
CHLOROBENZENE _____	20	U	20	U	20	U	20	U	20
1,4-DICHLOROBENZENE _____	40	U	40	U	40	U	40	U	40
1,3-DICHLOROBENZENE _____	40	U	40	U	40	U	40	U	40
1,2-DICHLOROBENZENE _____	40	U	40	U	40	U	40	U	40

## SURROGATE % RECOVERY

A.A.A-TRICHLOROTOLUENE(24/109)	82	86	85	78
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000005

# HUNTINGDON ANALYTICAL SERVICES

Sample Delivery Group No.: 04

METHOD 8020

PURGEABLE AROMATICS

FIELD SAMPLE ID:	MW22-SB-05	---
LABORATORY SAMPLE ID:	93068007	BLANK
DATE SAMPLED:	5-5-93	---
DATE EXTRACTED:	5-11-93	5-10-93
% SOLIDS:	90.1	---
DILUTION FACTOR(S):	1X	1X

PARAMETER	RESULT ug/kg		RESULT ug/kg		MDL ug/kg
BENZENE _____	20	U	20	U	20
TOLUENE _____	20	U	20	U	20
ETHYL BENZENE _____	20	U	20	U	20
TOTAL XYLENES _____	30	U	30	U	30
STYRENE _____	30	U	30	U	30
CHLOROBENZENE _____	20	U	20	U	20
1,4-DICHLOROBENZENE _____	40	U	40	U	40
1,3-DICHLOROBENZENE _____	40	U	40	U	40
1,2-DICHLOROBENZENE _____	40	U	40	U	40

## SURROGATE % RECOVERY

A,A,A-TRICHLOROTOLUENE(24/109)	80	92
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000006

# HUNTINGDON ANALYTICAL SERVICES

Sample Delivery Group No.: 05

METHOD 8020

PURGEABLE AROMATICS

FIELD SAMPLE ID:	MW23-SB-05	MW23-SB-06	MW24-SB-04	MW24-SB-05
LABORATORY SAMPLE ID:	93068703	93068704	93068705	93068706
DATE SAMPLED:	5-06-93	5-06-93	5-07-93	5-07-93
DATE EXTRACTED:	5-13-93	5-13-93	5-14-93	5-14-93
% SOLIDS:	88.9	90.0	84.7	90.7
DILUTION FACTOR(S):	1X	1X	1X	1X

PARAMETER	RESULT ug/kg		RESULT ug/kg		RESULT ug/kg		RESULT ug/kg		MDL ug/kg
BENZENE _____	20	U	20	U	20	U	20	U	20
TOLUENE _____	20	U	20	U	20	U	20	U	20
ETHYL BENZENE _____	20	U	20	U	20	U	20	U	20
TOTAL XYLENES _____	30	U	30	U	30	U	30	U	30
STYRENE _____	30	U	30	U	30	U	30	U	30
CHLOROBENZENE _____	20	U	20	U	20	U	20	U	20
1,4-DICHLOROBENZENE _____	40	U	40	U	40	U	40	U	40
1,3-DICHLOROBENZENE _____	40	U	40	U	40	U	40	U	40
1,2-DICHLOROBENZENE _____	40	U	40	U	40	U	40	U	40

## SURROGATE % RECOVERY

A.A.A-TRIFLUOROTOLUENE(24/109)	126	104	91	65
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000006

# HUNTINGDON ANALYTICAL SERVICES

Sample Delivery Group No.: 05

METHOD 8020

PURGEABLE AROMATICS

FIELD SAMPLE ID:	MW24-SB-06	—
LABORATORY SAMPLE ID:	93068707	BLANK
DATE SAMPLED:	5-07-93	—
DATE EXTRACTED:	5-14-93	5-13-93
% SOLIDS:	90.1	—
DILUTION FACTOR(S):	1X	1X

PARAMETER	RESULT ug/kg		RESULT ug/kg		MDL ug/kg
BENZENE	20	U	20	U	20
TOLUENE	50		20	U	20
ETHYL BENZENE	20	U	20	U	20
TOTAL XYLENES	30	U	30	U	30
STYRENE	30	U	30	U	30
CHLOROBENZENE	20	U	20	U	20
1,4-DICHLOROBENZENE	40	U	40	U	40
1,3-DICHLOROBENZENE	40	U	40	U	40
1,2-DICHLOROBENZENE	40	U	40	U	40

## SURROGATE % RECOVERY

A.A.A-TRIFLUOROTOLUENE(24/109)	69	92
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000007

# HUNTINGDON ANALYTICAL SERVICES

Sample Delivery Group No.: 03

METHOD 8020

PURGEABLE AROMATICS

FIELD SAMPLE ID:	RB-04	TB-02	---
LABORATORY SAMPLE ID:	93066903	93066904	BLANK
DATE SAMPLED:	5-4-93	5-4-93	---
DATE EXTRACTED:	5-8-93	5-8-93	5-8-93
% SOLIDS:	---	---	---
DILUTION FACTOR(S):	1X	1X	1X

PARAMETER	RESULT ug/L		RESULT ug/L		RESULT ug/L		MDL ug/L
BENZENE _____	20	U	20	U	20	U	20
TOLUENE _____	20	U	20	U	20	U	20
ETHYL BENZENE _____	20	U	20	U	20	U	20
TOTAL XYLENES _____	30	U	30	U	30	U	30
STYRENE _____	30	U	30	U	30	U	30
CHLOROBENZENE _____	20	U	20	U	20	U	20
1,4-DICHLOROBENZENE _____	40	U	40	U	40	U	40
1,3-DICHLOROBENZENE _____	40	U	40	U	40	U	40
1,2-DICHLOROBENZENE _____	40	U	40	U	40	U	40

## SURROGATE % RECOVERY

A.A.A-TRIFLUOROTOLUENE(68/124)	102	99	102
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000004

# HUNTINGDON ANALYTICAL SERVICES

Sample Delivery Group No.: 04

METHOD 8020

PURGEABLE AROMATICS

FIELD SAMPLE ID:	TB-03	RB-05	—
LABORATORY SAMPLE ID:	93068001	93068002	BLANK
DATE SAMPLED:	5-5-93	5-5-93	—
DATE EXTRACTED:	5-10-93	5-10-93	5-10-93
% SOLIDS:	—	—	—
DILUTION FACTOR(S):	1X	1X	1X

PARAMETER	RESULT ug/L		RESULT ug/L		RESULT ug/L		MDL ug/L
BENZENE _____	20	U	20	U	20	U	20
TOLUENE _____	20	U	20	U	20	U	20
ETHYL BENZENE _____	20	U	20	U	20	U	20
TOTAL XYLENES _____	30	U	30	U	30	U	30
STYRENE _____	30	U	30	U	30	U	30
CHLOROBENZENE _____	20	U	20	U	20	U	20
1,4-DICHLOROBENZENE _____	40	U	40	U	40	U	40
1,3-DICHLOROBENZENE _____	40	U	40	U	40	U	40
1,2-DICHLOROBENZENE _____	40	U	40	U	40	U	40

## SURROGATE % RECOVERY

A,A,A-TRICHLOROTOLUENE(68/124)	92	97	100
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000004

# HUNTINGDON ANALYTICAL SERVICES

Sample Delivery Group No.: 05

METHOD 8020

PURGEABLE AROMATICS

FIELD SAMPLE ID:	TB-04	RB-06	RB-07	---
LABORATORY SAMPLE ID:	93068701	93068702	93068708	BLANK
DATE SAMPLED:	5-06-93	5-06-93	5-07-93	---
DATE EXTRACTED:	5-13-93	5-13-93	5-13-93	5-13-93
% SOLIDS:	---	---	---	---
DILUTION FACTOR(S):	1X	1X	1X	1X

PARAMETER	RESULT ug/L		RESULT ug/L		RESULT ug/L		RESULT ug/L		MDL ug/L
BENZENE _____	20	U	20	U	20	U	20	U	20
TOLUENE _____	20	U	20	U	20	U	20	U	20
ETHYL BENZENE _____	20	U	20	U	20	U	20	U	20
TOTAL XYLENES _____	30	U	30	U	30	U	30	U	30
STYRENE _____	30	U	30	U	30	U	30	U	30
CHLOROBENZENE _____	20	U	20	U	20	U	20	U	20
1,4-DICHLOROBENZENE _____	40	U	40	U	40	U	40	U	40
1,3-DICHLOROBENZENE _____	40	U	40	U	40	U	40	U	40
1,2-DICHLOROBENZENE _____	40	U	40	U	40	U	40	U	40

## SURROGATE % RECOVERY

A.A.A-TRICHLOROTOLUENE(68/124)	91	89	82	92
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000009



# HUNTINGDON ANALYTICAL SERVICES

Sample Delivery Group No.: 07

METHOD 8020

PURGEABLE AROMATICS

FIELD SAMPLE ID:  
LABORATORY SAMPLE ID:  
DATE SAMPLED:  
DATE EXTRACTED:  
% SOLIDS:  
DILUTION FACTOR(S):

MW24A-SB-04  
93071307  
5-10-93  
5-17-93  
83.7  
5X

MW24A-SB-05  
93071308  
5-10-93  
5-17-93  
90.5  
5X

PARAMETER	RESULT ug/kg		RESULT ug/kg		MDL ug/kg
BENZENE _____	20	U	20	U	20
TOLUENE _____	20	U	20	U	20
ETHYL BENZENE _____	20	U	20	U	20
TOTAL XYLENES _____	30	U	30	U	30
STYRENE _____	30	U	30	U	30
CHLOROBENZENE _____	20	U	20	U	20
1,4-DICHLOROBENZENE _____	40	U	40	U	40
1,3-DICHLOROBENZENE _____	40	U	40	U	40
1,2-DICHLOROBENZENE _____	40	U	40	U	40
SURROGATE % RECOVERY					
A.A.A.-TRIFLUOROTOLUENE(24/109)	97		93		

000021

# HUNTINGDON ANALYTICAL SERVICES

Sample Delivery Group No.: 07

METHOD 8020

PURGEABLE AROMATICS

FIELD SAMPLE ID:	MW25-SB-02	MW25-SB-05	MW26-SB-03	MW26-SB-02
LABORATORY SAMPLE ID:	93071311	93071312	93071313	93071314
DATE SAMPLED:	5-11-93	5-11-93	5-11-93	5-11-93
DATE EXTRACTED:	5-18-93	5-18-93	5-18-93	5-18-93
% SOLIDS:	87.6	92.3	88.4	86.8
DILUTION FACTOR(S):	5X	5X	5X	5X

PARAMETER	RESULT ug/kg		RESULT ug/kg		RESULT ug/kg		RESULT ug/kg		MDL ug/kg
BENZENE _____	20	U	20	U	20	U	20	U	20
TOLUENE _____	20	U	20	U	20	U	20	U	20
ETHYL BENZENE _____	20	U	20	U	20	U	20	U	20
TOTAL XYLENES _____	30	U	30	U	30	U	30	U	30
STYRENE _____	30	U	30	U	30	U	30	U	30
CHLOROBENZENE _____	20	U	20	U	20	U	20	U	20
1,4-DICHLOROBENZENE _____	40	U	40	U	40	U	40	U	40
1,3-DICHLOROBENZENE _____	40	U	40	U	40	U	40	U	40
1,2-DICHLOROBENZENE _____	40	U	40	U	40	U	40	U	40

## SURROGATE % RECOVERY

A.A.A-TRIFLUOROTOLUENE(24/109)	89	87	78	78
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000022

# HUNTINGDON ANALYTICAL SERVICES

Sample Delivery Group No.: 07

METHOD 8020

PURGEABLE AROMATICS

FIELD SAMPLE ID:	MW26-SB-06	—
LABORATORY SAMPLE ID:	93071315	BLANK
DATE SAMPLED:	5-11-93	—
DATE EXTRACTED:	5-18-93	5-17-93
% SOLIDS:	88.7	—
DILUTION FACTOR(S):	5X	1X

PARAMETER	RESULT ug/kg		RESULT ug/kg		MDL ug/kg
BENZENE _____	20	U	20	U	20
TOLUENE _____	20	U	20	U	20
ETHYL BENZENE _____	20	U	20	U	20
TOTAL XYLENES _____	30	U	30	U	30
STYRENE _____	30	U	30	U	30
CHLOROBENZENE _____	20	U	20	U	20
1,4-DICHLOROBENZENE _____	40	U	40	U	40
1,3-DICHLOROBENZENE _____	40	U	40	U	40
1,2-DICHLOROBENZENE _____	40	U	40	U	40

## SURROGATE % RECOVERY

A.A.A.-TRIFLUOROTOLUENE(24/109)	82	99
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000023

# HUNTINGDON ANALYTICAL SERVICES

Sample Delivery Group No.: 07

METHOD 8020

PURGEABLE AROMATICS

FIELD SAMPLE ID:	RB-09	TB-06	RB-10	—
LABORATORY SAMPLE ID:	93071309	93071310	93071320	BLANK
DATE SAMPLED:	5-10-93	5-10-93	5-11-93	—
DATE EXTRACTED:	5-18-93	5-18-93	5-18-93	5-17-93
% SOLIDS:	—	—	—	—
DILUTION FACTOR(S):	1X	1X	1X	1X

PARAMETER	RESULT ug/L		RESULT ug/L		RESULT ug/L		RESULT ug/L		MDL ug/L
BENZENE	20	U	20	U	20	U	20	U	20
TOLUENE	20	U	20	U	20	U	20	U	20
ETHYL BENZENE	20	U	20	U	20	U	20	U	20
TOTAL XYLENES	30	U	30	U	30	U	30	U	30
STYRENE	30	U	30	U	30	U	30	U	30
CHLOROBENZENE	20	U	20	U	20	U	20	U	20
1,4-DICHLOROBENZENE	40	U	40	U	40	U	40	U	40
1,3-DICHLOROBENZENE	40	U	40	U	40	U	40	U	40
1,2-DICHLOROBENZENE	40	U	40	U	40	U	40	U	40

## SURROGATE % RECOVERY

A.A.A-TRICHLOROTOLUENE(68/124)	92	88	93	99
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000024

# HUNTINGDON ANALYTICAL SERVICES

Sample Delivery Group No.: 08

METHOD 8020

PURGEABLE AROMATICS

FIELD SAMPLE ID:	MW27-SB-02	MW27-SB-05
LABORATORY SAMPLE ID:	93072301	93072302
DATE SAMPLED:	5-12-93	5-12-93
DATE EXTRACTED:	5-20-93	5-20-93
% SOLIDS:	85.7	89.8
DILUTION FACTOR(S):	5X	5X

PARAMETER	RESULT ug/kg		RESULT ug/kg		MDL ug/kg
BENZENE _____	20	U	20	U	20
TOLUENE _____	20	U	20	U	20
ETHYL BENZENE _____	20	U	20	U	20
TOTAL XYLENES _____	30	U	30	U	30
STYRENE _____	30	U	30	U	30
CHLOROBENZENE _____	20	U	20	U	20
1,4-DICHLOROBENZENE _____	40	U	40	U	40
1,3-DICHLOROBENZENE _____	40	U	40	U	40
1,2-DICHLOROBENZENE _____	40	U	40	U	40

## SURROGATE % RECOVERY

A.A.A.-TRIFLUOROTOLUENE(24/109)	88	96
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000027

# HUNTINGDON ANALYTICAL SERVICES

Sample Delivery Group No.: 19

METHOD 8020

PURGEABLE AROMATICS

FIELD SAMPLE ID:  
LABORATORY SAMPLE ID:  
DATE SAMPLED:  
DATE EXTRACTED:  
% SOLIDS:  
DILUTION FACTOR(S):

MW28-SB-02  
93083906  
6-3-93  
6-9-93  
80.5  
5X

PARAMETER	RESULT ug/kg	MDL ug/kg
BENZENE _____	20 U	20
TOLUENE _____	20 U	20
ETHYL BENZENE _____	20 U	20
TOTAL XYLENES _____	30 U	30
STYRENE _____	30 U	30
CHLOROBENZENE _____	20 U	20
1,4-DICHLOROBENZENE _____	40 U	40
1,3-DICHLOROBENZENE _____	40 U	40
1,2-DICHLOROBENZENE _____	40 U	40
SURROGATE % RECOVERY		
A.A.A-TRICHLOROTOLUENE(24/109)	85	

000007

# HUNTINGDON ANALYTICAL SERVICES

Sample Delivery Group No.: 19

METHOD 8020

PURGEABLE AROMATICS

FIELD SAMPLE ID:	MW28-SB-05	MW29-SB-02	MW29-SB-05	---
LABORATORY SAMPLE ID:	93083907	93083908	93083909	BLANK
DATE SAMPLED:	6-3-93	6-3-93	6-3-93	---
DATE EXTRACTED:	6-9-93	6-9-93	6-9-93	6-8-93
% SOLIDS:	90.2	79.8	91.2	---
DILUTION FACTOR(S):	5X	5X	5X	1X

PARAMETER	RESULT ug/kg		RESULT ug/kg		RESULT ug/kg		RESULT ug/kg		MDL ug/kg
BENZENE _____	20	U	20	U	20	U	20	U	20
TOLUENE _____	30	U	20	U	38	U	20	U	20
ETHYL BENZENE _____	20	U	20	U	20	U	20	U	20
TOTAL XYLENES _____	30	U	30	U	30	U	30	U	30
STYRENE _____	30	U	30	U	30	U	30	U	30
CHLOROBENZENE _____	20	U	20	U	20	U	20	U	20
1,4-DICHLOROBENZENE _____	40	U	40	U	40	U	40	U	40
1,3-DICHLOROBENZENE _____	40	U	40	U	40	U	40	U	40
1,2-DICHLOROBENZENE _____	40	U	40	U	40	U	40	U	40

## SURROGATE % RECOVERY

A.A.A-TRICHLOROTOLUENE(24/109)	92	97	96	100
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000001



# HUNTINGDON ANALYTICAL SERVICES

Sample Delivery Group No.: 04

## ANALYSIS PERFORMED ON TOTALS

	FIELD SAMPLE ID:	METHOD BLANK	METHOD BLANK	RB-06	MW23-SB-05	MW23-SB-06
	LABORATORY ID:	0687-MB	0687-MB	0687-02	0687-03	0687-04
	DATE SAMPLED:			05/06/93	05/06/93	05/06/93
	DATE ANALYZED:	5/25/93	5/25/93	5/25/93	5/25/93	5/25/93
	% SOLID:	100%	LIQUID BLANK	LIQUID	88.9%	90.0%
	DILUTION FACTOR:	1	1	1	1	1
PARAMETER	RESULT		RESULT	RESULT	RESULT	RESULT
	ug/kg		ug/L	ug/L	ug/kg	ug/L
CADMIUM METHOD 6010	1,000	U	5.00	U 5.00	U 1.125	U 1.111
CHROMIUM METHOD 6010	2,000	U	10.0	U 10.0	U 11.834	8,956
LEAD METHOD 6010	8,000	U	40.0	U 40.0	U 12.171	8,889
ZINC METHOD 6010	4,000	U	20.0	U 20.0	U 43,870	33,556
	DATE ANALYZED:		5/27/93	5/27/93	5/27/93	5/27/93
	DILUTION FACTOR:		1	1	1	1
FLUORIDE METHOD 340.2			100.0	U 100.0	U 1,980	1,640

000012

# HUNTINGDON ANALYTICAL SERVICES

Sample Delivery Group No.: 04

## ANALYSIS PERFORMED ON TOTALS

FIELD SAMPLE ID:	MW24-SB-04	MW24-SB-05	RB-07
LABORATORY ID:	0687-05	0687-06	0687-08
DATE SAMPLED:	05/07/93	05/07/93	05/07/93
DATE ANALYZED:	5/25/93	5/25/93	5/25/93
% SOLID:	84.7%	90.7%	LIQUID
DILUTION FACTOR:			

PARAMETER	RESULT ug/kg	RESULT ug/kg	RESULT ug/L
CADMIUM METHOD 6010	1,157	1,103 U	5.00 U
CHROMIUM METHOD 6010	18,519	12,304	10.0 U
LEAD METHOD 6010	275,463	17,133	40.0 U
ZINC METHOD 6010	150,000	44,983	20.0 U

DATE ANALYZED:	5/27/93	5/27/93	5/27/93
DILUTION FACTOR:	1	1	1

FLUORIDE METHOD 340.2	7,650	2,290	100.0 U
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000013

# HUNTINGDON ANALYTICAL SERVICES

Sample Delivery Group No.: 07

## ANALYSIS PERFORMED ON TOTALS

FIELD SAMPLE ID:	MW24A-SB-04	MW24A-SB-05
LABORATORY ID:	0713-07	0713-08
DATE SAMPLED:	5/10/93	5/10/93
DATE ANALYZED:	6/01/93	6/01/93
% SOLID:	83.7%	90.5%
DILUTION FACTOR:	1	1
PARAMETER	RESULT	RESULT
	ug/kg	ug/kg
CADMIUM METHOD 6010	1,171 U	1,083 U
CHROMIUM METHOD 6010	26,698	12,936
LEAD METHOD 6010	39,110	11,744
ZINC METHOD 6010	70,960	37,053
DATE ANALYZED:	6/01/93	6/01/93
DILUTION FACTOR:	1	1
FLUORIDE METHOD 340.2	2,380	2,500
DATE ANALYZED:		
pH METHOD 9045		

000038

# HUNTINGDON ANALYTICAL SERVICES

Sample Delivery Group No.: 07

## ANALYSIS PERFORMED ON TOTALS

	FIELD SAMPLE ID:	RB-09	MW25-SB-02	MW25-SB-05	MW26-SB-03	MW26-SB-02			
	LABORATORY ID:	0713-09	0713-11	0713-12	0713-13	0713-14			
	DATE SAMPLED:	5/10/93	5/11/93	5/11/93	5/11/93	5/11/93			
	DATE ANALYZED:	6/01/93	6/01/93	6/01/93	6/01/93	6/01/93			
	% SOLID:	LIQUID	87.6%	92.3%	88.4%	86.8%			
	DILUTION FACTOR:	1	1	1	1	1			
PARAMETER	RESULT	RESULT	RESULT	RESULT	RESULT	RESULT			
	ug/L	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg			
CADMIUM METHOD 6010	5.00	U	8,650	1,083	U	1,120	U	1,107	U
CHROMIUM METHOD 6010	10.0	U	17,783	11,983		12,945		13,488	
LEAD METHOD 6010	40.0	U	20,351	11,939		13,303		12,780	
ZINC METHOD 6010	20.0	U	79,912	34,670		37,178		37,431	
	DATE ANALYZED:	6/01/93	6/01/93	6/01/93	6/01/93	6/01/93		6/01/93	
	DILUTION FACTOR:	1	1	1	1	1		1	
FLUORIDE METHOD 340.2	100.0	U	5,880	950		1,400		1,520	
	DATE ANALYZED:	5/13/93							
pH METHOD 9045	6.20 S.U.								

000039

FIELD SAMPLE ID: MW26-SB-06  
LABORATORY ID: 0713-15  
DATE SAMPLED: 5/11/93  
DATE ANALYZED: 6/01/93  
% SOLID: 88.7%  
DILUTION FACTOR: 1

PARAMETER	RESULT ug/kg
CADMIUM METHOD 6010	1,116 U
CHROMIUM METHOD 6010	11,228
LEAD METHOD 6010	15,223
ZINC METHOD 6010	42,411

DATE ANALYZED: 6/01/93  
DILUTION FACTOR: 1

FLUORIDE METHOD 340.2 590

DATE ANALYZED:

# HUNTINGDON ANALYTICAL SERVICES

Sample Delivery Group No.: 08

## ANALYSIS PERFORMED ON TOTALS

	FIELD SAMPLE ID:	METHOD BLANK		METHOD BLANK		MW27-SB-02		MW27-SB-05		RB-11	
	LABORATORY ID:	0723-MB		0723-MB		0723-01		0723-02		0723-07	
	DATE SAMPLED:					5/12/93		5/12/93		5/12/93	
	DATE ANALYZED:	6/02/93		6/02/93		6/02/93		6/02/93		6/02/93	
	% SOLID:	100%		LIQUID BLANK		85.7%		89.8%		LIQUID	
	DILUTION FACTOR:	1		1		1		1		1	
PARAMETER		RESULT		RESULT		RESULT		RESULT		RESULT	
		ug/kg		ug/L		ug/kg		ug/kg		ug/L	
	CADMIUM METHOD 6010	1,000	U	5.00	U	1,122	U	1,114	U	5.00	U
	CHROMIUM METHOD 6010	2,000	U	10.0	U	23,113		14,833		10.0	U
	LEAD METHOD 6010	8,000	U	40.0	U	33,211		12,584		40.0	U
ZINC METHOD 6010	4,000	U	20.0	U	50,040		40,089		20.0	U	
	DATE ANALYZED:			6/01/93		6/01/93		6/01/93		6/01/93	
	DILUTION FACTOR:			1		1		1		1	
FLUORIDE METHOD 340.2				100.0	U	1,020		1,110		100.0	U

000040

# HUNTINGDON ANALYTICAL SERVICES

Sample Delivery Group No.: 08

METHOD 8020

PURGEABLE AROMATICS

FIELD SAMPLE ID:	---	---
LABORATORY SAMPLE ID:	BLANK	BLANK
DATE SAMPLED:	---	---
DATE EXTRACTED:	5-19-93	5-19-93
% SOLIDS:	---	---
DILUTION FACTOR(S):	1X	1X

PARAMETER	RESULT ug/L		RESULT ug/L		MDL ug/L
BENZENE _____	20	U	20	U	20
TOLUENE _____	20	U	20	U	20
ETHYL BENZENE _____	20	U	20	U	20
TOTAL XYLENES _____	30	U	30	U	30
STYRENE _____	30	U	30	U	30
CHLOROBENZENE _____	20	U	20	U	20
1,4-DICHLOROBENZENE _____	40	U	40	U	40
1,3-DICHLOROBENZENE _____	40	U	40	U	40
1,2-DICHLOROBENZENE _____	40	U	40	U	40

## SURROGATE % RECOVERY

A.A.A-TRICHLOROTOLUENE(68/124)	98	100
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000032



# HUNTINGDON ANALYTICAL SERVICES

Sample Delivery Group No.: 13

## ANALYSIS PERFORMED ON TOTAL:

FIELD SAMPLE ID:	MW28-SB-02	MW28-SB-05	MW29-SB-02	MW29-SB-05
LABORATORY ID:	0839-06	0839-07	0839-08	0839-09
DATE SAMPLED:	6/03/93	6/03/93	6/03/93	6/03/93
DATE ANALYZED:	6/29/93	6/29/93	6/29/93	6/29/93
% SOLID:	80.5%	90.2%	79.8%	91.2%
DILUTION FACTOR:				

PARAMETER	RESULT ug/kg		RESULT ug/kg		RESULT ug/kg		RESULT ug/kg	
CADMIUM METHOD 6010	1,218	U	1,087	U	18,772		1,075	U
CHROMIUM METHOD 6010	24,236		11,021		24,006		12,040	
LEAD METHOD 6010	28,986		13,130		36,857		16,082	
ZINC METHOD 6010	67,227		38,911		147,427		37,410	

DATE ANALYZED:	6/14/93	6/14/93	6/14/93	6/14/93
DILUTION FACTOR:	1	1	1	1

FLUORIDE METHOD 340.2	3,560	970	4,150	2,310
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DATE ANALYZED:

pH METHOD 9045

0000

# HUNTINGDON ANALYTICAL SERVICES

Sample Delivery Group No.: 13

## ANALYSIS PERFORMED ON TOTALS

FIELD SAMPLE ID:	METHOD BLANK	METHOD BLANK
LABORATORY ID:	0839-MB	0839-MB
DATE SAMPLED:		
DATE ANALYZED:	6/29/93	6/29/93
% SOLID:	100%	LIQUID BLANK
DILUTION FACTOR:	1	1

PARAMETER	RESULT ug/kg		RESULT ug/L	
CADMIUM METHOD 6010	1.000	U	5.00	U
CHROMIUM METHOD 6010	2.000	U	10.0	U
LEAD METHOD 6010	8.000	U	40.0	U
ZINC METHOD 6010	4.000	U	20.0	U

DATE ANALYZED:	6/14/93
DILUTION FACTOR:	1

FLUORIDE METHOD 340.2	100.0	U
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DATE ANALYZED:

pH METHOD 9045

# HUNTINGDON ANALYTICAL SERVICES

Sample Delivery Group No.: 07

## ANALYSIS PERFORMED ON TOTALS

FIELD SAMPLE ID:	METHOD BLANK	METHOD BLANK
LABORATORY ID:	0713-MB	0713-MB
DATE SAMPLED:		
DATE ANALYZED:	6/01/93	6/01/93
% SOLID:	100%	LIQUID BLANK
DILUTION FACTOR:	1	1

PARAMETER	RESULT ug/kg		RESULT ug/L	
CADMIUM METHOD 6010	1,000	U	5.00	U
CHROMIUM METHOD 6010	2,000	U	10.0	U
LEAD METHOD 6010	8,000	U	40.0	U
ZINC METHOD 6010	4,000	U	20.0	U

DATE ANALYZED:	6/01/93
DILUTION FACTOR:	1

FLUORIDE METHOD 340.2	100.0	U
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DATE ANALYZED:

pH METHOD 9045

0000

# HUNTINGDON ANALYTICAL SERVICES

Sample Delivery Group No.: 03

METHOD 8010

PURGEABLE HALOCARBONS

FIELD SAMPLE ID:	MW20-SB-03	MW20-SB-04	---
LABORATORY ID:	93066901	93066902	BLANK
DATE SAMPLED:	5-4-93	5-4-93	---
DATE EXTRACTED:	5-8-93	5-9-93	5-8-93
% SOLIDS:	82.1	89.3	
DILUTION FACTORS:	1X	1X	1X

PARAMETER	RESULT		RESULT		RESULT		MDL
	ug/kg		ug/kg		ug/kg		ug/kg
CHLOROMETHANE	20.0	U	20.0	U	20.0	U	20.0
BROMOMETHANE	50.0	U	50.0	U	50.0	U	50.0
VINYL CHLORIDE	20.0	U	20.0	U	20.0	U	20.0
CHLOROETHANE	20.0	U	20.0	U	20.0	U	20.0
METHYLENE CHLORIDE	10.0	U	10.0	U	10.0	U	10.0
TRICHLOROFLUOROMETHANE	5.0	U	5.0	U	5.0	U	5.0
1,1-DICHLOROETHENE	5.0	U	5.0	U	5.0	U	5.0
1,1-DICHLOROETHANE	5.0	U	5.0	U	5.0	U	5.0
cis-1,2-DICHLOROETHENE	5.0	U	5.0	U	5.0	U	5.0
trans-1,2-DICHLOROETHENE	5.0	U	5.0	U	5.0	U	5.0
CHLOROFORM	5.0	U	5.0	U	5.0	U	5.0
1,2-DICHLOROETHANE	5.0	U	5.0	U	5.0	U	5.0
1,1,1-TRICHLOROETHANE	5.0	U	5.0	U	5.0	U	5.0
CARBON TETRACHLORIDE	5.0	U	5.0	U	5.0	U	5.0
BROMODICHLOROMETHANE	10.0	U	10.0	U	10.0	U	10.0
1,2-DICHLOROPROPANE	10.0	U	10.0	U	10.0	U	10.0
CIS-1,3-DICHLOROPROPENE	20.0	U	20.0	U	20.0	U	20.0
TRICHLOROETHENE	5.0	U	5.0	U	5.0	U	5.0
TRANS-1,3-DICHLOROPROPENE	20.0	U	20.0	U	20.0	U	20.0
DIBROMOCHLOROMETHANE	10.0	U	10.0	U	10.0	U	10.0
1,1,2-TRICHLOROETHANE	5.0	U	5.0	U	5.0	U	5.0
2-CHLOROETHYL VINYL ETHER	50.0	U	50.0	U	50.0	U	50.0
BROMOFORM	20.0	U	20.0	U	20.0	U	20.0
1,1,2,2-TETRACHLOROETHANE	3.0	U	3.0	U	3.0	U	3.0
TETRACHLOROETHENE	3.0	U	3.0	U	3.0	U	3.0
CHLOROBENZENE	20.0	U	20.0	U	20.0	U	20.0
1,4-DICHLOROBENZENE	15.0	U	15.0	U	15.0	U	15.0
1,2-DICHLOROBENZENE	15.0	U	15.0	U	15.0	U	15.0
1,3-DICHLOROBENZENE	15.0	U	15.0	U	15.0	U	15.0

## SURROGATE % RECOVERY

CHLOROBROMOMETHANE(47/155)	101	77	106
1-CHLORO-2-BROMOPROPANE(34/160)	94	74	106
1,4-DICHLOROBUTANE(24/138)	97	79	109

# HUNTINGDON ANALYTICAL SERVICES

Sample Delivery Group No.: 04

METHOD 8010

PURGEABLE HALOCARBONS

FIELD SAMPLE ID:	MW21-SB-04	MW21-SB-05	MW21-SB-06	MW22-SB-04
LABORATORY ID:	93068003	93068004	93068005	93068006
DATE SAMPLED:	5-5-93	5-5-93	5-5-93	5-5-93
DATE EXTRACTED:	5-10-93	5-11-93	5-11-93	5-11-93
% SOLIDS:	89.3	90.4	89.9	90.2
DILUTION FACTORS:	1X	1X	1X	1X

PARAMETER	RESULT ug/kg		RESULT ug/kg		RESULT ug/kg		RESULT ug/kg		MDL ug/kg
CHLOROMETHANE	20.0	U	20.0	U	20.0	U	20.0	U	20.0
BROMOMETHANE	50.0	U	50.0	U	50.0	U	50.0	U	50.0
VINYL CHLORIDE	20.0	U	20.0	U	20.0	U	20.0	U	20.0
CHLOROETHANE	20.0	U	20.0	U	20.0	U	20.0	U	20.0
METHYLENE CHLORIDE	13.0		12.0		11.0		10.0	U	10.0
TRICHLOROFLUOROMETHANE	5.0	U	5.0	U	5.0	U	5.0	U	5.0
1,1-DICHLOROETHENE	5.0	U	5.0	U	5.0	U	5.0	U	5.0
1,1-DICHLOROETHANE	5.0	U	5.0	U	5.0	U	5.0	U	5.0
cis-1,2-DICHLOROETHENE	5.0	U	5.0	U	5.0	U	5.0	U	5.0
trans-1,2-DICHLOROETHENE	5.0	U	5.0	U	5.0	U	5.0	U	5.0
CHLOROFORM	5.0	U	5.0	U	5.0	U	5.0	U	5.0
1,2-DICHLOROETHANE	5.0	U	5.0	U	5.0	U	5.0	U	5.0
1,1,1-TRICHLOROETHANE	5.0	U	5.0	U	5.0	U	5.0	U	5.0
CARBON TETRACHLORIDE	5.0	U	5.0	U	5.0	U	5.0	U	5.0
BROMODICHLOROMETHANE	10.0	U	10.0	U	10.0	U	10.0	U	10.0
1,2-DICHLOROPROPANE	10.0	U	10.0	U	10.0	U	10.0	U	10.0
CIS-1,3-DICHLOROPROPENE	20.0	U	20.0	U	20.0	U	20.0	U	20.0
TRICHLOROETHENE	5.0	U	5.0	U	5.0	U	5.0	U	5.0
TRANS-1,3-DICHLOROPROPENE	20.0	U	20.0	U	20.0	U	20.0	U	20.0
DIBROMOCHLOROMETHANE	10.0	U	10.0	U	10.0	U	10.0	U	10.0
1,1,2-TRICHLOROETHANE	5.0	U	5.0	U	5.0	U	5.0	U	5.0
2-CHLOROETHYL VINYL ETHER	50.0	U	50.0	U	50.0	U	50.0	U	50.0
BROMOFORM	20.0	U	20.0	U	20.0	U	20.0	U	20.0
1,1,2,2-TETRACHLOROETHANE	3.0	U	3.0	U	3.0	U	3.0	U	3.0
TETRACHLOROETHENE	3.0	U	3.0	U	3.0	U	3.0	U	3.0
CHLOROBENZENE	20.0	U	20.0	U	20.0	U	20.0	U	20.0
1,4-DICHLOROBENZENE	15.0	U	15.0	U	15.0	U	15.0	U	15.0
1,2-DICHLOROBENZENE	15.0	U	15.0	U	15.0	U	15.0	U	15.0
1,3-DICHLOROBENZENE	15.0	U	15.0	U	15.0	U	15.0	U	15.0

## SURROGATE % RECOVERY

CHLOROBROMOMETHANE(47/155)	83	83	84	97
1-CHLORO-2-BROMOPROPANE(34/160)	104	110	109	106
1,4-DICHLOROBUTANE(24/138)	85	99	92	73

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# HUNTINGDON ANALYTICAL SERVICES

Sample Delivery Group No.: 04

METHOD 8010

PURGEABLE HALOCARBONS

FIELD SAMPLE ID:	MW22-SB-05	—
LABORATORY ID:	93068007	BLANK
DATE SAMPLED:	5-5-93	—
DATE EXTRACTED:	5-11-93	5-10-93
% SOLIDS:	90.1	—
DILUTION FACTORS:	1X	1X

PARAMETER	RESULT		RESULT		MDL
	ug/kg		ug/kg		ug/kg
CHLOROMETHANE	20.0	U	20.0	U	20.0
BROMOMETHANE	50.0	U	50.0	U	50.0
VINYL CHLORIDE	20.0	U	20.0	U	20.0
CHLOROETHANE	20.0	U	20.0	U	20.0
METHYLENE CHLORIDE	10.0		10.0	U	10.0
TRICHLOROFLUOROMETHANE	5.0	U	5.0	U	5.0
1,1-DICHLOROETHENE	5.0	U	5.0	U	5.0
1,1-DICHLOROETHANE	5.0	U	5.0	U	5.0
cis-1,2-DICHLOROETHENE	5.0	U	5.0	U	5.0
trans-1,2-DICHLOROETHENE	5.0	U	5.0	U	5.0
CHLOROFORM	5.0	U	5.0	U	5.0
1,2-DICHLOROETHANE	5.0	U	5.0	U	5.0
1,1,1-TRICHLOROETHANE	5.0	U	5.0	U	5.0
CARBON TETRACHLORIDE	5.0	U	5.0	U	5.0
BROMODICHLOROMETHANE	10.0	U	10.0	U	10.0
1,2-DICHLOROPROPANE	10.0	U	10.0	U	10.0
CIS-1,3-DICHLOROPROPENE	20.0	U	20.0	U	20.0
TRICHLOROETHENE	11.0		5.0	U	5.0
TRANS-1,3-DICHLOROPROPENE	20.0	U	20.0	U	20.0
DIBROMOCHLOROMETHANE	10.0	U	10.0	U	10.0
1,1,2-TRICHLOROETHANE	5.0	U	5.0	U	5.0
2-CHLOROETHYL VINYL ETHER	50.0	U	50.0	U	50.0
BROMOFORM	20.0	U	20.0	U	20.0
1,1,2,2-TETRACHLOROETHANE	3.0	U	3.0	U	3.0
TETRACHLOROETHENE	3.0	U	3.0	U	3.0
CHLOROBENZENE	20.0	U	20.0	U	20.0
1,4-DICHLOROBENZENE	15.0	U	15.0	U	15.0
1,2-DICHLOROBENZENE	15.0	U	15.0	U	15.0
1,3-DICHLOROBENZENE	15.0	U	15.0	U	15.0

## SURROGATE % RECOVERY

CHLOROBROMOMETHANE(47/155)	98	88
1-CHLORO-2-BROMOPROPANE(34/160)	136	115
1,4-DICHLOROBUTANE(24/138)	91	117

# HUNTINGDON ANALYTICAL SERVICES

Sample Delivery Group No.: 05

METHOD 8010

PURGEABLE HALOCARBONS

FIELD SAMPLE ID:	MW23-SB-05	MW23-SB-06	MW24-SB-04	MW24-SB-05
LABORATORY ID:	93068703	93068704	93068705	93068706
DATE SAMPLED:	5-06-93	5-06-93	5-07-93	5-07-93
DATE EXTRACTED:	5-13-93	5-13-93	5-14-93	5-14-93
% SOLIDS:	88.9	90.0	84.7	90.7
DILUTION FACTORS:	1X	1X	1X	1X

PARAMETER	RESULT ug/kg		RESULT ug/kg		RESULT ug/kg		RESULT ug/kg		MDL ug/kg
CHLOROMETHANE	20.0	U	20.0	U	20.0	U	20.0	U	20.0
BROMOMETHANE	50.0	U	50.0	U	50.0	U	50.0	U	50.0
VINYL CHLORIDE	20.0	U	20.0	U	20.0	U	20.0	U	20.0
CHLOROETHANE	20.0	U	20.0	U	20.0	U	20.0	U	20.0
METHYLENE CHLORIDE	10.0	U	13.2		17.3		10.0	U	10.0
TRICHLOROFLUOROMETHANE	5.0	U	5.0	U	5.0	U	5.0	U	5.0
1,1-DICHLOROETHENE	5.0	U	5.0	U	5.0	U	5.0	U	5.0
1,1-DICHLOROETHANE	5.0	U	5.0	U	5.0	U	5.0	U	5.0
cis-1,2-DICHLOROETHENE	5.0	U	5.0	U	34.8		26.6		5.0
trans-1,2-DICHLOROETHENE	5.0	U	5.0	U	5.0	U	5.0	U	5.0
CHLOROFORM	5.0	U	5.0	U	5.0	U	5.0	U	5.0
1,2-DICHLOROETHANE	5.0	U	5.0	U	5.0	U	5.0	U	5.0
1,1,1-TRICHLOROETHANE	5.0	U	5.0	U	5.0	U	5.0	U	5.0
CARBON TETRACHLORIDE	5.0	U	5.0	U	5.0	U	5.0	U	5.0
BROMODICHLOROMETHANE	10.0	U	10.0	U	10.0	U	10.0	U	10.0
1,2-DICHLOROPROPANE	10.0	U	10.0	U	10.0	U	10.0	U	10.0
CIS-1,3-DICHLOROPROPENE	20.0	U	20.0	U	20.0	U	20.0	U	20.0
TRICHLOROETHENE	130		240		29.7		5.0	U	5.0
TRANS-1,3-DICHLOROPROPENE	20.0	U	20.0	U	20.0	U	20.0	U	20.0
DIBROMOCHLOROMETHANE	10.0	U	10.0	U	10.0	U	10.0	U	10.0
1,1,2-TRICHLOROETHANE	5.0	U	5.0	U	5.0	U	5.0	U	5.0
2-CHLOROETHYL VINYL ETHER	50.0	U	50.0	U	50.0	U	50.0	U	50.0
BROMOFORM	20.0	U	20.0	U	20.0	U	20.0	U	20.0
1,1,2,2-TETRACHLOROETHANE	3.0	U	3.0	U	3.0	U	3.0	U	3.0
TETRACHLOROETHENE	3.0	U	3.0	U	3.0	U	3.0	U	3.0
CHLOROBENZENE	20.0	U	20.0	U	20.0	U	20.0	U	20.0
1,4-DICHLOROBENZENE	15.0	U	15.0	U	15.0	U	15.0	U	15.0
1,2-DICHLOROBENZENE	15.0	U	15.0	U	15.0	U	15.0	U	15.0
1,3-DICHLOROBENZENE	15.0	U	15.0	U	15.0	U	15.0	U	15.0

## SURROGATE % RECOVERY

CHLOROBROMOMETHANE(47/155)	77	72	93	69
1-CHLORO-2-BROMOPROPANE(34/160)	80	68	85	54
1,4-DICHLOROBUTANE(24/138)	79	65	74	62

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# HUNTINGDON ANALYTICAL SERVICES

Sample Delivery Group No.: 05

METHOD 8010

PURGEABLE HALOCARBONS

FIELD SAMPLE ID:	MW24-SB-06	—
LABORATORY ID:	93068707	BLANK
DATE SAMPLED:	5-07-93	—
DATE EXTRACTED:	5-14-93	5-13-93
% SOLIDS:	90.1	—
DILUTION FACTORS:	5X	1X

PARAMETER	RESULT		RESULT		MDL
	ug/kg		ug/kg		ug/kg
CHLOROMETHANE	20.0	U	20.0	U	20.0
BROMOMETHANE	50.0	U	50.0	U	50.0
VINYL CHLORIDE	76.3		20.0	U	20.0
CHLOROETHANE	20.0	U	20.0	U	20.0
METHYLENE CHLORIDE	10.5		46.8		10.0
TRICHLOROFLUOROMETHANE	5.0	U	5.0	U	5.0
1,1-DICHLOROETHENE	5.0	U	5.0	U	5.0
1,1-DICHLOROETHANE	5.0	U	5.0	U	5.0
cis-1,2-DICHLOROETHENE	830 *		5.0	U	5.0
trans-1,2-DICHLOROETHENE	5.3		5.0	U	5.0
CHLOROFORM	5.0	U	5.0	U	5.0
1,2-DICHLOROETHANE	320		5.0	U	5.0
1,1,1-TRICHLOROETHANE	5.0	U	5.0	U	5.0
CARBON TETRACHLORIDE	5.0	U	5.0	U	5.0
BROMODICHLOROMETHANE	10.0	U	10.0	U	10.0
1,2-DICHLOROPROPANE	10.0	U	10.0	U	10.0
CIS-1,3-DICHLOROPROPENE	20.0	U	20.0	U	20.0
TRICHLOROETHENE	5.0	U	5.0	U	5.0
TRANS-1,3-DICHLOROPROPENE	20.0	U	20.0	U	20.0
DIBROMOCHLOROMETHANE	10.0	U	10.0	U	10.0
1,1,2-TRICHLOROETHANE	5.0	U	5.0	U	5.0
2-CHLOROETHYL VINYL ETHER	50.0	U	50.0	U	50.0
BROMOFORM	20.0	U	20.0	U	20.0
1,1,2,2-TETRACHLOROETHANE	3.0	U	3.0	U	3.0
TETRACHLOROETHENE	3.0	U	3.0	U	3.0
CHLOROBENZENE	20.0	U	20.0	U	20.0
1,4-DICHLOROBENZENE	15.0	U	15.0	U	15.0
1,2-DICHLOROBENZENE	15.0	U	15.0	U	15.0
1,3-DICHLOROBENZENE	15.0	U	15.0	U	15.0
SURROGATE % RECOVERY					
CHLOROBROMOMETHANE(47/155)	128		83		
1-CHLORO-2-BROMOPROPANE(34/160)	57		80		
1,4-DICHLOROBUTANE(24/138)	60		82		

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# HUNTINGDON ANALYTICAL SERVICES

Sample Delivery Group No.: 03

METHOD 8010

PURGEABLE HALOCARBONS

FIELD SAMPLE ID:	RB-04	TB-02	—
LABORATORY ID:	93066903	93066904	BLANK
DATE SAMPLED:	5-4-93	5-4-93	—
DATE EXTRACTED:	5-8-93	5-8-93	—
% SOLIDS:	—	—	—
DILUTION FACTORS:	1X	1X	1X

PARAMETER	RESULT ug/L		RESULT ug/L		RESULT ug/L		MDL ug/L
CHLOROMETHANE	20.0	U	20.0	U	20.0	U	20.0
BROMOMETHANE	50.0	U	50.0	U	50.0	U	50.0
VINYL CHLORIDE	20.0	U	20.0	U	20.0	U	20.0
CHLOROETHANE	20.0	U	20.0	U	20.0	U	20.0
METHYLENE CHLORIDE	10.0	U	10.0	U	10.0	U	10.0
TRICHLOROFLUOROMETHANE	5.0	U	5.0	U	5.0	U	5.0
1,1-DICHLOROETHENE	5.0	U	5.0	U	5.0	U	5.0
1,1-DICHLOROETHANE	5.0	U	5.0	U	5.0	U	5.0
cis-1,2-DICHLOROETHENE	5.0	U	5.0	U	5.0	U	5.0
trans-1,2-DICHLOROETHENE	5.0	U	5.0	U	5.0	U	5.0
CHLOROFORM	5.0	U	5.0	U	5.0	U	5.0
1,2-DICHLOROETHANE	5.0	U	5.0	U	5.0	U	5.0
1,1,1-TRICHLOROETHANE	5.0	U	5.0	U	5.0	U	5.0
CARBON TETRACHLORIDE	5.0	U	5.0	U	5.0	U	5.0
BROMODICHLOROMETHANE	10.0	U	10.0	U	10.0	U	10.0
1,2-DICHLOROPROPANE	10.0	U	10.0	U	10.0	U	10.0
CIS-1,3-DICHLOROPROPENE	20.0	U	20.0	U	20.0	U	20.0
TRICHLOROETHENE	5.0	U	5.0	U	5.0	U	5.0
TRANS-1,3-DICHLOROPROPENE	20.0	U	20.0	U	20.0	U	20.0
DIBROMOCHLOROMETHANE	10.0	U	10.0	U	10.0	U	10.0
1,1,2-TRICHLOROETHANE	5.0	U	5.0	U	5.0	U	5.0
2-CHLOROETHYL VINYL ETHER	50.0	U	50.0	U	50.0	U	50.0
BROMOFORM	20.0	U	20.0	U	20.0	U	20.0
1,1,2,2-TETRACHLOROETHANE	3.0	U	3.0	U	3.0	U	3.0
TETRACHLOROETHENE	3.0	U	3.0	U	3.0	U	3.0
CHLOROBENZENE	20.0	U	20.0	U	20.0	U	20.0
1,4-DICHLOROBENZENE	15.0	U	15.0	U	15.0	U	15.0
1,2-DICHLOROBENZENE	15.0	U	15.0	U	15.0	U	15.0
1,3-DICHLOROBENZENE	15.0	U	15.0	U	15.0	U	15.0

## SURROGATE % RECOVERY

CHLOROBROMOMETHANE(66/136)	118	104	100
1-CHLORO-2-BROMOPROPANE(62/135)	108	110	100
1,4-DICHLORO BUTANE(61/131)	105	105	100

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# HUNTINGDON ANALYTICAL SERVICES

Sample Delivery Group No.: 04

METHOD 8010

PURGEABLE HALOCARBONS

FIELD SAMPLE ID:	TB-03	RB-05	—
LABORATORY ID:	93068001	93068002	BLANK
DATE SAMPLED:	5-5-93	5-5-93	—
DATE EXTRACTED:	5-10-93	5-10-93	5-10-93
% SOLIDS:	—	—	—
DILUTION FACTORS:	1X	1X	1X

PARAMETER	RESULT ug/L		RESULT ug/L		RESULT ug/L		MDL ug/L
CHLOROMETHANE	20.0	U	20.0	U	20.0	U	20.0
BROMOMETHANE	50.0	U	50.0	U	50.0	U	50.0
VINYL CHLORIDE	20.0	U	20.0	U	20.0	U	20.0
CHLOROETHANE	20.0	U	20.0	U	20.0	U	20.0
METHYLENE CHLORIDE	10.0	U	10.0	U	10.0	U	10.0
TRICHLOROFLUOROMETHANE	5.0	U	5.0	U	5.0	U	5.0
1,1-DICHLOROETHENE	5.0	U	5.0	U	5.0	U	5.0
1,1-DICHLOROETHANE	5.0	U	5.0	U	5.0	U	5.0
cis-1,2-DICHLOROETHENE	5.0	U	5.0	U	5.0	U	5.0
trans-1,2-DICHLOROETHENE	5.0	U	5.0	U	5.0	U	5.0
CHLOROFORM	5.0	U	5.0	U	5.0	U	5.0
1,2-DICHLOROETHANE	5.0	U	5.0	U	5.0	U	5.0
1,1,1-TRICHLOROETHANE	5.0	U	5.0	U	5.0	U	5.0
CARBON TETRACHLORIDE	5.0	U	5.0	U	5.0	U	5.0
BROMODICHLOROMETHANE	10.0	U	10.0	U	10.0	U	10.0
1,2-DICHLOROPROPANE	10.0	U	10.0	U	10.0	U	10.0
CIS-1,3-DICHLOROPROPENE	20.0	U	20.0	U	20.0	U	20.0
TRICHLOROETHENE	5.0	U	5.0	U	5.0	U	5.0
TRANS-1,3-DICHLOROPROPENE	20.0	U	20.0	U	20.0	U	20.0
DIBROMOCHLOROMETHANE	10.0	U	10.0	U	10.0	U	10.0
1,1,2-TRICHLOROETHANE	5.0	U	5.0	U	5.0	U	5.0
2-CHLOROETHYL VINYL ETHER	50.0	U	50.0	U	50.0	U	50.0
BROMOFORM	20.0	U	20.0	U	20.0	U	20.0
1,1,2,2-TETRACHLOROETHANE	3.0	U	3.0	U	3.0	U	3.0
TETRACHLOROETHENE	3.0	U	3.0	U	3.0	U	3.0
CHLOROBENZENE	20.0	U	20.0	U	20.0	U	20.0
1,4-DICHLOROBENZENE	15.0	U	15.0	U	15.0	U	15.0
1,2-DICHLOROBENZENE	15.0	U	15.0	U	15.0	U	15.0
1,3-DICHLOROBENZENE	15.0	U	15.0	U	15.0	U	15.0

## SURROGATE % RECOVERY

CHLOROBROMOMETHANE(66/136)	92	92	92
1-CHLORO-2-BROMOPROPANE(62/135)	120	117	126
1,4-DICHLOROBUTANE(61/131)	103	102	104

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# HUNTINGDON ANALYTICAL SERVICES

Sample Delivery Group No.: 05

METHOD 8010

PURGEABLE HALOCARBONS

FIELD SAMPLE ID:	TB-04	RB-06	RB-07	—
LABORATORY ID:	93068701	93068702	93068708	BLANK
DATE SAMPLED:	5-06-93	5-06-93	5-07-93	—
DATE EXTRACTED:	5-13-93	5-13-93	5-13-93	5-13-93
% SOLIDS:	—	—	—	—
DILUTION FACTORS:	1X	1X	1X	1X

PARAMETER	RESULT		RESULT		RESULT		RESULT		MDL
	ug/L		ug/L		ug/L		ug/L		ug/L
CHLOROMETHANE	20.0	U	20.0	U	20.0	U	20.0	U	20.0
BROMOMETHANE	50.0	U	50.0	U	50.0	U	50.0	U	50.0
VINYL CHLORIDE	20.0	U	20.0	U	20.0	U	20.0	U	20.0
CHLOROETHANE	20.0	U	20.0	U	20.0	U	20.0	U	20.0
METHYLENE CHLORIDE	44.6		46.8		42.3		46.8		10.0
TRICHLOROFLUOROMETHANE	5.0	U	5.0	U	5.0	U	5.0	U	5.0
1,1-DICHLOROETHENE	5.0	U	5.0	U	5.0	U	5.0	U	5.0
1,1-DICHLOROETHANE	5.0	U	5.0	U	5.0	U	5.0	U	5.0
cis-1,2-DICHLOROETHENE	5.0	U	5.0	U	5.0	U	5.0	U	5.0
trans-1,2-DICHLOROETHENE	5.0	U	5.0	U	5.0	U	5.0	U	5.0
CHLOROFORM	5.0	U	5.0	U	5.0	U	5.0	U	5.0
1,2-DICHLOROETHANE	5.0	U	5.0	U	5.0	U	5.0	U	5.0
1,1,1-TRICHLOROETHANE	5.0	U	5.0	U	5.0	U	5.0	U	5.0
CARBON TETRACHLORIDE	5.0	U	5.0	U	5.0	U	5.0	U	5.0
BROMODICHLOROMETHANE	10.0	U	10.0	U	10.0	U	10.0	U	10.0
1,2-DICHLOROPROPANE	10.0	U	10.0	U	10.0	U	10.0	U	10.0
CIS-1,3-DICHLOROPROPENE	20.0	U	20.0	U	20.0	U	20.0	U	20.0
TRICHLOROETHENE	5.0	U	5.0	U	5.0	U	5.0	U	5.0
TRANS-1,3-DICHLOROPROPENE	20.0	U	20.0	U	20.0	U	20.0	U	20.0
DIBROMOCHLOROMETHANE	10.0	U	10.0	U	10.0	U	10.0	U	10.0
1,1,2-TRICHLOROETHANE	5.0	U	5.0	U	5.0	U	5.0	U	5.0
2-CHLOROETHYL VINYL ETHER	50.0	U	50.0	U	50.0	U	50.0	U	50.0
BROMOFORM	20.0	U	20.0	U	20.0	U	20.0	U	20.0
1,1,2,2-TETRACHLOROETHANE	3.0	U	3.0	U	3.0	U	3.0	U	3.0
TETRACHLOROETHENE	3.0	U	3.0	U	3.0	U	3.0	U	3.0
CHLOROBENZENE	20.0	U	20.0	U	20.0	U	20.0	U	20.0
1,4-DICHLOROBENZENE	15.0	U	15.0	U	15.0	U	15.0	U	15.0
1,2-DICHLOROBENZENE	15.0	U	15.0	U	15.0	U	15.0	U	15.0
1,3-DICHLOROBENZENE	15.0	U	15.0	U	15.0	U	15.0	U	15.0

## SURROGATE % RECOVERY

CHLOROBROMOMETHANE(66/136)	82	79	91	83
1-CHLORO-2-BROMOPROPANE(62/135)	81	76	69	60
1,4-DICHLOROBUTANE(61/131)	76	77	87	82

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# HUNTINGDON ANALYTICAL SERVICES

Sample Delivery Group No.: 19

METHOD 8010  
PURGEABLE HALOCARBONS

FIELD SAMPLE ID:	MW28-SB-02
LABORATORY ID:	93083906
DATE SAMPLED:	6-3-93
DATE EXTRACTED:	6-9-93
% SOLIDS:	80.5
DILUTION FACTORS:	5X

PARAMETER	RESULT ug/kg	MDL ug/kg
CHLOROMETHANE	20.0 U	20.0
BROMOMETHANE	50.0 U	50.0
VINYL CHLORIDE	20.0 U	20.0
CHLOROETHANE	20.0 U	20.0
METHYLENE CHLORIDE	65.7	10.0
TRICHLOROFLUOROMETHANE	5.0 U	5.0
1,1-DICHLOROETHENE	5.0 U	5.0
1,1-DICHLOROETHANE	5.0 U	5.0
cis-1,2-DICHLOROETHENE	5.0 U	5.0
trans-1,2-DICHLOROETHENE	5.0 U	5.0
CHLOROFORM	5.0 U	5.0
1,2-DICHLOROETHANE	5.0 U	5.0
1,1,1-TRICHLOROETHANE	5.8	5.0
CARBON TETRACHLORIDE	5.0 U	5.0
BROMODICHLOROMETHANE	10.0 U	10.0
1,2-DICHLOROPROPANE	10.0 U	10.0
CIS-1,3-DICHLOROPROPENE	20.0 U	20.0
TRICHLOROETHENE	5.0 U	5.0
TRANS-1,3-DICHLOROPROPENE	20.0 U	20.0
DIBROMOCHLOROMETHANE	10.0 U	10.0
1,1,2-TRICHLOROETHANE	5.0 U	5.0
2-CHLOROETHYL VINYL ETHER	50.0 U	50.0
BROMOFORM	20.0 U	20.0
1,1,2,2-TETRACHLOROETHANE	3.0 U	3.0
TETRACHLOROETHENE	3.0 U	3.0
CHLOROBENZENE	20.0 U	20.0
1,4-DICHLOROBENZENE	15.0 U	15.0
1,2-DICHLOROBENZENE	15.0 U	15.0
1,3-DICHLOROBENZENE	15.0 U	15.0
SURROGATE % RECOVERY		
CHLOROBROMOMETHANE(47/155)	69	
1-CHLORO-2-BROMOPROPANE(34/160)	86	
1,4-DICHLOROBUTANE(24/138)	80	

Note: Methylene chloride results should be viewed with caution due to laboratory background

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# HUNTINGDON ANALYTICAL SERVICES

Sample Delivery Group No.: 07

METHOD 8010

PURGEABLE HALOCARBONS

FIELD SAMPLE ID:	MW25-SB-02	MW25-SB-05	MW26-SB-03	MW26-SB-02
LABORATORY ID:	93071311	93071312	93071313	93071314
DATE SAMPLED:	5-11-93	5-11-93	5-11-93	5-11-93
DATE EXTRACTED:	5-18-93	5-18-93	5-18-93	5-18-93
% SOLIDS:	87.6	92.3	88.4	86.8
DILUTION FACTORS:	5X	5X	5X	5X

PARAMETER	RESULT ug/kg		RESULT ug/kg		RESULT ug/kg		RESULT ug/kg		MDL ug/kg
CHLOROMETHANE	20.0	U	20.0	U	20.0	U	20.0	U	20.0
BROMOMETHANE	50.0	U	50.0	U	50.0	U	50.0	U	50.0
VINYL CHLORIDE	20.0	U	20.0	U	20.0	U	20.0	U	20.0
CHLOROETHANE	20.0	U	20.0	U	20.0	U	20.0	U	20.0
METHYLENE CHLORIDE	27.6		32.9		24.1		24.3		10.0
TRICHLOROFLUOROMETHANE	5.0	U	5.0	U	5.0	U	5.0	U	5.0
1,1-DICHLOROETHENE	5.0	U	5.0	U	5.0	U	5.0	U	5.0
1,1-DICHLOROETHANE	5.0	U	5.0	U	5.0	U	5.0	U	5.0
cis-1,2-DICHLOROETHENE	23.1		70.0		15.8		52.9		5.0
trans-1,2-DICHLOROETHENE	5.0	U	5.0	U	5.0	U	5.0	U	5.0
CHLOROFORM	5.0	U	5.0	U	5.0	U	5.0	U	5.0
1,2-DICHLOROETHANE	5.0	U	5.0	U	5.0	U	5.0	U	5.0
1,1,1-TRICHLOROETHANE	5.0	U	5.0	U	5.0	U	5.0	U	5.0
CARBON TETRACHLORIDE	5.0	U	5.0	U	5.0	U	5.0	U	5.0
BROMODICHLOROMETHANE	10.0	U	10.0	U	10.0	U	10.0	U	10.0
1,2-DICHLOROPROPANE	10.0	U	10.0	U	10.0	U	10.0	U	10.0
CIS-1,3-DICHLOROPROPENE	20.0	U	20.0	U	20.0	U	20.0	U	20.0
TRICHLOROETHENE	5.0	U	12.7		5.0	U	5.0	U	5.0
TRANS-1,3-DICHLOROPROPENE	20.0	U	20.0	U	20.0	U	20.0	U	20.0
DIBROMOCHLOROMETHANE	10.0	U	10.0	U	10.0	U	10.0	U	10.0
1,1,2-TRICHLOROETHANE	5.0	U	5.0	U	5.0	U	5.0	U	5.0
2-CHLOROETHYL VINYL ETHER	50.0	U	50.0	U	50.0	U	50.0	U	50.0
BROMOFORM	20.0	U	20.0	U	20.0	U	20.0	U	20.0
1,1,2,2-TETRACHLOROETHANE	3.0	U	3.0	U	3.0	U	3.0	U	3.0
TETRACHLOROETHENE	3.0	U	3.0	U	3.0	U	3.0	U	3.0
CHLOROBENZENE	20.0	U	20.0	U	20.0	U	20.0	U	20.0
1,4-DICHLOROBENZENE	15.0	U	15.0	U	15.0	U	15.0	U	15.0
1,2-DICHLOROBENZENE	15.0	U	15.0	U	15.0	U	15.0	U	15.0
1,3-DICHLOROBENZENE	15.0	U	15.0	U	15.0	U	15.0	U	15.0

## SURROGATE % RECOVERY

CHLOROBROMOMETHANE(47/155)	95	139	85	88
1-CHLORO-2-BROMOPROPANE(34/160)	96	147	85	87
1,4-DICHLOROBUTANE(24/138)	82	127	77	76

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# HUNTINGDON ANALYTICAL SERVICES

Sample Delivery Group No.: 07

METHOD 8010

PURGEABLE HALOCARBONS

FIELD SAMPLE ID:	MW26-SB-06	—
LABORATORY ID:	93071315	BLANK
DATE SAMPLED:	5-11-93	—
DATE EXTRACTED:	5-18-93	5-17-93
% SOLIDS:	88.7	—
DILUTION FACTORS:	5X	1X

PARAMETER	RESULT		RESULT		MDL
	ug/kg		ug/kg		ug/kg
CHLOROMETHANE	20.0	U	20.0	U	20.0
BROMOMETHANE	50.0	U	50.0	U	50.0
VINYL CHLORIDE	20.0	U	20.0	U	20.0
CHLOROETHANE	20.0	U	20.0	U	20.0
METHYLENE CHLORIDE	27.8		10.0	U	10.0
TRICHLOROFLUOROMETHANE	5.0	U	5.0	U	5.0
1,1-DICHLOROETHENE	5.0	U	5.0	U	5.0
1,1-DICHLOROETHANE	5.0	U	5.0	U	5.0
cis-1,2-DICHLOROETHENE	21.0		5.0	U	5.0
trans-1,2-DICHLOROETHENE	5.0	U	5.0	U	5.0
CHLOROFORM	5.0	U	5.0	U	5.0
1,2-DICHLOROETHANE	5.0	U	5.0	U	5.0
1,1,1-TRICHLOROETHANE	5.0	U	5.0	U	5.0
CARBON TETRACHLORIDE	5.0	U	5.0	U	5.0
BROMODICHLOROMETHANE	10.0	U	10.0	U	10.0
1,2-DICHLOROPROPANE	10.0	U	10.0	U	10.0
CIS-1,3-DICHLOROPROPENE	20.0	U	20.0	U	20.0
TRICHLOROETHENE	50.3		5.0	U	5.0
TRANS-1,3-DICHLOROPROPENE	20.0	U	20.0	U	20.0
DIBROMOCHLOROMETHANE	10.0	U	10.0	U	10.0
1,1,2-TRICHLOROETHANE	5.0	U	5.0	U	5.0
2-CHLOROETHYL VINYL ETHER	50.0	U	50.0	U	50.0
BROMOFORM	20.0	U	20.0	U	20.0
1,1,2,2-TETRACHLOROETHANE	3.0	U	3.0	U	3.0
TETRACHLOROETHENE	3.0	U	3.0	U	3.0
CHLOROBENZENE	20.0	U	20.0	U	20.0
1,4-DICHLOROBENZENE	15.0	U	15.0	U	15.0
1,2-DICHLOROBENZENE	15.0	U	15.0	U	15.0
1,3-DICHLOROBENZENE	15.0	U	15.0	U	15.0
SURROGATE % RECOVERY					
CHLOROBROMOMETHANE(47/155)	86		77		
1-CHLORO-2-BROMOPROPANE(34/160)	89		102		
1,4-DICHLOROBUTANE(24/138)	79		101		

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# HUNTINGDON ANALYTICAL SERVICES

Sample Delivery Group No.: 08

METHOD 8010

PURGEABLE HALOCARBONS

FIELD SAMPLE ID:	MW27-SB-02	MW27-SB-05	—
LABORATORY ID:	93072301	9372302	BLANK
DATE SAMPLED:	5-12-93	5-12-93	—
DATE EXTRACTED:	5-20-93	5-20-93	5-19-93
% SOLIDS:	85.7	89.8	—
DILUTION FACTORS:	5X	5X	1X

PARAMETER	RESULT ug/kg		RESULT ug/kg		RESULT ug/kg		MDL ug/kg
CHLOROMETHANE	20.0	U	20.0	U	20.0	U	20.0
BROMOMETHANE	50.0	U	50.0	U	50.0	U	50.0
VINYL CHLORIDE	20.0	U	20.0	U	20.0	U	20.0
CHLOROETHANE	20.0	U	20.0	U	20.0	U	20.0
METHYLENE CHLORIDE	100		120		11.9		10.0
TRICHLOROFLUOROMETHANE	5.0	U	5.0	U	5.0	U	5.0
1,1-DICHLOROETHENE	5.0	U	5.0	U	5.0	U	5.0
1,1-DICHLOROETHANE	5.0	U	5.0	U	5.0	U	5.0
cis-1,2-DICHLOROETHENE	5.0	U	5.0	U	5.0	U	5.0
trans-1,2-DICHLOROETHENE	5.0	U	5.0	U	5.0	U	5.0
CHLOROFORM	5.0	U	5.0	U	5.0	U	5.0
1,2-DICHLOROETHANE	5.0	U	5.0	U	5.0	U	5.0
1,1,1-TRICHLOROETHANE	5.0	U	5.0	U	5.0	U	5.0
CARBON TETRACHLORIDE	5.0	U	5.0	U	5.0	U	5.0
BROMODICHLOROMETHANE	10.0	U	10.0	U	10.0	U	10.0
1,2-DICHLOROPROPANE	10.0	U	10.0	U	10.0	U	10.0
CIS-1,3-DICHLOROPROPENE	20.0	U	20.0	U	20.0	U	20.0
TRICHLOROETHENE	5.0	U	5.0	U	5.0	U	5.0
TRANS-1,3-DICHLOROPROPENE	20.0	U	20.0	U	20.0	U	20.0
DIBROMOCHLOROMETHANE	10.0	U	10.0	U	10.0	U	10.0
1,1,2-TRICHLOROETHANE	5.0	U	5.0	U	5.0	U	5.0
2-CHLOROETHYL VINYL ETHER	50.0	U	50.0	U	50.0	U	50.0
BROMOFORM	20.0	U	20.0	U	20.0	U	20.0
1,1,2,2-TETRACHLOROETHANE	3.0	U	3.0	U	3.0	U	3.0
TETRACHLOROETHENE	3.0	U	3.0	U	3.0	U	3.0
CHLOROBENZENE	20.0	U	20.0	U	20.0	U	20.0
1,4-DICHLOROBENZENE	15.0	U	15.0	U	15.0	U	15.0
1,2-DICHLOROBENZENE	15.0	U	15.0	U	15.0	U	15.0
1,3-DICHLOROBENZENE	15.0	U	15.0	U	15.0	U	15.0

## SURROGATE % RECOVERY

CHLOROBROMOMETHANE(47/155)	88	105	92
1-CHLORO-2-BROMOPROPANE(34/160)	89	123	96
1,4-DICHLOROBUTANE(24/138)	83	119	105

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## HUNTINGDON ANALYTICAL SERVICES

PAGE 1 OF 2

Sample Delivery Group No.: 07

METHOD 8270

SEMIVOLATILE ORGANICS

FIELD SAMPLE ID:	RB-12	RB-13	---
LABORATORY SAMPLE ID:	93072312	93072317	SBLKW1
DATE SAMPLED:	5-13-93	5-14-93	---
DATE EXTRACTED:	5-17-93	5-17-93	5-17-93
DILUTION FACTOR(S):	1	1	1

PARAMETER	RESULT ug/L		RESULT ug/L		RESULT ug/L		MDL ug/L
ACENAPHTHENE	10	U	10	U	10	U	10
ACENAPHTHYLENE	10	U	10	U	10	U	10
ANTHRACENE	10	U	10	U	10	U	10
BENZO(a)ANTHRACENE	10	U	10	U	10	U	10
BENZO(b)FLUORANTHENE	10	U	10	U	10	U	10
BENZO(k)FLUORANTHENE	10	U	10	U	10	U	10
BENZO(a)PYRENE	10	U	10	U	10	U	10
BENZO(g,h,i)PERYLENE	10	U	10	U	10	U	10
BENZOIC ACID	50	U	50	U	50	U	50
BENZYL ALCOHOL	10	U	10	U	10	U	10
BIS(2-CHLOROETHOXY)METHANE	10	U	10	U	10	U	10
BIS(2-CHLOROETHYL)ETHER	10	U	10	U	10	U	10
BIS(2-CHLOROISOPROPYL)ETHER	10	U	10	U	10	U	10
BIS(2-ETHYLHEXYL)PHTHALATE	7	J	10	U	8	J	10
BUTYLBENZYL PHTHALATE	10	U	10	U	10	U	10
4-BROMOPHENYL-PHENYL ETHER	10	U	10	U	10	U	10
4-CHLOROANILINE	10	U	10	U	10	U	10
2-CHLORONAPHTHALENE	10	U	10	U	10	U	10
4-CHLOROPHENYL-PHENYL ETHER	10	U	10	U	10	U	10
CHRYSENE	10	U	10	U	10	U	10
DIBENZ(a,b)ANTHRACENE	10	U	10	U	10	U	10
DIBENZOFURAN	10	U	10	U	10	U	10
DI-N-BUTYL PHTHALATE	10	U	10	U	10	U	10
1,2-DICHLOROBENZENE	10	U	10	U	10	U	10
1,3-DICHLOROBENZENE	10	U	10	U	10	U	10
1,4-DICHLOROBENZENE	10	U	10	U	10	U	10
3,3-DICHLOROBENZIDINE	20	U	20	U	20	U	20
DIETHYL PHTHALATE	10	U	10	U	10	U	10
DIMETHYL PHTHALATE	10	U	10	U	10	U	10
2,4-DINITROTOLUENE	10	U	10	U	10	U	10
2,6-DINITROTOLUENE	10	U	10	U	10	U	10
DI-N-OCTYL PHTHALATE	10	U	10	U	10	U	10
FLUORANTHENE	10	U	10	U	10	U	10
FLUORENE	10	U	10	U	10	U	10
HEXACHLOROBENZENE	10	U	10	U	10	U	10
HEXACHLOROBUTADIENE	10	U	10	U	10	U	10
HEXACHLOROCYCLOPENTADIENE	10	U	10	U	10	U	10
HEXACHLOROETHANE	10	U	10	U	10	U	10
INDENO(1,2,3-cd)PYRENE	10	U	10	U	10	U	10

000008



## HUNTINGDON ANALYTICAL SERVICES

PAGE 1 OF 2

Sample Delivery Group No.: 05

METHOD 8270

SEMIVOLATILE ORGANICS

FIELD SAMPLE ID:	MW24-SB-05	MW24-SB-06	----
LABORATORY SAMPLE ID:	93068706	93068707	SBLKS2
DATE SAMPLED:	5-07-93	5-07-93	----
DATE EXTRACTED:	5-17-93	5-17-93	5-17-93
% SOLIDS:	90.7	90.1	----
DILUTION FACTOR(S):	1	1	1

PARAMETER	RESULT ug/kg		RESULT ug/kg		RESULT ug/kg		MDL ug/kg
ACENAPHTHENE	330	U	330	U	330	U	330
ACENAPHTHYLENE	330	U	330	U	330	U	330
ANTHRACENE	330	U	330	U	330	U	330
BENZO(a)ANTHRACENE	330	U	330	U	330	U	330
BENZO(b)FLUORANTHENE	330	U	330	U	330	U	330
BENZO(k)FLUORANTHENE	330	U	330	U	330	U	330
BENZO(a)PYRENE	330	U	330	U	330	U	330
BENZO(g,h,i)PERYLENE	330	U	330	U	330	U	330
BENZOIC ACID	1,600	U	1,600	U	1,600	U	1,600
BENZYL ALCOHOL	330	U	330	U	330	U	330
BIS(2-CHLOROETHOXY)METHANE	330	U	330	U	330	U	330
BIS(2-CHLOROETHYL)ETHER	330	U	330	U	330	U	330
BIS(2-CHLOROISOPROPYL)ETHER	330	U	330	U	330	U	330
BIS(2-ETHYLHEXYL)PHTHALATE	330	U	330	U	330	U	330
BUTYLBENZYL PHTHALATE	330	U	330	U	330	U	330
4-BROMOPHENYL-PHENYL ETHER	330	U	330	U	330	U	330
4-CHLOROANILINE	330	U	330	U	330	U	330
2-CHLORONAPHTHALENE	330	U	330	U	330	U	330
4-CHLOROPHENYL-PHENYL ETHER	330	U	330	U	330	U	330
CHRYSENE	330	U	330	U	330	U	330
DIBENZ(a,h)ANTHRACENE	330	U	330	U	330	U	330
DIBENZOFURAN	330	U	330	U	330	U	330
DI-N-BUTYLPHTHALATE	330	U	330	U	330	U	330
1,2-DICHLOROBENZENE	330	U	330	U	330	U	330
1,3-DICHLOROBENZENE	330	U	330	U	330	U	330
1,4-DICHLOROBENZENE	330	U	330	U	330	U	330
3,3'-DICHLOROBENZIDINE	660	U	660	U	660	U	660
DIETHYL PHTHALATE	330	U	330	U	330	U	330
DIMETHYL PHTHALATE	330	U	330	U	330	U	330
2,4-DINITROTOLUENE	330	U	330	U	330	U	330
2,6-DINITROTOLUENE	330	U	330	U	330	U	330
DI-N-OCTYL PHTHALATE	330	U	330	U	330	U	330
FLUORANTHENE	330	U	330	U	330	U	330
FLUORENE	330	U	330	U	330	U	330
HEXACHLOROBENZENE	330	U	330	U	330	U	330
HEXACHLOROBUTADIENE	330	U	330	U	330	U	330
HEXACHLOROCYCLOPENTADIENE	330	U	330	U	330	U	330
HEXACHLOROETHANE	330	U	330	U	330	U	330
INDENO(1,2,3-cd)PYRENE	330	U	330	U	330	U	330

000011

## HUNTINGDON ANALYTICAL SERVICES

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Sample Delivery Group No.: 07

METHOD 8270

SEMI-VOLATILE ORGANICS

FIELD SAMPLE ID:	RB-09	----
LABORATORY SAMPLE ID:	93071309	SBLKW1
DATE SAMPLED:	5-10-93	----
DATE EXTRACTED:	5-17-93	
DILUTION FACTOR(S):	1	1

PARAMETER	RESULT ug/L		RESULT ug/L		MDL ug/L	
ACENAPHTHENE	10	U	10	U	10	U
ACENAPHTHYLENE	10	U	10	U	10	U
ANTHRACENE	10	U	10	U	10	U
BENZO(a)ANTHRACENE	10	U	10	U	10	U
BENZO(b)FLUORANTHENE	10	U	10	U	10	U
BENZO(k)FLUORANTHENE	10	U	10	U	10	U
BENZO(a)PYRENE	10	U	10	U	10	U
BENZO(g,h,i)PERYLENE	10	U	10	U	10	U
BENZOIC ACID	50	U	50	U	50	U
BENZYL ALCOHOL	10	U	10	U	10	U
BIS(2-CHLOROETHOXY)METHANE	10	U	10	U	10	U
BIS(2-CHLOROETHYL)ETHER	10	U	10	U	10	U
BIS(2-CHLOROISOPROPYL)ETHER	10	U	10	U	10	U
BIS(2-ETHYLHEXYL)PHTHALATE	10	U	8	J	10	U
BUTYLBENZYL PHTHALATE	10	U	10	U	10	U
4-BROMOPHENYL-PHENYL ETHER	10	U	10	U	10	U
4-CHLOROANILINE	10	U	10	U	10	U
2-CHLORONAPHTHALENE	10	U	10	U	10	U
4-CHLOROPHENYL-PHENYL ETHER	10	U	10	U	10	U
CHRYSENE	10	U	10	U	10	U
DIBENZ(a,h)ANTHRACENE	10	U	10	U	10	U
DIBENZOFURAN	10	U	10	U	10	U
DI-N-BUTYLPHTHALATE	10	U	10	U	10	U
1,2-DICHLOROBENZENE	10	U	10	U	10	U
1,3-DICHLOROBENZENE	10	U	10	U	10	U
1,4-DICHLOROBENZENE	10	U	10	U	10	U
3,3-DICHLOROBENZIDINE	20	U	20	U	20	U
DIETHYL PHTHALATE	10	U	10	U	10	U
DIMETHYL PHTHALATE	10	U	10	U	10	U
2,4-DINITROTOLUENE	10	U	10	U	10	U
2,6-DINITROTOLUENE	10	U	10	U	10	U
DI-N-OCTYL PHTHALATE	10	U	10	U	10	U
FLUORANTHENE	10	U	10	U	10	U
FLUORENE	10	U	10	U	10	U
HEXACHLOROBENZENE	10	U	10	U	10	U
HEXACHLOROBUTADIENE	10	U	10	U	10	U
HEXACHLOROCYCLOPENTADIENE	10	U	10	U	10	U
HEXACHLOROETHANE	10	U	10	U	10	U
INDENO(1,2,3-cd)PYRENE	10	U	10	U	10	U

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## HUNTINGDON ANALYTICAL SERVICES

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Sample Delivery Group No.: 07

METHOD 8270

SEMIVOLATILE ORGANICS

FIELD SAMPLE ID:	RB-09	---
LABORATORY SAMPLE ID:	93071309	SBLKW1
DATE SAMPLED:	5-10-93	---
DATE EXTRACTED:	5-17-93	
DILUTION FACTOR(S):	1	1

PARAMETER	RESULT ug/L		RESULT ug/L		MDL ug/L	
ISOPHORONE -----	10	U	10	U	10	U
2-METHYL NAPHTHALENE -----	10	U	10	U	10	U
NAPHTHALENE -----	10	U	10	U	10	U
2-NITROANILINE -----	50	U	50	U	50	U
3-NITROANILINE -----	50	U	50	U	50	U
4-NITROANILINE -----	50	U	50	U	50	U
NITROBENZENE -----	10	U	10	U	10	U
N-NITROSODIPHENYLAMINE -----	10	U	10	U	10	U
N-NITROS-DI-N-PROPYLAMINE -----	10	U	10	U	10	U
PHENANTHRENE -----	10	U	10	U	10	U
PYRENE -----	10	U	10	U	10	U
1,2,4-TRICHLOROBENZENE -----	10	U	10	U	10	U
CARBAZOLE -----	10	U	10	U	10	U

ACID COMPOUNDS	RESULT ug/L		RESULT ug/L		RESULT ug/L	
4-CHLORO-3-METHYLPHENOL -----	10	U	10	U	10	U
2-CHLOROPHENOL -----	10	U	10	U	10	U
2,4-DICHLOROPHENOL -----	10	U	10	U	10	U
2,4-DIMETHYL PHENOL -----	10	U	10	U	10	U
2,4-DINITROPHENOL -----	50	U	50	U	50	U
4,6-DINITRO-2-METHYLPHENOL -----	50	U	50	U	50	U
2-METHYL PHENOL -----	10	U	10	U	50	U
4-METHYL PHENOL -----	10	U	10	U	10	U
2-NITROPHENOL -----	10	U	10	U	10	U
4-NITROPHENOL -----	50	U	50	U	50	U
PENTACHLOROPHENOL -----	50	U	50	U	50	U
PHENOL -----	10	U	10	U	10	U
2,4,5-TRICHLOROPHENOL -----	50	U	50	U	50	U
2,4,6-TRICHLOROPHENOL -----	10	U	10	U	10	U

SURROGATE % RECOVERY	% REC	% REC	CONTROL LIMITS
NITROBENZENE (d5)	73	71	16 - 146
2-FLUOROBIPHENYL	76	75	21 - 113
TERPHENYL (d14)	87	90	12 - 146
PHENOL (d5)	50	30	11 - 104
2-FLUOROPHENOL	57	58	17 - 117
2,4,6-TRIBROMOPHENOL	64	63	22 - 144
2-CHLOROPHENOL (d4)	75	72	20 - 130
1,2-DICHLOROBENZENE (d4)	69	66	20 - 130

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# GROUNDWATER SAMPLING

Rounds 1 and 2

# HUNTINGDON ANALYTICAL SERVICES

Sample Delivery Group No.: 20

## EPA METHOD 8240 VOLATILE ORGANICS

FIELD SAMPLE ID:	MW20-GW-01	RB-27	MW21-GW-01	MW26-GW-01
LABORATORY SAMPLE ID:	93089601	93089602	93089603	93089604
DATE SAMPLED:	6-14-93	6-14-93	6-15-93	6-15-93
DATE ANALYZED:	6-17-93	6-17-93	6-17-93	6-17-93
DILUTION FACTOR(S):	1	1	1	1

PARAMETER	RESULT ug/L		RESULT ug/L		RESULT ug/L		RESULT ug/L		DL ug/L	
CHLOROMETHANE	10	U	10	U	10	U	10	U	10	U
BROMOMETHANE	10	U	10	U	10	U	10	U	10	U
VINYL CHLORIDE	120		10	U	10	U	19		10	U
CHLOROETHANE	10	U	10	U	10	U	10	U	10	U
METHYLENE CHLORIDE	10	U	10	U	10	U	10	U	10	U
ACETONE	10	U	10	U	10	U	10	U	10	U
CARBON DISULFIDE	10	U	10	U	10	U	10	U	10	U
1,1-DICHLOROETHENE	10	U	10	U	10	U	4	J	10	U
1,1-DICHLOROETHANE	10	U	10	U	10	U	10	U	10	U
1,2-DICHLOROETHENE (cis)	27		10	U	10	U	180		10	U
1,2-DICHLOROETHENE (trans)	10	U	10	U	10	U	10	U	10	U
1,2-DICHLOROETHENE (TOTAL)	27		10	U	10	U	180		10	U
CHLOROFORM	10	U	10	U	10	U	10	U	10	U
1,2-DICHLOROETHANE	10	U	10	U	10	U	10	U	10	U
2-BUTANONE	10	U	10	U	10	U	10	U	10	U
1,1,1-TRICHLOROETHANE	10	U	10	U	10	U	3	J	10	U
CARBON TETRACHLORIDE	10	U	10	U	10	U	10	U	10	U
VINYL ACETATE	10	U	10	U	10	U	10	U	10	U
BROMODICHLOROMETHANE	10	U	10	U	10	U	10	U	10	U
1,2-DICHLOROPROPANE	10	U	10	U	10	U	10	U	10	U
cis-1,3-DICHLOROPROPENE	10	U	10	U	10	U	10	U	10	U
TRICHLOROETHENE	10	U	10	U	10	U	310		10	U
DIBROMOCHLOROMETHANE	10	U	10	U	10	U	10	U	10	U
1,1,2-TRICHLOROETHANE	10	U	10	U	10	U	10	U	10	U
BENZENE	10	U	10	U	10	U	10	U	10	U
trans-1,3-DICHLOROPROPENE	10	U	10	U	10	U	10	U	10	U
2-CHLOROETHYL VINYL ETHER	10	U	10	U	10	U	10	U	10	U
BROMOFORM	10	U	10	U	10	U	10	U	10	U
4-METHYL-2-PENTANONE	10	U	10	U	10	U	10	U	10	U
2-HEXANONE	10	U	10	U	10	U	10	U	10	U
TETRACHLOROETHENE	10	U	10	U	10	U	10	U	10	U
1,1,2,2-TETRACHLOROETHANE	10	U	10	U	10	U	10	U	10	U
TOLUENE	10	U	10	U	10	U	10	U	10	U
CHLOROBENZENE	10	U	10	U	10	U	10	U	10	U
ETHYL BENZENE	10	U	10	U	10	U	10	U	10	U
STYRENE	10	U	10	U	10	U	10	U	10	U
XYLENE (TOTAL)	10	U	10	U	10	U	10	U	10	U

SURROGATE % RECOVERY	% REC	% REC	% REC	% REC	CONTROL LIMITS
1,2-DICHLOROETHANE d4	98	113	96	99	87 — 114
TOLUENE D8	98	98	96	99	82 — 113
BROMOFLUOROBENZENE	96	95	95	96	83 — 111

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## HUNTINGDON ANALYTICAL SERVICES

Sample Delivery Group No.: 20

EPA METHOD 8240  
VOLATILE ORGANICS

FIELD SAMPLE ID:	MW01-GW-01	RB-28	TB-19	---
LABORATORY SAMPLE ID:	93089605	93089606	93089607	METHOD BLANK
DATE SAMPLED:	6-15-93	6-15-93	6-15-93	---
DATE ANALYZED:	6-17-93	6-17-93	6-17-93	6-17-93
DILUTION FACTOR(S):	1	1	1	1

PARAMETER	RESULT ug/L		RESULT ug/L		RESULT ug/L		RESULT ug/L		DL ug/L
CHLOROMETHANE	10	U	10	U	10	U	10	U	10
BROMOMETHANE	10	U	10	U	10	U	10	U	10
VINYL CHLORIDE	10	U	10	U	10	U	10	U	10
CHLOROETHANE	10	U	10	U	10	U	10	U	10
METHYLENE CHLORIDE	10	U	10	U	10	U	10	U	10
ACETONE	10	U	10	U	10	U	10	U	10
CARBON DISULFIDE	10	U	10	U	10	U	10	U	10
1,1-DICHLOROETHENE	4	J	10	U	10	U	10	U	10
1,1-DICHLOROETHANE	7	J	10	U	10	U	10	U	10
1,2-DICHLOROETHENE (cis)	10	U	10	U	10	U	10	U	10
1,2-DICHLOROETHENE (trans)	10	U	10	U	10	U	10	U	10
1,2-DICHLOROETHENE (TOTAL)	10	U	10	U	10	U	10	U	10
CHLOROFORM	10	U	10	U	10	U	10	U	10
1,2-DICHLOROETHANE	10	U	10	U	10	U	10	U	10
2-BUTANONE	10	U	10	U	10	U	10	U	10
1,1,1-TRICHLOROETHANE	57		10	U	10	U	10	U	10
CARBON TETRACHLORIDE	10	U	10	U	10	U	10	U	10
VINYL ACETATE	10	U	10	U	10	U	10	U	10
BROMODICHLOROMETHANE	10	U	10	U	10	U	10	U	10
1,2-DICHLOROPROPANE	10	U	10	U	10	U	10	U	10
cis-1,3-DICHLOROPROPENE	10	U	10	U	10	U	10	U	10
TRICHLOROETHENE	10	U	10	U	10	U	10	U	10
DIBROMOCHLOROMETHANE	10	U	10	U	10	U	10	U	10
1,1,2-TRICHLOROETHANE	10	U	10	U	10	U	10	U	10
BENZENE	10	U	10	U	10	U	10	U	10
trans-1,3-DICHLOROPROPENE	10	U	10	U	10	U	10	U	10
2-CHLOROETHYL VINYL ETHER	10	U	10	U	10	U	10	U	10
BROMOFORM	10	U	10	U	10	U	10	U	10
4-METHYL-2-PENTANONE	10	U	10	U	10	U	10	U	10
2-HEXANONE	10	U	10	U	10	U	10	U	10
TETRACHLOROETHENE	10	U	10	U	10	U	10	U	10
1,1,2,2-TETRACHLOROETHANE	10	U	10	U	10	U	10	U	10
TOLUENE	10	U	10	U	10	U	10	U	10
CHLOROBENZENE	10	U	10	U	10	U	10	U	10
ETHYL BENZENE	10	U	10	U	10	U	10	U	10
STYRENE	10	U	10	U	10	U	10	U	10
XYLENE (TOTAL)	10	U	10	U	10	U	10	U	10

SURROGATE % RECOVERY	% REC	% REC	% REC	% REC	CONTROL LIMITS
1,2-DICHLOROETHANE d4	99	99	101	95	87 -- 114
TOLUENE D8	98	98	96	99	82 -- 113
BROMOFLUOROBENZENE	95	95	96	96	83 -- 111

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# HUNTINGDON ANALYTICAL SERVICES

Sample Delivery Group No.: 20

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EPA METHOD 8240  
VOLATILE ORGANICS

FIELD SAMPLE ID:	MW23-GW-01	MW23-GW-01D	MW22-GW-01	MW25-GW-01
LABORATORY SAMPLE ID:	93090201	93090202	93090203	93090204
DATE SAMPLED:	6-16-93	6-16-93	6-16-93	6-16-93
DATE ANALYZED:	6-17-93	6-17-93	6-17-93	6-17-93
DILUTION FACTOR(S):	1	1	1	1

PARAMETER	RESULT ug/L		RESULT ug/L		RESULT ug/L		RESULT ug/L		DL ug/L	
CHLOROMETHANE	10	U	10	U	10	U	10	U	10	U
BROMOMETHANE	10	U	10	U	10	U	10	U	10	U
VINYL CHLORIDE	10	U	10	U	10	U	590	U	10	U
CHLOROETHANE	10	U	10	U	10	U	10	U	10	U
METHYLENE CHLORIDE	10	U	10	U	10	U	10	U	10	U
ACETONE	10	U	10	U	10	U	10	U	10	U
CARBON DISULFIDE	10	U	10	U	10	U	10	U	10	U
1,1-DICHLOROETHENE	10	U	10	U	10	U	17	U	10	U
1,1-DICHLOROETHANE	10	U	10	U	10	U	44	U	10	U
1,2-DICHLOROETHENE (cis)	31	U	35	U	17	U	2,000	U	10	U
1,2-DICHLOROETHENE (trans)	10	U	10	U	10	U	6	J	10	U
1,2-DICHLOROETHENE (TOTAL)	31	U	35	U	17	U	2,000	U	10	U
CHLOROFORM	4	J	5	J	10	U	10	U	10	U
1,2-DICHLOROETHANE	57	U	64	U	10	U	10	U	10	U
2-BUTANONE	10	U	10	U	10	U	10	U	10	U
1,1,1-TRICHLOROETHANE	10	U	10	U	10	U	34	U	10	U
CARBON TETRACHLORIDE	10	U	10	U	10	U	10	U	10	U
VINYL ACETATE	10	U	10	U	10	U	10	U	10	U
BROMODICHLOROMETHANE	10	U	10	U	10	U	10	U	10	U
1,2-DICHLOROPROPANE	10	U	10	U	10	U	10	U	10	U
trans-1,3-DICHLOROPROPENE	10	U	10	U	10	U	10	U	10	U
1,1-DICHLOROETHENE	16,000	U	17,000	U	43	U	120	U	10	U
DIBROMOCHLOROMETHANE	10	U	10	U	10	U	10	U	10	U
1,1,2-TRICHLOROETHANE	10	U	10	U	10	U	10	U	10	U
BENZENE	10	U	10	U	10	U	3	J	10	U
trans-1,3-DICHLOROPROPENE	10	U	10	U	10	U	10	U	10	U
2-CHLOROETHYL VINYL ETHER	10	U	10	U	10	U	10	U	10	U
BROMOFORM	10	U	10	U	10	U	10	U	10	U
METHYL-2-PENTANONE	10	U	10	U	10	U	10	U	10	U
HEXANONE	10	U	10	U	10	U	10	U	10	U
TETRACHLOROETHENE	10	U	10	U	10	U	4	J	10	U
1,1,2,2-TETRACHLOROETHANE	10	U	10	U	10	U	10	U	10	U
TOLUENE	10	U	10	U	10	U	6	J	10	U
CHLOROBENZENE	10	U	10	U	10	U	10	U	10	U
ETHYL BENZENE	10	U	10	U	10	U	10	U	10	U
STYRENE	10	U	10	U	10	U	10	U	10	U
XYLENE (TOTAL)	10	U	10	U	10	U	10	U	10	U

SURROGATE % RECOVERY	% REC	% REC	% REC	% REC	CONTROL LIMITS
1,2-DICHLOROETHANE d4	111	97	102	101	87 — 114
TOLUENE D8	100	99	87	84	82 — 113
BROMOFLUOROBENZENE	94	94	95	94	83 — 111

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# CUNTINGDON ANALYTICAL SERVICES

Sample Delivery Group No.: 20

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METHOD 8240  
VOLATILE ORGANICS

FIELD SAMPLE ID:	MW27-GW-01	MW29-GW-01	MW28-GW-01	MW24-GW-01
LABORATORY SAMPLE ID:	93090205	93090206	93090207	93090208
DATE SAMPLED:	6-16-93	6-16-93	6-16-93	6-16-93
DATE ANALYZED:	6-17-93	6-17-93	6-17-93	6-17-93
DILUTION FACTOR(S):	1	1	1	1

PARAMETER	RESULT ug/L		RESULT ug/L		RESULT ug/L		RESULT ug/L		DL ug/L
CHLOROMETHANE	10	U	10	U	10	U	10	U	10
BROMOMETHANE	10	U	10	U	10	U	10	U	10
VINYL CHLORIDE	10	U	51		10	U	8,800		10
CHLOROETHANE	10	U	4	J	10	U	10	U	10
ETHYLENE CHLORIDE	10	U	10	U	10	U	10	U	10
ACETONE	10	U	38		10	U	10	U	10
CARBON DISULFIDE	10	U	10	U	10	U	10	U	10
1,1-DICHLOROETHENE	10	U	10	U	10	U	100		10
1,2-DICHLOROETHANE	10	U	10	U	10	U	10	U	10
1,1-DICHLOROETHENE (cis)	10	U	84		10	U	38,000		10
1,2-DICHLOROETHENE (trans)	10	U	10	U	10	U	150		10
1,2-DICHLOROETHENE (TOTAL)	10	U	84		10	U	39,000		10
CHLOROFORM	10	U	10	U	10	U	6	J	10
1,1-DICHLOROETHANE	10	U	10	U	10	U	1,200	J	10
2-BUTANONE	10	U	10	U	10	U	10	U	10
1,1,1-TRICHLOROETHANE	10	U	10	U	3	J	10	U	10
CARBON TETRACHLORIDE	10	U	10	U	10	U	10	U	10
VINYL ACETATE	10	U	10	U	10	U	10	U	10
BROMODICHLOROMETHANE	10	U	10	U	10	U	10	U	10
1,2-DICHLOROPROPANE	10	U	10	U	10	U	10	U	10
1,3-DICHLOROPROPENE	10	U	10	U	10	U	10	U	10
1,1-DICHLOROETHENE	10	U	10	U	11		11,000		10
DIBROMOCHLOROMETHANE	10	U	10	U	10	U	10	U	10
1,1,2-TRICHLOROETHANE	10	U	10	U	10	U	10	U	10
BENZENE	10	U	6	J	10	U	26		10
trans-1,3-DICHLOROPROPENE	10	U	10	U	10	U	10	U	10
2-CHLOROETHYL VINYL ETHER	10	U	10	U	10	U	10	U	10
BROMOFORM	10	U	10	U	10	U	10	U	10
1-ETHYL-2-PENTANONE	10	U	24		10	U	10	U	10
2-HEXANONE	10	U	10	U	10	U	10	U	10
TETRACHLOROETHENE	10	U	10	U	10	U	10	U	10
1,1,2,2-TETRACHLOROETHANE	10	U	10	U	10	U	10	U	10
TOLUENE	10	U	250		10	U	140		10
CHLOROBENZENE	10	U	10	U	10	U	10	U	10
ETHYL BENZENE	10	U	10	U	10	U	59		10
STYRENE	10	U	10	U	10	U	10	U	10
XYLENE (TOTAL)	10	U	4	J	10	U	110		10

SURROGATE % RECOVERY	% REC	% REC	% REC	% REC	CONTROL LIMITS
1,1-DICHLOROETHANE d4	101	103	102	102	87 — 114
TOLUENE D8	97	99	96	99	82 — 113
BROMOFLUOROBENZENE	95	100	96	95	83 — 111

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# CUNTINGDON ANALYTICAL SERVICES

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EPA METHOD 8240  
VOLATILE ORGANICS

FIELD SAMPLE ID:	MW08-GW-01	RB-29	TB-20	—
LABORATORY SAMPLE ID:	93090209	93090210	93090211	METHOD BLANK
DATE SAMPLED:	6-16-93	6-16-93	6-16-93	—
DATE ANALYZED:	6-18-93	6-18-93	6-18-93	6-17-93
DILUTION FACTOR(S):	1	1	1	1

PARAMETER	RESULT ug/L	RESULT ug/L	RESULT ug/L	RESULT ug/L	DL ug/L
CHLOROMETHANE	10 U	10 U	10 U	10 U	10 U
BROMOMETHANE	10 U	10 U	10 U	10 U	10 U
VINYL CHLORIDE	10 U	10 U	10 U	10 U	10 U
CHLOROETHANE	10 U	10 U	10 U	10 U	10 U
ETHYLENE CHLORIDE	10 U	10 U	10 U	10 U	10 U
ACETONE	10 U	10 U	10 U	10 U	10 U
CARBON DISULFIDE	10 U	10 U	10 U	10 U	10 U
1,1-DICHLOROETHENE	10 U	10 U	10 U	10 U	10 U
1,1-DICHLOROETHANE	10 U	10 U	10 U	10 U	10 U
1,2-DICHLOROETHENE (cis)	10 U	3 J	10 U	10 U	10 U
1,2-DICHLOROETHENE (trans)	10 U	10 U	10 U	10 U	10 U
1,2-DICHLOROETHENE (TOTAL)	10 U	3 J	10 U	10 U	10 U
CHLOROFORM	10 U	10 U	10 U	10 U	10 U
1,1,2-DICHLOROETHANE	10 U	10 U	10 U	10 U	10 U
2-BUTANONE	10 U	10 U	10 U	10 U	10 U
1,1,1-TRICHLOROETHANE	22	10 U	10 U	10 U	10 U
CARBON TETRACHLORIDE	10 U	10 U	10 U	10 U	10 U
VINYL ACETATE	10 U	10 U	10 U	10 U	10 U
BROMODICHLOROMETHANE	10 U	10 U	10 U	10 U	10 U
1,2-DICHLOROPROPANE	10 U	10 U	10 U	10 U	10 U
1,3-DICHLOROPROPENE	10 U	10 U	10 U	10 U	10 U
TRICHLOROETHENE	10 U	3 J	2 J	10 U	10 U
DIBROMOCHLOROMETHANE	10 U	10 U	10 U	10 U	10 U
1,1,2-TRICHLOROETHANE	10 U	10 U	10 U	10 U	10 U
BENZENE	10 U	10 U	10 U	10 U	10 U
trans-1,3-DICHLOROPROPENE	10 U	10 U	10 U	10 U	10 U
2-CHLOROETHYL VINYL ETHER	10 U	10 U	10 U	10 U	10 U
BROMOFORM	10 U	10 U	10 U	10 U	10 U
METHYL-2-PENTANONE	10 U	10 U	10 U	10 U	10 U
HEXANONE	10 U	10 U	10 U	10 U	10 U
TETRACHLOROETHENE	4 J	10 U	10 U	10 U	10 U
1,1,2,2-TETRACHLOROETHANE	10 U	10 U	10 U	10 U	10 U
TOLUENE	10 U	10 U	10 U	10 U	10 U
CHLOROBENZENE	10 U	10 U	10 U	10 U	10 U
ETHYL BENZENE	10 U	10 U	10 U	10 U	10 U
STYRENE	10 U	10 U	10 U	10 U	10 U
STYRENE (TOTAL)	10 U	10 U	10 U	10 U	10 U

SURROGATE % RECOVERY	% REC	% REC	% REC	% REC	CONTROL LIMITS
1,1-DICHLOROETHANE d4	96	97	100	95	87 — 114
TOLUENE D8	99	84	100	99	82 — 113
BROMOFLUOROBENZENE	96	95	94	96	83 — 111

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# HUNTINGDON ANALYTICAL SERVICES

Sample Delivery Group No.: 20

Page 4 of 4

EPA METHOD 8240  
VOLATILE ORGANICS

FIELD SAMPLE ID: ---  
LABORATORY SAMPLE ID: METHOD BLANK  
DATE SAMPLED: ---  
DATE ANALYZED: 6-18-93  
DILUTION FACTOR(S): 1

PARAMETER	RESULT ug/L	DL ug/L
CHLOROMETHANE	10 U	10 U
BROMOMETHANE	10 U	10 U
VINYL CHLORIDE	10 U	10 U
CHLOROETHANE	10 U	10 U
ETHYLENE CHLORIDE	10 U	10 U
ACETONE	10 U	10 U
CARBON DISULFIDE	10 U	10 U
1,1-DICHLOROETHENE	10 U	10 U
1,1-DICHLOROETHANE	10 U	10 U
1,2-DICHLOROETHENE (cis)	10 U	10 U
1,2-DICHLOROETHENE (trans)	10 U	10 U
1,2-DICHLOROETHENE (TOTAL)	10 U	10 U
CHLOROFORM	10 U	10 U
1,2-DICHLOROETHANE	10 U	10 U
2-BUTANONE	10 U	10 U
1,1,1-TRICHLOROETHANE	10 U	10 U
CARBON TETRACHLORIDE	10 U	10 U
VINYL ACETATE	10 U	10 U
BROMODICHLOROMETHANE	10 U	10 U
1,1-DICHLOROPROPANE	10 U	10 U
1,1,3-DICHLOROPROPENE	10 U	10 U
TRICHLOROETHENE	10 U	10 U
DIBROMOCHLOROMETHANE	10 U	10 U
1,2-TRICHLOROETHANE	10 U	10 U
BENZENE	10 U	10 U
trans-1,3-DICHLOROPROPENE	10 U	10 U
2-CHLOROETHYL VINYL ETHER	10 U	10 U
PERMETHYL-2-PENTANONE	10 U	10 U
2-HEXANONE	10 U	10 U
TETRACHLOROETHENE	10 U	10 U
1,2,2,2-TETRACHLOROETHANE	10 U	10 U
TOLUENE	10 U	10 U
CHLOROBENZENE	10 U	10 U
ETHYL BENZENE	10 U	10 U
STYRENE	10 U	10 U
XYLENE (TOTAL)	10 U	10 U

SPURIOUS % RECOVERY	% REC	CONTROL LIMITS
1,2-DICHLOROETHANE d4	94	87 -- 114
TOLUENE D8	100	82 -- 113
BROMOFLUOROBENZENE	95	83 -- 111

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# HUNTINGDON ANALYTICAL SERVICES

Sample Delivery Group No.: 12

## ANALYSIS PERFORMED ON TOTALS

FIELD SAMPLE ID:	MW27-GW-01	MW29-GW-01	MW28-GW-01	MW24-GW-01	MW08GW-01
LABORATORY ID:	0902-05	0902-06	0902-07	0902-08	0902-09
DATE SAMPLED:	6/16/93	6/16/93	6/16/93	6/16/93	6/16/93
DATE ANALYZED:	6/29/93	6/29/93	6/29/93	6/29/93	6/29/93
% SOLID:	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID
DILUTION FACTOR:	1	1	1	1	1

PARAMETER	RESULT		RESULT		RESULT		RESULT		RESULT	
	ug/L		ug/L		ug/L		ug/L		ug/L	
CADMIUM METHOD 6010	5.00	U	5.00	U	5.00	U	5.00	U	5.00	U
CHROMIUM METHOD 6010	10.0	U	10.0	U	10.0	U	10.0	U	13.1	
ZINC METHOD 6010	20.0	U	20.0	U	20.0	U	20.0	U	34.4	

DATE ANALYZED:	6/25/93	6/25/93	6/25/93	6/25/93	6/25/93
DILUTION FACTOR:	1	1	1	1	10

	RESULT		RESULT		RESULT		RESULT		RESULT	
	ug/L		ug/L		ug/L		ug/L		ug/L	
LEAD METHOD 7421	5.5		3.0	U	3.0	U	3.0	U	30.0	U

DATE ANALYZED:	6/22/93	6/22/93	6/22/93	6/22/93	6/22/93
DILUTION FACTOR:	1	1	1	1	1

FLUORIDE METHOD 340.2	450	480	220	740	1120
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# HUNTINGDON ANALYTICAL SERVICES

Sample Delivery Group No.: 12

## ANALYSIS PERFORMED ON TOTALS

FIELD SAMPLE ID: RB-29  
LABORATORY ID: 0902-10  
DATE SAMPLED: 6/16/93  
DATE ANALYZED: 6/29/93  
% SOLID: LIQUID  
DILUTION FACTOR: 1

PARAMETER	RESULT	
	ug/L	
CADMIUM METHOD 6010	5.00	U
CHROMIUM METHOD 6010	10.0	U
ZINC METHOD 6010	20.0	U

DATE ANALYZED: 6/25/93  
DILUTION FACTOR: 1

	RESULT	
	ug/L	
LEAD METHOD 7421	3.0	U

DATE ANALYZED: 6/22/93  
DILUTION FACTOR: 1

FLUORIDE METHOD 340.2	100.0	U
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# HUNTINGDON ANALYTICAL SERVICES

EPA METHOD 8240  
VOLATILE ORGANICS

FIELD SAMPLE ID:	MW21-GW-02	MW20-GW-02	RB-30	MW26-GW-02
LABORATORY SAMPLE ID:	93105701	93105702	93105703	93105704
DATE SAMPLED:	7-21-93	7-21-93	7-21-93	7-21-93
DATE ANALYZED:	7-26-93	7-26-93	7-26-93	7-26-93
DILUTION FACTOR(S):	1	1	1	1

PARAMETER	RESULT ug/L		RESULT ug/L		RESULT ug/L		RESULT ug/L		DL ug/L
CHLOROMETHANE	10	U	10	U	10	U	10	U	10
BROMOMETHANE	10	U	10	U	10	U	10	U	10
VINYL CHLORIDE	10	U	43	U	10	U	12	U	10
CHLOROETHANE	10	U	10	U	10	U	10	U	10
METHYLENE CHLORIDE	10	U	10	U	10	U	10	U	10
ACETONE	10	U	10	U	10	U	10	U	10
CARBON DISULFIDE	10	U	10	U	10	U	10	U	10
1,1-DICHLOROETHENE	10	U	10	U	10	U	3	J	10
1,1-DICHLOROETHANE	10	U	10	U	10	U	3	J	10
1,2-DICHLOROETHENE (cis)	10	U	23	U	10	U	180	U	10
1,2-DICHLOROETHENE (trans)	10	U	10	U	10	U	10	U	10
1,2-DICHLOROETHENE (TOTAL)	10	U	23	U	10	U	180	U	10
CHLOROFORM	10	U	10	U	10	U	10	U	10
1,2-DICHLOROETHANE	10	U	10	U	10	U	10	U	10
2-BUTANONE	10	U	10	U	10	U	10	U	10
1,1,1-TRICHLOROETHANE	10	U	10	U	10	U	4	J	10
CARBON TETRACHLORIDE	10	U	10	U	10	U	10	U	10
VINYL ACETATE	10	U	10	U	10	U	10	U	10
BROMODICHLOROMETHANE	10	U	10	U	10	U	10	U	10
1,2-DICHLOROPROPANE	10	U	10	U	10	U	10	U	10
cis-1,3-DICHLOROPROPENE	10	U	10	U	10	U	10	U	10
TRICHLOROETHENE	10	U	10	U	10	U	450	U	10
DIBROMOCHLOROMETHANE	10	U	10	U	10	U	10	U	10
1,1,2-TRICHLOROETHANE	10	U	10	U	10	U	10	U	10
BENZENE	10	U	10	U	10	U	10	U	10
trans-1,3-DICHLOROPROPENE	10	U	10	U	10	U	10	U	10
2-CHLOROETHYL VINYL ETHER	10	U	10	U	10	U	10	U	10
BROMOFORM	10	U	10	U	10	U	10	U	10
4-METHYL-2-PENTANONE	10	U	10	U	10	U	10	U	10
2-HEXANONE	10	U	10	U	10	U	10	U	10
TETRACHLOROETHENE	10	U	10	U	10	U	10	U	10
1,1,2,2-TETRACHLOROETHANE	10	U	10	U	10	U	10	U	10
TOLUENE	10	U	10	U	10	U	10	U	10
CHLOROBENZENE	10	U	10	U	10	U	10	U	10
ETHYL BENZENE	10	U	10	U	10	U	10	U	10
STYRENE	10	U	10	U	10	U	10	U	10
XYLENE (TOTAL)	10	U	10	U	10	U	10	U	10

SURROGATE % RECOVERY	% REC	% REC	% REC	% REC	CONTROL LIMITS
1,2-DICHLOROETHANE d4	100	101	105	106	114 - 87
TOLUENE d8	80	102	114	110	113 - 82
BROMOFLUOROBENZENE	95	96	98	96	111 - 83

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# HUNTINGDON ANALYTICAL SERVICES

EPA METHOD 8240  
VOLATILE ORGANICS

FIELD SAMPLE ID:	MW23-GW-02	MW22-GW-02	MW22-GW-02D	MW25-GW-02
LABORATORY SAMPLE ID:	93105705	93105706	93105707	93105708
DATE SAMPLED:	7-21-93	7-21-93	7-21-93	7-21-93
DATE ANALYZED:	7-26-93	7-26-93	7-27-93	7-26-93
DILUTION FACTOR(S):	100	1	1	10

PARAMETER	RESULT ug/L		RESULT ug/L		RESULT ug/L		RESULT ug/L		DL ug/L
CHLOROMETHANE	1,000	U	10	U	10	U	100	U	10
BROMOMETHANE	1,000	U	10	U	10	U	100	U	10
VINYL CHLORIDE	1,000	U	10	U	10	U	300	U	10
CHLOROETHANE	1,000	U	10	U	10	U	100	U	10
METHYLENE CHLORIDE	1,000	U	10	U	10	U	100	U	10
ACETONE	1,000	U	10	U	10	U	100	U	10
CARBON DISULFIDE	1,000	U	10	U	10	U	100	U	10
1,1-DICHLOROETHENE	1,000	U	10	U	10	U	100	U	10
1,1-DICHLOROETHANE	1,000	U	10	U	10	U	49	J	10
1,2-DICHLOROETHENE (cis)	1,000	U	16	U	15	U	2,100	U	10
1,2-DICHLOROETHENE (trans)	1,000	U	10	U	10	U	100	U	10
1,2-DICHLOROETHENE (TOTAL)	1,000	U	16	U	15	U	2,100	U	10
CHLOROFORM	1,000	U	10	U	10	U	100	U	10
1,2-DICHLOROETHANE	1,000	U	10	U	10	U	100	U	10
2-BUTANONE	1,000	U	10	U	10	U	100	U	10
1,1,1-TRICHLOROETHANE	1,000	U	10	U	10	U	45	J	10
CARBON TETRACHLORIDE	1,000	U	10	U	10	U	100	U	10
VINYL ACETATE	1,000	U	10	U	10	U	100	U	10
BROMODICHLOROMETHANE	1,000	U	10	U	10	U	100	U	10
1,2-DICHLOROPROPANE	1,000	U	10	U	10	U	100	U	10
cis-1,3-DICHLOROPROPENE	1,000	U	10	U	10	U	100	U	10
TRICHLOROETHENE	23,000	U	43	U	38	U	170	U	10
DIBROMOCHLOROMETHANE	1,000	U	10	U	10	U	100	U	10
1,1,2-TRICHLOROETHANE	1,000	U	10	U	10	U	100	U	10
BENZENE	1,000	U	10	U	10	U	100	U	10
trans-1,3-DICHLOROPROPENE	1,000	U	10	U	10	U	100	U	10
2-CHLOROETHYL VINYL ETHER	1,000	U	10	U	10	U	100	U	10
BROMOFORM	1,000	U	10	U	10	U	100	U	10
4-METHYL-2-PENTANONE	1,000	U	10	U	10	U	100	U	10
2-HEXANONE	1,000	U	10	U	10	U	100	U	10
TETRACHLOROETHENE	1,000	U	10	U	10	U	100	U	10
1,1,2,2-TETRACHLOROETHANE	1,000	U	10	U	10	U	100	U	10
TOLUENE	1,000	U	10	U	10	U	100	U	10
CHLOROBENZENE	1,000	U	10	U	10	U	100	U	10
ETHYL BENZENE	1,000	U	10	U	10	U	100	U	10
STYRENE	1,000	U	10	U	10	U	100	U	10
XYLENE (TOTAL)	1,000	U	10	U	10	U	100	U	10

SURROGATE % RECOVERY	% REC	% REC	% REC	% REC	CONTROL LIMITS
1,2-DICHLOROETHANE d4	98	91	100	95	114 - 87
TOLUENE d8	96	114	92	81	113 - 82
BROMOFLUOROBENZENE	99	99	95	99	111 - 83

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# HUNTINGDON ANALYTICAL SERVICES

EPA METHOD 8240  
VOLATILE ORGANICS

FIELD SAMPLE ID:	MW27-GW-02	MW28-GW-02	MW29-GW-02	MW1-GW-02
LABORATORY SAMPLE ID:	93105709	93105710	93105711	93105712
DATE SAMPLED:	7-21-93	7-21-93	7-21-93	7-21-93
DATE ANALYZED:	7-26-93	7-27-93	7-26-93	7-26-93
DILUTION FACTOR(S):	1	1	1	1

PARAMETER	RESULT ug/L		RESULT ug/L		RESULT ug/L		RESULT ug/L		DL ug/L
CHLOROMETHANE	10	U	10	U	10	U	10	U	10
BROMOMETHANE	10	U	10	U	10	U	10	U	10
VINYL CHLORIDE	10	U	10	U	31	U	10	U	10
CHLOROETHANE	10	U	10	U	10	U	10	U	10
METHYLENE CHLORIDE	10	U	10	U	10	U	10	U	10
ACETONE	10	U	10	U	10	U	10	U	10
CARBON DISULFIDE	10	U	10	U	10	U	10	U	10
1,1-DICHLOROETHENE	10	U	10	U	10	U	5	J	10
1,1-DICHLOROETHANE	10	U	10	U	10	U	10	J	10
1,2-DICHLOROETHENE (cis)	10	U	10	U	69	U	10	U	10
1,2-DICHLOROETHENE (trans)	10	U	10	U	10	U	10	U	10
1,2-DICHLOROETHENE (TOTAL)	10	U	10	U	69	U	10	U	10
CHLOROFORM	10	U	10	U	10	U	10	U	10
1,2-DICHLOROETHANE	10	U	10	U	10	U	10	U	10
2-BUTANONE	10	U	10	U	10	U	10	U	10
1,1,1-TRICHLOROETHANE	10	U	3	J	10	U	80	U	10
CARBON TETRACHLORIDE	10	U	10	U	10	U	10	U	10
VINYL ACETATE	10	U	10	U	10	U	10	U	10
BROMODICHLOROMETHANE	10	U	10	U	10	U	10	U	10
1,2-DICHLOROPROPANE	10	U	10	U	10	U	10	U	10
cis-1,3-DICHLOROPROPENE	10	U	10	U	10	U	10	U	10
TRICHLOROETHENE	10	U	11	U	10	U	10	U	10
DIBROMOCHLOROMETHANE	10	U	10	U	10	U	10	U	10
1,1,2-TRICHLOROETHANE	10	U	10	U	10	U	10	U	10
BENZENE	10	U	10	U	10	U	10	U	10
trans-1,3-DICHLOROPROPENE	10	U	10	U	10	U	10	U	10
2-CHLOROETHYL VINYL ETHER	10	U	10	U	10	U	10	U	10
BROMOFORM	10	U	10	U	10	U	10	U	10
4-METHYL-2-PENTANONE	10	U	10	U	10	U	10	U	10
2-HEXANONE	10	U	10	U	10	U	10	U	10
TETRACHLOROETHENE	10	U	10	U	10	U	10	U	10
1,1,2,2-TETRACHLOROETHANE	10	U	10	U	10	U	10	U	10
TOLUENE	10	U	10	U	10	U	10	U	10
CHLOROBENZENE	10	U	10	U	10	U	10	U	10
ETHYL BENZENE	10	U	10	U	10	U	10	U	10
STYRENE	10	U	10	U	10	U	10	U	10
XYLENE (TOTAL)	10	U	10	U	10	U	10	U	10

SURROGATE % RECOVERY	% REC	% REC	% REC	% REC	CONTROL LIMITS
1,2-DICHLOROETHANE d4	89	100	93	106	114 - 87
TOLUENE d8	79	98	89	116	113 - 82
BROMOFLUOROBENZENE	98	93	104	97	111 - 83

# HUNTINGDON ANALYTICAL SERVICES

EPA METHOD 8240  
VOLATILE ORGANICS

FIELD SAMPLE ID:	MW24-GW-02	TB-21	---	---
LABORATORY SAMPLE ID:	93105713	93105714	M. BLANK	M. BLANK
DATE SAMPLED:	7-21-93	7-21-93	---	---
DATE ANALYZED:	7-26-93	7-26-93	7-26-93	7-27-93
DILUTION FACTOR(S):	200	1	1	1

PARAMETER	RESULT ug/L		RESULT ug/L		RESULT ug/L		RESULT ug/L		DL ug/L
CHLOROMETHANE	2,000	U	10	U	10	U	10	U	10
BROMOMETHANE	2,000	U	10	U	10	U	10	U	10
VINYL CHLORIDE	5,000		10	U	10	U	10	U	10
CHLOROETHANE	2,000	U	10	U	10	U	10	U	10
METHYLENE CHLORIDE	2,000	U	10	U	10	U	10	U	10
ACETONE	2,000	U	10	U	10	U	10	U	10
CARBON DISULFIDE	2,000	U	10	U	10	U	10	U	10
1,1-DICHLOROETHENE	2,000	U	10	U	10	U	10	U	10
1,1-DICHLOROETHANE	2,000	U	10	U	10	U	10	U	10
1,2-DICHLOROETHENE (cis)	38,000		10	U	10	U	10	U	10
1,2-DICHLOROETHENE (trans)	2,000	U	10	U	10	U	10	U	10
1,2-DICHLOROETHENE (TOTAL)	38,000		10	U	10	U	10	U	10
CHLOROFORM	2,000	U	10	U	10	U	10	U	10
1,2-DICHLOROETHANE	1,200	J	10	U	10	U	10	U	10
2-BUTANONE	2,000	U	10	U	10	U	10	U	10
1,1,1-TRICHLOROETHANE	2,000	U	10	U	10	U	10	U	10
CARBON TETRACHLORIDE	2,000	U	10	U	10	U	10	U	10
VINYL ACETATE	2,000	U	10	U	10	U	10	U	10
BROMODICHLOROMETHANE	2,000	U	10	U	10	U	10	U	10
1,2-DICHLOROPROPANE	2,000	U	10	U	10	U	10	U	10
cis-1,3-DICHLOROPROPENE	2,000	U	10	U	10	U	10	U	10
TRICHLOROETHENE	13,000		10	U	10	U	10	U	10
DIBROMOCHLOROMETHANE	2,000	U	10	U	10	U	10	U	10
1,1,2-TRICHLOROETHANE	2,000	U	10	U	10	U	10	U	10
BENZENE	2,000	U	10	U	10	U	10	U	10
trans-1,3-DICHLOROPROPENE	2,000	U	10	U	10	U	10	U	10
2-CHLOROETHYL VINYL ETHER	2,000	U	10	U	10	U	10	U	10
BROMOFORM	2,000	U	10	U	10	U	10	U	10
4-METHYL-2-PENTANONE	2,000	U	10	U	10	U	10	U	10
2-HEXANONE	2,000	U	10	U	10	U	10	U	10
TETRACHLOROETHENE	2,000	U	10	U	10	U	10	U	10
1,1,2,2-TETRACHLOROETHANE	2,000	U	10	U	10	U	10	U	10
TOLUENE	2,000	U	10	U	10	U	10	U	10
CHLOROBENZENE	2,000	U	10	U	10	U	10	U	10
ETHYL BENZENE	2,000	U	10	U	10	U	10	U	10
STYRENE	2,000	U	10	U	10	U	10	U	10
XYLENE (TOTAL)	2,000	U	10	U	10	U	10	U	10

SURROGATE % RECOVERY	% REC	% REC	% REC	% REC	CONTROL LIMITS
1,2-DICHLOROETHANE d4	105	107	97	96	114 - 87
TOLUENE d8	103	118	114	98	113 - 82
BROMOFLUOROBENZENE	97	97	96	94	111 - 83

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## HUNTINGDON ANALYTICAL SERVICES

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Sample Delivery Group No.: 15

METHOD 8270  
SEMIVOLATILE ORGANICS

FIELD SAMPLE ID:	MW21-GW-02	MW24-GW-02	---	---
LABORATORY SAMPLE ID:	93105701	93105713	SBLKW1	SBLKW2
DATE SAMPLED:	7-21-93	7-21-93	---	---
DATE EXTRACTED:	7-26-93	7-29-93	7-26-93	7-29-93
DILUTION FACTOR(S):	1	1	1	1

PARAMETER	RESULT ug/L		RESULT ug/L		RESULT ug/L		RESULT ug/L		MDL ug/L
ACENAPHTHENE	10	U	10	U	10	U	10	U	10
ACENAPHTHYLENE	10	U	10	U	10	U	10	U	10
ANTHRACENE	10	U	10	U	10	U	10	U	10
BENZO(a)ANTHRACENE	10	U	10	U	10	U	10	U	10
BENZO(b)FLUORANTHENE	10	U	10	U	10	U	10	U	10
BENZO(k)FLUORANTHENE	10	U	10	U	10	U	10	U	10
BENZO(a)PYRENE	10	U	10	U	10	U	10	U	10
BENZO(g,h,i)PERYLENE	10	U	10	U	10	U	10	U	10
BENZOIC ACID	50	U	50	U	50	U	50	U	50
BENZYL ALCOHOL	10	U	10	U	10	U	10	U	10
BIS(2-CHLOROETHOXY)METHANE	10	U	10	U	10	U	10	U	10
BIS(2-CHLOROETHYL)ETHER	10	U	10	U	10	U	10	U	10
BIS(2-CHLOROISOPROPYL)ETHER	10	U	10	U	10	U	10	U	10
BIS(2-ETHYLHEXYL)PHTHALATE	10	U	10	U	10	U	10	U	10
BUTYLBENZYL PHTHALATE	10	U	10	U	10	U	10	U	10
4-BROMOPHENYL-PHENYL ETHER	10	U	10	U	10	U	10	U	10
4-CHLOROANILINE	10	U	10	U	10	U	10	U	10
2-CHLORONAPHTHALENE	10	U	10	U	10	U	10	U	10
4-CHLOROPHENYL-PHENYL ETHER	10	U	10	U	10	U	10	U	10
CHRYSENE	10	U	10	U	10	U	10	U	10
DIBENZ(a,h)ANTHRACENE	10	U	10	U	10	U	10	U	10
DIBENZOFURAN	10	U	10	U	10	U	10	U	10
DI-N-BUTYLPHTHALATE	10	U	10	U	10	U	10	U	10
1,2-DICHLOROBENZENE	10	U	10	U	10	U	10	U	10
1,3-DICHLOROBENZENE	10	U	10	U	10	U	10	U	10
1,4-DICHLOROBENZENE	10	U	10	U	10	U	10	U	10
3,3-DICHLOROBENZIDINE	20	U	20	U	20	U	20	U	20
DIETHYL PHTHALATE	10	U	10	U	10	U	10	U	10
DIMETHYL PHTHALATE	10	U	10	U	10	U	10	U	10
2,4-DINITROTOLUENE	10	U	10	U	10	U	10	U	10
2,6-DINITROTOLUENE	10	U	10	U	10	U	10	U	10
DI-N-OCTYL PHTHALATE	10	U	10	U	10	U	10	U	10
FLUORANTHENE	10	U	10	U	10	U	10	U	10
FLUORENE	10	U	10	U	10	U	10	U	10
HEXACHLOROBENZENE	10	U	10	U	10	U	10	U	10
HEXACHLOROBUTADIENE	10	U	10	U	10	U	10	U	10
HEXACHLOROCYCLOPENTADIENE	10	U	10	U	10	U	10	U	10
HEXACHLOROETHANE	10	U	10	U	10	U	10	U	10
INDENO(1,2,3-cd)PYRENE	10	U	10	U	10	U	10	U	10

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## HUNTINGDON ANALYTICAL SERVICES

PAGE 2 OF 2

Sample Delivery Group No.: 15

METHOD 8270

SEMIVOLATILE ORGANICS

FIELD SAMPLE ID:	MW21-GW-02	MW24-GW-02	---	---
LABORATORY SAMPLE ID:	93105701	93105713	SBLKW1	SBLKW2
DATE SAMPLED:	7-21-93	7-21-93	---	---
DATE EXTRACTED:	7-26-93	7-29-93	7-26-93	7-29-93
DILUTION FACTOR(S):	1	1	1	1

PARAMETER	RESULT ug/L			RESULT ug/L			RESULT ug/L			RESULT ug/L			MDL ug/L		
ISOPHORONE	10	U		10	U		10	U		10	U		10	U	
2-METHYL NAPHTHALENE	10	U		10	U		10	U		10	U		10	U	
NAPHTHALENE	10	U		10	U		10	U		10	U		10	U	
2-NITROANILINE	50	U		50	U		50	U		50	U		50	U	
3-NITROANILINE	50	U		50	U		50	U		50	U		50	U	
4-NITROANILINE	50	U		50	U		50	U		50	U		50	U	
NITROBENZENE	10	U		10	U		10	U		10	U		10	U	
N-NITROSODIPHENYLAMINE	10	U		10	U		10	U		10	U		10	U	
N-NITROS-DI-N-PROPYLAMINE	10	U		10	U		10	U		10	U		10	U	
PHENANTHRENE	10	U		10	U		10	U		10	U		10	U	
PYRENE	10	U		10	U		10	U		10	U		10	U	
1,2,4-TRICHLOROBENZENE	10	U		10	U		10	U		10	U		10	U	
CARBAZOLE	10	U		10	U		10	U		10	U		10	U	

ACID COMPOUNDS	RESULT ug/L			RESULT ug/L			RESULT ug/L			RESULT ug/L			RESULT ug/L		
4-CHLORO-3-METHYLPHENOL	10	U		10	U		10	U		10	U		10	U	
2-CHLOROPHENOL	10	U		10	U		10	U		10	U		10	U	
2,4-DICHLOROPHENOL	10	U		10	U		10	U		10	U		10	U	
2,4-DIMETHYL PHENOL	10	U		10	U		10	U		10	U		10	U	
2,4-DINITROPHENOL	50	U		50	U		50	U		50	U		50	U	
4,6-DINITRO-2-METHYLPHENOL	50	U		50	U		50	U		50	U		50	U	
2-METHYL PHENOL	10	U		10	U		10	U		10	U		50	U	
4-METHYL PHENOL	10	U		10	U		10	U		10	U		10	U	
2-NITROPHENOL	10	U		10	U		10	U		10	U		10	U	
4-NITROPHENOL	50	U		50	U		50	U		50	U		50	U	
PENTACHLOROPHENOL	50	U		50	U		50	U		50	U		50	U	
PHENOL	10	U		10	U		10	U		10	U		10	U	
2,4,5-TRICHLOROPHENOL	50	U		50	U		50	U		50	U		50	U	
2,4,6-TRICHLOROPHENOL	10	U		10	U		10	U		10	U		10	U	

SURROGATE % RECOVERY	% REC			% REC			% REC			% REC			CONTROL LIMITS		
NITROBENZENE (d5)	86			85			89			91			16 - 146		
2-FLUOROBIPHENYL	78			74			80			74			21 - 113		
TERPHENYL (d14)	89			78			85			84			12 - 146		
PHENOL (d5)	38			26			38			39			11 - 104		
2-FLUOROPHENOL	56			36			55			54			17 - 117		
2,4,6-TRIBROMOPHENOL	59			60			67			78			22 - 144		
2-CHLOROPHENOL (d4)	69			54			75			71			20 - 130		
1,2-DICHLOROBENZENE (d4)	80			76			79			76			20 - 130		

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# HUNTINGDON ANALYTICAL SERVICES

Sample Delivery Group No.: 15

## ANALYSIS PERFORMED ON TOTALS

	FIELD SAMPLE ID:	METHOD BLANK	MW21-GW-02	MW20-GW-02	RB-30	MW26-GW-02
	LABORATORY ID:	1057-MB	1057-01	1057-02	1057-03	1057-04
	DATE SAMPLED:		7/21/93	7/21/93	7/21/93	7/21/93
	DATE ANALYZED:					
	% SOLID:	LIQUID BLANK	LIQUID	LIQUID	LIQUID	LIQUID
	DILUTION FACTOR:	1	1	1	1	1
PARAMETER	RESULT		RESULT	RESULT	RESULT	RESULT
	ug/L		ug/L	ug/L	ug/L	ug/L
CADMIUM METHOD 6010	5.00 U		5.00 U	5.00 U	5.00 U	5.00 U
CHROMIUM METHOD 6010	10.0 U		10.0 U	10.0 U	10.0 U	10.0 U
ZINC METHOD 6010	20.0 U		20.0 U	20.0 U	20.0 U	20.0 U
	DATE ANALYZED:	8/02/93	8/02/93	8/02/93	8/02/93	8/02/93
	DILUTION FACTOR:	1	1	1	1	1
	RESULT		RESULT	RESULT	RESULT	RESULT
	ug/L		ug/L	ug/L	ug/L	ug/L
LEAD METHOD 7421	3.0 U		3.0 U	4.0	3.6	4.5
	DATE ANALYZED:	7/27/93	7/27/93	7/27/93	7/27/93	7/27/93
	DILUTION FACTOR:	1	1	1	1	1
FLUORIDE METHOD 340.2	100.0 U		280.0	386.0	100.0 U	150.0

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# HUNTINGDON ANALYTICAL SERVICES

Sample Delivery Group No.: 15

## ANALYSIS PERFORMED ON TOTALS

	FIELD SAMPLE ID:	MW23-GW-02	MW22-GW-02	MW22-GW-02D	MW25-GW-02	MW27-GW-02
	LABORATORY ID:	1057-05	1057-06	1057-07	1057-08	1057-09
	DATE SAMPLED:	7/21/93	7/21/93	7/21/93	7/21/93	7/21/93
	DATE ANALYZED:					
	% SOLID:	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID
	DILUTION FACTOR:	1	1			
PARAMETER	RESULT	RESULT	RESULT	RESULT	RESULT	RESULT
	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
CADMIUM METHOD 6010	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U
CHROMIUM METHOD 6010	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
ZINC METHOD 6010	20.0 U	20.0 U	23.6	24.1	20.0 U	
	DATE ANALYZED:	8/02/93	8/02/93	8/03/93	8/02/93	8/02/93
	DILUTION FACTOR:	1	1	2	1	1
	RESULT	RESULT	RESULT	RESULT	RESULT	RESULT
	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
LEAD METHOD 7421	3.0 U	7.6	13.6	5.7	3.0 U	
	DATE ANALYZED:	7/27/93	7/27/93	7/27/93	7/27/93	7/27/93
	DILUTION FACTOR:	1	1	1	1	1
FLUORIDE METHOD 340.2	310.0	660.0	670.0	580.0	480.0	

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# HUNTINGDON ANALYTICAL SERVICES

Sample Delivery Group No.: 15

## ANALYSIS PERFORMED ON TOTALS

FIELD SAMPLE ID:		MW28-GW-02	MW29-GW-02	MW1-GW-02	MW24-GW-02
LABORATORY ID:		1057-10	1057-11	1057-12	1057-13
DATE SAMPLED:		7/21/93	7/21/93	7/21/93	7/21/93
DATE ANALYZED:					
% SOLID:		LIQUID	LIQUID	LIQUID	LIQUID
DILUTION FACTOR:					
PARAMETER	RESULT		RESULT	RESULT	RESULT
	ug/L		ug/L	ug/L	ug/L
CADMIUM METHOD 6010	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U
CHROMIUM METHOD 6010	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
ZINC METHOD 6010	20.0 U	25.7	24.1	20.0 U	
DATE ANALYZED:		8/02/93	8/03/93	8/03/93	8/03/93
DILUTION FACTOR:		1	2	2	2
	RESULT		RESULT	RESULT	RESULT
	ug/L		ug/L	ug/L	ug/L
LEAD METHOD 7421	3.0 U	8.6	6.8	6.0 U	
DATE ANALYZED:		7/27/93	7/27/93	7/27/93	7/27/93
DILUTION FACTOR:		1	1	1	1
FLUORIDE METHOD 340.2	210.0	444.0	240.0	710.0	

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