

PHASE II REMEDIAL INVESTIGATION REPORT
ADDENDUM TO PHASE I REPORT
DEARCOP FARM SITE
GATES, NEW YORK
SITE NUMBER 8-28-016

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Prepared for:

NEW YORK STATE DEPARTMENT OF
ENVIRONMENTAL CONSERVATION
Division of Hazardous Waste Remediation
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EXECUTIVE SUMMARY

Ecology and Environment Engineering, P.C., (E & E), under contract to the New York State Department of Environmental Conservation (NYSDEC) (Work Assignment No. D002625-10) performed a Phase II Remedial Investigation (RI) in August 1993 at the Dearcop Farm site (NYSDEC site No. 8-28-016) in Gates, New York. The purpose of the Phase II RI was to obtain additional information through sampling of various media (i.e., groundwater, soil gas, soils, surface water/sediment, and home-grown vegetables) both on and off site to provide a more comprehensive characterization of the nature and extent of contamination and to supplement the human health risk assessment.

Phase II RI

The original scope of work for the Phase II RI was outlined in Section 8.2.1 and Appendix G of the *Phase I Remedial Investigation Report* (E & E 1994). Actual sample quantities were later modified as requested by NYSDEC. The scope of work included the following:

- A second round of groundwater sampling of the monitoring wells for full Target Compound List (TCL) parameters;
- Soil gas sampling at two residential lots for TCL volatile organic compounds (VOCs);
- Composite surface soil sampling from residential lots for polynuclear aromatic hydrocarbons (PAHs), TCL metals, and asbestos where fill materials were suspected to be present based on responses by local residents to NYSDEC questionnaires; grab surface soil sampling for full TCL parameters and asbestos from residential lots where fill materials were visible on the surface; and background surface soil sampling for PAHs, polychlorinated biphenyls (PCBs), pesticides,

- TCL metals, and radionuclides from areas unaffected by the spreading of the Dearcop site fill materials;
- Discrete surface soil sampling from two residential lots, with analysis for full TCL parameters and asbestos;
 - Subsurface soil sampling for full TCL parameters, asbestos, and radionuclides from one residential lot to investigate the presence of alleged fill materials;
 - Surface water/sediment sampling for PAHs, PCBs, pesticides, and TCL metals from the Barge Canal and the drainage ditch that runs through the site; and
 - Home-grown vegetable samples for TCL metals to determine the impact to human health.

Groundwater elevations and horizontal gradients beneath the Dearcop site vary seasonally due to the raising and lowering of water in the adjacent Barge Canal for flood control purposes. The direction of groundwater flow (predominantly easterly/northeasterly in the shallow bedrock water bearing zone and northeasterly in the deep bedrock water bearing zone) is unaffected by these fluctuations. The primary contaminants present in the groundwater beneath the site are VOCs. The majority of these VOCs are chlorinated aliphatics, including: 1,1-dichloroethane (1,1-DCA); 1,1-dichloroethene (1,1-DCE); total-1,2-dichloroethene (total-1,2-DCE); 1,1,1-trichloroethane (1,1,1-TCA); trichloroethene (TCE); and vinyl chloride, all in excess of drinking water standards. Benzene, toluene, and xylene (BTX) compounds were also detected in shallow wells that can be attributed to site contamination; however, BTX compounds detected in some of the deep wells may be attributed to natural sources or off-site sources. VOCs were present in both shallow and deep bedrock water bearing zones on site, but not off site (upgradient), indicating downward migration of contamination through the Lockport Dolomite. Phenols, which are typical at landfills and hazardous waste sites, were also detected in the groundwater. Several inorganics (i.e., metals) were detected in the groundwater samples. Most of these metals may be attributed to high turbidity. Only one inorganic (cyanide) detected in the groundwater is not believed to be attributed to effects from turbidity. Because this was the first time cyanide was detected and cyanide was not present in any of the other wells, the source of the cyanide could not be determined.

TCE was found in one of the four soil gas samples at one residential lot and in one soil sample collected at another residential lot. The soil gas contamination is associated with the presence of fill materials at those locations.

Almost all of the surface soils from the residential lots contained PAHs in excess of background levels. Pesticides were also detected in one of two discrete residential lot surface soil samples and in the one residential lot subsurface soil sample. Because pesticides were detected in the background samples and were almost negligible on site, the pesticides in residential lots are not believed to be site related. Various metals were detected in the surface soils and the subsurface soil; however, only lead is believed to be site related.

Although the Barge Canal receives groundwater discharge from the site, the lack of VOCs in the surface water samples indicates that the site has no significant impact on the surface water in the Barge Canal. Only two metals, aluminum and iron, were detected in the surface water samples above Class C surface water standards. The elevated levels of these metals do not appear to be site related because their concentrations in the canal were highest north of the site and decreased to the south of the site. Although there may be flow reversal in the Barge Canal, the predominant flow is from west to east (north to south adjacent to the site). Therefore, it is more likely that the elevated metal levels are the result of an upgradient source.

Sediment samples from the Barge Canal contained low levels (i.e., below sediment criteria) of the PCB Aroclor 1254 and elevated levels of metals. Although Aroclor 1254 concentrations in the canal were lower to the north and south of the site and slightly more elevated adjacent to the site, the source does not appear to originate from the site. Because runoff is limited by the site's topography, no direct migration pathway exists from the site to the Barge Canal other than groundwater (which was free of PCBs) and the drainage ditch that passes through the site. The levels of Aroclor 1254 in this drainage ditch were up to three times lower than those detected in the canal and were nondetect in the two furthest downgradient samples (collected during the Phase I RI) before the drainage ditch empties into the canal. Therefore, there appears to be no significant contribution of Aroclor 1254 to the Barge Canal from the site. Several of the metals exceeding sediment criteria are also believed to be non-site related; however, elevated levels of arsenic, manganese, mercury, and nickel may have originated from the site due to their detection in samples collected from the drainage ditch on site.

Vegetable Sample Results

Several metals were detected in broccoli and tomato samples from two residential lots. Interpreting the results of this vegetable sampling is difficult, since no formal screening criteria exist to determine whether the metals concentrations detected in these samples are elevated and no background vegetable samples were collected. However, these sample results are discussed in the risk assessment, which is presented under a separate cover.

Radiological Evaluation

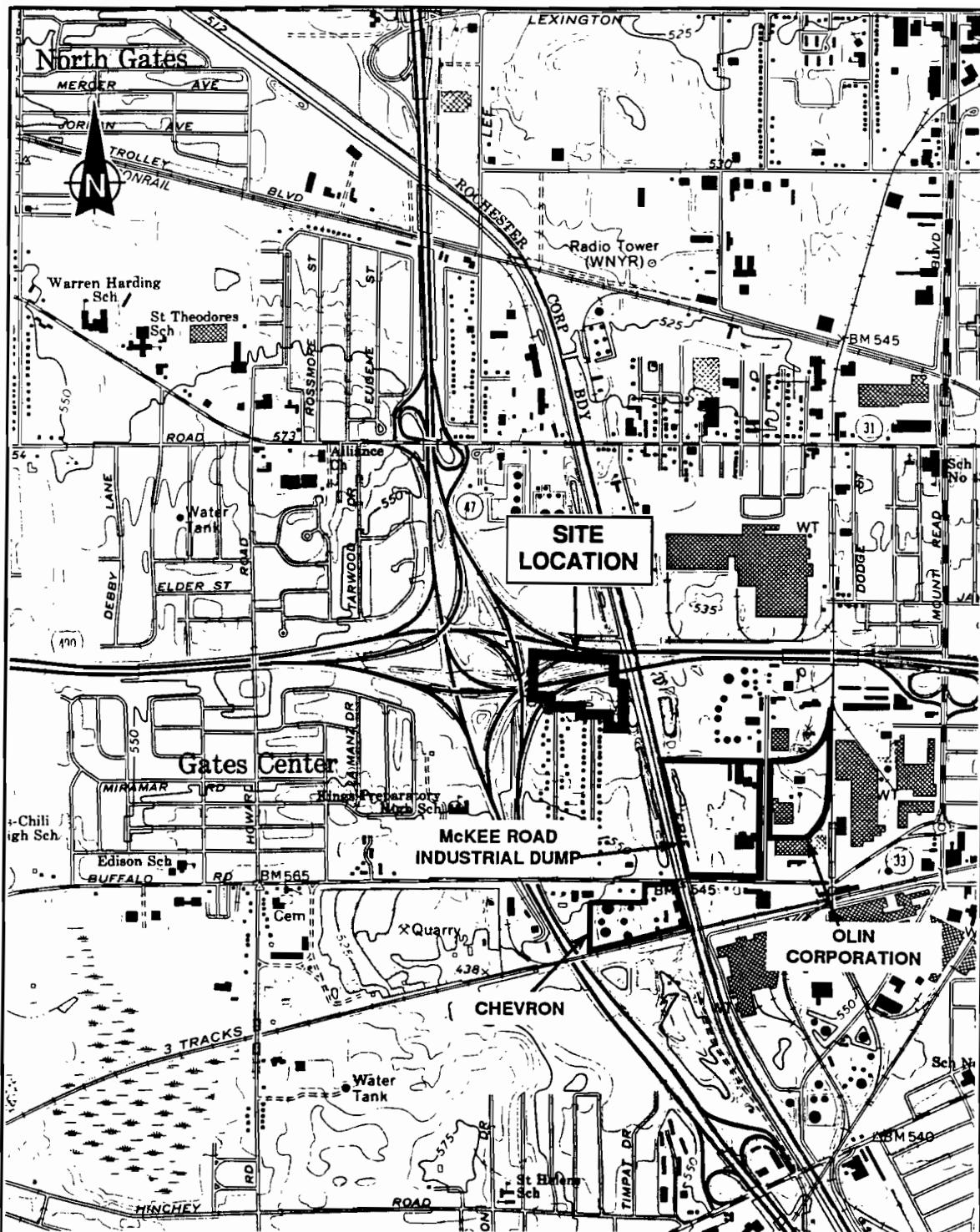
Radioanalytical results from the four background surface soil samples were averaged and used to evaluate the subsurface soil sample from one residential lot and the radioanalytical results for soil/sediment samples collected for the Phase I work. No radionuclides in excess of relevant standards or in excess of three times the average background concentration were detected in the subsurface soil sample from the residential lot. The Phase I soil/sediment radioanalytical results were confirmed after comparison with the Phase II background results.

1. INTRODUCTION

1.1 PURPOSE OF PHASE II REMEDIAL INVESTIGATION

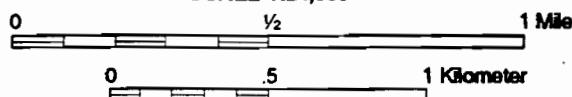
Ecology and Environment Engineering, P.C. (E & E), under contract to the New York State Department of Environmental Conservation (NYSDEC), was tasked to perform a Phase II Remedial Investigation (RI) at the Dearcop Farm site (No. 8-28-016) in the Town of Gates, New York (see Figure 1-1). This RI was performed under Work Assignment No. D002625-10 of E & E's State Superfund Standby Contract as a continuation of the Phase I RI performed between October 1991 and April 1993.

The purpose of the Phase II RI was to obtain additional information through sampling of various media (i.e., groundwater, soil gas, soils, surface water/sediment, and home-grown vegetables) both on and off site to provide a more comprehensive characterization of the nature and extent of contamination and to supplement the human health risk assessment, which is presented under separate cover. The results from this study, combined with the results from the Phase I RI, will be used to identify remedial alternatives to mitigate contamination problems that pose threats to human health and the environment.

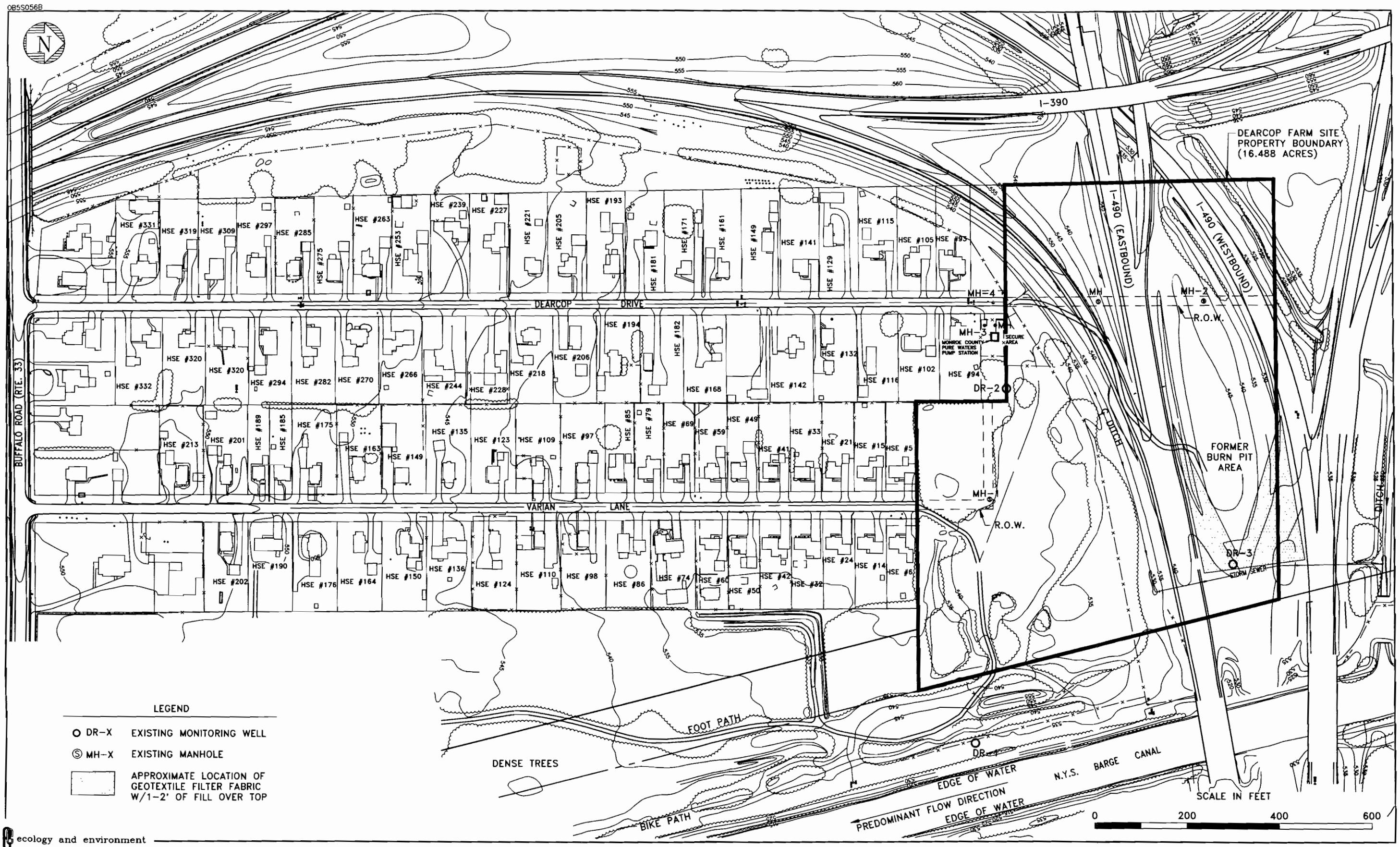


SOURCE: USGS 7.5 Minute Series (Topographic) Quadrangle: Rochester West, NY, 1971, Photorevised 1978.

SCALE 1:24,000



**Figure 1-1
SITE LOCATION MAP, DEARCOP FARM SITE**



**Figure 1-2 EXISTING SITE PLAN
DEARCOP FARM SITE**

2. PHASE II RI INVESTIGATION METHODOLOGY

2.1 INTRODUCTION

The Phase II RI consisted of various activities conducted to supplement the findings of the Phase I RI. These activities, which are outlined in Appendix G of the final Phase I RI report (E & E 1994), were performed in August 1993 and consisted of the following:

- Groundwater sampling from the three existing monitoring wells and the 14 Phase I RI wells;
- Soil gas sampling from residential lots;
- Surface and subsurface soil sampling from residential lots;
- Surface water/sediment sampling from the Barge Canal and sediment sampling from the on-site drainage ditch; and
- Vegetable sampling from residential lots.

The scope of work mentioned above has been slightly modified from that presented in Appendix G of the Phase I RI report to accommodate requests by NYSDEC and the New York State Department of Health (NYSDOH). The methodology and specific goals of each of the aforementioned tasks completed in conjunction with the Phase II RI are described in Section 2.2. All sampling was performed as outlined in the NYSDEC-approved project Work Plan, Quality Assurance Project Plan (QAPjP), and Site Safety Plan (SSP) (E & E 1992) and draft of *Phase I Remedial Investigation Report* (E & E 1994). Therefore, methodologies for sampling procedures will not be discussed in this report, but will reference the appropriate documents. Samples for chemical analyses were analyzed by E & E's Analytical Services

Center (ASC) in Buffalo, New York, and samples for radiological analyses were analyzed by Teledyne Isotopes in Westwood, New Jersey.

2.2 PHASE II RI ACTIVITIES

2.2.1 Groundwater Sampling

A second round of groundwater samples were collected from the three existing monitoring wells and 14 Phase I RI monitoring wells between August 23 and 26, 1993 (see Figure 2-1). The purpose of these samples was to verify the results of the first round of groundwater sampling. The wells were purged of three volumes of standing water prior to sample collection. Sampling was performed as described in Section 3.2.11.2 of the Phase I RI report (E & E 1994). Based on the results of these samples (see Section 3.2.1), on December 14, 1993, NYSDEC and NYSDOH resampled MW-1D and MW-9S for VOC analyses. The analyses were performed by RECRA Environmental, Inc., in Buffalo, New York.

The samples were tested for full Target Compound List (TCL) parameters. For quality assurance quality control (QA/QC) purposes, several additional samples were also collected, including: one each of duplicate, rinsate, matrix spike (MS), and matrix spike duplicate (MSD) samples; and three trip blanks (see Table 2-1). All sample results are presented in Section 3.2.1 of this report.

2.2.2 Soil Gas Sampling

Five soil gas samples were collected from two residential lots (206 Dearcop Drive and 331 Dearcop Drive) on August 26, 1993 (see Figure 2-1). The purpose of the four samples from 206 Dearcop Drive were to verify the presence of contaminants detected during the Phase I RI and define the boundaries of contamination. The purpose of the sample at 331 Dearcop Drive was to determine the presence or absence of contamination in the subsoils because fill material, allegedly from the Dearcop site, is present at that location.

The samples were collected using Tedlar bags as described in Section 3.2.6 of the Phase I RI report (E & E 1994). The samples were tested for TCL volatile organic compounds (VOCs). One duplicate and one field blank were collected for QA/QC purposes (see Table 2-1). Sampling results are presented in Section 3.2.2 of this report.

2.2.3 Soil Sampling

2.2.3.1 Surface Soil Sampling

Eighteen off-site surface soil samples were collected on August 26 and 27, 1993, to facilitate the human health risk assessment (see Figure 2-1). Two discrete samples of fill material were collected in residential lots to characterize potential contamination from fill materials visible on the surface. Four discrete background soil samples were collected outside the residential area of Dearcop Drive and Varian Lane to establish a baseline for areas not containing fill from the Dearcop site. Twelve composite samples were collected from residential lots along Dearcop Drive and Varian Lane and are represented by aliquots taken from areas frequented by humans (i.e., gardens, play areas, etc.) to characterize potential hazards of human exposure.

The discrete samples were collected using the methods described in Section 3.2.11.4 of the Phase I RI report (E & E 1994). Composite samples were collected by placing an aliquot of soil from each sample location in a decontaminated stainless-steel bowl with a dedicated, precleaned stainless-steel spoon. The aliquots were then homogenized in the bowl prior to placing the samples in the appropriate containers. The discrete and composite samples were analyzed for TCL metals, polycyclic aromatic hydrocarbons (PAHs), and asbestos; and the background samples were analyzed for TCL metals, polychlorinated biphenyls (PCBs), pesticides, PAHs, and radionuclides. Several additional samples, including two duplicate MS and MSD samples, were collected and analyzed for QA/QC purposes (see Table 2-1). Sample results are presented in Section 3.2.3.1 of this report.

2.2.3.2 Subsurface Soil Sampling

One subsurface soil sample was collected from the backyard of 331 Dearcop Drive on August 26, 1993 (see Figure 2-1). The purpose of this sample was to verify the presence of fill material from the Dearcop site based on the property owner's observations and allegations. The sample was collected by driving a decontaminated 2-inch outer diameter split-spoon sampler into the ground with a pounding sleeve. The sample was tested for full TCL parameters, radionuclides, and asbestos. Sample results are presented in Section 3.2.3.2 of this report.

2.2.4 Surface Water/Sediment Sampling

Two surface water/sediment samples were collected from the Barge Canal, and four sediment samples were collected from the drainage ditch that runs through the site to the north on August 27, 1993 (see Figure 2-1). The purpose of these samples was to characterize the presence or absence of contamination in the canal farther to the north and south of the Dearcop site and to determine whether the drainage ditch is affected by on-site and off-site fill materials. Although the canal generally flows from west to east (north to south adjacent to the Dearcop site), flow can reverse at certain times of the year (i.e., during winter months) due to lowering of the canal water by the New York State Thruway Authority for flood control purposes (see Section 4.5.4 of the Phase I RI report [E & E 1994]). Therefore, no true upgradient/downgradient conditions exist in the canal.

The samples were collected using the methods described in Section 3.2.11.3 of the Phase I RI report (E & E 1993), and tested for TCL metals, PAHs, and PCBs/pesticides. Additional samples were collected for QA/QC purposes, including one surface water duplicate, MS, and MSD sample; and one sediment duplicate (see Table 2-1). Sample results are presented in Section 3.2.4 of this report.

2.2.5 Vegetable Sampling

Vegetable samples were collected from two residential gardens on Dearcop Drive on August 26, 1993, to facilitate the human health risk assessment (see Figure 2-1). The purpose of these samples was to determine whether home-grown vegetables have been affected by contaminants present in the Dearcop fill material.

The samples were collected from residential lots where Dearcop fill materials are apparent (i.e., 206 Dearcop Drive and 331 Dearcop Drive) and were tested for TCL metals. One duplicate sample was collected for QA/QC purposes (see Table 2-1). Sample results are presented in Section 3.2.5 of this report.

Table 2-1

**SUMMARY OF SAMPLES COLLECTED DURING THE
PHASE II RI AT THE DEARCOP FARM SITE**

Sample Identification Number	Date Collected	Analysis	Comments
Groundwater			
DR-1	8/26/93	Full TCL	Existing well on west side of bike path and Barge Canal, 500 feet south of I-490.
MW-1D	8/26/93	Full TCL	Phase I RI well adjacent to DR-1.
DR-2	8/25/93	Full TCL	Existing well in the vacant lot area, approximately 70 feet east of Monroe County Pure Water Pump Station.
DR-2D	8/25/93	Full TCL	Duplicate sample of DR-2.
MW-2D(N)	8/25/93	Full TCL	Phase I RI well 50 feet north of DR-2.
MW-2D(N)D	8/25/93	Full TCL	Duplicate sample of MW-2D(N).
DR-3	8/24/93	Full TCL	Existing well on I-490 median.
MW-3D(N)	8/26/93	Full TCL	Phase I RI well adjacent to DR-3 (collected MS/MSD samples).
MW-4S	8/25/93	Full TCL	Phase I RI well between 228 and 244 Dearcop Drive.
MW-5S	8/25/93	Full TCL	Phase I RI well between 142 and 168 Dearcop Drive.
MW-5D(N)	8/25/93	Full TCL	Phase I RI well adjacent to MW-5S.
MW-6S	8/24/93	Full TCL	Phase I RI well on I-490 median.
MW-6D	8/26/93	Full TCL	Phase I RI well adjacent to MW-6S.
MW-7S	8/25/93	Full TCL	Phase I RI well west of bike path and Barge Canal, 50 feet north of I-490.
MW-8S	8/25/93	Full TCL	Phase I RI well west of bike path and Barge Canal, 100 feet south of I-490.
MW-9S	8/24/93	Full TCL	Phase I RI well in vacant lot approximately 30 feet north of Varian Lane.
MW-9D	8/26/93	Full TCL	Phase I RI well adjacent to MW-9S.
MW-10S	8/24/93	Full TCL	Phase I RI well in vacant lot approximately 300 feet north of Varian Lane.
MW-10D	8/26/93	Full TCL	Phase I RI well adjacent to MW-10S.
MW-RIN-8-24	8/24/93	Full TCL	Rinsate from decontaminated bailer.
MW-TB-8-24	8/24/93	VOCs	Trip blank.

Table 2-1**SUMMARY OF SAMPLES COLLECTED DURING THE PHASE II RI AT THE DEARCOP FARM SITE**

Sample Identification Number	Date Collected	Analysis	Comments
MW-TB-8-25	8/25/93	VOCs	Trip blank.
MW-TB-8-26	8/26/93	VOCs	Trip blank.
MW-1D	12/14/93	VOCs	Sampled by NYSDEC.
MW-9S	12/14/93	VOCs	Sampled by NYSDEC.
Soil Gas			
SG-206A	8/26/93	VOCs	Back yard of 206 Dearcop - 3 feet west of SG-110 collected during the Phase I RI.
SG-206B	8/26/93	VOCs	Back yard of 206 Dearcop - vegetable garden east of garage.
SG-206C	8/26/93	VOCs	Back yard of 206 Dearcop - near northeast corner of house.
SG-206D	8/26/93	VOCs	Front yard of 206 Dearcop.
SG-206DD	8/26/93	VOCs	Duplicate of SG-206D.
SG-206-FB	8/26/93	VOCs	Field blank of ambient air adjacent to SG-206A location.
SG-331D	8/26/93	VOCs	Back yard of 331 Dearcop.
Surface Soil			
SS-BG-1	8/27/93	TCL metals, PCBs/pesticides, PAHs, radionuclides	Background sample - north of I-490 westbound, north of creek, 100 feet north of wire fence, 200 feet west of canal spoils.
SS-BG-2	8/27/93	TCL metals, PCBs/pesticides, PAHs, radionuclides	Background sample - grass field south of wooded area, east of dirt road leading to Monroe County Pure Waters, northwest of Pastoral Center at 1150 Genesee Street.
SS-BG-2D	8/27/93	TCL metals, PCBs/pesticides, PAHs, radionuclides	Duplicate of SS-BG-2.
SS-BG-3	8/27/93	TCL metals, PCBs/pesticides, PAHs, radionuclides	Background sample - grass field 150 feet north of tennis courts of Pastoral Center, east of red barn storage shed.
SS-BG-4	8/27/93	TCL metals, PCBs/pesticides, PAHs, radionuclides	Background sample - grass field east of dirt road between Pastoral Center and Eagles Club, opposite side entrance to Eagles Club.

Table 2-1

**SUMMARY OF SAMPLES COLLECTED DURING THE
PHASE II RI AT THE DEARCOP FARM SITE**

Sample Identification Number	Date Collected	Analysis	Comments
SS-33V-Comp	8/27/93	TCL metals, PAHs, asbestos	Composite sample from 33 Varian lot: base soil east of storage shed, garden adjacent to west side of house, base of newly planted tree at NW corner of patio, and under easternmost maple tree in backyard.
SS-93D-Comp	8/27/93	TCL metals, PAHs, asbestos	Composite sample from 93 Dearcop lot: gardens on east and west sides of the house, and near the wood pile in the SW corner of the lot.
SS-93DD-Comp	8/27/93	TCL metals, PAHs, asbestos	Duplicate of SS-93D-Comp.
SS-141D-Comp	8/27/93	TCL metals, PAHs, asbestos	Composite sample from 149 Dearcop lot: front yard beneath razed sidewalk, and NW corner of lot near former debris pile near large trees in the backyard (collected MS/MSD samples).
SS-168D-Comp	8/27/93	TCL metals, PAHs, asbestos	Composite sample from 168 Dearcop lot: garden adjacent to SW corner of house, garden south of a tree near the SE corner of the garage, and a garden on the east side of the house.
SS-181D-Comp	8/27/93	TCL metals, PAHs, asbestos	Composite sample from 181 Dearcop lot: front garden, next to flower box, and vegetable garden in back of the property.
SS-205D-Comp	8/27/93	TCL metals, PAHs, asbestos	Composite sample from 205 Dearcop lot: garden next to back door, garden on the south side of the house next to a patio, next to swimming pool stairs, and a flower garden on the northside of the driveway.
SS-206D	8/26/93	Full TCL, asbestos	Discrete sample of fill material from vegetable garden at 206 Dearcop (collected MS/MSD samples).
SS-206D-Comp	8/26/93	TCL metals, PAHs, asbestos	Composite sample from 206 Dearcop lot: beneath picnic table, swing set, and vegetable garden on east side of the garage.
SS-244D-Comp	8/27/93	TCL metals, PAHs, asbestos	Composite sample from 244 Dearcop lot: flower garden in front of house next to driveway, SE corner of lot, and vegetable garden in NE corner of the lot.
SS-263D-Comp	8/27/93	TCL metals, PAHs, asbestos	Composite sample from 263 Dearcop lot: soil beneath sand under swing set, sand box, garden along south side and east side of house, and garden around fountain.

Table 2-1**SUMMARY OF SAMPLES COLLECTED DURING THE PHASE II RI AT THE DEARCOP FARM SITE**

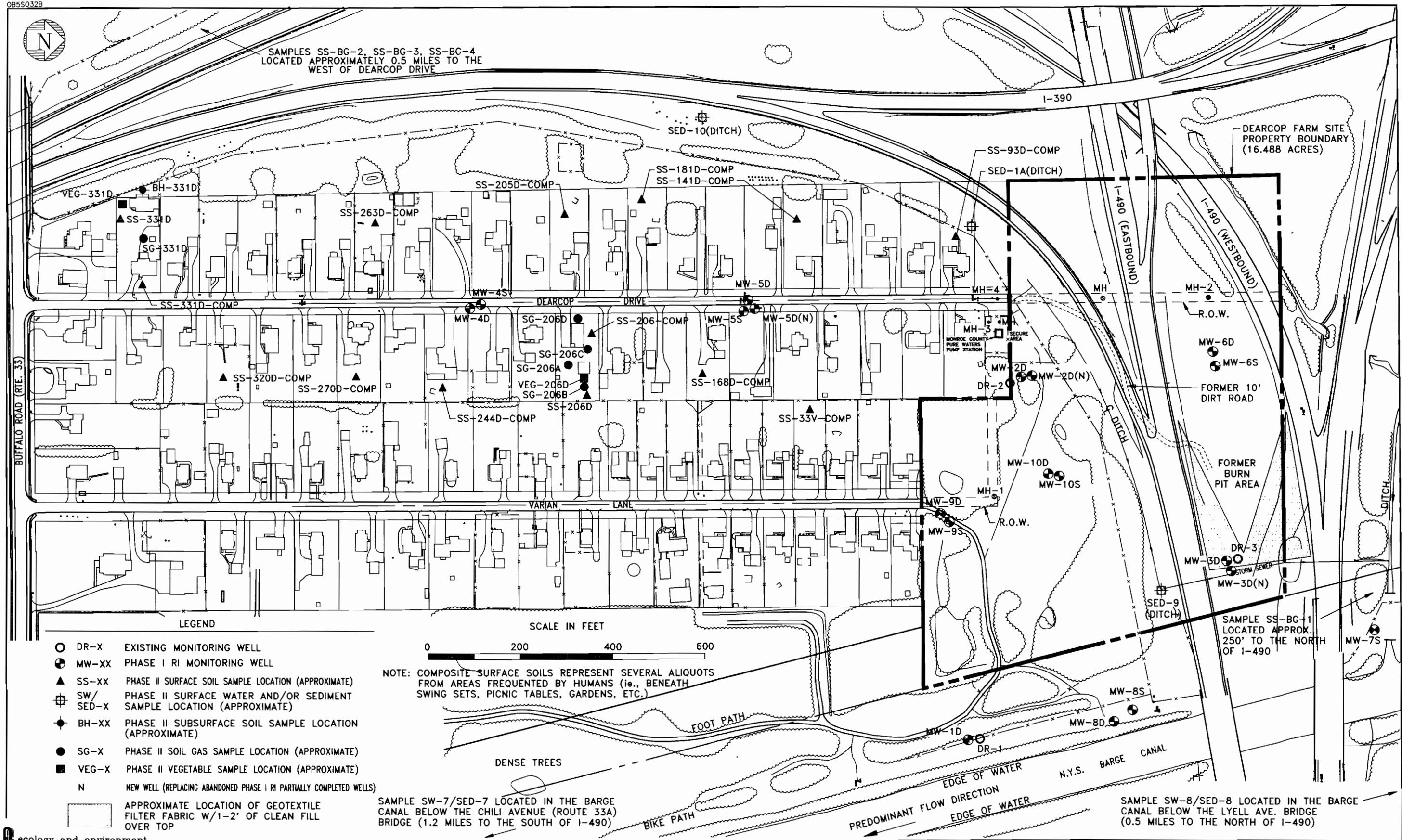
Sample Identification Number	Date Collected	Analysis	Comments
SS-270D-Comp	8/27/93	TCL metals, PAHs, asbestos	Composite sample from 270 Dearcop lot: flower beds along front lawn near driveway, at base of tree, south of the house next to the driveway, next to back door, behind garage, vegetable garden, and beneath swing set.
SS-320D-Comp	8/27/93	TCL metals, PAHs, asbestos	Composite sample from 320 Dearcop lot: front garden adjacent to house, beneath swing set, near doghouse, north side backyard garden, garden near picnic table, NE of house, and west of pool.
SS-331D	8/26/93	Full TCL, asbestos	Discrete sample of fill material from back yard of 331 Dearcop.
SS-331D-Comp	8/26/93	TCL metals, PAHs, asbestos	Composite sample from 331 Dearcop lot: vegetable garden in back of lot, gardens around patio, and rose garden behind house.
Subsurface Soil			
BH-331D (0-2 feet)	8/26/93	Full TCL, radionuclides, asbestos	Fill material from back yard of 331 Dearcop.
Surface Water			
SW-7	8/27/93	TCL metals, PAHs, PCBs/pesticides	Barge Canal, north side of bridge along Chili Avenue (Rt. 33A), 1.2 miles south of I-490.
SW-7D	8/27/93	TCL metals, PAHs, PCBs/pesticides	Duplicate of SW-7.
SW-8	8/27/93	TCL metals, PAHs, PCBs/pesticides	Barge Canal, south side of bridge along Lyell Avenue, 0.5 mile north of I-490, collected MS/MSD samples.
SW-TB-8-27	8/27/93	VOCs	Trip blank.
Sediment			
SED-1A	8/27/93	TCL metals, PAHs, PCBs/pesticides	Resample of SED-1 from Phase I RI (drainage ditch behind 93 Dearcop).
SED-7	8/27/93	TCL metals, PAHs, PCBs/pesticides	Same location as SW-7.

Table 2-1**SUMMARY OF SAMPLES COLLECTED DURING THE PHASE II RI AT THE DEARCOP FARM SITE**

Sample Identification Number	Date Collected	Analysis	Comments
SED-8	8/27/93	TCL metals, PAHs, PCBs/ pesticides	Same location as SW-8.
SED-9	8/27/93	TCL metals, PAHs, PCBs/ pesticides	Drainage ditch north of site fence at culvert that extends below I-490.
SED-9D	8/27/93	TCL metals, PAHs, PCBs/ pesticides	Duplicate of SED-9.
SED-10	8/27/93	TCL metals, PAHs, PCBs/ pesticides	Drainage ditch west of fence behind 171 Dearcop.
Vegetables			
VEG-206D	8/26/93	TCL metals	Broccoli from 206 Dearcop.
VEG-206DD	8/26/93	TCL metals	Duplicate of Veg-206D.
VEG-331D	8/26/93	TCL metals	Tomatoes from 331 Dearcop (collected MS/MSD samples).

Note: Composite surface soil samples represent several aliquots from areas frequented by humans (i.e., gardens, beneath swing sets, and picnic tables).

OBSS032B

Figure 2-1 PHASE II RI SAMPLE LOCATION MAP
DEARCOP FARM SITE

3. NATURE AND EXTENT OF CONTAMINATION

3.1 SITE HYDROLOGY

Groundwater elevations beneath the Dearcop site vary seasonally, mainly due to the raising and lowering of water in the adjacent Barge Canal. Based on groundwater elevations measured in March, April, May, June, August, and November 1993, shallow groundwater flow (i.e., at the overburden/bedrock interface), indicates that flow patterns generally conform to surface topography, resulting in an easterly/northeasterly groundwater flow direction toward the Barge Canal. Although the water level in the canal fluctuated approximately 7 feet in the abovementioned time interval and the average shallow groundwater elevation fluctuated approximately 7.5 feet (see Table 3-1), the direction of groundwater flow throughout the seasons remained generally the same (see Figure 3-1).

Groundwater flow in the deep bedrock also measured during the same time period is to the northeast (see Table 3-1). The gradient between the well along Dearcop Drive (MW-5D[N]) and on-site wells is relatively shallow and also fluctuates seasonally (i.e., steeper in the fall/winter months and shallower in the spring/summer months). Gradients directly beneath the site are almost flat. The average groundwater elevation fluctuation is 9.7 feet, which is slightly higher than shallow groundwater fluctuations. Although groundwater elevations fluctuate considerably throughout the year, the direction of groundwater flow remains generally the same (see Figure 3-2).

3.2 EXTENT OF CONTAMINATION OF ENVIRONMENTAL MEDIA

3.2.1 Groundwater

A second round of groundwater samples was collected from the existing wells and Phase I RI monitoring wells. The samples were tested for full TCL parameters.

VOCs were detected in most of the wells sampled except MW-4S, MW-5S, and MW-6D (see Table 3-2 and Figure 3-1). This is consistent with first-round data collected in February through April 1993 for the Phase I RI. VOCs exceeded NYSDEC Class GA drinking water standards in most wells except MW-3D(N), MW-4S, MW-5S, MW-5D(N), MW-6D, and MW-7S. Class GA standards refer to groundwater used as a source of potable water according to 6 NYCRR 703.5 and DOW TOGS 1.1.1. MW-6S, which only had very low levels of toluene and xylene during the first round of sampling, contained vinyl chloride in excess of standards at 8 µg/L during the second round of sampling. MW-7S, which originally contained levels of 1,1-DCA, total-1,2-DCE, TCE, and 1,1,1-TCA in excess of standards, contained levels of total-1,2-DCE, 1,1,1-TCA, and TCE slightly below standards during the second round of sampling. BTX compounds were detected in almost all of the deep wells sampled except MW-6D. DR-2, MW-9S, and MW-10S were the only shallow wells in which BTX compounds were detected. Because the Phase I RI revealed that DR-2/MW-2D(N), MW-9S/MW-9D, and MW-10S/MW-10D are near areas of groundwater contamination, the BTX compounds in these wells are apparently site related. However, as stated in Section 4.5.3 of the Phase I RI report (E & E 1994), the presence of BTX compounds in some of the other deep wells may be the result of natural occurrences because high levels of natural gas were encountered during drilling. Off-site contamination sources may also be responsible for BTX in the deep bedrock aquifer because these compounds were detected in upgradient deep wells, but not in the associated shallow well.

The second round of groundwater samples has confirmed that the primary VOCs present in the groundwater that are attributable to site contamination are halocarbon compounds. Specifically, these compounds include the chlorinated aliphatics 1,1-DCA, 1,2-DCA, 1,1-DCE, total-1,2-DCE, 1,1,1-TCA, TCE, and vinyl chloride, all in excess of drinking water standards. Although the highest concentrations of these contaminants were in the shallow wells, levels of VOCs were also detected in on-site deep wells above standards, therefore indicating downward migration of contamination. The highest concentration of these contaminants were found in MW-10S, followed by DR-2, MW-9S, and MW-1D. The levels of total VOCs detected in the second round of samples as compared to those detected in the first round of samples were: significantly lower in DR-3 (360 µg/L in second round versus 2,600 µg/L in first round); moderately lower in MW-9D (64 µg/L in second round versus 260 µg/L in first round); slightly lower in MW-3D(N) (8 µg/L in second round versus 24 µg/L in

first round), MW-7S (10 µg/L in second round versus 83 µg/L in first round); and MW-10D (89 µg/L in second round versus 160 µg/L in first round); essentially the same in DR-1 (24 µg/L), DR-2 (3,900 µg/L in second round versus 4,000 µg/L in first round), MW-4S (nondetect), MW-5S (nondetect), MW-5D(N) (3 µg/L in second round versus 5 µg/L in first round), and MW-6D (nondetect); slightly higher in MW-2D(N) (46 µg/L in second round versus 17 µg/L in first round), MW-6S (10 µg/L in second round versus 3 µg/L in first round) and MW-8S (97 µg/L in second round versus 26 µg/L in first round); and significantly higher in MW-1D (1,700 µg/L in second round versus 95 µg/L in first round) and MW-9S (2,900 µg/L in second round versus 54 µg/L in first round). However, resampling of MW-1D and MW-9S on December 14, 1993, by NYSDEC and NYSDOH revealed significantly lower total VOC concentrations in MW-1D (100 µg/L) and slightly higher total VOCs in MW-9S (3,600 µg/L). In general, the areas determined during the Phase I RI to have high VOC contamination in groundwater were confirmed by the results of the second round of groundwater sampling during the Phase II RI. The slight shift in the levels of contaminants across the site reflect a shift of higher contaminant levels from north to south. This is supported by lower levels of contamination in DR-3, MW-3D(N), MW-7S, MW-10S, and MW-10D, and higher levels of contamination in MW-1D (August 1993), MW-8S, and MW-9S. The slight shift in elevated contaminant levels may be due to variations in localized seasonal groundwater flow beneath the site. The significant decrease in the level of contamination in DR-3 may have been the result of construction and regrading in that area by the New York State Department of Transportation (DOT), which may have caused a loss of volatiles to the atmosphere. The significant decrease in the concentration of VOCs from August to December in MW-1D may be due to effects caused by lowering the water level in the canal.

Only two semivolatile compounds were detected in the groundwater during the second round of sampling. These compounds were 2-methylphenol and 4-methylphenol in MW-10S (see Table 3-2 and Figure 3-1). A third compound (bis[2-ethylhexyl]phthalate) was also detected in several samples, but was also detected in field/laboratory blanks; therefore, it is not considered to be present in the groundwater, but is a result of field/laboratory contamination. The level of 4-methylphenol detected in the second round was slightly higher than the level detected in the first round of sampling (i.e., 8 µg/L in second round versus 4 µg/L in the first round). Phenols are commonly found in landfills and hazardous waste sites

containing industrial or commercial materials. No PCBs or pesticides were detected in the second round of samples, thus confirming the results of the first round.

As with the first round samples, second round samples contained several inorganics in all of the samples tested (see Table 3-3, Figure 3-1, and Section 3.4.2.2). Several of these inorganics exceeded groundwater standards, including: iron in all wells except DR-1, MW-1D, MW-4S, MW-6D, and MW-9D; lead in MW-2D(N) and MW-10D; magnesium in all wells except DR-1, MW-6S, MW-7S, MW-9S, and MW-10S; sodium in all wells; and cyanide in MW-2D(N). These results varied considerably from the first round of sampling, in which arsenic, cadmium, chromium, copper, iron, lead, magnesium, manganese, selenium, and zinc exceeded groundwater standards in several of the wells. This variation is believed to be due to variances in turbidity. In general, most second-round samples had lower turbidity than first-round samples. During first round sampling, DR-1, MW-2D(N), DR-3, MW-5S, MW-6S, MW-6D, MW-10S, and MW-10D all exceeded 50 NTUs during sampling.

Turbidity from only three wells (DR-3, MW-1D, and MW-10D) exceeded 50 NTUs during the second round of sampling; however, the turbidity appeared to be clear to the naked eye, indicating a possible instrument malfunction. Samples with high turbidity may be biased by metals adhering to particulates. While some metals may exist in the solution, metals sorbed onto the suspended particles in turbid samples are measured and reported as total metals in groundwater. In addition, the bedrock, a calcium magnesium carbonate, frequently contains large amounts of calcium, iron, magnesium, and mineral salts. Therefore, only a few of the metals detected during the first round of sampling (i.e., chromium, selenium, and zinc) were not believed to be attributable to high turbidity or natural constituents. However, these metals were only present in deep wells and were therefore believed to have originated off site. The absence of these metals in significant concentrations in the second-round samples supports the theory that they are not attributable to the site. The presence of cyanide in MW-2D(N) and its field duplicate at approximately ten times the groundwater standard is unexplainable. This it was the first time cyanide was detected and cyanide was not present in any of the other wells.

3.2.2 Soil Gas

Soil gas samples were collected for VOC analysis from two residential lots (206 and 331 Dearcop Drive) for risk assessment purposes (see Section 4). The samples from 206 Dearcop Drive were collected to confirm results of the Phase I RI and determine the extent of

contamination at that lot. The sample at 331 Dearcop Drive was taken to determine the presence or absence of soil gas contamination because fill materials allegedly from the Dearcop site are visible on the ground surface. Results of the soil gas analyses are presented in Table 3-4 in both $\mu\text{g}/\text{m}^3$ and parts per billion (ppb) using the following formula, assuming standard temperature and pressure:

$$\text{ppb} = \mu\text{g}/\text{m}^3 \times \frac{\text{MW}}{24.25}, \text{ where MW} = \text{molecular weight of the compound}$$

TCE, the only VOC detected in the soil gas samples, was detected at concentrations of 580 $\mu\text{g}/\text{m}^3$ (3,117 ppb) in SG-206A and 140 $\mu\text{g}/\text{m}^3$ (752 ppb) in SG-331D (see Table 3-4). Sample SG-206A was taken approximately 3 feet west of sample SG-110, which was collected during the Phase I RI from the backyard of 206 Dearcop Drive. TCE was detected at 200 $\mu\text{g}/\text{m}^3$ (1,084 ppb) in SG-110 using the same collection method (i.e., Tedlar bags), and 190 $\mu\text{g}/\text{m}^3$ (1,029 ppb) using Tenax methods (see Section 3.2.6 of the Phase I RI report [E & E 1994]). The negative results from samples SG-206B, SG-206C, and SG-206D, which were also taken in the backyard of 206 Dearcop Drive, have confirmed that the soil gas contamination is a localized area in the backyard. Fill material believed to be from the Dearcop Farm site was discovered through soil boring in this area during the Phase I RI.

Sample SG-331D was taken in the backyard of 331 Dearcop Drive. The presence of TCE in the soil gas is supported by the visible evidence of fill materials, allegedly from the Dearcop Farm site, on the surface and in the subsurface of this lot. Soil gas migration appears to be vertical to the atmosphere rather than lateral as observed in the sporadic occurrences of contamination in residential lots and the close proximity of the contamination to the ground surface (i.e., 3 feet below ground surface [BGS]).

The presence of benzene, ethylbenzene, toluene, and xylene in the field blank (SG-206-FB) indicates that these compounds are airborne and therefore the presence of these compounds in the samples cannot be attributed to actual soil gas conditions (see Section 3.4.2.1).

3.2.3 Soil

3.2.3.1 Surface Soil

Several composite surface soil samples were collected from residential lots and tested for PAHs, TCL metals, and asbestos. Two discrete samples of fill materials were also collected for full TCL parameters and asbestos. In addition, four background soils were collected for PCBs/pesticides, PAHs, TCL metals, and radionuclides from off-site locations to help characterize the degree of contamination both on site and in the adjacent residential areas. The composite soils were collected from residential lots that are believed to contain fill materials from the site based on property owner questionnaires issued by NYSDEC (see Appendix H of the Phase I RI report [E & E 1994]). Results from these samples (see Table 3-5) will be used to facilitate the human health risk assessment (see Section 4). Although fill materials similar in appearance to materials found on the Dearcop site were not visible on the surface at most residential lots, noticeable areas above grade were observed at 33 Varian Lane, 168 Dearcop Drive, and 206 Dearcop Drive. Slag was noted on the surface at 141 Dearcop Drive, 168 Dearcop Drive, 181 Dearcop Drive, 206 Dearcop Drive, 262 Dearcop Drive, and 331 Dearcop Drive. Observations were only recorded for the residences investigated (see Section 2.2.3).

Toluene was the only VOC detected in one of the two discrete samples. This toluene was detected at a very low level in sample SS-206D (2 µg/kg). Sample SS-206D was collected from the garden in the backyard of 206 Dearcop Drive because slag was observed in the surface soils.

Several PAHs were detected in the composite surface soils from the residential lots, with total PAHs ranging from 4,000 µg/kg to 170,000 µg/kg. Total PAHs in the discrete samples were 800 µg/kg from SS-206D and 12,000 µg/kg from SS-331D. Total PAHs in the background samples (SS-BG-1 through SS-BG-4) ranged from 1,500 µg/kg to 6,300 µg/kg. All of the surface soils contained total PAHs in excess of the background range of levels except for samples SS-206D, SS-206D-Comp, and SS-263D-Comp. Only one other semivolatile was detected (carbazole in SS-331D) other than phthalates, which were detected in field/laboratory blanks and are therefore not considered to be site related (see Section 3.4).

Several pesticides were detected in one of the discrete samples (SS-331D) and three of the four background samples (SS-BG-2, SS-BG-3, and SS-BG-4). The total pesticides in SS-331D (2,400 µg/kg) greatly exceeded the total levels (18 µg/kg to 98 µg/kg) in the

background samples (see Table 3-5). The three background samples containing pesticides were all taken from the grounds of the Pastoral Center less than 0.5 mile west of Dearcop Drive. Of the 19 samples collected for pesticide levels on the Dearcop site during the Phase I RI, 19 µg/kg of alpha chlordane was detected in only one sample (SS-3). A total of 240 µg/kg of pesticides were detected in an off-site sample (SS-20) from the residential lot between 142 and 168 Dearcop Drive. Because pesticide levels were almost negligible on site, the levels detected in the residential lots do not appear to be site related.

Several metals were detected in the surface soil samples (see Table 3-5 and Section 3.4.2.2). In some of the samples, cadmium, copper, and lead exceeded the common range of metals for soils in the eastern United States (Shacklette and Boerngen 1984; Lindsay 1979). Cadmium exceeded the common range in all samples except SS-181D-Comp, SS-244D-Comp, SS-320D-Comp, SS-331D, SS-BG-2, SS-BG-3, and SS-BG-4. The cadmium detected in 15 of the 19 Phase I RI on-site surface soil samples and all of the 12 residential borehole samples also exceeded the common range. Because the levels of cadmium in the Phase II RI samples were all close to the common range and some of the background samples had levels above the common range, cadmium in the surface soils from the residential lots appears to be naturally occurring. Copper slightly exceeded the common range in SS-205D-Comp. Only one (SS-15) of the 19 Phase I RI on-site samples exceeded the common range for copper. Therefore, it is difficult to determine whether the presence of copper in SS-205D-Comp is site related. Sample SS-206D, which was collected from the vegetable garden at 206 Dearcop Drive in the second-round sampling, exceeded the common range for lead with a level of 820 mg/kg. This concentration is similar to that detected in subsurface soil sample BH-206D (774 mg/kg), which was collected 2 to 4 feet BGS in the first-round sampling. The presence of lead in the surface soil at 206 Dearcop Drive is believed to be directly related to the fill materials observed at this location.

No asbestos fibers were detected in any of the samples tested (see Table 3-7).

3.2.3.2 Subsurface Soil

Only one subsurface soil sample (BH-331D [0 to 2 feet BGS]) was collected during the Phase II RI. This sample was collected from the 331 Dearcop Drive lot and tested for full TCL parameters, radionuclides, and asbestos. Radionuclide analyses are presented in Section 3.3.

No VOCs or semivolatiles were detected in the subsurface soil samples other than methylene chloride and phthalates, respectively. The detection of each was due to field/laboratory contamination (see Section 3.4).

A total of 75 µg/kg of pesticides were detected in BH-331D (see Table 3-8). As with the surface soil sample from this lot, which contained a total of 2,400 µg/kg of pesticides (see Section 3.2.3.1), the source of these contaminants is not believed to be site related.

Several metals were detected in the subsurface soil sample. Two of these metals, cadmium and lead, exceeded the common range of metals in soils of the eastern United States (Shacklette and Boerngen 1984, Lindsay 1979). Cadmium, as described in Section 3.2.3.1, was detected at levels similar to those detected in some of the background samples (i.e., slightly above the common range) and is therefore not considered attributable to the site. However, lead levels were quite high (2,740 mg/kg) and are believed to be related to the fill materials observed in the sample.

No asbestos fibers were detected in the subsurface soil sample (see Table 3-9).

3.2.4 Surface Water/Sediment

Two surface water/sediment samples were collected from the Barge Canal (SW/SED-7 and SW/SED-8), and four sediment samples (SED-1A, SED-9, SED-9D, and SED-10) were collected from the drainage ditch that passes through the site. The samples were tested for PAHs, PCBs, pesticides, and TCL metals. The samples from the Barge Canal were collected to help characterize conditions in the canal farther away from the site, and the samples from the drainage ditch were collected to further characterize the drainage ditch and to confirm Phase I RI sample results for risk assessment purposes (see Section 4).

No PAHs, PCBs, or pesticides were detected in either surface water sample. However, several metals were detected in the surface water samples, with aluminum and iron exceeding NYSDEC Class C surface water standards (see Table 3-10). Class C surface waters are best suited for fishing and are suitable for fish propagation and survival. Aluminum exceeded standards in both samples (SW-7 and SW-8, including the duplicate sample SW-7D), and iron exceeded the standard in SW-8. All three of the samples collected from the Barge Canal during the Phase I RI contained aluminum in excess of Class C surface water standards, and iron exceeded standards in two of the three samples. The elevated levels of these metals do not appear to be site related because their concentrations in the canal were

highest north of the site and decreased to the south of the site. Although there may be flow reversal in the Barge Canal, the predominant flow is from west to east (north to south adjacent to the site). Therefore, it is more likely that the elevated metals are originating from an upgradient source.

Several PAHs were detected in all of the sediment samples. Total PAHs were 48,000 $\mu\text{g}/\text{kg}$ in SED-1A; 45,000 $\mu\text{g}/\text{kg}$ in SED-7; 8,400 $\mu\text{g}/\text{kg}$ in SED-8; 5,300 $\mu\text{g}/\text{kg}$ in SED-9; 1,900 $\mu\text{g}/\text{kg}$ in SED-9D; and 5,600 $\mu\text{g}/\text{kg}$ in SED-10 (see Table 3-11). Total PAHs in the Barge Canal were much higher south of the site (1.2 miles south of I-490) in sample SED-7, in which phenanthrene exceeded NYSDEC sediment criteria, as opposed to SED-8 (which is 0.5 mile north of I-490). Although there are no true upgradient/downgradient conditions in the Barge Canal due to the seasonal raising and lowering of water levels for flood control purposes and the potential for flow reversal (see Section 4.5.4 of the Phase I RI report [E & E 1994]), the predominant flow in the canal is to the east (south along the site). However, the elevated PAHs have multiple potential source areas, including the Dearcop site, the Olin site, the McKee Road site, and the Chevron site (see Figure 1-1 and Section 1.4 of the Phase I RI) in the immediate vicinity of sample SED-7. Because total PAHs in SED-7 and SED-8 were much higher than total PAHs detected in samples SED-4, SED-5, and SED-6 collected adjacent to the Dearcop site during the Phase I RI, it is more than likely that these elevated levels are not attributable to the Dearcop site. Total PAHs in SED-1A, which was collected during the second round, were double the total PAHs in SED-1, which was collected during the first round at the same location. Phenanthrene exceeded NYSDEC sediment criteria in both SED-1 and SED-1A, and acenaphthene exceeded the criteria in SED-1A only. PAHs in SED-9 and duplicate sample SED-9D varied three-fold in total concentration, thus indicating a strong inhomogeneity between the samples (see Section 3.4.2.3). Elevated PAHs at the SED-1A location are unexplainable and may not be site related due to the much lower levels of PAHs detected on site.

Low levels (i.e., below sediment criteria) of the PCB Aroclor 1254 were detected in all of the sediment samples except SED-1A, which was nondetect for PCBs (see Table 3-11). The levels of Aroclor 1254 in the canal samples were slightly lower than those detected in the sediment samples collected adjacent to the site during the Phase I RI. Aroclor 1254 in the drainage ditch running through the site was detected both upgradient (SED-10) and downgradient (SED-9) of SED-1A where PCBs were nondetect. Because runoff is limited by

topography, there is no direct migration pathway from the site to the Barge Canal other than groundwater (which was free of PCBs) and the drainage ditch. The levels of Aroclor 1254 in this ditch were up to three times lower than those detected in the canal and were nondetect in the two farthest downgradient samples (collected during the Phase I RI) before the ditch empties into the canal; therefore, it appears that there is no significant contribution of Aroclor 1254 to the Barge Canal from the site.

Pesticides were detected in all sediment samples except SED-8 (see Table 3-11). The total pesticides detected in SED-1A ($29 \mu\text{g/kg}$) collected during the Phase II RI were slightly lower than those detected in SED-1 ($43 \mu\text{g/kg}$) collected during the Phase I RI. Total pesticide concentrations in the canal samples collected during the Phase II RI were similar to those detected in the Phase I RI samples; however, different compounds were detected. Heptachlor epoxide exceeded sediment criteria in Phase II RI samples in SED-1A, SED-7, SED-9, and SED-10, but alpha-chlordane exceeded criteria in Phase I RI samples SED-1 and SED-3. The presence of pesticides appears to be sporadic both on and off site; therefore, no particular source has been identified. The low levels of pesticides are typical for an area such as this, where pesticide use was common during past farming operations.

Several metals were detected in the sediments (see Table 3-12), with several of them exceeding NYSDEC sediment criteria. These metals include arsenic and mercury in SED-1A and SED-7; cadmium, copper, lead, and zinc in all of the sediment samples; chromium in SED-7 and SED-8; iron in SED-7, SED-8, and SED-9D; manganese in SED-7, SED-8, SED-9, and SED-9D; and nickel in SED-7, SED-8, and SED-9D. All of these metals, except iron and manganese, were detected in excess of criteria in one or more of the Phase I RI sediment samples (see Section 4.5.4 of the Phase I RI report [E & E 1994]). Because cadmium, copper, lead, and zinc exceeded criteria in all samples (including upgradient drainage ditch sample SED-10 and predominantly upgradient canal sample SED-8), these elevated metals do not appear to be related to site contamination. In addition, chromium was only detected above criteria in canal samples in both Phase I and Phase II RI samples and was detected at higher concentrations farther away from the site as opposed to adjacent to the site. Thus, the presence of chromium in the sediment does not appear to be site related. However, elevated levels of arsenic, iron, manganese, mercury, and nickel may be site related due to their presence in samples collected from the drainage ditch on site or in close proximity to the site.

3.2.5 Vegetable Samples

Two home-grown vegetable samples (Veg-206D and Veg-331D) from 206 Dearcop Drive and 331 Dearcop Drive, respectively, and one duplicate (Veg-206DD) were collected for TCL metals analyses. Veg-206D and Veg-206DD consisted of broccoli leaves, and Veg-331D consisted of tomatoes. These samples were collected from gardens in which fill materials (possibly from the Dearcop site) were present on the surface.

Several metals were detected in the vegetable samples (see Table 3-13). The risks to human health posed by the presence of these metals are discussed in Section 4 of this report.

3.3 RADIOLOGICAL ANALYSES

Four background surface soil samples from off-site locations and one subsurface soil sample from the 331 Dearcop lot (sample BH-331D) were collected as described in Section 2 and analyzed for gross alpha, gross beta, and gamma emitters, including radium-226. The results are presented in Table 3-14.

As described in Section 4.5.9 of the Phase I report, applicable regulatory standards for radionuclides in soil are not available, therefore the radium-226 result for sample BH-331D was compared to the uranium and thorium mill tailings standards in 40 CFR 192, and the other radioanalytical results for BH-331D were compared to three times the corresponding average background soil results calculated for the Phase II background samples. Results of this comparison are presented in Table 3-14 and indicate that the radioanalytical results for sample BH-331D are within the range of background values.

Because the four background soil samples collected during the Phase II work provide a better measure of local background radiation than the results for sample SS-20, which were used to represent radiological background for the Phase I data evaluation (see Table 4-33 of the Phase I report), the radioanalytical results for the Phase I soil/sediment samples were reevaluated with respect to the Phase II background sample results. For this updated comparison, the Phase I soil/sediment results were compared to the relevant standard (only available for radium) or to three times the Phase II average background soil concentrations. The results of this comparison are presented in Table 3-15. Overall, the results of the new comparison are not substantially different from the findings presented in Table 4-33 of the Phase I report and, in fact, are actually less conclusive due to differences between the Phase I and Phase II work in the gamma emitters analyzed and the detection limits obtained.

Therefore, the data evaluation in Section 4.5.9.1 of the Phase I report is essentially still valid; that is, slightly elevated concentration of naturally occurring radioactive material (NORM) are associated with blue-colored, sandy material previously observed in several test pits excavated on site and at surface sample location SS-17. NYSDEC had previously identified this material as glass fines.

The new comparison of radioanalytical results for the Phase I soil/sediment samples with the average background concentrations measured in Phase II has resulted in one new piece of information: the cesium-137 concentration in sample SED-1 exceeds three times the average Phase II background soil concentration for cesium-137. However, the SED-1 cesium-137 concentration, $9.6 +/ - 1.0 \text{ E-}01 \text{ pCi/g}$, is not excessive when compared to worldwide terrestrial levels of cesium-137 resulting from nuclear fallout (approximately 1 pCi/g). Because the cesium-137 would tend to settle out in the sediments of surface waters, the concentrations measured for background surface soil samples might not compare well to sediment concentrations.

3.4 DATA ASSESSMENT

All chemical analysis data for the Phase II sampling event were reviewed for blank contamination and consistency with contaminants found in the Phase I sampling. This review was performed internally on data obtained from E & E's ASC, and did not include a review of asbestos and radioanalytical results because these were subcontracted analyses. Third-party data validation was performed as requested by NYSDEC on ASC analytical data for three composite surface soil samples; SS-33V-Comp, SS-206D-Comp, and SS-331D-Comp.

QA/QC concerns that may have an effect on data usability are summarized below, along with appropriate data qualifiers. Data qualifiers used include "B" for results considered nondetected due to blank contamination and "J" and "UJ" for results and quantitation limits considered estimated. Data qualified "B" are unusable for purposes of risk evaluation and site characterization, while data qualified "J" and "UJ" are usable as estimated values. All other data are considered usable for these purposes without qualification.

3.4.1 Third-Party Validation

Three composite surface soil samples were sent for third-party data validation because PAH contamination was detected in the surface soils. There were no QA/QC problems

affecting the PAH results, and thus no qualification was necessary. Inorganic results were qualified for blank contamination problems only (see Section 3.4.2.2). It was determined that the inorganic spike and duplicate results on the SS-206D grab sample did not apply to the other composite samples due to extreme sample inhomogeneity.

3.4.2 Internal Data Review

3.4.2.1 Organic Blank Contamination

All benzene, toluene, ethylbenzene, and total xylenes detected in the soil gas samples can be attributed to field background. The field blank (SG-206-FB) indicated low levels of these four parameters and sample results were at comparable levels. Methylene chloride and acetone results in all the samples are attributable to either field or laboratory blank contamination. All bis(2-ethylhexyl)phthalate and diethylphthalate results are due to field/laboratory contamination from the gloves used in handling the samples.

3.4.2.2 Inorganic Blank Contamination

For the groundwater samples, the preparation blank indicated low levels of lead, manganese, and zinc while the rinsate blank indicated low levels of copper, iron, and zinc. Positive results for the following are considered not detected due to blank contamination: lead in MW-6D and MW-7S, manganese in DR-1, copper in all groundwaters except DR-3, and zinc in all groundwaters except DR-3 and MW-7S. Iron results were greater than five times the rinsate blank level and are therefore considered to be valid for those samples. No contaminants were detected in the preparation blank for the surface water samples.

For the soil/sediment samples, there were several associated preparation blanks. For sample SS-331D, silver and cadmium results are considered not detected due to low levels of these metals in the preparation blank. Potassium results in SS-BG-1, SS-BG-2D, SS-BG-3, SS-206D, SED-8, SED-9, SED-9D, and SED-10 are considered not detected based on potassium at 151 mg/kg in the associated blank. No other metals in the soil samples required qualification based on blank contamination.

The preparation blank for the vegetable samples indicated low levels of iron and zinc. The iron result in Veg-331D is considered not detected; the other iron and zinc results are greater than five times the blank level.

3.4.2.3 Consistency Between Phase I and Phase II RI Results

Comparison can be made between Phase I and Phase II RI results for the following samples: SG-110/SG-110-T20 (Phase I) and SG-206A (Phase II); SED-1 (Phase I) and SED-1A (Phase II); and all monitoring well samples. The soil gas samples (SG) were not collected at exactly the same location, but are considered counterparts because they were collected within 3 feet of each other. The same client identification was used for the monitoring well samples in Phase I and Phase II, with some minor differences. When new wells were drilled in Phase I, they were designated by (N), and when resampling was performed, they were designated by R. Comparisons were made between the Phase II samples and the Phase I samples designated (N) and R, where appropriate. Significant differences were determined to be those five-fold or greater. When a Phase I or Phase II sample gave a positive result and the corresponding sample had no positive result, the contract required quantitation limit (CRQL) was used for comparison.

Soil Gas Results

The trichloroethene (TCE) level in the Phase II sample SG-206A exceeded the calibration limit at $580 \mu\text{g}/\text{m}^3$ and should be qualified "J" as estimated. This level of TCE is approximately three times greater than the TCE levels in the Phase I counterparts SG-110 ($200 \mu\text{g}/\text{m}^3$) and SG-110T-20 ($190 \mu\text{g}/\text{m}^3$). No other compounds were detected in these samples other than those attributable to field blank contamination (see Section 3.4.2.1 above). The soil gas results are considered comparable.

Sediment Results

Sampling for SED-1 and SED-1A occurred at the same location, although approximately nine months apart. Percent solids in the two samples differed with 63% in SED-1 and 88% in SED-1A. This was due to soil moisture variations (i.e., SED-1 was submerged in surface water, and SED-1A was dry). In Phase I, PAH analysis was performed by GC/MS using NYSDEC CLP Method 91-2, while in Phase II, PAHs were analyzed by HPLC using NYSDEC Method 8310.

Three pesticides (alpha-chlordane, endosulfan sulfate, and endrin ketone) were detected at levels of 5.7 to $21 \mu\text{g}/\text{kg}$ in the Phase I sample SED-1. Three pesticides (heptachlor epoxide, 4,4'-DDE, and 4,4'-DDT) were detected at levels of 5.2 to $16 \mu\text{g}/\text{kg}$ in

the Phase II sample SED-1A. Results were confirmed in each instance. However, the difference between quantitation on the two columns was greater than 25% for endosulfan sulfate and alpha-chlordane in the Phase I sample and for all three pesticides detected in the Phase II sample. This type of problem is indicative of matrix interference. The pesticide results are considered inconsistent, although not significant based on the low levels detected, matrix interference, and sample inhomogeneity.

PAH results for Phase I sample SED-1 and Phase II sample SED-1A are consistent for the compounds detected, with somewhat higher levels of PAHs in SED-1A. The relatively volatile PAHs (acenaphthene, naphthalene, and the methyl-naphthalene isomers) exhibited the greatest differences. The Phase II sample was detected at a level 25 times higher than that of Phase I for acenaphthene, and 13 times higher than that of Phase I for naphthalene. Phase II sampling also resulted in a level of 1-methylnaphthalene at 1,000 $\mu\text{g}/\text{kg}$, compared to the Phase I level of 2-methylnaphthalene at 130 $\mu\text{g}/\text{kg}$. These differences may be due to sample inhomogeneity, differences in analytical methods used or, most likely, a combination of both.

Inorganic results for SED-1 and SED-1A are consistent regarding the analytes and the levels detected, although the Phase II results were slightly higher overall than the Phase I results. The slight difference is probably due to sample inhomogeneity.

Monitoring Well Results

Volatile Organics. Monitoring wells DR-1, DR-2, and DR-3 were sampled twice during Phase I in the fall of 1992 and the spring of 1993. The Phase II results for DR-1 are consistent with the April 28, 1993, Phase I sample for both type and level of compounds detected. The November 23, 1992, Phase I results for DR-1 indicated 30 to 90 times higher levels of 1,1-DCA, total 1,2-DCE, and 1,1,1-TCA, as well as several compounds not detected in the Phase I April 28, 1992, and Phase II sampling events. DR-2 results are fairly consistent for all three sampling events, with some discrepancies. In Phase II, DR-2 indicated 1,2-DCA, vinyl chloride, chloroethane, and 1,1,2-trichloroethane (1,1,2-TCA) at levels ranging from an estimated 1 $\mu\text{g}/\text{L}$ to 190 $\mu\text{g}/\text{L}$. None of these compounds were detected in either of the DR-2 Phase I samples. The DR-3 Phase II results are consistent with both Phase I samples for the compounds detected; namely 1,1-DCA, 1,1-DCE, total 1,2-DCE, TCE,

1,1,1-TCA, and vinyl chloride. However, the Phase I levels ranged from 20 to 2,300 µg/L, while the Phase II levels are significantly lower, ranging from an estimated 4 µg/L to 180 µg/L.

Phase I and Phase II volatile organic results are consistent for the remaining monitoring wells, except for MW-1D and MW-9S. MW-1D results for Phase II were approximately 50 times higher for 1,1-DCA and total 1,2-DCE. In addition, 1,1,1-TCA and vinyl chloride were detected at 100 µg/L and 270 µg/L, but not detected in the Phase I analysis. In Phase II, MW-9S levels for 1,1-DCA, total 1,2-DCE, and TCE increased 20 to 60 times, and vinyl chloride was detected at 430 µg/L.

There were no analytical or field problems that could explain the differences between the Phase I and Phase II volatile results for the well samples.

Semivolatile and Pesticide/PCB Organics. Phase I and Phase II results for the monitoring wells were consistent, and no semivolatile or pesticide/PCB compounds were detected.

Inorganics. Inorganic results in Phase II were basically consistent with those in Phase I for seven of the monitoring wells: DR-2, MW-2D(N), MW-3D(N), MW-6D, MW-7S, MW-9D, and MW-10S. Notable exceptions include the following: cyanide in MW-2D(N) (not detected in Phase I and 1,020 µg/L in Phase II); sodium in MW-6D (565,000 µg/L in Phase I and 169,000 µg/L in Phase II); and zinc in MW-9D (109 µg/L in Phase I and not detected in Phase II). In the remaining wells, aluminum, iron, manganese, and zinc results were significantly lower in Phase II. Additionally, MW-1D, MW-5S, and MW-9S had lower Phase II results for two or more of the following metals: barium, calcium, magnesium, potassium, and sodium.

The generally lower turbidity measurements for the Phase II well samples are believed to account for the lower metals results as discussed in Section 3.2.1.

Table 3-1

SUMMARY OF MONITORING WELL AND
BARGE CANAL WATER LEVEL ELEVATIONS

Well Number	Water Elevations (Feet Above MSL)							Maximum Elevation Fluctuations (feet)
	3/29/93	4/13/93	4/28/93	5/17/93	6/3/93	8/23/93	11/29/93	
DR-1	503.37	502.40	509.47	510.63	511.46	511.31	502.69	9
MW-1D	503.58	502.11	509.49	510.69	511.46	511.32	502.74	9.29
DR-2	527.78	526.90	526.49	524.99	524.26	520.09	519.01	8.77
MW-2D(N)	501.79	502.46	509.43	510.48	511.33	511.27	503.00	9.54
DR-3	508.56	508.00	510.91	511.48	512.15	511.93	506.23	5.92
MW-3D(N)	503.71	502.15	509.56	510.71	511.41	511.30	502.35	9.26
MW-4S	539.95	538.57	537.50	536.04	534.75	530.36	529.06	10.89
MW-5S	525.94	522.71	522.64	522.29	522.30	520.84	521.98	5.1
MW-5D(N)	502.19	510.55	513.40	514.43	515.18	514.40	510.24	12.24
MW-6S	522.55	521.91	522.76	522.40	522.48	520.28	519.03	3.73
MW-6D	503.70	502.15	509.53	510.67	511.42	511.29	502.72	9.27
MW-7S	503.88	503.08	509.70	510.85	511.89	511.68	504.20	8.81
MW-8S	503.67	502.29	509.58	510.56	511.50	511.38	502.72	9.21
MW-9S	526.20	526.07	525.86	524.94	524.29	519.73	519.53	6.67
MW-9D	503.48	501.99	509.38	510.53	511.16	510.85	502.55	9.17
MW-10S	519.70	524.85	526.62	526.39	526.24	524.08	526.88	7.18
MW-10D	503.68	502.14	509.55	510.68	511.33	511.26	502.65	9.19
Barge Canal	—	—	509.52	510.54 ^a	511.36 ^b	511.25 ^b	504 ^c	7 ^d

- ^a Canal water elevation measured from the Rt. 33 bridge based upon the surveyed elevation at a paint mark on the bridge of 544.87 feet above MSL.
- ^b Canal water elevation measured from paint mark on west bank below south side of I-490 eastbound bridge. The paint mark elevation is 516.55.
- ^c Approximate elevation due to low water level estimated from footnote b.
- ^d Approximate change due to footnote c.

Key:

MSL = Mean sea level.

Table 3-2							
PHASE II RI SUMMARY OF ORGANIC RESULTS FOR GROUNDWATER FROM MONITORING WELLS							
Parameter	NYSDEC Class GA Groundwater Standard ^a	Sample Number: Sampling Date:	DR-1 8-26-93	MW-1D 8-26-93	MW-1D ^c 12-14-93	DR-2 8-25-93	DR-2D 8-25-93
Volatile Organics (µg/L)							
Acetone	50 ^b	ND	ND	ND	ND	ND	ND
Benzene	0.7	ND	13	3 B	11	9 J	
Carbon disulfide	NA	ND	ND	ND	ND	ND	ND
Chloroethane	5	ND	41	ND	60	52	
1,1-Dichloroethane	5	13	840	60	2,400	2,200	
1,1-Dichloroethene	5	ND	15	ND	190 J	180 J	
1,2-Dichloroethane	5	ND	10	ND	73	68	
Total-1,2-dichloroethene	5 (each isomer)	7 J	350	15	250	240	
Ethylbenzene	5	ND	5 J	1 J	ND	ND	
Methylene chloride	5	ND	1 B	ND	2 B	2 B	
Toluene	5	ND	ND	3 J	1 J	ND	
1,1,1-Trichloroethane	5	4 J	100	6 J	400	490	
1,1,2-Trichloroethane	5	ND	ND	ND	1 J	2 J	
Trichloroethene	5	ND	17	1 J	290	340	
Vinyl chloride	2	ND	270	15	190	170	
Total xylenes	5 (each isomer)	ND	9 J	4 J	ND	ND	
Semivolatile Organics (µg/L)							
bis(2-Ethylhexyl)phthalate	50	ND	2 B	NA	ND	ND	
2-Methylphenol	1 (total phenolic compounds)	ND	ND	NA	ND	ND	
4-Methylphenol	1 (total phenolic compounds)	ND	ND	NA	ND	ND	
Pesticides (µg/L)	NA	ND	ND	NA	ND	ND	
PCBs (µg/L)	0.1	ND	ND	NA	ND	ND	

Key at end of table.

Table 3-2

**PHASE II RI SUMMARY OF ORGANIC RESULTS FOR
GROUNDWATER FROM MONITORING WELLS**

Parameter	NYSDEC Class GA Groundwater Standard ^a	Sample Number: MW-2D(N) Sampling Date: 8-25-93	MW-2D(N)D 8-25-93	DR-3 8-24-93	MW-3D(N) 8-26-93
Volatile Organics (µg/L)					
Acetone	50 ^b	ND	ND	ND	ND
Benzene	0.7	ND	ND	ND	ND
Carbon disulfide	NA	14	14	3 J	ND
Chloroethane	5	ND	ND	ND	ND
1,1-Dichloroethane	5	12	7 J	31	ND
1,1-Dichloroethene	5	ND	ND	4 J	ND
1,2-Dichloroethane	5	ND	ND	ND	ND
Total-1,2-dichloroethene	5 (each isomer)	ND	ND	130	5 J
Ethylbenzene	5	4 J	2 J	ND	ND
Methylene chloride	5	ND	ND	ND	ND
Toluene	5	5 J	5 J	ND	ND
1,1,1-Trichloroethane	5	ND	ND	4 J	ND
1,1,2-Trichloroethane	5	ND	ND	ND	ND
Trichloroethene	5	ND	ND	9 J	2 J
Vinyl chloride	2	ND	ND	180	ND
Total xylenes	5 (each isomer)	11	9 J	ND	1 J
Semivolatile Organics (µg/L)					
bis(2-Ethylhexyl)phthalate	50	1 B	1 B	16 B	4 B
2-Methylphenol	1 (total phenolic compounds)	ND	ND	ND	ND
4-Methylphenol	1 (total phenolic compounds)	ND	ND	ND	ND
Pesticides (µg/L)	NA	ND	ND	ND	ND
PCBs (µg/L)	0.1	ND	ND	ND	ND

Key at end of table.

Table 3-2

**PHASE II RI SUMMARY OF ORGANIC RESULTS FOR
GROUNDWATER FROM MONITORING WELLS**

Parameter	NYSDEC Class GA Groundwater Standard ^a	Sample Number: MW-4S Sampling Date: 8-25-93	MW-5S 8-25-93	MW-5D(N) 8-25-93	MW-6S 8-24-93
Volatile Organics (µg/L)					
Acetone	50 ^b	ND	ND	ND	ND
Benzene	0.7	ND	ND	ND	ND
Carbon disulfide	NA	ND	ND	2 J	ND
Chloroethane	5	ND	ND	ND	ND
1,1-Dichloroethane	5	ND	ND	ND	ND
1,1-Dichloroethene	5	ND	ND	ND	ND
1,2-Dichloroethane	5	ND	ND	ND	ND
Total-1,2-dichloroethene	5 (each isomer)	ND	ND	ND	2 J
Ethylbenzene	5	ND	ND	ND	ND
Methylene chloride	5	ND	ND	ND	ND
Toluene	5	ND	ND	ND	ND
1,1,1-Trichloroethane	5	ND	ND	ND	ND
1,1,2-Trichloroethane	5	ND	ND	ND	ND
Trichloroethene	5	ND	ND	ND	ND
Vinyl chloride	2	ND	ND	ND	8 J
Total xylenes	5 (each isomer)	ND	ND	1 J	ND
Semivolatile Organics (µg/L)					
bis(2-Ethylhexyl)phthalate	50	1 B	1 B	3 B	1 B
2-Methylphenol	1 (total phenolic compounds)	ND	ND	ND	ND
4-Methylphenol	1 (total phenolic compounds)	ND	ND	ND	ND
Pesticides (µg/L)	NA	ND	ND	ND	ND
PCBs (µg/L)	0.1	ND	ND	ND	ND

Key at end of table.

Table 3-2

PHASE II RI SUMMARY OF ORGANIC RESULTS FOR
GROUNDWATER FROM MONITORING WELLS

Parameter	NYSDEC Class GA Groundwater Standard ^a	Sample Number: Sampling Date:	MW-6D 8-26-93	MW-7S 8-25-93	MW-8S 8-26-93	MW-9S 8-24-93	MW-9S ^c (1st bailer) 12-14-93
Volatile Organics (µg/L)							
Acetone	50 ^b		ND	ND	ND	ND	ND
Benzene	0.7		ND	ND	ND	ND	ND
Carbon disulfide	NA		ND	ND	ND	ND	ND
Chloroethane	5		ND	ND	ND	ND	3 J
1,1-Dichloroethane	5		ND	ND	42	290	54
1,1-Dichloroethene	5		ND	ND	2 J	16	2 J
1,2-Dichloroethane	5		ND	ND	ND	10	ND
Total-1,2-dichloroethene	5 (each isomer)		ND	3 J	35	1,900	340
Ethylbenzene	5		ND	ND	ND	ND	ND
Methylene chloride	5		ND	ND	ND	ND	ND
Toluene	5		ND	ND	ND	1 J	ND
1,1,1-Trichloroethane	5		ND	4 J	5 J	2 J	ND
1,1,2-Trichloroethane	5		ND	ND	ND	ND	ND
Trichloroethene	5		ND	3 J	13	280	54
Vinyl chloride	2		ND	ND	ND	430	44
Total xylenes	5 (each isomer)		ND	ND	ND	ND	ND
Semivolatile Organics (µg/L)							
bis(2-Ethylhexyl)phthalate	50		ND	4 B	3 B	2 B	NA
2-Methylphenol	1 (total phenolic compounds)		ND	ND	ND	ND	NA
4-Methylphenol	1 (total phenolic compounds)		ND	ND	ND	ND	NA
Pesticides (µg/L)	NA		ND	ND	ND	ND	NA
PCBs (µg/L)	0.1		ND	ND	ND	ND	NA

Key at end of table.

Table 3-2 PHASE II RI SUMMARY OF ORGANIC RESULTS FOR GROUNDWATER FROM MONITORING WELLS							
Parameter	NYSDEC Class GA Groundwater Standard ^a	Sample Number: Sampling Date:	MW-9S (after 3 well volumes) 12/14/93	MW-9D 8-26-93	MW-10S 8-24-93	MW-10D 8-26-93	MW-RIN-8- 24 Rinsate 8-24-93
Volatile Organics (µg/L)							
Acetone	50 ^b		ND	ND	3 B	ND	ND
Benzene	0.7		2 B	ND	7 J	23	ND
Carbon disulfide	NA		ND	2 J	ND	ND	ND
Chloroethane	5		43	ND	ND	ND	ND
1,1-Dichloroethane	5		730	7 J	2,700	29	ND
1,1-Dichloroethene	5		23	ND	53	ND	ND
1,2-Dichloroethane	5		18	ND	79	ND	ND
Total-1,2-dichloroethene	5 (each isomer)		2,900	36	190 J	3 J	ND
Ethylbenzene	5		0.3 J	ND	2 J	ND	ND
Methylene chloride	5		ND	ND	4 B	ND	ND
Toluene	5		0.6 J	3 J	190 J	22	ND
1,1,1-Trichloroethane	5		ND	ND	2,100	ND	ND
1,1,2-Trichloroethane	5		ND	ND	ND	ND	ND
Trichloroethene	5		320	14	41	ND	ND
Vinyl chloride	2		510	ND	130 J	ND	ND
Total xylenes	5 (each isomer)		ND	2 J	5 J	12	ND
Semivolatile Organics (µg/L)							
bis(2-Ethylhexyl)phthalate	50		NA	3 B	1 B	3 B	2 B
2-Methylphenol	1 (total phenolic compounds)		NA	ND	1 J	ND	ND
4-Methylphenol	1 (total phenolic compounds)		NA	ND	8 J	ND	ND
Pesticides (µg/L)	NA		NA	ND	ND	ND	ND
PCBs (µg/L)	0.1		NA	ND	ND	ND	ND

Key at end of table.

Table 3-2

PHASE II RI SUMMARY OF ORGANIC RESULTS FOR
GROUNDWATER FROM MONITORING WELLS

Parameter	NYSDEC Class GA Groundwater Standard ^a	Sample Number: MW-TB-8-24 Sampling Date: 8-24-93	MW-TB-8-25 Trip Blank 8-25-93	MW-TB-8-26 Trip Blank 8-26-93	Samples Exceeding Groundwater Standards
Volatile Organics (µg/L)					
Acetone	50 ^b	7 J	4 J	ND	—
Benzene	0.7	ND	ND	ND	MW-1D, DR-2, DR-2D, MW-10S, MW-10D
Carbon disulfide	NA	ND	ND	ND	NA
Chloroethane	5	ND	ND	ND	DR-2, DR-2D, MW-1D
1,1-Dichloroethane	5	ND	ND	ND	DR-1, MW-1D, DR-2, DR-2D, MW-2D(N), DR-3, MW-2DD, MW-8S, MW-9S, MW-9D, MW-10S, MW-10D
1,1-Dichloroethene	5	ND	ND	ND	MW-1D, DR-2, DR-2D, MW-9S, MW-10S
1,2-Dichloroethane	5	ND	ND	ND	MW-1D, DR-2, DR-2D, MW-9S, MW-10S
Total-1,2-dichloroethene	5 (each isomer)	ND	ND	ND	DR-1, MW-1D, DR-2, DR-2D, DR-3, MW-8S, MW-9S, MW-9D, MW-10S
Ethylbenzene	5	ND	ND	ND	—
Methylene chloride	5	2 B	1 B	ND	—
Toluene	5	ND	ND	ND	MW-10S, MW-10D
1,1,1-Trichloroethane	5	ND	ND	ND	MW-1D, DR-2, DR-2D, MW-10S
1,1,2-Trichloroethane	5	ND	ND	ND	—
Trichloroethene	5	ND	ND	ND	MW-1D, DR-2, DR-2D, DR-3, MW-8S, MW-9S, MW-9D, MW-10S
Vinyl chloride	2	ND	ND	ND	MW-1D, DR-2, DR-2D, DR-3, MW-6S, MW-9S, MW-10S

Key at end of table.

Table 3-2

**PHASE II RI SUMMARY OF ORGANIC RESULTS FOR
GROUNDWATER FROM MONITORING WELLS**

Parameter	NYSDEC Class GA Groundwater Standard ^a	Sample Number: MW-TB-8-24 Trip Blank Sampling Date: 8-24-93	MW-TB-8-25 Trip Blank 8-25-93	MW-TB-8-26 Trip Blank 8-26-93	Samples Exceeding Groundwater Standards
Total xylenes	5 (each isomer)	ND	ND	ND	All of the ortho-xylene isomers were less than 5 µg/L in MW-1D, MW-2D(N), MW-2D(N)D, and MW-10D; however, the combined meta- and para-xylene isomers were greater than 5 µg/L. Since the meta- and para-xylene isomers cannot be separated, it is not known if these samples exceed the standards.
Semivolatile Organics (µg/L)					
bis(2-Ethylhexyl)phthalate	50	Z	Z	Z	—
2-Methylphenol	1 (total phenolic compounds)	Z	Z	Z	—
4-Methylphenol	1 (total phenolic compounds)	Z	Z	Z	MW-10S
Pesticides (µg/L)	NA	Z	Z	Z	NA
PCBs (µg/L)	0.1	Z	Z	Z	—

^a NYSDEC, October 1993, Ambient Water Quality Standards and Guidance Values. Class GA groundwater is best suited as a potable water supply.

^b Guidance value.

^c Recra Environmental, Inc., results from NYSDEC and NYSDOH sampling effort.

Key:

— = No sample exceeded groundwater standards.

B = The reported value is considered non-detect due to presence in field/laboratory blanks.

J = The associated numerical value is an estimated quantity.

NA = Not available.

ND = Not detected.

Z = Analysis does not apply to sample.

Source: Ecology and Environment Engineering, P.C. 1993.

Table 3-3**PHASE II RI SUMMARY OF INORGANIC RESULTS FOR
GROUNDWATER FROM MONITORING WELLS**

Parameter	NYSDEC Class GA Groundwater Standard ^a	Sample Number: DR-1 Sampling Date: 8-26-93	MW-1D 8-26-93	DR-2 8-25-93	DR-2D (Duplicate of DR-2) 8-25-93
Turbidity (NTUs)	NA	5.1	96.2	19.7	19.7
Inorganics ($\mu\text{g/L}$)					
Aluminum	NA	82.8 J	137 J	57.6 J	57.0 J
Antimony	3	ND	ND	ND	ND
Arsenic	25	ND	ND	3.3 J	3.9 J
Barium	1,000	22.6 J	51.4 J	92.5 J	91.6 J
Calcium	NA	51,200	245,000	131,000	131,000
Copper	200	ND	ND	2.5 B	7.0 B
Iron	300 ^b	197	268	3,740	5,520
Lead	25	ND	ND	ND	ND
Magnesium	35,000 ^c	11,700	76,400	62,700	62,300
Manganese	300 ^b	5.0 B	55.7	39.4	46.2
Potassium	NA	2,100 J	17,100	3,390 J	3,410 J
Selenium	10	1.4 J	ND	ND	ND
Sodium	20,000	28,700	1,020,000	248,000	248,000
Vanadium	NA	ND	ND	ND	ND
Zinc	300	3.3 B	15.8 B	5.4 B	7.0 B
Cyanide	100	ND	ND	ND	ND

Table 3-3

**PHASE II RI SUMMARY OF INORGANIC RESULTS FOR
GROUNDWATER FROM MONITORING WELLS**

Parameter	NYSDEC Class GA Groundwater Standard*	Sample Number: Sampling Date:	MW-2D(N) 8-25-93	MW-2D(N)D 8-25-93	DR-3 8-24-93	MW-3D(N) 8-26-93
Turbidity (NTUs)	NA		18.1	18.1	52.2	31.5
Inorganics ($\mu\text{g/L}$)						
Aluminum	NA		446	309	224	149 J
Antimony	3		ND	ND	ND	ND
Arsenic	25		3.9 J	6.2 J	ND	ND
Barium	1,000		ND	ND	ND	ND
Calcium	NA		674,000	675,000	533,000	183,000
Copper	200		ND	2.1 B	12.7 J	ND
Iron	300 ^b		301	482	3,220	1,370
Lead	25		27.3	ND	10.6 J	ND
Magnesium	35,000 ^c		200,000	203,000	67,300	46,300
Manganese	300 ^b		9.3 J	21.1	28.4	40.9
Potassium	NA		45,700	45,700	19,900	10,600
Selenium	10		ND	ND	ND	ND
Sodium	20,000		2,160,000	2,150,000	457,000	88,600
Vanadium	NA		ND	ND	ND	ND
Zinc	300		4.5 B	7.8 B	51.6	19.9 B
Cyanide	100		1,020	1,090	ND	ND

Key at end of table.

Table 3-3

**PHASE II RI SUMMARY OF INORGANIC RESULTS FOR
GROUNDWATER FROM MONITORING WELLS**

Parameter	NYSDEC Class GA Groundwater Standard ^a	Sample Number: Sampling Date:	MW-4S 8-25-93	MW-5S 8-25-93	MW-5D(N) 8-25-93	MW-6S 8-24-93
Turbidity (NTUs)	NA		1.05	6.01	120	0.5
Inorganics (µg/L)						
Aluminum	NA		111 J	463	257	53.2 J
Antimony	3		ND	ND	ND	ND
Arsenic	25		ND	ND	ND	2.6 J
Barium	1,000		122 J	81.3 J	ND	294
Calcium	NA		107,000	137,000	301,000	48,400
Copper	200		ND	7.5 B	2.6 B	ND
Iron	300 ^b		158	1,270	611	842
Lead	25		ND	24.5	ND	ND
Magnesium	35,000 ^c		39,900	46,400	83,200	34,400
Manganese	300 ^b		5.7 J	124	28.2	155
Potassium	NA		1,060 J	3,100 J	19,600	7,540
Selenium	10		ND	ND	ND	ND
Sodium	20,000		37,300	158,000	526,000	371,000
Vanadium	NA		ND	ND	ND	ND
Zinc	300		4.4 B	21.6 B	11.6 B	8.6 B
Cyanide	100		ND	ND	ND	ND

Key at end of table.

Table 3-3

**PHASE II RI SUMMARY OF INORGANIC RESULTS FOR
GROUNDWATER FROM MONITORING WELLS**

Parameter	NYSDEC Class GA Groundwater Standard ^a	Sample Number: Sampling Date:	MW-6D 8-26-93	MW-7S 8-25-93	MW-8S 8-25-93	MW-9S 8-24-93
Turbidity (NTUs)	NA		19.3	16.2	4.9	44.6
Inorganics (µg/L)						
Aluminum	NA		106 J	475	198 J	238
Antimony	3		ND	ND	ND	ND
Arsenic	25		ND	ND	ND	ND
Barium	1,000		ND	58.4 J	42.3 J	75.8 J
Calcium	NA		184,000	70,500	197,000	77,500
Copper	200		ND	6.2 B	ND	2.8 B
Iron	300 ^b		290	1,300	1,010	770
Lead	25		1.4 B	5.5 B	ND	ND
Magnesium	35,000 ^c		58,400	25,500	62,500	29,300
Manganese	300 ^b		22.0	73.4	98.0	43.3
Potassium	NA		19,300	4,190 J	4,880 J	3,250 J
Selenium	10		ND	ND	ND	ND
Sodium	20,000		169,000	205,000	52,500	199,000
Vanadium	NA		ND	ND	ND	ND
Zinc	300		29.7 B	55.3	20.7 B	10.5 B
Cyanide	100		ND	ND	ND	ND

Table 3-3

**PHASE II RI SUMMARY OF INORGANIC RESULTS FOR
GROUNDWATER FROM MONITORING WELLS**

Parameter	NYSDEC Class GA Groundwater Standard ^a	Sample Number: Sampling Date:	MW-9D 8-26-93	MW-10S 8-24-93	MW-10D 8-26-93
Turbidity (NTUs)	—		17.7	12.7	62.2
Inorganics (µg/L)					
Aluminum	NA		396	343	478
Antimony	3		52.2 J	ND	ND
Arsenic	25		ND	6.0 J	ND
Barium	1,000		28.5 J	142 J	33.3 J
Calcium	NA		661,000	50,600	428,000
Copper	200		ND	1.9 B	2.1 B
Iron	300 ^b		269	2,090	600
Lead	25		ND	ND	51.1
Magnesium	35,000 ^c		131,000	26,800	137,000
Manganese	300 ^b		13.2 J	45.3	25.3
Potassium	NA		43,500	2,220 J	33,600
Selenium	10		ND	ND	ND
Sodium	20,000		2,620,000	255,000	1,280,000
Vanadium	NA		ND	56.0	ND
Zinc	300		29.4 B	10.9 B	17.5 B
Cyanide	100		ND	ND	ND

Key at end of table.

Table 3-3

**PHASE II RI SUMMARY OF INORGANIC RESULTS FOR
GROUNDWATER FROM MONITORING WELLS**

Parameter	NYSDEC Class GA Groundwater Standard ^a	Sample Number: Sampling Date:	MW-RIN-8-24 8-24-93	Samples Exceeding Groundwater Standards
Turbidity (NTUs)	NA		NA	NA
Inorganics (µg/L)				
Aluminum	NA		ND	NA
Antimony	3		ND	—
Arsenic	25		ND	—
Barium	1,000		ND	—
Calcium	NA		ND	—
Copper	200		2.2 J	—
Iron	300 ^b		18.3 J	DR-2, DR-2D, MW-2D(N), MW-2D(N)D, DR-3, MW-3D(N), MW-5S, MW-5D(N), MW-6S, MW-7S, MW-8S, MW-9S, MW-10S, MW-10D
Lead	25		ND	MW-2D(N), MW-10D
Magnesium	35,000 ^c		ND	MW-1D, DR-2, DR-2D, MW-2D(N), MW-2D(N)D, DR-3, MW-3D(N), MW-4S, MW-5S, MW-5D(N), MW-6D, MW-8S, MW-9D, MW-10D
Manganese	300 ^b		ND	—
Potassium	NA		ND	NA
Selenium	10		ND	—
Sodium	20,000		ND	DR-1, MW-1D, DR-2, DR-2D, MW-2D(N), MW-2D(N)D, DR-3, MW-3D(N), MW-4S, MW-5S, MW-5D(N), MW-6S, MW-6D, MW-7S, MW-8S, MW-9S, MW-9D, MW-10S, MW-10D
Vanadium	NA		ND	NA
Zinc	300		6.3 B	—
Cyanide	100		ND	MW-2D(N), MW-2D(N)D

^a NYSDEC, October 1993, Ambient Water Quality Standards and Guidance Values. Class GA groundwater is best suited as a potable water supply.

^b The standard for the sum of iron and manganese is 500 µg/L.

^c Guidance value.

Key:

— = No sample exceeded groundwater standards.

B = The reported value is considered non-detect due to presence in field/laboratory blanks.

J = The associated numerical value is an estimated quantity.

NA = Not available.

ND = Not detected.

Source: Ecology and Environment Engineering, P.C. 1993.

Table 3-4**PHASE II RI SUMMARY OF VOC RESULTS FOR SOIL GAS**

Parameter	Sample no.: Sampling method: Sample volume (liters): Sampling date:	Molecular Weight	SG-331D Tedlar 1 8-26-93	SG-206A Tedlar 1 8-26-93	SG-206B Tedlar 1 8-26-93	SG-206C Tedlar 1 8-26-93
Purgeable Halocarbon Compounds $\mu\text{g}/\text{m}^3$ (ppb)						
Chloroethane		—	ND	ND	ND	ND
1,1-Dichloroethane		—	ND	ND	ND	ND
1,2-Dichloroethane		—	ND	ND	ND	ND
cis-1,2-Dichloroethene		—	ND	ND	ND	ND
1,1-Dichloroethene		—	ND	ND	ND	ND
trans-1,2-Dichloroethene		—	ND	ND	ND	ND
Methylene chloride		84.93	37 (129) B	46 (160) B	30 (104) B	20 (70) B
Methyl tertiary-butyl ether		—	ND	ND	ND	ND
1,1,1-Trichloroethane		—	ND	ND	ND	ND
Trichloroethene		131.39	140 (752)	580 (3117) J	ND	ND
Vinyl chloride		—	ND	ND	ND	ND
Purgeable Aromatic Compounds $\mu\text{g}/\text{m}^3$ (ppb)						
Benzene		78.12	18 (58) B	17 (54) B	12 (38) B	11 (35) B
Ethylbenzene		106.17	27 (117) B	14 (61) B	19 (83) B	18 (78) B
Toluene		92.15	110 (415) B	93 (351) B	85 (320) B	84 (317) B
Xylene (total)		106.17	160 (695) B	79 (373) B	110 (478) B	110 (478) B

Key at end of table.

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Table 3-4**PHASE II RI SUMMARY OF VOC RESULTS FOR SOIL GAS**

Parameter	Sample no.: Sampling method: Sample volume (liters): Sampling date:	Molecular Weight	SG-206D Tedlar 1 8-26-93	SG-206DD Tedlar 1 8-26-93	SG-206-FB (Field Blank) Tedlar 1 8-26-93
Purgeable Halocarbon Compounds $\mu\text{g}/\text{m}^3$ (ppb)					
Chloroethane			ND	ND	ND
1,1-Dichloroethane			ND	ND	ND
1,2-Dichloroethane			ND	ND	ND
cis-1,2-Dichloroethene			ND	ND	ND
1,1-Dichloroethene			ND	ND	ND
trans-1,2-Dichloroethene			ND	ND	ND
Methylene chloride		84.93	27 (94) B	22 (76) B	65 (226) B
Methyl tertiary-butyl ether			ND	ND	ND
1,1,1-Trichloroethane			ND	ND	ND
Trichloroethene			ND	ND	ND
Vinyl chloride			ND	ND	ND
Purgeable Aromatic Compounds $\mu\text{g}/\text{m}^3$ (ppb)					
Benzene		78.12	12 (38) B	14 (45) B	27 (86)
Ethylbenzene		106.17	19 (83) B	21 (91) B	25 (109)
Toluene		92.15	91 (343) B	91 (343) B	130 (490)
Xylene (total)		106.17	110 (478) B	120 (521) B	140 (608)

Key:

- = Not applicable.
 B = The reported value is considered non-detect due to presence in field/laboratory blanks.
 J = The associated numerical value is an estimated quantity.
 ND = Not detected.

Source: Ecology and Environment Engineering, P.C. 1993.

Table 3-5 PHASE II RI SUMMARY OF ORGANIC RESULTS FOR SURFACE SOILS							
Parameter	Sample Number: SS-33V-Comp Sampling Date: 8-27-93	SS-93D-Comp 8-27-93	SS-93DD-Comp 8-27-93	SS-141D-Comp 8-27-93	SS-168D-Comp 8-27-93	SS-181D-Comp 8-27-93	SS-205D-Comp 8-27-93
Volatile Organics (µg/kg)							
Methylene chloride	NR	NR	NR	NR	NR	NR	NR
Toluene	NR	NR	NR	NR	NR	NR	NR
Semivolatile Organics (µg/kg)							
Bis(2-ethylhexyl)phthalate	NR	NR	NR	NR	NR	NR	NR
Butylbenzylphthalate	NR	NR	NR	NR	NR	NR	NR
Carbazole	NR	NR	NR	NR	NR	NR	NR
Diethylphthalate	NR	NR	NR	NR	NR	NR	NR
Semivolatile Organics (PAHs) (µg/kg)							
Acenaphthene	1,400	4,100	950	1,300	14,000	2,400	4,100
Acenaphthylene	ND	ND	ND	ND	ND	ND	ND
Anthracene	85	240	54	53	1,300	100	170 J
Benzo(a)anthracene	480	1,600	340	430	7,100	560	730
Benzo(a)pyrene	360	2,400	480	330	7,600 J	460	990
Benzo(b)fluoranthene	420	2,300	460	300	5,900	450	900
Benzo(g,h,i)perylene	380	3,100	680	320	5,200	430	860
Benzo(k)fluoranthene	220	1,200	260	170	3,800	300	590
Chrysene	330	1,300	280	280	5,900	440	800
Dibenz(a,h)anthracene	330	2,700	570	230	3,900	330	650
Fluoranthene	620	2,000	480	590	13,000 J	990	1,600

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Key at end of table.

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Parameter	Sample Number:	SS-33V-Comp	SS-93D-Comp	SS-93DD-Comp	SS-141D-Comp	SS-168D-Comp	SS-181D-Comp	SS-205D-Comp
	Sampling Date:	8-27-93	8-27-93	8-27-93	8-27-93	8-27-93	8-27-93	8-27-93
Fluorene		49	88 J	26 J	26	520	35 J	76 J
Indeno(1,2,3-cd)pyrene		370	3,200	680	290	4,900	440	900
1-Methylnaphthalene		ND	560 J	280 J	320	11,000	ND	ND
2-Methylnaphthalene		ND	ND	ND	ND	8,800	ND	ND
Naphthalene		570	750	210	220	5,200	400	710
Phenanthrene		320	1,000 J	330 J	430	6,600	580 J	1,200 J
Pyrene		580	2,400	500	470	10,000	920	1,500
Pesticides (µg/kg)								
alpha-chlordane		NR	NR	NR	NR	NR	NR	NR
4,4,-DDD		NR	NR	NR	NR	NR	NR	NR
4,4,-DDE		NR	NR	NR	NR	NR	NR	NR
4,4,-DDT		NR	NR	NR	NR	NR	NR	NR
Dieldrin		NR	NR	NR	NR	NR	NR	NR
gamma-chlordane		NR	NR	NR	NR	NR	NR	NR
Heptachlor epoxide		NR	NR	NR	NR	NR	NR	NR
PCBs (µg/kg)		NR	NR	NR	NR	NR	NR	NR

Key at end of table.

Table 3-5

PHASE II RI SUMMARY OF ORGANIC RESULTS FOR SURFACE SOILS

Parameter	Sample Number: Sampling Date:	SS-206D 8-26-93	SS-206D-Comp 8-26-93	SS-244D-Comp 8-27-93	SS-263D-Comp 8-27-93	SS-270D-Comp 8-27-93	SS-320D-Comp 8-27-93	SS-331D 8-26-93
Volatile Organics (µg/kg)								
Methylene chloride		71 B	NR	NR	NR	NR	NR	80 B
Toluene		2 J	NR	NR	NR	NR	NR	ND
Semivolatile Organics (µg/kg)								
Bis(2-ethylhexyl)phthalate		67 B	NR	NR	NR	NR	NR	55 B
Butylbenzylphthalate		ND	NR	NR	NR	NR	NR	71 J
Carbazole		ND	NR	NR	NR	NR	NR	120 J
Diethylphthalate		230 B	NR	NR	NR	NR	NR	97 B
Semivolatile Organics (PAHs) (µg/kg)								
Acenaphthene		ND	700	26,000	910	15,000	1,800	ND
Acenaphthylene		ND	ND	860 J	ND	ND	ND	ND
Anthracene		ND	44	5,900	63	2,400	60	140 J
Benzo(a)anthracene		67 J	220	11,000	240	4,400	500	1,100
Benzo(a)pyrene		72 J	180	8,000	200	2,800	520	1,100
Benzo(b)fluoranthene		120 J	200	6,300	190	2,400	440	1,500
Benzo(g,h,i)perylene		ND	180	6,100	200	3,300	370	980
Benzo(k)fluoranthene		43 J	130	4,700	130	1,700	270	460
Chrysene		83 J	180	8,100	180	3,300	400	1,100
Dibenz(a,h)anthracene		ND	140	4,800	160	1,600	ND	260 J
Fluoranthene		120 J	470	27,000	410	11,000	900	1,200

Key at end of table.

Table 3-5 PHASE II RI SUMMARY OF ORGANIC RESULTS FOR SURFACE SOILS							
Parameter	Sample Number: Sampling Date:	SS-206D 8-26-93	SS-206D-Comp 8-26-93	SS-244D-Comp 8-27-93	SS-263D-Comp 8-27-93	SS-270D-Comp 8-27-93	SS-320D-Comp 8-27-93
Fluorene		ND	23	3,000	13 J	1,400	20 J
Indeno(1,2,3-cd)pyrene		83 J	180	6,000	190	1,900	450
1-Methylnaphthalene		ND	320	ND	260	ND	310 J
2-Methylnaphthalene		ND	ND	ND	ND	ND	ND
Naphthalene		56 J	200	17,000	350	11,000	380 J
Phenanthrene		ND	580	18,000	130	8,800	230
Pyrene		160 J	420	17,000	350	11,000	890
Pesticides (µg/kg)							
alpha-chlordane		ND	NR	NR	NR	NR	19 J
4,4,-DDD		ND	NR	NR	NR	NR	37 J
4,4,-DDE		ND	NR	NR	NR	NR	840
4,4,-DDT		ND	NR	NR	NR	NR	1,200
Dieldrin		ND	NR	NR	NR	NR	200 J
gamma-chlordane		ND	NR	NR	NR	NR	ND
Heptachlor epoxide		ND	NR	NR	NR	NR	60
PCBs (µg/kg)		ND	NR	NR	NR	NR	ND

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Key at end of table.

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Table 3-5 PHASE II RI SUMMARY OF ORGANIC RESULTS FOR SURFACE SOILS							
Parameter	Sample Number: Sampling Date:	SS-331D-Comp 8-26-93	SS-BG-1 8-27-93	SS-BG-2 8-27-93	SS-BG-2D 8-27-93	SS-BG-3 8-27-93	SS-BG-4 8-27-93
Volatile Organics (µg/kg)							
Methylene chloride		NR	NR	NR	NR	NR	NR
Toluene		NR	NR	NR	NR	NR	NR
Semivolatile Organics (µg/kg)							
Bis(2-ethylhexyl)phthalate		NR	NR	NR	NR	NR	NR
Butylbenzylphthalate		NR	NR	NR	NR	NR	NR
Carbazole		NR	NR	NR	NR	NR	NR
Diethylphthalate		NR	NR	NR	NR	NR	NR
Semivolatile Organics (PAHs) (µg/kg)							
Acenaphthene		8,400	420	1,300	910	290	320
Acenaphthylene		ND	100 J	ND	ND	ND	ND
Anthracene		1,300	25	81	47	31	16 J
Benzo(a)anthracene		4,400	46	370	230	210	55
Benzo(a)pyrene		3,100	55	310	230	160	61
Benzo(b)fluoranthene		2,700	60	320	200	200	60
Benzo(g,h,i)perylene		2,500	45 J	300	200	160	52
Benzo(k)fluoranthene		1,800	38	200	130	120	39
Chrysene		2,800	47	320	190	180	64
Dibenz(a,h)anthracene		2,300	140	230	150	130	48 J
Fluoranthene		7,600	110	860	490	370	180

Key at end of table.

Parameter	Sample Number: SS-331D-Comp	SS-BG-1 8-27-93	SS-BG-2 8-27-93	SS-BG-2D 8-27-93	SS-BG-3 8-27-93	SS-BG-4 8-27-93
	Sampling Date: 8-26-93					
Fluorene	750	ND	66	18 J	18 J	14 J
Indeno(1,2,3-cd)pyrene	2,600	43	290	200	150	52
1-Methylnaphthalene	3,100 J	ND	ND	ND	ND	ND
2-Methylnaphthalene	3,400 J	89 J	ND	ND	ND	ND
Naphthalene	3,900 J	140 J	500	340	370	300
Phenanthrene	4,400	49	310	170	130	120
Pyrene	7,500	110	840	520	340	140
Pesticides (µg/kg)						
alpha-chlordane	NR	ND	ND	ND	28 J	ND
4,4,'-DDD	NR	ND	ND	ND	ND	ND
4,4,'-DDE	NR	ND	ND	ND	ND	ND
4,4,'-DDT	NR	ND	ND	ND	ND	ND
Dieldrin	NR	ND	15 J	20 J	ND	ND
gamma-chlordane	NR	ND	ND	ND	34 J	ND
Heptachlor epoxide	NR	ND	3.0 J	2.8 J	36 J	ND
PCBs (µg/kg)	NR	ND	ND	ND	ND	ND

Key:

B = The reported value is considered non-detect due to presence in field/laboratory blanks.

J = The associated numerical value is an estimated quantity.

ND = Not detected.

NR = Not requested.

Source: Ecology and Environment Engineering, P.C. 1993.

Table 3-6

PHASE II RI SUMMARY OF INORGANIC RESULTS FOR SURFACE SOILS

Parameter	Common Range ^a	Sample Number: SS-33V-Comp Sampling Date: 8-27-93	SS-93D-Comp 8-27-93	SS-93DD-Comp 8-27-93	SS-141D-Comp 8-27-93	SS-168D-Comp 8-27-93	SS-181D-Comp 8-27-93	SS-205D-Comp 8-27-93
Inorganics (mg/kg)								
Aluminum	7,000 - 100,000	5,420	5,720	2,520	4,690	2,540	3,030	2,820
Arsenic	<0.1 - 73	2.5	4.2	4.1	8.6	4.4	3.9	13.6
Barium	10 - 1,500	53.1	58.8	44.2	122	112	42.9	63.7
Beryllium	<1 - 7	0.35 J	0.36 J	0.31 J	0.55 J	0.26 J	0.26 J	0.25 J
Cadmium	0.001 - 0.7 ^b	1.1 J	0.89 J	0.93 J	1.1 J	2.5	ND	1.8
Calcium	10 - 280,000	8,260	9,270	9,600	12,800	5,870	4,170	8,430
Chromium	1 - 1,000	10.8	19.1	12.6	8.0	10.1	5.4	13.1
Cobalt	<0.3 - 70	5.1 J	5.3 J	3.6 J	5.0 J	5.4 J	4.1 J	4.2 J
Copper	<1 - 700	21.2	39.1	28.4	40.2	147	22.4	777
Iron	10 - >100,000	8,860	10,500	4,780	9,150	9,780	6,600	8,690
Lead	>10 - 300	85.3	88.7	70.0	48.9	31.5	48.1	110
Magnesium	50 - 50,000	2,820	3,240	2,370	1,430	1,270	1,200	2,220
Manganese	<2 - 7,000	256	338	294	165	220	286	418
Mercury	0.01 - 3.4	0.22	0.96	1.0	ND	0.16	ND	ND
Nickel	<5 - 700	10.2	11.3	6.7 J	8.8	13.5	2.5 J	9.9
Potassium	50 - 3,700	1,000 J	901 J	600 J	694 J	493 J	302 J	760 J
Selenium	<0.1 - 3.9	0.27 J	0.23 J	ND	0.28 J	0.30 J	ND	ND
Silver	NA	0.63 J	1.0 J	1.4 J	ND	0.68 J	ND	0.85 J
Sodium	50 - 50,000	ND	134 J	129 J	152 J	ND	ND	ND
Thallium	NA	ND	ND	ND	0.23 J	ND	ND	ND
Vanadium	<7 - 300	13.8	15.5	8.0 J	13.0	9.5 J	8.8 J	9.3 J
Zinc	<5 - 2,900	189	120	87.6	98.6	2,030	76.9	513
Cyanide	NA	0.78	ND	ND	ND	0.70	ND	0.77

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Key at end of table.

Table 3-6

PHASE II RI SUMMARY OF INORGANIC RESULTS FOR SURFACE SOILS

Parameter	Common Range ^a	Sample Number: Sampling Date:	SS-206D 8-26-93	SS-206D-Comp 8-26-93	SS-244D-Comp 8-27-93	SS-263D-Comp 8-27-93	SS-270D-Comp 8-27-93	SS-320D-Comp 8-27-93	SS-331D 8-26-93
Inorganics (mg/kg)									
Aluminum	7,000 - 100,000		4,910	6,480	3,050	2,760	3,700	3,280	7,310
Arsenic	<0.1 - 73		4.9	9.2	4.8	7.0	4.1	7.1	7.2
Barium	10 - 1,500		39.6 J	48.8	48.8	53.3	119	105	78.1
Beryllium	<1 - 7		0.28 J	0.35 J	0.26 J	0.22 J	0.39 J	0.35 J	0.46 J
Cadmium	0.001 - 0.7 ^b		1.8	1.1	ND	1.3	0.96 J	0.63 J	1.8 B
Calcium	10 - 280,000		2,110	5,590	6,610	26,600	9,220	17,100	23,000
Chromium	1 - 1,000		77.6	12.1	7.4	12.9	7.6	8.2	37.8
Cobalt	<0.3 - 70		19.4	6.1 J	4.0 J	4.6 J	9.4 J	7.1 J	6.6 J
Copper	<1 - 700		204	349	18.9	21.7	32.9	54.3	50.9
Iron	10 - >100,000		52,300	11,100	6,530	10,800	9,520	13,300	13,300
Lead	>10 - 300		820 ^c	110	60.6	210	237	78.5	153
Magnesium	50 - 50,000		1,140	2,180	2,220	1,550	3,020	5,410	6,610
Manganese	<2 - 7,000		950	265	268	235	1,240	682	297
Mercury	0.01 - 3.4		0.10	0.16	ND	2.0	ND	ND	0.31
Nickel	<5 - 700		46.2	17.3	6.8 J	8.4 J	6.5 J	10.4	16.0
Potassium	50 - 3,700		603 J	1,030 J	498 J	359 J	618 J	545 J	1,410
Selenium	<0.1 - 3.9		ND	0.23 J	ND	ND	ND	ND	0.53 J
Silver	NA		ND	ND	ND	1.6 J	ND	ND	0.64 B
Sodium	50 - 50,000		ND	ND	ND	ND	ND	ND	339 J
Thallium	NA		ND	ND	ND	ND	ND	ND	ND
Vanadium	<7 - 300		14.8	15.4	8.6 J	12.1	12.1	13.2	17.6
Zinc	<5 - 2,900		327	302	83.2	191	157	163	217
Cyanide	NA		ND	ND	ND	0.59	0.60	ND	ND

Key at end of table.

Table 3-6

PHASE II RI SUMMARY OF INORGANIC RESULTS FOR SURFACE SOILS

Parameter	Common Range ^a	Sample Number: SS-331D-Comp Sampling Date: 8-26-93	SS-BG-1 8-27-93	SS-BG-2 8-27-93	SS-BG-2D 8-27-93	SS-BG-3 8-27-93	SS-BG-4 8-27-93	Samples Exceeding Common Range
Inorganics (mg/kg)								
Aluminum	7,000 - 100,000	5,900	5,160	6,140	5,590	5,960	6,800	—
Arsenic	<0.1 - 73	4.3	1.8 J	3.0	2.9	3.8	2.9	—
Barium	10 - 1,500	69.7	92.5	51.9	44.8	53.8	48.4	—
Beryllium	<1 - 7	0.42 J	0.35 J	0.37 J	0.35 J	0.39 J	0.41 J	—
Cadmium	0.001 - 0.7 ^b	1.8	1.3	ND	0.72 J	0.69 J	ND	SS-33V-Comp, SS-93D-Comp, SS-93DD-Comp, SS-149D-Comp, SS-168D-Comp, SS-205D-Comp, SS-206D, SS-206D-Comp, SS-263D-Comp, SS-270D-Comp, SS-331D-Comp, SS-BG-1, SS-BG-2D'
Calcium	10 - 280,000	10,300	6,950	23,500	25,100	17,800	28,900	—
Chromium	1 - 1,000	15.7	7.1	11.0	8.5	12.5	9.9	—
Cobalt	<0.3 - 70	7.0 J	2.5 J	7.3 J	5.4 J	5.9 J	6.1 J	—
Copper	<1 - 700	116	20.2	14.5	13.0	13.4	11.9	SS-205D-Comp
Iron	10 - >100,000	15,900	4,230	15,400	9,950	11,700	11,500	—
Lead	>10 - 300	177	30.2	22.9	23.7	30.5	43.8	SS-206D
Magnesium	50 - 50,000	4,100	1,630	8,860	7,270	6,220	11,200	—
Manganese	<2 - 7,000	376	66.1	409	327	473	288	—
Mercury	0.01 - 3.4	0.12	ND	ND	0.27	0.11	ND	—
Nickel	<5 - 700	17.0	9.6	10.5	9.7	8.5	10	—
Potassium	50 - 3,700	292 J	536 B	806 J	519 B	538 B	879 J	—
Selenium	<0.1 - 3.9	0.25 J	0.52 J	ND	ND	0.24 J	ND	—
Silver	NA	ND	1.7 J	ND	ND	ND	ND	NA
Sodium	50 - 50,000	ND	165 J	ND	245 J	ND	ND	—
Thallium	NA	ND	ND	ND	ND	ND	ND	NA
Vanadium	<7 - 300	17.0	10.2 J	19.0	13.9	15.7	17.0	—
Zinc	<5 - 2,900	265	38.3	44.5	46.6	48.6	40.0	—
Cyanide	NA	ND	ND	ND	ND	ND	0.71	NA

Key at end of table.

Table 3-6 (Cont)

^a According to Shacklette and Boerngen, 1984, for soils of the eastern United States.

^b According to Lindsay, 1979.

Key:

— = No sample exceeded common range.

B = The reported value is considered non-detect due to presence in field/laboratory blanks.

J = The associated numerical value is an estimated quantity.

NA = Not available.

ND = Not detected.

Source: Ecology and Environment Engineering, P.C. 1993.

Table 3-7		
PHASE II RI SUMMARY OF ASBESTOS FIBER RESULTS FOR SURFACE SOILS		
Sample Number	Date	Asbestos Fibers (%)
SS-33V-Comp	8-26-93	ND
SS-93D-Comp	8-26-93	ND
SS-93DD-Comp	8-26-93	ND
SS-141D-Comp	8-26-93	ND
SS-168D-Comp	8-26-93	ND
SS-181D-Comp	8-26-93	ND
SS-205D-Comp	8-26-93	ND
SS-206D	8-26-93	ND
SS-206D-Comp	8-26-93	ND
SS-244D-Comp	8-27-93	ND
SS-263D-Comp	8-27-93	ND
SS-270D-Comp	8-27-93	ND
SS-320D-Comp	8-27-93	ND
SS-331D	8-26-93	ND
SS-331D-Comp	8-26-93	ND

Key:

ND = Not detected.

Source: Ecology and Environment, P.C. 1993.

Table 3-8

PHASE II RI SUMMARY OF ORGANIC AND INORGANIC RESULTS FOR SUBSURFACE SOIL FROM RESIDENTIAL LOT

Parameter	Common Range ^a	Sample no.: Depth: Sampling date:	BH-331D 0 to 2 feet 8-26-93	Samples Exceeding Common Range
Volatile Organics (µg/kg)				
Methylene chloride	NA	67	B	NA
Semivolatile Organics (µg/kg)				
Bis(2-ethylhexyl)phthalate	NA	45	B	NA
Diethylphthalate	NA	110	B	NA
Pesticides (µg/kg)				
Heptachlor epoxide	NA	4.8	J	NA
Dieldrin	NA	10	J	NA
4,4'-DDE	NA	7.0	J	NA
4,4'-DDT	NA	29		NA
alpha-chlordane	NA	12		NA
gamma-chlordane	NA	12		NA
PCBs (µg/kg)	NA	ND		NA
Inorganics (mg/kg)				
Aluminum	7,000 - > 100,000	4,140		—
Arsenic	< 0.1 - 73	3.6		—
Barium	10 - 1,500	31.1	J	—
Beryllium	< 1 - 7	0.22	J	—
Cadmium	0.01 - 0.7 ^b	1.6		BH-331D
Calcium	10 - 280,000	2,410		—
Chromium	1 - 1,000	44.6		—
Cobalt	< 0.3 - 70	9.0	J	—
Copper	< 1 - 700	197		—
Iron	10 - > 100,000	30,500		—
Lead	< 10 - 300	2,740		BH-331D
Magnesium	50 - 50,000	1,190		—
Manganese	< 2 - 7,000	692		—
Nickel	< 5 - 700	26.9		—
Potassium	50 - 3,700	997	J	—
Vanadium	< 7 - 300	8.4	J	—
Zinc	< 5 - 2,900	227		—

Key at end of table.

Table 3-8 (Cont.)

a According to Shacklette and Boerngen, 1984, for soils of the Eastern United States.
b According to Lindsay, 1979.

Key:

— = No sample exceeded common range.
J = The associated numerical value is an estimated quantity.
NA = Not available.
ND = Not detected.

Source: Ecology and Environment Engineering, P.C. 1993.

Table 3-9

**PHASE II SUMMARY OF ASBESTOS FIBER RESULTS
FOR SUBSURFACE SOIL FROM RESIDENTIAL LOT**

Parameter	Sample no.: Depth: Sampling date:	BH-331D 0 to 2 feet 8-26-93
Asbestos fibers (%)		ND

Key:

ND = Not detected.

Source: Ecology and Environment, P.C. 1993.

Table 3-10

PHASE II RI SUMMARY OF ORGANIC AND INORGANIC RESULTS FOR SURFACE WATERS

Parameter	NYSDEC Class C Surface Water Standards ^a	Sample No.: SW-7 Sampling date: 8-27-93	SW-7D 8-27-93	SW-8 8-27-93	Samples Exceeding Surface Water Standards
PAHs ($\mu\text{g}/\text{L}$)	NA	ND	ND	ND	NA
Pesticides ($\mu\text{g}/\text{L}$)	NA	ND	ND	ND	NA
PCBs ($\mu\text{g}/\text{L}$)	NA	ND	ND	ND	NA
Inorganics ($\mu\text{g}/\text{L}$)					
Aluminum	100 (ionic)	195 J	182 J	494 J	SW-7, SW-7D, SW-8
Barium	NA	24.7 J	22.8 J	25.9 J	NA
Calcium	NA	45,500	43,000	43,400	NA
Copper	16.9 ^b	ND	1.9 J	3.8 J	—
Iron	300	285	272	836	SW-8
Lead	5.5 ^b	2.1 J	2.2 J	2.5 J	—
Magnesium	NA	10,200	9,670	9,840	NA
Manganese	NA	13.5 J	12.3 J	30.4 J	NA
Potassium	NA	1,200 J	1,190 J	2,150 J	NA
Sodium	NA	15,000	14,200	13,500	NA
Zinc	30	12.8 J	10.1 J	23.2	—

^a NYSDEC, October 1993, Ambient Water Quality Standards and Guidance Values. Class C surface water is best suited for fishing and suitable for fish propagation and survival.

^b Value based upon average hardness where hardness (ppm) = $2.5(\text{Ca}^{2+}) + 4.1(\text{Mg}^{2+})$ and copper standard = $\exp(0.8545[\ln(\text{ppm hardness})] - 1.465)$; lead standard = $\exp(1.266[\ln(\text{ppm hardness})] - 4.661)$.

Key:

— = No sample exceeded NYSDEC standard.

J = The associated numerical value is an estimated quantity.

NA = Not available.

ND = Not detected.

Source: Ecology and Environment Engineering, P.C. 1993.

Table 3-11

PHASE II RI SUMMARY OF ORGANIC RESULTS FOR SEDIMENTS

Parameter	NYSDEC ^a Sediment Criteria ($\mu\text{g/kg}$)	Sample No.: Sampling Date:	SED-1A 8-27-93	SED-7 8-27-93	SED-8 8-27-93	SED-9 8-27-93	SED-9D 8-27-93	SED-10 8-27-93	Samples Exceeding Sediment Criteria
Semivolatiles - PAHs ($\mu\text{g/kg}$)									
Acenaphthene	7,300	12,000	5,900	1,200 J	1,400	300	1,100	SED-1A	
Anthracene	NA	1,500	1,500	250	47	15 J	57	—	
Benzo(a)anthracene	NA	3,000	2,400	570	270	56	170	—	
Benzo(a)pyrene	NA	2,200	2,000	550	230	95	390	—	
Benzo(b)fluoranthene	NA	1,700	1,600	420	240	130	340	—	
Benzo(g,h,i)perylene	NA	1,600	1,400	400 J	200	96	290	—	
Benzo(k)fluoranthene	NA	1,100	1,200	330	210	130	200	—	
Chrysene	NA	1,900	1,900	470	210	95	240	—	
Dibenz(a,h)anthracene	NA	1,100	1,100 J	270 J	220	140	390	—	
Fluoranthene	NA	650	6,700	1,100	540	210	540	—	
Fluorene	NA	5,900	800	100 J	33	ND	27	—	
Indeno(1,2,3-cd)pyrene	NA	1,500	1,400	380	200	87	270	—	
1-Methylnaphthalene	NA	1,000 J	ND	ND	250	ND	300	—	
2-Methylnaphthalene	NA	ND	ND	ND	210	ND	270	—	
Naphthalene	NA	3,500	6,100	700 J	380	130 J	530	—	

Key at end of table.

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Table 3-11

PHASE II RI SUMMARY OF ORGANIC RESULTS FOR SEDIMENTS

Parameter	NYSDEC ^a Sediment Criteria ($\mu\text{g}/\text{kg}$)	Sample No.: Sampling Date:	SED-1A 8-27-93	SED-7 8-27-93	SED-8 8-27-93	SED-9 8-27-93	SED-9D 8-27-93	SED-10 8-27-93	Samples Exceeding Sediment Criteria
Semivolatiles - PAHs ($\mu\text{g}/\text{kg}$) (Cont.)									
Phenanthrene	1,390	3,600	4,600	630	190	67	190	SED-1A, SED-7	
Pyrene	NA	5,700	6,300	1,000	440	220	260	—	
PCBs ($\mu\text{g}/\text{kg}$)									
Aroclor 1254	<2,760	ND	68 J	44 J	35 J	31 J	23 J	—	
Pesticides ($\mu\text{g}/\text{kg}$)									
Heptachlor epoxide	0.3	16 J	8.9 J	ND	5.4	ND	4.0 J	SED-1A, SED-7, SED-9, SED-10	
4,4'-DDE	≤ 500	5.2 J	ND	ND	ND	ND	ND	—	
4,4'-DDT	≤ 500	7.8 J	ND	ND	ND	ND	ND	—	
Dieldrin	195	ND	ND	ND	8.2 J	4.7	ND	—	

^a Division of Fish and Wildlife Sediment Criteria Guidance Document (December 1989), Table 1 (Aquatic Toxicity Basis normalized assuming 1% organic carbon content).

Key:

— = No sample exceeds sediment criteria.

J = The associated numerical value is an estimated quantity.

NA = Not available.

ND = Not detected.

Source: Ecology and Environment Engineering, P.C. 1993.

Table 3-12

PHASE II RI SUMMARY OF INORGANIC RESULTS FOR SEDIMENTS

Parameter	NYSDEC Sediment Criteria ^a	Sample no.: Sampling date:	SED-1A 8-27-93	SED-7 8-27-93	SED-8 8-27-93	SED-9 8-27-93	SED-9D 8-27-93	SED-10 8-27-93	Samples Exceeding Criteria
Inorganics (mg/kg)									
Aluminum	NA	4,770	13,000	7,790	3,610	4,230	5,530	NA	
Arsenic	5	5.3	6.2	5.0	2.7	3.0	3.5	SED-1A, SED-7	
Barium	NA	86.2	104	71.5	54.3	79.8	56.4	NA	
Beryllium	NA	0.41 J	0.86 J	0.61 J	0.27 J	0.29 J	0.42 J	NA	
Cadmium	0.8	1.3	1.7 J	1.8	1.9	2.1	1.0 J	SED-1A, SED-7, SED-8, SED-9, SED-9D, SED-10	
Calcium	NA	20,300	36,800	56,800	32,000	37,200	16,400	NA	
Chromium	26	12.6	50.0	57.4	13.8	16.1	13.6	SED-7, SED-8	
Cobalt	NA	5.7 J	19.4 J	16.2 J	7.4 J	13.2	6.2 J	NA	
Copper	19	73.4	73.3	75.6	86.4	111	44.5	SED-1A, SED-7, SED-8, SED-9, SED-9D, SED-10	
Iron	24,000	11,400	32,000	39,900	15,400	40,100	12,100	SED-7, SED-8, SED-9D	
Lead	27	148	146	1,220	106	130	225	SED-1A, SED-7, SED-8, SED-9, SED-9D, SED-10	
Magnesium	NA	5,040	12,200	22,000	9,170	10,500	7,440	NA	
Manganese	428	239	681	616	448	681	329	SED-7, SED-8, SED-9, SED-9D	
Mercury	0.11	2.9	0.23	ND	ND	ND	ND	SED-1A, SED-7	

Key at end of table.

Table 3-12

PHASE II RI SUMMARY OF INORGANIC RESULTS FOR SEDIMENTS

Parameter	NYSDEC Sediment Criteria ^a	Sample no.: Sampling date: SED-1A 8-27-93	SED-7 8-27-93	SED-8 8-27-93	SED-9 8-27-93	SED-9D 8-27-93	SED-10 8-27-93	Samples Exceeding Criteria
Nickel	22	13.8	44.9	37.1	14.5	28.2	11.3	SED-7, SED-8, SED-9D
Potassium	NA	ND	ND	987 B	665 B	635 B	655 B	NA
Selenium	NA	0.35 J	ND	ND	ND	ND	0.24 J	NA
Silver	NA	1.3 J	ND	ND	1.6 J	ND	ND	NA
Sodium	NA	1,340	ND	ND	498 J	487 J	910 J	NA
Vanadium	NA	15.0	26.3	18.0	11.5	14.6	18.3	NA
Zinc	85	163	444	291	545	1,910	122	SED-1A, SED-7, SED-8, SED-9, SED-9D, SED-10

^a Division of Fish and Wildlife Sediment Criteria Guidance Document (December 1989), Table 4.

Key:

— = None exceeded criteria.

B = The reported value is considered nondetect due to presence in field/laboratory blanks.

J = The associated or numerical value is an estimated quantity.

NA = Not available.

ND = Not detected.

Source: Ecology and Environment Engineering, P.C. 1993.

Table 3-13 PHASE II RI SUMMARY OF INORGANIC RESULTS FOR VEGETABLE SAMPLES			
Parameter	Sample No.: Sampling Date:	Veg-206D 8-26-93	Veg-331D 8-26-93
Inorganics (mg/kg)			
Aluminum	12.8	8.7 J	11.7
Calcium	2,800	1,850	113 J
Chromium	0.57	0.47 J	0.49 J
Copper	6.1	3.3	0.58 J
Iron	15.1	10.5	6.0 B
Lead	0.46	0.54	0.17
Magnesium	684	563	117 J
Manganese	3.7	2.2	0.49 J
Nickel	0.62 J	0.48 J	0.39 J
Potassium	5,010	2,950	494
Selenium	0.06 J	0.10 J	ND
Sodium	1,220	1,160	755
Zinc	35.0	18.7	3.2
Cyanide	1.3	7.9	ND

^a According to Shacklette and Boerngen, 1984, for soils of the Eastern United States.

Key:

- = No samples exceeded common range.
- B = The reported value is considered nondetect due to presence in field/laboratory blank.
- J = The associated numerical value is estimated.
- NA = Not available.
- ND = Not detected.

Source: Ecology and Environment Engineering, P.C., 1993.

Table 3-14

**PHASE II RI SUMMARY OF RADIOANALYTICAL RESULTS FOR SOIL SAMPLES
(pCi/g dry)**

Parameter	Relevant Standard	Surface Soil		Surface Soil		Surface Soil		Subsurface Soil	Average Background Soil Result ^a	Samples Exceeding Relevant Standard or Average Background Value ^b
		Sample No.: SS-BG-1	Sampling Date: 8-27-93	SS-BG-2	8-27-93	SS-BG-3	8-27-93			
Gross alpha	NA	< 5.0E + 00		< 5.0E + 00		5.0 ± 4.2 E+00		<5.0E + 00	5.5 ± 4.3 E+00	3.1 ± 2.1 E+00
Gross beta	NA	2.9 ± 0.3 E+01		2.7 ± 0.3 E+01		3.1 ± 0.3 E+01		2.5 ± 0.3 E+01	1.7 ± 0.3 E+01	2.8 ± 0.3 E+01
Barium-140	NA	< 7.0 E-02		< 6.0 E-02		< 7.0 E-02		< 7.0 E-02	< 7.0 E-02	3.4 E-02
Beryllium-7	NA	< 3.0 E-01		< 3.0 E-01		< 3.0 E-01		< 3.0 E-01	< 2.0 E-01	1.5 E-01
Cerium-141	NA	< 6.0 E-02		< 6.0 E-02		< 5.0 E-02		< 6.0 E-02	< 5.0 E-02	2.9 E-02
Cerium-144	NA	< 2.0 E-01		< 2.0 E-01		< 2.0 E-01		< 2.0 E-01	< 2.0 E-01	1.0 E-01
Cesium-134	NA	< 4.0 E-02		< 4.0 E-02		< 3.0 E-02		< 4.0 E-02	< 3.0 E-02	1.9 E-02
Cesium-137	NA	3.04 ± 0.38 E-01		2.26 ± 0.34 E-01		1.84 ± 0.29 E-01		7.98 ± 2.88 E-02	9.13 ± 2.39 E-02	1.98 ± 0.32 E-01
Cobalt-58	NA	< 3.0 E-02		< 3.0 E-02		< 3.0 E-02		< 3.0 E-02	< 3.0 E-02	1.5 E-02
Cobalt-60	NA	< 3.0 E-02		< 3.0 E-02		< 3.0 E-02		< 3.0 E-02	< 2.0 E-02	1.5 E-02
Iodine-131	NA	< 1.0 E-01		< 1.0 E-01		< 1.0 E-01		< 1.0 E-01	< 1.0 E-01	5.0 E-02
Iron-59	NA	< 8.0 E-02		< 8.0 E-02		< 7.0 E-02		< 8.0 E-02	< 6.0 E-02	3.9 E-02
Manganese-54	NA	< 4.0 E-02		< 3.0 E-02		< 3.0 E-02		< 3.0 E-02	< 3.0 E-02	1.6 E-02
Potassium-40	NA	1.21 ± 0.12 E+01		1.24 ± 0.12 E+01		1.41 ± 0.14 E+01		1.29 ± 0.13 E+01	9.43 ± 0.94 E+00	1.29 ± 0.13 E+01
Radium-226	Background plus 5 pCi/g averaged over the top 15 cm of soil. Background plus 15 pCi/g averaged over 15-cm layers beneath the top 15 cm of soil. ^c	1.06 ± 0.46 E+00		1.37 ± 0.51 E+00		9.87 ± 3.54 E-01		1.16 ± 0.48 E+00	9.04 ± 3.70 E-01	1.14 ± 0.45 E+00
Ruthenium-103	NA	< 4.0 E-02		< 3.0 E-02		< 3.0 E-02		< 4.0 E-02	< 3.0 E-02	1.8 E-02
Ruthenium-106	NA	< 3.0 E-01		< 2.0 E-01		< 2.0 E-01		< 3.0 E-01	< 2.0 E-01	1.3 E-01
Thorium-228	NA	4.46 ± 0.45 E-01		4.65 ± 0.46 E-01		5.10 ± 0.51 E-01		4.62 ± 0.46 E-01	8.01 ± 0.80 E-01	4.71 ± 0.47 E-01
Zinc-65	NA	< 9.0 E-02		< 8.0 E-02		< 6.0 E-02		< 8.0 E-02	< 6.0 E-02	3.9 E-02
Zirconium-95	NA	< 4.0 E-02		< 4.0 E-02		< 3.0 E-02		< 3.0 E-02	< 3.0 E-02	1.8 E-02

Key at end of table.

Table 3-14 (Cont.)

a Average of the four background surface soil samples. Non-detected results were set equal to one-half the quantitation limit to calculate the average.

b Where a relevant standard is not available, analytical results for sample BH-331D were compared to the average background value for the Phase II background surface soil samples. Results exceeding approximately three times the average background value were noted.

c From 40 CFR 192, Health and Environmental Protection Standards for Uranium and Thorium Mill Tailings.

Key:

NA = Not available.

Source: Ecology and Environment Engineering, P.C. 1994.

Table 3-15

**UPDATE TO PHASE I RI SUMMARY OF RADIOANALYTICAL RESULTS FOR
SOIL SAMPLES
(pCi/g dry)**

Parameter	Relevant Standard	Average Phase II Background Soil Result ^a	Phase I Samples Exceeding Relevant Standard or Average Background Value ^b
Gross alpha	NA	3.1 ± 2.1 E+00	TP-2A, TP-5A, TP-6B, SS-17
Gross beta	NA	2.8 ± 0.3 E+01	SS-17
Actinium-228	NA	NP	— ^d
Barium-140	NA	3.4 E-02	— ^c
Beryllium-7	NA	1.5 E-01	— ^c
Bismuth-214	NA	NP	— ^d
Cerium-141	NA	2.9 E-02	— ^c
Cerium-144	NA	1.0 E-01	—
Cesium-134	NA	1.9 E-02	—
Cesium-137	NA	1.98 ± 0.32 E-01	SED-1
Cobalt-58	NA	1.5 E-02	— ^c
Cobalt-60	NA	1.5 E-02	—
Iodine-131	NA	5.0 E-02	— ^c
Iron-59	NA	3.9 E-02	— ^c
Lead-212	NA	NP	— ^d
Lead-214	NA	NP	— ^d
Manganese-54	NA	1.6 E-02	—
Potassium-40	NA	1.29 ± 0.13 E+01	—
Radium-226	Background plus 5 pCi/g averaged over the top 15 cm of soil. Background plus 15 pCi/g averaged over 15-cm layers beneath the top 15 cm of soil. ^c	1.14 ± 0.45 E+00	SS-17
Radium-228	Background plus 5 pCi/g averaged over the top 15 cm of soil. Background plus 15 pCi/g averaged over 15-cm layers beneath the top 15 cm of soil. ^c	NP	— ^d
Ruthenium-103	NA	1.8 E-02	— ^c
Ruthenium-106	NA	1.3 E-01	—
Thallium-208	NA	NP	— ^d
Thorium-228	NA	4.71 ± 0.47 E-01	—
Thorium-234	NA	NP	— ^d
Zinc-65	NA	3.9 E-02	—
Zirconium-95	NA	1.8 E-02	— ^c

Key at end of table.

Table 3-15 (Cont.)

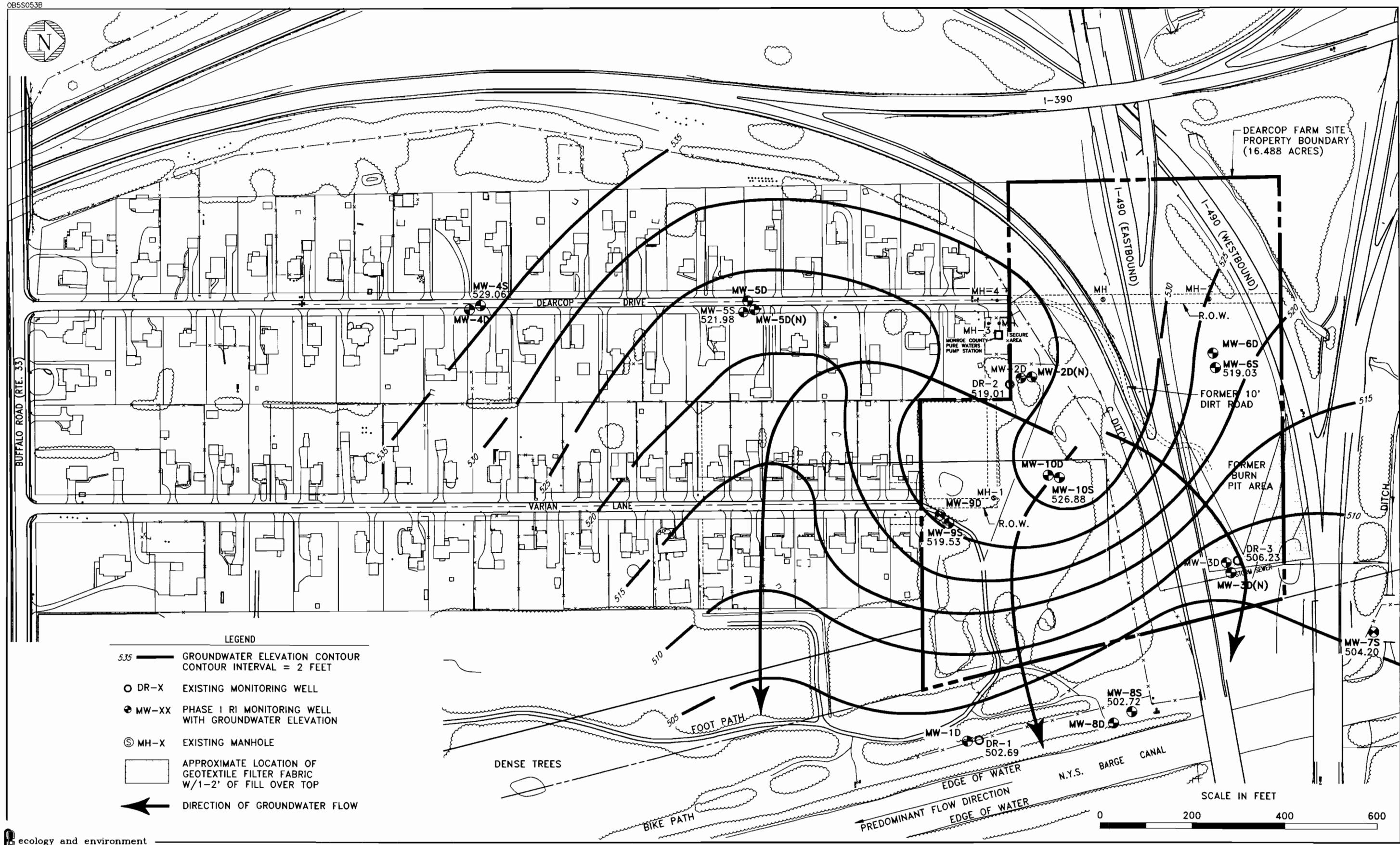
- ^a Average of the four Phase II background surface soil samples. See Table 3-14.
- ^b Where a relevant standard is not available, Phase I analytical results were compared to the Phase II average background sample value. Results exceeding approximately three times the average background value were noted.
- ^c From 40 CFR 192, Health and Environmental Protection Standards for Uranium and Thorium Mill Tailings.
- ^d No relevant standard or Phase II background value available for comparison.
- ^e Incomplete comparison only; some Phase I detection limits exceeded three times the Phase II average background value.

Key:

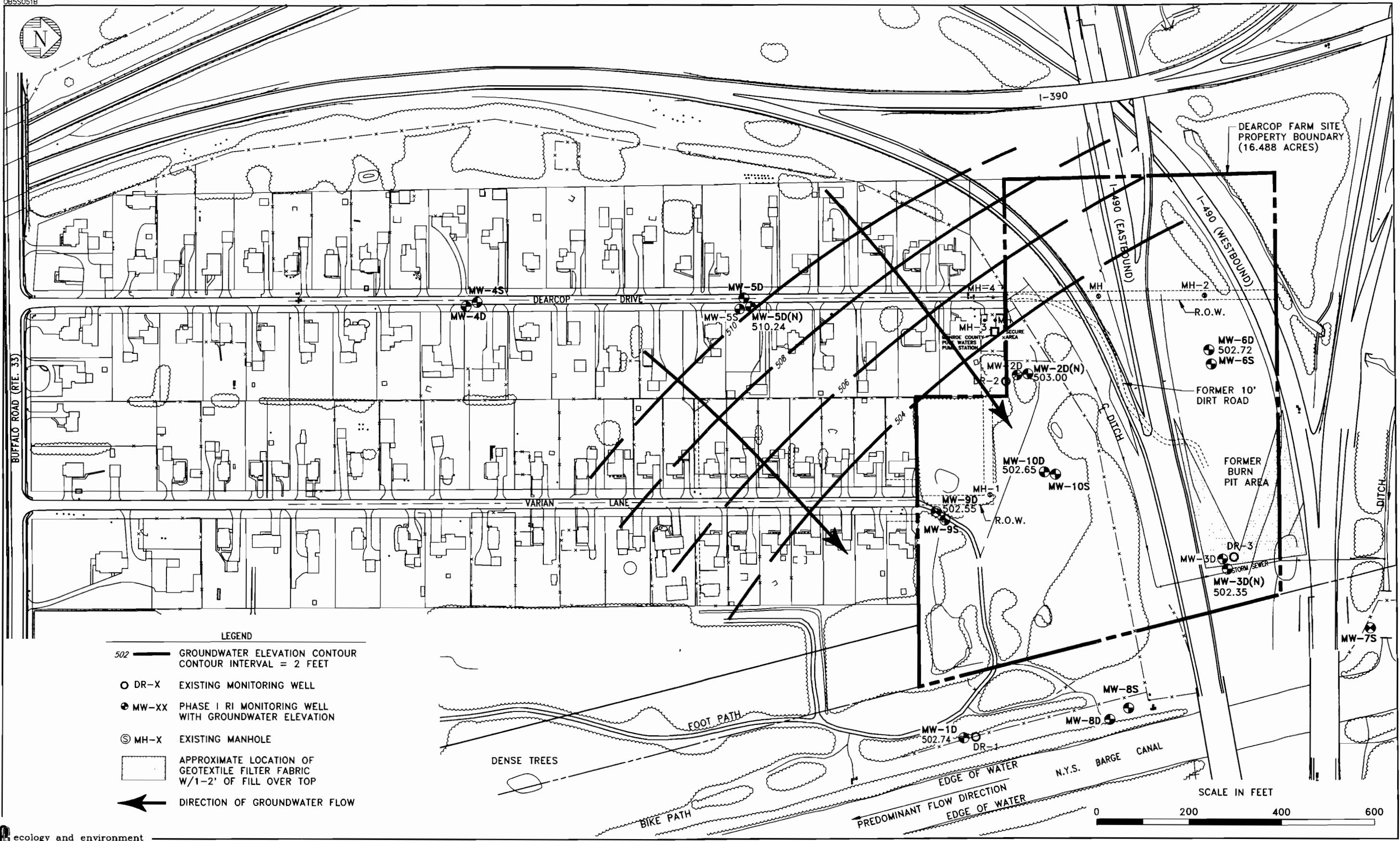
— = No sample exceeded relevant standard or the comparison is qualified (see footnotes d and e above).
NP = Analysis not performed.

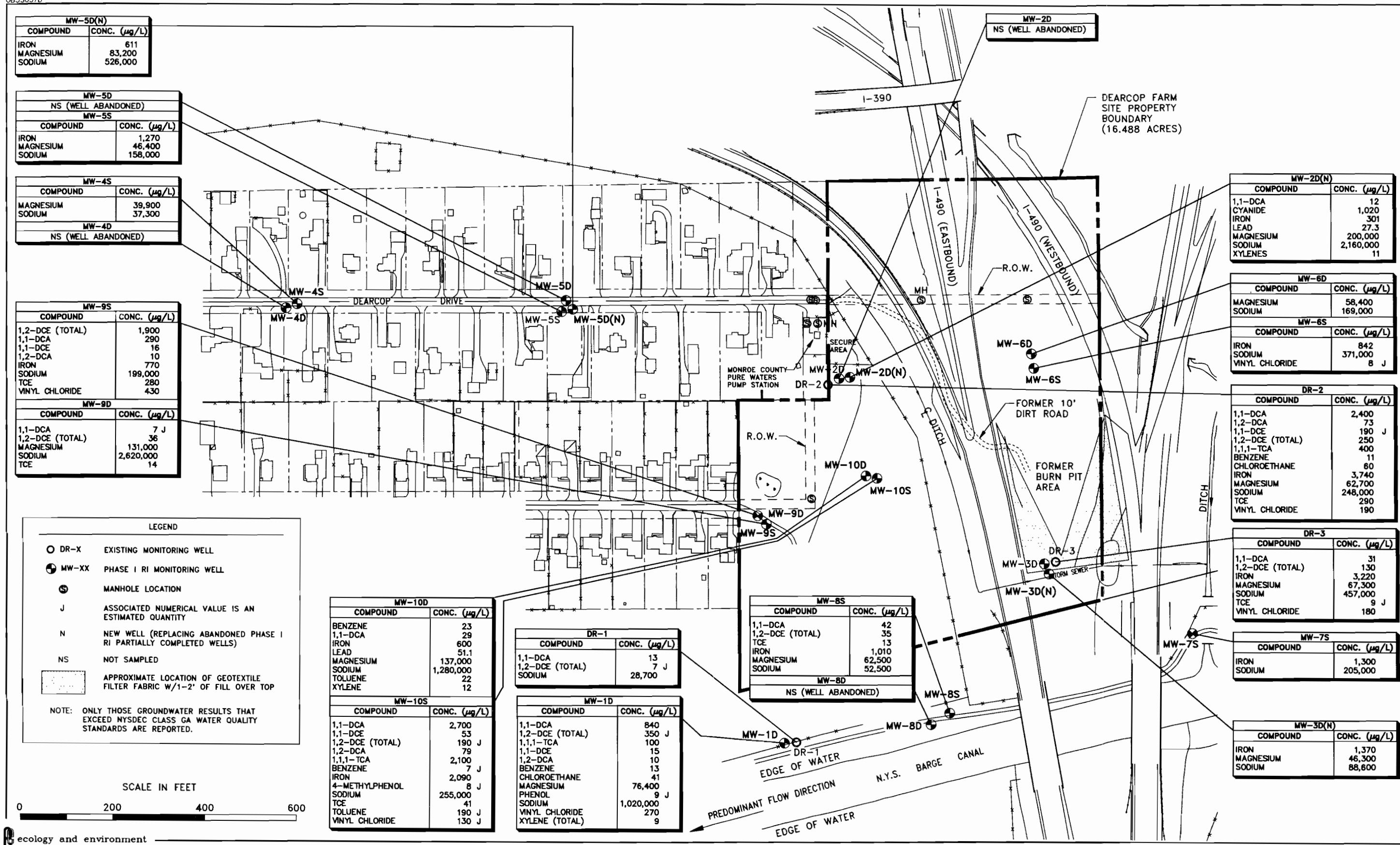
Source: Ecology and Environment Engineering, P.C. 1994.

OBSS053B



OBSS051B





4. SUMMARY AND CONCLUSIONS

4.1 NATURE AND EXTENT OF CONTAMINATION

Results of the Phase I and Phase II RI indicated the presence of contamination both on site and off site. Contamination off site may or may not be associated with past disposal activities at the Dearcop Farm site. Contamination on site (i.e., the vacant lot area north of Dearcop Drive and Varian Lane, extending beneath I-490 eastbound lanes to the median between I-490 eastbound and westbound lanes) has been detected in various media, including surface and subsurface soils, soil gas, surface water/sediment, and groundwater. Although a burn pit was allegedly located beneath the I-490 median where elevated levels of contamination were found during this study, the actual location of this pit and the presence of any other specific source areas have not been identified. The contaminants of major concern on site, as determined by groundwater sample results, consist mainly of chlorinated VOCs. The highest concentration of these VOCs are found in the vicinity of DR-1/MW-1D, DR-2/MW-2D(N), DR-3/MW-3D(N), MW-9S/MW-9D, and MW-10S/MW-10D. These areas correspond with elevated soil gas sample results collected during the Phase I RI. Groundwater contamination is migrating through lateral flow predominantly to the east/northeast in the shallow bedrock water bearing zone. Localized flow in the vicinity of the Barge Canal may vary. However, there is also a downward component through vertical fractures to the deeper bedrock water bearing zone at the base of the Lockport Dolomite. Contamination in the shallow water bearing zone discharges to the adjacent Barge Canal. The levels of contamination detected in the surface water/sediment of the Barge Canal are negligible when compared to those found in on-site soils and groundwater.

Groundwater

Groundwater elevations and horizontal gradients beneath the Dearcop site vary seasonally due to the raising and lowering of water in the adjacent Barge Canal for flood control purposes. However, the direction of groundwater flow in both the shallow and deep bedrock water bearing zones remains generally the same throughout the seasons (i.e., predominantly easterly/northeasterly and northeasterly, respectively).

VOCs were detected in most of the wells sampled during the second round of sampling (August 1993), with the exception of MW-4S, MW-5S, and MW-6D. This was consistent with the first round (February through April 1993) sample results. VOCs exceeded NYSDEC Class GA drinking water standards in most wells except MW-3D(N), MW-4S, MW-5S, MW-5D(N), MW-6D, and MW-7S.

The second round of groundwater samples has confirmed that the primary VOCs present in the groundwater beneath the site are halocarbon compounds. Specifically, these compounds include the chlorinated aliphatics 1,1-DCA, 1,1-DCE, Total-1,2-DCE, 1,1,1-TCA, TCE, and vinyl chloride: all are present in excess of drinking water standards. The BTX compounds detected in shallow wells and some deep wells can be attributed to site contamination; however, BTX compounds detected in some of the upgradient deep wells may be attributed to natural sources or off-site sources. Although the highest concentrations of chlorinated aliphatics were detected in the shallow wells, elevated levels (some above drinking water standards) were also detected in the deep wells. The presence of site-related contaminants in the deep wells indicates downward migration of contamination through bedrock fractures because these contaminants were not detected in upgradient wells.

Two semivolatile compounds (i.e., phenolic compounds) were also detected in the groundwater. Phenols are commonly found in landfills and hazardous waste sites containing industrial or commercial materials.

No PCBs or pesticides were detected in either first-round or second-round samples.

Several metals were detected in both first-round and second-round samples. The results of the two rounds of samples varied considerably. This variation is believed to be due to variances in turbidity and possibly natural constituents in the dolomitic bedrock. In general, most of the second round samples had lower turbidities than first round samples, and in turn, lower concentrations of metals. Only a few metals (i.e., chromium, selenium, and zinc) in first round samples were not believed to be attributable to high turbidity or natural

constituents in the bedrock. However, these metals were only present in deep wells, and were therefore believed to have originated off site. The absence of these metals in the deep wells in significant concentrations in the second round samples supports the theory that they are not attributable to the site. The presence of cyanide in MW-2D(N) is the only unexplainable inorganic detected in the Phase II groundwater because this was the first time cyanide was detected, it could not be attributed to the effects of turbidity, and it was not detected in any other wells.

Soil Gas

Soil gas samples were collected from 206 Dearcop Drive and 331 Dearcop Drive to supplement the health risk assessment. TCE was detected in the soil gas at both residential lots. Multiple samples taken at 206 Dearcop Drive have indicated that the soil gas contamination is concentrated in a localized area in that yard. Fill materials, believed to be from the Dearcop site, were found at 206 Dearcop Drive during Phase I RI activities at the location of the positive soil gas sample. Results of the Phase I and Phase II RI soil gas samples indicated that contamination is present on site and off site where man-made fill material is found. The contaminated soil gas both on and off site does not appear to be migrating laterally.

Surface Soil

Several discrete and composite surface soils from selected residential lots were collected and compared to results from background soils. The selected lots were chosen based on positive responses to NYSDEC questionnaires regarding the presence of visible fill material in the yards. Background soils were collected off site and away from Dearcop Drive and Varian Lane so they would not be affected by fill materials that are apparently sporadically scattered throughout the residential lots along the aforementioned streets. All of the surface soils contained total PAHs in excess of background levels except for samples SS-206D, SS-206D-Comp, and SS-263D-Comp. Pesticides were also detected in one of the grab samples (SS-331D) and three of the four background samples. Because pesticide levels were almost negligible on site (as determined from Phase I RI samples), the pesticides detected in the residential lots may not be site related.

Several metals were detected in the surface soils, some of which exceeded the common range of metals in soils of the eastern United States (i.e., cadmium, copper, and lead). Two of these metals (i.e., cadmium and copper) were close to the common range and may not be site related due to their absence from on-site samples. However, lead detected in SS-206D exceeded the common range and was similar in concentration to lead detected in a subsurface soil sample of fill material collected at 206 Dearcop Drive during the Phase I RI and the subsurface soil sample of fill material from 331 Dearcop Drive (see below). Therefore, the presence of lead at 206 Dearcop Drive is believed to be directly related to Dearcop fill materials. The extent of contamination in the residential area is limited to the data collected from specific residential lots chosen for this study.

Subsurface Soil

One subsurface soil from 331 Dearcop Drive was collected during the Phase II RI. This sample contained fill materials (i.e., foundry sand and slag) believed to be from the Dearcop site. The only organic compounds detected in this sample were pesticides. As previously stated, pesticides are not believed to be site related.

Once again, lead was detected above the common range. Since elevated lead was previously detected in site-related fill materials (see above section), the presence of lead in this sample appears to be directly related to Dearcop fill materials.

Surface Water/Sediment

Due to dry conditions in the drainage ditch that passes through the site, only two surface water samples were collected. These samples were collected from the Barge Canal. No PAHs, PCBs, or pesticides were detected in either sample; however, aluminum and iron exceeded NYSDEC Class C drinking water standards. Aluminum and iron exceeded standards in the three surface water samples collected from the canal adjacent to the site during the Phase I RI. Due to the decreasing levels of these metals from predominantly upgradient locations to predominantly downgradient locations (i.e., true upgradient/downgradient conditions may not exist due to minor flow reversal caused by seasonal raising and lowering of canal water levels for flood control purposes), the presence of these metals in the surface water does not appear to be site related.

Numerous PAHs were detected in sediments collected from the Barge Canal. Total PAHs in SED-7 (1.2 miles south of I-490) and SED-8 (0.5 mile north of I-490) were much higher than PAHs detected in samples collected adjacent to the site during the Phase I RI. In addition to the Dearcop site, multiple potential source areas in the vicinity of SED-7 include the Olin site, the Chevron site, and the McKee Road site (see Section 1.4 of the Phase I RI). Elevated PAHs in the drainage ditch were also detected both upgradient and downgradient of the site. Total PAHs at the SED-1A location was 10 times higher than those detected in the upgradient sample, SED-10. Because the levels of PAHs on site were much lower than those detected in SED-1A, the source of the PAHs is unknown.

Low levels (i.e., below sediment criteria) of the PCB Aroclor 1254 were detected in all sediment samples except SED-1A, which was nondetect for PCBs. The presence of Aroclor 1254 in the Barge Canal is not believed to be site related because, other than groundwater (which was free of PCBs), there are no direct migration pathways from the site to the Barge Canal and the flow of runoff through the drainage ditch that empties into the canal is limited by topography. Because the ditch contained only low levels of Aroclor 1254 (up to three times lower than the canal), and the two samples closest to the point of discharge (collected during the Phase I RI) were nondetect for PCBs, there appears to be no significant contribution of Aroclor 1254 to the Barge Canal from the site. The presence of pesticides appears to be inconsistent both on and off site; therefore, the source of these pesticides could not be determined. Based on the negligible pesticide results of surface soils collected on site during the Phase I RI and the presence of pesticides in background samples, it is likely that the presence of pesticides on residential lots is not related to on-site sources.

Numerous metals, many of which exceeded NYSDEC sediment criteria, were detected in the sediment samples. Due to the presence of most of these metals in both upgradient and downgradient samples, only a few (arsenic, manganese, mercury, and nickel) may be site related due to their presence in samples that were collected from the drainage ditch on site or in close proximity to the site.

Vegetables

Several metals were detected in vegetable samples collected from two residential gardens. Because no background vegetable samples were collected and no formal screening criteria exist, interpretation of these results is difficult; however, given the elevated metals

concentrations in residential and on-site surface soils, these concentrations could be associated with the allegedly site-derived fill material observed in residential yards. The analytical results for vegetable samples are discussed further in the risk assessment, which is provided under a separate cover.

4.2 RADIOLOGICAL EVALUATION

Four background surface soil samples were analyzed for radionuclides to provide a comparison between radioanalytical results of Phase I and Phase II RI samples. Only one other Phase II sample, BH-331D, was analyzed for radionuclides; this sample did not contain elevated concentrations.

Radioanalytical results for the Phase I soil/sediment samples were reevaluated with respect to relevant standards and the Phase II background soil samples. The reevaluation essentially confirmed the Phase I results. Slightly elevated concentrations of NORM are associated with blue-colored, sandy material previously observed in test pits and surfaces on the Dearcop site and identified by NYSDEC as glass fines. During the Phase I RI, slightly elevated radium concentrations were observed in excess of groundwater standards in the groundwater from wells MW-2D(N), DR-3, and MW-8D. These elevated levels are believed to be due to NORM in the site bedrock. Subsurface soil from two residential locations (32 Varian Lane and 331 Dearcop Drive) and two monitoring well locations (MW-6D and MW-10D), surface soil from one residential location (sample SS-20), sediment from one location (SED-1), and six surface water samples were not found to contain elevated radiation levels, either NORM or otherwise. Upon reevaluation, the cesium-137 content of sample SED-1 was found to exceed three times the average background cesium-137 concentration; however, the result is less than five times the average background and also is consistent with worldwide terrestrial levels of cesium-137.

4.3 RECOMMENDED ADDITIONAL DATA COLLECTION

Based on the above conclusions, additional investigation (other than quarterly groundwater sampling) work is not recommended within the site boundaries. However, due to the presence of contamination scattered throughout the residential area, exposure to local residents needs to be further characterized. Although groundwater contamination was not detected in the wells installed along Dearcop Drive, the presence of fill materials throughout

the residential area may be impacting localized groundwater. Because no wells exist along Varian Lane and the shallow well (MW-9S) at the north end of Varian Lane was found to be contaminated with VOC (specifically, vinyl chloride), one or two additional shallow wells may be necessary to confirm groundwater quality beneath residences at the north end of Varian Lane. If the groundwater water quality beneath the residences is found to be contaminated, then investigation of basements (i.e., air sampling and/or sump sampling) of affected residences may be necessary. Based on the results of the limited surface soil sampling in the residential area, additional soil samples from residential yards may be needed to further characterize the risks to local residents. Remedial alternatives for the site and residential area will be discussed in the feasibility study.

5. REFERENCES

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APPENDIX A

ANALYTICAL DATA

A-1

Groundwater

A-3

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

DR-1

Lab Name: E & E INC.

Contract:

Code: EANDE Case No.: 887

SAS No.:

SDG No.: MW-10D

Matrix: (soil/water) WATER

Lab Sample ID: 70130

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: F3168

Level: (low/med) LOW

Date Received: 08/26/93

% Moisture: not dec.

Date Analyzed: 08/31/93

GC Column: VOCOL ID: 0.530 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

Q

CAS NO.	COMPOUND			
74-87-3-----	Chloromethane	10	U	
74-83-9-----	Bromomethane	10	U	
75-01-4-----	Vinyl Chloride	10	U	
75-00-3-----	Chloroethane	10	U	
75-09-2-----	Methylene Chloride	10	U	
67-64-1-----	Acetone	10	U	
75-15-0-----	Carbon Disulfide	10	U	
75-35-4-----	1,1-Dichloroethene	10	U	
75-34-3-----	1,1-Dichloroethane	13		
540-59-0-----	1,2-Dichloroethene (total)	7	J	
67-66-3-----	Chloroform	10	U	
107-06-2-----	1,2-Dichloroethane	10	U	
78-93-3-----	2-Butanone	10	U	
71-55-6-----	1,1,1-Trichloroethane	4	J	
56-23-5-----	Carbon Tetrachloride	10	U	
75-27-4-----	Bromodichloromethane	10	U	
78-87-5-----	1,2-Dichloropropane	10	U	
10061-01-5-----	cis-1,3-Dichloropropene	10	U	
79-01-6-----	Trichloroethene	10	U	
124-48-1-----	Dibromochloromethane	10	U	
79-00-5-----	1,1,2-Trichloroethane	10	U	
71-43-2-----	Benzene	10	U	
10061-02-6-----	trans-1,3-Dichloropropene	10	U	
75-25-2-----	Bromoform	10	U	
108-10-1-----	4-Methyl-2-Pentanone	10	U	
591-78-6-----	2-Hexanone	10	U	
127-18-4-----	Tetrachloroethene	10	U	
79-34-5-----	1,1,2,2-Tetrachloroethane	10	U	
108-88-3-----	Toluene	10	U	
108-90-7-----	Chlorobenzene	10	U	
100-41-4-----	Ethylbenzene	10	U	
100-42-5-----	Styrene	10	U	
1330-20-7-----	Xylene (total)	10	U	

FORM I VOA

3/90

A-5

753

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

DEC 1991

Lab Name: E & E INC.

Contract:

DR-1

Lab Code: EANDE Case No.: 887 SAS No.: SDG No.: MW-10D

Matrix: (soil/water) WATER Lab Sample ID: 70130

Sample wt/vol: 1000 (g/mL) ML Lab File ID: E4801

Level: (low/med) LOW Date Received: 08/26/93

% Moisture: decanted: (Y/N) Date Extracted: 08/31/93

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/08/93

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.6

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L Q

108-95-2-----Phenol	10	U
111-44-4-----bis(2-Chloroethyl)Ether	10	U
95-57-8-----2-Chlorophenol	10	U
541-73-1-----1,3-Dichlorobenzene	10	U
106-46-7-----1,4-Dichlorobenzene	10	U
95-50-1-----1,2-Dichlorobenzene	10	U
95-48-7-----2-Methylphenol	10	U
108-60-1-----2,2'-oxybis(1-Chloropropane)	10	U
106-44-5-----4-Methylphenol	10	U
621-64-7-----N-Nitroso-Di-n-Propylamine	10	U
67-72-1-----Hexachloroethane	10	U
98-95-3-----Nitrobenzene	10	U
78-59-1-----Isophorone	10	U
88-75-5-----2-Nitrophenol	10	U
105-67-9-----2,4-Dimethylphenol	10	U
111-91-1-----bis(2-Chloroethoxy)Methane	10	U
120-83-2-----2,4-Dichlorophenol	10	U
120-82-1-----1,2,4-Trichlorobenzene	10	U
91-20-3-----Naphthalene	10	U
106-47-8-----4-Chloroaniline	10	U
87-68-3-----Hexachlorobutadiene	10	U
59-50-7-----4-Chloro-3-Methylphenol	10	U
91-57-6-----2-Methylnaphthalene	10	U
77-47-4-----Hexachlorocyclopentadiene	10	U
88-06-2-----2,4,6-Trichlorophenol	10	U
95-95-4-----2,4,5-Trichlorophenol	25	U
91-58-7-----2-Choronaphthalene	10	U
88-74-4-----2-Nitroaniline	25	U
131-11-3-----Dimethylphthalate	10	U
208-96-8-----Acenaphthylene	10	U
606-20-2-----2,6-Dinitrotoluene	10	U
99-09-2-----3-Nitroaniline	25	U
83-32-9-----Acenaphthene	10	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

DEC SAMPLE NO.

Lab Name: E & E INC.

Contract:

DR-1

Code: EANDE Case No.: 887 SAS No.: SDG No.: MW-10D

Matrix: (soil/water) WATER Lab Sample ID: 70130

Sample wt/vol: 1000 (g/mL) ML Lab File ID: E4801

Level: (low/med) LOW Date Received: 08/26/93

% Moisture: decanted: (Y/N) Date Extracted: 08/31/93

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/08/93

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.6

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L Q

51-28-5-----	2,4-Dinitrophenol	25	U
100-02-7-----	4-Nitrophenol	25	U
132-64-9-----	Dibenzofuran	10	U
121-14-2-----	2,4-Dinitrotoluene	10	U
84-66-2-----	Diethylphthalate	10	U
7005-72-3-----	4-Chlorophenyl-phenylether	10	U
86-73-7-----	Fluorene	10	U
100-01-6-----	4-Nitroaniline	25	U
534-52-1-----	4,6-Dinitro-2-methylphenol	25	U
86-30-6-----	N-Nitrosodiphenylamine (1)	10	U
101-55-3-----	4-Bromophenyl-phenylether	10	U
118-74-1-----	Hexachlorobenzene	10	U
87-86-5-----	Pentachlorophenol	25	U
85-01-8-----	Phenanthrene	10	U
120-12-7-----	Anthracene	10	U
86-74-8-----	Carbazole	10	U
84-74-2-----	Di-n-Butylphthalate	10	U
206-44-0-----	Fluoranthene	10	U
129-00-0-----	Pyrene	10	U
85-68-7-----	Butylbenzylphthalate	10	U
91-94-1-----	3,3'-Dichlorobenzidine	10	U
56-55-3-----	Benzo(a)Anthracene	10	U
218-01-9-----	Chrysene	10	U
117-81-7-----	bis(2-Ethylhexyl)Phthalate	10	U
117-84-0-----	Di-n-Octyl Phthalate	10	U
205-99-2-----	Benzo(b)Fluoranthene	10	U
207-08-9-----	Benzo(k)Fluoranthene	10	U
50-32-8-----	Benzo(a)Pyrene	10	U
193-39-5-----	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3-----	Dibenz(a,h)Anthracene	10	U
191-24-2-----	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine



1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: E & E INC.

Contract:

DR-1

Lab Code: EANDE Case No.: 887 SAS No.: SDG No.: MW-10D

Matrix: (soil/water) WATER Lab Sample ID: 70130

Sample wt/vol: 1000 (g/mL) ML Lab File ID:

% Moisture: decanted: (Y/N) Date Received: 08/26/93

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 08/31/93

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 09/23/93

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 7.6 Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	UG/L	Q
319-84-6-----	alpha-BHC		0.050	U
319-85-7-----	beta-BHC		0.050	U
319-86-8-----	delta-BHC		0.050	U
58-89-9-----	gamma-BHC (Lindane)		0.050	U
76-44-8-----	Heptachlor		0.050	U
309-00-2-----	Aldrin		0.050	U
1024-57-3-----	Heptachlor epoxide		0.050	U
959-98-8-----	Endosulfan I		0.050	U
60-57-1-----	Dieldrin		0.10	U
72-55-9-----	4,4'-DDE		0.10	U
72-20-8-----	Endrin		0.10	U
33213-65-9-----	Endosulfan II		0.10	U
72-54-8-----	4,4'-DDD		0.10	U
1031-07-8-----	Endosulfan sulfate		0.10	U
50-29-3-----	4,4'-DDT		0.10	U
72-43-5-----	Methoxychlor		0.50	U
53494-70-5-----	Endrin ketone		0.10	U
7421-93-4-----	Endrin aldehyde		0.10	U
5103-71-9-----	alpha-Chlordane		0.050	U
5103-74-2-----	gamma-Chlordane		0.050	U
8001-35-2-----	Toxaphene		5.0	U
12674-11-2-----	Aroclor-1016		1.0	U
11104-28-2-----	Aroclor-1221		2.0	U
11141-16-5-----	Aroclor-1232		1.0	U
53469-21-9-----	Aroclor-1242		1.0	U
12672-29-6-----	Aroclor-1248		1.0	U
11097-69-1-----	Aroclor-1254		1.0	U
11096-82-5-----	Aroclor-1260		1.0	U

INORGANIC ANALYSES DATA SHEET

1

DEC SAMPLE NO.

DR-1

Name: ECOLOGY AND ENVIRONMENT Contract: _____

Lab Code: EANDE Case No.: 9301.863 SAS No.: _____ SDG No.: DR-3 _____

Matrix (soil/water): WATER Lab Sample ID: 70130

Level (low/med): LOW Date Received: 08/26/93

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	82.8	B		P
7440-36-0	Antimony	37.0	U		P
7440-38-2	Arsenic	1.0	U		F
7440-39-3	Barium	22.6	B		P
7440-41-7	Beryllium	0.23	U		P
7440-43-9	Cadmium	2.7	U		P
7440-70-2	Calcium	51200	E		P
7440-47-3	Chromium	5.3	U		P
7440-48-4	Cobalt	6.6	U		P
7440-50-8	Copper	1.8	U		P
7439-89-6	Iron	197			P
7439-92-1	Lead	1.0	U		F
7439-95-4	Magnesium	11700			P
7439-96-5	Manganese	5.0	B	E	P
7439-97-6	Mercury	0.20	U	N	CV
7440-02-0	Nickel	7.5	U		P
7440-09-7	Potassium	2100	B		P
7782-49-2	Selenium	1.4	B	N	F
7440-22-4	Silver	2.5	U		P
7440-23-5	Sodium	28700	E		P
7440-28-0	Thallium	1.0	U	W	F
7440-62-2	Vanadium	3.3	U		P
7440-66-6	Zinc	3.3	B		P
	Cyanide	10.0	U		AS

Color Before: CL _____ Clarity Before: C _____ , Texture: _____

Color After: CL _____ Clarity After: C _____ Artifacts: _____

Comments:

FORM I - IN

ILMO2.1

VOLATILE ORGANICS ANALYSIS DATA SHEET

MW-1D

Lab Name: E & E INC.

Contract:

Lab Code: EANDE

Case No.: 863

SAS No.:

SDG No.: DR-3

Matrix: (soil/water) WATER

Lab Sample ID: 70125

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: F3159

Level: (low/med) LOW

Date Received: 08/26/93

% Moisture: not dec.

Date Analyzed: 08/31/93

GC Column: VOCOL ID: 0.530 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

Q

CAS NO.	COMPOUND	UG/L	Q
74-87-3-----	Chloromethane	10	U
74-83-9-----	Bromomethane	10	U
75-01-4-----	Vinyl Chloride	390	E
75-00-3-----	Chloroethane	41	
75-09-2-----	Methylene Chloride	1	BJ
67-64-1-----	Acetone	10	U
75-15-0-----	Carbon Disulfide	10	U
75-35-4-----	1,1-Dichloroethene	15	
75-34-3-----	1,1-Dichloroethane	1000	E
540-59-0-----	1,2-Dichloroethene (total)	410	E
67-66-3-----	Chloroform	10	U
107-06-2-----	1,2-Dichloroethane	10	
78-93-3-----	2-Butanone	10	U
71-55-6-----	1,1,1-Trichloroethane	100	
56-23-5-----	Carbon Tetrachloride	10	U
75-27-4-----	Bromodichloromethane	10	U
78-87-5-----	1,2-Dichloropropane	10	U
10061-01-5-----	cis-1,3-Dichloropropene	10	U
79-01-6-----	Trichloroethene	17	
124-48-1-----	Dibromochloromethane	10	U
79-00-5-----	1,1,2-Trichloroethane	10	U
71-43-2-----	Benzene	13	
10061-02-6-----	trans-1,3-Dichloropropene	10	U
75-25-2-----	Bromoform	10	U
108-10-1-----	4-Methyl-2-Pentanone	10	
591-78-6-----	2-Hexanone	10	U
127-18-4-----	Tetrachloroethene	10	U
79-34-5-----	1,1,2,2-Tetrachloroethane	10	U
108-88-3-----	Toluene	10	
108-90-7-----	Chlorobenzene	10	U
100-41-4-----	Ethylbenzene	5	J
100-42-5-----	Styrene	10	U
1330-20-7-----	Xylene (total)	9	J

VOLATILE ORGANICS ANALYSIS DATA SHEET

MW-1DDL

Lab Name: E & E INC.

Contract:

Code: EANDE Case No.: 863

SAS No.:

SDG No.: DR-3

Matrix: (soil/water) WATER

Lab Sample ID: 70125DL

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: F3181

Level: (low/med) LOW

Date Received: 08/26/93

% Moisture: not dec.

Date Analyzed: 08/31/93

GC Column: VOCOL ID: 0.530 (mm)

Dilution Factor: 5.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

Q

CAS NO.	COMPOUND		
74-87-3-----	Chloromethane	50	U
74-83-9-----	Bromomethane	50	U
75-01-4-----	Vinyl Chloride	270	D
75-00-3-----	Chloroethane	19	DJ
75-09-2-----	Methylene Chloride	7	BDJ
67-64-1-----	Acetone	50	U
75-15-0-----	Carbon Disulfide	50	U
75-35-4-----	1,1-Dichloroethene	9	DJ
75-34-3-----	1,1-Dichloroethane	840	D
540-59-0-----	1,2-Dichloroethene (total)	350	D
67-66-3-----	Chloroform	50	U
107-06-2-----	1,2-Dichloroethane	50	U
78-93-3-----	2-Butanone	50	U
71-55-6-----	1,1,1-Trichloroethane	59	D
56-23-5-----	Carbon Tetrachloride	50	U
75-27-4-----	Bromodichloromethane	50	U
78-87-5-----	1,2-Dichloropropane	50	U
10061-01-5-----	cis-1,3-Dichloropropene	50	U
79-01-6-----	Trichloroethene	9	DJ
124-48-1-----	Dibromochloromethane	50	U
79-00-5-----	1,1,2-Trichloroethane	50	U
71-43-2-----	Benzene	50	U
10061-02-6-----	trans-1,3-Dichloropropene	50	U
75-25-2-----	Bromoform	50	U
108-10-1-----	4-Methyl-2-Pentanone	50	U
591-78-6-----	2-Hexanone	50	U
127-18-4-----	Tetrachloroethene	50	U
79-34-5-----	1,1,2,2-Tetrachloroethane	50	U
108-88-3-----	Toluene	50	U
108-90-7-----	Chlorobenzene	50	U
100-41-4-----	Ethylbenzene	50	U
100-42-5-----	Styrene	50	U
1330-20-7-----	Xylene (total)	50	U

FORM I VOA

3/90

SEMOVOLATILE ORGANICS ANALYSIS DATA SHEET

MW-1D

Lab Name: E & E INC.

Contract:

Lab Code: EANDE Case No.: 863 SAS No.: SDG No.: DR-3

Matrix: (soil/water) WATER Lab Sample ID: 70125

Sample wt/vol: 1000 (g/mL) ML Lab File ID: E4788

Level: (low/med) LOW Date Received: 08/26/93

% Moisture: decanted: (Y/N) Date Extracted: 08/31/93

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/07/93

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L Q

CAS NO.	COMPOUND	UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

SEMICVOLATILE ORGANICS ANALYSIS DATA SHEET

MW-1D

Lab Name: E & E INC.

Contract:

Code: EANDE Case No.: 863 SAS No.: SDG No.: DR-3
 Matrix: (soil/water) WATER Lab Sample ID: 70125
 Sample wt/vol: 1000 (g/mL) ML Lab File ID: E4788
 Level: (low/med) LOW Date Received: 08/26/93
 % Moisture: decanted: (Y/N) Date Extracted: 08/31/93
 Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/07/93
 Injection Volume: 2.0(uL) Dilution Factor: 1.0
 GPC Cleanup: (Y/N) N pH: 7.0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L Q

CAS NO.	COMPOUND	UG/L	Q
51-28-5-----	2,4-Dinitrophenol	25	U
100-02-7-----	4-Nitrophenol	25	U
132-64-9-----	Dibenzofuran	10	U
121-14-2-----	2,4-Dinitrotoluene	10	U
84-66-2-----	Diethylphthalate	10	U
7005-72-3-----	4-Chlorophenyl-phenylether	10	U
86-73-7-----	Fluorene	10	U
100-01-6-----	4-Nitroaniline	25	U
534-52-1-----	4,6-Dinitro-2-methylphenol	25	U
86-30-6-----	N-Nitrosodiphenylamine (1)	10	U
101-55-3-----	4-Bromophenyl-phenylether	10	U
118-74-1-----	Hexachlorobenzene	10	U
87-86-5-----	Pentachlorophenol	25	U
85-01-8-----	Phenanthrene	10	U
120-12-7-----	Anthracene	10	U
86-74-8-----	Carbazole	10	U
84-74-2-----	Di-n-Butylphthalate	10	U
206-44-0-----	Fluoranthene	10	U
129-00-0-----	Pyrene	10	U
85-68-7-----	Butylbenzylphthalate	10	U
91-94-1-----	3,3'-Dichlorobenzidine	10	U
56-55-3-----	Benzo(a)Anthracene	10	U
218-01-9-----	Chrysene	10	U
117-81-7-----	bis(2-Ethylhexyl)Phthalate	2	BJ
117-84-0-----	Di-n-Octyl Phthalate	10	U
205-99-2-----	Benzo(b)Fluoranthene	10	U
207-08-9-----	Benzo(k)Fluoranthene	10	U
50-32-8-----	Benzo(a)Pyrene	10	U
193-39-5-----	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3-----	Dibenz(a,h)Anthracene	10	U
191-24-2-----	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: E & E INC.

Contract:

MW-1D

Lab Code: EANDE Case No.: 863 SAS No.: SDG No.: DR-1

Matrix: (soil/water) WATER Lab Sample ID: 70125

Sample wt/vol: 1000 (g/mL) ML Lab File ID:

% Moisture: decanted: (Y/N) Date Received: 08/26/93

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 08/31/93

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 09/14/93

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 7.0 Sulfur Cleanup: (Y/N) Y

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/L	Q
319-84-6-----	alpha-BHC	0.050	U	
319-85-7-----	beta-BHC	0.050	U	
319-86-8-----	delta-BHC	0.050	U	
58-89-9-----	gamma-BHC (Lindane)	0.050	U	
76-44-8-----	Heptachlor	0.050	U	
309-00-2-----	Aldrin	0.050	U	
1024-57-3-----	Heptachlor epoxide	0.050	U	
959-98-8-----	Endosulfan I	0.050	U	
60-57-1-----	Dieldrin	0.10	U	
72-55-9-----	4,4'-DDE	0.10	U	
72-20-8-----	Endrin	0.10	U	
33213-65-9-----	Endosulfan II	0.10	U	
72-54-8-----	4,4'-DDD	0.10	U	
1031-07-8-----	Endosulfan sulfate	0.10	U	
50-29-3-----	4,4'-DDT	0.10	U	
72-43-5-----	Methoxychlor	0.50	U	
53494-70-5-----	Endrin ketone	0.10	U	
7421-93-4-----	Endrin aldehyde	0.10	U	
5103-71-9-----	alpha-Chlordane	0.050	U	
5103-74-2-----	gamma-Chlordane	0.050	U	
8001-35-2-----	Toxaphene	5.0	U	
12674-11-2-----	Aroclor-1016	1.0	U	
11104-28-2-----	Aroclor-1221	2.0	U	
11141-16-5-----	Aroclor-1232	1.0	U	
53469-21-9-----	Aroclor-1242	1.0	U	
12672-29-6-----	Aroclor-1248	1.0	U	
11097-69-1-----	Aroclor-1254	1.0	U	
11096-82-5-----	Aroclor-1260	1.0	U	

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	UG/L	Q
319-84-6-----	alpha-BHC	0.050	U	
319-85-7-----	beta-BHC	0.050	U	
319-86-8-----	delta-BHC	0.050	U	
58-89-9-----	gamma-BHC (Lindane)	0.050	U	
76-44-8-----	Heptachlor	0.050	U	
309-00-2-----	Aldrin	0.050	U	
1024-57-3-----	Heptachlor epoxide	0.050	U	
959-98-8-----	Endosulfan I	0.050	U	
60-57-1-----	Dieldrin	0.10	U	
72-55-9-----	4,4'-DDE	0.10	U	
72-20-8-----	Endrin	0.10	U	
33213-65-9-----	Endosulfan II	0.10	U	
72-54-8-----	4,4'-DDD	0.10	U	
1031-07-8-----	Endosulfan sulfate	0.10	U	
50-29-3-----	4,4'-DDT	0.10	U	
72-43-5-----	Methoxychlor	0.50	U	
53494-70-5-----	Endrin ketone	0.10	U	
7421-93-4-----	Endrin aldehyde	0.10	U	
5103-71-9-----	alpha-Chlordane	0.050	U	
5103-74-2-----	gamma-Chlordane	0.050	U	
8001-35-2-----	Toxaphene	5.0	U	
12674-11-2-----	Aroclor-1016	1.0	U	
11104-28-2-----	Aroclor-1221	2.0	U	
11141-16-5-----	Aroclor-1232	1.0	U	
53469-21-9-----	Aroclor-1242	1.0	U	
12672-29-6-----	Aroclor-1248	1.0	U	
11097-69-1-----	Aroclor-1254	1.0	U	
11096-82-5-----	Aroclor-1260	1.0	U	

1
INORGANIC ANALYSES DATA SHEET

DEC SAMPLE NO.

MW-1D

Lab Name: ECOLOGY AND ENVIRONMENT Contract: _____

Lab Code: EANDE Case No.: 9301.863 SAS No.: _____ SDG No.: DR-3

Matrix (soil/water): WATER Lab Sample ID: 70125

Level (low/med): LOW Date Received: 08/26/93

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	137	B		P
7440-36-0	Antimony	37.0	U		P
7440-38-2	Arsenic	1.0	U		F
7440-39-3	Barium	51.4	B		P
7440-41-7	Beryllium	0.23	U		P
7440-43-9	Cadmium	2.7	U		P
7440-70-2	Calcium	245000	E		P
7440-47-3	Chromium	5.3	U		P
7440-48-4	Cobalt	6.6	U		P
7440-50-8	Copper	1.8	U		P
7439-89-6	Iron	268			P
7439-92-1	Lead	10.0	U	W	F
7439-95-4	Magnesium	76400			P
7439-96-5	Manganese	55.7		E	P
7439-97-6	Mercury	0.20	U	N	CV
7440-02-0	Nickel	7.5	U		P
7440-09-7	Potassium	17100			P
7782-49-2	Selenium	1.0	U	WN	F
7440-22-4	Silver	2.5	U		P
7440-23-5	Sodium	1020000		E	P
7440-28-0	Thallium	1.0	U	W	F
7440-62-2	Vanadium	3.3	U		P
7440-66-6	Zinc	15.8	B		P
	Cyanide	10.0	U		AS

Color Before: CL Clarity Before: C Texture: _____

Color After: CL Clarity After: C Artifacts: _____

Comments:

FORM I - IN

ILMO2.1

VOLATILE ORGANICS ANALYSIS DATA SHEET

DR-2

Lab Name: E & E INC.

Contract:

Lab Code: EANDE

Case No.: 863

SAS No.:

SDG No.: DR-3

Matrix: (soil/water) WATER

Lab Sample ID: 69955

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: F3101

Level: (low/med) LOW

Date Received: 08/25/93

% Moisture: not dec.

Date Analyzed: 08/28/93

GC Column: VOCOL ID: 0.530 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

Q

CAS NO.	COMPOUND		
74-87-3-----	Chloromethane	10	U
74-83-9-----	Bromomethane	10	U
75-01-4-----	Vinyl Chloride	190	
75-00-3-----	Chloroethane	60	
75-09-2-----	Methylene Chloride	2	BJ
67-64-1-----	Acetone	10	U
75-15-0-----	Carbon Disulfide	10	U
75-35-4-----	1,1-Dichloroethene	460	E
75-34-3-----	1,1-Dichloroethane	540	E
540-59-0-----	1,2-Dichloroethene (total)	390	E
67-66-3-----	Chloroform	10	U
107-06-2-----	1,2-Dichloroethane	73	
78-93-3-----	2-Butanone	10	U
71-55-6-----	1,1,1-Trichloroethane	880	E
56-23-5-----	Carbon Tetrachloride	10	U
75-27-4-----	Bromodichloromethane	10	U
78-87-5-----	1,2-Dichloropropane	10	U
10061-01-5-----	cis-1,3-Dichloropropene	10	U
79-01-6-----	Trichloroethene	590	E
124-48-1-----	Dibromochloromethane	10	U
79-00-5-----	1,1,2-Trichloroethane	1	J
71-43-2-----	Benzene	11	
10061-02-6-----	trans-1,3-Dichloropropene	10	U
75-25-2-----	Bromoform	10	U
108-10-1-----	4-Methyl-2-Pentanone	10	U
591-78-6-----	2-Hexanone	10	U
127-18-4-----	Tetrachloroethene	10	U
79-34-5-----	1,1,2,2-Tetrachloroethane	10	U
108-88-3-----	Toluene	1	J
108-90-7-----	Chlorobenzene	10	U
100-41-4-----	Ethylbenzene	10	U
100-42-5-----	Styrene	10	U
1330-20-7-----	Xylene (total)	10	U

FORM I VOA

3/90

VOLATILE ORGANICS ANALYSIS DATA SHEET

DR-2DL

Lab Name: E & E INC.

Contract:

Lab Code: EANDE

Case No.: 863

SAS No.:

SDG No.: DR-3

Matrix: (soil/water) WATER

Lab Sample ID: 69955DL

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: F3150

Level: (low/med) LOW

Date Received: 08/25/93

% Moisture: not dec.

Date Analyzed: 08/30/93

GC Column: VOCOL ID: 0.530 (mm)

Dilution Factor: 20.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L Q	
74-87-3-----	Chloromethane	200	U
74-83-9-----	Bromomethane	200	U
75-01-4-----	Vinyl Chloride	63	DJ
75-00-3-----	Chloroethane	200	U
75-09-2-----	Methylene Chloride	87	BDJ
67-64-1-----	Acetone	200	U
75-15-0-----	Carbon Disulfide	200	U
75-35-4-----	1,1-Dichloroethene	190	DJ
75-34-3-----	1,1-Dichloroethane	2400	D
540-59-0-----	1,2-Dichloroethene (total)	250	D
67-66-3-----	Chloroform	200	U
107-06-2-----	1,2-Dichloroethane	200	U
78-93-3-----	2-Butanone	200	U
71-55-6-----	1,1,1-Trichloroethane	400	D
56-23-5-----	Carbon Tetrachloride	200	U
75-27-4-----	Bromodichloromethane	200	U
78-87-5-----	1,2-Dichloropropane	200	U
10061-01-5-----	cis-1,3-Dichloropropene	200	U
79-01-6-----	Trichloroethene	290	D
124-48-1-----	Dibromochloromethane	200	U
79-00-5-----	1,1,2-Trichloroethane	200	U
71-43-2-----	Benzene	200	U
10061-02-6-----	trans-1,3-Dichloropropene	200	U
75-25-2-----	Bromoform	200	U
108-10-1-----	4-Methyl-2-Pentanone	200	U
591-78-6-----	2-Hexanone	200	U
127-18-4-----	Tetrachloroethene	200	U
79-34-5-----	1,1,2,2-Tetrachloroethane	200	U
108-88-3-----	Toluene	200	U
108-90-7-----	Chlorobenzene	200	U
100-41-4-----	Ethylbenzene	200	U
100-42-5-----	Styrene	200	U
1330-20-7-----	Xylene (total)	200	U

SEMICVOLATILE ORGANICS ANALYSIS DATA SHEET

DR-2

Lab Name: E & E INC.

Contract:

Lab Code: EANDE

Case No.: 863

SAS No.:

SDG No.: DR-3

Matrix: (soil/water) WATER

Lab Sample ID: 69955

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: E4762

Level: (low/med) LOW

Date Received: 08/25/93

% Moisture: decanted: (Y/N)

Date Extracted: 08/30/93

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 09/04/93

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 8.5

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Q

CAS NO.	COMPOUND		
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

FORM I SV-1

3/90

SEMICVOLATILE ORGANICS ANALYSIS DATA SHEET

DR-2

Lab Name: E & E INC.

Contract:

Code: EANDE Case No.: 863

SAS No.:

SDG No.: DR-3

Matrix: (soil/water) WATER

Lab Sample ID: 69955

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: E4762

Level: (low/med) LOW

Date Received: 08/25/93

% Moisture: decanted: (Y/N)

Date Extracted: 08/30/93

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 09/04/93

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 8.5

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L Q

CAS NO.

COMPOUND

51-28-5-----	2,4-Dinitrophenol	25	U
100-02-7-----	4-Nitrophenol	25	U
132-64-9-----	Dibenzofuran	10	U
121-14-2-----	2,4-Dinitrotoluene	10	U
84-66-2-----	Diethylphthalate	10	U
7005-72-3-----	4-Chlorophenyl-phenylether	10	U
86-73-7-----	Fluorene	10	U
100-01-6-----	4-Nitroaniline	25	U
534-52-1-----	4,6-Dinitro-2-methylphenol	25	U
86-30-6-----	N-Nitrosodiphenylamine (1)	10	U
101-55-3-----	4-Bromophenyl-phenylether	10	U
118-74-1-----	Hexachlorobenzene	10	U
87-86-5-----	Pentachlorophenol	25	U
85-01-8-----	Phenanthrene	10	U
120-12-7-----	Anthracene	10	U
86-74-8-----	Carbazole	10	U
84-74-2-----	Di-n-Butylphthalate	10	U
206-44-0-----	Fluoranthene	10	U
129-00-0-----	Pyrene	10	U
85-68-7-----	Butylbenzylphthalate	10	U
91-94-1-----	3,3'-Dichlorobenzidine	10	U
56-55-3-----	Benzo(a)Anthracene	10	U
218-01-9-----	Chrysene	10	U
117-81-7-----	bis(2-Ethylhexyl)Phthalate	10	U
117-84-0-----	Di-n-Octyl Phthalate	10	U
205-99-2-----	Benzo(b)Fluoranthene	10	U
207-08-9-----	Benzo(k)Fluoranthene	10	U
50-32-8-----	Benzo(a)Pyrene	10	U
193-39-5-----	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3-----	Dibenz(a,h)Anthracene	10	U
191-24-2-----	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: E & E INC.

Contract:

DR-2

Lab Code: EANDE Case No.: 863 SAS No.: SDG No.: DR-1

Matrix: (soil/water) WATER Lab Sample ID: 69955

Sample wt/vol: 1000 (g/mL) ML Lab File ID:

% Moisture: decanted: (Y/N) Date Received: 08/25/93

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 08/30/93

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 09/14/93

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 8.5 Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	UG/L	Q
319-84-6-----	alpha-BHC	0.050	U	
319-85-7-----	beta-BHC	0.050	U	
319-86-8-----	delta-BHC	0.050	U	
58-89-9-----	gamma-BHC (Lindane)	0.050	U	
76-44-8-----	Heptachlor	0.050	U	
309-00-2-----	Aldrin	0.050	U	
1024-57-3-----	Heptachlor epoxide	0.050	U	
959-98-8-----	Endosulfan I	0.050	U	
60-57-1-----	Dieldrin	0.10	U	
72-55-9-----	4,4'-DDE	0.10	U	
72-20-8-----	Endrin	0.10	U	
33213-65-9-----	Endosulfan II	0.10	U	
72-54-8-----	4,4'-DDD	0.10	U	
1031-07-8-----	Endosulfan sulfate	0.10	U	
50-29-3-----	4,4'-DDT	0.10	U	
72-43-5-----	Methoxychlor	0.50	U	
53494-70-5-----	Endrin ketone	0.10	U	
7421-93-4-----	Endrin aldehyde	0.10	U	
5103-71-9-----	alpha-Chlordane	0.050	U	
5103-74-2-----	gamma-Chlordane	0.050	U	
8001-35-2-----	Toxaphene	5.0	U	
12674-11-2-----	Aroclor-1016	1.0	U	
11104-28-2-----	Aroclor-1221	2.0	U	
11141-16-5-----	Aroclor-1232	1.0	U	
53469-21-9-----	Aroclor-1242	1.0	U	
12672-29-6-----	Aroclor-1248	1.0	U	
11097-69-1-----	Aroclor-1254	1.0	U	
11096-82-5-----	Aroclor-1260	1.0	U	

1
INORGANIC ANALYSES DATA SHEET

DEC SAMPLE NO.

DR-2

Name: ECOLOGY AND ENVIRONMENT Contract: _____

Lab Code: EANDE Case No.: 9301.863 SAS No.: _____ SDG No.: DR-3

Matrix (soil/water): WATER

Lab Sample ID: 69955

Level (low/med): LOW

Date Received: 08/25/93

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	57.6	B		P
7440-36-0	Antimony	37.0	U		P
7440-38-2	Arsenic	3.3	B	W	F
7440-39-3	Barium	92.5	B		P
7440-41-7	Beryllium	0.23	U		P
7440-43-9	Cadmium	2.7	U		P
7440-70-2	Calcium	131000		E	P
7440-47-3	Chromium	5.3	U		P
7440-48-4	Cobalt	6.6	U		P
7440-50-8	Copper	2.5	B		P
7439-89-6	Iron	3740			P
7439-92-1	Lead	1.0	U		F
7439-95-4	Magnesium	62700			P
7439-96-5	Manganese	39.4		E	P
7439-97-6	Mercury	0.20	U	N	CV
7440-02-0	Nickel	7.5	U		P
7440-09-7	Potassium	3390	B		P
7782-49-2	Selenium	1.0	U	WN	F
7440-22-4	Silver	2.5	U		P
7440-23-5	Sodium	248000		E	P
7440-28-0	Thallium	1.0	U	W	F
7440-62-2	Vanadium	3.3	U		P
7440-66-6	Zinc	5.4	B		P
	Cyanide	10.0	U		AS

Color Before: CL _____ Clarity Before: C _____ , Texture: _____

Color After: Y _____ Clarity After: C _____ Artifacts: _____

Comments:

FORM I - IN

ILMO2.1

VOLATILE ORGANICS ANALYSIS DATA SHEET

DR-2D

Lab Name: E & E INC.

Contract:

Lab Code: EANDE

Case No.: 863

SAS No.:

SDG No.: DR-3

Matrix: (soil/water) WATER

Lab Sample ID: 69956

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: F3102

Level: (low/med) LOW

Date Received: 08/25/93

% Moisture: not dec.

Date Analyzed: 08/28/93

GC Column: VOCOL ID: 0.530 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/L	Q
74-87-3-----	Chloromethane	10	U	
74-83-9-----	Bromomethane	10	U	
75-01-4-----	Vinyl Chloride	170		
75-00-3-----	Chloroethane	52		
75-09-2-----	Methylene Chloride	2	BJ	
67-64-1-----	Acetone	10	U	
75-15-0-----	Carbon Disulfide	10	U	
75-35-4-----	1,1-Dichloroethene	390	E	
75-34-3-----	1,1-Dichloroethane	1800	E	
540-59-0-----	1,2-Dichloroethene (total)	410	E	
67-66-3-----	Chloroform	10	U	
107-06-2-----	1,2-Dichloroethane	68		
78-93-3-----	2-Butanone	10	U	
71-55-6-----	1,1,1-Trichloroethane	730	E	
56-23-5-----	Carbon Tetrachloride	10	U	
75-27-4-----	Bromodichloromethane	10	U	
78-87-5-----	1,2-Dichloropropane	10	U	
10061-01-5-----	cis-1,3-Dichloropropene	10	U	
79-01-6-----	Trichloroethene	530	E	
124-48-1-----	Dibromochloromethane	10	U	
79-00-5-----	1,1,2-Trichloroethane	2	J	
71-43-2-----	Benzene	9	J	
10061-02-6-----	trans-1,3-Dichloropropene	10	U	
75-25-2-----	Bromoform	10	U	
108-10-1-----	4-Methyl-2-Pentanone	10	U	
591-78-6-----	2-Hexanone	10	U	
127-18-4-----	Tetrachloroethene	10	U	
79-34-5-----	1,1,2,2-Tetrachloroethane	10	U	
108-88-3-----	Toluene	10	U	
108-90-7-----	Chlorobenzene	10	U	
100-41-4-----	Ethylbenzene	10	U	
100-42-5-----	Styrene	10	U	
1330-20-7-----	Xylene (total)	10	U	

VOLATILE ORGANICS ANALYSIS DATA SHEET

DR-2DDL

Lab Name: E & E INC.

Contract:

Lab Code: EANDE Case No.: 863

SAS No.:

SDG No.: DR-3

Matrix: (soil/water) WATER

Lab Sample ID: 59956DL

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: F3151

Level: (low/med) LOW

Date Received: 08/25/93

% Moisture: not dec.

Date Analyzed: 08/30/93

GC Column: VOCOL ID: 0.530 (mm)

Dilution Factor: 20.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

Q

74-87-3-----Chloromethane	200	U
74-83-9-----Bromomethane	200	U
75-01-4-----Vinyl Chloride	79	DJ
75-00-3-----Chloroethane	200	U
75-09-2-----Methylene Chloride	95	BDJ
67-64-1-----Acetone	200	U
75-15-0-----Carbon Disulfide	200	U
75-35-4-----1,1-Dichloroethene	180	DJ
75-34-3-----1,1-Dichloroethane	2200	D
540-59-0-----1,2-Dichloroethene (total)	240	D
67-66-3-----Chloroform	200	U
107-06-2-----1,2-Dichloroethane	200	U
78-93-3-----2-Butanone	200	U
71-55-6-----1,1,1-Trichloroethane	490	D
56-23-5-----Carbon Tetrachloride	200	U
75-27-4-----Bromodichloromethane	200	U
78-87-5-----1,2-Dichloropropane	200	U
10061-01-5-----cis-1,3-Dichloropropene	200	U
79-01-6-----Trichloroethene	340	D
124-48-1-----Dibromochloromethane	200	U
79-00-5-----1,1,2-Trichloroethane	200	U
71-43-2-----Benzene	200	U
10061-02-6-----trans-1,3-Dichloropropene	200	U
75-25-2-----Bromoform	200	U
108-10-1-----4-Methyl-2-Pentanone	200	U
591-78-6-----2-Hexanone	200	U
127-18-4-----Tetrachloroethene	200	U
79-34-5-----1,1,2,2-Tetrachloroethane	200	U
108-88-3-----Toluene	200	U
108-90-7-----Chlorobenzene	200	U
100-41-4-----Ethylbenzene	200	U
100-42-5-----Styrene	200	U
1330-20-7-----Xylene (total)	200	U

FORM I VOA

3/90

098

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

DR-2D

Lab Name: E & E INC.

Contract:

Lab Code: EANDE Case No.: 863 SAS No.: SDG No.: DR-3

Matrix: (soil/water) WATER Lab Sample ID: 69956

Sample wt/vol: 1000 (g/mL) ML Lab File ID: E4763

Level: (low/med) LOW Date Received: 08/25/93

% Moisture: decanted: (Y/N) Date Extracted: 08/30/93

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/04/93

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 8.7

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L Q

CAS NO.	COMPOUND	UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

1C
SEMICVOLATILE ORGANICS ANALYSIS DATA SHEET

DR-2D

Lab Name: E & E INC.

Contract:

Code: EANDE

Case No.: 863

SAS No.:

SDG No.: DR-3

Matrix: (soil/water) WATER

Lab Sample ID: 69956

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: E4763

Level: (low/med) LOW

Date Received: 08/25/93

% Moisture: decanted: (Y/N)

Date Extracted: 08/30/93

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 09/04/93

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 8.7

CONCENTRATION UNITS:

CAS NO.

COMPOUND

(ug/L or ug/Kg) UG/L

Q

51-28-5-----	2,4-Dinitrophenol	25	U
100-02-7-----	4-Nitrophenol	25	U
132-64-9-----	Dibenzofuran	10	U
121-14-2-----	2,4-Dinitrotoluene	10	U
84-66-2-----	Diethylphthalate	10	U
7005-72-3-----	4-Chlorophenyl-phenylether	10	U
86-73-7-----	Fluorene	10	U
100-01-6-----	4-Nitroaniline	25	U
534-52-1-----	4,6-Dinitro-2-methylphenol	25	U
86-30-6-----	N-Nitrosodiphenylamine (1)	10	U
101-55-3-----	4-Bromophenyl-phenylether	10	U
118-74-1-----	Hexachlorobenzene	10	U
87-86-5-----	Pentachlorophenol	25	U
85-01-8-----	Phenanthrene	10	U
120-12-7-----	Anthracene	10	U
86-74-8-----	Carbazole	10	U
84-74-2-----	Di-n-Butylphthalate	10	U
206-44-0-----	Fluoranthene	10	U
129-00-0-----	Pyrene	10	U
85-68-7-----	Butylbenzylphthalate	10	U
91-94-1-----	3,3'-Dichlorobenzidine	10	U
56-55-3-----	Benzo(a)Anthracene	10	U
218-01-9-----	Chrysene	10	U
117-81-7-----	bis(2-Ethylhexyl)Phthalate	10	U
117-84-0-----	Di-n-Octyl Phthalate	10	U
205-99-2-----	Benzo(b)Fluoranthene	10	U
207-08-9-----	Benzo(k)Fluoranthene	10	U
50-32-8-----	Benzo(a)Pyrene	10	U
193-39-5-----	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3-----	Dibenz(a,h)Anthracene	10	U
191-24-2-----	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

FORM I SV-2

3/90

A-25

EPA/DOE 8030

Ecology and Environment

562

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: E & E INC.

Contract:

DR-2D

Lab Code: EANDE Case No.: 863 SAS No.: SDG No.: DR-1

Matrix: (soil/water) WATER Lab Sample ID: 69956

Sample wt/vol: 1000 (g/mL) ML Lab File ID:

% Moisture: decanted: (Y/N) Date Received: 08/25/93

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 08/30/93

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 09/14/93

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 8.7 Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L Q	
319-84-6-----	alpha-BHC	0.050	U
319-85-7-----	beta-BHC	0.050	U
319-86-8-----	delta-BHC	0.050	U
58-89-9-----	gamma-BHC (Lindane)	0.050	U
76-44-8-----	Heptachlor	0.050	U
309-00-2-----	Aldrin	0.050	U
1024-57-3-----	Heptachlor epoxide	0.050	U
959-98-8-----	Endosulfan I	0.050	U
60-57-1-----	Dieldrin	0.10	U
72-55-9-----	4,4'-DDE	0.10	U
72-20-8-----	Endrin	0.10	U
33213-65-9-----	Endosulfan II	0.10	U
72-54-8-----	4,4'-DDD	0.10	U
1031-07-8-----	Endosulfan sulfate	0.10	U
50-29-3-----	4,4'-DDT	0.10	U
72-43-5-----	Methoxychlor	0.50	U
53494-70-5-----	Endrin ketone	0.10	U
7421-93-4-----	Endrin aldehyde	0.10	U
5103-71-9-----	alpha-Chlordane	0.050	U
5103-74-2-----	gamma-Chlordane	0.050	U
8001-35-2-----	Toxaphene	5.0	U
12674-11-2-----	Aroclor-1016	1.0	U
11104-28-2-----	Aroclor-1221	2.0	U
11141-16-5-----	Aroclor-1232	1.0	U
53469-21-9-----	Aroclor-1242	1.0	U
12672-29-6-----	Aroclor-1248	1.0	U
11097-69-1-----	Aroclor-1254	1.0	U
11096-82-5-----	Aroclor-1260	1.0	U

1
INORGANIC ANALYSES DATA SHEET

DEC SAMPLE NO.

DR-2D

Name: ECOLOGY AND ENVIRONMENT Contract: _____

Lab Code: EANDE Case No.: 9301.863 SAS No.: _____ SDG No.: DR-3

Matrix (soil/water): WATER Lab Sample ID: 69956

Level (low/med): LOW Date Received: 08/25/93

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	57.0	B		P
7440-36-0	Antimony	37.0	U		P
7440-38-2	Arsenic	3.9	B	W	F
7440-39-3	Barium	91.6	B		P
7440-41-7	Beryllium	0.23	U		P
7440-43-9	Cadmium	2.7	U		P
7440-70-2	Calcium	131000		E	P
7440-47-3	Chromium	5.3	U		P
7440-48-4	Cobalt	6.6	U		P
7440-50-8	Copper	7.0	B		P
7439-89-6	Iron	5520			P
7439-92-1	Lead	1.0	U		F
7439-95-4	Magnesium	62300			P
7439-96-5	Manganese	46.2		E	P
7439-97-6	Mercury	0.20	U	N	CV
7440-02-0	Nickel	7.5	U		P
7440-09-7	Potassium	3410	B		P
7782-49-2	Selenium	1.0	U	WN	F
7440-22-4	Silver	2.5	U		P
7440-23-5	Sodium	248000		E	P
7440-28-0	Thallium	1.0	U	W	F
7440-62-2	Vanadium	3.3	U		P
7440-66-6	Zinc	7.0	B		P
	Cyanide	10.0	U		AS

Color Before: CL Clarity Before: C Texture: _____

Color After: Y Clarity After: C Artifacts: _____

Comments:

FORM I - IN

ILMO2.1

VOLATILE ORGANICS ANALYSIS DATA SHEET

MW-2D(CN)
CF 12/21/93

Lab Name: E & E INC.

Contract:

Lab Code: EANDE

Case No.: 863

SAS No.:

SDG No.: DR-3

Matrix: (soil/water) WATER

Lab Sample ID: 69957

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: F3103

Level: (low/med) LOW

Date Received: 08/25/93

% Moisture: not dec.

Date Analyzed: 08/28/93

GC Column: VOCOL ID: 0.530 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

Q

CAS NO.	COMPOUND	UG/L	Q
74-87-3-----	Chloromethane	110	
74-83-9-----	Bromomethane	10	U
75-01-4-----	Vinyl Chloride	10	U
75-00-3-----	Chloroethane	10	U
75-09-2-----	Methylene Chloride	10	U
67-64-1-----	Acetone	10	U
75-15-0-----	Carbon Disulfide	14	
75-35-4-----	1,1-Dichloroethene	10	U
75-34-3-----	1,1-Dichloroethane	12	
540-59-0-----	1,2-Dichloroethene (total)	10	U
67-66-3-----	Chloroform	10	U
107-06-2-----	1,2-Dichloroethane	10	U
78-93-3-----	2-Butanone	10	U
71-55-6-----	1,1,1-Trichloroethane	10	U
56-23-5-----	Carbon Tetrachloride	10	U
75-27-4-----	Bromodichloromethane	10	U
78-87-5-----	1,2-Dichloropropane	10	U
10061-01-5-----	cis-1,3-Dichloropropene	10	U
79-01-6-----	Trichloroethene	10	U
124-48-1-----	Dibromochloromethane	10	U
79-00-5-----	1,1,2-Trichloroethane	10	U
71-43-2-----	Benzene	10	U
10061-02-6-----	trans-1,3-Dichloropropene	10	U
75-25-2-----	Bromoform	10	U
108-10-1-----	4-Methyl-2-Pentanone	10	U
591-78-6-----	2-Hexanone	10	U
127-18-4-----	Tetrachloroethene	10	U
79-34-5-----	1,1,2,2-Tetrachloroethane	10	U
108-88-3-----	Toluene	5	J
108-90-7-----	Chlorobenzene	10	U
100-41-4-----	Ethylbenzene	4	J
100-42-5-----	Styrene	10	U
1330-20-7-----	Xylene (total)	11	

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

MW-2D(N)
GT 12/21/93

Lab Name: E & E INC.

Contract:

SDG No.: DR-3

Code: EANDE Case No.: 863

SAS No.:

Matrix: (soil/water) WATER

Lab Sample ID: 69957

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: E4781

Level: (low/med) LOW

Date Received: 08/25/93

% Moisture: decanted: (Y/N)

Date Extracted: 08/30/93

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 09/07/93

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 8.3

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

Q

CAS NO.	COMPOUND			
108-95-2	Phenol	10	U	
111-44-4	bis(2-Chloroethyl)Ether	10	U	
95-57-8	2-Chlorophenol	10	U	
541-73-1	1,3-Dichlorobenzene	10	U	
106-46-7	1,4-Dichlorobenzene	10	U	
95-50-1	1,2-Dichlorobenzene	10	U	
95-48-7	2-Methylphenol	10	U	
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U	
106-44-5	4-Methylphenol	10	U	
621-64-7	N-Nitroso-Di-n-Propylamine	10	U	
67-72-1	Hexachloroethane	10	U	
98-95-3	Nitrobenzene	10	U	
78-59-1	Isophorone	10	U	
88-75-5	2-Nitrophenol	10	U	
105-67-9	2,4-Dimethylphenol	10	U	
111-91-1	bis(2-Chloroethoxy)Methane	10	U	
120-83-2	2,4-Dichlorophenol	10	U	
120-82-1	1,2,4-Trichlorobenzene	10	U	
91-20-3	Naphthalene	10	U	
106-47-8	4-Chloroaniline	10	U	
87-68-3	Hexachlorobutadiene	10	U	
59-50-7	4-Chloro-3-Methylphenol	10	U	
91-57-6	2-Methylnaphthalene	10	U	
77-47-4	Hexachlorocyclopentadiene	10	U	
88-06-2	2,4,6-Trichlorophenol	10	U	
95-95-4	2,4,5-Trichlorophenol	25	U	
91-58-7	2-Chloronaphthalene	10	U	
88-74-4	2-Nitroaniline	25	U	
131-11-3	Dimethylphthalate	10	U	
208-96-8	Acenaphthylene	10	U	
606-20-2	2,6-Dinitrotoluene	10	U	
99-09-2	3-Nitroaniline	25	U	
83-32-9	Acenaphthene	10	U	

FORM I SV-1

3/90

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: E & E INC.

Contract:

MW-2D(N)
GF 12/21/93

Lab Code: EANDE Case No.: 863

SAS No.:

SDG No.: DR-3

Matrix: (soil/water) WATER

Lab Sample ID: 69957

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: E4781

Level: (low/med) LOW

Date Received: 08/25/93

% Moisture: decanted: (Y/N)

Date Extracted: 08/30/93

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 09/07/93

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 8.3

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Q

CAS NO.	COMPOUND	25	U
51-28-5-----	2,4-Dinitrophenol	25	U
100-02-7-----	4-Nitrophenol	25	U
132-64-9-----	Dibenzofuran	10	U
121-14-2-----	2,4-Dinitrotoluene	10	U
84-66-2-----	Diethylphthalate	10	U
7005-72-3-----	4-Chlorophenyl-phenylether	10	U
86-73-7-----	Fluorene	10	U
100-01-6-----	4-Nitroaniline	25	U
534-52-1-----	4,6-Dinitro-2-methylphenol	25	U
86-30-6-----	N-Nitrosodiphenylamine (1)	10	U
101-55-3-----	4-Bromophenyl-phenylether	10	U
118-74-1-----	Hexachlorobenzene	10	U
87-86-5-----	Pentachlorophenol	25	U
85-01-8-----	Phenanthrene	10	U
120-12-7-----	Anthracene	10	U
86-74-8-----	Carbazole	10	U
84-74-2-----	Di-n-Butylphthalate	10	U
206-44-0-----	Fluoranthene	10	U
129-00-0-----	Pyrene	10	U
85-68-7-----	Butylbenzylphthalate	10	U
91-94-1-----	3,3'-Dichlorobenzidine	10	U
56-55-3-----	Benzo(a)Anthracene	10	U
218-01-9-----	Chrysene	10	U
117-81-7-----	bis(2-Ethylhexyl)Phthalate	1	BJ
117-84-0-----	Di-n-Octyl Phthalate	10	U
205-99-2-----	Benzo(b)Fluoranthene	10	U
207-08-9-----	Benzo(k)Fluoranthene	10	U
50-32-8-----	Benzo(a)Pyrene	10	U
193-39-5-----	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3-----	Dibenz(a,h)Anthracene	10	U
191-24-2-----	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-2D(N)
GF 12/21/93

Name: E & E INC.

Contract:

Lab Code: EANDE

Case No.: 863

SAS No.:

SDG No.: DR-1

Matrix: (soil/water) WATER

Lab Sample ID: 69957

Sample wt/vol: 1000 (g/mL) ML

Lab File ID:

% Moisture: decanted: (Y/N)

Date Received: 08/25/93

Extraction: (SepF/Cont/Sonc) SEPF

Date Extracted: 08/30/93

Concentrated Extract Volume: 10000 (uL)

Date Analyzed: 09/14/93

Injection Volume: 2.00 (uL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 8.3

Sulfur Cleanup: (Y/N) Y

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
319-84-6-----	alpha-BHC	0.050	U
319-85-7-----	beta-BHC	0.050	U
319-86-8-----	delta-BHC	0.050	U
58-89-9-----	gamma-BHC (Lindane)	0.050	U
76-44-8-----	Heptachlor	0.050	U
309-00-2-----	Aldrin	0.050	U
1024-57-3-----	Heptachlor epoxide	0.050	U
959-98-8-----	Endosulfan I	0.050	U
60-57-1-----	Dieldrin	0.10	U
72-55-9-----	4,4'-DDE	0.10	U
72-20-8-----	Endrin	0.10	U
33213-65-9-----	Endosulfan II	0.10	U
72-54-8-----	4,4'-DDD	0.10	U
1031-07-8-----	Endosulfan sulfate	0.10	U
50-29-3-----	4,4'-DDT	0.10	U
72-43-5-----	Methoxychlor	0.50	U
53494-70-5-----	Endrin ketone	0.10	U
7421-93-4-----	Endrin aldehyde	0.10	U
5103-71-9-----	alpha-Chlordane	0.050	U
5103-74-2-----	gamma-Chlordane	0.050	U
8001-35-2-----	Toxaphene	5.0	U
12674-11-2-----	Aroclor-1016	1.0	U
11104-28-2-----	Aroclor-1221	2.0	U
11141-16-5-----	Aroclor-1232	1.0	U
53469-21-9-----	Aroclor-1242	1.0	U
12672-29-6-----	Aroclor-1248	1.0	U
11097-69-1-----	Aroclor-1254	1.0	U
11096-82-5-----	Aroclor-1260	1.0	U

FORM I PEST

3/90

1
INORGANIC ANALYSES DATA SHEET

DEC SAMPLE NO.

Lab Name: ECOLOGY AND ENVIRONMENT Contract: _____

MW-2D(N)

GF 12/21/93

Lab Code: EANDE Case No.: 9301.863 SAS No.: _____ SDG No.: DR-3 _____

Matrix (soil/water): WATER

Lab Sample ID: 69957

Level (low/med): LOW _____

Date Received: 08/25/93

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L _____

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	446	-		P
7440-36-0	Antimony	37.0	U		P
7440-38-2	Arsenic	3.9	B	W	F
7440-39-3	Barium	19.0	U		P
7440-41-7	Beryllium	0.23	U		P
7440-43-9	Cadmium	2.7	U		P
7440-70-2	Calcium	674000	E		P
7440-47-3	Chromium	5.3	U		P
7440-48-4	Cobalt	6.6	U		P
7440-50-8	Copper	1.8	U		P
7439-89-6	Iron	301			P
7439-92-1	Lead	27.3		W	F
7439-95-4	Magnesium	200000			P
7439-96-5	Manganese	9.3	B	E	P
7439-97-6	Mercury	0.20	U	N	CV
7440-02-0	Nickel	7.5	U		P
7440-09-7	Potassium	45700			P
7782-49-2	Selenium	1.0	U	WN	F
7440-22-4	Silver	2.5	U		P
7440-23-5	Sodium	2160000		E	P
7440-28-0	Thallium	5.0	U	W	F
7440-62-2	Vanadium	3.3	U		P
7440-66-6	Zinc	4.5	B		P
	Cyanide	1020			AS

Color Before: CL _____ Clarity Before: C _____ Texture: _____

Color After: CL _____ Clarity After: C _____ Artifacts: _____

Comments:

FORM I - IN

ILMO2.1

VOLATILE ORGANICS ANALYSIS DATA SHEET

MW-2D(NJD)
MW-2D-D
GF 12/21/93

Lab Name: E & E INC.

Contract:

Lab Code: EANDE Case No.: 863

SAS No.:

SDG No.: DR-3

Matrix: (soil/water) WATER

Lab Sample ID: 69958

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: F3152

Level: (low/med) LOW

Date Received: 08/25/93

% Moisture: not dec.

Date Analyzed: 08/30/93

GC Column: VOCOL ID: 0.530 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

Q

CAS NO.	COMPOUND			
74-87-3-----	Chloromethane	10	U	
74-83-9-----	Bromomethane	10	U	
75-01-4-----	Vinyl Chloride	10	U	
75-00-3-----	Chloroethane	10	U	
75-09-2-----	Methylene Chloride	10	U	
67-64-1-----	Acetone	10	U	
75-15-0-----	Carbon Disulfide	14		
75-35-4-----	1,1-Dichloroethene	10	U	
75-34-3-----	1,1-Dichloroethane	7	J	
540-59-0-----	1,2-Dichloroethene (total)	10	U	
67-66-3-----	Chloroform	10	U	
107-06-2-----	1,2-Dichloroethane	10	U	
78-93-3-----	2-Butanone	10	U	
71-55-6-----	1,1,1-Trichloroethane	10	U	
56-23-5-----	Carbon Tetrachloride	10	U	
75-27-4-----	Bromodichloromethane	10	U	
78-87-5-----	1,2-Dichloropropane	10	U	
10061-01-5-----	cis-1,3-Dichloropropene	10	U	
79-01-6-----	Trichloroethene	10	U	
124-48-1-----	Dibromochloromethane	10	U	
79-00-5-----	1,1,2-Trichloroethane	10	U	
71-43-2-----	Benzene	10	U	
10061-02-6-----	trans-1,3-Dichloropropene	10	U	
75-25-2-----	Bromoform	10	U	
108-10-1-----	4-Methyl-2-Pentanone	10	U	
591-78-6-----	2-Hexanone	10	U	
127-18-4-----	Tetrachloroethene	10	U	
79-34-5-----	1,1,2,2-Tetrachloroethane	10	U	
108-88-3-----	Toluene	5	J	
108-90-7-----	Chlorobenzene	10	U	
100-41-4-----	Ethylbenzene	2	J	
100-42-5-----	Styrene	10	U	
1330-20-7-----	Xylene (total)	9	J	

FORM I VOA

3/90

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

MW-2D(n)D

MW-2D-D

GF 12/21/93

Lab Name: E & E INC.

Contract:

Lab Code: EANDE Case No.: 863 SAS No.: SDG No.: DR-3

Matrix: (soil/water) WATER Lab Sample ID: 69958

Sample wt/vol: 1000 (g/mL) ML Lab File ID: E4782

Level: (low/med) LOW Date Received: 08/25/93

% Moisture: decanted: (Y/N) Date Extracted: 08/30/93

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/07/93

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 8.6

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Q

CAS NO.	COMPOUND	UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

SEMICVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: E & E INC.

Contract:

*MW-2D(n)D
MW-2D
6/21/93*

Code: EANDE Case No.: 863 SAS No.: SDG No.: DR-3
 Matrix: (soil/water) WATER Lab Sample ID: 69958
 Sample wt/vol: 1000 (g/mL) ML Lab File ID: E4782
 Level: (low/med) LOW Date Received: 08/25/93
 % Moisture: decanted: (Y/N) Date Extracted: 08/30/93
 Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/07/93
 Injection Volume: 2.0(uL) Dilution Factor: 1.0
 GPC Cleanup: (Y/N) N pH: 8.6

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	UG/L	Q
51-28-5-----	2,4-Dinitrophenol	25	U	
100-02-7-----	4-Nitrophenol	25	U	
132-64-9-----	Dibenzofuran	10	U	
121-14-2-----	2,4-Dinitrotoluene	10	U	
84-66-2-----	Diethylphthalate	10	U	
7005-72-3-----	4-Chlorophenyl-phenylether	10	U	
86-73-7-----	Fluorene	10	U	
100-01-6-----	4-Nitroaniline	25	U	
534-52-1-----	4,6-Dinitro-2-methylphenol	25	U	
86-30-6-----	N-Nitrosodiphenylamine (1)	10	U	
101-55-3-----	4-Bromophenyl-phenylether	10	U	
118-74-1-----	Hexachlorobenzene	10	U	
87-86-5-----	Pentachlorophenol	25	U	
85-01-8-----	Phenanthrene	10	U	
120-12-7-----	Anthracene	10	U	
86-74-8-----	Carbazole	10	U	
84-74-2-----	Di-n-Butylphthalate	10	U	
206-44-0-----	Fluoranthene	10	U	
129-00-0-----	Pyrene	10	U	
85-68-7-----	Butylbenzylphthalate	10	U	
91-94-1-----	3,3'-Dichlorobenzidine	10	U	
56-55-3-----	Benzo(a)Anthracene	10	U	
218-01-9-----	Chrysene	10	U	
117-81-7-----	bis(2-Ethylhexyl)Phthalate	1	BJ	
117-84-0-----	Di-n-Octyl Phthalate	10	U	
205-99-2-----	Benzo(b)Fluoranthene	10	U	
207-08-9-----	Benzo(k)Fluoranthene	10	U	
50-32-8-----	Benzo(a)Pyrene	10	U	
193-39-5-----	Indeno(1,2,3-cd)Pyrene	10	U	
53-70-3-----	Dibenz(a,h)Anthracene	10	U	
191-24-2-----	Benzo(g,h,i)Perylene	10	U	

(1) - Cannot be separated from Diphenylamine

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: E & E INC.

Contract:

MW-2D(n)D
MW-2D-D
GF 12/2/93

Lab Code: EANDE Case No.: 863 SAS No.: SDG No.: DR-1

Matrix: (soil/water) WATER Lab Sample ID: 69958

Sample wt/vol: 1000 (g/mL) ML Lab File ID:

% Moisture: decanted: (Y/N) Date Received: 08/25/93

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 08/30/93

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 09/14/93

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 8.6 Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	UG/L	Q
319-84-6-----	alpha-BHC	0.050	U	
319-85-7-----	beta-BHC	0.050	U	
319-86-8-----	delta-BHC	0.050	U	
58-89-9-----	gamma-BHC (Lindane)	0.050	U	
76-44-8-----	Heptachlor	0.050	U	
309-00-2-----	Aldrin	0.050	U	
1024-57-3-----	Heptachlor epoxide	0.050	U	
959-98-8-----	Endosulfan I	0.050	U	
60-57-1-----	Dieldrin	0.10	U	
72-55-9-----	4, 4'-DDE	0.10	U	
72-20-8-----	Endrin	0.10	U	
33213-65-9-----	Endosulfan II	0.10	U	
72-54-8-----	4, 4'-DDD	0.10	U	
1031-07-8-----	Endosulfan sulfate	0.10	U	
50-29-3-----	4, 4'-DDT	0.10	U	
72-43-5-----	Methoxychlor	0.50	U	
53494-70-5-----	Endrin ketone	0.10	U	
7421-93-4-----	Endrin aldehyde	0.10	U	
5103-71-9-----	alpha-Chlordane	0.050	U	
5103-74-2-----	gamma-Chlordane	0.050	U	
8001-35-2-----	Toxaphene	5.0	U	
12674-11-2-----	Aroclor-1016	1.0	U	
11104-28-2-----	Aroclor-1221	2.0	U	
11141-16-5-----	Aroclor-1232	1.0	U	
53469-21-9-----	Aroclor-1242	1.0	U	
12672-29-6-----	Aroclor-1248	1.0	U	
11097-69-1-----	Aroclor-1254	1.0	U	
11096-82-5-----	Aroclor-1260	1.0	U	

1

DEC SAMPLE NO.

INORGANIC ANALYSES DATA SHEET

MW-2 DCNJD

MW-2 DD

GT=12/21/53

Lab Name: ECOLOGY AND ENVIRONMENT Contract: _____

Lab Code: EANDE Case No.: 9301.863 SAS No.: _____ SDG No.: DR-3 _____

Matrix (soil/water): WATER Lab Sample ID: 69958

Level (low/med): LOW Date Received: 08/25/93

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	309	-		P
7440-36-0	Antimony	37.0	U		P
7440-38-2	Arsenic	6.2	B	W	F
7440-39-3	Barium	19.0	U		P
7440-41-7	Beryllium	0.23	U		P
7440-43-9	Cadmium	2.7	U		P
7440-70-2	Calcium	675000	-	E	P
7440-47-3	Chromium	5.3	U		P
7440-48-4	Cobalt	6.6	U		P
7440-50-8	Copper	2.1	B		P
7439-89-6	Iron	482			P
7439-92-1	Lead	5.0	U	E	F
7439-95-4	Magnesium	203000	-		P
7439-96-5	Manganese	21.1	-	E	P
7439-97-6	Mercury	0.20	U	N	CV
7440-02-0	Nickel	7.5	U		P
7440-09-7	Potassium	45700			P
7782-49-2	Selenium	5.0	U	WN	F
7440-22-4	Silver	2.5	U		P
7440-23-5	Sodium	2150000	-	E	P
7440-28-0	Thallium	5.0	U	W	F
7440-62-2	Vanadium	3.3	U		P
7440-66-6	Zinc	7.8	B		P
	Cyanide	1090			AS

Color Before: CL _____ Clarity Before: CL _____ Texture: _____

Color After: CL _____ Clarity After: C _____ Artifacts: _____

Comments:

FORM I - IN

ILMO2.1

VOLATILE ORGANICS ANALYSIS DATA SHEET

DR-3

Lab Name: E & E INC.

Contract:

Lab Code: EANDE Case No.: 863

SAS No.:

SDG No.: DR-3

Matrix: (soil/water) WATER

Lab Sample ID: 69866

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: C1972

Level: (low/med) LOW

Date Received: 08/25/93

% Moisture: not dec.

Date Analyzed: 08/27/93

GC Column: VOCOL ID: 0.530 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

Q

74-87-3-----	Chloromethane	10	U
74-83-9-----	Bromomethane	10	U
75-01-4-----	Vinyl Chloride	180	
75-00-3-----	Chloroethane	10	U
75-09-2-----	Methylene Chloride	10	U
67-64-1-----	Acetone	10	U
75-15-0-----	Carbon Disulfide	3	J
75-35-4-----	1,1-Dichloroethene	4	J
75-34-3-----	1,1-Dichloroethane	31	
540-59-0-----	1,2-Dichloroethene (total)	130	
67-66-3-----	Chloroform	10	U
107-06-2-----	1,2-Dichloroethane	10	U
78-93-3-----	2-Butanone	10	U
71-55-6-----	1,1,1-Trichloroethane	4	J
56-23-5-----	Carbon Tetrachloride	10	U
75-27-4-----	Bromodichloromethane	10	U
78-87-5-----	1,2-Dichloropropane	10	U
10061-01-5-----	cis-1,3-Dichloropropene	10	U
79-01-6-----	Trichloroethene	9	J
124-48-1-----	Dibromochloromethane	10	U
79-00-5-----	1,1,2-Trichloroethane	10	U
71-43-2-----	Benzene	10	U
10061-02-6-----	trans-1,3-Dichloropropene	10	U
75-25-2-----	Bromoform	10	U
108-10-1-----	4-Methyl-2-Pentanone	10	U
591-78-6-----	2-Hexanone	10	U
127-18-4-----	Tetrachloroethene	10	U
79-34-5-----	1,1,2,2-Tetrachloroethane	10	U
108-88-3-----	Toluene	10	U
108-90-7-----	Chlorobenzene	10	U
100-41-4-----	Ethylbenzene	10	U
100-42-5-----	Styrene	10	U
1330-20-7-----	Xylene (total)	10	U

SEMOVOLATILE ORGANICS ANALYSIS DATA SHEET

DR-3

Lab Name: E & E INC.

Contract:

Lab Code: EANDE

Case No.: 863

SAS No.:

SDG No.: DR-3

Matrix: (soil/water) WATER

Lab Sample ID: 69866

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: E4720

Level: (low/med) LOW

Date Received: 08/25/93

% Moisture: decanted: (Y/N)

Date Extracted: 08/26/93

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 09/02/93

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

Q

CAS NO.	COMPOUND		
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

FORM I SV-1

3/90

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

DR-3

Lab Name: E & E INC.

Contract:

Lab Code: EANDE

Case No.: 863

SAS No.:

SDG No.: DR-3

Matrix: (soil/water) WATER

Lab Sample ID: 69866

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: E4720

Level: (low/med) LOW

Date Received: 08/25/93

% Moisture: decanted: (Y/N)

Date Extracted: 08/26/93

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 09/02/93

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L Q

CAS NO.	COMPOUND	UG/L	Q
51-28-5-----	2,4-Dinitrophenol	25	U
100-02-7-----	4-Nitrophenol	25	U
132-64-9-----	Dibenzofuran	10	U
121-14-2-----	2,4-Dinitrotoluene	10	U
84-66-2-----	Diethylphthalate	10	U
7005-72-3-----	4-Chlorophenyl-phenylether	10	U
86-73-7-----	Fluorene	10	U
100-01-6-----	4-Nitroaniline	25	U
534-52-1-----	4,6-Dinitro-2-methylphenol	25	U
86-30-6-----	N-Nitrosodiphenylamine (1)	10	U
101-55-3-----	4-Bromophenyl-phenylether	10	U
118-74-1-----	Hexachlorobenzene	10	U
87-86-5-----	Pentachlorophenol	25	U
85-01-8-----	Phanthrene	10	U
120-12-7-----	Anthracene	10	U
86-74-8-----	Carbazole	10	U
84-74-2-----	Di-n-Butylphthalate	10	U
206-44-0-----	Fluoranthene	10	U
129-00-0-----	Pyrene	10	U
85-68-7-----	Butylbenzylphthalate	10	U
91-94-1-----	3,3'-Dichlorobenzidine	10	U
56-55-3-----	Benzo(a)Anthracene	10	U
218-01-9-----	Chrysene	10	U
117-81-7-----	bis(2-Ethylhexyl)Phthalate	16	B
117-84-0-----	Di-n-Octyl Phthalate	10	U
205-99-2-----	Benzo(b)Fluoranthene	10	U
207-08-9-----	Benzo(k)Fluoranthene	10	U
50-32-8-----	Benzo(a)Pyrene	10	U
193-39-5-----	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3-----	Dibenz(a,h)Anthracene	10	U
191-24-2-----	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: E & E INC.

Contract:

DR-3

Lab Code: EANDE

Case No.: 863

SAS No.:

SDG No.: DR-1

Matrix: (soil/water) WATER

Lab Sample ID: 69866

Sample wt/vol: 1000 (g/mL) ML

Lab File ID:

% Moisture: decanted: (Y/N)

Date Received: 08/25/93

Extraction: (SepF/Cont/Sonc) SEPF

Date Extracted: 08/30/93

Concentrated Extract Volume: 10000 (uL)

Date Analyzed: 09/14/93

Injection Volume: 2.00 (uL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 7.0

Sulfur Cleanup: (Y/N) Y

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

Q

CAS NO.	COMPOUND	UG/L	Q
319-84-6-----	alpha-BHC	0.050	U
319-85-7-----	beta-BHC	0.050	U
319-86-8-----	delta-BHC	0.050	U
58-89-9-----	gamma-BHC (Lindane)	0.050	U
76-44-8-----	Heptachlor	0.050	U
309-00-2-----	Aldrin	0.050	U
1024-57-3-----	Heptachlor epoxide	0.050	U
959-98-8-----	Endosulfan I	0.050	U
60-57-1-----	Dieldrin	0.10	U
72-55-9-----	4,4'-DDE	0.10	U
72-20-8-----	Endrin	0.10	U
33213-65-9-----	Endosulfan II	0.10	U
72-54-8-----	4,4'-DDD	0.10	U
1031-07-8-----	Endosulfan sulfate	0.10	U
50-29-3-----	4,4'-DDT	0.10	U
72-43-5-----	Methoxychlor	0.50	U
53494-70-5-----	Endrin ketone	0.10	U
7421-93-4-----	Endrin aldehyde	0.10	U
5103-71-9-----	alpha-Chlordane	0.050	U
5103-74-2-----	gamma-Chlordane	0.050	U
8001-35-2-----	Toxaphene	5.0	U
12674-11-2-----	Aroclor-1016	1.0	U
11104-28-2-----	Aroclor-1221	2.0	U
11141-16-5-----	Aroclor-1232	1.0	U
53469-21-9-----	Aroclor-1242	1.0	U
12672-29-6-----	Aroclor-1248	1.0	U
11097-69-1-----	Aroclor-1254	1.0	U
11096-82-5-----	Aroclor-1260	1.0	U

1
INORGANIC ANALYSES DATA SHEET

DEC SAMPLE NO.

DR-3

Lab Name: ECOLOGY AND ENVIRONMENT Contract: _____

Lab Code: EANDE Case No.: 9301.863 SAS No.: _____ SDG No.: DR-3 _____

Matrix (soil/water): WATER Lab Sample ID: 69866

Level (low/med): LOW Date Received: 08/25/93

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	224	-		P
7440-36-0	Antimony	37.0	U		P
7440-38-2	Arsenic	1.0	U	W	F
7440-39-3	Barium	19.0	U		P
7440-41-7	Beryllium	0.23	U		P
7440-43-9	Cadmium	2.7	U		P
7440-70-2	Calcium	533000	E		P
7440-47-3	Chromium	5.3	U		P
7440-48-4	Cobalt	6.6	U		P
7440-50-8	Copper	12.7	B		P
7439-89-6	Iron	3220			P
7439-92-1	Lead	10.6	B		F
7439-95-4	Magnesium	67300			P
7439-96-5	Manganese	28.4		E	P
7439-97-6	Mercury	0.20	U	N	CV
7440-02-0	Nickel	7.5	U		P
7440-09-7	Potassium	19900			P
7782-49-2	Selenium	5.0	U	WN	F
7440-22-4	Silver	2.5	U		P
7440-23-5	Sodium	457000	E		P
7440-28-0	Thallium	1.0	U	W	F
7440-62-2	Vanadium	3.3	U		P
7440-66-6	Zinc	51.6			P
	Cyanide	10.0	U		AS

Color Before: CL _____ Clarity Before: C _____ Texture: _____

Color After: Y _____ Clarity After: C _____ Artifacts: _____

Comments:

FORM I - IN

ILMO2.1

VOLATILE ORGANICS ANALYSIS DATA SHEET

MW-3D(N)
GF 12/2/93

Lab Name: E & E INC.

Contract:

Lab Code: EANDE

Case No.: 863

SAS No.:

SDG No.: DR-3

Matrix: (soil/water) WATER

Lab Sample ID: 70126

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: C1961

Level: (low/med) LOW

Date Received: 08/26/93

% Moisture: not dec.

Date Analyzed: 08/27/93

GC Column: VOCOL ID: 0.530 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Q

CAS NO.	COMPOUND	UG/L	Q
74-87-3-----	Chloromethane	10	U
74-83-9-----	Bromomethane	10	U
75-01-4-----	Vinyl Chloride	10	U
75-00-3-----	Chloroethane	10	U
75-09-2-----	Methylene Chloride	10	U
67-64-1-----	Acetone	10	U
75-15-0-----	Carbon Disulfide	10	U
75-35-4-----	1,1-Dichloroethene	10	U
75-34-3-----	1,1-Dichloroethane	10	U
540-59-0-----	1,2-Dichloroethene (total)	5	J
67-66-3-----	Chloroform	10	U
107-06-2-----	1,2-Dichloroethane	10	U
78-93-3-----	2-Butanone	10	U
71-55-6-----	1,1,1-Trichloroethane	10	U
56-23-5-----	Carbon Tetrachloride	10	U
75-27-4-----	Bromodichloromethane	10	U
78-87-5-----	1,2-Dichloropropane	10	U
10061-01-5-----	cis-1,3-Dichloropropene	10	U
79-01-6-----	Trichloroethene	2	J
124-48-1-----	Dibromochloromethane	10	U
79-00-5-----	1,1,2-Trichloroethane	10	U
71-43-2-----	Benzene	10	U
10061-02-6-----	trans-1,3-Dichloropropene	10	U
75-25-2-----	Bromoform	10	U
108-10-1-----	4-Methyl-2-Pentanone	10	U
591-78-6-----	2-Hexanone	10	U
127-18-4-----	Tetrachloroethene	10	U
79-34-5-----	1,1,2,2-Tetrachloroethane	10	U
108-88-3-----	Toluene	10	U
108-90-7-----	Chlorobenzene	10	U
100-41-4-----	Ethylbenzene	10	U
100-42-5-----	Styrene	10	U
1330-20-7-----	Xylene (total)	1	J

FORM I VOA

3/90

A-43

201

SEMOVOLATILE ORGANICS ANALYSIS DATA SHEET

MW-3D(N)

AF 12/21/93

Lab Name: E & E INC.

Contract:

Lab Code: EANDE

Case No.: 863

SAS No.:

SDG No.: DR-3

Matrix: (soil/water) WATER

Lab Sample ID: 70126

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: E4798

Level: (low/med) LOW

Date Received: 08/26/93

% Moisture: decanted: (Y/N)

Date Extracted: 08/31/93

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 09/08/93

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.1

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

Q

CAS NO.	COMPOUND			
108-95-2	Phenol	10	U	
111-44-4	bis(2-Chloroethyl)Ether	10	U	
95-57-8	2-Chlorophenol	10	U	
541-73-1	1,3-Dichlorobenzene	10	U	
106-46-7	1,4-Dichlorobenzene	10	U	
95-50-1	1,2-Dichlorobenzene	10	U	
95-48-7	2-Methylphenol	10	U	
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U	
106-44-5	4-Methylphenol	10	U	
621-64-7	N-Nitroso-Di-n-Propylamine	10	U	
67-72-1	Hexachloroethane	10	U	
98-95-3	Nitrobenzene	10	U	
78-59-1	Isophorone	10	U	
88-75-5	2-Nitrophenol	10	U	
105-67-9	2,4-Dimethylphenol	10	U	
111-91-1	bis(2-Chloroethoxy)Methane	10	U	
120-83-2	2,4-Dichlorophenol	10	U	
120-82-1	1,2,4-Trichlorobenzene	10	U	
91-20-3	Naphthalene	10	U	
106-47-8	4-Chloroaniline	10	U	
87-68-3	Hexachlorobutadiene	10	U	
59-50-7	4-Chloro-3-Methylphenol	10	U	
91-57-6	2-Methylnaphthalene	10	U	
77-47-4	Hexachlorocyclopentadiene	10	U	
88-06-2	2,4,6-Trichlorophenol	10	U	
95-95-4	2,4,5-Trichlorophenol	25	U	
91-58-7	2-Chloronaphthalene	10	U	
88-74-4	2-Nitroaniline	25	U	
131-11-3	Dimethylphthalate	10	U	
208-96-8	Acenaphthylene	10	U	
606-20-2	2,6-Dinitrotoluene	10	U	
99-09-2	3-Nitroaniline	25	U	
83-32-9	Acenaphthene	10	U	

FORM I SV-1

3/90

SEMOVOLATILE ORGANICS ANALYSIS DATA SHEET

MW-3D (N)
GF 12/24/93

Lab Name: E & E INC.

Contract:

SDG No.: DR-3

Code: EANDE

Case No.: 863

SAS No.:

Matrix: (soil/water) WATER

Lab Sample ID: 70126

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: E4798

Level: (low/med) LOW

Date Received: 08/26/93

% Moisture: decanted: (Y/N)

Date Extracted: 08/31/93

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 09/08/93

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.1

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L Q

CAS NO.	COMPOUND	UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	4	BJ
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: E & E INC.

Contract:

MW-3D(N)
GF 12/24/93

Lab Code: EANDE Case No.: 863

SAS No.:

SDG No.: DR-1

Matrix: (soil/water) WATER

Lab Sample ID: 70126

Sample wt/vol: 1000 (g/mL) ML

Lab File ID:

% Moisture: decanted: (Y/N)

Date Received: 08/26/93

Extraction: (SepF/Cont/Sonc) SEPF

Date Extracted: 08/31/93

Concentrated Extract Volume: 10000 (uL)

Date Analyzed: 09/14/93

Injection Volume: 2.00 (uL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 7.1

Sulfur Cleanup: (Y/N) Y

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

Q

CAS NO.	COMPOUND		
319-84-6-----	alpha-BHC	0.050	U
319-85-7-----	beta-BHC	0.050	U
319-86-8-----	delta-BHC	0.050	U
58-89-9-----	gamma-BHC (Lindane)	0.050	U
76-44-8-----	Heptachlor	0.050	U
309-00-2-----	Aldrin	0.050	U
1024-57-3-----	Heptachlor epoxide	0.050	U
959-98-8-----	Endosulfan I	0.050	U
60-57-1-----	Dieldrin	0.10	U
72-55-9-----	4,4'-DDE	0.10	U
72-20-8-----	Endrin	0.10	U
33213-65-9-----	Endosulfan II	0.10	U
72-54-8-----	4,4'-DDD	0.10	U
1031-07-8-----	Endosulfan sulfate	0.10	U
50-29-3-----	4,4'-DDT	0.10	U
72-43-5-----	Methoxychlor	0.50	U
53494-70-5-----	Endrin ketone	0.10	U
7421-93-4-----	Endrin aldehyde	0.10	U
5103-71-9-----	alpha-Chlordane	0.050	U
5103-74-2-----	gamma-Chlordane	0.050	U
8001-35-2-----	Toxaphene	5.0	U
12674-11-2-----	Aroclor-1016	1.0	U
11104-28-2-----	Aroclor-1221	2.0	U
11141-16-5-----	Aroclor-1232	1.0	U
53469-21-9-----	Aroclor-1242	1.0	U
12672-29-6-----	Aroclor-1248	1.0	U
11097-69-1-----	Aroclor-1254	1.0	U
11096-82-5-----	Aroclor-1260	1.0	U

1
INORGANIC ANALYSES DATA SHEET

DEC SAMPLE NO.

MW-3D(W)
~~MW-3D~~
GF 12/21/93

Lab Name: ECOLOGY AND ENVIRONMENT Contract: _____

Lab Code: EANDE Case No.: 9301.863 SAS No.: _____ SDG No.: DR-3 _____

Matrix (soil/water): WATER Lab Sample ID: 70126

Level (low/med): LOW Date Received: 08/26/93

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	149	B		P
7440-36-0	Antimony	37.0	U		P
7440-38-2	Arsenic	1.0	U		F
7440-39-3	Barium	19.0	U		P
7440-41-7	Beryllium	0.23	U		P
7440-43-9	Cadmium	2.7	U		P
7440-70-2	Calcium	183000	E		P
7440-47-3	Chromium	5.3	U		P
7440-48-4	Cobalt	6.6	U		P
7440-50-8	Copper	1.8	U		P
7439-89-6	Iron	1370			P
7439-92-1	Lead	1.0	U		F
7439-95-4	Magnesium	46300			P
7439-96-5	Manganese	40.9	-	E	P
7439-97-6	Mercury	0.20	U	N	CV
7440-02-0	Nickel	7.5	U		P
7440-09-7	Potassium	10600			P
7782-49-2	Selenium	1.0	U	WN	F
7440-22-4	Silver	2.5	U		P
7440-23-5	Sodium	88600	E		P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	3.3	U		P
7440-66-6	Zinc	19.9	B		P
	Cyanide	10.0	U		AS

Color Before: CL _____ Clarity Before: C _____ Texture: _____

Color After: Y _____ Clarity After: C _____ Artifacts: _____

Comments:

FORM I - IN

ILMO2.1

VOLATILE ORGANICS ANALYSIS DATA SHEET

MW-4S

Lab Name: E & E INC.

Contract:

Lab Code: EANDE

Case No.: 863

SAS No.:

SDG No.: DR-3

Matrix: (soil/water) WATER

Lab Sample ID: 69959

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: F3156

Level: (low/med) LOW

Date Received: 08/25/93

% Moisture: not dec.

Date Analyzed: 08/31/93

GC Column: VOCOL ID: 0.530 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	UG/L	Q
74-87-3-----	Chloromethane	10	U	
74-83-9-----	Bromomethane	10	U	
75-01-4-----	Vinyl Chloride	10	U	
75-00-3-----	Chloroethane	10	U	
75-09-2-----	Methylene Chloride	10	U	
67-64-1-----	Acetone	10	U	
75-15-0-----	Carbon Disulfide	10	U	
75-35-4-----	1,1-Dichloroethene	10	U	
75-34-3-----	1,1-Dichloroethane	10	U	
540-59-0-----	1,2-Dichloroethene (total)	10	U	
67-66-3-----	Chloroform	10	U	
107-06-2-----	1,2-Dichloroethane	10	U	
78-93-3-----	2-Butanone	10	U	
71-55-6-----	1,1,1-Trichloroethane	10	U	
56-23-5-----	Carbon Tetrachloride	10	U	
75-27-4-----	Bromodichloromethane	10	U	
78-87-5-----	1,2-Dichloropropane	10	U	
10061-01-5-----	cis-1,3-Dichloropropene	10	U	
79-01-6-----	Trichloroethene	10	U	
124-48-1-----	Dibromochloromethane	10	U	
79-00-5-----	1,1,2-Trichloroethane	10	U	
71-43-2-----	Benzene	10	U	
10061-02-6-----	trans-1,3-Dichloropropene	10	U	
75-25-2-----	Bromoform	10	U	
108-10-1-----	4-Methyl-2-Pentanone	10	U	
591-78-6-----	2-Hexanone	10	U	
127-18-4-----	Tetrachloroethene	10	U	
79-34-5-----	1,1,2,2-Tetrachloroethane	10	U	
108-88-3-----	Toluene	10	U	
108-90-7-----	Chlorobenzene	10	U	
100-41-4-----	Ethylbenzene	10	U	
100-42-5-----	Styrene	10	U	
1330-20-7-----	Xylene (total)	10	U	

SEMICVOLATILE ORGANICS ANALYSIS DATA SHEET

MW-4S

Lab Name: E & E INC.

Contract:

Lab Code: EANDE

Case No.: 863

SAS No.:

SDG No.: DR-3

Matrix: (soil/water) WATER

Lab Sample ID: 69959

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: E4783

Level: (low/med) LOW

Date Received: 08/25/93

% Moisture: decanted: (Y/N)

Date Extracted: 08/30/93

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 09/07/93

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N PH: 8.3

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/L Q

108-95-2-----	Phenol	10	U
111-44-4-----	bis(2-Chloroethyl)Ether	10	U
95-57-8-----	2-Chlorophenol	10	U
541-73-1-----	1,3-Dichlorobenzene	10	U
106-46-7-----	1,4-Dichlorobenzene	10	U
95-50-1-----	1,2-Dichlorobenzene	10	U
95-48-7-----	2-Methylphenol	10	U
108-60-1-----	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5-----	4-Methylphenol	10	U
621-64-7-----	N-Nitroso-Di-n-Propylamine	10	U
67-72-1-----	Hexachloroethane	10	U
98-95-3-----	Nitrobenzene	10	U
78-59-1-----	Isophorone	10	U
88-75-5-----	2-Nitrophenol	10	U
105-67-9-----	2,4-Dimethylphenol	10	U
111-91-1-----	bis(2-Chloroethoxy)Methane	10	U
120-83-2-----	2,4-Dichlorophenol	10	U
120-82-1-----	1,2,4-Trichlorobenzene	10	U
91-20-3-----	Naphthalene	10	U
106-47-8-----	4-Chloroaniline	10	U
87-68-3-----	Hexachlorobutadiene	10	U
59-50-7-----	4-Chloro-3-Methylphenol	10	U
91-57-6-----	2-Methylnaphthalene	10	U
77-47-4-----	Hexachlorocyclopentadiene	10	U
88-06-2-----	2,4,6-Trichlorophenol	10	U
95-95-4-----	2,4,5-Trichlorophenol	25	U
91-58-7-----	2-Chloronaphthalene	10	U
88-74-4-----	2-Nitroaniline	25	U
131-11-3-----	Dimethylphthalate	10	U
208-96-8-----	Acenaphthylene	10	U
606-20-2-----	2,6-Dinitrotoluene	10	U
99-09-2-----	3-Nitroaniline	25	U
83-32-9-----	Acenaphthene	10	U

FORM I SV-1

3/90

A-49

728

SEMICVOLATILE ORGANICS ANALYSIS DATA SHEET

MW-4S

Lab Name: E & E INC.

Contract:

Lab Code: EANDE Case No.: 863

SAS No.:

SDG No.: DR-3

Matrix: (soil/water) WATER

Lab Sample ID: 69959

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: E4783

Level: (low/med) LOW

Date Received: 08/25/93

% Moisture: decanted: (Y/N)

Date Extracted: 08/30/93

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 09/07/93

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 8.3

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L Q

CAS NO.	COMPOUND	UG/L	Q
51-28-5-----	2,4-Dinitrophenol	25	U
100-02-7-----	4-Nitrophenol	25	U
132-64-9-----	Dibenzofuran	10	U
121-14-2-----	2,4-Dinitrotoluene	10	U
84-66-2-----	Diethylphthalate	10	U
7005-72-3-----	4-Chlorophenyl-phenylether	10	U
86-73-7-----	Fluorene	10	U
100-01-6-----	4-Nitroaniline	25	U
534-52-1-----	4,6-Dinitro-2-methylphenol	25	U
86-30-6-----	N-Nitrosodiphenylamine (1)	10	U
101-55-3-----	4-Bromophenyl-phenylether	10	U
118-74-1-----	Hexachlorobenzene	10	U
87-86-5-----	Pentachlorophenol	25	U
85-01-8-----	Phenanthrene	10	U
120-12-7-----	Anthracene	10	U
86-74-8-----	Carbazole	10	U
84-74-2-----	Di-n-Butylphthalate	10	U
206-44-0-----	Fluoranthene	10	U
129-00-0-----	Pyrene	10	U
85-68-7-----	Butylbenzylphthalate	10	U
91-94-1-----	3,3'-Dichlorobenzidine	10	U
56-55-3-----	Benzo(a)Anthracene	10	U
218-01-9-----	Chrysene	10	U
117-81-7-----	bis(2-Ethylhexyl)Phthalate	1	BJ
117-84-0-----	Di-n-Octyl Phthalate	10	U
205-99-2-----	Benzo(b)Fluoranthene	10	U
207-08-9-----	Benzo(k)Fluoranthene	10	U
50-32-8-----	Benzo(a)Pyrene	10	U
193-39-5-----	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3-----	Dibenz(a,h)Anthracene	10	U
191-24-2-----	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Name: E & E INC.

Contract:

MW-4S

Lab Code: EANDE

Case No.: 863

SAS No.:

SDG No.: DR-1

Matrix: (soil/water) WATER

Lab Sample ID: 69959

Sample wt/vol: 1000 (g/mL) ML

Lab File ID:

% Moisture: decanted: (Y/N)

Date Received: 08/25/93

Extraction: (SepF/Cont/Sonc) SEPF

Date Extracted: 08/30/93

Concentrated Extract Volume: 10000 (uL)

Date Analyzed: 09/14/93

Injection Volume: 2.00 (uL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 8.3

Sulfur Cleanup: (Y/N) Y

CONCENTRATION UNITS:

CAS NO.

COMPOUND

(ug/L or ug/Kg) UG/L

Q

319-84-6-----alpha-BHC		0.050	U
319-85-7-----beta-BHC		0.050	U
319-86-8-----delta-BHC		0.050	U
58-89-9-----gamma-BHC (Lindane)		0.050	U
76-44-8-----Heptachlor		0.050	U
309-00-2-----Aldrin		0.050	U
1024-57-3-----Heptachlor epoxide		0.050	U
959-98-8-----Endosulfan I		0.050	U
60-57-1-----Dieldrin		0.10	U
72-55-9-----4,4'-DDE		0.10	U
72-20-8-----Endrin		0.10	U
33213-65-9-----Endosulfan II		0.10	U
72-54-8-----4,4'-DDD		0.10	U
1031-07-8-----Endosulfan sulfate		0.10	U
50-29-3-----4,4'-DDT		0.10	U
72-43-5-----Methoxychlor		0.50	U
53494-70-5-----Endrin ketone		0.10	U
7421-93-4-----Endrin aldehyde		0.10	U
5103-71-9-----alpha-Chlordane		0.050	U
5103-74-2-----gamma-Chlordane		0.050	U
8001-35-2-----Toxaphene		5.0	U
12674-11-2-----Aroclor-1016		1.0	U
11104-28-2-----Aroclor-1221		2.0	U
11141-16-5-----Aroclor-1232		1.0	U
53469-21-9-----Aroclor-1242		1.0	U
12672-29-6-----Aroclor-1248		1.0	U
11097-69-1-----Aroclor-1254		1.0	U
11096-82-5-----Aroclor-1260		1.0	U

1
INORGANIC ANALYSES DATA SHEET

DEC SAMPLE NO.

MW-4S

Lab Name: ECOLOGY AND ENVIRONMENT Contract: _____

Lab Code: EANDE Case No.: 9301.863 SAS No.: _____ SDG No.: DR-3 _____

Matrix (soil/water): WATER Lab Sample ID: 69959

Level (low/med): LOW Date Received: 08/25/93

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	111	B		P
7440-36-0	Antimony	37.0	U		P
7440-38-2	Arsenic	1.0	U		F
7440-39-3	Barium	122	B		P
7440-41-7	Beryllium	0.23	U		P
7440-43-9	Cadmium	2.7	U		P
7440-70-2	Calcium	107000	E		P
7440-47-3	Chromium	5.3	U		P
7440-48-4	Cobalt	6.6	U		P
7440-50-8	Copper	1.8	U		P
7439-89-6	Iron	158			P
7439-92-1	Lead	1.0	U		F
7439-95-4	Magnesium	39900			P
7439-96-5	Manganese	5.7	B	E	P
7439-97-6	Mercury	0.20	U	N	CV
7440-02-0	Nickel	7.5	U		P
7440-09-7	Potassium	1060	B		P
7782-49-2	Selenium	1.0	U	N	F
7440-22-4	Silver	2.5	U		P
7440-23-5	Sodium	37300	E		P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	3.3	U		P
7440-66-6	Zinc	4.4	B		P
	Cyanide	10.0	U		AS

Color Before: CL _____ Clarity Before: C _____ , Texture: _____

Color After: CL _____ Clarity After: C _____ Artifacts: _____

Comments:

FORM I - IN

ILMO2.1

VOLATILE ORGANICS ANALYSIS DATA SHEET

MW-5S

Lab Name: E & E INC.

Contract:

Lab Code: EANDE

Case No.: 863

SAS No.:

SDG No.: DR-3

Matrix: (soil/water) WATER

Lab Sample ID: 69960

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: F3157

Level: (low/med) LOW

Date Received: 08/25/93

% Moisture: not dec.

Date Analyzed: 08/31/93

GC Column: VOCOL ID: 0.530 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

Q

CAS NO.	COMPOUND			
74-87-3-----	Chloromethane	10	U	
74-83-9-----	Bromomethane	10	U	
75-01-4-----	Vinyl Chloride	10	U	
75-00-3-----	Chloroethane	10	U	
75-09-2-----	Methylene Chloride	10	U	
67-64-1-----	Acetone	10	U	
75-15-0-----	Carbon Disulfide	10	U	
75-35-4-----	1,1-Dichloroethene	10	U	
75-34-3-----	1,1-Dichloroethane	10	U	
540-59-0-----	1,2-Dichloroethene (total)	10	U	
67-66-3-----	Chloroform	10	U	
107-06-2-----	1,2-Dichloroethane	10	U	
78-93-3-----	2-Butanone	10	U	
71-55-6-----	1,1,1-Trichloroethane	10	U	
56-23-5-----	Carbon Tetrachloride	10	U	
75-27-4-----	Bromodichloromethane	10	U	
78-87-5-----	1,2-Dichloropropane	10	U	
10061-01-5-----	cis-1,3-Dichloropropene	10	U	
79-01-6-----	Trichloroethene	10	U	
124-48-1-----	Dibromochloromethane	10	U	
79-00-5-----	1,1,2-Trichloroethane	10	U	
71-43-2-----	Benzene	10	U	
10061-02-6-----	trans-1,3-Dichloropropene	10	U	
75-25-2-----	Bromoform	10	U	
108-10-1-----	4-Methyl-2-Pentanone	10	U	
591-78-6-----	2-Hexanone	10	U	
127-18-4-----	Tetrachloroethene	10	U	
79-34-5-----	1,1,2,2-Tetrachloroethane	10	U	
108-88-3-----	Toluene	10	U	
108-90-7-----	Chlorobenzene	10	U	
100-41-4-----	Ethylbenzene	10	U	
100-42-5-----	Styrene	10	U	
1330-20-7-----	Xylene (total)	10	U	

FORM I VOA

3/90

A-53

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SEMOVOLATILE ORGANICS ANALYSIS DATA SHEET

MW-5S

Lab Name: E & E INC.

Contract:

Lab Code: EANDE

Case No.: 863

SAS No.:

SDG No.: DR-3

Matrix: (soil/water) WATER

Lab Sample ID: 69960

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: E4784

Level: (low/med) LOW

Date Received: 08/25/93

% Moisture: decanted: (Y/N)

Date Extracted: 08/30/93

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 09/07/93

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 8.1

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Q

CAS NO.	COMPOUND		
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

FORM I SV-1

3/90

SEMICVOLATILE ORGANICS ANALYSIS DATA SHEET

MW-5S

Lab Name: E & E INC.

Contract:

Code: EANDE

Case No.: 863

SAS No.:

SDG No.: DR-3

Matrix: (soil/water) WATER

Lab Sample ID: 69960

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: E4784

Level: (low/med) LOW

Date Received: 08/25/93

% Moisture: decanted: (Y/N)

Date Extracted: 08/30/93

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 09/07/93

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 8.1

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Q

CAS NO.	COMPOUND			
51-28-5-----	2,4-Dinitrophenol	25	U	
100-02-7-----	4-Nitrophenol	25	U	
132-64-9-----	Dibenzofuran	10	U	
121-14-2-----	2,4-Dinitrotoluene	10	U	
84-66-2-----	Diethylphthalate	10	U	
7005-72-3-----	4-Chlorophenyl-phenylether	10	U	
86-73-7-----	Fluorene	10	U	
100-01-6-----	4-Nitroaniline	25	U	
534-52-1-----	4,6-Dinitro-2-methylphenol	25	U	
86-30-6-----	N-Nitrosodiphenylamine (1)	10	U	
101-55-3-----	4-Bromophenyl-phenylether	10	U	
118-74-1-----	Hexachlorobenzene	10	U	
87-86-5-----	Pentachlorophenol	25	U	
85-01-8-----	Phenanthrene	10	U	
120-12-7-----	Anthracene	10	U	
86-74-8-----	Carbazole	10	U	
84-74-2-----	Di-n-Butylphthalate	10	U	
206-44-0-----	Fluoranthene	10	U	
129-00-0-----	Pyrene	10	U	
85-68-7-----	Butylbenzylphthalate	10	U	
91-94-1-----	3,3'-Dichlorobenzidine	10	U	
56-55-3-----	Benzo(a)Anthracene	10	U	
218-01-9-----	Chrysene	10	U	
117-81-7-----	bis(2-Ethylhexyl)Phthalate	1	BJ	
117-84-0-----	Di-n-Octyl Phthalate	10	U	
205-99-2-----	Benzo(b)Fluoranthene	10	U	
207-08-9-----	Benzo(k)Fluoranthene	10	U	
50-32-8-----	Benzo(a)Pyrene	10	U	
193-39-5-----	Indeno(1,2,3-cd)Pyrene	10	U	
53-70-3-----	Dibenz(a,h)Anthracene	10	U	
191-24-2-----	Benzo(g,h,i)Perylene	10	U	

(1) - Cannot be separated from Diphenylamine

FORM I SV-2

3/90

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: E & E INC.

Contract:

MW-5S

Lab Code: EANDE Case No.: 863 SAS No.: SDG No.: DR-1

Matrix: (soil/water) WATER Lab Sample ID: 69960

Sample wt/vol: 1000 (g/mL) ML Lab File ID:

% Moisture: decanted: (Y/N) Date Received: 08/25/93

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 08/30/93

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 09/14/93

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 8.1 Sulfur Cleanup: (Y/N) Y

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L Q

CAS NO.	COMPOUND	UG/L	Q
319-84-6-----	alpha-BHC	0.050	U
319-85-7-----	beta-BHC	0.050	U
319-86-8-----	delta-BHC	0.050	U
58-89-9-----	gamma-BHC (Lindane)	0.050	U
76-44-8-----	Heptachlor	0.050	U
309-00-2-----	Aldrin	0.050	U
1024-57-3-----	Heptachlor epoxide	0.050	U
959-98-8-----	Endosulfan I	0.050	U
60-57-1-----	Dieldrin	0.10	U
72-55-9-----	4,4'-DDE	0.10	U
72-20-8-----	Endrin	0.10	U
33213-65-9-----	Endosulfan II	0.10	U
72-54-8-----	4,4'-DDD	0.10	U
1031-07-8-----	Endosulfan sulfate	0.10	U
50-29-3-----	4,4'-DDT	0.10	U
72-43-5-----	Methoxychlor	0.50	U
53494-70-5-----	Endrin ketone	0.10	U
7421-93-4-----	Endrin aldehyde	0.10	U
5103-71-9-----	alpha-Chlordane	0.050	U
5103-74-2-----	gamma-Chlordane	0.050	U
8001-35-2-----	Toxaphene	5.0	U
12674-11-2-----	Aroclor-1016	1.0	U
11104-28-2-----	Aroclor-1221	2.0	U
11141-16-5-----	Aroclor-1232	1.0	U
53469-21-9-----	Aroclor-1242	1.0	U
12672-29-6-----	Aroclor-1248	1.0	U
11097-69-1-----	Aroclor-1254	1.0	U
11096-82-5-----	Aroclor-1260	1.0	U

1
INORGANIC ANALYSES DATA SHEET

DEC SAMPLE NO.

MW-5S

Lab Name: ECOLOGY AND ENVIRONMENT Contract: _____

Lab Code: EANDE Case No.: 9301.863 SAS No.: _____ SDG No.: DR-3 _____

Matrix (soil/water): WATER

Lab Sample ID: 69960

Level (low/med): LOW

Date Received: 08/25/93

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	463	-		P
7440-36-0	Antimony	37.0	U		P
7440-38-2	Arsenic	1.0	U	W	F
7440-39-3	Barium	81.3	B		P
7440-41-7	Beryllium	0.23	U		P
7440-43-9	Cadmium	2.7	U		P
7440-70-2	Calcium	137000	E		P
7440-47-3	Chromium	5.3	U		P
7440-48-4	Cobalt	6.6	U		P
7440-50-8	Copper	7.5	B		P
7439-89-6	Iron	1270	-		P
7439-92-1	Lead	24.5	-		F
7439-95-4	Magnesium	46400	-		P
7439-96-5	Manganese	124	E		P
7439-97-6	Mercury	0.20	U	N	CV
7440-02-0	Nickel	7.5	U		P
7440-09-7	Potassium	3100	B		P
7782-49-2	Selenium	1.0	U	WN	F
7440-22-4	Silver	2.5	U		P
7440-23-5	Sodium	158000	E		P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	3.3	U		P
7440-66-6	Zinc	21.6	-		P
	Cyanide	10.0	U		AS

Color Before: CL _____ Clarity Before: CL _____ , Texture: _____

Color After: CL _____ Clarity After: C _____ Artifacts: _____

Comments:

FORM I - IN

ILMO2.1

VOLATILE ORGANICS ANALYSIS DATA SHEET

MW-5D(N)
GF 12/21/93

Lab Name: E & E INC.

Contract:

Lab Code: EANDE

Case No.: 863

SAS No.:

SDG No.: DR-3

Matrix: (soil/water) WATER

Lab Sample ID: 69961

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: F3158

Level: (low/med) LOW

Date Received: 08/25/93

% Moisture: not dec.

Date Analyzed: 08/31/93

GC Column: VOCOL ID: 0.530 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	UG/L	Q
74-87-3-----	Chloromethane	10	U	
74-83-9-----	Bromomethane	10	U	
75-01-4-----	Vinyl Chloride	10	U	
75-00-3-----	Chloroethane	10	U	
75-09-2-----	Methylene Chloride	10	U	
67-64-1-----	Acetone	10	U	
75-15-0-----	Carbon Disulfide	2	J	
75-35-4-----	1,1-Dichloroethene	10	U	
75-34-3-----	1,1-Dichloroethane	10	U	
540-59-0-----	1,2-Dichloroethene (total)	10	U	
67-66-3-----	Chloroform	10	U	
107-06-2-----	1,2-Dichloroethane	10	U	
78-93-3-----	2-Butanone	10	U	
71-55-6-----	1,1,1-Trichloroethane	10	U	
56-23-5-----	Carbon Tetrachloride	10	U	
75-27-4-----	Bromodichloromethane	10	U	
78-87-5-----	1,2-Dichloropropane	10	U	
10061-01-5-----	cis-1,3-Dichloropropene	10	U	
79-01-6-----	Trichloroethene	10	U	
124-48-1-----	Dibromochloromethane	10	U	
79-00-5-----	1,1,2-Trichloroethane	10	U	
71-43-2-----	Benzene	10	U	
10061-02-6-----	trans-1,3-Dichloropropene	10	U	
75-25-2-----	Bromoform	10	U	
108-10-1-----	4-Methyl-2-Pentanone	10	U	
591-78-6-----	2-Hexanone	10	U	
127-18-4-----	Tetrachloroethene	10	U	
79-34-5-----	1,1,2,2-Tetrachloroethane	10	U	
108-88-3-----	Toluene	10	U	
108-90-7-----	Chlorobenzene	10	U	
100-41-4-----	Ethylbenzene	10	U	
100-42-5-----	Styrene	10	U	
1330-20-7-----	Xylene (total)	1	J	

SEMICVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: E & E INC.

Contract:

MW-5D (N)
GT 12/21/93

Lab Code: EANDE

Case No.: 863

SAS No.:

SDG No.: DR-3

Matrix: (soil/water) WATER

Lab Sample ID: 69961

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: E4785

Level: (low/med) LOW

Date Received: 08/25/93

% Moisture: decanted: (Y/N)

Date Extracted: 08/30/93

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 09/07/93

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 8.0

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/L Q

108-95-2-----	Phenol	10	U
111-44-4-----	bis(2-Chloroethyl)Ether	10	U
95-57-8-----	2-Chlorophenol	10	U
541-73-1-----	1,3-Dichlorobenzene	10	U
106-46-7-----	1,4-Dichlorobenzene	10	U
95-50-1-----	1,2-Dichlorobenzene	10	U
95-48-7-----	2-Methylphenol	10	U
108-60-1-----	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5-----	4-Methylphenol	10	U
621-64-7-----	N-Nitroso-Di-n-Propylamine	10	U
67-72-1-----	Hexachloroethane	10	U
98-95-3-----	Nitrobenzene	10	U
78-59-1-----	Isophorone	10	U
88-75-5-----	2-Nitrophenol	10	U
105-67-9-----	2,4-Dimethylphenol	10	U
111-91-1-----	bis(2-Chloroethoxy)Methane	10	U
120-83-2-----	2,4-Dichlorophenol	10	U
120-82-1-----	1,2,4-Trichlorobenzene	10	U
91-20-3-----	Naphthalene	10	U
106-47-8-----	4-Chloroaniline	10	U
87-68-3-----	Hexachlorobutadiene	10	U
59-50-7-----	4-Chloro-3-Methylphenol	10	U
91-57-6-----	2-Methylnaphthalene	10	U
77-47-4-----	Hexachlorocyclopentadiene	10	U
88-06-2-----	2,4,6-Trichlorophenol	10	U
95-95-4-----	2,4,5-Trichlorophenol	25	U
91-58-7-----	2-Chloronaphthalene	10	U
88-74-4-----	2-Nitroaniline	25	U
131-11-3-----	Dimethylphthalate	10	U
208-96-8-----	Acenaphthylene	10	U
606-20-2-----	2,6-Dinitrotoluene	10	U
99-09-2-----	3-Nitroaniline	25	U
83-32-9-----	Acenaphthene	10	U

SEMICVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: E & E INC.

Contract:

MW-5D (N)
CF 12/21/93

Lab Code: EANDE

Case No.: 863

SAS No.:

SDG No.: DR-3

Matrix: (soil/water) WATER

Lab Sample ID: 69961

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: E4785

Level: (low/med) LOW

Date Received: 08/25/93

% Moisture: decanted: (Y/N)

Date Extracted: 08/30/93

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 09/07/93

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 8.0

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

Q

CAS NO.	COMPOUND			
51-28-5-----	2,4-Dinitrophenol	25	U	
100-02-7-----	4-Nitrophenol	25	U	
132-64-9-----	Dibenzofuran	10	U	
121-14-2-----	2,4-Dinitrotoluene	10	U	
84-66-2-----	Diethylphthalate	10	U	
7005-72-3-----	4-Chlorophenyl-phenylether	10	U	
86-73-7-----	Fluorene	10	U	
100-01-6-----	4-Nitroaniline	25	U	
534-52-1-----	4,6-Dinitro-2-methylphenol	25	U	
86-30-6-----	N-Nitrosodiphenylamine (1)	10	U	
101-55-3-----	4-Bromophenyl-phenylether	10	U	
118-74-1-----	Hexachlorobenzene	10	U	
87-86-5-----	Pentachlorophenol	25	U	
85-01-8-----	Phenanthrene	10	U	
120-12-7-----	Anthracene	10	U	
86-74-8-----	Carbazole	10	U	
84-74-2-----	Di-n-Butylphthalate	10	U	
206-44-0-----	Fluoranthene	10	U	
129-00-0-----	Pyrene	10	U	
85-68-7-----	Butylbenzylphthalate	10	U	
91-94-1-----	3,3'-Dichlorobenzidine	10	U	
56-55-3-----	Benzo(a)Anthracene	10	U	
218-01-9-----	Chrysene	10	U	
117-81-7-----	bis(2-Ethylhexyl)Phthalate	3	BJ	
117-84-0-----	Di-n-Octyl Phthalate	10	U	
205-99-2-----	Benzo(b)Fluoranthene	10	U	
207-08-9-----	Benzo(k)Fluoranthene	10	U	
50-32-8-----	Benzo(a)Pyrene	10	U	
193-39-5-----	Indeno(1,2,3-cd)Pyrene	10	U	
53-70-3-----	Dibenz(a,h)Anthracene	10	U	
191-24-2-----	Benzo(g,h,i)Perylene	10	U	

(1) - Cannot be separated from Diphenylamine

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-5D(N)
OF 12/21/93

Name: E & E INC.

Contract:

Lab Code: EANDE

Case No.: 863

SAS No.:

SDG No.: DR-1

Matrix: (soil/water) WATER

Lab Sample ID: 69961

Sample wt/vol: 1000 (g/mL) ML

Lab File ID:

% Moisture: decanted: (Y/N)

Date Received: 08/25/93

Extraction: (SepF/Cont/Sonc) SEPF

Date Extracted: 08/30/93

Concentrated Extract Volume: 10000 (uL)

Date Analyzed: 09/14/93

Injection Volume: 2.00 (uL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 8.0

Sulfur Cleanup: (Y/N) Y

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
319-84-6-----	alpha-BHC	0.050	U
319-85-7-----	beta-BHC	0.050	U
319-86-8-----	delta-BHC	0.050	U
58-89-9-----	gamma-BHC (Lindane)	0.050	U
76-44-8-----	Heptachlor	0.050	U
309-00-2-----	Aldrin	0.050	U
1024-57-3-----	Heptachlor epoxide	0.050	U
959-98-8-----	Endosulfan I	0.050	U
60-57-1-----	Dieldrin	0.10	U
72-55-9-----	4,4'-DDE	0.10	U
72-20-8-----	Endrin	0.10	U
33213-65-9-----	Endosulfan II	0.10	U
72-54-8-----	4,4'-DDD	0.10	U
1031-07-8-----	Endosulfan sulfate	0.10	U
50-29-3-----	4,4'-DDT	0.10	U
72-43-5-----	Methoxychlor	0.50	U
53494-70-5-----	Endrin ketone	0.10	U
7421-93-4-----	Endrin aldehyde	0.10	U
5103-71-9-----	alpha-Chlordane	0.050	U
5103-74-2-----	gamma-Chlordane	0.050	U
8001-35-2-----	Toxaphene	5.0	U
12674-11-2-----	Aroclor-1016	1.0	U
11104-28-2-----	Aroclor-1221	2.0	U
11141-16-5-----	Aroclor-1232	1.0	U
53469-21-9-----	Aroclor-1242	1.0	U
12672-29-6-----	Aroclor-1248	1.0	U
11097-69-1-----	Aroclor-1254	1.0	U
11096-82-5-----	Aroclor-1260	1.0	U

INORGANIC ANALYSES DATA SHEET

1

DEC SAMPLE NO.

Lab Name: ECOLOGY AND ENVIRONMENT Contract: _____

MW-5D(N)
GF 12/2/93

Lab Code: EANDE Case No.: 9301.863 SAS No.: _____ SDG No.: DR-3

Matrix (soil/water): WATER Lab Sample ID: 69961

Level (low/med): LOW Date Received: 08/25/93

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	257	-		P
7440-36-0	Antimony	37.0	U		P
7440-38-2	Arsenic	1.0	U	W	F
7440-39-3	Barium	19.0	U		P
7440-41-7	Beryllium	0.23	U		P
7440-43-9	Cadmium	2.7	U		P
7440-70-2	Calcium	301000	E		P
7440-47-3	Chromium	5.3	U		P
7440-48-4	Cobalt	6.6	U		P
7440-50-8	Copper	2.6	B		P
7439-89-6	Iron	611			P
7439-92-1	Lead	5.0	U		F
7439-95-4	Magnesium	83200			P
7439-96-5	Manganese	28.2		E	P
7439-97-6	Mercury	0.20	U	N	CV
7440-02-0	Nickel	7.5	U		P
7440-09-7	Potassium	19600			P
7782-49-2	Selenium	1.0	U	WN	F
7440-22-4	Silver	2.5	U		P
7440-23-5	Sodium	526000	E		P
7440-28-0	Thallium	1.0	U	W	F
7440-62-2	Vanadium	3.3	U		P
7440-66-6	Zinc	11.6	B		P
	Cyanide	10.0	U		AS

Color Before: CL _____ Clarity Before: C _____ , Texture: _____

Color After: CL _____ Clarity After: C _____ Artifacts: _____

Comments:

FORM I - IN

ILMO2.1

VOLATILE ORGANICS ANALYSIS DATA SHEET

MW-6S

Lab Name: E & E INC.

Contract:

Lab Code: EANDE

Case No.: 863

SAS No.:

SDG No.: DR-3

Matrix: (soil/water) WATER

Lab Sample ID: 69867

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: C1971

Level: (low/med) LOW

Date Received: 08/25/93

% Moisture: not dec.

Date Analyzed: 08/27/93

GC Column: VOCOL ID: 0.530 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

Q

74-87-3-----Chloromethane	10	U
74-83-9-----Bromomethane	10	U
75-01-4-----Vinyl Chloride	8	J
75-00-3-----Chloroethane	10	U
75-09-2-----Methylene Chloride	10	U
67-64-1-----Acetone	10	U
75-15-0-----Carbon Disulfide	10	U
75-35-4-----1,1-Dichloroethene	10	U
75-34-3-----1,1-Dichloroethane	10	U
540-59-0-----1,2-Dichloroethene (total)	2	J
67-66-3-----Chloroform	10	U
107-06-2-----1,2-Dichloroethane	10	U
78-93-3-----2-Butanone	10	U
71-55-6-----1,1,1-Trichloroethane	10	U
56-23-5-----Carbon Tetrachloride	10	U
75-27-4-----Bromodichloromethane	10	U
78-87-5-----1,2-Dichloropropane	10	U
10061-01-5-----cis-1,3-Dichloropropene	10	U
79-01-6-----Trichloroethene	10	U
124-48-1-----Dibromochloromethane	10	U
79-00-5-----1,1,2-Trichloroethane	10	U
71-43-2-----Benzene	10	U
10061-02-6-----trans-1,3-Dichloropropene	10	U
75-25-2-----Bromoform	10	U
108-10-1-----4-Methyl-2-Pentanone	10	U
591-78-6-----2-Hexanone	10	U
127-18-4-----Tetrachloroethene	10	U
79-34-5-----1,1,2,2-Tetrachloroethane	10	U
108-88-3-----Toluene	10	U
108-90-7-----Chlorobenzene	10	U
100-41-4-----Ethylbenzene	10	U
100-42-5-----Styrene	10	U
1330-20-7-----Xylene (total)	10	U

FORM I VOA

3/90

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: E & E INC.

Contract:

MW-6S

Lab Code: EANDE Case No.: 863 SAS No.: SDG No.: DR-3

Matrix: (soil/water) WATER Lab Sample ID: 69867

Sample wt/vol: 1000 (g/mL) ML Lab File ID: E4721

Level: (low/med) LOW Date Received: 08/25/93

% Moisture: decanted: (Y/N) Date Extracted: 08/26/93

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/02/93

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.4

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L Q

108-95-2-----Phenol	10	U
111-44-4-----bis(2-Chloroethyl)Ether	10	U
95-57-8-----2-Chlorophenol	10	U
541-73-1-----1,3-Dichlorobenzene	10	U
106-46-7-----1,4-Dichlorobenzene	10	U
95-50-1-----1,2-Dichlorobenzene	10	U
95-48-7-----2-Methylphenol	10	U
108-60-1-----2,2'-oxybis(1-Chloropropane)	10	U
106-44-5-----4-Methylphenol	10	U
621-64-7-----N-Nitroso-Di-n-Propylamine	10	U
67-72-1-----Hexachloroethane	10	U
98-95-3-----Nitrobenzene	10	U
78-59-1-----Isophorone	10	U
88-75-5-----2-Nitrophenol	10	U
105-67-9-----2,4-Dimethylphenol	10	U
111-91-1-----bis(2-Chloroethoxy)Methane	10	U
120-83-2-----2,4-Dichlorophenol	10	U
120-82-1-----1,2,4-Trichlorobenzene	10	U
91-20-3-----Naphthalene	10	U
106-47-8-----4-Chloroaniline	10	U
87-68-3-----Hexachlorobutadiene	10	U
59-50-7-----4-Chloro-3-Methylphenol	10	U
91-57-6-----2-Methylnaphthalene	10	U
77-47-4-----Hexachlorocyclopentadiene	10	U
88-06-2-----2,4,6-Trichlorophenol	10	U
95-95-4-----2,4,5-Trichlorophenol	25	U
91-58-7-----2-Chloronaphthalene	10	U
88-74-4-----2-Nitroaniline	25	U
131-11-3-----Dimethylphthalate	10	U
208-96-8-----Acenaphthylene	10	U
606-20-2-----2,6-Dinitrotoluene	10	U
99-09-2-----3-Nitroaniline	25	U
83-32-9-----Acenaphthene	10	U

SEMICVOLATILE ORGANICS ANALYSIS DATA SHEET

MW-6S

Name: E & E INC.

Contract:

Lab Code: EANDE

Case No.: 863

SAS No.:

SDG No.: DR-3

Matrix: (soil/water) WATER

Lab Sample ID: 69867

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: E4721

Level: (low/med) LOW

Date Received: 08/25/93

% Moisture: decanted: (Y/N)

Date Extracted: 08/26/93

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 09/02/93

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.4

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

Q

CAS NO.	COMPOUND			
51-28-5-----	2,4-Dinitrophenol	25	U	
100-02-7-----	4-Nitrophenol	25	U	
132-64-9-----	Dibenzofuran	10	U	
121-14-2-----	2,4-Dinitrotoluene	10	U	
84-66-2-----	Diethylphthalate	10	U	
7005-72-3-----	4-Chlorophenyl-phenylether	10	U	
86-73-7-----	Fluorene	10	U	
100-01-6-----	4-Nitroaniline	25	U	
534-52-1-----	4,6-Dinitro-2-methylphenol	25	U	
86-30-6-----	N-Nitrosodiphenylamine (1)	10	U	
101-55-3-----	4-Bromophenyl-phenylether	10	U	
118-74-1-----	Hexachlorobenzene	10	U	
87-86-5-----	Pentachlorophenol	25	U	
85-01-8-----	Phenanthrene	10	U	
120-12-7-----	Anthracene	10	U	
86-74-8-----	Carbazole	10	U	
84-74-2-----	Di-n-Butylphthalate	10	U	
206-44-0-----	Fluoranthene	10	U	
129-00-0-----	Pyrene	10	U	
85-68-7-----	Butylbenzylphthalate	10	U	
91-94-1-----	3,3'-Dichlorobenzidine	10	U	
56-55-3-----	Benzo(a)Anthracene	10	U	
218-01-9-----	Chrysene	10	U	
117-81-7-----	bis(2-Ethylhexyl) Phthalate	1	BJ	
117-84-0-----	Di-n-Octyl Phthalate	10	U	
205-99-2-----	Benzo(b) Fluoranthene	10	U	
207-08-9-----	Benzo(k) Fluoranthene	10	U	
50-32-8-----	Benzo(a) Pyrene	10	U	
193-39-5-----	Indeno(1,2,3-cd) Pyrene	10	U	
53-70-3-----	Dibenz(a,h) Anthracene	10	U	
191-24-2-----	Benzo(g,h,i) Perylene	10	U	

(1) - Cannot be separated from Diphenylamine

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: E & E INC.

Contract:

MW-6S

Lab Code: EANDE Case No.: 863 SAS No.: SDG No.: DR-1

Matrix: (soil/water) WATER Lab Sample ID: 69867

Sample wt/vol: 1000 (g/mL) ML Lab File ID:

% Moisture: decanted: (Y/N) Date Received: 08/25/93

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 08/30/93

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 09/14/93

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 7.4 Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	UG/L	Q
319-84-6-----	alpha-BHC	0.050	U	
319-85-7-----	beta-BHC	0.050	U	
319-86-8-----	delta-BHC	0.050	U	
58-89-9-----	gamma-BHC (Lindane)	0.050	U	
76-44-8-----	Heptachlor	0.050	U	
309-00-2-----	Aldrin	0.050	U	
1024-57-3-----	Heptachlor epoxide	0.050	U	
959-98-8-----	Endosulfan I	0.050	U	
60-57-1-----	Dieldrin	0.10	U	
72-55-9-----	4,4'-DDE	0.10	U	
72-20-8-----	Endrin	0.10	U	
33213-65-9-----	Endosulfan II	0.10	U	
72-54-8-----	4,4'-DDD	0.10	U	
1031-07-8-----	Endosulfan sulfate	0.10	U	
50-29-3-----	4,4'-DDT	0.10	U	
72-43-5-----	Methoxychlor	0.50	U	
53494-70-5-----	Endrin ketone	0.10	U	
7421-93-4-----	Endrin aldehyde	0.10	U	
5103-71-9-----	alpha-Chlordane	0.050	U	
5103-74-2-----	gamma-Chlordane	0.050	U	
8001-35-2-----	Toxaphene	5.0	U	
12674-11-2-----	Aroclor-1016	1.0	U	
11104-28-2-----	Aroclor-1221	2.0	U	
11141-16-5-----	Aroclor-1232	1.0	U	
53469-21-9-----	Aroclor-1242	1.0	U	
12672-29-6-----	Aroclor-1248	1.0	U	
11097-69-1-----	Aroclor-1254	1.0	U	
11096-82-5-----	Aroclor-1260	1.0	U	

1
INORGANIC ANALYSES DATA SHEET

DEC SAMPLE NO.

MW-6S

Name: ECOLOGY AND ENVIRONMENT Contract: _____

Lab Code: EANDE Case No.: 9301.863 SAS No.: _____ SDG No.: DR-3

Matrix (soil/water): WATER Lab Sample ID: 69867

Level (low/med): LOW Date Received: 08/25/93

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	53.2	B		P
7440-36-0	Antimony	37.0	U		P
7440-38-2	Arsenic	2.6	B	W	F
7440-39-3	Barium	294			P
7440-41-7	Beryllium	0.23	U		P
7440-43-9	Cadmium	2.7	U		P
7440-70-2	Calcium	48400	E		P
7440-47-3	Chromium	5.3	U		P
7440-48-4	Cobalt	6.6	U		P
7440-50-8	Copper	1.8	U		P
7439-89-6	Iron	842			P
7439-92-1	Lead	1.0	U		F
7439-95-4	Magnesium	34400			P
7439-96-5	Manganese	155	E		P
7439-97-6	Mercury	0.20	U	N	CV
7440-02-0	Nickel	7.5	U		P
7440-09-7	Potassium	7540			P
7782-49-2	Selenium	1.0	U	WN	F
7440-22-4	Silver	2.5	U		P
7440-23-5	Sodium	371000	E		P
7440-28-0	Thallium	1.0	U	W	F
7440-62-2	Vanadium	3.3	U		P
7440-66-6	Zinc	8.6	B		P
	Cyanide	10.0	U		AS

Color Before: CL Clarity Before: C , Texture: _____

Color After: Y Clarity After: C Artifacts: _____

Comments:

FORM I - IN

ILMO2.1

VOLATILE ORGANICS ANALYSIS DATA SHEET

MW-6D

Lab Name: E & E INC.

Contract:

Lab Code: EANDE

Case No.: 863

SAS No.:

SDG No.: DR-3

Matrix: (soil/water) WATER

Lab Sample ID: 70127

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: C1970

Level: (low/med) LOW

Date Received: 08/26/93

% Moisture: not dec.

Date Analyzed: 08/27/93

GC Column: VOCOL ID: 0.530 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Q

CAS NO.	COMPOUND	UG/L	Q
74-87-3-----	Chloromethane	10	U
74-83-9-----	Bromomethane	10	U
75-01-4-----	Vinyl Chloride	10	U
75-00-3-----	Chloroethane	10	U
75-09-2-----	Methylene Chloride	10	U
67-64-1-----	Acetone	10	U
75-15-0-----	Carbon Disulfide	10	U
75-35-4-----	1,1-Dichloroethene	10	U
75-34-3-----	1,1-Dichloroethane	10	U
540-59-0-----	1,2-Dichloroethene (total)	10	U
67-66-3-----	Chloroform	10	U
107-06-2-----	1,2-Dichloroethane	10	U
78-93-3-----	2-Butanone	10	U
71-55-6-----	1,1,1-Trichloroethane	10	U
56-23-5-----	Carbon Tetrachloride	10	U
75-27-4-----	Bromodichloromethane	10	U
78-87-5-----	1,2-Dichloroproppane	10	U
10061-01-5-----	cis-1,3-Dichloropropene	10	U
79-01-6-----	Trichloroethene	10	U
124-48-1-----	Dibromochloromethane	10	U
79-00-5-----	1,1,2-Trichloroethane	10	U
71-43-2-----	Benzene	10	U
10061-02-6-----	trans-1,3-Dichloropropene	10	U
75-25-2-----	Bromoform	10	U
108-10-1-----	4-Methyl-2-Pentanone	10	U
591-78-6-----	2-Hexanone	10	U
127-18-4-----	Tetrachloroethene	10	U
79-34-5-----	1,1,2,2-Tetrachloroethane	10	U
108-88-3-----	Toluene	10	U
108-90-7-----	Chlorobenzene	10	U
100-41-4-----	Ethylbenzene	10	U
100-42-5-----	Styrene	10	U
1330-20-7-----	Xylene (total)	10	U

FORM I VOA

3/90

SEMICVOLATILE ORGANICS ANALYSIS DATA SHEET

MW-6D

Lab Name: E & E INC.

Contract:

L-H Code: EANDE

Case No.: 863

SAS No.:

SDG No.: DR-3

Matrix: (soil/water) WATER

Lab Sample ID: 70127

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: E4789

Level: (low/med) LOW

Date Received: 08/26/93

% Moisture: decanted: (Y/N)

Date Extracted: 08/31/93

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 09/07/93

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.3

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Q

CAS NO.	COMPOUND			
108-95-2	Phenol	10	U	
111-44-4	bis(2-Chloroethyl)Ether	10	U	
95-57-8	2-Chlorophenol	10	U	
541-73-1	1,3-Dichlorobenzene	10	U	
106-46-7	1,4-Dichlorobenzene	10	U	
95-50-1	1,2-Dichlorobenzene	10	U	
95-48-7	2-Methylphenol	10	U	
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U	
106-44-5	4-Methylphenol	10	U	
621-64-7	N-Nitroso-Di-n-Propylamine	10	U	
67-72-1	Hexachloroethane	10	U	
98-95-3	Nitrobenzene	10	U	
78-59-1	Isophorone	10	U	
88-75-5	2-Nitrophenol	10	U	
105-67-9	2,4-Dimethylphenol	10	U	
111-91-1	bis(2-Chloroethoxy)Methane	10	U	
120-83-2	2,4-Dichlorophenol	10	U	
120-82-1	1,2,4-Trichlorobenzene	10	U	
91-20-3	Naphthalene	10	U	
106-47-8	4-Chloroaniline	10	U	
87-68-3	Hexachlorobutadiene	10	U	
59-50-7	4-Chloro-3-Methylphenol	10	U	
91-57-6	2-Methylnaphthalene	10	U	
77-47-4	Hexachlorocyclopentadiene	10	U	
88-06-2	2,4,6-Trichlorophenol	10	U	
95-95-4	2,4,5-Trichlorophenol	25	U	
91-58-7	2-Choronaphthalene	10	U	
88-74-4	2-Nitroaniline	25	U	
131-11-3	Dimethylphthalate	10	U	
208-96-8	Acenaphthylene	10	U	
606-20-2	2,6-Dinitrotoluene	10	U	
99-09-2	3-Nitroaniline	25	U	
83-32-9	Acenaphthene	10	U	

FORM I SV-1

3/90

SEMICVOLATILE ORGANICS ANALYSIS DATA SHEET

MW-6D

Lab Name: E & E INC.

Contract:

Lab Code: EANDE

Case No.: 863

SAS No.:

SDG No.: DR-3

Matrix: (soil/water) WATER

Lab Sample ID: 70127

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: E4789

Level: (low/med) LOW

Date Received: 08/26/93

% Moisture: decanted: (Y/N)

Date Extracted: 08/31/93

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 09/07/93

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.3

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L Q

CAS NO.	COMPOUND	UG/L	Q
51-28-5-----	2,4-Dinitrophenol	25	U
100-02-7-----	4-Nitrophenol	25	U
132-64-9-----	Dibenzofuran	10	U
121-14-2-----	2,4-Dinitrotoluene	10	U
84-66-2-----	Diethylphthalate	10	U
7005-72-3-----	4-Chlorophenyl-phenylether	10	U
86-73-7-----	Fluorene	10	U
100-01-6-----	4-Nitroaniline	25	U
534-52-1-----	4,6-Dinitro-2-methylphenol	25	U
86-30-6-----	N-Nitrosodiphenylamine (1)	10	U
101-55-3-----	4-Bromophenyl-phenylether	10	U
118-74-1-----	Hexachlorobenzene	10	U
87-86-5-----	Pentachlorophenol	25	U
85-01-8-----	Phenanthrene	10	U
120-12-7-----	Anthracene	10	U
86-74-8-----	Carbazole	10	U
84-74-2-----	Di-n-Butylphthalate	10	U
206-44-0-----	Fluoranthene	10	U
129-00-0-----	Pyrene	10	U
85-68-7-----	Butylbenzylphthalate	10	U
91-94-1-----	3,3'-Dichlorobenzidine	10	U
56-55-3-----	Benzo(a)Anthracene	10	U
218-01-9-----	Chrysene	10	U
117-81-7-----	bis(2-Ethylhexyl)Phthalate	10	U
117-84-0-----	Di-n-Octyl Phthalate	10	U
205-99-2-----	Benzo(b)Fluoranthene	10	U
207-08-9-----	Benzo(k)Fluoranthene	10	U
50-32-8-----	Benzo(a)Pyrene	10	U
193-39-5-----	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3-----	Dibenz(a,h)Anthracene	10	U
191-24-2-----	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: E & E INC.

Contract:

MW-6D

Lab Code: EANDE Case No.: 863

SAS No.:

SDG No.: DR-1

Matrix: (soil/water) WATER

Lab Sample ID: 70127

Sample wt/vol: 1000 (g/mL) ML

Lab File ID:

% Moisture: decanted: (Y/N)

Date Received: 08/26/93

Extraction: (SepF/Cont/Sonc) SEPF

Date Extracted: 08/31/93

Concentrated Extract Volume: 10000 (uL)

Date Analyzed: 09/14/93

Injection Volume: 2.00 (uL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 7.3

Sulfur Cleanup: (Y/N) Y

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
319-84-6-----	alpha-BHC	0.050	U
319-85-7-----	beta-BHC	0.050	U
319-86-8-----	delta-BHC	0.050	U
58-89-9-----	gamma-BHC (Lindane)	0.050	U
76-44-8-----	Heptachlor	0.050	U
309-00-2-----	Aldrin	0.050	U
1024-57-3-----	Heptachlor epoxide	0.050	U
959-98-8-----	Endosulfan I	0.050	U
60-57-1-----	Dieldrin	0.10	U
72-55-9-----	4,4'-DDE	0.10	U
72-20-8-----	Endrin	0.10	U
33213-65-9-----	Endosulfan II	0.10	U
72-54-8-----	4,4'-DDD	0.10	U
1031-07-8-----	Endosulfan sulfate	0.10	U
50-29-3-----	4,4'-DDT	0.10	U
72-43-5-----	Methoxychlor	0.50	U
53494-70-5-----	Endrin ketone	0.10	U
7421-93-4-----	Endrin aldehyde	0.10	U
5103-71-9-----	alpha-Chlordane	0.050	U
5103-74-2-----	gamma-Chlordane	0.050	U
8001-35-2-----	Toxaphene	5.0	U
12674-11-2-----	Aroclor-1016	1.0	U
11104-28-2-----	Aroclor-1221	2.0	U
11141-16-5-----	Aroclor-1232	1.0	U
53469-21-9-----	Aroclor-1242	1.0	U
12672-29-6-----	Aroclor-1248	1.0	U
11097-69-1-----	Aroclor-1254	1.0	U
11096-82-5-----	Aroclor-1260	1.0	U

1
INORGANIC ANALYSES DATA SHEET

DEC SAMPLE NO.

MW-6D

Lab Name: ECOLOGY AND ENVIRONMENT Contract: _____

Lab Code: EANDE Case No.: 9301.863 SAS No.: _____ SDG No.: DR-3

Matrix (soil/water): WATER Lab Sample ID: 70127

Level (low/med): LOW Date Received: 08/26/93

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	106	B		P
7440-36-0	Antimony	37.0	U		P
7440-38-2	Arsenic	1.0	U		F
7440-39-3	Barium	19.0	U		P
7440-41-7	Beryllium	0.23	U		P
7440-43-9	Cadmium	2.7	U		P
7440-70-2	Calcium	184000	E		P
7440-47-3	Chromium	5.3	U		P
7440-48-4	Cobalt	6.6	U		P
7440-50-8	Copper	1.8	U		P
7439-89-6	Iron	290			P
7439-92-1	Lead	1.4	B		F
7439-95-4	Magnesium	58400			P
7439-96-5	Manganese	22.0		E	P
7439-97-6	Mercury	0.20	U	N	CV
7440-02-0	Nickel	7.5	U		P
7440-09-7	Potassium	19300			P
7782-49-2	Selenium	1.0	U	WN	F
7440-22-4	Silver	2.5	U		P
7440-23-5	Sodium	169000	E		P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	3.3	U		P
7440-66-6	Zinc	29.7			P
	Cyanide	10.0	U		AS

Color Before: CL _____ Clarity Before: C _____ , Texture: _____

Color After: CL _____ Clarity After: C _____ Artifacts: _____

Comments:

FORM I - IN

ILMO2.1

VOLATILE ORGANICS ANALYSIS DATA SHEET

MW-7S

Lab Name: E & E INC.

Contract:

Lab Code: EANDE

Case No.: 863

SAS No.:

SDG No.: DR-3

Matrix: (soil/water) WATER

Lab Sample ID: 69962

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: F3135

Level: (low/med) LOW

Date Received: 08/25/93

% Moisture: not dec.

Date Analyzed: 08/30/93

GC Column: VOCOL ID: 0.530 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

Q

74-87-3-----Chloromethane	10	U
74-83-9-----Bromomethane	10	U
75-01-4-----Vinyl Chloride	10	U
75-00-3-----Chloroethane	10	U
75-09-2-----Methylene Chloride	10	U
67-64-1-----Acetone	10	U
75-15-0-----Carbon Disulfide	10	U
75-35-4-----1,1-Dichloroethene	10	U
75-34-3-----1,1-Dichloroethane	10	U
540-59-0-----1,2-Dichloroethene (total)	3	J
67-66-3-----Chloroform	10	U
107-06-2-----1,2-Dichloroethane	10	U
78-93-3-----2-Butanone	10	U
71-55-6-----1,1,1-Trichloroethane	4	J
56-23-5-----Carbon Tetrachloride	10	U
75-27-4-----Bromodichloromethane	10	U
78-87-5-----1,2-Dichloropropane	10	U
10061-01-5-----cis-1,3-Dichloropropene	10	U
79-01-6-----Trichloroethene	3	J
124-48-1-----Dibromochloromethane	10	U
79-00-5-----1,1,2-Trichloroethane	10	U
71-43-2-----Benzene	10	U
10061-02-6-----trans-1,3-Dichloropropene	10	U
75-25-2-----Bromoform	10	U
108-10-1-----4-Methyl-2-Pentanone	10	U
591-78-6-----2-Hexanone	10	U
127-18-4-----Tetrachloroethene	10	U
79-34-5-----1,1,2,2-Tetrachloroethane	10	U
108-88-3-----Toluene	10	U
108-90-7-----Chlorobenzene	10	U
100-41-4-----Ethylbenzene	10	U
100-42-5-----Styrene	10	U
1330-20-7-----Xylene (total)	10	U

FORM I VOA

3/90

A-73

SEMOVOLATILE ORGANICS ANALYSIS DATA SHEET

MW-7S

Lab Name: E & E INC.

Contract:

Lab Code: EANDE

Case No.: 863

SAS No.:

SDG No.: DR-3

Matrix: (soil/water) WATER

Lab Sample ID: 69962

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: E4786

Level: (low/med) LOW

Date Received: 08/25/93

% Moisture: decanted: (Y/N)

Date Extracted: 08/30/93

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 09/07/93

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.7

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L Q

CAS NO.	COMPOUND	UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

FORM I SV-1

3/90

SEMOVOLATILE ORGANICS ANALYSIS DATA SHEET

MW-7S

Lab Name: E & E INC.

Contract:

Code: EANDE

Case No.: 863

SAS No.:

SDG No.: DR-3

Matrix: (soil/water) WATER

Lab Sample ID: 69962

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: E4786

Level: (low/med) LOW

Date Received: 08/25/93

% Moisture: decanted: (Y/N)

Date Extracted: 08/30/93

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 09/07/93

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.7

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/L Q

51-28-5-----	2,4-Dinitrophenol	25	U
100-02-7-----	4-Nitrophenol	25	U
132-64-9-----	Dibenzofuran	10	U
121-14-2-----	2,4-Dinitrotoluene	10	U
84-66-2-----	Diethylphthalate	10	U
7005-72-3-----	4-Chlorophenyl-phenylether	10	U
86-73-7-----	Fluorene	10	U
100-01-6-----	4-Nitroaniline	25	U
534-52-1-----	4,6-Dinitro-2-methylphenol	25	U
86-30-6-----	N-Nitrosodiphenylamine (1)	10	U
101-55-3-----	4-Bromophenyl-phenylether	10	U
118-74-1-----	Hexachlorobenzene	10	U
87-86-5-----	Pentachlorophenol	25	U
85-01-8-----	Phenanthrene	10	U
120-12-7-----	Anthracene	10	U
86-74-8-----	Carbazole	10	U
84-74-2-----	Di-n-Butylphthalate	10	U
206-44-0-----	Fluoranthene	10	U
129-00-0-----	Pyrene	10	U
85-68-7-----	Butylbenzylphthalate	10	U
91-94-1-----	3,3'-Dichlorobenzidine	10	U
56-55-3-----	Benzo(a)Anthracene	10	U
218-01-9-----	Chrysene	10	U
117-81-7-----	bis(2-Ethylhexyl)Phthalate	4	BJ
117-84-0-----	Di-n-Octyl Phthalate	10	U
205-99-2-----	Benzo(b)Fluoranthene	10	U
207-08-9-----	Benzo(k)Fluoranthene	10	U
50-32-8-----	Benzo(a)Pyrene	10	U
193-39-5-----	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3-----	Dibenz(a,h)Anthracene	10	U
191-24-2-----	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: E & E INC.

Contract:

MW-7S

Lab Code: EANDE Case No.: 863 SAS No.: SDG No.: DR-1

Matrix: (soil/water) WATER Lab Sample ID: 69962

Sample wt/vol: 1000 (g/mL) ML Lab File ID:

% Moisture: decanted: (Y/N) Date Received: 08/25/93

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 08/30/93

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 09/14/93

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 7.7 Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/Kg)	UG/L Q
319-84-6-----	alpha-BHC	0.050	U
319-85-7-----	beta-BHC	0.050	U
319-86-8-----	delta-BHC	0.050	U
58-89-9-----	gamma-BHC (Lindane)	0.050	U
76-44-8-----	Heptachlor	0.050	U
309-00-2-----	Aldrin	0.050	U
1024-57-3-----	Heptachlor epoxide	0.050	U
959-98-8-----	Endosulfan I	0.050	U
60-57-1-----	Dieldrin	0.10	U
72-55-9-----	4,4'-DDE	0.10	U
72-20-8-----	Endrin	0.10	U
33213-65-9-----	Endosulfan II	0.10	U
72-54-8-----	4,4'-DDD	0.10	U
1031-07-8-----	Endosulfan sulfate	0.10	U
50-29-3-----	4,4'-DDT	0.10	U
72-43-5-----	Methoxychlor	0.50	U
53494-70-5-----	Endrin ketone	0.10	U
7421-93-4-----	Endrin aldehyde	0.10	U
5103-71-9-----	alpha-Chlordane	0.050	U
5103-74-2-----	gamma-Chlordane	0.050	U
8001-35-2-----	Toxaphene	5.0	U
12674-11-2-----	Aroclor-1016	1.0	U
11104-28-2-----	Aroclor-1221	2.0	U
11141-16-5-----	Aroclor-1232	1.0	U
53469-21-9-----	Aroclor-1242	1.0	U
12672-29-6-----	Aroclor-1248	1.0	U
11097-69-1-----	Aroclor-1254	1.0	U
11096-82-5-----	Aroclor-1260	1.0	U

INORGANIC ANALYSES DATA SHEET

1

DEC SAMPLE NO.

MW-7S

Name: ECOLOGY AND ENVIRONMENT Contract: _____

Lab Code: EANDE Case No.: 9301.863 SAS No.: _____ SDG No.: DR-3

Matrix (soil/water): WATER Lab Sample ID: 69962

Level (low/med): LOW Date Received: 08/25/93

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	475			P
7440-36-0	Antimony	37.0	U		P
7440-38-2	Arsenic	1.0	U	W	F
7440-39-3	Barium	58.4	B		P
7440-41-7	Beryllium	0.23	U		P
7440-43-9	Cadmium	2.7	U		P
7440-70-2	Calcium	70500		E	P
7440-47-3	Chromium	5.3	U		P
7440-48-4	Cobalt	6.6	U		P
7440-50-8	Copper	6.2	B		P
7439-89-6	Iron	1300			P
7439-92-1	Lead	5.5			F
7439-95-4	Magnesium	25500			P
7439-96-5	Manganese	73.4		E	P
7439-97-6	Mercury	0.20	U	N	CV
7440-02-0	Nickel	7.5	U		P
7440-09-7	Potassium	4190	B		P
7782-49-2	Selenium	1.0	U	N	F
7440-22-4	Silver	2.5	U		P
7440-23-5	Sodium	205000		E	P
7440-28-0	Thallium	1.0	U	W	F
7440-62-2	Vanadium	3.3	U		P
7440-66-6	Zinc	55.3			P
	Cyanide	10.0	U		AS

Color Before: CL _____ Clarity Before: C _____ , Texture: _____

Color After: CL _____ Clarity After: C _____ Artifacts: _____

Comments:

FORM I - IN

ILMO2.1

VOLATILE ORGANICS ANALYSIS DATA SHEET

MW-8S

Lab Name: E & E INC.

Contract:

Lab Code: EANDE

Case No.: 863

SAS No.:

SDG No.: DR-3

Matrix: (soil/water) WATER

Lab Sample ID: 69963

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: F3136

Level: (low/med) LOW

Date Received: 08/25/93

% Moisture: not dec.

Date Analyzed: 08/30/93

GC Column: VOCOL ID: 0.530 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

Q

74-87-3-----Chloromethane	10	U
74-83-9-----Bromomethane	10	U
75-01-4-----Vinyl Chloride	10	U
75-00-3-----Chloroethane	10	U
75-09-2-----Methylene Chloride	10	U
67-64-1-----Acetone	10	U
75-15-0-----Carbon Disulfide	10	U
75-35-4-----1,1-Dichloroethene	2	J
75-34-3-----1,1-Dichloroethane	42	
540-59-0-----1,2-Dichloroethene (total)	35	
67-66-3-----Chloroform	10	U
107-06-2-----1,2-Dichloroethane	10	U
78-93-3-----2-Butanone	10	U
71-55-6-----1,1,1-Trichloroethane	5	J
56-23-5-----Carbon Tetrachloride	10	U
75-27-4-----Bromodichloromethane	10	U
78-87-5-----1,2-Dichloropropane	10	U
10061-01-5-----cis-1,3-Dichloropropene	10	U
79-01-6-----Trichloroethene	13	
124-48-1-----Dibromochloromethane	10	U
79-00-5-----1,1,2-Trichloroethane	10	U
71-43-2-----Benzene	10	U
10061-02-6-----trans-1,3-Dichloropropene	10	U
75-25-2-----Bromoform	10	U
108-10-1-----4-Methyl-2-Pentanone	10	U
591-78-6-----2-Hexanone	10	U
127-18-4-----Tetrachloroethene	10	U
79-34-5-----1,1,2,2-Tetrachloroethane	10	U
108-88-3-----Toluene	10	U
108-90-7-----Chlorobenzene	10	U
100-41-4-----Ethylbenzene	10	U
100-42-5-----Styrene	10	U
1330-20-7-----Xylene (total)	10	U

FORM I VOA

3/90

SEMICVOLATILE ORGANICS ANALYSIS DATA SHEET

MW-8S

Lab Name: E & E INC.

Contract:

Case Code: EANDE

Case No.: 863

SAS No.:

SDG No.: DR-3

Matrix: (soil/water) WATER

Lab Sample ID: 69963

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: E4787

Level: (low/med) LOW

Date Received: 08/25/93

% Moisture: decanted: (Y/N)

Date Extracted: 08/30/93

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 09/07/93

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.5

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

Q

CAS NO.	COMPOUND			
108-95-2	Phenol	10	U	
111-44-4	bis(2-Chloroethyl)Ether	10	U	
95-57-8	2-Chlorophenol	10	U	
541-73-1	1,3-Dichlorobenzene	10	U	
106-46-7	1,4-Dichlorobenzene	10	U	
95-50-1	1,2-Dichlorobenzene	10	U	
95-48-7	2-Methylphenol	10	U	
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U	
106-44-5	4-Methylphenol	10	U	
621-64-7	N-Nitroso-Di-n-Propylamine	10	U	
67-72-1	Hexachloroethane	10	U	
98-95-3	Nitrobenzene	10	U	
78-59-1	Isophorone	10	U	
88-75-5	2-Nitrophenol	10	U	
105-67-9	2,4-Dimethylphenol	10	U	
111-91-1	bis(2-Chloroethoxy)Methane	10	U	
120-83-2	2,4-Dichlorophenol	10	U	
120-82-1	1,2,4-Trichlorobenzene	10	U	
91-20-3	Naphthalene	10	U	
106-47-8	4-Chloroaniline	10	U	
87-68-3	Hexachlorobutadiene	10	U	
59-50-7	4-Chloro-3-Methylphenol	10	U	
91-57-6	2-Methylnaphthalene	10	U	
77-47-4	Hexachlorocyclopentadiene	10	U	
88-06-2	2,4,6-Trichlorophenol	10	U	
95-95-4	2,4,5-Trichlorophenol	25	U	
91-58-7	2-Chloronaphthalene	10	U	
88-74-4	2-Nitroaniline	25	U	
131-11-3	Dimethylphthalate	10	U	
208-96-8	Acenaphthylene	10	U	
606-20-2	2,6-Dinitrotoluene	10	U	
99-09-2	3-Nitroaniline	25	U	
83-32-9	Acenaphthene	10	U	

FORM I SV-1

3/90

SEMOVOLATILE ORGANICS ANALYSIS DATA SHEET

MW-8S

Lab Name: E & E INC.

Contract:

Lab Code: EANDE Case No.: 863

SAS No.:

SDG No.: DR-3

Matrix: (soil/water) WATER

Lab Sample ID: 69963

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: E4787

Level: (low/med) LOW

Date Received: 08/25/93

% Moisture: decanted: (Y/N)

Date Extracted: 08/30/93

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 09/07/93

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.5

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L Q

CAS NO.	COMPOUND	UG/L	Q
51-28-5-----	2,4-Dinitrophenol	25	U
100-02-7-----	4-Nitrophenol	25	U
132-64-9-----	Dibenzofuran	10	U
121-14-2-----	2,4-Dinitrotoluene	10	U
84-66-2-----	Diethylphthalate	10	U
7005-72-3-----	4-Chlorophenyl-phenylether	10	U
86-73-7-----	Fluorene	10	U
100-01-6-----	4-Nitroaniline	25	U
534-52-1-----	4,6-Dinitro-2-methylphenol	25	U
86-30-6-----	N-Nitrosodiphenylamine (1)	10	U
101-55-3-----	4-Bromophenyl-phenylether	10	U
118-74-1-----	Hexachlorobenzene	10	U
87-86-5-----	Pentachlorophenol	25	U
85-01-8-----	Phenanthrene	10	U
120-12-7-----	Anthracene	10	U
86-74-8-----	Carbazole	10	U
84-74-2-----	Di-n-Butylphthalate	10	U
206-44-0-----	Fluoranthene	10	U
129-00-0-----	Pyrene	10	U
85-68-7-----	Butylbenzylphthalate	10	U
91-94-1-----	3,3'-Dichlorobenzidine	10	U
56-55-3-----	Benzo(a)Anthracene	10	U
218-01-9-----	Chrysene	10	U
117-81-7-----	bis(2-Ethylhexyl)Phthalate	3	BJ
117-84-0-----	Di-n-Octyl Phthalate	10	U
205-99-2-----	Benzo(b)Fluoranthene	10	U
207-08-9-----	Benzo(k)Fluoranthene	10	U
50-32-8-----	Benzo(a)Pyrene	10	U
193-39-5-----	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3-----	Dibenz(a,h)Anthracene	10	U
191-24-2-----	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: E & E INC.

Contract:

MW-8S

Lab Code: EANDE Case No.: 863

SAS No.:

SDG No.: DR-1

Matrix: (soil/water) WATER

Lab Sample ID: 69963

Sample wt/vol: 1000 (g/mL) ML

Lab File ID:

% Moisture: decanted: (Y/N)

Date Received: 08/25/93

Extraction: (SepF/Cont/Sonc) SEPF

Date Extracted: 08/30/93

Concentrated Extract Volume: 10000 (uL)

Date Analyzed: 09/14/93

Injection Volume: 2.00 (uL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 7.5

Sulfur Cleanup: (Y/N) Y

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
319-84-6-----	alpha-BHC	0.050	U
319-85-7-----	beta-BHC	0.050	U
319-86-8-----	delta-BHC	0.050	U
58-89-9-----	gamma-BHC (Lindane)	0.050	U
76-44-8-----	Heptachlor	0.050	U
309-00-2-----	Aldrin	0.050	U
1024-57-3-----	Heptachlor epoxide	0.050	U
959-98-8-----	Endosulfan I	0.050	U
60-57-1-----	Dieldrin	0.10	U
72-55-9-----	4,4'-DDE	0.10	U
72-20-8-----	Endrin	0.10	U
33213-65-9-----	Endosulfan II	0.10	U
72-54-8-----	4,4'-DDD	0.10	U
1031-07-8-----	Endosulfan sulfate	0.10	U
50-29-3-----	4,4'-DDT	0.10	U
72-43-5-----	Methoxychlor	0.50	U
53494-70-5-----	Endrin ketone	0.10	U
7421-93-4-----	Endrin aldehyde	0.10	U
5103-71-9-----	alpha-Chlordane	0.050	U
5103-74-2-----	gamma-Chlordane	0.050	U
8001-35-2-----	Toxaphene	5.0	U
12674-11-2-----	Aroclor-1016	1.0	U
11104-28-2-----	Aroclor-1221	2.0	U
11141-16-5-----	Aroclor-1232	1.0	U
53469-21-9-----	Aroclor-1242	1.0	U
12672-29-6-----	Aroclor-1248	1.0	U
11097-69-1-----	Aroclor-1254	1.0	U
11096-82-5-----	Aroclor-1260	1.0	U

FORM I PEST

3/90

INORGANIC ANALYSES DATA SHEET

MW-8S

Lab Name: ECOLOGY AND ENVIRONMENT Contract:

Lab Code: EANDE Case No.: 9301.863 SAS No.: SDG No.: DR-3

Matrix (soil/water): WATER Lab Sample ID: 69963

Level (low/med): LOW Date Received: 08/25/93

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	198	B		P
7440-36-0	Antimony	37.0	U		P
7440-38-2	Arsenic	1.0	U	W	F
7440-39-3	Barium	42.3	B		P
7440-41-7	Beryllium	0.23	U		P
7440-43-9	Cadmium	2.7	U		P
7440-70-2	Calcium	197000		E	P
7440-47-3	Chromium	5.3	U		P
7440-48-4	Cobalt	6.6	U		P
7440-50-8	Copper	1.8	U		P
7439-89-6	Iron	1010			P
7439-92-1	Lead	1.0	U		F
7439-95-4	Magnesium	62500			P
7439-96-5	Manganese	98.0		E	P
7439-97-6	Mercury	0.20	U	N	CV
7440-02-0	Nickel	7.5	U		P
7440-09-7	Potassium	4880	B		P
7782-49-2	Selenium	1.0	U	WN	F
7440-22-4	Silver	2.5	U		P
7440-23-5	Sodium	52500		E	P
7440-28-0	Thallium	1.0	U	W	F
7440-62-2	Vanadium	3.3	U		P
7440-66-6	Zinc	20.7			P
	Cyanide	10.0	U		AS

Color Before: CL Clarity Before: C Texture: _____

Color After: CL Clarity After: C Artifacts: _____

Comments:

VOLATILE ORGANICS ANALYSIS DATA SHEET

MW-9S

Lab Name: E & E INC.

Contract:

Lab Code: EANDE Case No.: 863

SAS No.:

SDG No.: DR-3

Matrix: (soil/water) WATER

Lab Sample ID: 69868

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: C1973

Level: (low/med) LOW

Date Received: 08/25/93

% Moisture: not dec.

Date Analyzed: 08/27/93

GC Column: VOCOL ID: 0.530 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.

COMPOUND

(ug/L or ug/Kg) UG/L

Q

74-87-3-----	Chloromethane	10	U
74-83-9-----	Bromomethane	10	U
75-01-4-----	Vinyl Chloride	1200	E
75-00-3-----	Chloroethane	10	U
75-09-2-----	Methylene Chloride	10	U
67-64-1-----	Acetone	10	U
75-15-0-----	Carbon Disulfide	10	U
75-35-4-----	1,1-Dichloroethene	16	
75-34-3-----	1,1-Dichloroethane	490	E
540-59-0-----	1,2-Dichloroethene (total)	2700	E
67-66-3-----	Chloroform	10	U
107-06-2-----	1,2-Dichloroethane	10	
78-93-3-----	2-Butanone	10	U
71-55-6-----	1,1,1-Trichloroethane	2	J
56-23-5-----	Carbon Tetrachloride	10	U
75-27-4-----	Bromodichloromethane	10	U
78-87-5-----	1,2-Dichloropropane	10	U
10061-01-5-----	cis-1,3-Dichloropropene	10	U
79-01-6-----	Trichloroethene	480	E
124-48-1-----	Dibromochloromethane	10	U
79-00-5-----	1,1,2-Trichloroethane	10	U
71-43-2-----	Benzene	10	U
10061-02-6-----	trans-1,3-Dichloropropene	10	U
75-25-2-----	Bromoform	10	U
108-10-1-----	4-Methyl-2-Pentanone	10	U
591-78-6-----	2-Hexanone	10	U
127-18-4-----	Tetrachloroethene	10	U
79-34-5-----	1,1,2,2-Tetrachloroethane	10	U
108-88-3-----	Toluene	1	J
108-90-7-----	Chlorobenzene	10	U
100-41-4-----	Ethylbenzene	10	U
100-42-5-----	Styrene	10	U
1330-20-7-----	Xylene (total)	10	U

FORM I VOA

3/90

VOLATILE ORGANICS ANALYSIS DATA SHEET

MW-9SDL

Lab Name: E & E INC.

Contract:

Lab Code: EANDE

Case No.: 863

SAS No.:

SDG No.: DR-3

Matrix: (soil/water) WATER

Lab Sample ID: 69868DL

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: F3131

Level: (low/med) LOW

Date Received: 08/25/93

% Moisture: not dec.

Date Analyzed: 08/30/93

GC Column: VOCOL ID: 0.530 (mm)

Dilution Factor: 20.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Q

CAS NO.	COMPOUND	UG/L	Q
74-87-3-----	Chloromethane	200	U
74-83-9-----	Bromomethane	200	U
75-01-4-----	Vinyl Chloride	430	D
75-00-3-----	Chloroethane	200	U
75-09-2-----	Methylene Chloride	89	BDJ
67-64-1-----	Acetone	200	U
75-15-0-----	Carbon Disulfide	200	U
75-35-4-----	1,1-Dichloroethene	200	U
75-34-3-----	1,1-Dichloroethane	290	D
540-59-0-----	1,2-Dichloroethene (total)	1900	D
67-66-3-----	Chloroform	200	U
107-06-2-----	1,2-Dichloroethane	200	U
78-93-3-----	2-Butanone	200	U
71-55-6-----	1,1,1-Trichloroethane	200	U
56-23-5-----	Carbon Tetrachloride	200	U
75-27-4-----	Bromodichloromethane	200	U
78-87-5-----	1,2-Dichloroproppane	200	U
10061-01-5-----	cis-1,3-Dichloropropene	200	U
79-01-6-----	Trichloroethene	280	D
124-48-1-----	Dibromochloromethane	200	U
79-00-5-----	1,1,2-Trichloroethane	200	U
71-43-2-----	Benzene	200	U
10061-02-6-----	trans-1,3-Dichloropropene	200	U
75-25-2-----	Bromoform	200	U
108-10-1-----	4-Methyl-2-Pentanone	200	U
591-78-6-----	2-Hexanone	200	U
127-18-4-----	Tetrachloroethene	200	U
79-34-5-----	1,1,2,2-Tetrachloroethane	200	U
108-88-3-----	Toluene	200	U
108-90-7-----	Chlorobenzene	200	U
100-41-4-----	Ethylbenzene	200	U
100-42-5-----	Styrene	200	U
1330-20-7-----	Xylene (total)	200	U

FORM I VOA

3/90

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: E & E INC.

Contract:

MW-9S

Lab Code: EANDE

Case No.: 863

SAS No.:

SDG No.: DR-3

Matrix: (soil/water) WATER

Lab Sample ID: 69868

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: E4722

Level: (low/med) LOW

Date Received: 08/25/93

Moisture: decanted: (Y/N)

Date Extracted: 08/26/93

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 09/02/93

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.3

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Q

CAS NO.	COMPOUND	10	U
108-95-2-----	Phenol	10	U
111-44-4-----	bis(2-Chloroethyl)Ether	10	U
95-57-8-----	2-Chlorophenol	10	U
541-73-1-----	1,3-Dichlorobenzene	10	U
106-46-7-----	1,4-Dichlorobenzene	10	U
95-50-1-----	1,2-Dichlorobenzene	10	U
95-48-7-----	2-Methylphenol	10	U
108-60-1-----	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5-----	4-Methylphenol	10	U
621-64-7-----	N-Nitroso-Di-n-Propylamine	10	U
67-72-1-----	Hexachloroethane	10	U
98-95-3-----	Nitrobenzene	10	U
78-59-1-----	Isophorone	10	U
88-75-5-----	2-Nitrophenol	10	U
105-67-9-----	2,4-Dimethylphenol	10	U
111-91-1-----	bis(2-Chloroethoxy)Methane	10	U
120-83-2-----	2,4-Dichlorophenol	10	U
120-82-1-----	1,2,4-Trichlorobenzene	10	U
91-20-3-----	Naphthalene	10	U
106-47-8-----	4-Chloroaniline	10	U
87-68-3-----	Hexachlorobutadiene	10	U
59-50-7-----	4-Chloro-3-Methylphenol	10	U
91-57-6-----	2-Methylnaphthalene	10	U
77-47-4-----	Hexachlorocyclopentadiene	10	U
88-06-2-----	2,4,6-Trichlorophenol	10	U
95-95-4-----	2,4,5-Trichlorophenol	25	U
91-58-7-----	2-Chloronaphthalene	10	U
88-74-4-----	2-Nitroaniline	25	U
131-11-3-----	Dimethylphthalate	10	U
208-96-8-----	Acenaphthylene	10	U
606-20-2-----	2,6-Dinitrotoluene	10	U
99-09-2-----	3-Nitroaniline	25	U
83-32-9-----	Acenaphthene	10	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: E & E INC.

Contract:

MW-9S

Lab Code: EANDE Case No.: 863 SAS No.: SDG No.: DR-3

Matrix: (soil/water) WATER Lab Sample ID: 69868

Sample wt/vol: 1000 (g/mL) ML Lab File ID: E4722

Level: (low/med) LOW Date Received: 08/25/93

% Moisture: decanted: (Y/N) Date Extracted: 08/26/93

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/02/93

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.3

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Q

CAS NO.	COMPOUND			
51-28-5-----	2,4-Dinitrophenol	25	U	
100-02-7-----	4-Nitrophenol	25	U	
132-64-9-----	Dibenzofuran	10	U	
121-14-2-----	2,4-Dinitrotoluene	10	U	
84-66-2-----	Diethylphthalate	10	U	
7005-72-3-----	4-Chlorophenyl-phenylether	10	U	
86-73-7-----	Fluorene	10	U	
100-01-6-----	4-Nitroaniline	25	U	
534-52-1-----	4,6-Dinitro-2-methylphenol	25	U	
86-30-6-----	N-Nitrosodiphenylamine (1)	10	U	
101-55-3-----	4-Bromophenyl-phenylether	10	U	
118-74-1-----	Hexachlorobenzene	10	U	
87-86-5-----	Pentachlorophenol	25	U	
85-01-8-----	Phenanthrene	10	U	
120-12-7-----	Anthracene	10	U	
86-74-8-----	Carbazole	10	U	
84-74-2-----	Di-n-Butylphthalate	10	U	
206-44-0-----	Fluoranthene	10	U	
129-00-0-----	Pyrene	10	U	
85-68-7-----	Butylbenzylphthalate	10	U	
91-94-1-----	3,3'-Dichlorobenzidine	10	U	
56-55-3-----	Benzo(a)Anthracene	10	U	
218-01-9-----	Chrysene	10	U	
117-81-7-----	bis(2-Ethylhexyl) Phthalate	2	BJ	
117-84-0-----	Di-n-Octyl Phthalate	10	U	
205-99-2-----	Benzo(b)Fluoranthene	10	U	
207-08-9-----	Benzo(k)Fluoranthene	10	U	
50-32-8-----	Benzo(a)Pyrene	10	U	
193-39-5-----	Indeno(1,2,3-cd)Pyrene	10	U	
53-70-3-----	Dibenz(a,h)Anthracene	10	U	
191-24-2-----	Benzo(g,h,i)Perylene	10	U	

(1) - Cannot be separated from Diphenylamine

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-9S

Name: E & E INC.

Contract:

Lab Code: EANDE

Case No.: 863

SAS No.:

SDG No.: DR-1

Matrix: (soil/water) WATER

Lab Sample ID: 69868

Sample wt/vol: 1000 (g/mL) ML

Lab File ID:

% Moisture: decanted: (Y/N)

Date Received: 08/25/93

Extraction: (SepF/Cont/Sonc) SEPF

Date Extracted: 08/30/93

Concentrated Extract Volume: 10000 (uL)

Date Analyzed: 09/14/93

Injection Volume: 2.00 (uL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 7.3

Sulfur Cleanup: (Y/N) Y

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/L	Q
---------	----------	-----------------	------	---

319-84-6-----	alpha-BHC	0.050	U
319-85-7-----	beta-BHC	0.050	U
319-86-8-----	delta-BHC	0.050	U
58-89-9-----	gamma-BHC (Lindane)	0.050	U
76-44-8-----	Heptachlor	0.050	U
309-00-2-----	Aldrin	0.050	U
1024-57-3-----	Heptachlor epoxide	0.050	U
959-98-8-----	Endosulfan I	0.050	U
60-57-1-----	Dieldrin	0.10	U
72-55-9-----	4,4'-DDE	0.10	U
72-20-8-----	Endrin	0.10	U
33213-65-9-----	Endosulfan II	0.10	U
72-54-8-----	4,4'-DDD	0.10	U
1031-07-8-----	Endosulfan sulfate	0.10	U
50-29-3-----	4,4'-DDT	0.10	U
72-43-5-----	Methoxychlor	0.50	U
53494-70-5-----	Endrin ketone	0.10	U
7421-93-4-----	Endrin aldehyde	0.10	U
5103-71-9-----	alpha-Chlordane	0.050	U
5103-74-2-----	gamma-Chlordane	0.050	U
8001-35-2-----	Toxaphene	5.0	U
12674-11-2-----	Aroclor-1016	1.0	U
11104-28-2-----	Aroclor-1221	2.0	U
11141-16-5-----	Aroclor-1232	1.0	U
53469-21-9-----	Aroclor-1242	1.0	U
12672-29-6-----	Aroclor-1248	1.0	U
11097-69-1-----	Aroclor-1254	1.0	U
11096-82-5-----	Aroclor-1260	1.0	U

1
INORGANIC ANALYSES DATA SHEET

DEC SAMPLE NO.

MW-9S

Lab Name: ECOLOGY AND ENVIRONMENT Contract: _____

Lab Code: EANDE Case No.: 9301.863 SAS No.: _____ SDG No.: DR-3

Matrix (soil/water): WATER

Lab Sample ID: 69868

Level (low/med): LOW

Date Received: 08/25/93

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	238			P
7440-36-0	Antimony	37.0	U		P
7440-38-2	Arsenic	1.0	U	W	F
7440-39-3	Barium	75.8	B		P
7440-41-7	Beryllium	0.23	U		P
7440-43-9	Cadmium	2.7	U		P
7440-70-2	Calcium	77500		E	P
7440-47-3	Chromium	5.3	U		P
7440-48-4	Cobalt	6.6	U		P
7440-50-8	Copper	2.8	B		P
7439-89-6	Iron	770			P
7439-92-1	Lead	1.0	U		F
7439-95-4	Magnesium	29300			P
7439-96-5	Manganese	43.3		E	P
7439-97-6	Mercury	0.20	U	N	CV
7440-02-0	Nickel	7.5	U		P
7440-09-7	Potassium	3250	B		P
7782-49-2	Selenium	1.0	U	WN	F
7440-22-4	Silver	2.5	U		P
7440-23-5	Sodium	199000		E	P
7440-28-0	Thallium	1.0	U	W	F
7440-62-2	Vanadium	3.3	U		P
7440-66-6	Zinc	10.5	B		P
	Cyanide	10.0	U		AS

Color Before: CL _____ Clarity Before: C _____ , Texture: _____

Color After: CL _____ Clarity After: C _____ Artifacts: _____

Comments:

FORM I - IN

ILMO2.1

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VOLATILE ORGANICS ANALYSIS DATA SHEET

MW-9D

Lab Name: E & E INC.

Contract:

Code: EANDE

Case No.: 863

SAS No.:

SDG No.: DR-3

Matrix: (soil/water) WATER

Lab Sample ID: 70128

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: F3160

Level: (low/med) LOW

Date Received: 08/26/93

% Moisture: not dec.

Date Analyzed: 08/31/93

GC Column: VOCOL ID: 0.530 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

Q

CAS NO.	COMPOUND			
74-87-3-----	Chloromethane	10	U	
74-83-9-----	Bromomethane	10	U	
75-01-4-----	Vinyl Chloride	10	U	
75-00-3-----	Chloroethane	10	U	
75-09-2-----	Methylene Chloride	10	U	
67-64-1-----	Acetone	10	U	
75-15-0-----	Carbon Disulfide	2	J	
75-35-4-----	1,1-Dichloroethene	10	U	
75-34-3-----	1,1-Dichloroethane	7	J	
540-59-0-----	1,2-Dichloroethene (total)	36		
67-66-3-----	Chloroform	10	U	
107-06-2-----	1,2-Dichloroethane	10	U	
78-93-3-----	2-Butanone	10	U	
71-55-6-----	1,1,1-Trichloroethane	10	U	
56-23-5-----	Carbon Tetrachloride	10	U	
75-27-4-----	Bromodichloromethane	10	U	
78-87-5-----	1,2-Dichloropropane	10	U	
10061-01-5-----	cis-1,3-Dichloropropene	10	U	
79-01-6-----	Trichloroethene	14		
124-48-1-----	Dibromochloromethane	10	U	
79-00-5-----	1,1,2-Trichloroethane	10	U	
71-43-2-----	Benzene	10	U	
10061-02-6-----	trans-1,3-Dichloropropene	10	U	
75-25-2-----	Bromoform	10	U	
108-10-1-----	4-Methyl-2-Pentanone	10	U	
591-78-6-----	2-Hexanone	10	U	
127-18-4-----	Tetrachloroethene	10	U	
79-34-5-----	1,1,2,2-Tetrachloroethane	10	U	
108-88-3-----	Toluene	3	J	
108-90-7-----	Chlorobenzene	10	U	
100-41-4-----	Ethylbenzene	10	U	
100-42-5-----	Styrene	10	U	
1330-20-7-----	Xylene (total)	2	J	

FORM I VOA

3/90

SEMICVOLATILE ORGANICS ANALYSIS DATA SHEET

MW-9D

Lab Name: E & E INC.

Contract:

Lab Code: EANDE

Case No.: 863

SAS No.:

SDG No.: DR-3

Matrix: (soil/water) WATER

Lab Sample ID: 70128

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: E4799

Level: (low/med) LOW

Date Received: 08/26/93

% Moisture: decanted: (Y/N)

Date Extracted: 08/31/93

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 09/08/93

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.2

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L Q

CAS NO.	COMPOUND			
108-95-2-----	Phenol	10	U	
111-44-4-----	bis(2-Chloroethyl)Ether	10	U	
95-57-8-----	2-Chlorophenol	10	U	
541-73-1-----	1,3-Dichlorobenzene	10	U	
106-46-7-----	1,4-Dichlorobenzene	10	U	
95-50-1-----	1,2-Dichlorobenzene	10	U	
95-48-7-----	2-Methylphenol	10	U	
108-60-1-----	2,2'-oxybis(1-Chloropropane)	10	U	
106-44-5-----	4-Methylphenol	10	U	
621-64-7-----	N-Nitroso-Di-n-Propylamine	10	U	
67-72-1-----	Hexachloroethane	10	U	
98-95-3-----	Nitrobenzene	10	U	
78-59-1-----	Isophorone	10	U	
88-75-5-----	2-Nitrophenol	10	U	
105-67-9-----	2,4-Dimethylphenol	10	U	
111-91-1-----	bis(2-Chloroethoxy)Methane	10	U	
120-83-2-----	2,4-Dichlorophenol	10	U	
120-82-1-----	1,2,4-Trichlorobenzene	10	U	
91-20-3-----	Naphthalene	10	U	
106-47-8-----	4-Chloroaniline	10	U	
87-68-3-----	Hexachlorobutadiene	10	U	
59-50-7-----	4-Chloro-3-Methylphenol	10	U	
91-57-6-----	2-Methylnaphthalene	10	U	
77-47-4-----	Hexachlorocyclopentadiene	10	U	
88-06-2-----	2,4,6-Trichlorophenol	10	U	
95-95-4-----	2,4,5-Trichlorophenol	25	U	
91-58-7-----	2-Chloronaphthalene	10	U	
88-74-4-----	2-Nitroaniline	25	U	
131-11-3-----	Dimethylphthalate	10	U	
208-96-8-----	Acenaphthylene	10	U	
606-20-2-----	2,6-Dinitrotoluene	10	U	
99-09-2-----	3-Nitroaniline	25	U	
83-32-9-----	Acenaphthene	10	U	

FORM I SV-1

3/90

SEMICVOLATILE ORGANICS ANALYSIS DATA SHEET

MW-9D

Lab Name: E & E INC.

Contract:

Lab Code: EANDE

Case No.: 863

SAS No.:

SDG No.: DR-3

Matrix: (soil/water) WATER

Lab Sample ID: 70128

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: E4799

Level: (low/med) LOW

Date Received: 08/26/93

% Moisture: decanted: (Y/N)

Date Extracted: 08/31/93

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 09/08/93

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.2

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Q

CAS NO.	COMPOUND		
51-28-5-----	2,4-Dinitrophenol	25	U
100-02-7-----	4-Nitrophenol	25	U
132-64-9-----	Dibenzofuran	10	U
121-14-2-----	2,4-Dinitrotoluene	10	U
84-66-2-----	Diethylphthalate	10	U
7005-72-3-----	4-Chlorophenyl-phenylether	10	U
86-73-7-----	Fluorene	10	U
100-01-6-----	4-Nitroaniline	25	U
534-52-1-----	4,6-Dinitro-2-methylphenol	25	U
86-30-6-----	N-Nitrosodiphenylamine (1)	10	U
101-55-3-----	4-Bromophenyl-phenylether	10	U
118-74-1-----	Hexachlorobenzene	10	U
87-86-5-----	Pentachlorophenol	25	U
85-01-8-----	Phenanthrene	10	U
120-12-7-----	Anthracene	10	U
86-74-8-----	Carbazole	10	U
84-74-2-----	Di-n-Butylphthalate	10	U
206-44-0-----	Fluoranthene	10	U
129-00-0-----	Pyrene	10	U
85-68-7-----	Butylbenzylphthalate	10	U
91-94-1-----	3,3'-Dichlorobenzidine	10	U
56-55-3-----	Benzo(a)Anthracene	10	U
218-01-9-----	Chrysene	10	U
117-81-7-----	bis(2-Ethylhexyl)Phthalate	3	BJ
117-84-0-----	Di-n-Octyl Phthalate	10	U
205-99-2-----	Benzo(b)Fluoranthene	10	U
207-08-9-----	Benzo(k)Fluoranthene	10	U
50-32-8-----	Benzo(a)Pyrene	10	U
193-39-5-----	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3-----	Dibenz(a,h)Anthracene	10	U
191-24-2-----	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

FORM I SV-2

3/90

A-91

852

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: E & E INC.

Contract:

MW-9D

Lab Code: EANDE Case No.: 863 SAS No.: SDG No.: DR-1

Matrix: (soil/water) WATER Lab Sample ID: 70128

Sample wt/vol: 1000 (g/mL) ML Lab File ID:

% Moisture: decanted: (Y/N) Date Received: 08/26/93

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 08/31/93

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 09/14/93

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 7.2 Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L Q	
319-84-6-----	alpha-BHC	0.050	U
319-85-7-----	beta-BHC	0.050	U
319-86-8-----	delta-BHC	0.050	U
58-89-9-----	gamma-BHC (Lindane)	0.050	U
76-44-8-----	Heptachlor	0.050	U
309-00-2-----	Aldrin	0.050	U
1024-57-3-----	Heptachlor epoxide	0.050	U
959-98-8-----	Endosulfan I	0.050	U
60-57-1-----	Dieldrin	0.10	U
72-55-9-----	4,4'-DDE	0.10	U
72-20-8-----	Endrin	0.10	U
33213-65-9-----	Endosulfan II	0.10	U
72-54-8-----	4,4'-DDD	0.10	U
1031-07-8-----	Endosulfan sulfate	0.10	U
50-29-3-----	4,4'-DDT	0.10	U
72-43-5-----	Methoxychlor	0.50	U
53494-70-5-----	Endrin ketone	0.10	U
7421-93-4-----	Endrin aldehyde	0.10	U
5103-71-9-----	alpha-Chlordane	0.050	U
5103-74-2-----	gamma-Chlordane	0.050	U
8001-35-2-----	Toxaphene	5.0	U
12674-11-2-----	Aroclor-1016	1.0	U
11104-28-2-----	Aroclor-1221	2.0	U
11141-16-5-----	Aroclor-1232	1.0	U
53469-21-9-----	Aroclor-1242	1.0	U
12672-29-6-----	Aroclor-1248	1.0	U
11097-69-1-----	Aroclor-1254	1.0	U
11096-82-5-----	Aroclor-1260	1.0	U

INORGANIC ANALYSES DATA SHEET

1

DEC SAMPLE NO.

MW-9D

Name: ECOLOGY AND ENVIRONMENT Contract: _____

Lab Code: EANDE Case No.: 9301.863 SAS No.: _____ SDG No.: DR-3

Matrix (soil/water): WATER Lab Sample ID: 70128

Level (low/med): LOW Date Received: 08/26/93

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	396	-		P
7440-36-0	Antimony	52.2	B		P
7440-38-2	Arsenic	1.0	U	W	F
7440-39-3	Barium	28.5	B		P
7440-41-7	Beryllium	0.23	U		P
7440-43-9	Cadmium	2.7	U		P
7440-70-2	Calcium	661000	E		P
7440-47-3	Chromium	5.3	U		P
7440-48-4	Cobalt	6.6	U		P
7440-50-8	Copper	1.8	U		P
7439-89-6	Iron	269			P
7439-92-1	Lead	10.0	U		F
7439-95-4	Magnesium	131000			P
7439-96-5	Manganese	13.2	B	E	P
7439-97-6	Mercury	0.20	U	N	CV
7440-02-0	Nickel	7.5	U		P
7440-09-7	Potassium	43500			P
7782-49-2	Selenium	10.0	U	WN	F
7440-22-4	Silver	2.5	U		P
7440-23-5	Sodium	2620000	E		P
7440-28-0	Thallium	1.0	U	W	F
7440-62-2	Vanadium	3.3	U		P
7440-66-6	Zinc	29.4			P
	Cyanide	10.0	U		AS

Color Before: CL _____ Clarity Before: C _____ , Texture: _____

Color After: CL _____ Clarity After: C _____ Artifacts: _____

Comments:

FORM I - IN

ILMO2.1

VOLATILE ORGANICS ANALYSIS DATA SHEET

MW-10S

Lab Name: E & E INC.

Contract:

Lab Code: EANDE

Case No.: 863

SAS No.:

SDG No.: DR-3

Matrix: (soil/water) WATER

Lab Sample ID: 69869

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: C1974

Level: (low/med) LOW

Date Received: 08/25/93

% Moisture: not dec.

Date Analyzed: 08/27/93

GC Column: VOCOL ID: 0.530 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Q

CAS NO.	COMPOUND		
74-87-3-----	Chloromethane	10	U
74-83-9-----	Bromomethane	10	U
75-01-4-----	Vinyl Chloride	320	E
75-00-3-----	Chloroethane	10	U
75-09-2-----	Methylene Chloride	4	BJ
67-64-1-----	Acetone	3	J
75-15-0-----	Carbon Disulfide	10	U
75-35-4-----	1,1-Dichloroethene	53	
75-34-3-----	1,1-Dichloroethane	3500	E
540-59-0-----	1,2-Dichloroethene (total)	260	E
67-66-3-----	Chloroform	10	U
107-06-2-----	1,2-Dichloroethane	79	
78-93-3-----	2-Butanone	10	U
71-55-6-----	1,1,1-Trichloroethane	2000	E
56-23-5-----	Carbon Tetrachloride	10	U
75-27-4-----	Bromodichloromethane	10	U
78-87-5-----	1,2-Dichloropropane	10	U
10061-01-5-----	cis-1,3-Dichloropropene	10	U
79-01-6-----	Trichloroethene	41	
124-48-1-----	Dibromochloromethane	10	U
79-00-5-----	1,1,2-Trichloroethane	10	U
71-43-2-----	Benzene	7	J
10061-02-6-----	trans-1,3-Dichloropropene	10	U
75-25-2-----	Bromoform	10	U
108-10-1-----	4-Methyl-2-Pentanone	10	U
591-78-6-----	2-Hexanone	10	U
127-18-4-----	Tetrachloroethene	10	U
79-34-5-----	1,1,2,2-Tetrachloroethane	10	U
108-88-3-----	Toluene	300	E
108-90-7-----	Chlorobenzene	10	U
100-41-4-----	Ethylbenzene	2	J
100-42-5-----	Styrene	10	U
1330-20-7-----	Xylene (total)	5	J

FORM I VOA

3/90

VOLATILE ORGANICS ANALYSIS DATA SHEET

MW-10SDL

Lab Name: E & E INC.

Contract:

Code: EANDE

Case No.: 863

SAS No.:

SDG No.: DR-3

Matrix: (soil/water) WATER

Lab Sample ID: 69869DL

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: F3132

Level: (low/med) LOW

Date Received: 08/25/93

% Moisture: not dec.

Date Analyzed: 08/30/93

GC Column: VOCOL ID: 0.530 (mm)

Dilution Factor: 20.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.

COMPOUND

(ug/L or ug/Kg) UG/L

Q

74-87-3-----	Chloromethane	200	U
74-83-9-----	Bromomethane	200	U
75-01-4-----	Vinyl Chloride	130	DJ
75-00-3-----	Chloroethane	200	U
75-09-2-----	Methylene Chloride	87	BDJ
67-64-1-----	Acetone	200	U
75-15-0-----	Carbon Disulfide	21	DJ
75-35-4-----	1,1-Dichloroethene	38	DJ
75-34-3-----	1,1-Dichloroethane	2700	D
540-59-0-----	1,2-Dichloroethene (total)	190	DJ
67-66-3-----	Chloroform	200	U
107-06-2-----	1,2-Dichloroethane	66	DJ
78-93-3-----	2-Butanone	200	U
71-55-6-----	1,1,1-Trichloroethane	2100	D
56-23-5-----	Carbon Tetrachloride	200	U
75-27-4-----	Bromodichloromethane	200	U
78-87-5-----	1,2-Dichloropropane	200	U
10061-01-5-----	cis-1,3-Dichloropropene	200	U
79-01-6-----	Trichloroethene	29	DJ
124-48-1-----	Dibromochloromethane	200	U
79-00-5-----	1,1,2-Trichloroethane	200	U
71-43-2-----	Benzene	200	U
10061-02-6-----	trans-1,3-Dichloropropene	200	U
75-25-2-----	Bromoform	200	U
108-10-1-----	4-Methyl-2-Pentanone	200	U
591-78-6-----	2-Hexanone	200	U
127-18-4-----	Tetrachloroethene	200	U
79-34-5-----	1,1,2,2-Tetrachloroethane	200	U
108-88-3-----	Toluene	190	DJ
108-90-7-----	Chlorobenzene	200	U
100-41-4-----	Ethylbenzene	200	U
100-42-5-----	Styrene	200	U
1330-20-7-----	Xylene (total)	200	U

FORM I VOA

3/90

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-10S

Lab Name: E & E INC.

Contract:

Lab Code: EANDE

Case No.: 863

SAS No.:

SDG No.: DR-3

Matrix: (soil/water) WATER

Lab Sample ID: 69869

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: E4723

Level: (low/med) LOW

Date Received: 08/25/93

Moisture: decanted: (Y/N)

Date Extracted: 08/26/93

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 09/02/93

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.6

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Q

CAS NO.	COMPOUND			
108-95-2-----	Phenol	10	U	
111-44-4-----	bis(2-Chloroethyl)Ether	10	U	
95-57-8-----	2-Chlorophenol	10	U	
541-73-1-----	1,3-Dichlorobenzene	10	U	
106-46-7-----	1,4-Dichlorobenzene	10	U	
95-50-1-----	1,2-Dichlorobenzene	10	U	
95-48-7-----	2-Methylphenol	1	J	
108-60-1-----	2,2'-oxybis(1-Chloropropane)	10	U	
106-44-5-----	4-Methylphenol	8	J	
621-64-7-----	N-Nitroso-Di-n-Propylamine	10	U	
67-72-1-----	Hexachloroethane	10	U	
98-95-3-----	Nitrobenzene	10	U	
78-59-1-----	Isophorone	10	U	
88-75-5-----	2-Nitrophenol	10	U	
105-67-9-----	2,4-Dimethylphenol	10	U	
111-91-1-----	bis(2-Chloroethoxy)Methane	10	U	
120-83-2-----	2,4-Dichlorophenol	10	U	
120-82-1-----	1,2,4-Trichlorobenzene	10	U	
91-20-3-----	Naphthalene	10	U	
106-47-8-----	4-Chloroaniline	10	U	
87-68-3-----	Hexachlorobutadiene	10	U	
59-50-7-----	4-Chloro-3-Methylphenol	10	U	
91-57-6-----	2-Methylnaphthalene	10	U	
77-47-4-----	Hexachlorocyclopentadiene	10	U	
88-06-2-----	2,4,6-Trichlorophenol	10	U	
95-95-4-----	2,4,5-Trichlorophenol	25	U	
91-58-7-----	2-Chloronaphthalene	10	U	
88-74-4-----	2-Nitroaniline	25	U	
131-11-3-----	Dimethylphthalate	10	U	
208-96-8-----	Acenaphthylene	10	U	
606-20-2-----	2,6-Dinitrotoluene	10	U	
99-09-2-----	3-Nitroaniline	25	U	
83-32-9-----	Acenaphthene	10	U	

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

DEC SAMPLE NO.

Lab Name: E & E INC.

Contract:

MW-10S

Lab Code: EANDE

Case No.: 863

SAS No.:

SDG No.: DR-3

Matrix: (soil/water) WATER

Lab Sample ID: 69869

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: E4723

Level: (low/med) LOW

Date Received: 08/25/93

% Moisture: decanted: (Y/N)

Date Extracted: 08/26/93

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 09/02/93

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.6

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

Q

CAS NO.	COMPOUND			
51-28-5-----	2,4-Dinitrophenol	25	U	
100-02-7-----	4-Nitrophenol	25	U	
132-64-9-----	Dibenzofuran	10	U	
121-14-2-----	2,4-Dinitrotoluene	10	U	
84-66-2-----	Diethylphthalate	10	U	
7005-72-3-----	4-Chlorophenyl-phenylether	10	U	
86-73-7-----	Fluorene	10	U	
100-01-6-----	4-Nitroaniline	25	U	
534-52-1-----	4,6-Dinitro-2-methylphenol	25	U	
86-30-6-----	N-Nitrosodiphenylamine (1)	10	U	
101-55-3-----	4-Bromophenyl-phenylether	10	U	
118-74-1-----	Hexachlorobenzene	10	U	
87-86-5-----	Pentachlorophenol	25	U	
85-01-8-----	Phenanthrene	10	U	
120-12-7-----	Anthracene	10	U	
86-74-8-----	Carbazole	10	U	
84-74-2-----	Di-n-Butylphthalate	10	U	
206-44-0-----	Fluoranthene	10	U	
129-00-0-----	Pyrene	10	U	
85-68-7-----	Butylbenzylphthalate	10	U	
91-94-1-----	3,3'-Dichlorobenzidine	10	U	
56-55-3-----	Benzo(a)Anthracene	10	U	
218-01-9-----	Chrysene	10	U	
117-81-7-----	bis(2-Ethylhexyl) Phthalate	1	BJ	
117-84-0-----	Di-n-Octyl Phthalate	10	U	
205-99-2-----	Benzo(b) Fluoranthene	10	U	
207-08-9-----	Benzo(k) Fluoranthene	10	U	
50-32-8-----	Benzo(a) Pyrene	10	U	
193-39-5-----	Indeno(1,2,3-cd) Pyrene	10	U	
53-70-3-----	Dibenz(a,h)Anthracene	10	U	
191-24-2-----	Benzo(g,h,i)Perylene	10	U	

(1) - Cannot be separated from Diphenylamine

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: E & E INC.

Contract:

MW-10S

Lab Code: EANDE Case No.: 863 SAS No.: SDG No.: DR-1

Matrix: (soil/water) WATER Lab Sample ID: 69869

Sample wt/vol: 1000 (g/mL) ML Lab File ID:

% Moisture: decanted: (Y/N) Date Received: 08/25/93

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 08/30/93

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 09/14/93

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 7.6 Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	UG/L	Q
319-84-6-----	alpha-BHC	0.050	U	
319-85-7-----	beta-BHC	0.050	U	
319-86-8-----	delta-BHC	0.050	U	
58-89-9-----	gamma-BHC (Lindane)	0.050	U	
76-44-8-----	Heptachlor	0.050	U	
309-00-2-----	Aldrin	0.050	U	
1024-57-3-----	Heptachlor epoxide	0.050	U	
959-98-8-----	Endosulfan I	0.050	U	
60-57-1-----	Dieldrin	0.10	U	
72-55-9-----	4,4'-DDE	0.10	U	
72-20-8-----	Endrin	0.10	U	
33213-65-9-----	Endosulfan II	0.10	U	
72-54-8-----	4,4'-DDD	0.10	U	
1031-07-8-----	Endosulfan sulfate	0.10	U	
50-29-3-----	4,4'-DDT	0.10	U	
72-43-5-----	Methoxychlor	0.50	U	
53494-70-5-----	Endrin ketone	0.10	U	
7421-93-4-----	Endrin aldehyde	0.10	U	
5103-71-9-----	alpha-Chlordane	0.050	U	
5103-74-2-----	gamma-Chlordane	0.050	U	
8001-35-2-----	Toxaphene	5.0	U	
12674-11-2-----	Aroclor-1016	1.0	U	
11104-28-2-----	Aroclor-1221	2.0	U	
11141-16-5-----	Aroclor-1232	1.0	U	
53469-21-9-----	Aroclor-1242	1.0	U	
12672-29-6-----	Aroclor-1248	1.0	U	
11097-69-1-----	Aroclor-1254	1.0	U	
11096-82-5-----	Aroclor-1260	1.0	U	

1
INORGANIC ANALYSES DATA SHEET

DEC SAMPLE NO.

MW-10S

Name: ECOLOGY AND ENVIRONMENT Contract:

Lab Code: EANDE Case No.: 9301.863 SAS No.: SDG No.: DR-3

Matrix (soil/water): WATER Lab Sample ID: 69869

Level (low/med): LOW Date Received: 08/25/93

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	343			P
7440-36-0	Antimony	37.0	U		P
7440-38-2	Arsenic	6.0	B		F
7440-39-3	Barium	142	B		P
7440-41-7	Beryllium	0.23	U		P
7440-43-9	Cadmium	2.7	U		P
7440-70-2	Calcium	50600		E	P
7440-47-3	Chromium	5.3	U		P
7440-48-4	Cobalt	6.6	U		P
7440-50-8	Copper	1.9	B		P
7439-89-6	Iron	2090			P
7439-92-1	Lead	1.0	U		F
7439-95-4	Magnesium	26800			P
7439-96-5	Manganese	45.3		E	P
7439-97-6	Mercury	0.20	U	N	CV
7440-02-0	Nickel	7.5	U		P
7440-09-7	Potassium	2220	B		P
7782-49-2	Selenium	1.0	U	N	F
7440-22-4	Silver	2.5	U		P
7440-23-5	Sodium	255000		E	P
7440-28-0	Thallium	1.0	U	W	F
7440-62-2	Vanadium	56.0			P
7440-66-6	Zinc	10.9	B		P
	Cyanide	10.0	U		AS

Color Before: CL Clarity Before: C , Texture: _____

Color After: CL Clarity After: C Artifacts: _____

Comments:

FORM I - IN

ILMO2.1

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

DEC SAMPLE NO.

Lab Name: E & E INC.

Contract:

MW-10D

Lab Code: EANDE Case No.: 887 SAS No.: SDG No.: MW-10D

Matrix: (soil/water) WATER Lab Sample ID: 70129

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: F3167

Level: (low/med) LOW Date Received: 08/26/93

% Moisture: not dec. Date Analyzed: 08/31/93

GC Column: VOCOL ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Q

74-87-3-----Chloromethane	10	U
74-83-9-----Bromomethane	10	U
75-01-4-----Vinyl Chloride	10	U
75-00-3-----Chloroethane	10	U
75-09-2-----Methylene Chloride	10	U
67-64-1-----Acetone	10	U
75-15-0-----Carbon Disulfide	10	U
75-35-4-----1,1-Dichloroethene	10	U
75-34-3-----1,1-Dichloroethane	29	
540-59-0-----1,2-Dichloroethene (total)	3	J
67-66-3-----Chloroform	10	U
107-06-2-----1,2-Dichloroethane	10	U
78-93-3-----2-Butanone	10	U
71-55-6-----1,1,1-Trichloroethane	10	U
56-23-5-----Carbon Tetrachloride	10	U
75-27-4-----Bromodichloromethane	10	U
78-87-5-----1,2-Dichloropropane	10	U
10061-01-5-----cis-1,3-Dichloropropene	10	U
79-01-6-----Trichloroethene	10	U
124-48-1-----Dibromochloromethane	10	U
79-00-5-----1,1,2-Trichloroethane	10	U
71-43-2-----Benzene	23	
10061-02-6-----trans-1,3-Dichloropropene	10	U
75-25-2-----Bromoform	10	U
108-10-1-----4-Methyl-2-Pentanone	10	U
591-78-6-----2-Hexanone	10	U
127-18-4-----Tetrachloroethene	10	U
79-34-5-----1,1,2,2-Tetrachloroethane	10	U
108-88-3-----Toluene	22	
108-90-7-----Chlorobenzene	10	U
100-41-4-----Ethylbenzene	10	U
100-42-5-----Styrene	10	U
1330-20-7-----Xylene (total)	12	

1B
SEMICVOLATILE ORGANICS ANALYSIS DATA SHEET

MW-10D

Lab Name: E & E INC.

Contract:

Code: EANDE

Case No.: 887

SAS No.:

SDG No.: MW-10D

Matrix: (soil/water) WATER

Lab Sample ID: 70129

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: E4800

Level: (low/med) LOW

Date Received: 08/26/93

% Moisture: decanted: (Y/N)

Date Extracted: 08/31/93

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 09/08/93

Injection volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.5

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Q

CAS NO.	COMPOUND	UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

FORM I SV-1

3/90

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

MW-10D

Lab Name: E & E INC.

Contract:

Lab Code: EANDE Case No.: 887

SAS No.:

SDG No.: MW-10D

Matrix: (soil/water) WATER

Lab Sample ID: 70129

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: E4800

Level: (low/med) LOW

Date Received: 08/26/93

% Moisture: decanted: (Y/N)

Date Extracted: 08/31/93

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 09/08/93

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.5

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Q

CAS NO.	COMPOUND	UG/L	Q
51-28-5-----	2,4-Dinitrophenol	25	U
100-02-7-----	4-Nitrophenol	25	U
132-64-9-----	Dibenzofuran	10	U
121-14-2-----	2,4-Dinitrotoluene	10	U
84-66-2-----	Diethylphthalate	10	U
7005-72-3-----	4-Chlorophenyl-phenylether	10	U
86-73-7-----	Fluorene	10	U
100-01-6-----	4-Nitroaniline	25	U
534-52-1-----	4,6-Dinitro-2-methylphenol	25	U
86-30-6-----	N-Nitrosodiphenylamine (1)	10	U
101-55-3-----	4-Bromophenyl-phenylether	10	U
118-74-1-----	Hexachlorobenzene	10	U
87-86-5-----	Pentachlorophenol	25	U
85-01-8-----	Phenanthrene	10	U
120-12-7-----	Anthracene	10	U
86-74-8-----	Carbazole	10	U
84-74-2-----	Di-n-Butylphthalate	10	U
206-44-0-----	Fluoranthene	10	U
129-00-0-----	Pyrene	10	U
85-68-7-----	Butylbenzylphthalate	10	U
91-94-1-----	3,3'-Dichlorobenzidine	10	U
56-55-3-----	Benzo(a)Anthracene	10	U
218-01-9-----	Chrysene	10	U
117-81-7-----	bis(2-Ethylhexyl)Phthalate	3	BJ
117-84-0-----	Di-n-Octyl Phthalate	10	U
205-99-2-----	Benzo(b)Fluoranthene	10	U
207-08-9-----	Benzo(k)Fluoranthene	10	U
50-32-8-----	Benzo(a)Pyrene	10	U
193-39-5-----	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3-----	Dibenz(a,h)Anthracene	10	U
191-24-2-----	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Name: E & E INC.

Contract:

MW-10D

Lab Code: EANDE Case No.: 887

SAS No.:

SDG No.: MW-10D

Matrix: (soil/water) WATER

Lab Sample ID: 70129

Sample wt/vol: 1000 (g/mL) ML

Lab File ID:

% Moisture: decanted: (Y/N)

Date Received: 08/26/93

Extraction: (SepF/Cont/Sonc) SEPF

Date Extracted: 08/31/93

Concentrated Extract Volume: 10000 (uL)

Date Analyzed: 09/23/93

Injection Volume: 2.00 (uL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 7.5

Sulfur Cleanup: (Y/N) Y

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/L	Q
319-84-6-----	alpha-BHC	0.050	U	
319-85-7-----	beta-BHC	0.050	U	
319-86-8-----	delta-BHC	0.050	U	
58-89-9-----	gamma-BHC (Lindane)	0.050	U	
76-44-8-----	Heptachlor	0.050	U	
309-00-2-----	Aldrin	0.050	U	
1024-57-3-----	Heptachlor epoxide	0.050	U	
959-98-8-----	Endosulfan I	0.050	U	
60-57-1-----	Dieldrin	0.10	U	
72-55-9-----	4,4'-DDE	0.10	U	
72-20-8-----	Endrin	0.10	U	
33213-65-9-----	Endosulfan II	0.10	U	
72-54-8-----	4,4'-DDD	0.10	U	
1031-07-8-----	Endosulfan sulfate	0.10	U	
50-29-3-----	4,4'-DDT	0.10	U	
72-43-5-----	Methoxychlor	0.50	U	
53494-70-5-----	Endrin ketone	0.10	U	
7421-93-4-----	Endrin aldehyde	0.10	U	
5103-71-9-----	alpha-Chlordane	0.050	U	
5103-74-2-----	gamma-Chlordane	0.050	U	
8001-35-2-----	Toxaphene	5.0	U	
12674-11-2-----	Aroclor-1016	1.0	U	
11104-28-2-----	Aroclor-1221	2.0	U	
11141-16-5-----	Aroclor-1232	1.0	U	
53469-21-9-----	Aroclor-1242	1.0	U	
12672-29-6-----	Aroclor-1248	1.0	U	
11097-69-1-----	Aroclor-1254	1.0	U	
11096-82-5-----	Aroclor-1260	1.0	U	

1
INORGANIC ANALYSES DATA SHEET

DEC SAMPLE NO.

Lab Name: ECOLOGY AND ENVIRONMENT Contract: _____

MW-10D

Lab Code: EANDE Case No.: 9301.863 SAS No.: _____ SDG No.: DR-3

Matrix (soil/water): WATER Lab Sample ID: 70129

Level (low/med): LOW Date Received: 08/26/93

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	478	-		P
7440-36-0	Antimony	37.0	U		P
7440-38-2	Arsenic	1.0	U	W	F
7440-39-3	Barium	33.3	B		P
7440-41-7	Beryllium	0.23	U		P
7440-43-9	Cadmium	2.7	U		P
7440-70-2	Calcium	428000	E		P
7440-47-3	Chromium	5.3	U		P
7440-48-4	Cobalt	6.6	U		P
7440-50-8	Copper	2.1	B		P
7439-89-6	Iron	600			P
7439-92-1	Lead	51.1			F
7439-95-4	Magnesium	137000			P
7439-96-5	Manganese	25.3		E	P
7439-97-6	Mercury	0.20	U	N	CV
7440-02-0	Nickel	7.5	U		P
7440-09-7	Potassium	33600			P
7782-49-2	Selenium	5.0	U	WN	F
7440-22-4	Silver	2.5	U		P
7440-23-5	Sodium	1280000		E	P
7440-28-0	Thallium	1.0	U	W	F
7440-62-2	Vanadium	3.3	U		P
7440-66-6	Zinc	17.5	B		P
	Cyanide	10.0	U		AS

Color Before: CL _____ Clarity Before: CL _____ , Texture: _____

Color After: CL _____ Clarity After: C _____ Artifacts: _____

Comments:

FORM I - IN

ILMO2.1

VOLATILE ORGANICS ANALYSIS DATA SHEET

MW-RIN-8-24

Lab Name: E & E INC.

Contract:

Code: EANDE

Case No.: 863

SAS No.:

SDG No.: DR-3

Matrix: (soil/water) WATER

Lab Sample ID: 69870

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: C1967

Level: (low/med) LOW

Date Received: 08/25/93

% Moisture: not dec.

Date Analyzed: 08/27/93

GC Column: VOCOL ID: 0.530 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

Q

CAS NO.	COMPOUND		
74-87-3-----	Chloromethane	10	U
74-83-9-----	Bromomethane	10	U
75-01-4-----	Vinyl Chloride	10	U
75-00-3-----	Chloroethane	10	U
75-09-2-----	Methylene Chloride	10	U
67-64-1-----	Acetone	10	U
75-15-0-----	Carbon Disulfide	10	U
75-35-4-----	1,1-Dichloroethene	10	U
75-34-3-----	1,1-Dichloroethane	10	U
540-59-0-----	1,2-Dichloroethene (total)	10	U
67-66-3-----	Chloroform	10	U
107-06-2-----	1,2-Dichloroethane	10	U
78-93-3-----	2-Butanone	10	U
71-55-6-----	1,1,1-Trichloroethane	10	U
56-23-5-----	Carbon Tetrachloride	10	U
75-27-4-----	Bromodichloromethane	10	U
78-87-5-----	1,2-Dichloropropane	10	U
10061-01-5-----	cis-1,3-Dichloropropene	10	U
79-01-6-----	Trichloroethene	10	U
124-48-1-----	Dibromochloromethane	10	U
79-00-5-----	1,1,2-Trichloroethane	10	U
71-43-2-----	Benzene	10	U
10061-02-6-----	trans-1,3-Dichloropropene	10	U
75-25-2-----	Bromoform	10	U
108-10-1-----	4-Methyl-2-Pentanone	10	U
591-78-6-----	2-Hexanone	10	U
127-18-4-----	Tetrachloroethene	10	U
79-34-5-----	1,1,2,2-Tetrachloroethane	10	U
108-88-3-----	Toluene	10	U
108-90-7-----	Chlorobenzene	10	U
100-41-4-----	Ethylbenzene	10	U
100-42-5-----	Styrene	10	U
1330-20-7-----	Xylene (total)	10	U

FORM I VOA

3/90

A-105

353

SEMICVOLATILE ORGANICS ANALYSIS DATA SHEET

MW-RIN-8-24
 MW RING 24
GF/21/93

Lab Name: E & E INC.

Contract:

Lab Code: EANDE

Case No.: 863

SAS No.:

SDG No.: DR-3

Matrix: (soil/water) WATER

Lab Sample ID: 69870

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: E4724

Level: (low/med) LOW

Date Received: 08/25/93

% Moisture: decanted: (Y/N)

Date Extracted: 08/26/93

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 09/02/93

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 6.1

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L Q

CAS NO.	COMPOUND	UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

SEMICVOLATILE ORGANICS ANALYSIS DATA SHEET

MW-RIN-8-24
MW-RIN8-24
GF 12/21/93

Lab Name: E & E INC.

Contract:

Lab Code: EANDE Case No.: 863

SAS No.:

SDG No.: DR-3

Matrix: (soil/water) WATER

Lab Sample ID: 69870

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: E4724

Level: (low/med) LOW

Date Received: 08/25/93

% Moisture: decanted: (Y/N)

Date Extracted: 08/26/93

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 09/02/93

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 6.1

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L Q

CAS NO.	COMPOUND	UG/L	Q
51-28-5-----	2,4-Dinitrophenol	25	U
100-02-7-----	4-Nitrophenol	25	U
132-64-9-----	Dibenzofuran	10	U
121-14-2-----	2,4-Dinitrotoluene	10	U
84-66-2-----	Diethylphthalate	10	U
7005-72-3-----	4-Chlorophenyl-phenylether	10	U
86-73-7-----	Fluorene	10	U
100-01-6-----	4-Nitroaniline	25	U
534-52-1-----	4,6-Dinitro-2-methylphenol	25	U
86-30-6-----	N-Nitrosodiphenylamine (1)	10	U
101-55-3-----	4-Bromophenyl-phenylether	10	U
118-74-1-----	Hexachlorobenzene	10	U
87-86-5-----	Pentachlorophenol	25	U
85-01-8-----	Phenanthrene	10	U
120-12-7-----	Anthracene	10	U
86-74-8-----	Carbazole	10	U
84-74-2-----	Di-n-Butylphthalate	10	U
206-44-0-----	Fluoranthene	10	U
129-00-0-----	Pyrene	10	U
85-68-7-----	Butylbenzylphthalate	10	U
91-94-1-----	3,3'-Dichlorobenzidine	10	U
56-55-3-----	Benzo(a)Anthracene	10	U
218-01-9-----	Chrysene	10	U
117-81-7-----	bis(2-Ethylhexyl)Phthalate	2	BJ
117-84-0-----	Di-n-Octyl Phthalate	10	U
205-99-2-----	Benzo(b)Fluoranthene	10	U
207-08-9-----	Benzo(k)Fluoranthene	10	U
50-32-8-----	Benzo(a)Pyrene	10	U
193-39-5-----	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3-----	Dibenz(a,h)Anthracene	10	U
191-24-2-----	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

MW-RIN-8-24RE
MW-RIN-8-24RE
GT-13/21/93

Lab Name: E & E INC.

Contract:

Lab Code: EANDE

Case No.: 863

SAS No.:

SDG No.: DR-3

Matrix: (soil/water) WATER

Lab Sample ID: 69870RE

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: E4728

Level: (low/med) LOW

Date Received: 08/25/93

% Moisture: decanted: (Y/N)

Date Extracted: 08/26/93

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/02/93

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 6.1

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L Q

CAS NO.	COMPOUND	UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

FORM I SV-1

3/90

SEMICVOLATILE ORGANICS ANALYSIS DATA SHEET

MW-RIN-8-24-RE
 MW RING 24RE
GF 12/21/93

Lab Name: E & E INC.

Contract:

Lab Code: EANDE

Case No.: 863

SAS No.:

SDG No.: DR-3

Matrix: (soil/water) WATER

Lab Sample ID: 69870RE

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: E4728

Level: (low/med) LOW

Date Received: 08/25/93

% Moisture: decanted: (Y/N)

Date Extracted: 08/26/93

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 09/02/93

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 6.1

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Q

CAS NO.	COMPOUND	UG/L	Q
51-28-5-----	2,4-Dinitrophenol	25	U
100-02-7-----	4-Nitrophenol	25	U
132-64-9-----	Dibenzofuran	10	U
121-14-2-----	2,4-Dinitrotoluene	10	U
84-66-2-----	Diethylphthalate	10	U
7005-72-3-----	4-Chlorophenyl-phenylether	10	U
86-73-7-----	Fluorene	10	U
100-01-6-----	4-Nitroaniline	25	U
534-52-1-----	4,6-Dinitro-2-methylphenol	25	U
86-30-6-----	N-Nitrosodiphenylamine (1)	10	U
101-55-3-----	4-Bromophenyl-phenylether	10	U
118-74-1-----	Hexachlorobenzene	10	U
87-86-5-----	Pentachlorophenol	25	U
85-01-8-----	Phenanthrene	10	U
120-12-7-----	Anthracene	10	U
86-74-8-----	Carbazole	10	U
84-74-2-----	Di-n-Butylphthalate	10	U
206-44-0-----	Fluoranthene	10	U
129-00-0-----	Pyrene	10	U
85-68-7-----	Butylbenzylphthalate	10	U
91-94-1-----	3,3'-Dichlorobenzidine	10	U
56-55-3-----	Benzo(a)Anthracene	10	U
218-01-9-----	Chrysene	10	U
117-81-7-----	bis(2-Ethylhexyl)Phthalate	2	BJ
117-84-0-----	Di-n-Octyl Phthalate	10	U
205-99-2-----	Benzo(b)Fluoranthene	10	U
207-08-9-----	Benzo(k)Fluoranthene	10	U
50-32-8-----	Benzo(a)Pyrene	10	U
193-39-5-----	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3-----	Dibenz(a,h)Anthracene	10	U
191-24-2-----	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: E & E INC.

Contract:

RMW-RIN-8-24
ML RIN824
GF 12/21/93

Lab Code: EANDE Case No.: 863 SAS No.: SDG No.: DR-1

Matrix: (soil/water) WATER Lab Sample ID: 69870

Sample wt/vol: 1000 (g/mL) ML Lab File ID:

% Moisture: decanted: (Y/N) Date Received: 08/25/93

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 08/30/93

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 09/14/93

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 6.1 Sulfur Cleanup: (Y/N) Y

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

Q

CAS NO.	COMPOUND		
319-84-6-----	alpha-BHC	0.050	U
319-85-7-----	beta-BHC	0.050	U
319-86-8-----	delta-BHC	0.050	U
58-89-9-----	gamma-BHC (Lindane)	0.050	U
76-44-8-----	Heptachlor	0.050	U
309-00-2-----	Aldrin	0.050	U
1024-57-3-----	Heptachlor epoxide	0.050	U
959-98-8-----	Endosulfan I	0.050	U
60-57-1-----	Dieldrin	0.10	U
72-55-9-----	4,4'-DDE	0.10	U
72-20-8-----	Endrin	0.10	U
33213-65-9-----	Endosulfan II	0.10	U
72-54-8-----	4,4'-DDD	0.10	U
1031-07-8-----	Endosulfan sulfate	0.10	U
50-29-3-----	4,4'-DDT	0.10	U
72-43-5-----	Methoxychlor	0.50	U
53494-70-5-----	Endrin ketone	0.10	U
7421-93-4-----	Endrin aldehyde	0.10	U
5103-71-9-----	alpha-Chlordane	0.050	U
5103-74-2-----	gamma-Chlordane	0.050	U
8001-35-2-----	Toxaphene	5.0	U
12674-11-2-----	Aroclor-1016	1.0	U
11104-28-2-----	Aroclor-1221	2.0	U
11141-16-5-----	Aroclor-1232	1.0	U
53469-21-9-----	Aroclor-1242	1.0	U
12672-29-6-----	Aroclor-1248	1.0	U
11097-69-1-----	Aroclor-1254	1.0	U
11096-82-5-----	Aroclor-1260	1.0	U

1
INORGANIC ANALYSES DATA SHEET

DEC SAMPLE NO.

MW-RIN-8-24
MHR024
GF 12/21/93

Lab Name: ECOLOGY AND ENVIRONMENT Contract: _____

Lab Code: EANDE Case No.: 9301.863 SAS No.: _____ SDG No.: DR-3

Matrix (soil/water): WATER Lab Sample ID: 69870

Level (low/med): LOW Date Received: 08/25/93

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	9.8	U		P
7440-36-0	Antimony	37.0	U		P
7440-38-2	Arsenic	1.0	U		F
7440-39-3	Barium	19.0	U		P
7440-41-7	Beryllium	0.23	U		P
7440-43-9	Cadmium	2.7	U		P
7440-70-2	Calcium	255	U	E	P
7440-47-3	Chromium	5.3	U		P
7440-48-4	Cobalt	6.6	U		P
7440-50-8	Copper	2.2	B		P
7439-89-6	Iron	18.3	B		P
7439-92-1	Lead	1.0	U		F
7439-95-4	Magnesium	143	U		P
7439-96-5	Manganese	0.90	U	E	P
7439-97-6	Mercury	0.20	U	N	CV
7440-02-0	Nickel	7.5	U		P
7440-09-7	Potassium	495	U		P
7782-49-2	Selenium	1.0	U	N	F
7440-22-4	Silver	2.5	U		P
7440-23-5	Sodium	608	U	E	P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	3.3	U		P
7440-66-6	Zinc	6.3	B		P
	Cyanide	10.0	U		AS

Color Before: CL _____ Clarity Before: C _____ , Texture: _____

Color After: CL _____ Clarity After: C _____ Artifacts: _____

Comments:

FORM I - IN

ILMO2.1

VOLATILE ORGANICS ANALYSIS DATA SHEET

MW-TB-8-24

Lab Name: E & E INC.

Contract:

Lab Code: EANDE

Case No.: 863

SAS No.:

SDG No.: DR-3

Matrix: (soil/water) WATER

Lab Sample ID: 69871

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: C1968

Level: (low/med) LOW

Date Received: 08/25/93

% Moisture: not dec.

Date Analyzed: 08/27/93

GC Column: VOCOL ID: 0.530 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Q

CAS NO.	COMPOUND			
74-87-3-----	Chloromethane	10	U	
74-83-9-----	Bromomethane	10	U	
75-01-4-----	Vinyl Chloride	10	U	
75-00-3-----	Chloroethane	10	U	
75-09-2-----	Methylene Chloride	2	BJ	
67-64-1-----	Acetone	7	J	
75-15-0-----	Carbon Disulfide	10	U	
75-35-4-----	1,1-Dichloroethene	10	U	
75-34-3-----	1,1-Dichloroethane	10	U	
540-59-0-----	1,2-Dichloroethene (total)	10	U	
67-66-3-----	Chloroform	10	U	
107-06-2-----	1,2-Dichloroethane	10	U	
78-93-3-----	2-Butanone	10	U	
71-55-6-----	1,1,1-Trichloroethane	10	U	
56-23-5-----	Carbon Tetrachloride	10	U	
75-27-4-----	Bromodichloromethane	10	U	
78-87-5-----	1,2-Dichloropropane	10	U	
10061-01-5-----	cis-1,3-Dichloropropene	10	U	
79-01-6-----	Trichloroethene	10	U	
124-48-1-----	Dibromochloromethane	10	U	
79-00-5-----	1,1,2-Trichloroethane	10	U	
71-43-2-----	Benzene	10	U	
10061-02-6-----	trans-1,3-Dichloropropene	10	U	
75-25-2-----	Bromoform	10	U	
108-10-1-----	4-Methyl-2-Pentanone	10	U	
591-78-6-----	2-Hexanone	10	U	
127-18-4-----	Tetrachloroethene	10	U	
79-34-5-----	1,1,2,2-Tetrachloroethane	10	U	
108-88-3-----	Toluene	10	U	
108-90-7-----	Chlorobenzene	10	U	
100-41-4-----	Ethylbenzene	10	U	
100-42-5-----	Styrene	10	U	
1330-20-7-----	Xylene (total)	10	U	

FORM I VOA

3/90

A-112

358

VOLATILE ORGANICS ANALYSIS DATA SHEET

MW-TB-8-25

Lab Name: E & E INC.

Contract:

Lab Code: EANDE

Case No.: 863

SAS No.:

SDG No.: DR-3

Matrix: (soil/water) WATER

Lab Sample ID: 69964

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: F3204

Level: (low/med) LOW

Date Received: 08/25/93

% Moisture: not dec.

Date Analyzed: 09/01/93

GC Column: VOCOL ID: 0.530 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

Q

74-87-3-----Chloromethane	10	U
74-83-9-----Bromomethane	10	U
75-01-4-----Vinyl Chloride	10	U
75-00-3-----Chloroethane	10	U
75-09-2-----Methylene Chloride	1	BJ
67-64-1-----Acetone	4	J
75-15-0-----Carbon Disulfide	10	U
75-35-4-----1,1-Dichloroethene	10	U
75-34-3-----1,1-Dichloroethane	10	U
540-59-0-----1,2-Dichloroethene (total)	10	U
67-66-3-----Chloroform	10	U
107-06-2-----1,2-Dichloroethane	10	U
78-93-3-----2-Butanone	10	U
71-55-6-----1,1,1-Trichloroethane	10	U
56-23-5-----Carbon Tetrachloride	10	U
75-27-4-----Bromodichloromethane	10	U
78-87-5-----1,2-Dichloropropane	10	U
10061-01-5-----cis-1,3-Dichloropropene	10	U
79-01-6-----Trichloroethene	10	U
124-48-1-----Dibromochloromethane	10	U
79-00-5-----1,1,2-Trichloroethane	10	U
71-43-2-----Benzene	10	U
10061-02-6-----trans-1,3-Dichloropropene	10	U
75-25-2-----Bromoform	10	U
108-10-1-----4-Methyl-2-Pentanone	10	U
591-78-6-----2-Hexanone	10	U
127-18-4-----Tetrachloroethene	10	U
79-34-5-----1,1,2,2-Tetrachloroethane	10	U
108-88-3-----Toluene	10	U
108-90-7-----Chlorobenzene	10	U
100-41-4-----Ethylbenzene	10	U
100-42-5-----Styrene	10	U
1330-20-7-----Xylene (total)	10	U

FORM I VOA

3/90

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365

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

MW-TB-8-26

Lab Name: E & E INC.

Contract:

Lab Code: EANDE

Case No.: 887

SAS No.:

SDG No.: MW-10D

Matrix: (soil/water) WATER

Lab Sample ID: 70131

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: F3169

Level: (low/med) LOW

Date Received: 08/26/93

% Moisture: not dec.

Date Analyzed: 08/31/93

GC Column: VOCOL ID: 0.530 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

Q

CAS NO.	COMPOUND			
74-87-3-----	Chloromethane	10	U	
74-83-9-----	Bromomethane	10	U	
75-01-4-----	Vinyl Chloride	10	U	
75-00-3-----	Chloroethane	10	U	
75-09-2-----	Methylene Chloride	10	U	
67-64-1-----	Acetone	10	U	
75-15-0-----	Carbon Disulfide	10	U	
75-35-4-----	1,1-Dichloroethene	10	U	
75-34-3-----	1,1-Dichloroethane	10	U	
540-59-0-----	1,2-Dichloroethene (total)	10	U	
67-66-3-----	Chloroform	10	U	
107-06-2-----	1,2-Dichloroethane	10	U	
78-93-3-----	2-Butanone	10	U	
71-55-6-----	1,1,1-Trichloroethane	10	U	
56-23-5-----	Carbon Tetrachloride	10	U	
75-27-4-----	Bromodichloromethane	10	U	
78-87-5-----	1,2-Dichloropropane	10	U	
10061-01-5-----	cis-1,3-Dichloropropene	10	U	
79-01-6-----	Trichloroethene	10	U	
124-48-1-----	Dibromochloromethane	10	U	
79-00-5-----	1,1,2-Trichloroethane	10	U	
71-43-2-----	Benzene	10	U	
10061-02-6-----	trans-1,3-Dichloropropene	10	U	
75-25-2-----	Bromoform	10	U	
108-10-1-----	4-Methyl-2-Pentanone	10	U	
591-78-6-----	2-Hexanone	10	U	
127-18-4-----	Tetrachloroethene	10	U	
79-34-5-----	1,1,2,2-Tetrachloroethane	10	U	
108-88-3-----	Toluene	10	U	
108-90-7-----	Chlorobenzene	10	U	
100-41-4-----	Ethylbenzene	10	U	
100-42-5-----	Styrene	10	U	
1330-20-7-----	Xylene (total)	10	U	

FORM I VOA

3/90

A-114

732

Groundwater

(Analyzed by Recra Environmental, Inc.)



New York State Department of Environmental Conservation

MEMORANDUM

TO: Distribution
FROM: David J. Chiusano, Environmental Engineer
SUBJECT: Dearcop Farm 12/14/93 groundwater sampling event results,
Site # 8-28-016, (T)Gates (C)Monroe

DATE:

JAN 6 1993

Enclosed for your information are the 12/14/93 sample results for the subject site. If you recall monitoring wells 9S and 1D were sampled by David Napier, NYSDOH - Rochester, and me for VOC's.

If you should have any questions please feel free to contact me at (518) 457-3373.

Distribution: G.Harris
M.J.Peachey
D.Napier
J.Albert
P.Brodzick

Attachments

A:drsamp.djc

A-118

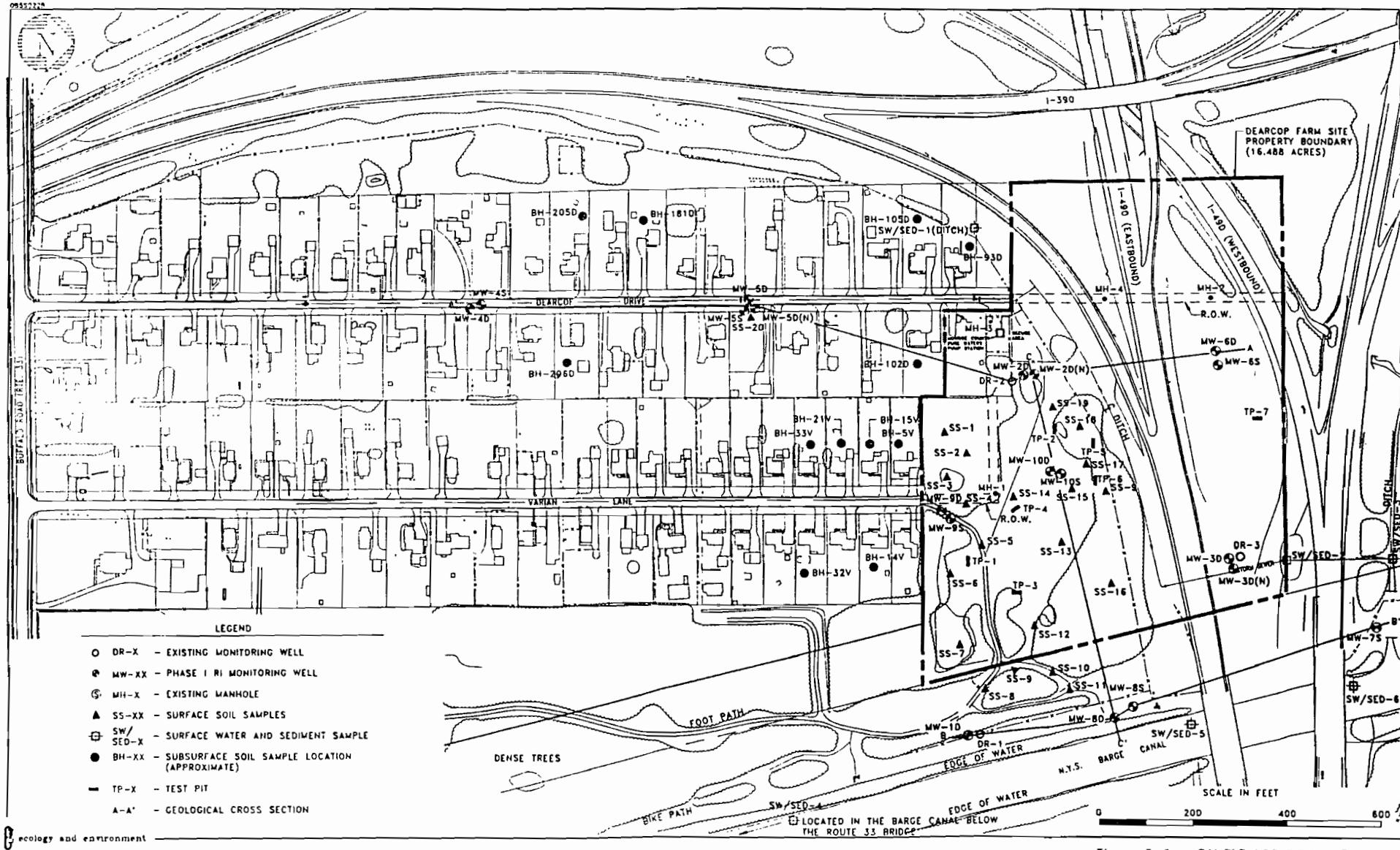


Figure 3-2 SAMPLE LOCATION MAP
DEARCOP FARM SITE

ORGANIC DATA COMMENT PAGELaboratory Name RECRA ENVIRONMENTAL, INC.

USEPA Defined Organic Data Qualifiers:

- U - Indicates compound was analyzed for but not detected.
- J - Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the sample quantitation limit but greater than zero.
- C - This flag applies to pesticide results where the identification has been confirmed by GC/MS.
- B - This flag is used when the analyte is found in the associated blank as well as in the sample.
- E - This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis.
- D - This flag identifies all compounds identified in an analysis at a secondary dilution factor.
- T - This flag is used when the analyte is found in the associated TCLP extraction as well as in the sample.
- N - Indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds, where the identification is based on a mass spectral library search. It is applied to all TIC results.
- P - This flag is used for a pesticide/Aroclor target analyte when there is greater than 25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on the Form I and flagged with a "P".
- A - This flag indicates that a TIC is a suspected aldol-condensation product.



RECRA
ENVIRONMENTAL
INC.

12/14/93 D EARP
WELL A-110 SAMPLING

CASE NARRATIVE

Laboratory Name: Recra Environmental, Inc.

Laboratory Code: RECNY

Case Number: RB093

SDG Number: 1214

Contract Number: COO2412

Sample Identification:

RB093 1214 184801

RB093 1214 184802

RB093 1214 184802 MATRIX SPIKE

RB093 1214 184802 MATRIX SPIKE DUPLICATE

RB093 1214 184803

MATRIX SPIKE BLANK

TRIP BLANK

VHB

METHODOLOGY

Analyses were performed in accordance with 1991 New York State Analytical Services Protocol.

COMMENTS

Comments pertain to data on one or all pages of this report.

The enclosed data has been reported utilizing data qualifiers (Q) as defined on the Organic Data comment Page.



RECRA
ENVIRONMENTAL
INC.

VOLATILE DATA

Volatile sample and standard areas are listed on the corresponding data system printouts.

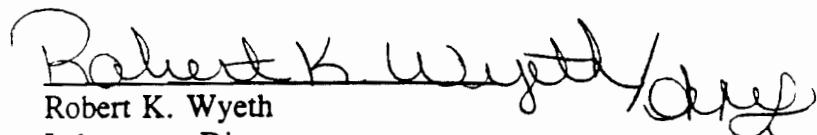
Volatile data are processed utilizing Finnigan Autoquantitation and QA Formaster software. All compounds determined to be present by the computer-generated autoquantitation were subjected to a manual ion search for secondary and tertiary ions. Unedited quantitations have been submitted with this analytical data package.

Sample RB093 1214 184801 required a dilution of two due to a high concentration of 1,2-Dichloroethene. Sample RB093 1214 184802 was analyzed at a dilution of twenty due to the high concentration of the following compounds: Vinyl Chloride, 1,1-Dichloroethane, 1,2-Dichloroethene (total), and Trichloroethene.

The recovery of surrogate compound 1,2-Dichloroethane-d4 was elevated above the quality control limits in RB093 1214 184802, and it's matrix spike and matrix spike duplicate indicating sample matrix effects. The recovery of this surrogate was compliant in the diluted sample.

Spiking compound Trichloroethene exhibited a non-compliant percent recovery and percent RPD in sample RB093 1214 184802 Matrix Spike Duplicate. The amount of spike added was small in relation to the concentration of this compound in the sample and therefore probably affected the spike recovery.

"I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or his designee, as verified by the following signature."


Robert K. Wyeth
Laboratory Director

12/28/93
Date



RECRE
ENVIRONMENTAL
INC.

A-121

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE IDENTIFICATION
AND
ANALYTICAL REQUEST SUMMARY

LAB NAME RECRA ENVIRONMENTAL, INC.

CUSTOMER SAMPLE CODE	LABORATORY SAMPLE CODE	ANALYTICAL REQUIREMENTS					
		VOA GC/MS	BNA GC/MS	VOA GC	PEST/ PCB	METALS	OTHER
MW-9S	RB093 1214 184801	93-4488	ASP91	-	-	-	-
MW-9S	RB093 1214 184802	93-4488	ASP91	-	-	-	-
MW-# ID	RB093 1214 184803	93-4488	ASP91	-	-	-	-
	TRIP BLANK	93-4488	ASP91	-	-	-	-

I.D. #A3-4488.1

NYSDEC-1



RECRA
ENVIRONMENTAL
INC.

A-122

9295

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATIONSAMPLE PREPARATION AND ANALYSIS SUMMARY
VOLATILE ANALYSIS

LAB NAME RECRA ENVIRONMENTAL INC.

SAMPLE IDENTIFICATION	MATRIX	DATE COLLECTED	DATE RECEIVED AT LAB	DATE EXTRACTED	DATE ANALYZED
RB093 1214 184801	WATER	12/14/93	12/15/93	-	12/18/93
RB093 1214 184802	WATER	12/14/93	12/15/93	-	12/18/93
RB093 1214 184803	WATER	12/14/93	12/15/93	-	12/18/93
TRIP BLANK	WATER	12/10/93	12/15/93	-	12/18/93

I.D. #A3-4488.2

NYSDEC-2

RECRA
ENVIRONMENTAL
INC.

A-123

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY
ORGANIC ANALYSIS

LAB NAME RECRA ENVIRONMENTAL INC.

SAMPLE IDENTIFICATION	MATRIX	ANALYTICAL PROTOCOL	EXTRACTION METHOD	AUXILIARY CLEAN UP	DIL/CONC FACTOR
RB093 1214 184801	WATER	ASP91	-	-	AS REQUIRED
RB093 1214 184802	WATER	ASP91	-	-	AS REQUIRED
RB093 1214 184802	WATER	ASP91	-	-	AS REQUIRED
TRIP BLANK	WATER	ASP91	-	-	AS REQUIRED

I.D. #A3-4488.6

NYSDEC-6



RECRA
ENVIRONMENTAL
INC.

A-124

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Name: <u>RECRA ENVIRON</u>	Contract: <u>C002412</u>	184801 <u>MW - 9S (1ST Boiler)</u>
Lab Code: <u>RECNY</u>	Case No.: <u>RB093</u>	SAS No.: _____ SDG No.: <u>1214</u>
Matrix: (soil/water) <u>WATER</u>	Lab Sample ID: <u>AS053077</u>	
Sample wt/vol: <u>5.0</u> (g/mL) <u>ML</u>	Lab File ID: <u>K8712</u>	
Level: (low/med) <u>LOW</u>	Date Received: <u>12/15/93</u>	
% Moisture: not dec.	Date Analyzed: <u>12/18/93</u>	
GC Column: <u>DB-624</u> ID: <u>0.530</u> (mm)	Dilution Factor: <u>1.0</u>	
Soil Extract Volume: _____ (uL)	Soil Aliquot Volume: _____ (uL)	

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/Kg) <u>UG/L</u>	Q
74-87-3-----	Chloromethane	10	U
74-83-9-----	Bromomethane	10	U
75-01-4-----	Vinyl Chloride	44	
75-00-3-----	Chloroethane	3	J
75-09-2-----	Methylene Chloride	10	U
67-64-1-----	Acetone	10	U
75-15-0-----	Carbon Disulfide	10	U
75-35-4-----	1,1-Dichloroethene	2	J
75-34-3-----	1,1-Dichloroethane	54	
540-59-0-----	1,2-Dichloroethene (total)	360	E
67-66-3-----	Chloroform	10	U
107-06-2-----	1,2-Dichloroethane	10	U
78-93-3-----	2-Butanone	10	U
71-55-6-----	1,1,1-Trichloroethane	10	U
56-23-5-----	Carbon Tetrachloride	10	U
75-27-4-----	Bromodichloromethane	10	U
78-87-5-----	1,2-Dichloropropane	10	U
10061-01-5-----	cis-1,3-dichloropropene	10	U
79-01-6-----	Trichloroethene	54	
124-48-1-----	Dibromochloromethane	10	U
79-00-5-----	1,1,2-Trichloroethane	10	U
71-43-2-----	Benzene	10	U
10061-02-6-----	trans-1,3-dichloropropene	10	U
75-25-2-----	Bromoform	10	U
108-10-1-----	4-Methyl-2-Pentanone	10	U
591-78-6-----	2-Hexanone	10	U
127-18-4-----	Tetrachloroethene	10	U
79-34-5-----	1,1,2,2-Tetrachloroethane	10	U
108-88-3-----	Toluene	10	U
108-90-7-----	Chlorobenzene	10	U
100-41-4-----	Ethylbenzene	10	U
100-42-5-----	Styrene	10	U
1330-20-7-----	Total Xylenes	10	U

0003

EPA SAMPLE NO.

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

184801

Lab Name: RECRA ENVIRONContract: C002412Lab Code: RECNYCase No.: RB093

SAS No.: _____

SDG No.: 1214Matrix: (soil/water) WATERLab Sample ID: AS053077Sample wt/vol: 5.0 (g/mL) MLLab File ID: K8712Level: (low/med) LOWDate Received: 12/15/93

% Moisture: not dec. _____

Date Analyzed: 12/18/93GC Column: DB-624 ID: 0.530 (mm)Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

Number TICs found: 0

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
=====	=====	=====	=====	=====

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

184801DL

Lab Name: RECRA ENVIRON

Contract: C002412

Lab Code: RECNY

Case No.: RB093

SAS No.: _____

SDG No.: 1214

Matrix: (soil/water) WATER

Lab Sample ID: AS053077DL

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: K8727

Level: (low/med) LOW

Date Received: 12/15/93

% Moisture: not dec. _____

Date Analyzed: 12/18/93

GC Column: DB-624 ID: 0.530 (mm)

Dilution Factor: 2.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

Q

CAS NO.	COMPOUND		
74-87-3-----	Chloromethane	20	U
74-83-9-----	Bromomethane	20	U
75-01-4-----	Vinyl Chloride	34	D
75-00-3-----	Chloroethane	20	U
75-09-2-----	Methylene Chloride	20	U
67-64-1-----	Acetone	20	U
75-15-0-----	Carbon Disulfide	20	U
75-35-4-----	1,1-Dichloroethene	1	DJ
75-34-3-----	1,1-Dichloroethane	49	D
540-59-0-----	1,2-Dichloroethene (total)	340	D
67-66-3-----	Chloroform	20	U
107-06-2-----	1,2-Dichloroethane	20	U
78-93-3-----	2-Butanone	20	U
71-55-6-----	1,1,1-Trichloroethane	20	U
56-23-5-----	Carbon Tetrachloride	20	U
75-27-4-----	Bromodichloromethane	20	U
78-87-5-----	1,2-Dichloropropane	20	U
10061-01-5-----	cis-1,3-dichloropropene	20	U
79-01-6-----	Trichloroethene	52	D
124-48-1-----	Dibromochloromethane	20	U
79-00-5-----	1,1,2-Trichloroethane	20	U
71-43-2-----	Benzene	20	U
10061-02-6-----	trans-1,3-dichloropropene	20	U
75-25-2-----	Bromoform	20	U
108-10-1-----	4-Methyl-2-Pentanone	20	U
591-78-6-----	2-Hexanone	20	U
127-18-4-----	Tetrachloroethene	20	U
79-34-5-----	1,1,2,2-Tetrachloroethane	20	U
108-88-3-----	Toluene	20	U
108-90-7-----	Chlorobenzene	20	U
100-41-4-----	Ethylbenzene	20	U
100-42-5-----	Styrene	20	U
1330-20-7-----	Total Xylenes	20	U

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: RECRA ENVIRONContract: C002412184801DLLab Code: RECNY Case No.: RB093SAS No.: _____ SDG No.: 1214Matrix: (soil/water) WATERLab Sample ID: AS053077DLSample wt/vol: 5.0 (g/mL) MLLab File ID: K8727Level: (low/med) LOWDate Received: 12/15/93

% Moisture: not dec. _____

Date Analyzed: 12/18/93GC Column: DB-624 ID: 0.530 (mm)Dilution Factor: 2.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
=====	=====	=====	=====	=====

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

184802

Lab Name: RECRA ENVIRON

Contract: C002412

Lab Code: RECNY

Case No.: RB093

SAS No.: _____

SDG No.: 1214

Matrix: (soil/water) WATER

Lab Sample ID: AS053078

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: K8713

Level: (low/med) LOW

Date Received: 12/15/93

% Moisture: not dec. _____

Date Analyzed: 12/18/93

GC Column: DB-624 ID: 0.530 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/Kg)	<u>UG/L</u>

74-87-3-----	Chloromethane	10	U
74-83-9-----	Bromomethane	10	U
75-01-4-----	Vinyl Chloride	570	E
75-00-3-----	Chloroethane	43	
75-09-2-----	Methylene Chloride	10	U
67-64-1-----	Acetone	10	U
75-15-0-----	Carbon Disulfide	10	U
75-35-4-----	1,1-Dichloroethene	23	
75-34-3-----	1,1-Dichloroethane	640	E
540-59-0-----	1,2-Dichloroethene (total)	2000	E
67-66-3-----	Chloroform	10	U
107-06-2-----	1,2-Dichloroethane	18	
78-93-3-----	2-Butanone	10	U
71-55-6-----	1,1,1-Trichloroethane	10	U
56-23-5-----	Carbon Tetrachloride	10	U
75-27-4-----	Bromodichloromethane	10	U
78-87-5-----	1,2-Dichloropropane	10	U
10061-01-5-----	cis-1,3-dichloropropene	10	U
79-01-6-----	Trichloroethene	260	E
124-48-1-----	Dibromochloromethane	10	U
79-00-5-----	1,1,2-Trichloroethane	10	U
71-43-2-----	Benzene	2	BJ
10061-02-6-----	trans-1,3-dichloropropene	10	U
75-25-2-----	Bromoform	10	U
108-10-1-----	4-Methyl-2-Pentanone	10	U
591-78-6-----	2-Hexanone	10	U
127-18-4-----	Tetrachloroethene	10	U
79-34-5-----	1,1,2,2-Tetrachloroethane	10	U
108-88-3-----	Toluene	0.6	J
108-90-7-----	Chlorobenzene	10	U
100-41-4-----	Ethylbenzene	0.3	J
100-42-5-----	Styrene	10	U
1330-20-7-----	Total Xylenes	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

Lab Name: RECRA ENVIRON

Contract: C002412

184802
MW-9S (See 3)

Lab Code: RECNY Case No.: RB093

SAS No.: _____ SDG No.: 1214

Matrix: (soil/water) WATER

Lab Sample ID: AS053078

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: K8713

Level: (low/med) LOW

Date Received: 12/15/93

% Moisture: not dec. _____

Date Analyzed: 12/18/93

GC Column: DB-624 ID: 0.530 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
=====	=====	=====	=====	=====

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

184802DL

Lab Name: RECRA ENVIRON

Contract: C002412

Lab Code: RECNY Case No.: RB093 SAS No.: _____ SDG No.: 1214

Matrix: (soil/water) WATER Lab Sample ID: AS053078DL

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: K8728

Level: (low/med) LOW Date Received: 12/15/93

% Moisture: not dec. _____ Date Analyzed: 12/18/93

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 20.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

Q

74-87-3-----	Chloromethane	200	U
74-83-9-----	Bromomethane	200	U
75-01-4-----	Vinyl Chloride	510	D
75-00-3-----	Chloroethane	200	U
75-09-2-----	Methylene Chloride	200	U
67-64-1-----	Acetone	200	U
75-15-0-----	Carbon Disulfide	200	U
75-35-4-----	1,1-Dichloroethene	12	DJ
75-34-3-----	1,1-Dichloroethane	730	D
540-59-0-----	1,2-Dichloroethene (total)	2900	D
67-66-3-----	Chloroform	200	U
107-06-2-----	1,2-Dichloroethane	200	U
78-93-3-----	2-Butanone	200	U
71-55-6-----	1,1,1-Trichloroethane	200	U
56-23-5-----	Carbon Tetrachloride	200	U
75-27-4-----	Bromodichloromethane	200	U
78-87-5-----	1,2-Dichloropropane	200	U
10061-01-5-----	cis-1,3-dichloropropene	200	U
79-01-6-----	Trichloroethene	320	D
124-48-1-----	Dibromochloromethane	200	U
79-00-5-----	1,1,2-Trichloroethane	200	U
71-43-2-----	Benzene	200	U
10061-02-6-----	trans-1,3-dichloropropene	200	U
75-25-2-----	Bromoform	200	U
108-10-1-----	4-Methyl-2-Pentanone	200	U
591-78-6-----	2-Hexanone	200	U
127-18-4-----	Tetrachloroethene	200	U
79-34-5-----	1,1,2,2-Tetrachloroethane	200	U
108-88-3-----	Toluene	200	U
108-90-7-----	Chlorobenzene	200	U
100-41-4-----	Ethylbenzene	200	U
100-42-5-----	Styrene	200	U
1330-20-7-----	Total Xylenes	200	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

184802DL

Lab Name: RECRA ENVIRON

Contract: C002412

Lab Code: RECNY Case No.: RB093 SAS No.: _____ SDG No.: 1214

Matrix: (soil/water) WATER

Lab Sample ID: AS053078DL

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: K8728

Level: (low/med) LOW

Date Received: 12/15/93

% Moisture: not dec. _____

Date Analyzed: 12/18/93

GC Column: DB-624 ID: 0.530 (mm)

Dilution Factor: 20.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
=====	=====	=====	=====	=====

VOLATILE ORGANICS ANALYSIS DATA SHEET

184803

MW-18

Lab Name: RECRA ENVIRON

Contract: C002412

Lab Code: RECNY

Case No.: RB093

SAS No.: _____

SDG No.: 1214

Matrix: (soil/water) WATER

Lab Sample ID: AS053079

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: K8711

Level: (low/med) LOW

Date Received: 12/15/93

% Moisture: not dec. _____

Date Analyzed: 12/18/93

GC Column: DB-624 ID: 0.530 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
---------	----------	--	---

74-87-3-----	Chloromethane	10	U
74-83-9-----	Bromomethane	10	U
75-01-4-----	Vinyl Chloride	15	
75-00-3-----	Chloroethane	10	U
75-09-2-----	Methylene Chloride	10	U
67-64-1-----	Acetone	10	U
75-15-0-----	Carbon Disulfide	10	U
75-35-4-----	1,1-Dichloroethene	10	U
75-34-3-----	1,1-Dichloroethane	60	
540-59-0-----	1,2-Dichloroethene (total)	15	
67-66-3-----	Chloroform	10	U
107-06-2-----	1,2-Dichloroethane	10	U
78-93-3-----	2-Butanone	10	U
71-55-6-----	1,1,1-Trichloroethane	6	J
56-23-5-----	Carbon Tetrachloride	10	U
75-27-4-----	Bromodichloromethane	10	U
78-87-5-----	1,2-Dichloropropane	10	U
10061-01-5-----	cis-1,3-dichloropropene	10	U
79-01-6-----	Trichloroethene	1	J
124-48-1-----	Dibromochloromethane	10	U
79-00-5-----	1,1,2-Trichloroethane	10	U
71-43-2-----	Benzene	3	BJ
10061-02-6-----	trans-1,3-dichloropropene	10	U
75-25-2-----	Bromoform	10	U
108-10-1-----	4-Methyl-2-Pentanone	10	U
591-78-6-----	2-Hexanone	10	U
127-18-4-----	Tetrachloroethene	10	U
79-34-5-----	1,1,2,2-Tetrachloroethane	10	U
108-88-3-----	Toluene	3	J
108-90-7-----	Chlorobenzene	10	U
100-41-4-----	Ethylbenzene	1	J
100-42-5-----	Styrene	10	U
1330-20-7-----	Total Xylenes	4	J

1E
 VOLATILE ORGANICS ANALYSIS DATA SHEET
 TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

184803

Lab Name: RECRA ENVIRON

Contract: C002412

Lab Code: RECNY Case No.: RB093

SAS No.: _____ SDG No.: 1214

Matrix: (soil/water) WATER

Lab Sample ID: AS053079

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: K8711

Level: (low/med) LOW

Date Received: 12/15/93

% Moisture: not dec. _____

Date Analyzed: 12/18/93

GC Column: DB-624 ID: 0.530 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	3.73	24	J
2. 75-28-5	ISOBUTANE	4.20	21	JN
3.	SATURATED HYDROCARBON	5.90	11	J
4.	UNKNOWN	10.07	8	J

OCIS

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TBLANK

Name: RECRA ENVIRONContract: C002412Lab Code: RECNY Case No.: RB093SAS No.: _____ SDG No.: 1214Matrix: (soil/water) WATERLab Sample ID: AS053082Sample wt/vol: 5.0 (g/mL) MLLab File ID: K8709Level: (low/med) LOWDate Received: 12/15/93

% Moisture: not dec. _____

Date Analyzed: 12/18/93GC Column: DB-624 ID: 0.530 (mm)Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

Q

<u>74-87-3-----Chloromethane</u>	<u>10</u>	<u>U</u>
<u>74-83-9-----Bromomethane</u>	<u>10</u>	<u>U</u>
<u>75-01-4-----Vinyl Chloride</u>	<u>10</u>	<u>U</u>
<u>75-00-3-----Chloroethane</u>	<u>10</u>	<u>U</u>
<u>75-09-2-----Methylene Chloride</u>	<u>10</u>	<u>U</u>
<u>67-64-1-----Acetone</u>	<u>10</u>	<u>U</u>
<u>75-15-0-----Carbon Disulfide</u>	<u>10</u>	<u>U</u>
<u>75-35-4-----1,1-Dichloroethene</u>	<u>10</u>	<u>U</u>
<u>75-34-3-----1,1-Dichloroethane</u>	<u>10</u>	<u>U</u>
<u>540-59-0-----1,2-Dichloroethene (total)</u>	<u>10</u>	<u>U</u>
<u>67-66-3-----Chloroform</u>	<u>10</u>	<u>U</u>
<u>107-06-2-----1,2-Dichloroethane</u>	<u>10</u>	<u>U</u>
<u>78-93-3-----2-Butanone</u>	<u>10</u>	<u>U</u>
<u>71-55-6-----1,1,1-Trichloroethane</u>	<u>10</u>	<u>U</u>
<u>56-23-5-----Carbon Tetrachloride</u>	<u>10</u>	<u>U</u>
<u>75-27-4-----Bromodichloromethane</u>	<u>10</u>	<u>U</u>
<u>78-87-5-----1,2-Dichloropropane</u>	<u>10</u>	<u>U</u>
<u>10061-01-5-----cis-1,3-dichloropropene</u>	<u>10</u>	<u>U</u>
<u>79-01-6-----Trichloroethene</u>	<u>10</u>	<u>U</u>
<u>124-48-1-----Dibromochloromethane</u>	<u>10</u>	<u>U</u>
<u>79-00-5-----1,1,2-Trichloroethane</u>	<u>10</u>	<u>U</u>
<u>71-43-2-----Benzene</u>	<u>10</u>	<u>U</u>
<u>10061-02-6-----trans-1,3-dichloropropene</u>	<u>10</u>	<u>U</u>
<u>75-25-2-----Bromoform</u>	<u>10</u>	<u>U</u>
<u>108-10-1-----4-Methyl-2-Pentanone</u>	<u>10</u>	<u>U</u>
<u>591-78-6-----2-Hexanone</u>	<u>10</u>	<u>U</u>
<u>127-18-4-----Tetrachloroethene</u>	<u>10</u>	<u>U</u>
<u>79-34-5-----1,1,2,2-Tetrachloroethane</u>	<u>10</u>	<u>U</u>
<u>108-88-3-----Toluene</u>	<u>10</u>	<u>U</u>
<u>108-90-7-----Chlorobenzene</u>	<u>10</u>	<u>U</u>
<u>100-41-4-----Ethylbenzene</u>	<u>10</u>	<u>U</u>
<u>100-42-5-----Styrene</u>	<u>10</u>	<u>U</u>
<u>1330-20-7-----Total Xylenes</u>	<u>10</u>	<u>U</u>

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

Lab Name: RECRA ENVIRON Contract: C002412 TBLANK

Lab Code: RECNY Case No.: RB093 SAS No.: _____ SDG No.: 1214

Matrix: (soil/water) WATER Lab Sample ID: AS053082

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: K8709

Level: (low/med) LOW Date Received: 12/15/93

% Moisture: not dec. _____ Date Analyzed: 12/18/93

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
=====	=====	=====	=====	=====

Soil Gas

A-137

02:OB5903_D4437-APA-01/14/94-D1

TEST CODE :ABTX 1

JOB NUMBER :9301.886

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : OB-5000 NYSDEC - DEARCOP

TEST NAME : BTX

UNITS : UG/M3

SAMPLE ID LAB : EE-93-70112

MATRIX: AIR

SAMPLE ID CLIENT: SG-206A

PARAMETER	RESULTS	Q	QNT. LIMIT
MTBE	ND	-	10
Benzene	17		10
Toluene	93	B	10
Total xylenes	79		10
Ethylbenzene	14		10
Chloroethane	ND		10
1,1-Dichloroethene	ND		10
trans-1,2-Dichloroethene	ND		10
1,1-Dichloroethane	ND		10
cis-1,2-Dichloroethene	ND		10
1,1,1-Trichloroethane	ND		10
1,2-Dichloroethane	ND		10
Trichloroethene	580	X	10
Methylene chloride	46	B	10
Vinyl chloride	ND		50

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED QNT. LIMIT
X = EXCEEDS CALIBRATION LIMIT

TEST CODE : ABTX 1

JOB NUMBER : 9301.886

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : OB-5000 NYSDEC - DEARCOP

TEST NAME : BTX

UNITS : UG/M3

SAMPLE ID LAB : EE-93-70113

MATRIX: AIR

SAMPLE ID CLIENT: SG-206B

PARAMETER	RESULTS	Q	QNT. LIMIT
MTBE	ND		10
Benzene	12		10
Toluene	85	B	10
Total xylenes	110		10
Ethylbenzene	19		10
Chloroethane	ND		10
1,1-Dichloroethene	ND		10
trans-1,2-Dichloroethene	ND		10
1,1-Dichloroethane	ND		10
cis-1,2-Dichloroethene	ND		10
1,1,1-Trichloroethane	ND		10
1,2-Dichloroethane	ND		10
Trichloroethene	ND		10
Methylene chloride	30	B	10
Vinyl chloride	ND		50

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED QNT. LIMIT

TEST CODE :ABTX 1

JOB NUMBER :9301.886
ELAP ID : 10486Ecology and Environment, Inc.
Analytical Services Center

CLIENT	:	OB-5000 NYSDEC - DEARCOP	
TEST NAME	:	BTX	UNITS : UG/M3
SAMPLE ID LAB	:	EE-93-70114	MATRIX: AIR
SAMPLE ID CLIENT:	SG-206C		
PARAMETER		RESULTS	Q QNT. LIMIT
MTBE		ND	10
Benzene		11	10
Toluene		84	B 10
Total xylenes		110	10
Ethylbenzene		18	10
Chloroethane		ND	10
1,1-Dichloroethene		ND	10
trans-1,2-Dichloroethene		ND	10
1,1-Dichloroethane		ND	10
cis-1,2-Dichloroethene		ND	10
1,1,1-Trichloroethane		ND	10
1,2-Dichloroethane		ND	10
Trichloroethene		ND	10
Methylene chloride		20	B 10
Vinyl chloride		ND	50

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED QNT. LIMIT

TEST CODE :ABTX 1

JOB NUMBER :9301.886

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : OB-5000 NYSDEC - DEARCOP

TEST NAME : BTX

UNITS : UG/M3

SAMPLE ID LAB : EE-93-70115

MATRIX: AIR

SAMPLE ID CLIENT: SG-206D

PARAMETER	RESULTS	Q	QNT. LIMIT
MTBE	ND		10
Benzene	12		10
Toluene	91	B	10
Total xylenes	110		10
Ethylbenzene	19		10
Chloroethane	ND		10
1,1-Dichloroethene	ND		10
trans-1,2-Dichloroethene	ND		10
1,1-Dichloroethane	ND		10
cis-1,2-Dichloroethene	ND		10
1,1,1-Trichloroethane	ND		10
1,2-Dichloroethane	ND		10
Trichloroethene	ND		10
Methylene chloride	27	B	10
Vinyl chloride	ND		50

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED QNT. LIMIT

TEST CODE :ABTX 1

JOB NUMBER :9301.886
ELAP ID : 10486Ecology and Environment, Inc.
Analytical Services Center

CLIENT : OB-5000 NYSDEC - DEARCOP

TEST NAME : BTX

UNITS : UG/M3

SAMPLE ID LAB : EE-93-70116

MATRIX: AIR

SAMPLE ID CLIENT: SG-206DD

PARAMETER	RESULTS	Q	QNT. LIMIT
MTBE	ND	-	10
Benzene	14		10
Toluene	91	B	10
Total xylenes	120		10
Ethylbenzene	21		10
Chloroethane	ND		10
1,1-Dichloroethene	ND		10
trans-1,2-Dichloroethene	ND		10
1,1-Dichloroethane	ND		10
cis-1,2-Dichloroethene	ND		10
1,1,1-Trichloroethane	ND		10
1,2-Dichloroethane	ND		10
Trichloroethene	ND		10
Methylene chloride	22	B	10
Vinyl chloride	ND		50

 QUALIFIERS: C = COMMENT ND = NOT DETECTED
 J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
 L = PRESENT BELOW STATED QNT. LIMIT

TEST CODE :ABTX 1

JOB NUMBER :9301.886

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : OB-5000 NYSDEC - DEARCOP

TEST NAME : BTX

UNITS : UG/M3

SAMPLE ID LAB : EE-93-70111

MATRIX: AIR

SAMPLE ID CLIENT: SG-206-FB

PARAMETER	RESULTS	Q	QNT. LIMIT
MTBE	ND		10
Benzene	27		10
Toluene	130	B	10
Total xylenes	140		10
Ethylbenzene	25		10
Chloroethane	ND		10
1,1-Dichloroethene	ND		10
trans-1,2-Dichloroethene	ND		10
1,1-Dichloroethane	ND		10
cis-1,2-Dichloroethene	ND		10
1,1,1-Trichloroethane	ND		10
1,2-Dichloroethane	ND		10
Trichloroethene	ND		10
Methylene chloride	65	B	10
Vinyl chloride	ND		50

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED QNT. LIMIT

TEST CODE :ABTX 1

JOB NUMBER :9301.886
ELAP ID : 10486Ecology and Environment, Inc.
Analytical Services Center

CLIENT : OB-5000 NYSDEC - DEARCOP

TEST NAME : BTX

UNITS : UG/M3

SAMPLE ID LAB : EE-93-70110

MATRIX: AIR

SAMPLE ID CLIENT: SG-331D

PARAMETER	RESULTS	Q	QNT. LIMIT
MTBE	ND		10
Benzene	18		10
Toluene	110	B	10
Total xylenes	160		10
Ethylbenzene	27		10
Chloroethane	ND		10
1,1-Dichloroethene	ND		10
trans-1,2-Dichloroethene	ND		10
1,1-Dichloroethane	ND		10
cis-1,2-Dichloroethene	ND		10
1,1,1-Trichloroethane	ND		10
1,2-Dichloroethane	ND		10
Trichloroethene	140		10
Methylene chloride	37	B	10
Vinyl chloride	ND		50

QUALIFIERS: C = COMMENT

ND = NOT DETECTED

J = ESTIMATED VALUE

B = ALSO PRESENT IN BLANK

L = PRESENT BELOW STATED QNT. LIMIT

Residential Surface Soil

A-147

02:OB5903_D4437-APA-01/14/94-D1

TEST CODE :SPAHS 1

JOB NUMBER :9301.904

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : OB-5000 NYSDEC - DEARCOP

RESULTS IN DRY WEIGHT

%SOLIDS : 91 %

TEST NAME : PAHS - LC

UNITS : UG/KG

SAMPLE ID LAB : EE-93-70297

MATRIX : SOLID

SAMPLE ID CLIENT: SS-33V-COMP

PARAMETER	RESULTS	Q	QNT. LIMIT
Acenaphthene	1400		440
Fluoranthene	620		110
Naphthalene	570		440
Benzo(a)anthracene	480		44
Benzo(a)pyrene	360		44
Benzo(b)fluoranthene	420		44
Benzo(k)fluoranthene	220		44
Chrysene	330		44
Acenaphthylene	ND		440
Anthracene	85		44
Benzo(ghi)perylene	380		110
Fluorene	49		44
Phenanthrene	320		44
Dibenzo(a,h)anthracene	330		110
Indeno(1,2,3-cd)pyrene	370		44
Pyrene	580		110
1-Methylnaphthalene	ND		440
2-Methylnaphthalene	ND		440

QUALIFIERS: C = COMMENT

ND = NOT DETECTED

J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK

L = PRESENT BELOW STATED QNT. LIMIT

1
INORGANIC ANALYSES DATA SHEET

DEC SAMPLE NO.

SS-33V-comp
SS33V

Lab Name: ECOLOGY AND ENVIRONMENT Contract: _____

Lab Code: EANDE Case No.: 9301.887 SAS No.: _____ SDG No.: BH331D

Matrix (soil/water): SOIL Lab Sample ID: 70297

Level (low/med): LOW Date Received: 08/27/93

Solids: 90.8

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	5420		*	P
7440-36-0	Antimony	8.1	U	N	P
7440-38-2	Arsenic	2.5			F
7440-39-3	Barium	53.1			P
7440-41-7	Beryllium	0.35	B		P
7440-43-9	Cadmium	1.1	B		P
7440-70-2	Calcium	8260		*	P
7440-47-3	Chromium	10.8		N*	P
7440-48-4	Cobalt	5.1	B	*	P
7440-50-8	Copper	21.2		N*	P
7439-89-6	Iron	8860		*	P
7439-92-1	Lead	85.3		*	P
7439-95-4	Magnesium	2820			P
7439-96-5	Manganese	256		*	P
7439-97-6	Mercury	0.22			CV
7440-02-0	Nickel	10.2		*	P
7440-09-7	Potassium	1000	B		P
7782-49-2	Selenium	0.27	B	W	F
7440-22-4	Silver	0.63	B		P
7440-23-5	Sodium	134	U		P
7440-28-0	Thallium	0.22	U		F
7440-62-2	Vanadium	13.8			P
7440-66-6	Zinc	189		N*	P
	Cyanide	0.78			AS

Color Before: _____ Clarity Before: _____ Texture: F _____

Color After: Y _____ Clarity After: C _____ Artifacts: _____

Comments:

CLIENT SAMPLE ID: SS-33V-COMP

TEST CODE :SPAHS 1

JOB NUMBER :9301.904

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : OB-5000 NYSDEC - DEARCOP
RESULTS IN DRY WEIGHT %SOLIDS : 97 %
TEST NAME : PAHS - LC UNITS : UG/KG
SAMPLE ID LAB : EE-93-70298 MATRIX : SOLID
SAMPLE ID CLIENT: SS-93D-COMP

PARAMETER	RESULTS	Q	QNT. LIMIT
Acenaphthene	4100	-	2100
Fluoranthene	2000		520
Naphthalene	1000	J	2100
Benzo(a)anthracene	1600		210
Benzo(a)pyrene	2400		210
Benzo(b)fluoranthene	2300		210
Benzo(k)fluoranthene	1200		210
Chrysene	1300		210
Acenaphthylene	ND		2100
Anthracene	240		210
Benzo(ghi)perylene	3100		520
Fluorene	88	J	210
Phenanthrene	750		210
Dibenzo(a,h)anthracene	2700		520
Indeno(1,2,3-cd)pyrene	3200		210
Pyrene	2400		520
1-Methylnaphthalene	560	J	2100
2-Methylnaphthalene	ND		2100

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED QNT. LIMIT

INORGANIC ANALYSES DATA SHEET

1

DEC SAMPLE NO.

SS-93D-Comp
8893D GF 12-21

Lab Name: ECOLOGY AND ENVIRONMENT Contract: _____

Lab Code: EANDE Case No.: 9301.887 SAS No.: _____ SDG No.: SS-93D

Matrix (soil/water): SOIL Lab Sample ID: 70298

Level (low/med): LOW Date Received: 08/27/93

% Solids: 97.5

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	5720	-	*	P
7440-36-0	Antimony	7.6	U	-	P
7440-38-2	Arsenic	4.2	-	-	F
7440-39-3	Barium	58.8	-	-	P
7440-41-7	Beryllium	0.36	B	-	P
7440-43-9	Cadmium	0.89	B	-	P
7440-70-2	Calcium	9720	-	-	P
7440-47-3	Chromium	19.1	-	-	P
7440-48-4	Cobalt	5.3	B	-	P
7440-50-8	Copper	39.1	-	*	P
7439-89-6	Iron	10500	-	-	P
7439-92-1	Lead	88.7	-	-	P
7439-95-4	Magnesium	3240	-	-	P
7439-96-5	Manganese	338	-	N*	P
7439-97-6	Mercury	0.96	-	-	CV
7440-02-0	Nickel	11.3	-	-	P
7440-09-7	Potassium	901	B	-	P
7782-49-2	Selenium	0.23	B	-	F
7440-22-4	Silver	1.0	B	-	P
7440-23-5	Sodium	134	B	-	P
7440-28-0	Thallium	0.21	U	-	F
7440-62-2	Vanadium	15.5	-	-	P
7440-66-6	Zinc	120	-	-	P
	Cyanide	0.51	U	-	AS

Color Before: _____ Clarity Before: _____ Texture: F _____

Color After: Y _____ Clarity After: C _____ Artifacts: YES _____

Comments:

CLIENT SAMPLE ID: SS-93D-COMP

FORM I - IN

ILMO2

TEST CODE :SPAHS 1

JOB NUMBER :9301.904

ELAP ID : 10486

Ecology and Environment, Inc.
 Analytical Services Center

CLIENT : OB-5000 NYSDEC - DEARCOP
 RESULTS IN DRY WEIGHT %SOLIDS : 98 %
 TEST NAME : PAHS - LC UNITS : UG/KG
 SAMPLE ID LAB : EE-93-70299 MATRIX : SOLID
 SAMPLE ID CLIENT: SS-93DD-COMP

PARAMETER	RESULTS	Q	QNT. LIMIT
Acenaphthene	950	-	410
Fluoranthene	480		100
Naphthalene	330	J	410
Benzo(a)anthracene	340		41
Benzo(a)pyrene	480		41
Benzo(b)fluoranthene	460		41
Benzo(k)fluoranthene	260		41
Chrysene	280		41
Acenaphthylene	ND		410
Anthracene	54		41
Benzo(ghi)perylene	680		100
Fluorene	26	J	41
Phenanthrene	210		41
Dibenzo(a,h)anthracene	570		100
Indeno(1,2,3-cd)pyrene	680		41
Pyrene	500		100
1-Methylnaphthalene	280	J	410
2-Methylnaphthalene	ND		410

 QUALIFIERS: C = COMMENT ND = NOT DETECTED
 J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
 L = PRESENT BELOW STATED QNT. LIMIT

INORGANIC ANALYSES DATA SHEET

1

DEC SAMPLE NO.

SS-93DD-Comp GF
SS-93DD 12-21-93

Lab Name: ECOLOGY AND ENVIRONMENT Contract: _____

Lab Code: EANDE Case No.: 9301.887 SAS No.: _____ SDG No.: SS-93D

Matrix (soil/water): SOIL Lab Sample ID: 70299

Level (low/med): LOW Date Received: 08/27/93

% Solids: 98.2

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	2520	*		P
7440-36-0	Antimony	7.5	U		P
7440-38-2	Arsenic	4.1			F
7440-39-3	Barium	44.2			P
7440-41-7	Beryllium	0.31	B		P
7440-43-9	Cadmium	0.93	B		P
7440-70-2	Calcium	9600			P
7440-47-3	Chromium	12.6			P
7440-48-4	Cobalt	3.6	B		P
7440-50-8	Copper	28.4		*	P
7439-89-6	Iron	4780			P
7439-92-1	Lead	70.0			F
7439-95-4	Magnesium	2370			P
7439-96-5	Manganese	294		N*	P
7439-97-6	Mercury	1.0			CV
7440-02-0	Nickel	6.7	B		P
7440-09-7	Potassium	600	B		P
7782-49-2	Selenium	0.20	U		F
7440-22-4	Silver	1.4	B		P
7440-23-5	Sodium	129	B		P
7440-28-0	Thallium	0.20	U		F
7440-62-2	Vanadium	8.0	B		P
7440-66-6	Zinc	87.6			P
	Cyanide	0.51	U		AS

Color Before: _____ Clarity Before: _____ Texture: FS _____

Color After: Y _____ Clarity After: C _____ Artifacts: _____

Comments:

CLIENT SAMPLE ID: SS-93DD-COMP

FORM I - IN

ILMO2

TEST CODE :SPAHS 1

JOB NUMBER :9301.904

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : OB-5000 NYSDEC - DEARCOP
 RESULTS IN DRY WEIGHT %SOLIDS : 92 %
 TEST NAME : PAHS - LC UNITS : UG/KG
 SAMPLE ID LAB : EE-93-70300 MATRIX : SOLID
 SAMPLE ID CLIENT: SS-140D-COMP

PARAMETER	RESULTS	Q	QNT. LIMIT
	<i>OF 7/18/94</i>	-	-
Acenaphthene	1300		220
Fluoranthene	590		54
Naphthalene	430		220
Benzo(a)anthracene	430		22
Benzo(a)pyrene	330		22
Benzo(b)fluoranthene	300		22
Benzo(k)fluoranthene	170		22
Chrysene	280		22
Acenaphthylene	ND		220
Anthracene	53		22
Benzo(ghi)perylene	320		54
Fluorene	26		22
Phenanthrene	220		22
Dibenzo(a,h)anthracene	230		54
Indeno(1,2,3-cd)pyrene	290		22
Pyrene	470		54
1-Methylnaphthalene	320		220
2-Methylnaphthalene	ND		220

QUALIFIERS: C = COMMENT ND = NOT DETECTED
 J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
 L = PRESENT BELOW STATED QNT. LIMIT

1
INORGANIC ANALYSES DATA SHEET

DEC SAMPLE NO.
 1 GF 7-16-94
 SS-149D-Comp
 SS149D GF
 12-21-93

Lab Name: ECOLOGY AND ENVIRONMENT Contract: _____

Lab Code: EANDE Case No.: 9301.887 SAS No.: _____ SDG No.: SS-93D

Matrix (soil/water): SOIL Lab Sample ID: 70300

Level (low/med): LOW Date Received: 08/27/93

% Solids: 92.2

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4690	*		P
7440-36-0	Antimony	8.0	U		P
7440-38-2	Arsenic	8.6			F
7440-39-3	Barium	122			P
7440-41-7	Beryllium	0.55	B		P
7440-43-9	Cadmium	1.1	B		P
7440-70-2	Calcium	12800			P
7440-47-3	Chromium	8.0			P
7440-48-4	Cobalt	5.0	B		P
7440-50-8	Copper	40.2		*	P
7439-89-6	Iron	9150			P
7439-92-1	Lead	48.9			F
7439-95-4	Magnesium	1430			P
7439-96-5	Manganese	165		N*	P
7439-97-6	Mercury	0.11	U		CV
7440-02-0	Nickel	8.8			P
7440-09-7	Potassium	694	B		P
7782-49-2	Selenium	0.28	B	W	F
7440-22-4	Silver	0.54	U		P
7440-23-5	Sodium	152	B		P
7440-28-0	Thallium	0.23	B		F
7440-62-2	Vanadium	13.0			P
7440-66-6	Zinc	98.6			P
	Cyanide	0.54	U		AS

Color Before: _____ Clarity Before: _____ Texture: FS _____

Color After: Y _____ Clarity After: C _____ Artifacts: YES _____

Comments:

CLIENT SAMPLE ID: SS-149D-COMP _____

FORM I - IN

ILMO2

TEST CODE :SPAHS 1

JOB NUMBER :9301.904

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : OB-5000 NYSDEC - DEARCOP
 RESULTS IN DRY WEIGHT %SOLIDS : 97 %
 TEST NAME : PAHS - LC UNITS : UG/KG
 SAMPLE ID LAB : EE-93-70301 MATRIX : SOLID
 SAMPLE ID CLIENT: SS-168D-COMP

PARAMETER	RESULTS	Q	QNT. LIMIT
Acenaphthene	14000	-	4100
Fluoranthene	13000	X	1000
Naphthalene	6600		4100
Benzo(a)anthracene	7100		410
Benzo(a)pyrene	7600	X	410
Benzo(b)fluoranthene	5900		410
Benzo(k)fluoranthene	3800		410
Chrysene	5900		410
Acenaphthylene	ND		4100
Anthracene	1300		410
Benzo(ghi)perylene	5200		1000
Fluorene	520		410
Phenanthrene	5200		410
Dibenzo(a,h)anthracene	3900		1000
Indeno(1,2,3-cd)pyrene	4900		410
Pyrene	10000		1000
1-Methylnaphthalene	11000		4100
2-Methylnaphthalene	8800		4100

QUALIFIERS: C = COMMENT ND = NOT DETECTED
 J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
 L = PRESENT BELOW STATED QNT. LIMIT
 X = EXCEEDS CALIBRATION RANGE

INORGANIC ANALYSES DATA SHEET

1

DEC SAMPLE NO.

SS-168D-COMP
SS168D

GF 12/21/93

Lab Name: ECOLOGY AND ENVIRONMENT Contract: _____

Lab Code: EANDE Case No.: 9301.887 SAS No.: _____ SDG No.: SS-93D

Matrix (soil/water): SOIL Lab Sample ID: 70301

Level (low/med): LOW Date Received: 08/27/93

% Solids: 96.9

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	2540		*	P
7440-36-0	Antimony	7.6	U		P
7440-38-2	Arsenic	4.4			F
7440-39-3	Barium	112			P
7440-41-7	Beryllium	0.26	B		P
7440-43-9	Cadmium	2.5			P
7440-70-2	Calcium	5870			P
7440-47-3	Chromium	10.1			P
7440-48-4	Cobalt	5.4	B		P
7440-50-8	Copper	147		*	P
7439-89-6	Iron	9780			P
7439-92-1	Lead	31.5			F
7439-95-4	Magnesium	1270			P
7439-96-5	Manganese	220		N*	P
7439-97-6	Mercury	0.16			CV
7440-02-0	Nickel	13.5			P
7440-09-7	Potassium	493	B		P
7782-49-2	Selenium	0.30	B	W	F
7440-22-4	Silver	0.68	B		P
7440-23-5	Sodium	125	U		P
7440-28-0	Thallium	0.21	U		F
7440-62-2	Vanadium	9.5	B		P
7440-66-6	Zinc	2030			P
	Cyanide	0.70			AS

Color Before: _____ Clarity Before: _____ Texture: FS _____

Color After: Y _____ Clarity After: C _____ Artifacts: _____

Comments:

CLIENT SAMPLE ID: SS-168D-COMP

FORM I - IN

ILMO2.

TEST CODE :SPAHS 1

JOB NUMBER :9301.904
ELAP ID : 10486Ecology and Environment, Inc.
Analytical Services Center

CLIENT : OB-5000 NYSDEC - DEARCOP
RESULTS IN DRY WEIGHT %SOLIDS : 96 %
TEST NAME : PAHS - LC UNITS : UG/KG
SAMPLE ID LAB : EE-93-70302 MATRIX : SOLID
SAMPLE ID CLIENT: SS-181D-COMP

PARAMETER	RESULTS	Q	QNT. LIMIT
Acenaphthene	2400	-	1000
Fluoranthene	990		260
Naphthalene	580	J	1000
Benzo(a)anthracene	560		100
Benzo(a)pyrene	460		100
Benzo(b)fluoranthene	450		100
Benzo(k)fluoranthene	300		100
Chrysene	440		100
Acenaphthylene	ND		1000
Anthracene	100		100
Benzo(ghi)perylene	430		260
Fluorene	35	J	100
Phenanthrene	400		100
Dibenzo(a,h)anthracene	330		260
Indeno(1,2,3-cd)pyrene	440		100
Pyrene	920		260
1-Methylnaphthalene	ND		1000
2-Methylnaphthalene	ND		1000

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED QNT. LIMIT

INORGANIC ANALYSES DATA SHEET

1

DEC SAMPLE NO.

SS-181D-COMP
SS181D

GF 12-21-93

Lab Name: ECOLOGY AND ENVIRONMENT Contract: _____

Lab Code: EANDE Case No.: 9301.887 SAS No.: _____ SDG No.: SS-93D

Matrix (soil/water): SOIL

Lab Sample ID: 70302

Level (low/med): LOW

Date Received: 08/27/93

% Solids: 95.7

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3030	*	P	
7440-36-0	Antimony	7.7	U	P	
7440-38-2	Arsenic	3.9		F	
7440-39-3	Barium	42.9		P	
7440-41-7	Beryllium	0.26	B	P	
7440-43-9	Cadmium	0.56	U	P	
7440-70-2	Calcium	4170		P	
7440-47-3	Chromium	5.4		P	
7440-48-4	Cobalt	4.1	B	P	
7440-50-8	Copper	22.4		*	P
7439-89-6	Iron	6600		P	
7439-92-1	Lead	48.1		F	
7439-95-4	Magnesium	1200		P	
7439-96-5	Manganese	286	N*	P	
7439-97-6	Mercury	0.10	U	CV	
7440-02-0	Nickel	2.5	B	P	
7440-09-7	Potassium	302	B	P	
7782-49-2	Selenium	0.21	U	W	F
7440-22-4	Silver	0.52	U	P	
7440-23-5	Sodium	127	U	P	
7440-28-0	Thallium	0.21	U	W	F
7440-62-2	Vanadium	8.8	B	P	
7440-66-6	Zinc	76.9		P	
	Cyanide	0.52	U	AS	

Color Before: _____ Clarity Before: _____ Texture: FS _____

Color After: Y _____ Clarity After: C _____ Artifacts: _____

Comments:

CLIENT_SAMPLE_ID: SS-181D-COMP

TEST CODE :SPAHS 1

JOB NUMBER :9301.904

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : OB-5000 NYSDEC - DEARCOP
 RESULTS IN DRY WEIGHT %SOLIDS : 86 %
 TEST NAME : PAHS - LC UNITS : UG/KG
 SAMPLE ID LAB : EE-93-70303 MATRIX : SOLID
 SAMPLE ID CLIENT: SS-205D-COMP

PARAMETER	RESULTS	Q	QNT. LIMIT
Acenaphthene	4100		2300
Fluoranthene	1600		580
Naphthalene	1200	J	2300
Benzo(a)anthracene	730		230
Benzo(a)pyrene	990		230
Benzo(b)fluoranthene	900		230
Benzo(k)fluoranthene	590		230
Chrysene	800		230
Acenaphthylene	ND		2300
Anthracene	170	J	230
Benzo(ghi)perylene	860		580
Fluorene	76	J	230
Phenanthrene	710		230
Dibenzo(a,h)anthracene	650		580
Indeno(1,2,3-cd)pyrene	900		230
Pyrene	1500		580
1-Methylnaphthalene	ND		2300
2-Methylnaphthalene	ND		2300

QUALIFIERS: C = COMMENT

ND = NOT DETECTED

J = ESTIMATED VALUE

B = ALSO PRESENT IN BLANK

L = PRESENT BELOW STATED QNT. LIMIT

INORGANIC ANALYSES DATA SHEET

1

DEC SAMPLE NO.

SS-205D-COMP
SS205D

GE 12/21/93

Lab Name: ECOLOGY AND ENVIRONMENT Contract:

Lab Code: EANDE Case No.: 9301.887 SAS No.: SDG No.: SS-93D

Matrix (soil/water): SOIL

Lab Sample ID: 70303

Level (low/med): LOW

Date Received: 08/27/93

% Solids: 86.2

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	2820		*	P
7440-36-0	Antimony	8.6	U		P
7440-38-2	Arsenic	13.6		S	F
7440-39-3	Barium	63.7			P
7440-41-7	Beryllium	0.25	B		P
7440-43-9	Cadmium	1.8			P
7440-70-2	Calcium	8430			P
7440-47-3	Chromium	13.1			P
7440-48-4	Cobalt	4.2	B		P
7440-50-8	Copper	777		*	P
7439-89-6	Iron	8690			P
7439-92-1	Lead	110			F
7439-95-4	Magnesium	2220			P
7439-96-5	Manganese	418		N*	P
7439-97-6	Mercury	0.11	U		CV
7440-02-0	Nickel	9.9			P
7440-09-7	Potassium	760	B		P
7782-49-2	Selenium	0.23	U	W	F
7440-22-4	Silver	0.85	B		P
7440-23-5	Sodium	141	U		P
7440-28-0	Thallium	0.23	U	W	F
7440-62-2	Vanadium	9.3	B		P
7440-66-6	Zinc	513			P
	Cyanide	0.77			AS

Color Before: _____ Clarity Before: _____ Texture: FS _____

Color After: Y _____ Clarity After: C _____ Artifacts: _____

Comments:

CLIENT SAMPLE ID: SS-205D-COMP

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VOLATILE ORGANICS ANALYSIS DATA SHEET

DEC SAMPLE NO.

SS-206D

Name: E & E INC.

Contract:

Lab Code: EANDE Case No.: 887 SAS No.:

SDG No.: SS-331D

Matrix: (soil/water) SOIL

Lab Sample ID: 70119

Sample wt/vol: 5.1 (g/mL) G

Lab File ID: H2429

Level: (low/med) LOW

Date Received: 08/26/93

% Moisture: not dec. 2

Date Analyzed: 09/01/93

GC Column: VOCOL ID: 0.530 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

Q

CAS NO.	COMPOUND		
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	71	B
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	2	J
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SS-206D

Contract:

Lab Name: E & E INC.

SAS No.:

SDG No.: SS-331D

Lab Code: EANDE Case No.: 887

Lab Sample ID: 70119

Matrix: (soil/water) SOIL

Lab File ID: E5121

Sample wt/vol: 30.0 (g/mL) G

Date Received: 08/26/93

Level: (low/med) LOW

Date Extracted: 09/20/93

% Moisture: 2 decanted: (Y/N) N

Date Analyzed: 09/23/93

Concentrated Extract Volume: 500.0 (uL)

Dilution Factor: 1.0

Injection Volume: 2.0(uL)

GPC Cleanup: (Y/N) Y pH: 7.5

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND		
108-95-2	Phenol	340	U
111-44-4	bis(2-Chloroethyl)Ether	340	U
95-57-8	2-Chlorophenol	340	U
541-73-1	1,3-Dichlorobenzene	340	U
106-46-7	1,4-Dichlorobenzene	340	U
95-50-1	1,2-Dichlorobenzene	340	U
95-48-7	2-Methylphenol	340	U
108-60-1	2,2'-oxybis(1-Chloropropane)	340	U
106-44-5	4-Methylphenol	340	U
621-64-7	N-Nitroso-Di-n-Propylamine	340	U
67-72-1	Hexachloroethane	340	U
98-95-3	Nitrobenzene	340	U
78-59-1	Isophorone	340	U
88-75-5	2-Nitrophenol	340	U
105-67-9	2,4-Dimethylphenol	340	U
111-91-1	bis(2-Chloroethoxy)Methane	340	U
120-83-2	2,4-Dichlorophenol	340	U
120-82-1	1,2,4-Trichlorobenzene	340	U
91-20-3	Naphthalene	340	U
106-47-8	4-Chloroaniline	340	U
87-68-3	Hexachlorobutadiene	340	U
59-50-7	4-Chloro-3-Methylphenol	340	U
91-57-6	2-Methylnaphthalene	340	U
77-47-4	Hexachlorocyclopentadiene	340	U
88-06-2	2,4,6-Trichlorophenol	340	U
95-95-4	2,4,5-Trichlorophenol	820	U
91-58-7	2-Chloronaphthalene	340	U
88-74-4	2-Nitroaniline	820	U
131-11-3	Dimethylphthalate	340	U
208-96-8	Acenaphthylene	340	U
606-20-2	2,6-Dinitrotoluene	340	U
99-09-2	3-Nitroaniline	820	U
83-32-9	Acenaphthene	340	U

SEMOVOLATILE ORGANICS ANALYSIS DATA SHEET

DEC SAMPLE NO.

SS-206D

Lab Name: E & E INC.

Contract:

Lab Code: EANDE Case No.: 887

SAS No.:

SDG No.: SS-331D

Matrix: (soil/water) SOIL

Lab Sample ID: 70119

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: E5121

Level: (low/med) LOW

Date Received: 08/26/93

% Moisture: 2 decanted: (Y/N) N

Date Extracted: 09/20/93

Concentrated Extract Volume: 500.0 (uL)

Date Analyzed: 09/23/93

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.5

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND			
51-28-5-----	2,4-Dinitrophenol	820	U	
100-02-7-----	4-Nitrophenol	820	U	
132-64-9-----	Dibenzofuran	340	U	
121-14-2-----	2,4-Dinitrotoluene	340	U	
84-66-2-----	Diethylphthalate	230	BJ	
7005-72-3-----	4-Chlorophenyl-phenylether	340	U	
86-73-7-----	Fluorene	340	U	
100-01-6-----	4-Nitroaniline	820	U	
534-52-1-----	4,6-Dinitro-2-methylphenol	820	U	
86-30-6-----	N-Nitrosodiphenylamine (1)	340	U	
101-55-3-----	4-Bromophenyl-phenylether	340	U	
118-74-1-----	Hexachlorobenzene	340	U	
87-86-5-----	Pentachlorophenol	820	U	
85-01-8-----	Phenanthrene	56	J	
120-12-7-----	Anthracene	340	U	
86-74-8-----	Carbazole	340	U	
84-74-2-----	Di-n-Butylphthalate	340	U	
206-44-0-----	Fluoranthene	120	J	
129-00-0-----	Pyrene	160	J	
85-68-7-----	Butylbenzylphthalate	340	U	
91-94-1-----	3,3'-Dichlorobenzidine	340	U	
56-55-3-----	Benzo(a)Anthracene	67	J	
218-01-9-----	Chrysene	83	J	
117-81-7-----	bis(2-Ethylhexyl)Phthalate	67	BJ	
117-84-0-----	Di-n-Octyl Phthalate	340	U	
205-99-2-----	Benzo(b)Fluoranthene	120	J	
207-08-9-----	Benzo(k)Fluoranthene	43	J	
50-32-8-----	Benzo(a)Pyrene	72	J	
193-39-5-----	Indeno(1,2,3-cd)Pyrene	83	J	
53-70-3-----	Dibenz(a,h)Anthracene	340	U	
191-24-2-----	Benzo(g,h,i)Perylene	340	U	

(1) - Cannot be separated from Diphenylamine

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: E & E INC.

Contract:

SS-206D

Lab Code: EANDE Case No.: 904 SAS No.: SDG No.: SS331D

Matrix: (soil/water) SOIL Lab Sample ID: 70119

Sample wt/vol: 30.0 (g/mL) G Lab File ID:

% Moisture: 2 decanted: (Y/N) N Date Received: 08/26/93

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 08/30/93

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 10/05/93

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 7.5 Sulfur Cleanup: (Y/N) Y

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

Q

CAS NO.	COMPOUND		
319-84-6-----	alpha-BHC	1.7	U
319-85-7-----	beta-BHC	1.7	U
319-86-8-----	delta-BHC	1.7	U
58-89-9-----	gamma-BHC (Lindane)	1.7	U
76-44-8-----	Heptachlor	1.7	U
309-00-2-----	Aldrin	1.7	U
1024-57-3-----	Heptachlor epoxide	1.7	U
959-98-8-----	Endosulfan I	1.7	U
60-57-1-----	Dieldrin	3.4	U
72-55-9-----	4,4'-DDE	3.4	U
72-20-8-----	Endrin	3.4	U
33213-65-9-----	Endosulfan II	3.4	U
72-54-8-----	4,4'-DDD	3.4	U
1031-07-8-----	Endosulfan sulfate	3.4	U
50-29-3-----	4,4'-DDT	3.4	U
72-43-5-----	Methoxychlor	17	U
53494-70-5-----	Endrin ketone	3.4	U
7421-93-4-----	Endrin aldehyde	3.4	U
5103-71-9-----	alpha-Chlordane	1.7	U
5103-74-2-----	gamma-Chlordane	1.7	U
8001-35-2-----	Toxaphene	170	U
12674-11-2-----	Aroclor-1016	34	U
11104-28-2-----	Aroclor-1221	68	U
11141-16-5-----	Aroclor-1232	34	U
53469-21-9-----	Aroclor-1242	34	U
12672-29-6-----	Aroclor-1248	34	U
11097-69-1-----	Aroclor-1254	34	U
11096-82-5-----	Aroclor-1260	34	U

1
INORGANIC ANALYSES DATA SHEET

DEC SAMPLE NO.

SS-206D
SS206D
GF 12/21/93

Lab Name: ECOLOGY AND ENVIRONMENT Contract:

Lab Code: EANDE Case No.: 9301.887 SAS No.: SDG No.: BH331D

Matrix (soil/water): SOIL Lab Sample ID: 70119

Level (low/med): LOW Date Received: 08/26/93

% Solids: 97.7

Concentration, Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4910		*	P
7440-36-0	Antimony	7.6	U	N	P
7440-38-2	Arsenic	4.9			F
7440-39-3	Barium	39.6	B		P
7440-41-7	Beryllium	0.28	B		P
7440-43-9	Cadmium	1.8			P
7440-70-2	Calcium	2110		*	P
7440-47-3	Chromium	77.6		N*	P
7440-48-4	Cobalt	19.4		*	P
7440-50-8	Copper	204		N*	P
7439-89-6	Iron	52300		*	P
7439-92-1	Lead	820		*	P
7439-95-4	Magnesium	1140			P
7439-96-5	Manganese	950		*	P
7439-97-6	Mercury	0.10			CV
7440-02-0	Nickel	46.2		*	P
7440-09-7	Potassium	603	B		P
7782-49-2	Selenium	0.20	U	W	F
7440-22-4	Silver	0.51	U		P
7440-23-5	Sodium	124	U		P
7440-28-0	Thallium	0.20	U		F
7440-62-2	Vanadium	14.8			P
7440-66-6	Zinc	327		N*	P
	Cyanide	0.51	U		AS

Color Before: Clarity Before: Texture: F

Color After: Y Clarity After: C Artifacts: YES

Comments:

CLIENT SAMPLE ID: SS-206D

TEST CODE :SPAHS 1

JOB NUMBER :9301.887

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : OB-5000 NYSDEC - DEARCOP

RESULTS IN DRY WEIGHT %SOLIDS : 97 %

TEST NAME : PAHS - LC UNITS : UG/KG

SAMPLE ID LAB : EE-93-70121 MATRIX : SOLID

SAMPLE ID CLIENT: SS-206D-COMP.

PARAMETER	RESULTS	Q	QNT. LIMIT
Acenaphthene	700		210
Fluoranthene	470		52
Naphthalene	580		210
Benzo(a)anthracene	220		21
Benzo(a)pyrene	180		21
Benzo(b)fluoranthene	200		21
Benzo(k)fluoranthene	130		21
Chrysene	180		21
Acenaphthylene	ND		210
Anthracene	44		21
Benzo(ghi)perylene	180		52
Fluorene	23		21
Phenanthrene	200		21
Dibenzo(a,h)anthracene	140		52
Indeno(1,2,3-cd)pyrene	180		21
Pyrene	420		52
1-Methylnaphthalene	320		210
2-Methylnaphthalene	ND		210

QUALIFIERS: C = COMMENT ND = NOT DETECTED

J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK

L = PRESENT BELOW STATED QNT. LIMIT

1
INORGANIC ANALYSES DATA SHEET

DEC SAMPLE NO.

SS-206D-COMP
206DC

Lab Name: ECOLOGY AND ENVIRONMENT Contract:

Lab Code: EANDE Case No.: 9301.887 SAS No.: SDG No.: BH331D

Matrix (soil/water): SOIL Lab Sample ID: 70121

Level (low/med): LOW Date Received: 08/26/93

% Solids: 97.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	6480		*	P
7440-36-0	Antimony	7.6	U	N	P
7440-38-2	Arsenic	9.2			F
7440-39-3	Barium	48.8			P
7440-41-7	Beryllium	0.35	B		P
7440-43-9	Cadmium	1.1			P
7440-70-2	Calcium	5590		*	P
7440-47-3	Chromium	12.1		N*	P
7440-48-4	Cobalt	6.1	B	*	P
7440-50-8	Copper	349		N*	P
7439-89-6	Iron	11100		*	P
7439-92-1	Lead	110		*	P
7439-95-4	Magnesium	2180			P
7439-96-5	Manganese	265		*	P
7439-97-6	Mercury	0.16			CV
7440-02-0	Nickel	17.3		*	P
7440-09-7	Potassium	1030	B		P
7782-49-2	Selenium	0.23	B	W	F
7440-22-4	Silver	0.52	U		P
7440-23-5	Sodium	125	U		P
7440-28-0	Thallium	0.21	U		F
7440-62-2	Vanadium	15.4			P
7440-66-6	Zinc	302		N*	P
	Cyanide	0.52	U		AS

Color Before: Clarity Before: Texture: F

Color After: Y Clarity After: C Artifacts: YES

Comments:

CLIENT SAMPLE ID: SS-206D-COMP

TEST CODE :SPAHS 1

JOB NUMBER :9301.904

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : OB-5000 NYSDEC - DEARCOP

RESULTS IN DRY WEIGHT

%SOLIDS : 90 %

TEST NAME : PAHS - LC

UNITS : UG/KG

SAMPLE ID LAB : EE-93-70304

MATRIX : SOLID

SAMPLE ID CLIENT: SS-244D-COMP

PARAMETER	RESULTS	Q	QNT. LIMIT
Acenaphthene	26000		11000
Fluoranthene	27000		2800
Naphthalene	18000		11000
Benzo(a)anthracene	11000		1100
Benzo(a)pyrene	8000		1100
Benzo(b)fluoranthene	6300		1100
Benzo(k)fluoranthene	4700		1100
Chrysene	8100		1100
Acenaphthylene	860	J	11000
Anthracene	5900		1100
Benzo(ghi)perylene	6100		2800
Fluorene	3000		1100
Phenanthrene	17000		1100
Dibenzo(a,h)anthracene	4800		2800
Indeno(1,2,3-cd)pyrene	6000		1100
Pyrene	17000		2800
1-Methylnaphthalene	ND		11000
2-Methylnaphthalene	ND		11000

QUALIFIERS: C = COMMENT

ND = NOT DETECTED

J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK

L = PRESENT BELOW STATED QNT. LIMIT

INORGANIC ANALYSES DATA SHEET

1

DEC SAMPLE NO.

SS-244D-Comp
SS244D
GF 10/21/93

Lab Name: ECOLOGY AND ENVIRONMENT Contract: _____

Lab Code: EANDE Case No.: 9301.887 SAS No.: _____ SDG No.: SS-93D

Matrix (soil/water): SOIL Lab Sample ID: 70304

Level (low/med): LOW Date Received: 08/27/93

% Solids: 89.9

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3050		*	P
7440-36-0	Antimony	8.2	U		P
7440-38-2	Arsenic	4.8			F
7440-39-3	Barium	48.8			P
7440-41-7	Beryllium	0.26	B		P
7440-43-9	Cadmium	0.60	U		P
7440-70-2	Calcium	6610			P
7440-47-3	Chromium	7.4			P
7440-48-4	Cobalt	4.0	B		P
7440-50-8	Copper	18.9		*	P
7439-89-6	Iron	6530			P
7439-92-1	Lead	60.6			F
7439-95-4	Magnesium	2220			P
7439-96-5	Manganese	268		N*	P
7439-97-6	Mercury	0.09	U		CV
7440-02-0	Nickel	6.8	B		P
7440-09-7	Potassium	498	B		P
7782-49-2	Selenium	0.22	U		F
7440-22-4	Silver	0.56	U		P
7440-23-5	Sodium	135	U		P
7440-28-0	Thallium	0.22	U		F
7440-62-2	Vanadium	8.6	B		P
7440-66-6	Zinc	83.2			P
	Cyanide	0.56	U		AS

Color Before: _____ Clarity Before: _____ Texture: FS _____

Color After: Y _____ Clarity After: C _____ Artifacts: _____

Comments:

CLIENT SAMPLE ID: SS-244D-COMP

FORM I - IN

ILMO2.1

A-171

17

TEST CODE :SPAHS 1

JOB NUMBER :9301.904

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : OB-5000 NYSDEC - DEARCOP

RESULTS IN DRY WEIGHT %SOLIDS : 93 %

TEST NAME : PAHS - LC UNITS : UG/KG

SAMPLE ID LAB : EE-93-70305 MATRIX : SOLID

SAMPLE ID CLIENT: SS-263D-COMP

PARAMETER	RESULTS	Q	QNT. LIMIT
Acenaphthene	910		220
Fluoranthene	410		54
Naphthalene	350		220
Benzo(a)anthracene	240		22
Benzo(a)pyrene	200		22
Benzo(b)fluoranthene	190		22
Benzo(k)fluoranthene	130		22
Chrysene	180		22
Acenaphthylene	ND		220
Anthracene	63		22
Benzo(ghi)perylene	200		54
Fluorene	13	J	22
Phenanthrene	130		22
Dibenzo(a,h)anthracene	160		54
Indeno(1,2,3-cd)pyrene	190		22
Pyrene	350		54
1-Methylnaphthalene	260		220
2-Methylnaphthalene	ND		220

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED QNT. LIMIT

INORGANIC ANALYSES DATA SHEET

1

DEC SAMPLE NO.

SS-263D-Comp

SS263D

GF 12-21-93

Name: ECOLOGY AND ENVIRONMENT Contract:

Lab Code: EANDE Case No.: 9301.887 SAS No.: SDG No.: SS-93D

Matrix (soil/water): SOIL

Lab Sample ID: 70305

Level (low/med): LOW

Date Received: 08/27/93

% Solids: 92.7

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	2760		*	P
7440-36-0	Antimony	8.0	U		P
7440-38-2	Arsenic	7.0			F
7440-39-3	Barium	53.3			P
7440-41-7	Beryllium	0.22	B		P
7440-43-9	Cadmium	1.3			P
7440-70-2	Calcium	26600			P
7440-47-3	Chromium	12.9			P
7440-48-4	Cobalt	4.6	B		P
7440-50-8	Copper	21.7		*	P
7439-89-6	Iron	10800			P
7439-92-1	Lead	210			F
7439-95-4	Magnesium	1550			P
7439-96-5	Manganese	235		N*	P
7439-97-6	Mercury	2.0			CV
7440-02-0	Nickel	8.4	B		P
7440-09-7	Potassium	359	B		P
7782-49-2	Selenium	0.22	U	W	F
7440-22-4	Silver	1.6	B		P
7440-23-5	Sodium	131	U		P
7440-28-0	Thallium	0.22	U		F
7440-62-2	Vanadium	12.1			P
7440-66-6	Zinc	191			P
	Cyanide	0.59			AS

Color Before: _____ Clarity Before: _____ Texture: FS _____

Color After: Y _____ Clarity After: C _____ Artifacts: _____

Comments:

CLIENT SAMPLE ID: SS-263D-COMP

FORM I - IN

ILMO2.1

A-173

13

TEST CODE :SPAHS 1

JOB NUMBER :9301.904

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : OB-5000 NYSDEC - DEARCOP

RESULTS IN DRY WEIGHT %SOLIDS : 88 %

TEST NAME : PAHS - LC UNITS : UG/KG

SAMPLE ID LAB : EE-93-70306 MATRIX : SOLID

SAMPLE ID CLIENT: SS-270D-COMP

PARAMETER	RESULTS	Q	QNT. LIMIT
Acenaphthene	15000		4500
Fluoranthene	11000		1100
Naphthalene	11000		4500
Benzo(a)anthracene	4400		450
Benzo(a)pyrene	2800		450
Benzo(b)fluoranthene	2400		450
Benzo(k)fluoranthene	1700		450
Chrysene	3300		450
Acenaphthylene	ND		4500
Anthracene	2400		450
Benzo(ghi)perylene	3300		1100
Fluorene	1400		450
Phenanthrene	8800		450
Dibenzo(a,h)anthracene	1600		1100
Indeno(1,2,3-cd)pyrene	1900		450
Pyrene	11000		1100
1-Methylnaphthalene	ND		4500
2-Methylnaphthalene	ND		4500

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED QNT. LIMIT

INORGANIC ANALYSES DATA SHEET

1

DEC SAMPLE NO.

SS-270D-Cmp

SB270D

GF 12-21-93

Name: ECOLOGY AND ENVIRONMENT Contract:

Lab Code: EANDE Case No.: 9301.887 SAS No.: SDG No.: SS-93D

Matrix (soil/water): SOIL

Lab Sample ID: 70306

Level (low/med): LOW

Date Received: 08/27/93

% Solids: 88.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3700		*	P
7440-36-0	Antimony	8.4	U		P
7440-38-2	Arsenic	4.1			F
7440-39-3	Barium	119			P
7440-41-7	Beryllium	0.39	B		P
7440-43-9	Cadmium	0.96	B		P
7440-70-2	Calcium	9220			P
7440-47-3	Chromium	7.6			P
7440-48-4	Cobalt	9.4	B		P
7440-50-8	Copper	32.9		*	P
7439-89-6	Iron	9520			P
7439-92-1	Lead	237			F
7439-95-4	Magnesium	3020			P
7439-96-5	Manganese	1240		N*	P
7439-97-6	Mercury	0.09	U		CV
7440-02-0	Nickel	6.5	B		P
7440-09-7	Potassium	618	B		P
7782-49-2	Selenium	0.23	U	W	F
7440-22-4	Silver	0.57	U		P
7440-23-5	Sodium	138	U		P
7440-28-0	Thallium	0.23	U		F
7440-62-2	Vanadium	12.1			P
7440-66-6	Zinc	157			P
	Cyanide	0.60			AS

Color Before: Clarity Before: Texture: FS

Color After: Y Clarity After: C Artifacts:

Comments:

CLIENT SAMPLE ID: SS-270D-COMP

FORM I - IN

ILMO2.1

TEST CODE :SPAHS 1

JOB NUMBER :9301.904

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : OB-5000 NYSDEC - DEARCOP

RESULTS IN DRY WEIGHT

%SOLIDS : 97 %

TEST NAME : PAHS - LC

UNITS : UG/KG

SAMPLE ID LAB : EE-93-70307

MATRIX : SOLID

SAMPLE ID CLIENT: SS-320D-COMP

PARAMETER	RESULTS	Q	QNT. LIMIT
Acenaphthene	1800		410
Fluoranthene	900		100
Naphthalene	380	J	410
Benzo(a)anthracene	500		41
Benzo(a)pyrene	520		41
Benzo(b)fluoranthene	440		41
Benzo(k)fluoranthene	270		41
Chrysene	400		41
Acenaphthylene	ND		410
Anthracene	60		41
Benzo(ghi)perylene	370		100
Fluorene	20	J	41
Phenanthrene	230		41
Dibenzo(a,h)anthracene	ND		100
Indeno(1,2,3-cd)pyrene	450		41
Pyrene	890		100
1-Methylnaphthalene	310	J	410
2-Methylnaphthalene	ND		410

 QUALIFIERS: C = COMMENT ND = NOT DETECTED
 J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
 L = PRESENT BELOW STATED QNT. LIMIT

1
INORGANIC ANALYSES DATA SHEET

DEC SAMPLE NO.

SS-320D-COMP
SS320D
GF 12-21-93

Lab Name: ECOLOGY AND ENVIRONMENT Contract: _____

Lab Code: EANDE Case No.: 9301.887 SAS No.: _____ SDG No.: SS-93D

Matrix (soil/water): SOIL Lab Sample ID: 70307

Level (low/med): LOW Date Received: 08/27/93

% Solids: 96.9

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3280	U	*	P
7440-36-0	Antimony	7.6	U		P
7440-38-2	Arsenic	7.1			F
7440-39-3	Barium	105			P
7440-41-7	Beryllium	0.35	B		P
7440-43-9	Cadmium	0.63	B		P
7440-70-2	Calcium	17100			P
7440-47-3	Chromium	8.2			P
7440-48-4	Cobalt	7.1	B		P
7440-50-8	Copper	54.3		*	P
7439-89-6	Iron	13300			P
7439-92-1	Lead	78.5			F
7439-95-4	Magnesium	5410			P
7439-96-5	Manganese	682		N*	P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	10.4			P
7440-09-7	Potassium	545	B		P
7782-49-2	Selenium	0.21	U	W	F
7440-22-4	Silver	0.52	U		P
7440-23-5	Sodium	125	U		P
7440-28-0	Thallium	0.21	U	W	F
7440-62-2	Vanadium	13.2			P
7440-66-6	Zinc	163			P
	Cyanide	0.52	U		AS

Color Before: _____ Clarity Before: _____ Texture: FS _____

Color After: Y _____ Clarity After: C _____ Artifacts: _____

Comments:

CLIENT SAMPLE ID: SS-320D-COMP

FORM I - IN

ILMO2.1

A-177

20

VOLATILE ORGANICS ANALYSIS DATA SHEET

SS-331D

Lab Name: E & E INC.

Contract:

Lab Code: EANDE Case No.: 887

SAS-No.:

SDG No.: SS-331D

Matrix: (soil/water) SOIL

Lab Sample ID: 70117

Sample wt/vol: 5.2 (g/mL) G

Lab File ID: H2427

Level: (low/med) LOW

Date Received: 08/26/93

% Moisture: not dec. 7

Date Analyzed: 09/01/93

GC Column: VOCOL ID: 0.530 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/KG	Q
---------	----------	-----------------	-------	---

74-87-3-----	Chloromethane	10	U	
74-83-9-----	Bromomethane	10	U	
75-01-4-----	Vinyl Chloride	10	U	
75-00-3-----	Chloroethane	10	U	
75-09-2-----	Methylene Chloride	80	B	
67-64-1-----	Acetone	10	U	
75-15-0-----	Carbon Disulfide	10	U	
75-35-4-----	1,1-Dichloroethene	10	U	
75-34-3-----	1,1-Dichloroethane	10	U	
540-59-0-----	1,2-Dichloroethene (total)	10	U	
67-66-3-----	Chloroform	10	U	
107-06-2-----	1,2-Dichloroethane	10	U	
78-93-3-----	2-Butanone	10	U	
71-55-6-----	1,1,1-Trichloroethane	10	U	
56-23-5-----	Carbon Tetrachloride	10	U	
75-27-4-----	Bromodichloromethane	10	U	
78-87-5-----	1,2-Dichloropropane	10	U	
10061-01-5-----	cis-1,3-Dichloropropene	10	U	
79-01-6-----	Trichloroethene	10	U	
124-48-1-----	Dibromochloromethane	10	U	
79-00-5-----	1,1,2-Trichloroethane	10	U	
71-43-2-----	Benzene	10	U	
10061-02-6-----	trans-1,3-Dichloropropene	10	U	
75-25-2-----	Bromoform	10	U	
108-10-1-----	4-Methyl-2-Pentanone	10	U	
591-78-6-----	2-Hexanone	10	U	
127-18-4-----	Tetrachloroethene	10	U	
79-34-5-----	1,1,2,2-Tetrachloroethane	10	U	
108-88-3-----	Toluene	10	U	
108-90-7-----	Chlorobenzene	10	U	
100-41-4-----	Ethylbenzene	10	U	
100-42-5-----	Styrene	10	U	
1330-20-7-----	Xylene (total)	10	U	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

DEC SAMPLE NO.

Lab Name: E & E INC.

Contract:

SS-331DRE

Lab Code: EANDE

Case No.: 887

SAS No.:

SDG No.: SS-331D

Matrix: (soil/water) SOIL

Lab Sample ID: 70117RE

Sample wt/vol: 4.8 (g/mL) G

Lab File ID: H2443

Level: (low/med) LOW

Date Received: 08/26/93

% Moisture: not dec. 7

Date Analyzed: 09/01/93

GC Column: VOCOL ID: 0.530 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

Q

74-87-3-----Chloromethane	11	U
74-83-9-----Bromomethane	11	U
75-01-4-----Vinyl Chloride	11	U
75-00-3-----Chloroethane	11	U
75-09-2-----Methylene Chloride	24	B
67-64-1-----Acetone	11	U
75-15-0-----Carbon Disulfide	11	U
75-35-4-----1,1-Dichloroethene	11	U
75-34-3-----1,1-Dichloroethane	11	U
540-59-0-----1,2-Dichloroethene (total)	11	U
67-66-3-----Chloroform	11	U
107-06-2-----1,2-Dichloroethane	11	U
78-93-3-----2-Butanone	11	U
71-55-6-----1,1,1-Trichloroethane	11	U
56-23-5-----Carbon Tetrachloride	11	U
75-27-4-----Bromodichloromethane	11	U
78-87-5-----1,2-Dichloropropane	11	U
10061-01-5-----cis-1,3-Dichloropropene	11	U
79-01-6-----Trichloroethene	11	U
124-48-1-----Dibromochloromethane	11	U
79-00-5-----1,1,2-Trichloroethane	11	U
71-43-2-----Benzene	11	U
10061-02-6-----trans-1,3-Dichloropropene	11	U
75-25-2-----Bromoform	11	U
108-10-1-----4-Methyl-2-Pentanone	11	U
591-78-6-----2-Hexanone	11	U
127-18-4-----Tetrachloroethene	11	U
79-34-5-----1,1,2,2-Tetrachloroethane	11	U
108-88-3-----Toluene	11	U
108-90-7-----Chlorobenzene	11	U
100-41-4-----Ethylbenzene	11	U
100-42-5-----Styrene	11	U
1330-20-7-----Xylene (total)	11	U

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

DEC SAMPLE NO.

SS-331D

Lab Name: E & E INC.

Contract:

Lab Code: EANDE Case No.: 887 SAS No.: SDG No.: SS-331D

Matrix: (soil/water) SOIL Lab Sample ID: 70117

Sample wt/vol: 30.0 (g/mL) G Lab File ID: E5126

Level: (low/med) LOW Date Received: 08/26/93

% Moisture: 7 decanted: (Y/N) N Date Extracted: 09/20/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/23/93

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.3

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND	UG/KG	Q
108-95-2-----	Phenol	350	U
111-44-4-----	bis(2-Chloroethyl)Ether	350	U
95-57-8-----	2-Chlorophenol	350	U
541-73-1-----	1,3-Dichlorobenzene	350	U
106-46-7-----	1,4-Dichlorobenzene	350	U
95-50-1-----	1,2-Dichlorobenzene	350	U
95-48-7-----	2-Methylphenol	350	U
108-60-1-----	2,2'-oxybis(1-Chloropropane)	350	U
106-44-5-----	4-Methylphenol	350	U
621-64-7-----	N-Nitroso-Di-n-Propylamine	350	U
67-72-1-----	Hexachloroethane	350	U
98-95-3-----	Nitrobenzene	350	U
78-59-1-----	Isophorone	350	U
88-75-5-----	2-Nitrophenol	350	U
105-67-9-----	2,4-Dimethylphenol	350	U
111-91-1-----	bis(2-Chloroethoxy)Methane	350	U
120-83-2-----	2,4-Dichlorophenol	350	U
120-82-1-----	1,2,4-Trichlorobenzene	350	U
91-20-3-----	Naphthalene	350	U
106-47-8-----	4-Chloroaniline	350	U
87-68-3-----	Hexachlorobutadiene	350	U
59-50-7-----	4-Chloro-3-Methylphenol	350	U
91-57-6-----	2-Methylnaphthalene	350	U
77-47-4-----	Hexachlorocyclopentadiene	350	U
88-06-2-----	2,4,6-Trichlorophenol	350	U
95-95-4-----	2,4,5-Trichlorophenol	860	U
91-58-7-----	2-Chloronaphthalene	350	U
88-74-4-----	2-Nitroaniline	860	U
131-11-3-----	Dimethylphthalate	350	U
208-96-8-----	Acenaphthylene	350	U
606-20-2-----	2,6-Dinitrotoluene	350	U
99-09-2-----	3-Nitroaniline	860	U
83-32-9-----	Acenaphthene	350	U

SEMICVOLATILE ORGANICS ANALYSIS DATA SHEET

DEC SAMPLE NO.

SS-331D

Lab Name: E & E INC.

Contract:

Lab Code: EANDE Case No.: 887

SAS No.:

SDG No.: SS-331D

Matrix: (soil/water) SOIL

Lab Sample ID: 70117

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: E5126

Level: (low/med) LOW

Date Received: 08/26/93

% Moisture: 7 decanted: (Y/N) N

Date Extracted: 09/20/93

Concentrated Extract Volume: 500.0 (uL)

Date Analyzed: 09/23/93

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.3

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/KG	Q
51-28-5-----	2,4-Dinitrophenol	860	U	
100-02-7-----	4-Nitrophenol	860	U	
132-64-9-----	Dibenzofuran	350	U	
121-14-2-----	2,4-Dinitrotoluene	350	U	
84-66-2-----	Diethylphthalate	97	BJ	
7005-72-3-----	4-Chlorophenyl-phenylether	350	U	
86-73-7-----	Fluorene	52	J	
100-01-6-----	4-Nitroaniline	860	U	
534-52-1-----	4,6-Dinitro-2-methylphenol	860	U	
86-30-6-----	N-Nitrosodiphenylamine (1)	350	U	
101-55-3-----	4-Bromophenyl-phenylether	350	U	
118-74-1-----	Hexachlorobenzene	350	U	
87-86-5-----	Pentachlorophenol	860	U	
85-01-8-----	Phenanthrene	790		
120-12-7-----	Anthracene	140	J	
86-74-8-----	Carbazole	120	J	
84-74-2-----	Di-n-Butylphthalate	350	U	
206-44-0-----	Fluoranthene	1200		
129-00-0-----	Pyrene	2100		
85-68-7-----	Butylbenzylphthalate	71	J	
91-94-1-----	3,3'-Dichlorobenzidine	350	U	
56-55-3-----	Benzo(a)Anthracene	1100		
218-01-9-----	Chrysene	1100		
117-81-7-----	bis(2-Ethylhexyl)Phthalate	55	BJ	
117-84-0-----	Di-n-Octyl Phthalate	350	U	
205-99-2-----	Benzo(b)Fluoranthene	1500		
207-08-9-----	Benzo(k)Fluoranthene	460		
50-32-8-----	Benzo(a)Pyrene	1100		
193-39-5-----	Indeno(1,2,3-cd)Pyrene	880		
53-70-3-----	Dibenz(a,h)Anthracene	260	J	
191-24-2-----	Benzo(g,h,i)Perylene	980		

(1) - Cannot be separated from Diphenylamine

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: E & E INC.

Contract:

SS-331D

Lab Code: EANDE Case No.: 904 SAS No.: SDG No.: SS331D

Matrix: (soil/water) SOIL Lab Sample ID: 70117

Sample wt/vol: 30.0 (g/mL) G Lab File ID:

% Moisture: 7 decanted: (Y/N) N Date Received: 08/26/93

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 08/30/93

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 10/08/93

Injection Volume: 2.00 (uL) Dilution Factor: 5.00

GPC Cleanup: (Y/N) Y Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	UG/KG	Q
319-84-6-----	alpha-BHC	9.1	U	
319-85-7-----	beta-BHC	9.1	U	
319-86-8-----	delta-BHC	9.1	U	
58-89-9-----	gamma-BHC (Lindane)	9.1	U	
76-44-8-----	Heptachlor	9.1	U	
309-00-2-----	Aldrin	9.1	U	
1024-57-3-----	Heptachlor epoxide	60		
959-98-8-----	Endosulfan I	9.1	U	
60-57-1-----	Dieldrin	200	P	
72-55-9-----	4,4'-DDE	840		
72-20-8-----	Endrin	18	U	
33213-65-9-----	Endosulfan II	18	U	
72-54-8-----	4,4'-DDD	37	P	
1031-07-8-----	Endosulfan sulfate	18	U	
50-29-3-----	4,4'-DDT	1200		
72-43-5-----	Methoxychlor	91	U	
53494-70-5-----	Endrin ketone	18	U	
7421-93-4-----	Endrin aldehyde	18	U	
5103-71-9-----	alpha-Chlordane	19	P	
5103-74-2-----	gamma-Chlordane	9.1	U	
8001-35-2-----	Toxaphene	910	U	
12674-11-2-----	Aroclor-1016	180	U	
11104-28-2-----	Aroclor-1221	360	U	
11141-16-5-----	Aroclor-1232	180	U	
53469-21-9-----	Aroclor-1242	180	U	
12672-29-6-----	Aroclor-1248	180	U	
11097-69-1-----	Aroclor-1254	180	U	
11096-82-5-----	Aroclor-1260	180	U	

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: E & E INC.

Contract:

SS-331DDL

Lab Code: EANDE

Case No.: 904

SAS No.:

SDG No.: SS331D

Matrix: (soil/water) SOIL

Lab Sample ID: 70117DL

Sample wt/vol: 30.0 (g/mL) G

Lab File ID:

% Moisture: 7 decanted: (Y/N) N

Date Received: 08/26/93

Extraction: (SepF/Cont/Sonc) SONC

Date Extracted: 08/30/93

Concentrated Extract Volume: 5000 (uL)

Date Analyzed: 10/08/93

Injection Volume: 2.00 (uL)

Dilution Factor: 50.0

GPC Cleanup: (Y/N) Y pH: 8.3

Sulfur Cleanup: (Y/N) Y

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

Q

319-84-6-----alpha-BHC	91	U
319-85-7-----beta-BHC	91	U
319-86-8-----delta-BHC	91	U
58-89-9-----gamma-BHC (Lindane)	91	U
76-44-8-----Heptachlor	91	U
309-00-2-----Aldrin	91	U
1024-57-3-----Heptachlor epoxide	91	DJ
959-98-8-----Endosulfan I	91	U
60-57-1-----Dieldrin	180	U
72-55-9-----4,4'-DDE	870	D
72-20-8-----Endrin	180	U
33213-65-9-----Endosulfan II	180	U
72-54-8-----4,4'-DDD	180	U
1031-07-8-----Endosulfan sulfate	180	U
50-29-3-----4,4'-DDT	1300	DP
72-43-5-----Methoxychlor	910	U
53494-70-5-----Endrin ketone	180	U
7421-93-4-----Endrin aldehyde	180	U
5103-71-9-----alpha-Chlordane	91	U
5103-74-2-----gamma-Chlordane	91	U
8001-35-2-----Toxaphene	9100	U
12674-11-2-----Aroclor-1016	1800	U
11104-28-2-----Aroclor-1221	3600	U
11141-16-5-----Aroclor-1232	1800	U
53469-21-9-----Aroclor-1242	1800	U
12672-29-6-----Aroclor-1248	1800	U
11097-69-1-----Aroclor-1254	1800	U
11096-82-5-----Aroclor-1260	1800	U

1
INORGANIC ANALYSES DATA SHEET

DEC SAMPLE NO.

SS331D

Lab Name: ECOLOGY AND ENVIRONMENT Contract:

Lab Code: EANDE Case No.: 9301.887 SAS No.: SDG No.: BH331D

Matrix (soil/water): SOIL Lab Sample ID: 70117

Level (low/med): LOW Date Received: 08/26/93

% Solids: 93.3

Concentration, Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	7310		*	P
7440-36-0	Antimony	7.9	U	N	P
7440-38-2	Arsenic	7.2			F
7440-39-3	Barium	78.1			P
7440-41-7	Beryllium	0.46	B		P
7440-43-9	Cadmium	1.8			P
7440-70-2	Calcium	23000		*	P
7440-47-3	Chromium	37.8		N*	P
7440-48-4	Cobalt	6.6	B	*	P
7440-50-8	Copper	50.9		N*	P
7439-89-6	Iron	13300		*	P
7439-92-1	Lead	153		*	P
7439-95-4	Magnesium	6610			P
7439-96-5	Manganese	297		*	P
7439-97-6	Mercury	0.31			CV
7440-02-0	Nickel	16.0		*	P
7440-09-7	Potassium	1410			P
7782-49-2	Selenium	0.53	B	W	F
7440-22-4	Silver	0.64	B		P
7440-23-5	Sodium	339	B		P
7440-28-0	Thallium	0.21	U		F
7440-62-2	Vanadium	17.6			P
7440-66-6	Zinc	217		N*	P
	Cyanide	0.54	U		AS

Color Before: BR Clarity Before: Texture: F

Color After: CL Clarity After: C Artifacts: YES

Comments:

CLIENT SAMPLE ID: SS-331-D

TEST CODE :SPAHS 1

JOB NUMBER :9301.887

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : OB-5000 NYSDEC - DEARCOP
 RESULTS IN DRY WEIGHT %SOLIDS : 84 %
 TEST NAME : PAHS - LC UNITS : UG/KG
 SAMPLE ID LAB : EE-93-70120 MATRIX : SOLID
 SAMPLE ID CLIENT: SS-331D-COMP.

PARAMETER	RESULTS	Q	QNT. LIMIT
Acenaphthene	8400		4800
Fluoranthene	7600		1200
Naphthalene	3900	J	4800
Benzo(a)anthracene	4400		480
Benzo(a)pyrene	3100		480
Benzo(b)fluoranthene	2700		480
Benzo(k)fluoranthene	1800		480
Chrysene	2800		480
Acenaphthylene	ND		4800
Anthracene	1300		480
Benzo(ghi)perylene	2500		1200
Fluorene	750		480
Phenanthrene	4400		480
Dibenzo(a,h)anthracene	2300		1200
Indeno(1,2,3-cd)pyrene	2600		480
Pyrene	7500		1200
1-Methylnaphthalene	3100	J	4800
2-Methylnaphthalene	3400	J	4800

 QUALIFIERS: C = COMMENT ND = NOT DETECTED
 J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
 L = PRESENT BELOW STATED QNT. LIMIT

867

1
INORGANIC ANALYSES DATA SHEET

DEC SAMPLE NO.

SS-331D-COMP

331D-COMP

GF 12/21/93

Lab Name: ECOLOGY AND ENVIRONMENT Contract:

Lab Code: EANDE Case No.: 9301.887 SAS No.: SDG No.: BH331D

Matrix (soil/water): SOIL Lab Sample ID: 70120

Level (low/med): LOW Date Received: 08/26/93

% Solids: 84.1

Concentration, Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	5900		*	P
7440-36-0	Antimony	8.8	U	N	P
7440-38-2	Arsenic	4.3			F
7440-39-3	Barium	69.7			P
7440-41-7	Beryllium	0.42	B		P
7440-43-9	Cadmium	1.8			P
7440-70-2	Calcium	10300		*	P
7440-47-3	Chromium	15.7		N*	P
7440-48-4	Cobalt	7.0	B	*	P
7440-50-8	Copper	116		N*	P
7439-89-6	Iron	15900		*	P
7439-92-1	Lead	177		*	P
7439-95-4	Magnesium	4100			P
7439-96-5	Manganese	376		*	P
7439-97-6	Mercury	0.12			CV
7440-02-0	Nickel	17.0		*	P
7440-09-7	Potassium	292	B		P
7782-49-2	Selenium	0.25	B	W	F
7440-22-4	Silver	0.59	U		P
7440-23-5	Sodium	145	U		P
7440-28-0	Thallium	0.24	U		F
7440-62-2	Vanadium	17.0			P
7440-66-6	Zinc	265		N*	P
	Cyanide	0.59	U		AS

Color Before: Clarity Before: Texture: F

Color After: Y Clarity After: C Artifacts: YES

Comments:

CLIENT SAMPLE ID: SS-331D-COMP

Background Surface Soil

A-187

02:OB5903_D4437-APA-01/14/94-DI

TEST CODE :SPAHS 1

JOB NUMBER :9301.904
ELAP ID : 10486Ecology and Environment, Inc.
Analytical Services Center

CLIENT : OB-5000 NYSDEC - DEARCOP
 RESULTS IN DRY WEIGHT %SOLIDS : 91 %
 TEST NAME : PAHS - LC UNITS : UG/KG
 SAMPLE ID LAB : EE-93-70292 MATRIX : SOLID
 SAMPLE ID CLIENT: SS-BG-1

PARAMETER	RESULTS	Q	QNT. LIMIT
Acenaphthene	420	-	220
Fluoranthene	110		55
Naphthalene	140	J	220
Benzo(a)anthracene	46		22
Benzo(a)pyrene	55		22
Benzo(b)fluoranthene	60		22
Benzo(k)fluoranthene	38		22
Chrysene	47		22
Acenaphthylene	100	J	220
Anthracene	25		22
Benzo(ghi)perylene	45	J	55
Fluorene	ND		22
Phenanthrene	49		22
Dibenzo(a,h)anthracene	140		55
Indeno(1,2,3-cd)pyrene	43		22
Pyrene	110		55
1-Methylnaphthalene	ND		220
2-Methylnaphthalene	89	J	220

 QUALIFIERS: C = COMMENT ND = NOT DETECTED
 J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
 L = PRESENT BELOW STATED QNT. LIMIT

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: E & E INC.

Contract:

SS-BG-1

Lab Code: EANDE Case No.: 904 SAS No.: SDG No.: SS331D

Matrix: (soil/water) SOIL Lab Sample ID: 70292

Sample wt/vol: 30.0 (g/mL) G Lab File ID:

% Moisture: 9 decanted: (Y/N) N Date Received: 08/27/93

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/01/93

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 10/06/93

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 5.4 Sulfur Cleanup: (Y/N) Y

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

Q

CAS NO.	COMPOUND		
319-84-6-----	alpha-BHC	1.9	U
319-85-7-----	beta-BHC	1.9	U
319-86-8-----	delta-BHC	1.9	U
58-89-9-----	gamma-BHC (Lindane)	1.9	U
76-44-8-----	Heptachlor	1.9	U
309-00-2-----	Aldrin	1.9	U
1024-57-3-----	Heptachlor epoxide	1.9	U
959-98-8-----	Endosulfan I	1.9	U
60-57-1-----	Dieldrin	3.6	U
72-55-9-----	4,4'-DDE	3.6	U
72-20-8-----	Endrin	3.6	U
33213-65-9-----	Endosulfan II	3.6	U
72-54-8-----	4,4'-DDD	3.6	U
1031-07-8-----	Endosulfan sulfate	3.6	U
50-29-3-----	4,4'-DDT	3.6	U
72-43-5-----	Methoxychlor	19	U
53494-70-5-----	Endrin ketone	3.6	U
7421-93-4-----	Endrin aldehyde	3.6	U
5103-71-9-----	alpha-Chlordane	1.9	U
5103-74-2-----	gamma-Chlordane	1.9	U
8001-35-2-----	Toxaphene	190	U
12674-11-2-----	Aroclor-1016	36	U
11104-28-2-----	Aroclor-1221	74	U
11141-16-5-----	Aroclor-1232	36	U
53469-21-9-----	Aroclor-1242	36	U
12672-29-6-----	Aroclor-1248	36	U
11097-69-1-----	Aroclor-1254	36	U
11096-82-5-----	Aroclor-1260	36	U

1
INORGANIC ANALYSES DATA SHEET

DEC SAMPLE NO.

SS-BG-1
SSBG-1

GF 12/21/93

Lab Name: ECOLOGY AND ENVIRONMENT Contract:

Lab Code: EANDE Case No.: 9301.887 SAS No.: SDG No.: BH331D

Matrix (soil/water): SOIL Lab Sample ID: 70292

Level (low/med): LOW Date Received: 08/27/93

% Solids: 91.0

Concentration, Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	5160		*	P
7440-36-0	Antimony	8.1	U	N	P
7440-38-2	Arsenic	1.8	B		F
7440-39-3	Barium	92.5			P
7440-41-7	Beryllium	0.35	B		P
7440-43-9	Cadmium	1.3			P
7440-70-2	Calcium	6950		*	P
7440-47-3	Chromium	7.1		N*	P
7440-48-4	Cobalt	2.5	B	*	P
7440-50-8	Copper	20.2		N*	P
7439-89-6	Iron	4230		*	P
7439-92-1	Lead	30.2			F
7439-95-4	Magnesium	1630			P
7439-96-5	Manganese	66.1		*	P
7439-97-6	Mercury	0.11	U		CV
7440-02-0	Nickel	9.6		*	P
7440-09-7	Potassium	536	B		P
7782-49-2	Selenium	0.52	B	W	F
7440-22-4	Silver	1.7	B		P
7440-23-5	Sodium	165	B		P
7440-28-0	Thallium	0.22	U		F
7440-62-2	Vanadium	10.2	B		P
7440-66-6	Zinc	38.3		N*	P
	Cyanide	0.55	U		AS

Color Before: Clarity Before: Texture: F

Color After: Y Clarity After: C Artifacts: YES

Comments:

CLIENT SAMPLE ID: SS-BG-1

TEST CODE :SPAHS 1

JOB NUMBER :9301.904

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : OB-5000 NYSDEC - DEARCOP

RESULTS IN DRY WEIGHT

%SOLIDS : 99 %

TEST NAME : PAHS - LC

UNITS : UG/KG

SAMPLE ID LAB : EE-93-70293

MATRIX : SOLID

SAMPLE ID CLIENT: SS-BG-2

PARAMETER	RESULTS	Q	QNT. LIMIT
Acenaphthene	1300	-	400
Fluoranthene	860	-	100
Naphthalene	500	-	400
Benzo(a)anthracene	370	-	40
Benzo(a)pyrene	310	-	40
Benzo(b)fluoranthene	320	-	40
Benzo(k)fluoranthene	200	-	40
Chrysene	320	-	40
Acenaphthylene	ND	-	400
Anthracene	81	-	40
Benzo(ghi)perylene	300	-	100
Fluorene	66	-	40
Phenanthrene	310	-	40
Dibenzo(a,h)anthracene	230	-	100
Indeno(1,2,3-cd)pyrene	290	-	40
Pyrene	840	-	100
1-Methylnaphthalene	ND	-	400
2-Methylnaphthalene	ND	-	400

QUALIFIERS: C = COMMENT

ND = NOT DETECTED

J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK

L = PRESENT BELOW STATED QNT. LIMIT

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: E & E INC.

Contract:

SS-BG-2

Lab Code: EANDE

Case No.: 904

SAS No.:

SDG No.: SS331D

Matrix: (soil/water) SOIL

Lab Sample ID: 70293

Sample wt/vol: 30.0 (g/mL) G

Lab File ID:

% Moisture: 1 decanted: (Y/N) N

Date Received: 08/27/93

Extraction: (SepF/Cont/Sonc) SONC

Date Extracted: 09/01/93

Concentrated Extract Volume: 5000 (uL)

Date Analyzed: 10/06/93

Injection Volume: 2.00 (uL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 5.8

Sulfur Cleanup: (Y/N) Y

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

Q

319-84-6-----alpha-BHC	1.7	U
319-85-7-----beta-BHC	1.7	U
319-86-8-----delta-BHC	1.7	U
58-89-9-----gamma-BHC (Lindane)	1.7	U
76-44-8-----Heptachlor	1.7	U
309-00-2-----Aldrin	1.7	U
1024-57-3-----Heptachlor epoxide	3.0	P
959-98-8-----Endosulfan I	1.7	U
60-57-1-----Dieldrin	15	P
72-55-9-----4,4'-DDE	3.3	U
72-20-8-----Endrin	3.3	U
33213-65-9-----Endosulfan II	3.3	U
72-54-8-----4,4'-DDD	3.3	U
1031-07-8-----Endosulfan sulfate	3.3	U
50-29-3-----4,4'-DDT	3.3	U
72-43-5-----Methoxychlor	17	U
53494-70-5-----Endrin ketone	3.3	U
7421-93-4-----Endrin aldehyde	3.3	U
5103-71-9-----alpha-Chlordane	1.7	U
5103-74-2-----gamma-Chlordane	1.7	U
8001-35-2-----Toxaphene	170	U
12674-11-2-----Aroclor-1016	33	U
11104-28-2-----Aroclor-1221	68	U
11141-16-5-----Aroclor-1232	33	U
53469-21-9-----Aroclor-1242	33	U
12672-29-6-----Aroclor-1248	33	U
11097-69-1-----Aroclor-1254	33	U
11096-82-5-----Aroclor-1260	33	U

1
INORGANIC ANALYSES DATA SHEET

DEC SAMPLE NO.

SS-BG-2
SSBG-2
GF 12/21/93

Lab Name: ECOLOGY AND ENVIRONMENT Contract: _____

Lab Code: EANDE Case No.: 9301.887 SAS No.: _____ SDG No.: BH331D

Matrix (soil/water): SOIL

Lab Sample ID: 70293

Level (low/med): LOW

Date Received: 08/27/93

% Solids: 99.3

Concentration, Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	6140		*	P
7440-36-0	Antimony	7.5	U	N	P
7440-38-2	Arsenic	3.0			F
7440-39-3	Barium	51.9			P
7440-41-7	Beryllium	0.37	B		P
7440-43-9	Cadmium	0.54	U		P
7440-70-2	Calcium	23500		*	P
7440-47-3	Chromium	11.0		N*	P
7440-48-4	Cobalt	7.3	B	*	P
7440-50-8	Copper	14.5		N*	P
7439-89-6	Iron	15400		*	P
7439-92-1	Lead	22.9			F
7439-95-4	Magnesium	8860			P
7439-96-5	Manganese	409		*	P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	10.5		*	P
7440-09-7	Potassium	806	B		P
7782-49-2	Selenium	0.20	U	W	F
7440-22-4	Silver	0.50	U		P
7440-23-5	Sodium	122	U		P
7440-28-0	Thallium	0.20	U		F
7440-62-2	Vanadium	19.0			P
7440-66-6	Zinc	44.5		N*	P
	Cyanide	0.50	U		AS

Color Before: _____ Clarity Before: _____ Texture: F _____

Color After: Y _____ Clarity After: C _____ Artifacts: YES _____

Comments:

CLIENT SAMPLE ID: SS-BG-2

TEST CODE :SPAHS 1

JOB NUMBER :9301.904

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : OB-5000 NYSDEC - DEARCOP

RESULTS IN DRY WEIGHT

%SOLIDS : 99 %

TEST NAME : PAHS - LC

UNITS : UG/KG

SAMPLE ID LAB : EE-93-70294

MATRIX : SOLID

SAMPLE ID CLIENT: SS-BG-2D

PARAMETER	RESULTS	Q	QNT. LIMIT
Acenaphthene	910		200
Fluoranthene	490		50
Naphthalene	340		200
Benzo(a)anthracene	230		20
Benzo(a)pyrene	230		20
Benzo(b)fluoranthene	200		20
Benzo(k)fluoranthene	130		20
Chrysene	190		20
Acenaphthylene	ND		200
Anthracene	47		20
Benzo(ghi)perylene	200		50
Fluorene	18	J	20
Phenanthrene	170		20
Dibenzo(a,h)anthracene	150		50
Indeno(1,2,3-cd)pyrene	200		20
Pyrene	520		50
1-Methylnaphthalene	ND		200
2-Methylnaphthalene	ND		200

QUALIFIERS: C = COMMENT

ND = NOT DETECTED

J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK

L = PRESENT BELOW STATED QNT. LIMIT

923

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SS-BG-2D

Lab Name: E & E INC.

Contract:

Lab Code: EANDE

Case No.: 904

SAS No.:

SDG No.: SS331D

Matrix: (soil/water) SOIL

Lab Sample ID: 70294

Sample wt/vol: 30.0 (g/mL) G

Lab File ID:

% Moisture: 1 decanted: (Y/N) N

Date Received: 08/27/93

Extraction: (SepF/Cont/Sonc) SONC

Date Extracted: 09/01/93

Concentrated Extract Volume: 5000 (uL)

Date Analyzed: 10/06/93

Injection Volume: 2.00 (uL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 5.9

Sulfur Cleanup: (Y/N) Y

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

Q

CAS NO.	COMPOUND			
319-84-6-----	alpha-BHC	1.7	U	
319-85-7-----	beta-BHC	1.7	U	
319-86-8-----	delta-BHC	1.7	U	
58-89-9-----	gamma-BHC (Lindane)	1.7	U	
76-44-8-----	Heptachlor	1.7	U	
309-00-2-----	Aldrin	1.7	U	
1024-57-3-----	Heptachlor epoxide	2.8	P	
959-98-8-----	Endosulfan I	1.7	U	
60-57-1-----	Dieldrin	20	P	
72-55-9-----	4,4'-DDE	3.3	U	
72-20-8-----	Endrin	3.3	U	
33213-65-9-----	Endosulfan II	3.3	U	
72-54-8-----	4,4'-DDD	3.3	U	
1031-07-8-----	Endosulfan sulfate	3.3	U	
50-29-3-----	4,4'-DDT	3.3	U	
72-43-5-----	Methoxychlor	17	U	
53494-70-5-----	Endrin ketone	3.3	U	
7421-93-4-----	Endrin aldehyde	3.3	U	
5103-71-9-----	alpha-Chlordane	1.7	U	
5103-74-2-----	gamma-Chlordane	1.7	U	
8001-35-2-----	Toxaphene	170	U	
12674-11-2-----	Aroclor-1016	33	U	
11104-28-2-----	Aroclor-1221	68	U	
11141-16-5-----	Aroclor-1232	33	U	
53469-21-9-----	Aroclor-1242	33	U	
12672-29-6-----	Aroclor-1248	33	U	
11097-69-1-----	Aroclor-1254	33	U	
11096-82-5-----	Aroclor-1260	33	U	

1
INORGANIC ANALYSES DATA SHEET

DEC SAMPLE NO.

SS-BG-2DSSDG2DGF12/21/93

Lab Name: ECOLOGY AND ENVIRONMENT Contract:

Lab Code: EANDE Case No.: 9301.887 SAS No.: SDG No.: BH331D

Matrix (soil/water): SOIL Lab Sample ID: 70294

Level (low/med): LOW Date Received: 08/27/93

% Solids: 99.4

Concentration, Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	5590		*	P
7440-36-0	Antimony	7.4	U	N	P
7440-38-2	Arsenic	2.9			F
7440-39-3	Barium	44.8			P
7440-41-7	Beryllium	0.35	B		P
7440-43-9	Cadmium	0.72	B		P
7440-70-2	Calcium	25100		*	P
7440-47-3	Chromium	8.5		N*	P
7440-48-4	Cobalt	5.4	B	*	P
7440-50-8	Copper	13.0		N*	P
7439-89-6	Iron	9950		*	P
7439-92-1	Lead	23.7			F
7439-95-4	Magnesium	7270			P
7439-96-5	Manganese	327		*	P
7439-97-6	Mercury	0.27			CV
7440-02-0	Nickel	9.7		*	P
7440-09-7	Potassium	519	B		P
7782-49-2	Selenium	0.20	U	W	F
7440-22-4	Silver	0.50	U		P
7440-23-5	Sodium	245	B		P
7440-28-0	Thallium	0.20	U		F
7440-62-2	Vanadium	13.9			P
7440-66-6	Zinc	46.6		N*	P
	Cyanide	0.50	U		AS

Color Before: Clarity Before: Texture: F

Color After: Y Clarity After: C Artifacts: YES

Comments:

CLIENT_SAMPLE_ID: SS-BG-2D

TEST CODE :SPAHS 1

JOB NUMBER :9301.904

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : OB-5000 NYSDEC - DEARCOP

RESULTS IN DRY WEIGHT

%SOLIDS : 97 %

TEST NAME : PAHS - LC

UNITS : UG/KG

SAMPLE ID LAB : EE-93-70295

MATRIX : SOLID

SAMPLE ID CLIENT: SS-BG-3

PARAMETER	RESULTS	Q	QNT. LIMIT
Acenaphthene	290		210
Fluoranthene	370		52
Naphthalene	370		210
Benzo(a)anthracene	210		21
Benzo(a)pyrene	160		21
Benzo(b)fluoranthene	200		21
Benzo(k)fluoranthene	120		21
Chrysene	180		21
Acenaphthylene	ND		210
Anthracene	31		21
Benzo(ghi)perylene	160		52
Fluorene	18	J	21
Phenanthrene	130		21
Dibenzo(a,h)anthracene	130		52
Indeno(1,2,3-cd)pyrene	150		21
Pyrene	340		52
1-Methylnaphthalene	ND		210
2-Methylnaphthalene	ND		210

QUALIFIERS: C = COMMENT

ND = NOT DETECTED

J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK

L = PRESENT BELOW STATED QNT. LIMIT

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: E & E INC.

Contract:

SS-BG-3

Lab Code: EANDE

Case No.: 904

SAS No.:

SDG No.: SS331D

Matrix: (soil/water) SOIL

Lab Sample ID: 70295

Sample wt/vol: 30.0 (g/mL) G

Lab File ID:

% Moisture: 3 decanted: (Y/N) N

Date Received: 08/27/93

Extraction: (SepF/Cont/Sonc) SONC

Date Extracted: 09/01/93

Concentrated Extract Volume: 5000 (uL)

Date Analyzed: 10/08/93

Injection Volume: 2.00 (uL)

Dilution Factor: 5.00

GPC Cleanup: (Y/N) Y pH: 5.9

Sulfur Cleanup: (Y/N) Y

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/KG Q

319-84-6-----alpha-BHC	8.8	U
319-85-7-----beta-BHC	8.8	U
319-86-8-----delta-BHC	8.8	U
58-89-9-----gamma-BHC (Lindane)	8.8	U
76-44-8-----Heptachlor	8.8	U
309-00-2-----Aldrin	8.8	U
1024-57-3-----Heptachlor epoxide	36	P
959-98-8-----Endosulfan I	8.8	U
60-57-1-----Dieldrin	17	U
72-55-9-----4,4'-DDE	17	U
72-20-8-----Endrin	17	U
33213-65-9-----Endosulfan II	17	U
72-54-8-----4,4'-DDD	17	U
1031-07-8-----Endosulfan sulfate	17	U
50-29-3-----4,4'-DDT	17	U
72-43-5-----Methoxychlor	88	U
53494-70-5-----Endrin ketone	17	U
7421-93-4-----Endrin aldehyde	17	U
5103-71-9-----alpha-Chlordane	28	P
5103-74-2-----gamma-Chlordane	34	P
8001-35-2-----Toxaphene	880	U
12674-11-2-----Aroclor-1016	170	U
11104-28-2-----Aroclor-1221	350	U
11141-16-5-----Aroclor-1232	170	U
53469-21-9-----Aroclor-1242	170	U
12672-29-6-----Aroclor-1248	170	U
11097-69-1-----Aroclor-1254	170	U
11096-82-5-----Aroclor-1260	170	U

1
INORGANIC ANALYSES DATA SHEET

DEC SAMPLE NO.

SS - BG-3
SDG3

GF 12/21/93

Lab Name: ECOLOGY AND ENVIRONMENT Contract:

Lab Code: EANDE Case No.: 9301.887 SAS No.: SDG No.: BH331D

Matrix (soil/water): SOIL Lab Sample ID: 70295

Level (low/med): LOW Date Received: 08/27/93

% Solids: 96.7

Concentration, Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	5960		*	P
7440-36-0	Antimony	7.7	U	N	P
7440-38-2	Arsenic	3.8			F
7440-39-3	Barium	53.8			P
7440-41-7	Beryllium	0.39	B		P
7440-43-9	Cadmium	0.69	B		P
7440-70-2	Calcium	17800		*	P
7440-47-3	Chromium	12.5		N*	P
7440-48-4	Cobalt	5.9	B	*	P
7440-50-8	Copper	13.4		N*	P
7439-89-6	Iron	11700		*	P
7439-92-1	Lead	30.5			F
7439-95-4	Magnesium	6220			P
7439-96-5	Manganese	473		*	P
7439-97-6	Mercury	0.11			CV
7440-02-0	Nickel	8.5		*	P
7440-09-7	Potassium	538	B		P
7782-49-2	Selenium	0.24	B	W	F
7440-22-4	Silver	0.52	U		P
7440-23-5	Sodium	126	U		P
7440-28-0	Thallium	0.21	U		F
7440-62-2	Vanadium	15.7			P
7440-66-6	Zinc	48.6		N*	P
	Cyanide	0.52	U		AS

Color Before: Clarity Before: Texture: F

Color After: Y Clarity After: C Artifacts: YES

Comments:

CLIENT SAMPLE ID: SS-BG-3

TEST CODE :SPAHS 1

JOB NUMBER :9301.904

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : OB-5000 NYSDEC - DEARCOP
 RESULTS IN DRY WEIGHT %SOLIDS : 97 %
 TEST NAME : PAHS - LC UNITS : UG/KG
 SAMPLE ID LAB : EE-93-70296 MATRIX : SOLID
 SAMPLE ID CLIENT: SS-BG-4

PARAMETER	RESULTS	Q	QNT. LIMIT
Acenaphthene	320		210
Fluoranthene	180		52
Naphthalene	300		210
Benzo(a)anthracene	55		21
Benzo(a)pyrene	61		21
Benzo(b)fluoranthene	60		21
Benzo(k)fluoranthene	39		21
Chrysene	64		21
Acenaphthylene	ND		210
Anthracene	16	J	21
Benzo(ghi)perylene	52		52
Fluorene	14	J	21
Phenanthrene	120		21
Dibenzo(a,h)anthracene	48	J	52
Indeno(1,2,3-cd)pyrene	52		21
Pyrene	140		52
1-Methylnaphthalene	ND		210
2-Methylnaphthalene	ND		210

QUALIFIERS: C = COMMENT

ND = NOT DETECTED

J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK

L = PRESENT BELOW STATED QNT. LIMIT

936

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: E & E INC.

Contract:

SS-BG-4

Lab Code: EANDE Case No.: 904 SAS No.: SDG No.: SS331D

Matrix: (soil/water) SOIL Lab Sample ID: 70296

Sample wt/vol: 30.0 (g/mL) G Lab File ID:

% Moisture: 3 decanted: (Y/N) N Date Received: 08/27/93

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/01/93

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 10/06/93

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 5.7 Sulfur Cleanup: (Y/N) Y

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

Q

319-84-6-----alpha-BHC		1.8	U
319-85-7-----beta-BHC		1.8	U
319-86-8-----delta-BHC		1.8	U
58-89-9-----gamma-BHC (Lindane)		1.8	U
76-44-8-----Heptachlor		1.8	U
309-00-2-----Aldrin		1.8	U
1024-57-3-----Heptachlor epoxide		1.8	U
959-98-8-----Endosulfan I		1.8	U
60-57-1-----Dieldrin		3.4	U
72-55-9-----4,4'-DDE		3.4	U
72-20-8-----Endrin		3.4	U
33213-65-9-----Endosulfan II		3.4	U
72-54-8-----4,4'-DDD		3.4	U
1031-07-8-----Endosulfan sulfate		3.4	U
50-29-3-----4,4'-DDT		3.4	U
72-43-5-----Methoxychlor	18		U
53494-70-5-----Endrin ketone		3.4	U
7421-93-4-----Endrin aldehyde		3.4	U
5103-71-9-----alpha-Chlordane		1.8	U
5103-74-2-----gamma-Chlordane		1.8	U
8001-35-2-----Toxaphene	180		U
12674-11-2-----Aroclor-1016		34	U
11104-28-2-----Aroclor-1221		69	U
11141-16-5-----Aroclor-1232		34	U
53469-21-9-----Aroclor-1242		34	U
12672-29-6-----Aroclor-1248		34	U
11097-69-1-----Aroclor-1254		34	U
11096-82-5-----Aroclor-1260		34	U

1
INORGANIC ANALYSES DATA SHEET

DEC SAMPLE NO.

Lab Name: ECOLOGY AND ENVIRONMENT Contract: _____

SS-BG-4

SSBG4

GF 12/21/93

Lab Code: EANDE Case No.: 9301.887 SAS No.: _____ SDG No.: BH331D

Matrix (soil/water): SOIL Lab Sample ID: 70296

Level (low/med): LOW Date Received: 08/27/93

% Solids: 97.1

Concentration, Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	6800		*	P
7440-36-0	Antimony	7.6	U	N	P
7440-38-2	Arsenic	2.9			F
7440-39-3	Barium	48.4			P
7440-41-7	Beryllium	0.41	B		P
7440-43-9	Cadmium	0.56	U		P
7440-70-2	Calcium	28900		*	P
7440-47-3	Chromium	9.9		N*	P
7440-48-4	Cobalt	6.1	B	*	P
7440-50-8	Copper	11.9		N*	P
7439-89-6	Iron	11500		*	P
7439-92-1	Lead	43.8		*	P
7439-95-4	Magnesium	11200			P
7439-96-5	Manganese	288		*	P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	10		*	P
7440-09-7	Potassium	879	B		P
7782-49-2	Selenium	0.21	U	W	F
7440-22-4	Silver	0.51	U		P
7440-23-5	Sodium	125	U		P
7440-28-0	Thallium	0.21	U		F
7440-62-2	Vanadium	17.0			P
7440-66-6	Zinc	40.0		N*	P
	Cyanide	0.71			AS

Color Before: _____ Clarity Before: _____ Texture: F _____

Color After: Y Clarity After: C Artifacts: YES _____

Comments:

CLIENT SAMPLE ID: SS-BG-4

Subsurface Soil

A-205

02:OB5903_D4437-APA-01/14/94-DI

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

DEC SAMPLE NO.

BH-331D

Lab Name: E & E INC.

Contract:

Lab Code: EANDE Case No.: 887

SAS-No.:

SDG No.: SS-331D

Matrix: (soil/water) SOIL

Lab Sample ID: 70118

Sample wt/vol: 5.0 (g/mL) G

Lab File ID: H2428

Level: (low/med) LOW

Date Received: 08/26/93

% Moisture: not dec. 5

Date Analyzed: 09/01/93

GC Column: VOCOL ID: 0.530 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG Q

74-87-3-----Chloromethane	10	U	
74-83-9-----Bromomethane	10	U	
75-01-4-----Vinyl Chloride	10	U	
75-00-3-----Chloroethane	10	U	
75-09-2-----Methylene Chloride	67	B	
67-64-1-----Acetone	10	U	
75-15-0-----Carbon Disulfide	10	U	
75-35-4-----1,1-Dichloroethene	10	U	
75-34-3-----1,1-Dichloroethane	10	U	
540-59-0-----1,2-Dichloroethene (total)	10	U	
67-66-3-----Chloroform	10	U	
107-06-2-----1,2-Dichloroethane	10	U	
78-93-3-----2-Butanone	10	U	
71-55-6-----1,1,1-Trichloroethane	10	U	
56-23-5-----Carbon Tetrachloride	10	U	
75-27-4-----Bromodichloromethane	10	U	
78-87-5-----1,2-Dichloropropane	10	U	
10061-01-5-----cis-1,3-Dichloropropene	10	U	
79-01-6-----Trichloroethene	10	U	
124-48-1-----Dibromochloromethane	10	U	
79-00-5-----1,1,2-Trichloroethane	10	U	
71-43-2-----Benzene	10	U	
10061-02-6-----trans-1,3-Dichloropropene	10	U	
75-25-2-----Bromoform	10	U	
108-10-1-----4-Methyl-2-Pentanone	10	U	
591-78-6-----2-Hexanone	10	U	
127-18-4-----Tetrachloroethene	10	U	
79-34-5-----1,1,2,2-Tetrachloroethane	10	U	
108-88-3-----Toluene	10	U	
108-90-7-----Chlorobenzene	10	U	
100-41-4-----Ethylbenzene	10	U	
100-42-5-----Styrene	10	U	
1330-20-7-----Xylene (total)	10	U	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

DEC SAMPLE NO.

BH-331DRE

Lab Name: E & E INC.

Contract:

Lab Code: EANDE Case No.: 887

SAS No.:

SDG No.: SS-331D

Matrix: (soil/water) SOIL

Lab Sample ID: 70118RE

Sample wt/vol: 5.0 (g/mL) G

Lab File ID: H2444

Level: (low/med) LOW

Date Received: 08/26/93

% Moisture: not dec. 5

Date Analyzed: 09/01/93

GC Column: VOCOL ID: 0.530 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/KG	Q
---------	----------	-----------------	-------	---

74-87-3-----	Chloromethane	11	U	
74-83-9-----	Bromomethane	11	U	
75-01-4-----	Vinyl Chloride	11	U	
75-00-3-----	Chloroethane	11	U	
75-09-2-----	Methylene Chloride	17	B	
67-64-1-----	Acetone	11	U	
75-15-0-----	Carbon Disulfide	11	U	
75-35-4-----	1,1-Dichloroethene	11	U	
75-34-3-----	1,1-Dichloroethane	11	U	
540-59-0-----	1,2-Dichloroethene (total)	11	U	
67-66-3-----	Chloroform	11	U	
107-06-2-----	1,2-Dichloroethane	11	U	
78-93-3-----	2-Butanone	11	U	
71-55-6-----	1,1,1-Trichloroethane	11	U	
56-23-5-----	Carbon Tetrachloride	11	U	
75-27-4-----	Bromodichloromethane	11	U	
78-87-5-----	1,2-Dichloropropane	11	U	
10061-01-5-----	cis-1,3-Dichloropropene	11	U	
79-01-6-----	Trichloroethene	11	U	
124-48-1-----	Dibromochloromethane	11	U	
79-00-5-----	1,1,2-Trichloroethane	11	U	
71-43-2-----	Benzene	11	U	
10061-02-6-----	trans-1,3-Dichloropropene	11	U	
75-25-2-----	Bromoform	11	U	
108-10-1-----	4-Methyl-2-Pentanone	11	U	
591-78-6-----	2-Hexanone	11	U	
127-18-4-----	Tetrachloroethene	11	U	
79-34-5-----	1,1,2,2-Tetrachloroethane	11	U	
108-88-3-----	Toluene	11	U	
108-90-7-----	Chlorobenzene	11	U	
100-41-4-----	Ethylbenzene	11	U	
100-42-5-----	Styrene	11	U	
1330-20-7-----	Xylene (total)	11	U	

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

DEC SAMPLE NO.

Lab Name: E & E INC.

Contract:

BH-331D

Lab Code: EANDE Case No.: 887 SAS No.: SDG No.: SS-331D

Matrix: (soil/water) SOIL Lab Sample ID: 70118

Sample wt/vol: 30.0 (g/mL) G Lab File ID: E5130

Level: (low/med) LOW Date Received: 08/26/93

% Moisture: 5 decanted: (Y/N) N Date Extracted: 09/20/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/23/93

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.5

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG Q

108-95-2-----Phenol	350	U
111-44-4-----bis(2-Chloroethyl)Ether	350	U
95-57-8-----2-Chlorophenol	350	U
541-73-1-----1,3-Dichlorobenzene	350	U
106-46-7-----1,4-Dichlorobenzene	350	U
95-50-1-----1,2-Dichlorobenzene	350	U
95-48-7-----2-Methylphenol	350	U
108-60-1-----2,2'-oxybis(1-Chloropropane)	350	U
106-44-5-----4-Methylphenol	350	U
621-64-7-----N-Nitroso-Di-n-Propylamine	350	U
67-72-1-----Hexachloroethane	350	U
98-95-3-----Nitrobenzene	350	U
78-59-1-----Isophorone	350	U
88-75-5-----2-Nitrophenol	350	U
105-67-9-----2,4-Dimethylphenol	350	U
111-91-1-----bis(2-Chloroethoxy)Methane	350	U
120-83-2-----2,4-Dichlorophenol	350	U
120-82-1-----1,2,4-Trichlorobenzene	350	U
91-20-3-----Naphthalene	350	U
106-47-8-----4-Chloroaniline	350	U
87-68-3-----Hexachlorobutadiene	350	U
59-50-7-----4-Chloro-3-Methylphenol	350	U
91-57-6-----2-Methylnaphthalene	350	U
77-47-4-----Hexachlorocyclopentadiene	350	U
88-06-2-----2,4,6-Trichlorophenol	350	U
95-95-4-----2,4,5-Trichlorophenol	840	U
91-58-7-----2-Chloronaphthalene	350	U
88-74-4-----2-Nitroaniline	840	U
131-11-3-----Dimethylphthalate	350	U
208-96-8-----Acenaphthylene	350	U
606-20-2-----2,6-Dinitrotoluene	350	U
99-09-2-----3-Nitroaniline	840	U
83-32-9-----Acenaphthene	350	U

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

BH-331D

Lab Name: E & E INC.

Contract:

Lab Code: EANDE Case No.: 887

SAS No.:

SDG No.: SS-331D

Matrix: (soil/water) SOIL

Lab Sample ID: 70118

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: E5130

Level: (low/med) LOW

Date Received: 08/26/93

% Moisture: 5 decanted: (Y/N) N

Date Extracted: 09/20/93

Concentrated Extract Volume: 500.0 (uL)

Date Analyzed: 09/23/93

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.5

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND			
51-28-5-----	2,4-Dinitrophenol	840	U	
100-02-7-----	4-Nitrophenol	840	U	
132-64-9-----	Dibenzofuran	350	U	
121-14-2-----	2,4-Dinitrotoluene	350	U	
84-66-2-----	Diethylphthalate	110	BJ	
7005-72-3-----	4-Chlorophenyl-phenylether	350	U	
86-73-7-----	Fluorene	350	U	
100-01-6-----	4-Nitroaniline	840	U	
534-52-1-----	4,6-Dinitro-2-methylphenol	840	U	
86-30-6-----	N-Nitrosodiphenylamine (1)	350	U	
101-55-3-----	4-Bromophenyl-phenylether	350	U	
118-74-1-----	Hexachlorobenzene	350	U	
87-86-5-----	Pentachlorophenol	840	U	
85-01-8-----	Phenanthrene	350	U	
120-12-7-----	Anthracene	350	U	
86-74-8-----	Carbazole	350	U	
84-74-2-----	Di-n-Butylphthalate	350	U	
206-44-0-----	Fluoranthene	350	U	
129-00-0-----	Pyrene	350	U	
85-68-7-----	Butylbenzylphthalate	350	U	
91-94-1-----	3,3'-Dichlorobenzidine	350	U	
56-55-3-----	Benzo(a)Anthracene	350	U	
218-01-9-----	Chrysene	350	U	
117-81-7-----	bis(2-Ethylhexyl)Phthalate	45	BJ	
117-84-0-----	Di-n-Octyl Phthalate	350	U	
205-99-2-----	Benzo(b)Fluoranthene	350	U	
207-08-9-----	Benzo(k)Fluoranthene	350	U	
50-32-8-----	Benzo(a)Pyrene	350	U	
193-39-5-----	Indeno(1,2,3-cd)Pyrene	350	U	
53-70-3-----	Dibenz(a,h)Anthracene	350	U	
191-24-2-----	Benzo(g,h,i)Perylene	350	U	

(1) - Cannot be separated from Diphenylamine

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: E & E INC.

Contract:

BH-331D

Lab Code: EANDE

Case No.: 904

SAS No.:

SDG No.: SS331D

Matrix: (soil/water) SOIL

Lab Sample ID: 70118

Sample wt/vol: 30.0 (g/mL) G

Lab File ID:

% Moisture: 5 decanted: (Y/N) N

Date Received: 08/26/93

Extraction: (SepF/Cont/Sonc) SONC

Date Extracted: 08/30/93

Concentrated Extract Volume: 5000 (uL)

Date Analyzed: 10/08/93

Injection Volume: 2.00 (uL)

Dilution Factor: 2.00

GPC Cleanup: (Y/N) Y pH: 7.5

Sulfur Cleanup: (Y/N) Y

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/KG	Q
319-84-6-----	alpha-BHC	3.6	U	
319-85-7-----	beta-BHC	3.6	U	
319-86-8-----	delta-BHC	3.6	U	
58-89-9-----	gamma-BHC (Lindane)	3.6	U	
76-44-8-----	Heptachlor	3.6	U	
309-00-2-----	Aldrin	3.6	U	
1024-57-3-----	Heptachlor epoxide	4.8	P	
959-98-8-----	Endosulfan I	3.6	U	
60-57-1-----	Dieldrin	10	P	
72-55-9-----	4,4'-DDE	7.0	P	
72-20-8-----	Endrin	6.9	U	
33213-65-9-----	Endosulfan II	6.9	U	
72-54-8-----	4,4'-DDD	6.9	U	
1031-07-8-----	Endosulfan sulfate	6.9	U	
50-29-3-----	4,4'-DDT	29		
72-43-5-----	Methoxychlor	36	U	
53494-70-5-----	Endrin ketone	6.9	U	
7421-93-4-----	Endrin aldehyde	6.9	U	
5103-71-9-----	alpha-Chlordane	12		
5103-74-2-----	gamma-Chlordane	12		
8001-35-2-----	Toxaphene	360	U	
12674-11-2-----	Aroclor-1016	69	U	
11104-28-2-----	Aroclor-1221	140	U	
11141-16-5-----	Aroclor-1232	69	U	
53469-21-9-----	Aroclor-1242	69	U	
12672-29-6-----	Aroclor-1248	69	U	
11097-69-1-----	Aroclor-1254	69	U	
11096-82-5-----	Aroclor-1260	69	U	

1
INORGANIC ANALYSES DATA SHEET

DEC SAMPLE NO.

BH331D

Lab Name: ECOLOGY AND ENVIRONMENT Contract:

Lab Code: EANDE Case No.: 9301.887 SAS No.: SDG No.: BH331D

Matrix (soil/water): SOIL Lab Sample ID: 70118

Level (low/med): LOW Date Received: 08/26/93

% Solids: 94.8

Concentration, Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4140	*	P	
7440-36-0	Antimony	7.8	U	N	P
7440-38-2	Arsenic	3.6		S	F
7440-39-3	Barium	31.1	B		P
7440-41-7	Beryllium	0.22	B		P
7440-43-9	Cadmium	1.6			P
7440-70-2	Calcium	2410		*	P
7440-47-3	Chromium	44.6		N*	P
7440-48-4	Cobalt	9.0	B	*	P
7440-50-8	Copper	197		N*	P
7439-89-6	Iron	30500		*	P
7439-92-1	Lead	2740		*	P
7439-95-4	Magnesium	1190			P
7439-96-5	Manganese	692		*	P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	26.9		*	P
7440-09-7	Potassium	997	B		P
7782-49-2	Selenium	1.1	U	W	F
7440-22-4	Silver	0.53	U		P
7440-23-5	Sodium	128	U		P
7440-28-0	Thallium	0.21	U		F
7440-62-2	Vanadium	8.4	B		P
7440-66-6	Zinc	227		N*	P
	Cyanide	0.53	U		AS

Color Before: _____ Clarity Before: _____ Texture: F _____

Color After: Y _____ Clarity After: C _____ Artifacts: YES _____

Comments:

CLIENT_SAMPLE_ID: BH-331D

Surface Water/Sediment

A-213

02:OB5903_D4437-APA-01/14/94-DI

TEST CODE :SPAHS 1

JOB NUMBER :9301.904

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : OB-5000 NYSDEC - DEARCOP
 RESULTS IN DRY WEIGHT %SOLIDS : 88 %
 TEST NAME : PAHS - LC UNITS : UG/KG
 SAMPLE ID LAB : EE-93-70286 MATRIX : SOLID
 SAMPLE ID CLIENT: SED-1A

PARAMETER	RESULTS	Q	QNT. LIMIT
Acenaphthene	12000	-	2300
Fluoranthene	5900	-	570
Naphthalene	3500	-	2300
Benzo(a)anthracene	3000	-	230
Benzo(a)pyrene	2200	-	230
Benzo(b)fluoranthene	1700	-	230
Benzo(k)fluoranthene	1100	-	230
Chrysene	1900	-	230
Acenaphthylene	ND	-	2300
Anthracene	1500	-	230
Benzo(ghi)perylene	1600	-	570
Fluorene	650	-	230
Phenanthrene	3600	-	230
Dibenzo(a,h)anthracene	1100	-	570
Indeno(1,2,3-cd)pyrene	1500	-	230
Pyrene	5700	-	570
1-Methylnaphthalene	1000	J	2300
2-Methylnaphthalene	ND	-	2300

QUALIFIERS: C = COMMENT ND = NOT DETECTED
 J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
 L = PRESENT BELOW STATED QNT. LIMIT

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: E & E INC.

Contract:

SED-1A

Lab Code: EANDE Case No.: 904 SAS No.: SDG No.: SS331D

Matrix: (soil/water) SOIL Lab Sample ID: 70286

Sample wt/vol: 30.0 (g/mL) G Lab File ID:

% Moisture: 12 decanted: (Y/N) N Date Received: 08/27/93

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/01/93

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 10/05/93

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 6.1 Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	UG/KG	Q
319-84-6-----	alpha-BHC	1.9	U	
319-85-7-----	beta-BHC	1.9	U	
319-86-8-----	delta-BHC	1.9	U	
58-89-9-----	gamma-BHC (Lindane)	1.9	U	
76-44-8-----	Heptachlor	1.9	U	
309-00-2-----	Aldrin	1.9	U	
1024-57-3-----	Heptachlor epoxide	16	P	
959-98-8-----	Endosulfan I	1.9	U	
60-57-1-----	Dieldrin	3.7	U	
72-55-9-----	4,4'-DDE	5.2	P	
72-20-8-----	Endrin	3.7	U	
33213-65-9-----	Endosulfan II	3.7	U	
72-54-8-----	4,4'-DDD	3.7	U	
1031-07-8-----	Endosulfan sulfate	3.7	U	
50-29-3-----	4,4'-DDT	7.8	P	
72-43-5-----	Methoxychlor	19	U	
53494-70-5-----	Endrin ketone	3.7	U	
7421-93-4-----	Endrin aldehyde	3.7	U	
5103-71-9-----	alpha-Chlordane	1.9	U	
5103-74-2-----	gamma-Chlordane	1.9	U	
8001-35-2-----	Toxaphene	190	U	
12674-11-2-----	Aroclor-1016	37	U	
11104-28-2-----	Aroclor-1221	76	U	
11141-16-5-----	Aroclor-1232	37	U	
53469-21-9-----	Aroclor-1242	37	U	
12672-29-6-----	Aroclor-1248	37	U	
11097-69-1-----	Aroclor-1254	37	U	
11096-82-5-----	Aroclor-1260	37	U	

1
INORGANIC ANALYSES DATA SHEET

DEC SAMPLE NO.

~~SED-1A~~~~SEDA~~~~OF 12/21/93~~

Lab Name: ECOLOGY AND ENVIRONMENT Contract:

Lab Code: EANDE Case No.: 9301.887 SAS No.: SDG No.: BH331D

Matrix (soil/water): SOIL Lab Sample ID: 70286

Level (low/med): LOW Date Received: 08/27/93

Solids: 87.8

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4770		*	P
7440-36-0	Antimony	8.4	U	N	P
7440-38-2	Arsenic	5.3		+	F
7440-39-3	Barium	86.2			P
7440-41-7	Beryllium	0.41	B		P
7440-43-9	Cadmium	1.3			P
7440-70-2	Calcium	20300		*	P
7440-47-3	Chromium	12.6		N*	P
7440-48-4	Cobalt	5.7	B	*	P
7440-50-8	Copper	73.4		N*	P
7439-89-6	Iron	11400		*	P
7439-92-1	Lead	148		*	P
7439-95-4	Magnesium	5040			P
7439-96-5	Manganese	239		*	P
7439-97-6	Mercury	2.9			CV
7440-02-0	Nickel	13.8		*	P
7440-09-7	Potassium	113	U		P
7782-49-2	Selenium	0.35	B	W	F
7440-22-4	Silver	1.3	B		P
7440-23-5	Sodium	1340			P
7440-28-0	Thallium	0.23	U		F
7440-62-2	Vanadium	15.0			P
7440-66-6	Zinc	163		N*	P
	Cyanide	0.57	U		AS

Color Before: Clarity Before: Texture: F

Color After: Y Clarity After: C Artifacts: YES

Comments:

CLIENT SAMPLE ID: SED-1A

TEST CODE :WPAHS 1

JOB NUMBER :9301.904

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : OB-5000 NYSDEC - DEARCOP

TEST NAME : PAHS - LC

UNITS : UG/L

SAMPLE ID LAB : EE-93-70282

MATRIX: WATER

SAMPLE ID CLIENT: SW-7

PARAMETER	RESULTS	Q	QNT. LIMIT
Acenaphthene	ND	-	5.0
Fluoranthene	ND	-	2.5
Naphthalene	ND	-	5.0
Benzo(a)anthracene	ND	-	1.0
Benzo(a)pyrene	ND	-	1.0
Benzo(b)fluoranthene	ND	-	1.0
Benzo(k)fluoranthene	ND	-	1.0
Chrysene	ND	-	1.0
Acenaphthylene	ND	-	5.0
Anthracene	ND	-	1.0
Benzo(ghi)perylene	ND	-	2.5
Fluorene	ND	-	1.0
Phenanthrene	ND	-	1.0
Dibenzo(a,h)anthracene	ND	-	2.5
Indeno(1,2,3-cd)pyrene	ND	-	1.0
Pyrene	ND	-	2.5
1-Methylnaphthalene	ND	-	5.0
2-Methylnaphthalene	ND	-	5.0

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED QNT. LIMIT

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SW-7

Name: E & E INC.

Contract:

Lab Code: EANDE

Case No.: 887

SAS No.:

SDG No.: MW-10D

Matrix: (soil/water) WATER

Lab Sample ID: 70282

Sample wt/vol: 1000 (g/mL) ML

Lab File ID:

% Moisture: decanted: (Y/N)

Date Received: 08/27/93

Extraction: (SepF/Cont/Sonc) SEPF

Date Extracted: 08/31/93

Concentrated Extract Volume: 10000 (uL)

Date Analyzed: 09/23/93

Injection Volume: 2.00 (uL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 7.8

Sulfur Cleanup: (Y/N) Y

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
---------	----------	----------------------	---

319-84-6-----	alpha-BHC	0.050	U
319-85-7-----	beta-BHC	0.050	U
319-86-8-----	delta-BHC	0.050	U
58-89-9-----	gamma-BHC (Lindane)	0.050	U
76-44-8-----	Heptachlor	0.050	U
309-00-2-----	Aldrin	0.050	U
1024-57-3-----	Heptachlor epoxide	0.050	U
959-98-8-----	Endosulfan I	0.050	U
60-57-1-----	Dieldrin	0.10	U
72-55-9-----	4,4'-DDE	0.10	U
72-20-8-----	Endrin	0.10	U
33213-65-9-----	Endosulfan II	0.10	U
72-54-8-----	4,4'-DDD	0.10	U
1031-07-8-----	Endosulfan sulfate	0.10	U
50-29-3-----	4,4'-DDT	0.10	U
72-43-5-----	Methoxychlor	0.50	U
53494-70-5-----	Endrin ketone	0.10	U
7421-93-4-----	Endrin aldehyde	0.10	U
5103-71-9-----	alpha-Chlordane	0.050	U
5103-74-2-----	gamma-Chlordane	0.050	U
8001-35-2-----	Toxaphene	5.0	U
12674-11-2-----	Aroclor-1016	1.0	U
11104-28-2-----	Aroclor-1221	2.0	U
11141-16-5-----	Aroclor-1232	1.0	U
53469-21-9-----	Aroclor-1242	1.0	U
12672-29-6-----	Aroclor-1248	1.0	U
11097-69-1-----	Aroclor-1254	1.0	U
11096-82-5-----	Aroclor-1260	1.0	U

INORGANIC ANALYSES DATA SHEET

1

DEC SAMPLE NO.

SW-7

Lab Name: ECOLOGY AND ENVIRONMENT Contract: _____

Lab Code: EANDE Case No.: 9301.887 SAS No.: _____ SDG No.: SS-93D

Matrix (soil/water): WATER

Lab Sample ID: 70282

Level (low/med): LOW

Date Received: 08/27/93

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	195	B	E	P
7440-36-0	Antimony	37.0	U		P
7440-38-2	Arsenic	1.0	U		F
7440-39-3	Barium	24.7	B		P
7440-41-7	Beryllium	0.23	U		P
7440-43-9	Cadmium	2.7	U		P
7440-70-2	Calcium	45500			P
7440-47-3	Chromium	5.3	U		P
7440-48-4	Cobalt	6.6	U		P
7440-50-8	Copper	1.8	U		P
7439-89-6	Iron	285		EN	P
7439-92-1	Lead	2.1	B		F
7439-95-4	Magnesium	10200			P
7439-96-5	Manganese	13.5	B		P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	7.5	U		P
7440-09-7	Potassium	1200	B		P
7782-49-2	Selenium	1.0	U	W	F
7440-22-4	Silver	2.5	U		P
7440-23-5	Sodium	15000			P
7440-28-0	Thallium	1.0	U	WN	F
7440-62-2	Vanadium	3.3	U		P
7440-66-6	Zinc	12.8	B		P
	Cyanide	10.0	U	N	AS

Color Before: CL _____ Clarity Before: C _____ Texture: _____

Color After: CL _____ Clarity After: C _____ Artifacts: _____

Comments:

TEST CODE :WPAHS 1

JOB NUMBER :9301.904
ELAP ID : 10486Ecology and Environment, Inc.
Analytical Services Center

CLIENT : OB-5000 NYSDEC - DEARCOP

TEST NAME : PAHS - LC

UNITS : UG/L

SAMPLE ID LAB : EE-93-70283

MATRIX: WATER

SAMPLE ID CLIENT: SW-7D

PARAMETER	RESULTS	Q	QNT. LIMIT
Acenaphthene	ND	-	5.0
Fluoranthene	ND	-	2.5
Naphthalene	ND	-	5.0
Benzo(a)anthracene	ND	-	1.0
Benzo(a)pyrene	ND	-	1.0
Benzo(b)fluoranthene	ND	-	1.0
Benzo(k)fluoranthene	ND	-	1.0
Chrysene	ND	-	1.0
Acenaphthylene	ND	-	5.0
Anthracene	ND	-	1.0
Benzo(ghi)perylene	ND	-	2.5
Fluorene	ND	-	1.0
Phenanthrene	ND	-	1.0
Dibenzo(a,h)anthracene	ND	-	2.5
Indeno(1,2,3-cd)pyrene	ND	-	1.0
Pyrene	ND	-	2.5
1-Methylnaphthalene	ND	-	5.0
2-Methylnaphthalene	ND	-	5.0

QUALIFIERS: C = COMMENT

ND = NOT DETECTED

J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK

L = PRESENT BELOW STATED QNT. LIMIT

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: E & E INC.

Contract:

SW-7D

Lab Code: EANDE Case No.: 887

SAS No.:

SDG No.: MW-10D

Matrix: (soil/water) WATER

Lab Sample ID: 70283

Sample wt/vol: 1000 (g/mL) ML

Lab File ID:

% Moisture: decanted: (Y/N)

Date Received: 08/27/93

Extraction: (SepF/Cont/Sonc) SEPF

Date Extracted: 08/31/93

Concentrated Extract Volume: 10000 (uL)

Date Analyzed: 09/23/93

Injection Volume: 2.00 (uL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 7.9

Sulfur Cleanup: (Y/N) Y

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

Q

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/Kg) UG/L	Q
319-84-6-----	alpha-BHC	0.050	U
319-85-7-----	beta-BHC	0.050	U
319-86-8-----	delta-BHC	0.050	U
58-89-9-----	gamma-BHC (Lindane)	0.050	U
76-44-8-----	Heptachlor	0.050	U
309-00-2-----	Aldrin	0.050	U
1024-57-3-----	Heptachlor epoxide	0.050	U
959-98-8-----	Endosulfan I	0.050	U
60-57-1-----	Dieldrin	0.10	U
72-55-9-----	4,4'-DDE	0.10	U
72-20-8-----	Endrin	0.10	U
33213-65-9-----	Endosulfan II	0.10	U
72-54-8-----	4,4'-DDD	0.10	U
1031-07-8-----	Endosulfan sulfate	0.10	U
50-29-3-----	4,4'-DDT	0.10	U
72-43-5-----	Methoxychlor	0.50	U
53494-70-5-----	Endrin ketone	0.10	U
7421-93-4-----	Endrin aldehyde	0.10	U
5103-71-9-----	alpha-Chlordane	0.050	U
5103-74-2-----	gamma-Chlordane	0.050	U
8001-35-2-----	Toxaphene	5.0	U
12674-11-2-----	Aroclor-1016	1.0	U
11104-28-2-----	Aroclor-1221	2.0	U
11141-16-5-----	Aroclor-1232	1.0	U
53469-21-9-----	Aroclor-1242	1.0	U
12672-29-6-----	Aroclor-1248	1.0	U
11097-69-1-----	Aroclor-1254	1.0	U
11096-82-5-----	Aroclor-1260	1.0	U

INORGANIC ANALYSES DATA SHEET

1

DEC SAMPLE NO.

SW-7D

Lab Name: ECOLOGY AND ENVIRONMENT Contract: _____

Lab Code: EANDE Case No.: 9301.887 SAS No.: _____ SDG No.: SS-93D

Matrix (soil/water): WATER Lab Sample ID: 70283

Level (low/med): LOW Date Received: 08/27/93

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	182	B	E	P
7440-36-0	Antimony	37.0	U		P
7440-38-2	Arsenic	1.0	U		F
7440-39-3	Barium	22.8	B		P
7440-41-7	Beryllium	0.23	U		P
7440-43-9	Cadmium	2.7	U		P
7440-70-2	Calcium	43000			P
7440-47-3	Chromium	5.3	U		P
7440-48-4	Cobalt	6.6	U		P
7440-50-8	Copper	1.9	B		P
7439-89-6	Iron	272		EN	P
7439-92-1	Lead	2.2	B		F
7439-95-4	Magnesium	9670			P
7439-96-5	Manganese	12.3	B		P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	7.5	U		P
7440-09-7	Potassium	1190	B		P
7782-49-2	Selenium	1.0	U	W	F
7440-22-4	Silver	2.5	U		P
7440-23-5	Sodium	14200			P
7440-28-0	Thallium	1.0	U	WN	F
7440-62-2	Vanadium	3.3	U		P
7440-66-6	Zinc	10.1	B		P
	Cyanide	10.0	U	N	AS

Color Before: CL _____ Clarity Before: C _____ Texture: _____

Color After: CL _____ Clarity After: C _____ Artifacts: _____

Comments:

FORM I - IN

ILMO2.1

A-223

TEST CODE :SPAHS 1

JOB NUMBER :9301.904

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : OB-5000 NYSDEC - DEARCOP

RESULTS IN DRY WEIGHT %SOLIDS : 46 %

TEST NAME : PAHS - LC UNITS : UG/KG

SAMPLE ID LAB : EE-93-70287 MATRIX : SOLID

SAMPLE ID CLIENT: SED-7

PARAMETER	RESULTS	Q	QNT. LIMIT
Acenaphthene	5900		4300
Fluoranthene	6700		1100
Naphthalene	6100		4300
Benzo(a)anthracene	2400		430
Benzo(a)pyrene	2000		430
Benzo(b)fluoranthene	1600		430
Benzo(k)fluoranthene	1200		430
Chrysene	1900		430
Acenaphthylene	ND		4300
Anthracene	1500		430
Benzo(ghi)perylene	1400		1100
Fluorene	800		430
Phenanthrene	4600		430
Dibenzo(a,h)anthracene	1100	J	1100
Indeno(1,2,3-cd)pyrene	1400		430
Pyrene	6300		1100
1-Methylnaphthalene	ND		4300
2-Methylnaphthalene	ND		4300

 QUALIFIERS: C = COMMENT ND = NOT DETECTED
 J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
 L = PRESENT BELOW STATED QNT. LIMIT

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: E & E INC.

Contract:

SED-7

LaL Code: EANDE

Case No.: 904

SAS No.:

SDG No.: SS331D

Matrix: (soil/water) SOIL

Lab Sample ID: 70287

Sample wt/vol: 30.0 (g/mL) G

Lab File ID:

% Moisture: 54 decanted: (Y/N) N

Date Received: 08/27/93

Extraction: (SepF/Cont/Sonc) SONC

Date Extracted: 09/01/93

Concentrated Extract Volume: 5000 (uL)

Date Analyzed: 10/05/93

Injection Volume: 2.00 (uL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 7.5

Sulfur Cleanup: (Y/N) Y

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

Q

CAS NO.	COMPOUND			
319-84-6-----	alpha-BHC	3.7	U	
319-85-7-----	beta-BHC	3.7	U	
319-86-8-----	delta-BHC	3.7	U	
58-89-9-----	gamma-BHC (Lindane)	3.7	U	
76-44-8-----	Heptachlor	3.7	U	
309-00-2-----	Aldrin	3.7	U	
1024-57-3-----	Heptachlor epoxide	8.9	P	
959-98-8-----	Endosulfan I	3.7	U	
60-57-1-----	Dieldrin	7.2	U	
72-55-9-----	4,4'-DDE	7.2	U	
72-20-8-----	Endrin	7.2	U	
33213-65-9-----	Endosulfan II	7.2	U	
72-54-8-----	4,4'-DDD	7.2	U	
1031-07-8-----	Endosulfan sulfate	7.2	U	
50-29-3-----	4,4'-DDT	7.2	U	
72-43-5-----	Methoxychlor	37	U	
53494-70-5-----	Endrin ketone	7.2	U	
7421-93-4-----	Endrin aldehyde	7.2	U	
5103-71-9-----	alpha-Chlordane	3.7	U	
5103-74-2-----	gamma-Chlordane	3.7	U	
8001-35-2-----	Toxaphene	370	U	
12674-11-2-----	Aroclor-1016	72	U	
11104-28-2-----	Aroclor-1221	150	U	
11141-16-5-----	Aroclor-1232	72	U	
53469-21-9-----	Aroclor-1242	72	U	
12672-29-6-----	Aroclor-1248	72	U	
11097-69-1-----	Aroclor-1254	68	JP	
11096-82-5-----	Aroclor-1260	72	U	

1
INORGANIC ANALYSES DATA SHEET

DEC SAMPLE NO.

SED-7

SED7

GF 12/21/93

Lab Name: ECOLOGY AND ENVIRONMENT Contract:

Lab Code: EANDE Case No.: 9301.887 SAS No.: SDG No.: BH331D

Matrix (soil/water): SOIL Lab Sample ID: 70287

Level (low/med): LOW Date Received: 08/27/93

% Solids: 46.3

Concentration, Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	13000		*	P
7440-36-0	Antimony	16.0	U	N	P
7440-38-2	Arsenic	6.2			F
7440-39-3	Barium	104			P
7440-41-7	Beryllium	0.86	B		P
7440-43-9	Cadmium	1.7	B		P
7440-70-2	Calcium	36800		*	P
7440-47-3	Chromium	50.0		N*	P
7440-48-4	Cobalt	19.4	B	*	P
7440-50-8	Copper	73.3		N*	P
7439-89-6	Iron	32000		*	P
7439-92-1	Lead	146		*	P
7439-95-4	Magnesium	12200			P
7439-96-5	Manganese	681		*	P
7439-97-6	Mercury	0.23			CV
7440-02-0	Nickel	44.9		*	P
7440-09-7	Potassium	214	U		P
7782-49-2	Selenium	0.43	U	W	F
7440-22-4	Silver	1.1	U		P
7440-23-5	Sodium	263	U		P
7440-28-0	Thallium	0.43	U		F
7440-62-2	Vanadium	26.3			P
7440-66-6	Zinc	444		N*	P
	Cyanide	1.1	U		AS

Color Before: Clarity Before: Texture: SL

Color After: Y Clarity After: C Artifacts: YES

Comments:

CLIENT SAMPLE ID: SED-7

TEST CODE :WPAHS 1

JOB NUMBER :9301.904

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : OB-5000 NYSDEC - DEARCOP

TEST NAME : PAHS - LC

UNITS : UG/L

SAMPLE ID LAB : EE-93-70284

MATRIX: WATER

SAMPLE ID CLIENT: SW-8

PARAMETER	RESULTS	Q	QNT. LIMIT
Acenaphthene	ND	-	5.0
Fluoranthene	ND	-	2.5
Naphthalene	ND	-	5.0
Benzo(a)anthracene	ND	-	1.0
Benzo(a)pyrene	ND	-	1.0
Benzo(b)fluoranthene	ND	-	1.0
Benzo(k)fluoranthene	ND	-	1.0
Chrysene	ND	-	1.0
Acenaphthylene	ND	-	5.0
Anthracene	ND	-	1.0
Benzo(ghi)perylene	ND	-	2.5
Fluorene	ND	-	1.0
Phenanthrene	ND	-	1.0
Dibenzo(a,h)anthracene	ND	-	2.5
Indeno(1,2,3-cd)pyrene	ND	-	1.0
Pyrene	ND	-	2.5
1-Methylnaphthalene	ND	-	5.0
2-Methylnaphthalene	ND	-	5.0

QUALIFIERS: C = COMMENT ND = NOT DETECTED

J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK

L = PRESENT BELOW STATED QNT. LIMIT

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: E & E INC.

Contract:

SW-8

Lab Code: EANDE Case No.: 887 SAS No.: SDG No.: MW-10D

Matrix: (soil/water) WATER Lab Sample ID: 70284

Sample wt/vol: 1000 (g/mL) ML Lab File ID:

% Moisture: decanted: (Y/N) Date Received: 08/27/93

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 08/31/93

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 09/23/93

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 7.9 Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/Kg)	UG/L

319-84-6-----alpha-BHC	0.050	U
319-85-7-----beta-BHC	0.050	U
319-86-8-----delta-BHC	0.050	U
58-89-9-----gamma-BHC (Lindane)	0.050	U
76-44-8-----Heptachlor	0.050	U
309-00-2-----Aldrin	0.050	U
1024-57-3-----Heptachlor epoxide	0.050	U
959-98-8-----Endosulfan I	0.050	U
60-57-1-----Dieldrin	0.10	U
72-55-9-----4,4'-DDE	0.10	U
72-20-8-----Endrin	0.10	U
33213-65-9-----Endosulfan II	0.10	U
72-54-8-----4,4'-DDD	0.10	U
1031-07-8-----Endosulfan sulfate	0.10	U
50-29-3-----4,4'-DDT	0.10	U
72-43-5-----Methoxychlor	0.50	U
53494-70-5-----Endrin ketone	0.10	U
7421-93-4-----Endrin aldehyde	0.10	U
5103-71-9-----alpha-Chlordane	0.050	U
5103-74-2-----gamma-Chlordane	0.050	U
8001-35-2-----Toxaphene	5.0	U
12674-11-2-----Aroclor-1016	1.0	U
11104-28-2-----Aroclor-1221	2.0	U
11141-16-5-----Aroclor-1232	1.0	U
53469-21-9-----Aroclor-1242	1.0	U
12672-29-6-----Aroclor-1248	1.0	U
11097-69-1-----Aroclor-1254	1.0	U
11096-82-5-----Aroclor-1260	1.0	U

1
INORGANIC ANALYSES DATA SHEET

DEC SAMPLE NO.

SW-8

Name: ECOLOGY AND ENVIRONMENT Contract: _____

Lab Code: EANDE Case No.: 9301.887 SAS No.: _____ SDG No.: SS-93D

Matrix (soil/water): WATER Lab Sample ID: 70284

Level (low/med): LOW Date Received: 08/27/93

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	494	E	P	
7440-36-0	Antimony	37.0	U	P	
7440-38-2	Arsenic	1.0	U	F	
7440-39-3	Barium	25.9	B	P	
7440-41-7	Beryllium	0.23	U	P	
7440-43-9	Cadmium	2.7	U	P	
7440-70-2	Calcium	43400		P	
7440-47-3	Chromium	5.3	U	P	
7440-48-4	Cobalt	6.6	U	P	
7440-50-8	Copper	3.8	B	P	
7439-89-6	Iron	836	EN	P	
7439-92-1	Lead	2.5	B	F	
7439-95-4	Magnesium	9840		P	
7439-96-5	Manganese	30.4		P	
7439-97-6	Mercury	0.20	U	CV	
7440-02-0	Nickel	7.5	U	P	
7440-09-7	Potassium	2150	B	P	
7782-49-2	Selenium	1.0	U	W	F
7440-22-4	Silver	2.5	U	P	
7440-23-5	Sodium	13500		P	
7440-28-0	Thallium	1.0	U	WN	F
7440-62-2	Vanadium	3.3	U	P	
7440-66-6	Zinc	23.2		P	
	Cyanide	10.0	U	N	AS

Color Before: CL Clarity Before: C Texture: _____

Color After: CL Clarity After: C Artifacts: _____

Comments:

TEST CODE :SPAHS 1

JOB NUMBER :9301.904

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : OB-5000 NYSDEC - DEARCOP
RESULTS IN DRY WEIGHT %SOLIDS : 60 %
TEST NAME : PAHS - LC UNITS : UG/KG
SAMPLE ID LAB : EE-93-70288 MATRIX : SOLID
SAMPLE ID CLIENT: SED-8

PARAMETER	RESULTS	Q	QNT. LIMIT
Acenaphthene	1200	J	1700
Fluoranthene	1100		420
Naphthalene	700	J	1700
Benzo(a)anthracene	570		170
Benzo(a)pyrene	550		170
Benzo(b)fluoranthene	420		170
Benzo(k)fluoranthene	330		170
Chrysene	470		170
Acenaphthylene	ND		1700
Anthracene	250		170
Benzo(ghi)perylene	400	J	420
Fluorene	100	J	170
Phenanthrene	630		170
Dibenzo(a,h)anthracene	270	J	420
Indeno(1,2,3-cd)pyrene	380		170
Pyrene	1000		420
1-Methylnaphthalene	ND		1700
2-Methylnaphthalene	ND		1700

QUALIFIERS: C = COMMENT ND = NOT DETECTED

J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK

L = PRESENT BELOW STATED QNT. LIMIT

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: E & E INC.

Contract:

SED-8

Lab Code: EANDE

Case No.: 904

SAS No.:

SDG No.: SS331D

Matrix: (soil/water) SOIL

Lab Sample ID: 70288

Sample wt/vol: 30.0 (g/mL) G

Lab File ID:

% Moisture: 40 decanted: (Y/N) N

Date Received: 08/27/93

Extraction: (SepF/Cont/Sonc) SONC

Date Extracted: 09/01/93

Concentrated Extract Volume: 5000 (uL)

Date Analyzed: 10/05/93

Injection Volume: 2.00 (uL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 7.3

Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	UG/KG	Q
319-84-6-----	alpha-BHC	2.8	U	
319-85-7-----	beta-BHC	2.8	U	
319-86-8-----	delta-BHC	2.8	U	
58-89-9-----	gamma-BHC (Lindane)	2.8	U	
76-44-8-----	Heptachlor	2.8	U	
309-00-2-----	Aldrin	2.8	U	
1024-57-3-----	Heptachlor epoxide	2.8	U	
959-98-8-----	Endosulfan I	2.8	U	
60-57-1-----	Dieldrin	5.5	U	
72-55-9-----	4,4'-DDE	5.5	U	
72-20-8-----	Endrin	5.5	U	
33213-65-9-----	Endosulfan II	5.5	U	
72-54-8-----	4,4'-DDD	5.5	U	
1031-07-8-----	Endosulfan sulfate	5.5	U	
50-29-3-----	4,4'-DDT	5.5	U	
72-43-5-----	Methoxychlor	28	U	
53494-70-5-----	Endrin ketone	5.5	U	
7421-93-4-----	Endrin aldehyde	5.5	U	
5103-71-9-----	alpha-Chlordane	2.8	U	
5103-74-2-----	gamma-Chlordane	2.8	U	
8001-35-2-----	Toxaphene	280	U	
12674-11-2-----	Aroclor-1016	55	U	
11104-28-2-----	Aroclor-1221	110	U	
11141-16-5-----	Aroclor-1232	55	U	
53469-21-9-----	Aroclor-1242	55	U	
12672-29-6-----	Aroclor-1248	55	U	
11097-69-1-----	Aroclor-1254	44	JP	
11096-82-5-----	Aroclor-1260	55	U	

1
INORGANIC ANALYSES DATA SHEET

DEC SAMPLE NO.

SED-8
SED-8

GF 12/21/93

Lab Name: ECOLOGY AND ENVIRONMENT Contract:

Lab Code: EANDE Case No.: 9301.887 SAS No.: SDG No.: BH331D

Matrix (soil/water): SOIL Lab Sample ID: 70288

Level (low/med): LOW Date Received: 08/27/93

% Solids: 60.0

Concentration, Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	7790		*	P
7440-36-0	Antimony	12.3	U	N	P
7440-38-2	Arsenic	5.0			F
7440-39-3	Barium	71.5			P
7440-41-7	Beryllium	0.61	B		P
7440-43-9	Cadmium	1.8			P
7440-70-2	Calcium	56800		*	P
7440-47-3	Chromium	57.4		N*	P
7440-48-4	Cobalt	16.2	B	*	P
7440-50-8	Copper	75.6		N*	P
7439-89-6	Iron	39900		*	P
7439-92-1	Lead	1220		*	P
7439-95-4	Magnesium	22000			P
7439-96-5	Manganese	616		*	P
7439-97-6	Mercury	0.13	U		CV
7440-02-0	Nickel	37.1		*	P
7440-09-7	Potassium	987	B		P
7782-49-2	Selenium	0.33	U	W	F
7440-22-4	Silver	0.83	U		P
7440-23-5	Sodium	203	U		P
7440-28-0	Thallium	0.33	U	W	F
7440-62-2	Vanadium	18.0			P
7440-66-6	Zinc	291		N*	P
	Cyanide	0.83	U		AS

Color Before: Clarity Before: Texture: SL

Color After: Y Clarity After: C Artifacts: YES

Comments:

CLIENT SAMPLE ID: SED-8

TEST CODE :SPAHS 1

JOB NUMBER :9301.904

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : OB-5000 NYSDEC - DEARCOP
 RESULTS IN DRY WEIGHT %SOLIDS : 96 %
 TEST NAME : PAHS - LC UNITS : UG/KG
 SAMPLE ID LAB : EE-93-70289 MATRIX : SOLID
 SAMPLE ID CLIENT: SED-9

PARAMETER	RESULTS	Q	QNT. LIMIT
Acenaphthene	1400		210
Fluoranthene	540		52
Naphthalene	380		210
Benzo(a)anthracene	270		21
Benzo(a)pyrene	230		21
Benzo(b)fluoranthene	240		21
Benzo(k)fluoranthene	210		21
Chrysene	210		21
Acenaphthylene	ND		210
Anthracene	47		21
Benzo(ghi)perylene	200		52
Fluorene	33		21
Phenanthrene	190		21
Dibenzo(a,h)anthracene	220		52
Indeno(1,2,3-cd)pyrene	200		21
Pyrene	440		52
1-Methylnaphthalene	250		210
2-Methylnaphthalene	210		210

QUALIFIERS: C = COMMENT ND = NOT DETECTED
 J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
 L = PRESENT BELOW STATED QNT. LIMIT

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: E & E INC.

Contract:

SED-9

Lab Code: EANDE Case No.: 904

SAS No.:

SDG No.: SS331D

Matrix: (soil/water) SOIL

Lab Sample ID: 70289

Sample wt/vol: 30.0 (g/mL) G

Lab File ID:

% Moisture: 4 decanted: (Y/N) N

Date Received: 08/27/93

Extraction: (SepF/Cont/Sonc) SONC

Date Extracted: 09/01/93

Concentrated Extract Volume: 5000 (uL)

Date Analyzed: 10/05/93

Injection Volume: 2.00 (uL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 6.8

Sulfur Cleanup: (Y/N) Y

CONCENTRATION UNITS:

CAS NO. COMPOUND

(ug/L or ug/Kg) UG/KG

Q

319-84-6-----alpha-BHC		1.8	U
319-85-7-----beta-BHC		1.8	U
319-86-8-----delta-BHC		1.8	U
58-89-9-----gamma-BHC (Lindane)		1.8	U
76-44-8-----Heptachlor		1.8	U
309-00-2-----Aldrin		1.8	U
1024-57-3-----Heptachlor epoxide		5.4	
959-98-8-----Endosulfan I		1.8	U
60-57-1-----Dieldrin		8.2	P
72-55-9-----4,4'-DDE		3.4	U
72-20-8-----Endrin		3.4	U
33213-65-9-----Endosulfan II		3.4	U
72-54-8-----4,4'-DDD		3.4	U
1031-07-8-----Endosulfan sulfate		3.4	U
50-29-3-----4,4'-DDT		3.4	U
72-43-5-----Methoxychlor		18	U
53494-70-5-----Endrin ketone		3.4	U
7421-93-4-----Endrin aldehyde		3.4	U
5103-71-9-----alpha-Chlordane		1.8	U
5103-74-2-----gamma-Chlordane		1.8	U
8001-35-2-----Toxaphene		180	U
12674-11-2-----Aroclor-1016		34	U
11104-28-2-----Aroclor-1221		70	U
11141-16-5-----Aroclor-1232		34	U
53469-21-9-----Aroclor-1242		34	U
12672-29-6-----Aroclor-1248		34	U
11097-69-1-----Aroclor-1254		35	P
11096-82-5-----Aroclor-1260		34	U

1
INORGANIC ANALYSES DATA SHEET

DEC SAMPLE NO.

SED-9

SED9

GF 12/21/93

Lab Name: ECOLOGY AND ENVIRONMENT Contract:

Lab Code: EANDE Case No.: 9301.887 SAS No.: SDG No.: BH331D

Matrix (soil/water): SOIL Lab Sample ID: 70289

Level (low/med): LOW Date Received: 08/27/93

% Solids: 96.1

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3610		*	P
7440-36-0	Antimony	7.7	U	N	P
7440-38-2	Arsenic	2.7			F
7440-39-3	Barium	54.3			P
7440-41-7	Beryllium	0.27	B		P
7440-43-9	Cadmium	1.9			P
7440-70-2	Calcium	32000		*	P
7440-47-3	Chromium	13.8		N*	P
7440-48-4	Cobalt	7.4	B	*	P
7440-50-8	Copper	86.4		N*	P
7439-89-6	Iron	15400		*	P
7439-92-1	Lead	106		*	P
7439-95-4	Magnesium	9170			P
7439-96-5	Manganese	448		*	P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	14.5		*	P
7440-09-7	Potassium	665	B		P
7782-49-2	Selenium	0.21	U	W	F
7440-22-4	Silver	1.6	B		P
7440-23-5	Sodium	498	B		P
7440-28-0	Thallium	0.21	U		F
7440-62-2	Vanadium	11.5			P
7440-66-6	Zinc	545		N*	P
	Cyanide	0.52	U		AS

Color Before: Clarity Before: Texture: F

Color After: Y Clarity After: C Artifacts: YES

Comments:

CLIENT SAMPLE ID: SED-9

FORM I - IN

ILMO2.1

TEST CODE :SPAHS 1

JOB NUMBER :9301.904
ELAP ID : 10486Ecology and Environment, Inc.
Analytical Services Center

CLIENT : OB-5000 NYSDEC - DEARCOP
 RESULTS IN DRY WEIGHT %SOLIDS : 95 %
 TEST NAME : PAHS - LC UNITS : UG/KG
 SAMPLE ID LAB : EE-93-70290 MATRIX : SOLID
 SAMPLE ID CLIENT: SED-9D

PARAMETER	RESULTS	Q	QNT. LIMIT
Acenaphthene	300	-	210
Fluoranthene	210		53
Naphthalene	130	J	210
Benzo(a)anthracene	56		21
Benzo(a)pyrene	95		21
Benzo(b)fluoranthene	130		21
Benzo(k)fluoranthene	130		21
Chrysene	95		21
Acenaphthylene	ND		210
Anthracene	15	J	21
Benzo(ghi)perylene	96		53
Fluorene	ND		21
Phenanthrene	67		21
Dibenzo(a,h)anthracene	140		53
Indeno(1,2,3-cd)pyrene	87		21
Pyrene	220		53
1-Methylnaphthalene	ND		210
2-Methylnaphthalene	ND		210

QUALIFIERS: C = COMMENT ND = NOT DETECTED
 J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
 L = PRESENT BELOW STATED QNT. LIMIT

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: E & E INC.

Contract:

SED-9D

Code: EANDE Case No.: 904 SAS No.: SDG No.: SS331D

Matrix: (soil/water) SOIL Lab Sample ID: 70290

Sample wt/vol: 30.0 (g/mL) G Lab File ID:

% Moisture: 5 decanted: (Y/N) N Date Received: 08/27/93

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/01/93

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 10/06/93

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 6.2 Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	UG/KG	Q
319-84-6-----	alpha-BHC	1.8	U	
319-85-7-----	beta-BHC	1.8	U	
319-86-8-----	delta-BHC	1.8	U	
58-89-9-----	gamma-BHC (Lindane)	1.8	U	
76-44-8-----	Heptachlor	1.8	U	
309-00-2-----	Aldrin	1.8	U	
1024-57-3-----	Heptachlor epoxide	1.8	U	
959-98-8-----	Endosulfan I	1.8	U	
60-57-1-----	Dieldrin	4.7		
72-55-9-----	4,4'-DDE	3.5	U	
72-20-8-----	Endrin	3.5	U	
33213-65-9-----	Endosulfan II	3.5	U	
72-54-8-----	4,4'-DDD	3.5	U	
1031-07-8-----	Endosulfan sulfate	3.5	U	
50-29-3-----	4,4'-DDT	3.5	U	
72-43-5-----	Methoxychlor	18	U	
53494-70-5-----	Endrin ketone	3.5	U	
7421-93-4-----	Endrin aldehyde	3.5	U	
5103-71-9-----	alpha-Chlordane	1.8	U	
5103-74-2-----	gamma-Chlordane	1.8	U	
8001-35-2-----	Toxaphene	180	U	
12674-11-2-----	Aroclor-1016	35	U	
11104-28-2-----	Aroclor-1221	71	U	
11141-16-5-----	Aroclor-1232	35	U	
53469-21-9-----	Aroclor-1242	35	U	
12672-29-6-----	Aroclor-1248	35	U	
11097-69-1-----	Aroclor-1254	31	J	
11096-82-5-----	Aroclor-1260	35	U	

1
INORGANIC ANALYSES DATA SHEET

DEC SAMPLE NO.

SED-9DSED9DGF 12/21/93

Lab Name: ECOLOGY AND ENVIRONMENT Contract:

Lab Code: EANDE Case No.: 9301.887 SAS No.: SDG No.: BH331D

Matrix (soil/water): SOIL Lab Sample ID: 70290

Level (low/med): LOW Date Received: 08/27/93

% Solids: 95.4

Concentration, Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4230		*	P
7440-36-0	Antimony	7.8	U	N	P
7440-38-2	Arsenic	3.0			F
7440-39-3	Barium	79.8			P
7440-41-7	Beryllium	0.29	B		P
7440-43-9	Cadmium	2.1			P
7440-70-2	Calcium	37200		*	P
7440-47-3	Chromium	16.1		N*	P
7440-48-4	Cobalt	13.2		*	P
7440-50-8	Copper	111		N*	P
7439-89-6	Iron	40100		*	P
7439-92-1	Lead	130		*	P
7439-95-4	Magnesium	10500			P
7439-96-5	Manganese	681		*	P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	28.2		*	P
7440-09-7	Potassium	635	B		P
7782-49-2	Selenium	0.21	U	W	F
7440-22-4	Silver	0.52	U		P
7440-23-5	Sodium	487	B		P
7440-28-0	Thallium	0.21	U		F
7440-62-2	Vanadium	14.6			P
7440-66-6	Zinc	1910		N*	P
	Cyanide	0.52	U		AS

Color Before: Clarity Before: Texture: F

Color After: Y Clarity After: C Artifacts: YES

Comments:

CLIENT_SAMPLE_ID: SED-9D

TEST CODE :SPAHS 1

JOB NUMBER :9301.904

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : OB-5000 NYSDEC - DEARCOP
 RESULTS IN DRY WEIGHT %SOLIDS : 89 %
 TEST NAME : PAHS - LC UNITS : UG/KG
 SAMPLE ID LAB : EE-93-70291 MATRIX : SOLID
 SAMPLE ID CLIENT: SED-10

PARAMETER	RESULTS	Q	QNT. LIMIT
Acenaphthene	1100		220
Fluoranthene	540		56
Naphthalene	530		220
Benzo(a)anthracene	170		22
Benzo(a)pyrene	390		22
Benzo(b)fluoranthene	340		22
Benzo(k)fluoranthene	200		22
Chrysene	240		22
Acenaphthylene	ND		220
Anthracene	57		22
Benzo(ghi)perylene	290		56
Fluorene	27		22
Phenanthrene	190		22
Dibenzo(a,h)anthracene	390		56
Indeno(1,2,3-cd)pyrene	270		22
Pyrene	260		56
1-Methylnaphthalene	300		220
2-Methylnaphthalene	270		220

QUALIFIERS: C = COMMENT

ND = NOT DETECTED

J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK

L = PRESENT BELOW STATED QNT. LIMIT

906

A-239

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: E & E INC.

Contract:

SED-10

Lab Code: EANDE Case No.: 904 SAS No.: SDG No.: SS331D

Matrix: (soil/water) SOIL Lab Sample ID: 70291

Sample wt/vol: 30.0 (g/mL) G Lab File ID:

% Moisture: 11 decanted: (Y/N) N Date Received: 08/27/93

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/01/93

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 10/06/93

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 6.0 Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG Q	
		UG/KG	Q
319-84-6-----	alpha-BHC	1.9	U
319-85-7-----	beta-BHC	1.9	U
319-86-8-----	delta-BHC	1.9	U
58-89-9-----	gamma-BHC (Lindane)	1.9	U
76-44-8-----	Heptachlor	1.9	U
309-00-2-----	Aldrin	1.9	U
1024-57-3-----	Heptachlor epoxide	4.0	P
959-98-8-----	Endosulfan I	1.9	U
60-57-1-----	Dieldrin	3.7	U
72-55-9-----	4,4'-DDE	3.7	U
72-20-8-----	Endrin	3.7	U
33213-65-9-----	Endosulfan II	3.7	U
72-54-8-----	4,4'-DDD	3.7	U
1031-07-8-----	Endosulfan sulfate	3.7	U
50-29-3-----	4,4'-DDT	3.7	U
72-43-5-----	Methoxychlor	19	U
53494-70-5-----	Endrin ketone	3.7	U
7421-93-4-----	Endrin aldehyde	3.7	U
5103-71-9-----	alpha-Chlordane	1.9	U
5103-74-2-----	gamma-Chlordane	1.9	U
8001-35-2-----	Toxaphene	190	U
12674-11-2-----	Aroclor-1016	37	U
11104-28-2-----	Aroclor-1221	75	U
11141-16-5-----	Aroclor-1232	37	U
53469-21-9-----	Aroclor-1242	37	U
12672-29-6-----	Aroclor-1248	37	U
11097-69-1-----	Aroclor-1254	23	JP
11096-82-5-----	Aroclor-1260	37	U

1
INORGANIC ANALYSES DATA SHEET

DEC SAMPLE NO.

SED-10

SED10

GF 12/21/93

Name: ECOLOGY AND ENVIRONMENT Contract:

Lab Code: EANDE Case No.: 9301.887 SAS No.: SDG No.: BH331D

Matrix (soil/water): SOIL Lab Sample ID: 70291

Level (low/med): LOW Date Received: 08/27/93

% Solids: 89.1

Concentration, Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	5530		*	P
7440-36-0	Antimony	8.3	U	N	P
7440-38-2	Arsenic	3.5			F
7440-39-3	Barium	56.4			P
7440-41-7	Beryllium	0.42	B		P
7440-43-9	Cadmium	1.0	B		P
7440-70-2	Calcium	16400		*	P
7440-47-3	Chromium	13.6		N*	P
7440-48-4	Cobalt	6.2	B	*	P
7440-50-8	Copper	44.5		N*	P
7439-89-6	Iron	12100		*	P
7439-92-1	Lead	225		*	P
7439-95-4	Magnesium	7440			P
7439-96-5	Manganese	329		*	P
7439-97-6	Mercury	0.09	U		CV
7440-02-0	Nickel	11.3		*	P
7440-09-7	Potassium	655	B		P
7782-49-2	Selenium	0.24	B	W	F
7440-22-4	Silver	0.56	U		P
7440-23-5	Sodium	910	B		P
7440-28-0	Thallium	0.22	U		F
7440-62-2	Vanadium	18.3			P
7440-66-6	Zinc	122		N*	P
	Cyanide	0.56	U		AS

Color Before: Clarity Before: Texture: F

Color After: Y Clarity After: C Artifacts: YES

Comments:

CLIENT SAMPLE ID: SED-10

Vegetable

A-243

02:OB5903_D4437-APA-01/14/94-D1
recycled paper

1
INORGANIC ANALYSES DATA SHEET

DEC SAMPLE NO.

b Name: ECOLOGY AND ENVIRONMENT Contract: _____

VEG-206D

GF 12/21/93

Lab Code: EANDE Case No.: 9301.887 SAS No.: _____ SDG No.: 206D _____

Matrix (soil/water): VEGETABLE

Lab Sample ID: 70123

Level (low/med): LOW _____

Date Received: 08/26/93

% Solids: 100.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	12.8	-	-	P
7440-36-0	Antimony	1.8	U	N	P
7440-38-2	Arsenic	0.05	U	W	F
7440-39-3	Barium	0.95	U	-	P
7440-41-7	Beryllium	0.01	U	N	P
7440-43-9	Cadmium	0.13	U	N	P
7440-70-2	Calcium	2800	-	-	P
7440-47-3	Chromium	0.57	-	-	P
7440-48-4	Cobalt	0.33	U	N	P
7440-50-8	Copper	6.1	-	N	P
7439-89-6	Iron	15.1	-	-	P
7439-92-1	Lead	0.46	-	*	F
7439-95-4	Magnesium	684	-	-	P
7439-96-5	Manganese	3.7	-	N	P
7439-97-6	Mercury	0.10	U	-	CV
7440-02-0	Nickel	0.62	B	N	P
7440-09-7	Potassium	5010	-	*	P
7782-49-2	Selenium	0.06	B	N	F
7440-22-4	Silver	0.12	U	N	P
7440-23-5	Sodium	1220	-	-	P
7440-28-0	Thallium	0.05	U	WN	F
7440-62-2	Vanadium	0.16	U	-	P
7440-66-6	Zinc	35.0	-	N*	P
	Cyanide	1.3	-	-	AS

Color Before: _____

Clarity Before: _____

Texture: * _____

Color After: CL _____

Clarity After: C _____

Artifacts: + _____

Comments:

CLIENT_SAMPLE_ID: VEG-206D _____

* = PLANTS

+ = GREENS

FORM I - IN

ILMO2.1

3

A-245

1
INORGANIC ANALYSES DATA SHEET

DEC SAMPLE NO.

Lab Name: ECOLOGY AND ENVIRONMENT Contract: _____

VEG-206DD

GF 12/21/93

Lab Code: EANDE Case No.: 9301,887 SAS No.: _____ SDG No.: 206D _____

Matrix (soil/water): VEGETABLE

Lab Sample ID: 70124

Level (low/med): LOW _____

Date Received: 08/26/93

% Solids: 100.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	8.7	B		P
7440-36-0	Antimony	1.8	U	N	P
7440-38-2	Arsenic	0.05	U		F
7440-39-3	Barium	0.95	U		P
7440-41-7	Beryllium	0.01	U	N	P
7440-43-9	Cadmium	0.13	U	N	P
7440-70-2	Calcium	1850			P
7440-47-3	Chromium	0.47	B		P
7440-48-4	Cobalt	0.33	U	N	P
7440-50-8	Copper	3.3		N	P
7439-89-6	Iron	10.5			P
7439-92-1	Lead	0.54		S*	F
7439-95-4	Magnesium	563			P
7439-96-5	Manganese	2.2		N	P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	0.48	B	N	P
7440-09-7	Potassium	2950		*	P
7782-49-2	Selenium	0.10	B	N	F
7440-22-4	Silver	0.12	U	N	P
7440-23-5	Sodium	1160			P
7440-28-0	Thallium	0.05	U	WN	F
7440-62-2	Vanadium	0.16	U		P
7440-66-6	Zinc	18.7		N*	P
	Cyanide	7.9			AS

Color Before: _____ Clarity Before: _____ Texture: * _____

Color After: CL _____ Clarity After: C _____ Artifacts: + _____

Comments:

CLIENT SAMPLE ID: VEG-206DD

* = PLANTS

+ = GREENS

FORM I - IN

ILMO2.1

9

DEC SAMPLE NO.

INORGANIC ANALYSES DATA SHEET

Lab Name: ECOLOGY AND ENVIRONMENT Contract: _____

VEG-331D

CR = 12/21/93

Lab Code: EANDE Case No.: 9301.887 SAS No.: _____ SDG No.: 206D _____

Matrix (soil/water): VEGETABLE

Lab Sample ID: 70122

Level (low/med): LOW _____

Date Received: 08/26/93

% Solids: 100.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	11.7			P
7440-36-0	Antimony	1.8	U	N	P
7440-38-2	Arsenic	0.05	U		F
7440-39-3	Barium	0.95	U		P
7440-41-7	Beryllium	0.01	U	N	P
7440-43-9	Cadmium	0.13	U	N	P
7440-70-2	Calcium	113	B		P
7440-47-3	Chromium	0.49	B		P
7440-48-4	Cobalt	0.33	U	N	P
7440-50-8	Copper	0.58	B	N	P
7439-89-6	Iron	6.0			P
7439-92-1	Lead	0.17		*	F
7439-95-4	Magnesium	117	B		P
7439-96-5	Manganese	0.49	B	N	P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	0.39	B	N	P
7440-09-7	Potassium	494		*	P
7782-49-2	Selenium	0.05	U	N	F
7440-22-4	Silver	0.12	U	N	P
7440-23-5	Sodium	755			P
7440-28-0	Thallium	0.05	U	WN	F
7440-62-2	Vanadium	0.16	U		P
7440-66-6	Zinc	3.2		N*	P
	Cyanide	0.50	U		AS

Color Before: _____ Clarity Before: _____ Texture: * _____

Color After: CL _____ Clarity After: C _____ Artifacts: X _____

Comments:

CLIENT SAMPLE ID: VEG-331D

* = PLANTS

X = TOMATOES

FORM I - IN

ILMO2.1

10

A-247

Asbestos

A-249

02:OB5903_D4437-APA-01/14/94-D1
recycled paper

MEMORANDUM

TO: Paul Brodzik
FROM: Gary Hahn *G.Hahn/GK*
DATE: October 15, 1993
SUBJECT: OB-5000 NYSDEC-Dearcop
REF: 9301.887 and 9301.904
CC: Lab File

Enclosed are the subcontracted asbestos results for NYSDEC-Dearcop reports 9301.887 and 9301.904. Please note the sample identifications as follows:

<u>Lab Sample Id:</u>	<u>Client Sample Id:</u>
70117.03	SS-331D
70118.03	BH-331D (0-2 FT)
70119.03	SS-206D
70120.01	SS-331D-COMP
70121.01	SS-206D-COMP
70297.01	SS-33V-COMP
70298.01	SS-93D-COMP
70299.01	SS-93DD-COMP
70300.01	SS-149D-COMP
70301.01	SS-168D-COMP
70302.01	SS-181D-COMP
70303.01	SS-205D-COMP
70304.01	SS-244D-COMP
70305.01	SS-263D-COMP
70306.01	SS-270D-COMP
70307.01	SS-320D-COMP

GH/gk
Enclosure



Thursday, September 23rd, 1993

Ecology & Environment, Inc
 368 Pleasantview Dr
 Lancaster, NY 14086

POLARIZED LIGHT MICROSCOPY (PLM)

Project: Ecology & Environment

SAMPLE #	LOCATION	APPEARANCE	SAMPLE TREATMENT	ASBESTOS		NONASBESTOS		
				%	TYPE	%	FIBROUS	%
70117.03		Brown Fibrous Heterogeneous	Teased	None Detected		5%	Cellulose	95% Other
70118.03		Brown Fibrous Heterogeneous	Teased	None Detected		5%	Cellulose	95% Other
70119.03		Brown Fibrous Heterogeneous	Teased	None Detected		5% Other 2% Cellulose		93% Other
70120.01		Various Fibrous Heterogeneous	Teased	None Detected		5% Other 2% Cellulose		93% Other
70121.01		Brown Fibrous Heterogeneous	Teased	None Detected		5% Other 2% Cellulose		93% Other
70297.01		Various Fibrous Heterogeneous	Teased	None Detected		5% Other 2% Cellulose		93% Other

Comments: For all obviously heterogeneous samples easily separated into subsamples, and for layered samples, each component is analyzed separately. Also, "# of layers" also refers to number of separable subsamples.

David J. Poitras

J

David J. Poitras
 Analyst

Laboratory
 Supervisor

Other Approved
 Signatory

Disclaimers: PLM has been known to miss asbestos in a small percentage of samples which contain asbestos. Thus negative PLM results cannot be guaranteed. Floor tiles and wipes should be tested with either SEM or TEM. The above test report relates only to the items tested. This report may only be reproduced in full with written approval by EMSL. The above test must not be used by the client to claim product endorsement by NVLAP nor any agency of the United States Government. All "NVLAP" reports with NVLAP logo must contain at least one signature to be valid. Laboratory is not responsible for the accuracy of results when requested to physically separate and analyze layered samples.



Thursday, September 23rd, 1993

Ecology & Environment, Inc
368 Pleasantview Dr
Lancaster, NY 14086

POLARIZED LIGHT MICROSCOPY (PLM)

Project: Ecology & Environment

SAMPLE #	LOCATION	APPEARANCE	SAMPLE TREATMENT	<u>ASBESTOS</u>		<u>NONASBESTOS</u>	
				%	TYPE	%	FIBROUS
70298.01		Brown Fibrous Heterogeneous	Teased	None Detected		5% Other 2% Cellulose	93% Other
70299.01		Various Fibrous Heterogeneous	Teased	None Detected		5% Other 2% Cellulose	93% Other
70300.01		Various Fibrous Heterogeneous	Teased	None Detected		5% Other 2% Cellulose 1% Mineral Wool	92% Other
70301.01		Various Fibrous Heterogeneous	Teased	None Detected		10% Cellulose 5% Other	85% Other
70302.01		Various Fibrous Heterogeneous	Teased	None Detected		5% Cellulose 2% Other	93% Other
70303.01		Various Fibrous Heterogeneous	Teased	None Detected		5% Cellulose 5% Other	90% Other

Comments: For all obviously heterogeneous samples easily separated into subsamples, and for layered samples, each component is analyzed separately. Also, "n of layers" also refers to number of separable subsamples.

David J. Poitras
Analyst

Laboratory
Supervisor

Other Approved
Signatory

Disclaimers: PLM has been known to miss asbestos in a small percentage of samples which contain asbestos. Thus negative PLM results cannot be guaranteed. Floor tiles and wipes should be tested with either SEM or TEM. The above test report relates only to the items tested. This report may only be reproduced in full with written approval by EMSL. The above test must not be used by the client to claim product endorsement by NVLAP nor any agency of the United States Government. All "NVLAP" reports with NVLAP logo must contain at least one signature to be valid. Laboratory is not responsible for the accuracy of results when requested to physically separate and analyze layered samples.

Westmont, NJ
609-658-4800

Piscataway, NJ
908-981-0550

Smyrna, GA
404-333-8066

Melbourne, FL
407-725-5223

Ann Arbor, MI
313-868-6810

San Mateo, CA
415-570-5401



Ecology & Environment, Inc
368 Pleasantview Dr
Lancaster, NY 14086

Thursday, September 23rd, 1993

POLARIZED LIGHT MICROSCOPY (PLM)

Project: Ecology & Environment

SAMPLE #	LOCATION	APPEARANCE	SAMPLE TREATMENT	ASBESTOS		NONASBESTOS			
				%	TYPE	%	FIBROUS	%	NONFIBROUS
70304.01		Various Fibrous Heterogeneous	Teased	None Detected		5% Cellulose 2% Other		93% Other	
70305.01		Various Fibrous Heterogeneous	Teased	None Detected		5% Cellulose 3% Other		92% Other	
70306.01		Various Fibrous Heterogeneous	Teased	None Detected		5% Cellulose 3% Other		92% Other	
70307.01		Various Fibrous Heterogeneous	Teased	None Detected		5% Cellulose 3% Other		92% Other	

Comments: For all obviously heterogeneous samples easily separated into subsamples, and for layered samples, each component is analyzed separately. Also, "# of layers" also refers to number of separable subsamples.

A handwritten signature in black ink that reads "David J. Poitras". The signature is fluid and cursive, with "David J." on top and "Poitras" below it.

A handwritten signature in black ink that appears to be a witness's name, though it is less distinct than the main signature.

David J. Poitras
Analyst

Laboratory
Supervisor

Other Approved
Signatory

Disclaimers: PLM has been known to miss asbestos in a small percentage of samples which contain asbestos. Thus negative PLM results cannot be guaranteed. Floor tiles and wipes should be tested with either SEM or TEM. The above test report relates only to the items tested. This report may only be reproduced in full with written approval by EMSL. The above test must not be used by the client to claim product endorsement by NVLAP nor any agency of the United States Government. All "NVLAP" reports with NVLAP logo must contain at least one signature to be valid. Laboratory is not responsible for the accuracy of results when requested to physically separate and analyze layered samples.

Radionuclide

A-255

1001
22
93
Recycled paper:
8:15

TELEDYNE ISOTOPES

REPORT OF ANALYSIS

RUN DATE 09/21/93

WORK ORDER NUMBER	CUSTOMER P.O. NUMBER	DATE RECEIVED	DELIVERY DATE	PAGE
M CATHY GERACI PROJECT MANAGER ECOLOGY & ENVIRONMENT INC 369 PLEASANT VIEW DR LANCASTER NY	3-3461 14086	08/30/93	10/02/93	1

S O I L

TELEDYNE SAMPLE NUMBER	CUSTOMER'S IDENTIFICATION	STA NUM	COLLECTION-DATE		ACTIVITY (PCU/GM DRY)	NUCL-UNIT-X U/M *	MID-COUNT TIME DATE		VOLUME - UNITS ASH-WGHT-X *	LAB.
			START DATE	STOP DATE			TIME	TIME		
24486	BH-333D	0.0-2.0 FT	08/26	1230	GR-A GR-B BE-7 K-40 MN-54 CO-58 FE-59 CO-60 ZN-65 ZR-95 RU-103 RU-106 I-131 CS-134 CS-137 BA-140 CE-141 CE-144 RA-226 TH-228	5.5 +/-4.3 E 00 1.7 +/-0.3 E 01 L.T. 2. E-01 9.43+/-0.94E 00 L.T. 3. E-02 L.T. 3. E-02 L.T. 6. E-02 L.T. 2. E-02 L.T. 6. E-02 L.T. 3. E-02 L.T. 3. E-02 L.T. 2. E-01 L.T. 1. E-01 L.T. 3. E-02 9.13+/-2.39E-02 L.T. 7. E-02 L.T. 5. E-02 L.T. 2. E-01 9.04+/-3.70E-01 8.01+/-0.80E-01	U/M *	09/08 09/08 09/13 09/13 09/13 09/13 09/13 09/13 09/13 09/13 09/13 09/13 09/13 09/13 09/13 09/13 09/13 09/13 09/13 09/13	09/08 09/08 09/13 09/13 09/13 09/13 09/13 09/13 09/13 09/13 09/13 09/13 09/13 09/13 09/13 09/13 09/13 09/13 09/13 09/13	3 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
24487	SS-BG-1		08/27	1135	GR-A GR-B BE-7 K-40 MN-54 CO-58 FE-59 CO-60 ZN-65 ZR-95 RU-103 RU-106	L.T. 5. E 00 2.9 +/-0.3 E 01 L.T. 3. E-01 1.21+/-0.12E 01 L.T. 4. E-02 L.T. 3. E-02 L.T. 8. E-02 L.T. 3. E-02 L.T. 9. E-02 L.T. 4. E-02 L.T. 4. E-02 L.T. 3. E-01	U/M *	09/08 09/08 09/13 09/13 09/13 09/13 09/13 09/13 09/13 09/13 09/13 09/13	09/08 09/08 09/13 09/13 09/13 09/13 09/13 09/13 09/13 09/13 09/13 09/13	3 3 4 4 4 4 4 4 4 4 4 4

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13016645586 PAGE .003

TELEDYNE ISOTOPES

REPORT OF ANALYSIS

RUN DATE 09/21/93

WORK ORDER NUMBER	CUSTOMER P.O. NUMBER	DATE RECEIVED	DELIVERY DATE	PAGE
M CATHY GFRANC PROJECT MANAGER ECOLOGY & ENVIRONMENT INC 768 PLEASANT VIEW DR LANCASTER NY	3-3461 14086	08/30/93	10/02/93	2

S O I L

TELEDYNE SAMPLE NUMBER	CUSTOMER'S IDENTIFICATION	STA NUM	COLLECTION-DATE			ACTIVITY (PCT/GM DRY)	NUCL-UNIT-X U/M *	MID-COUNT TIME			VOLUME - UNITS ASH-WGHT-X *	LAB.
			START DATE	STOP DATE	TIME			DATE	TIME	DATE		
24487	SS-RG-1		08/27	1135		I-131 CS-134 CS-137 BA-140 CE-141 CE-144 RA-226 TH-228	L.T. 1. E-01 L.T. 4. E-02 3.04+-0.38E-01 L.T. 7. E-02 L.T. 6. E-02 L.T. 2. E-01 1.06+-0.46E 00 4.46+-0.45E-01	09/13 09/13 09/13 09/13 09/13 09/13 09/13 09/13	09/13 09/13 09/13 09/13 09/13 09/13 09/13 09/13	4 4 4 4 4 4 4 4		
24488	SS-RG-2		08/27	1318		GR-A GR-B BE-7 K-40 MN-54 CD-58 FE-59 CO-60 ZN-65 ZR-95 RU-103 RU-106 I-131 CS-134 CS-137 BA-140 CE-141 CE-144 RA-226 TH-228	L.T. 5. E 00 2.7 +-0.3 E 01 L.T. 3. E-01 1.24+-0.12E 01 L.T. 3. E-02 L.T. 3. E-02 L.T. 8. E-02 L.T. 3. E-02 L.T. 8. E-02 L.T. 4. E-02 L.T. 3. E-02 L.T. 2. E-01 L.T. 1. E-01 L.T. 4. E-02 2.26+-0.34E-01 L.T. 6. E-02 L.T. 6. E-02 L.T. 2. E-01 1.37+-0.51E 00 4.65+-0.46E-01	09/08 09/08 09/13 09/13 09/13 09/13 09/13 09/13 09/13 09/13 09/13 09/13 09/13 09/13 09/13 09/13 09/13 09/13 09/13 09/13	3 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4			

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12015645588

PAGE .004

TELEDYNE ISOTOPES

REPORT OF ANALYSIS

RUN DATE 09/21/93

WORK ORDER NUMBER

CUSTOMER P.O. NUMBER

DATE RECEIVED

DELIVERY DATE

PAGE 3

M CATHY GERACI PROJECT MANAGER
 ECOLOGY & ENVIRONMENT INC
 368 PLEASANT VIEW DR
 LANCASTER NY

3-3462

08/30/93

10/02/93

14086

S O I L

TELEDYNE SAMPLE NUMBER	CUSTOMER'S IDENTIFICATION	COLLECTION-DATE STA NUM	START DATE	STOP TIME	DATE	TIME	NUCLIDE	ACTIVITY (PCU/GM ORY)	NUCL-UNIT-% U/M *	MID-COUNT TIME DATE	VOLUME - UNITS ASH-WEIGHT-% *	LAB.
24489	SS-BG-3	08/27 1335					GR-A	5.0 +/-4.2 E 00		09/08		3
							GR-B	3.1 +/-0.3 E 01		09/08		3
							BE-7	L.T. 3. E-01		09/13		4
							K-40	1.41 +/-0.14E 01		09/13		4
							MN-54	L.T. 3. E-02		09/13		4
							CD-58	L.T. 3. E-02		09/13		4
							FE-59	L.T. 7. E-02		09/13		4
							CO-60	L.T. 3. E-02		09/13		4
							ZN-65	L.T. 6. E-02		09/13		4
							ZR-95	L.T. 3. E-02		09/13		4
							RU-103	L.T. 3. E-02		09/13		4
							RU-106	L.T. 2. E-01		09/13		4
							I-131	L.T. 1. E-01		09/13		4
							CS-134	L.T. 3. E-02		09/13		4
							CS-137	1.84 +/-0.29E-01		09/13		4
							BA-140	L.T. 7. E-02		09/13		4
							CE-141	L.T. 5. E-02		09/13		4
							CE-144	L.T. 2. E-01		09/13		4
							RA-226	9.87 +/-3.54E-01		09/13		4
							TH-228	5.10 +/-0.51E-01		09/13		4
24490	SS-BG-4	08/27 1345					GR-A	L.T. 5. E 00		09/08		3
							GR-B	2.5 +/-0.3 E 01		09/08		3
							BE-7	L.T. 3. E-01		09/13		4
							K-40	1.29 +/-0.13E 01		09/13		4
							MN-54	L.T. 3. E-02		09/13		4
							CD-58	L.T. 3. E-02		09/13		4
							FE-59	L.T. 8. E-02		09/13		4
							CO-60	L.T. 3. E-02		09/13		4
							ZN-65	L.T. 8. E-02		09/13		4
							ZR-95	L.T. 3. E-02		09/13		4
							RU-103	L.T. 4. E-02		09/13		4
							RU-106	L.T. 3. E-01		09/13		4

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TELEDYNE ISOTOPES

REPORT OF ANALYSIS

RUN DATE 09/21/93

WORK ORDER NUMBER

CUSTOMER P.O. NUMBER

DATE RECEIVED

DELIVERY DATE

PAGE 4

M CATHY GERACI PROJECT MANAGER
 ECOLOGY & ENVIRONMENT INC
 368 PLFASANT VIEW DR
 LANCASTER NY

3-3461

08/30/93

10/02/93

14086

S O I L

TELEDYNE SAMPLE NUMBER	CUSTOMER'S IDENTIFICATION	COLLECTION-DATE			ACTIVITY (PCI/GM ORY)	NUCL-UNIT-% U/M *	NET-COUNT			VOLUME - UNITS ASH-WEIGHT-% *	LAB.
		STA NUM	START DATE	STOP DATE			TIME	TIME	DATE		
24490	SS-BG-4		08/27	1345	I-131	L.T. 1. E-01		09/13		4	
					CS-134	L.T. 4. E-02		09/13		4	
					CS-137	7.98+-2.00E-02		09/13		4	
					BA-140	L.T. 7. E-02		09/13		4	
					CE-141	L.T. 6. E-02		09/13		4	
					CE-144	L.T. 2. E-01		09/13		4	
					RA-226	1.16+-0.48E-00		09/13		4	
					TH-228	4.62+-0.46E-01		09/13		4	

LAST PAGE OF REPORT

APPROVED BY J. GUENTHER 09/21/93

SEND 1 COPIES TO EC7225 M CATHY GERACI PROJECT MANAGER

2 - GAS LAB. 3 - RADIO CHEMISTRY LAB. 4 - GEILIT GAMMA SPEC LAB. 5 - TRITIUM GAS/L.S. LAB. 6 - ALPHA SPEC LAB.

A-260

APPENDIX B

AIR MODELING

This appendix summarizes the models, assumptions, and input data used to estimate chemical concentrations in the air to which site trespassers may be exposed. These models comprise the air pathway analysis methods.

This appendix is divided into two sections. Section B.1 summarizes the estimation of air emissions of particulates due to wind erosion; and Section B.2 describes near-field air dispersion using the "box model."

B.1 AIR EMISSIONS OF PARTICULATES DUE TO WIND EROSION

The inhalable particulate (PM_{10}) emissions from the Dearcop Farm site due to wind erosion were estimated using the model for an "unlimited reservoir" of erodible soil as described in *Rapid Assessment of Exposure to Particulate Emissions from Surface Contamination Sites* (EPA 1985). According to this model, the emission factor for wind erosion is determined as follows:

$$E_{10} = 0.036 (1-V) \frac{\bar{u}^3}{u_{t7}} \cdot F(x)$$

Where:

E_{10} = Annual average emission rate of inhalable particulates (PM_{10}) per unit area of contaminated soil surface ($g/m^2 \cdot hr$)

V = Fraction of contaminated surface covered by continuous vegetation (dimensionless)

\bar{u} = Mean annual wind speed (m/s)

$x = 0.886 \frac{u_{t7}}{\bar{u}}$ (dimensionless ratio)

u_{t7} = Threshold wind speed at 7m above ground surface (m/s)

$F(x)$ = Function value from EPA 1985, p. 36 (dimensionless).

For a specific chemical contaminant in the erodible surface soil, the contaminant emission rate on wind-blown PM_{10} particulates is then calculated as:

$$R_{10} = \alpha \cdot E_{10} \cdot A \cdot \frac{1 \text{ hr}}{3,600 \text{ s}} \times \frac{10^3 \text{ mg}}{1 \text{ g}}$$

Where:

R_{10} = Annual average emission rate of contaminant on PM_{10} particulates generated by wind erosion over a total area A (mg/s)

α = Contaminant mass fraction in PM_{10} emissions, assumed to be the same as in bulk surface soil (mg/kg) or (g/g)

A = Contaminated soil area subject to wind erosion (m^2).

The site-specific values of the input parameters assumed in applying this model are presented in Table B-1.

B.2 NEAR-FIELD AIR DISPERSION: "BOX MODEL"

For scenarios where the receptor is at the source or very close (within 100 meters downwind) to the source, the near-field "box model" described in *Management of Manufactured Gas Plant Sites, Volume III, Risk Assessment* (Gas Research Institute 1988) was applied. This model is as follows:

$$C_a = f \cdot Q / (H_b \cdot W_b \cdot U_m)$$

Where:

C_a = Contaminant air concentration (mg/m^3)

Q = Contaminant source strength or emission rate from surface (mg/s)

f = Fraction of time wind blows in the sector from the source toward the receptor (dimensionless)

H_b = Height of box at downwind edge (m) [depends on downwind distance (X) of receptor]

X = Downwind distance of receptor from upwind edge of source area (m)

W_b = Crosswind width of box = crosswind dimension of contaminated source area (m)

U_m = Average wind speed throughout box (m/s) = $0.22 U_{10} \ln (2.5 H_b)$

where U_{10} = Wind speed at 10-m elevation (m/s).

In applying the above model, the height H_b is determined by the downwind distance "X" of the receptor, by using a table of precalculated values. This table is reproduced here as Table B-2. The source strength Q is assumed to be the annual average contaminant emission rate of PM_{10} particulates, calculated using an appropriate model as shown in Section B.1.

Table B-2 summarizes the site-specific input parameter values assumed in applying this model to estimate on-site air exposure concentrations.

REFERENCES

- United States Environmental Protection Agency (EPA), 1985, *Rapid Assessment of Exposure to Particulate Emissions from Surface Contamination Sites*, EPA/600/8-85/002, NTIS PB85-192219/AS, Office of Health and Environmental Assessment, Washington, D.C.
- Gas Research Institute (GRI), 1988, *Management of Manufactured Gas Plant Sites, Volume III, Risk Assessment*, prepared by Atlantic Environmental Services, Inc., May 1988, Appendix B, Exposure Models.

Table B-1
SUMMARY OF SITE-SPECIFIC INPUTS USED IN THE MODEL FOR AIR EMISSIONS OF PARTICULATES DUE TO WIND EROSION

Symbol	Parameter	Units	Value	Source
"Unlimited Reservoir" Model				
V	Fraction of contaminated surface covered by continuous vegetation	—	0	Bare soil assumed for conservative estimate
$-\bar{u}$	Mean annual wind speed	m/s	4.29	Approximate mean for site area from local climatological data (9.6 mph)
u_{t7}	Threshold wind speed at 7m	m/s	5.64	Calculated from the surface threshold speed of 32 cm/s as shown in EPA (1985)
F(x)	Function value from graph	—	1.4	EPA (1985), Fig. 4-3, p. 36
E_{10}	Annual average PM_{10} emission rate due to wind erosion	$g/m^2 \cdot hr$	2.2×10^{-2}	Calculated using the model equation with the above input parameter values
A	Contaminated soil area subject to wind erosion	m^2	1,858	100 feet x 200 feet (open, non-vegetated area)
α	Contaminant mass fraction in PM_{10} emissions	g/g	—	Contaminant-specific value: maximum observed concentration in surface soil samples from site

Compiled by: Ecology and Environment, Inc. 1994.

Table B-2	
PLUME HEIGHTS USED IN NEAR-FIELD BOX MODEL	
Length of Side of Box, x (m)	Box Height, H_b (m)
10	1.4
20	2.1
30	2.7
40	3.3
50	3.8
60	4.3
70	4.8
80	5.3
90	5.8
100	6.2

Source: GRI 1988, Exhibit 1.2.2-2, p. B-147.

Table B-3
**SUMMARY OF SITE-SPECIFIC INPUTS USED IN THE BOX MODEL FOR
NEAR-FIELD AIR DISPERSION**

Symbol	Parameter	Units	Value	Source
On-Site Receptors: Trespassers				
Q	Contaminant source strength	mg/s	—	Contaminant-specific value. For particulates the annual average emission rate of contaminant on PM ₁₀ due to wind erosion, calculated during the model in Section B.1.
f	Fraction of time the wind blows from the source area toward the receptor	—	0.25	On-site receptors assumed to be downwind of each source area 25% of the time.
x	Downwind distance to receptor from upwind edge of source area	m	60.96	For hot spot areas, the dimensions of which are assumed to be approximately 100 ft x 200 ft. On-site receptors are assumed to be at the downwind edge of each source area.
H _b	Height of box	m	4.4	For 100 ft x 200 ft area. H _b is determined from Table B-2 using length corresponding to the downwind receptor distance x.
W _b	Crosswind width of box	m	30.48	For hot spot areas, width is assumed to be 100 ft.
U ₁₀	Wind speed at 10 m height	m/s	4.29	Annual mean value from local climatological data (9.6 mph).

Source: Ecology and Environment, Inc. 1994.

APPENDIX C

RISK TABLES

**SUMMARY OF THE POTENTIAL
EXPOSURE SCENARIOS INCLUDED IN THE
QUANTITATIVE RISK ASSESSMENT**

Receptor	Exposure Media	Exposure Routes	Age Group	Exposure Case	Exposure and Risk Estimates Table
Site Visitor	Soil	1A Soil ingestion	Adolescent	RME Average	C-1 C-2
		1B Dermal contact	Adolescent	RME Average	C-3 C-4
	Air	1C Inhalation of soil particulates	Adolescent	RME Average	C-5 C-6
Nearby Residents	Soil	2A Soil ingestion	Adult/Child	RME Average	C-7 C-8
		2B Dermal contact	Adult/Child	RME Average	C-9 C-10
	Vegetables	2C Vegetable ingestion	Adult	RME Average	C-11, C-15 C-12, C-16
			Child	RME Average	C-13, C-17 C-14, C-18

Table C-1

**NONCANCER HAZARD INDEX AND CANCER RISK ESTIMATES
TRESPASSER INGESTION OF SOIL**

Location: Dearcop Farm Site
Receptor: Adolescent Trespasser
Case: RME

Chemical	Exposure Point Concentration (mg/kg)	Noncarcinogenic Effects		Carcinogenic Effects	
		Intake (mg/kg/day)	Hazard Index	Intake (mg/kg/day)	Cancer Risk
Benzo(a)anthracene	0.226	5.31E-08	—	7.58E-09	5.53E-09
Benzo(a)pyrene	0.237	5.57E-08	—	7.95E-09	5.80E-08
Benzo(b)fluoranthene	0.232	5.45E-08	—	7.78E-09	5.68E-09
Chrysene	0.233	5.47E-08	—	7.82E-09	5.71E-11
Dibenzo(a,h)anthracene	0.24	5.64E-08	—	8.05E-09	5.88E-08
Indeno(1,2,3-cd)pyrene	0.24	5.64E-08	—	8.05E-09	5.88E-09
Aroclor-1254	1.55	3.64E-07	—	5.20E-08	4.00E-07
Aroclor-1260	0.945	2.22E-07	—	3.17E-08	2.44E-07
Barium	1,550	3.64E-04	5.20E-03	5.20E-05	—
Cadmium	8.8	2.07E-06	4.13E-03	2.95E-07	—
Cobalt	620	1.46E-04	—	2.08E-05	—
Copper	1,540	3.62E-04	9.77E-03	5.17E-05	—
Lead	421	9.89E-05	—	1.41E-05	—
Mercury	0.161	3.78E-08	1.26E-04	5.40E-09	—
Nickel	160	3.76E-05	1.88E-03	5.37E-06	—
Zinc	858	2.01E-04	6.72E-04	2.88E-05	—
Ingestion route subtotal:				2.2E-02	7.8E-07

Table C-2

**NONCANCER HAZARD INDEX AND CANCER RISK ESTIMATES
TRESPASSER INGESTION OF SOIL**

**Location: Dearcop Farm Site
Receptor: Adolescent Trespasser
Case: Average**

Chemical	Exposure Point Concentration (mg/kg)	Noncarcinogenic Effects		Carcinogenic Effects	
		Intake (mg/kg/day)	Hazard Index	Intake (mg/kg/day)	Cancer Risk
Benzo(a)anthracene	0.21	8.22E-09	—	1.17E-09	8.57E-10
Benzo(a)pyrene	0.22	8.43E-09	—	1.20E-09	8.79E-09
Benzo(b)fluoranthene	0.15	5.75E-09	—	8.21E-10	5.99E-10
Chrysene	0.21	8.38E-09	—	1.20E-09	8.73E-12
Dibenzo(a,h)anthracene	0.20	7.92E-09	—	1.13E-09	8.26E-09
Indeno(1,2,3-cd)pyrene	0.18	7.05E-09	—	1.01E-09	7.35E-10
Aroclor-1254	0.19	7.50E-09	—	1.07E-09	8.25E-09
Aroclor-1260	0.16	6.09E-09	—	8.70E-10	6.70E-09
Barium	142.14	5.56E-06	7.95E-05	7.95E-07	—
Cadmium	3.57	1.40E-07	2.80E-04	2.00E-08	—
Cobalt	68.51	2.68E-06	—	3.83E-07	—
Copper	188.07	7.36E-06	1.99E-04	1.05E-06	—
Lead	79.77	3.12E-06	—	4.46E-07	—
Mercury	0.08	3.24E-09	1.08E-05	4.62E-10	—
Nickel	51.59	2.02E-06	1.01E-04	2.88E-07	—
Zinc	158.17	6.19E-06	2.06E-05	8.84E-07	—
Ingestion route subtotal:			6.9E-04		3.4E-08

Table C-3

**NONCANCER HAZARD INDEX AND CANCER RISK ESTIMATES
TRESPASSER DERMAL CONTACT WITH ON-SITE SOILS**

Location: Dearcop Farm Site
Receptor: Adolescent Trespasser
Case: RME

Chemical	Exposure Point Concentration (mg/kg)	Noncarcinogenic Effects		Carcinogenic Effects	
		Absorbed Dose (mg/kg/day)	Hazard Index	Absorbed Dose (mg/kg/day)	Cancer Risk
Aroclor-1254	1.55	8.30E-07	—	1.19E-07	9.13E-07
Aroclor-1260	0.945	5.06E-07	—	7.23E-08	5.57E-07
Cadmium	8.8	7.85E-07	1.57E-03	1.12E-07	—
Dermal route subtotal:			1.6E-03		1.5E-06

Table C-4

NONCANCER HAZARD INDEX AND CANCER RISK ESTIMATES TRESPASSER DERMAL CONTACT WITH ON-SITE SOILS

Location: Dearcop Farm Site
Receptor: Adolescent Trespasser
Case: Average

Chemical	Exposure Point Concentration (mg/kg)	Noncarcinogenic Effects		Carcinogenic Effects	
		Absorbed Dose (mg/kg/day)	Hazard Index	Absorbed Dose (mg/kg/day)	Cancer Risk
Aroclor-1254	0.19	5.58E-09	—	7.97E-10	6.06E-09
Aroclor-1260	0.16	4.53E-09	—	1.04E-09	8.04E-09
Cadmium	3.57	1.73E-08	3.47E-05	2.48E-09	—
Dermal route subtotal:			3.5E-05		1.4E-08

Table C-5
**NONCANCER HAZARD INDEX AND CANCER RISK ESTIMATES
TRESPASSER INHALATION OF SOIL PARTICULATES**

Location: Dearcop Farm Site
Receptor: Adolescent Trespasser
Case: RME

Chemical	Exposure Point Concentration (mg/m ³)	Noncarcinogenic Effects		Carcinogenic Effects	
		Intake (mg/kg/day)	Hazard Index	Intake (mg/kg/day)	Cancer Risk
Benzo(a)anthracene	1.87E-06	7.47E-09	—	1.07E-09	6.51E-10
Benzo(a)pyrene	2.62E-06	1.05E-08	—	1.49E-09	9.12E-09
Benzo(b)fluoranthene	4.03E-06	1.61E-08	—	2.30E-09	1.40E-09
Chrysene	2.43E-06	9.72E-09	—	1.39E-09	8.47E-12
Dibenzo(a,h)anthracene	1.87E-06	7.47E-09	—	1.07E-09	6.51E-09
Indeno(1,2,3-cd)pyrene	2.25E-06	8.97E-09	—	1.28E-09	7.82E-10
Aroclor-1254	1.45E-05	5.79E-08	—	8.28E-09	6.37E-08
Aroclor-1260	8.85E-06	3.53E-08	—	5.05E-09	3.89E-08
Barium	1.45E-02	5.79E-05	5.79E-01	8.28E-06	—
Cadmium	7.77E-05	3.10E-07	—	4.43E-08	2.79E-07
Cobalt	5.80E-03	2.32E-05	—	3.31E-06	—
Copper	1.44E-02	5.76E-05	—	8.22E-06	—
Lead	3.94E-03	1.57E-05	—	2.25E-06	—
Mercury	1.22E-06	4.86E-09	5.40E-05	6.94E-10	—
Nickel ^a	1.50E-03	5.98E-06	2.99E-04	8.54E-07	7.18E-07
Zinc	8.03E-03	3.21E-05	1.07E-04	4.58E-06	—
Inhalation route subtotal:			5.8E-01		1.1E-06

^a Inhalation of nickel-contaminated soil particulates generally is considered more of a concern in an industrial setting; including nickel in this scenario may overestimate risks.

Table C-6
**NONCANCER HAZARD INDEX AND CANCER RISK ESTIMATES
TRESPASSER INHALATION OF SOIL PARTICULATES**

Location: Dearcop Farm Site
Receptor: Adolescent Trespasser
Case: Average

Chemical	Exposure Point Concentration (mg/m ³)	Noncarcinogenic Effects		Carcinogenic Effects	
		Intake (mg/kg/day)	Hazard Index	Intake (mg/kg/day)	Cancer Risk
Benzo(a)anthracene	1.87E-06	2.05E-09	—	2.93E-10	1.79E-10
Benzo(a)pyrene	2.20E-06	2.41E-09	—	3.44E-10	2.10E-09
Benzo(b)fluoranthene	1.59E-06	1.74E-09	—	2.49E-10	1.52E-10
Chrysene	1.97E-06	2.15E-09	—	3.08E-10	1.88E-12
Dibenzo(a,h)anthracene	1.78E-06	1.95E-09	—	2.78E-10	1.70E-09
Indeno(1,2,3-cd)pyrene	1.59E-06	1.74E-09	—	2.49E-10	1.52E-10
Aroclor-1254	3.00E-06	3.28E-09	—	4.69E-10	3.61E-09
Aroclor-1260	2.34E-06	2.56E-09	—	3.66E-10	2.82E-09
Barium	2.19E-03	2.40E-06	2.40E-02	3.43E-07	—
Cadmium	4.77E-05	5.23E-08	—	7.47E-09	4.71E-08
Cobalt	1.17E-03	1.28E-06	—	1.83E-07	—
Copper	2.96E-03	3.24E-06	—	4.63E-07	—
Lead	8.04E-04	8.81E-07	—	1.26E-07	—
Mercury	8.43E-07	9.23E-10	1.03E-05	1.32E-10	—
Nickel ^a	7.92E-04	8.68E-07	4.34E-05	1.24E-07	1.04E-07
Zinc	1.87E-03	2.05E-06	6.84E-06	2.93E-07	—
Inhalation route subtotal:			2.4E-02		1.6E-07

^a Inhalation of nickel-contaminated soil particulates generally is considered more of a concern in an industrial setting; including nickel in this scenario may overestimate risks.

Table C-7**NONCANCER HAZARD INDEX AND CANCER RISK ESTIMATES****RESIDENTIAL INGESTION OF SOIL****Location: Nearby Residential Area****Case: RME**

Chemical	Noncarcinogenic Effects				Carcinogenic Effects			
	Median		Maximum		Median		Maximum	
	Intake (mg/kg/day)	Hazard Index	Intake (mg/kg/day)	Cancer Risk	Intake (mg/kg/day)	Cancer Risk	Intake (mg/kg/day)	Cancer Risk
Benzo(a)anthracene	6.34E-06	—	1.08E-04	—	7.01E-07	5.12E-07	1.20E-05	8.73E-06
Benzo(a)pyrene	7.42E-06	—	7.86E-05	—	8.21E-07	5.99E-06	8.70E-06	6.35E-05
Benzo(b)fluoranthene	7.08E-06	—	6.19E-05	—	7.83E-07	5.71E-07	6.85E-06	5.00E-06
Benzo(k)fluoranthene	4.37E-06	—	4.62E-05	—	4.84E-07	3.53E-08	5.11E-06	3.73E-07
Chrysene	6.04E-06	—	7.96E-05	—	6.68E-07	4.88E-09	8.80E-06	6.43E-08
Dibenzo(a,h)anthracene	4.82E-06	—	4.72E-05	—	5.33E-07	3.89E-06	5.22E-06	3.81E-05
Ideeno(1,2,3-cd)pyrene	6.63E-06	—	5.90E-05	—	7.34E-07	5.36E-07	6.52E-06	4.76E-06
Naphthalene	6.12E-06	—	1.77E-04	—	—	—	—	—
Barium	5.75E-04	8.21E-03	1.20E-03	1.71E-02	—	—	—	—
Cadmium	1.08E-05	2.16E-02	2.46E-05	4.91E-02	—	—	—	—
Cobalt	4.96E-05	—	9.24E-05	—	—	—	—	—
Copper	3.64E-04	9.83E-03	7.64E-03	2.06E-01	—	—	—	—
Lead	8.07E-04	—	2.33E-03	—	—	—	—	—
Mercury	6.39E-07	2.13E-03	1.97E-05	6.55E-02	—	—	—	—
Nickel	9.29E-05	4.64E-03	1.70E-04	8.50E-03	—	—	—	—
Zinc	1.73E-03	5.77E-03	2.00E-02	6.65E-02	—	—	—	—

Table C-8**NONCANCER HAZARD INDEX AND CANCER RISK ESTIMATES****RESIDENTIAL INGESTION OF SOIL****Location: Nearby Residential Area****Case: Average**

Chemical	Noncarcinogenic Effects				Carcinogenic Effects			
	Median		Maximum		Median		Maximum	
	Intake (mg/kg/day)	Hazard Index	Intake (mg/kg/day)	Cancer Risk	Intake (mg/kg/day)	Cancer Risk	Intake (mg/kg/day)	Cancer Risk
Benzo(a)anthracene	3.17E-06	—	5.41E-05	—	1.12E-07	8.21E-08	1.92E-06	1.40E-06
Benzo(a)pyrene	3.71E-06	—	3.93E-05	—	1.32E-07	9.61E-07	1.39E-06	1.02E-05
Benzo(b)fluoranthene	3.54E-06	—	3.10E-05	—	1.26E-07	9.16E-08	1.10E-06	8.02E-07
Benzo(k)fluoranthene	2.19E-06	—	2.31E-05	—	7.76E-08	5.66E-09	8.20E-07	5.98E-08
Chrysene	3.02E-06	—	3.98E-05	—	1.07E-07	7.83E-10	1.41E-06	1.03E-08
Dibeno(a,h)anthracene	2.41E-06	—	2.36E-05	—	8.54E-08	6.24E-07	8.37E-07	6.11E-06
Indeno(1,2,3-cd)pyrene	3.32E-06	—	2.95E-05	—	1.18E-07	8.59E-08	1.05E-06	7.64E-07
Naphthalene	3.06E-06	—	8.85E-05	—	—	—	—	—
Barium	2.87E-04	4.11E-03	5.99E-04	8.56E-03	—	—	—	—
Cadmium	5.41E-06	1.08E-02	1.23E-05	2.46E-02	—	—	—	—
Cobalt	2.48E-05	—	4.62E-05	—	—	—	—	—
Copper	1.82E-04	4.91E-03	3.82E-03	1.03E-01	—	—	—	—
Lead	4.04E-04	—	1.16E-03	—	—	—	—	—
Mercury	3.19E-07	1.06E-03	9.83E-06	3.28E-02	—	—	—	—
Nickel	4.64E-05	2.32E-03	8.50E-05	4.25E-03	—	—	—	—
Zinc	8.65E-04	2.88E-03	9.98E-03	3.33E-02	—	—	—	—

Table C-9

**NONCANCER HAZARD INDEX ESTIMATE
RESIDENTIAL DERMAL CONTACT WITH SOIL**
Location: Nearby Residential Areas
Case: RME

Chemical	Exposure Point Concentration (mg/kg)	Noncarcinogenic Effects			
		Absorbed Dose (mg/kg/day)		Hazard Index	
		Median	Maximum	Median	Maximum
Cadmium	2.5	1.58E-06	3.60E-06	3.2E-03	7.2E-03

Table C-10

**NONCANCER HAZARD INDEX ESTIMATE
RESIDENTIAL DERMAL CONTACT WITH SOIL**
Location: Nearby Residential Areas
Case: Average

Chemical	Exposure Point Concentration (mg/kg)	Noncarcinogenic Effects			
		Absorbed Dose (mg/kg/day)		Hazard Index	
		Median	Maximum	Median	Maximum
Cadmium	1.15	2.75E-07	6.25E-07	5.5E-04	1.3E-03

Table C-11

**NONCANCER HAZARD INDEX ESTIMATES
RESIDENTIAL INGESTION OF VEGETABLES (BROCCOLI)**
Location: Residential garden
Receptor: Adult
Case: RME

Chemical	Exposure Point Concentration (mg/kg)	Noncarcinogenic Effects	
		Intake (mg/kg/day)	Hazard Index
Aluminum	10.8	1.03E-02	—
Calcium	2,325	2.23E+00	—
Chromium	0.52	4.98E-04	4.98E-04
Copper	4.7	4.50E-03	1.22E-01
Iron	12.8	1.23E-02	—
Lead	0.5	4.79E-04	—
Magnesium	624	5.98E-01	—
Manganese	3	2.87E-03	5.75E-01
Nickel	0.55	5.27E-04	2.63E-02
Potassium	3,980	3.81E+00	—
Selenium	0.08	7.66E-05	1.53E-02
Sodium	1,190	1.14E+00	—
Zinc	26.9	2.58E-02	8.59E-02
Cyanide	4.6	4.41E-03	2.20E-01
Ingestion route subtotal:			1.1E+00

Table C-12

**NONCANCER HAZARD INDEX ESTIMATES
RESIDENTIAL INGESTION OF VEGETABLES (BROCCOLI)**
Location: Residential garden
Receptor: Adult
Case: Average

Chemical	Exposure Point Concentration (mg/kg)	Noncarcinogenic Effects	
		Intake (mg/kg/day)	Hazard Index
Aluminum	10.8	7.10E-04	—
Calcium	2,325	1.53E-01	—
Chromium	0.52	3.42E-05	3.42E-05
Copper	4.7	3.09E-04	8.35E-03
Iron	12.8	8.42E-04	—
Lead	0.5	3.29E-05	—
Magnesium	624	4.10E-02	—
Manganese	3	1.97E-04	3.95E-02
Nickel	0.55	3.62E-05	1.81E-03
Potassium	3,980	2.62E-01	—
Selenium	0.08	5.26E-06	1.05E-03
Sodium	1,190	7.82E-02	—
Zinc	26.9	1.77E-03	5.90E-03
Cyanide	4.6	3.02E-04	1.51E-02
Ingestion route subtotal:			7.2E-02

Table C-13

**NONCANCER HAZARD INDEX ESTIMATES
RESIDENTIAL INGESTION OF VEGETABLES (BROCCOLI)**
Location: Residential garden
Receptor: Child
Case: RME

Chemical	Exposure Point Concentration (mg/kg)	Noncarcinogenic Effects	
		Intake (mg/kg/day)	Hazard Index
Aluminum	10.8	4.83E-02	—
Calcium	2,325	1.04E+01	—
Chromium	0.52	2.33E-03	2.33E-03
Copper	4.7	2.10E-02	5.68E-01
Iron	12.8	5.72E-02	—
Lead	0.5	2.24E-03	—
Magnesium	624	2.79E+00	—
Manganese	3	1.34E-02	2.68E+00
Nickel	0.55	2.46E-03	1.23E-01
Potassium	3,980	1.78E+01	—
Selenium	0.08	3.58E-04	7.15E-02
Sodium	1,190	5.32E+00	—
Zinc	26.9	1.20E-01	4.01E-01
Cyanide	4.6	2.06E-02	1.03E+00
Ingestion route subtotal:			4.9E+00

Table C-14

**NONCANCER HAZARD INDEX ESTIMATES
RESIDENTIAL INGESTION OF VEGETABLES (BROCCOLI)**
Location: Residential garden
Receptor: Child
Case: Average

Chemical	Exposure Point Concentration (mg/kg)	Noncarcinogenic Effects	
		Intake (mg/kg/day)	Hazard Index
Aluminum	10.8	3.31E-03	—
Calcium	2,325	7.13E-01	—
Chromium	0.52	1.60E-04	1.60E-04
Copper	4.7	1.44E-03	3.90E-02
Iron	12.8	3.93E-03	—
Lead	0.5	1.53E-04	—
Magnesium	624	1.91E-01	—
Manganese	3	9.21E-04	1.84E-01
Nickel	0.55	1.69E-04	8.44E-03
Potassium	3,980	1.22E+00	—
Selenium	0.08	2.45E-05	4.91E-03
Sodium	1,190	3.65E-01	—
Zinc	26.9	8.25E-03	2.75E-02
Cyanide	4.6	1.41E-03	7.06E-02
Ingestion route subtotal:			3.4E-01

Table C-15

**NONCANCER HAZARD INDEX ESTIMATES
RESIDENTIAL INGESTION OF VEGETABLES (TOMATO)**
Location: Residential garden
Receptor: Adult
Case: RME

Chemical	Exposure Point Concentration (mg/kg)	Noncarcinogenic Effects	
		Intake (mg/kg/day)	Hazard Index
Aluminum	11.7	1.20E-02	—
Calcium	113	1.16E-01	—
Chromium	0.49	5.03E-04	5.03E-04
Copper	0.58	5.95E-04	1.61E-02
Lead	0.17	1.74E-04	—
Magnesium	117	1.20E-01	—
Manganese	0.49	5.03E-04	1.01E-01
Nickel	0.39	4.00E-04	2.00E-02
Potassium	494	5.07E-01	—
Sodium	755	7.74E-01	—
Zinc	3.2	3.28E-03	1.09E-02
Ingestion route subtotal:			1.5E-01

Table C-16

**NONCANCER HAZARD INDEX ESTIMATES
RESIDENTIAL INGESTION OF VEGETABLES (TOMATO)**
Location: Residential garden
Receptor: Adult
Case: Average

Chemical	Exposure Point Concentration (mg/kg)	Noncarcinogenic Effects	
		Intake (mg/kg/day)	Hazard Index
Aluminum	11.7	5.56E-04	—
Calcium	113	5.37E-03	—
Chromium	0.49	2.33E-05	2.33E-05
Copper	0.58	2.76E-05	7.45E-04
Lead	0.17	8.08E-06	—
Magnesium	117	5.56E-03	—
Manganese	0.49	2.33E-05	4.66E-03
Nickel	0.39	1.85E-05	9.27E-04
Potassium	494	2.35E-02	—
Sodium	755	3.59E-02	—
Zinc	3.2	1.52E-04	5.07E-04
Ingestion route subtotal:			6.9E-03

Table C-17

**NONCANCER HAZARD INDEX ESTIMATES
RESIDENTIAL INGESTION OF VEGETABLES (TOMATO)**
Location: Residential garden
Receptor: Child
Case: RME

Chemical	Exposure Point Concentration (mg/kg)	Noncarcinogenic Effects	
		Intake (mg/kg/day)	Hazard Index
Aluminum	11.7	5.60E-02	—
Calcium	113	5.41E-01	—
Chromium	0.49	2.35E-03	2.35E-03
Copper	0.58	2.78E-03	7.50E-02
Lead	0.17	8.14E-04	—
Magnesium	117	5.60E-01	—
Manganese	0.49	2.35E-03	4.69E-01
Nickel	0.39	1.87E-03	9.33E-02
Potassium	494	2.36E+00	—
Sodium	755	3.61E+00	—
Zinc	3.2	1.53E-02	5.11E-02
Ingestion route subtotal:			6.9E-01

Table C-18

**NONCANCER HAZARD INDEX ESTIMATES
RESIDENTIAL INGESTION OF VEGETABLES (TOMATO)**
Location: Residential garden
Receptor: Child
Case: Average

Chemical	Exposure Point Concentration (mg/kg)	Noncarcinogenic Effects	
		Intake (mg/kg/day)	Hazard Index
Aluminum	11.7	2.60E-03	—
Calcium	113	2.51E-02	—
Chromium	0.49	1.09E-04	1.09E-04
Copper	0.58	1.29E-04	3.48E-03
Lead	0.17	3.77E-05	—
Magnesium	117	2.60E-02	—
Manganese	0.49	1.09E-04	2.17E-02
Nickel	0.39	8.65E-05	4.33E-03
Potassium	494	1.10E-01	—
Sodium	755	1.68E-01	—
Zinc	3.2	7.10E-04	2.37E-03
Ingestion route subtotal:			3.2E-02