SUPPLEMENTAL INVESTIGATION REPORT

Prepared for:

BLACK & DECKER (U.S.) INC.
Hampstead, Maryland

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SECTION 1

INTRODUCTION

This Supplemental Investigation Report has been prepared to present the findings of the Supplemental Remedial Work Plan (WESTON, 1995) activities. The Supplemental Remedial Work Plan was prepared to meet the requirements of Condition IV.U of the Administrative Consent Order between the State of Maryland Department of the Environment (MDE) and Black & Decker (U.S.) Inc. (April 1995) (Consent Order). A summary of the Supplemental Remedial Work Plan activities, including the fracture trace analysis, lagoon sampling, and brush pile investigation, is presented in Section 2. The results of these activities are included in Section 3. Conclusions are presented in Section 4. This document will become part of the Administrative Record for the site, which is maintained at the Hampstead Public Library.

SECTION 2

INVESTIGATIVE ACTIVITIES

2.1 FRACTURE TRACE ANALYSIS

As requested by the MDE, a fracture trace analysis was completed at the site in order to identify potential preferred zones of groundwater movement. Fracture traces are "...natural linear features consisting of topographic (including straight stream segments), vegetation, or soil tonal alignment, visible primarily on aerial photographs and expressed continuously for less than one mile." (Lattman, 1958). The significance of fracture traces is that they have often been found to be expressions of zones of higher fracture concentrations, and fracture traces, in some hydrogeologic settings, can be considered to be locations for increased groundwater flow (Parizek, 1976).

The fracture trace analysis was completed using procedures outlined in the Supplemental Remedial Work Plan (WESTON, 1995). In order to perform a fracture trace analysis of the general site area, stereographic pairs of aerial photographs spanning the years 1959 to 1987 were analyzed. Each stereo pair consisted of at least two consecutive aerial photographs with overlapping coverage of an area that created a three-dimensional image when viewed through a stereoscope.

Historical aerial photographs are useful in assessing fracture traces under natural conditions and during different seasons. Aerial photographs taken prior to site development provide useful information on the initial natural conditions in the site area, because cultural features tend to obscure fracture traces. Photographs taken at different seasons allow seasonal effects to be identified. For example, during the summer, vegetation may obscure features that are visible in the winter; conversely, patterns of vegetation growth during the spring or summer can be suggestive of fracture trends.

Aerial photographs differ in their scale and aerial coverage. Aerial photographs at finer scale resolutions tend to show detail that coarser scale resolution aerial photographs do not, and coarser scale resolution aerials photographs tend to show large features that are not observable on finer resolution photographs.

For this analysis, the three-dimensional images of the stereo pairs of photographs were examined to observe features such as tonal changes, vegetative patterns, stream paths and other features that may be indicative of fracture traces. The observed traces were annotated on overlays to the photographs. The overlays were then enlarged or reduced as appropriate to the same approximate scale as a U.S.G.S. 7.5 minute quadrangle map (1:24,000) of the site area and the locations of the identified fracture traces were transferred on to the topographic map. The results of the fracture trace analysis are discussed in Section 3.

2.2 LAGOON SAMPLING

Two surface water impoundments (lagoons) are present at the Hampstead facility. These lagoons, identified as the East and West Lagoons, are shown on Figure 2-1. The East Lagoon is used to hold process water prior to treatment in the plant's physical/chemical treatment system. The West Lagoon is used to hold storm water, cooling water, and treated plant process water for fire protection and cooling purposes.

Surface water and sediments in the East and West Lagoons were originally sampled during 1987. Low concentrations of target compounds were detected in 5 of the 13 samples collected during that event, and, as a result, the lagoons were not considered to represent a source area or to require any additional action. However, based on MDE's request, the recent sampling events (described below) were performed to confirm earlier findings.

During August 1996 and February 1997, surface water and sediment samples were collected from the East and West Lagoons. During each round, three surface water and three sediment samples were collected from each of the two surface impoundments. A

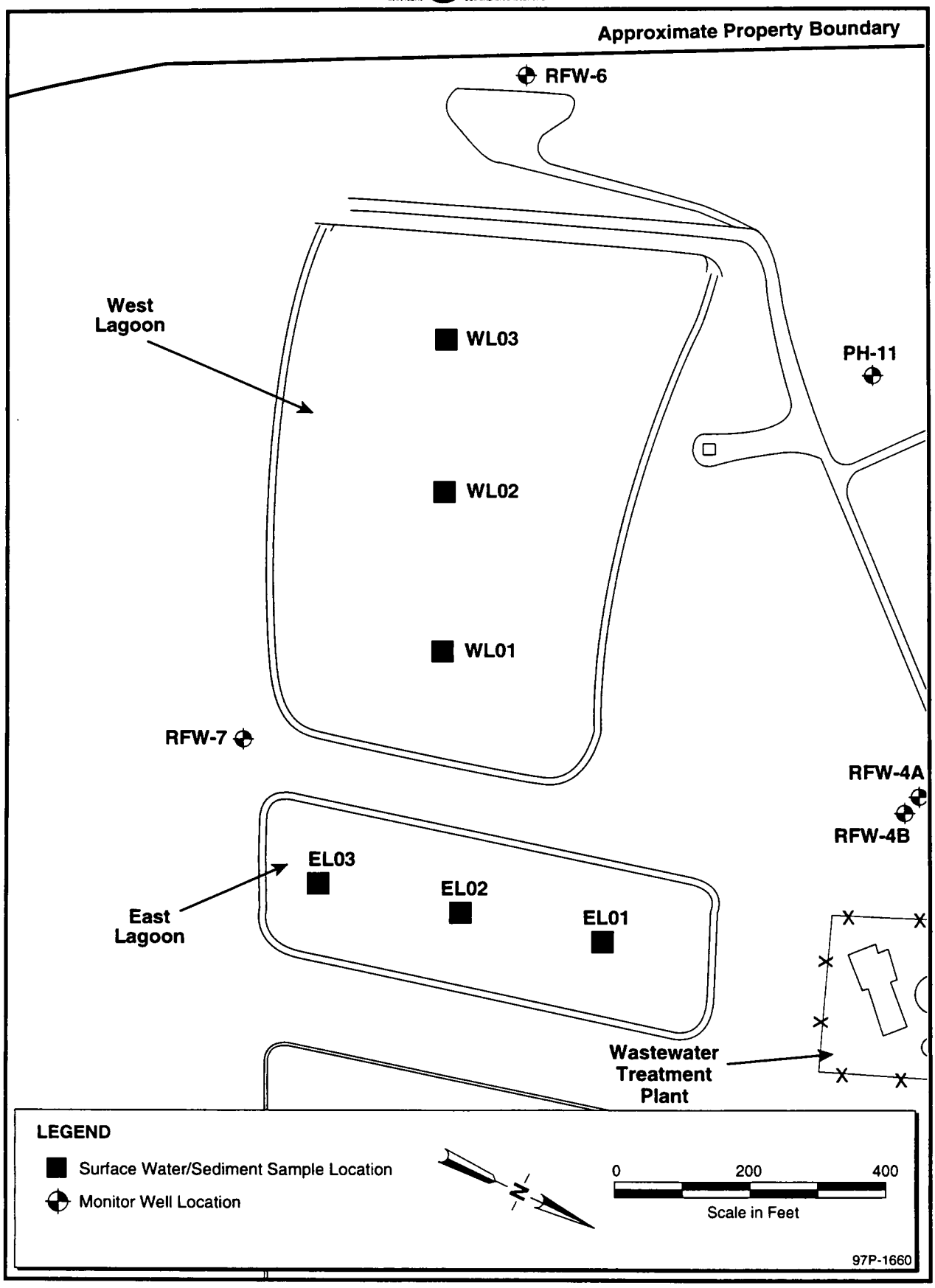

FIGURE 2-1 LAGOON SURFACE WATER AND SEDIMENT SAMPLING LOCATIONS
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summary of the lagoon samples is presented in Table 2-1. The sampling locations were evenly spaced within each lagoon and the approximate locations are presented on Figure 2-1. Samples were collected following procedures described in the Sampling and Analysis Plan (SAP) (WESTON, 1995) and are described in the following subsections.

2.2.1 Surface Water Sampling

Surface water samples were collected by use of a Kemmerer Sampler, permitting the collection of water samples from discrete depths in the water column. Samples were collected at depths of approximately two-thirds of the distance from the surface to the bottom of the lagoon. Each location was sampled for volatile organic compounds (VOCs). All sampling equipment was decontaminated between sampling locations following procedures described in the SAP.

2.2.2 Sediment Sampling

Sediment samples were collected using a Ponar dredge sampler. This sample device allows for the collection of discrete samples of sediment with minimal disturbance. Each sample was analyzed for VOCs. All sampling equipment was decontaminated between sampling locations following procedures described in the SAP.

2.3 BRUSH PILE INVESTIGATION

At the request of the MDE, as set forth in the Consent Order, on 5 August 1996, representatives from the MDE and WESTON met with Mr. Carol Leister at the 'brush pile" area along the western property boundary of the site. The brush pile is a location away from plant operations, adjacent to a wooded area, where deadfalls and vegetative debris from routine trimming of overgrowth has been stockpiled and allowed to decompose. Mr. Leister indicated several locations adjacent to the brush pile where he believed buried materials were located. These areas were marked and staked for the test pitting operations. On 8 August 1996, the

Table 2-1
Summary of Lagoon Surface Water and Sediment Samples
Black & Decker
Hampstead, Maryland

Sample Location	Surface Water Sample ID	Sediment Sample ID	Sample Date	Analysis VOC
East Lagoon				
EL01	EL01-01-SW	EL01-01-SED	7-Aug-96	X
	EL01-02-SW	EL01-02-SED	20-Feb-97	X
EL02	EL02-01-SW	EL02-01-SED	7-Aug-96	X
	EL02-02-SW	EL02-02-SED	20-Feb-97	X
EL03	EL03-01-SW	EL03-01-SED	7-Aug-96	X
	EL03-02-SW	EL03-02-SED	20-Feb-97	X
West Lagoon				
WL01	WL01-01-SW	WL01-01-SED	7-Aug-96	X
	WL01-02-SW	WL01-02-SED	20-Feb-97	X
WL02	WL02-01-SW	WL02-01-SED	7-Aug-96	X
	WL02-02-SW	WL02-02-SED	20-Feb-97	X
WL03	WL03-01-SW	WL03-01-SED	7-Aug-96	X
	WL03-02-SW	WL03-02-SED	20-Feb-97	X

VOC - Volatile organic compounds

surficial brush pile material was removed and staged in the open field east of the brush pile area.

2.3.1 Geophysical Survey

On 13 August 1996, a geophysical investigation was conducted at the brush pile area using a combination of electromagnetic (EM) terrain conductivity and magnetometry (MAG) methods. The objective of the investigation was to locate and delineate (if present) the location of buried ferrous material, within the general area identified by Mr. Leister, to supplement the specific locations at which Mr. Leister believed disposal had been performed in the past.

Prior to the start of the survey, a 200- by 150-foot survey grid was established over the site to provide a means of surface control during data collection. The survey grid was established based on a relative coordinate system using existing monuments and land features. EM and MAG measurements were taken at least every 5 feet along grid lines spaced every 10 feet.

2.3.1.1 Electromagnetic (EM) Terrain Conductivity Methods

Description

The EM survey was conducted using a Geonics, Ltd. EM-31™ terrain conductivity meter. The EM-31 is battery-powered and operates at a frequency of 9.8 kilohertz (kHz). This system consists of a transmitting coil (primary field source), receiving coil (sensor), phase sensing circuits, and an amplifier. A fixed 3.7-meter intercoil spacing is standard for the EM-31. The instrument measures apparent conductivity in units of millisiemens per meter (mS/m) in materials with true conductivities ranging up to 1,000 mS/m.

The EM-31 was operated in both the quadrature and in-phase components. The quadrature component is sensitive to conductors with low induction numbers (i.e., low conductivity materials). Relative conductivity values associated with in-phase measurements have a greater

sensitivity to buried metal objects. Negative in-phase and quadrature conductivity values were observed at areas of the site. This phenomenon occurred as a result of the transmitting and receiving coils of the instrument straddling a metallic conductor (e.g., surface debris or buried metal). Once out of the influence of the metallic interference, the conductivity again returned to that of the normal soil (background).

Methodology

Prior to conducting the survey, the EM-31 was calibrated in accordance with the instrument operating manual. No anomalies were observed in the calibration data. When calibration was completed, both the quadrature and in-phase components were measured at the site. Conductivity measurements were obtained in the vertical dipole mode of operation for single layer mapping. The effective depth of exploration associated with this mode of operation is approximately 18 feet (McNeill, 1980).

The EM-31 was operated in a "continuous" mode along pre-established survey grid lines. Measurements were recorded continuously at 5-foot intervals as the operator traversed the line. These measurements were digitally recorded and stored in memory in an Omni Data Logger™. Random QA/QC readings were obtained from the EM-31 analog meter and manually recorded in the field notebook. The data in memory were downloaded from the data logger to a field computer. The computer-generated output files were formatted, then compared against the random QA/QC readings recorded in the field logbook. Based on the QA/QC review of the data, no deficiencies were observed in the digitally recorded data.

Conductivity contour plots were prepared from the field data using Geosoft™ contour plotting software. The contour plots were interpreted with regard to site soil characteristics, site-specific geology, and the suspected presence of buried waste materials. The results of the EM survey were used to direct test pit operations and are discussed in Section 3.

2.3.1.2 Magnetic (MAG) Methods

Description

The MAG survey was performed using a GEOMETRICS G-858 cesium vapor Gradiometer/Magnetometer. The instrument operates on the principle of a self oscillating split-beam cesium vapor (non radioactive CS133) source. This magnetometer generates a small signal whose frequency is proportional to the intensity of the total magnetic field. Local perturbation (induced magnetization) generated by anthropogenic (i.e., buried ferrous debris) and natural (i.e., magnetic mineral deposits) features add to the intensity of the ambient magnetic field. The magnetometer measures the vector sum of the earth's magnetic field and the anomalous induced magnetic field in standard nanoTesla (nT) units.

The G-858 Magnetometer/Gradiometer system is comprised of a console with an LCD screen connected to a cesium sensor mounted on a counterbalanced staff. The console displays the magnetic field and horizontal position data, stores high volumes of data in memory; and transmits the data at high speed to a processing computer for detailed analysis. The G-858 allows for data acquisition at either continuous or discrete station recording. The continuous mode was utilized for this survey and provides both a rapid sampling rate and high data quality.

Methodology

Consistent with the EM-31 survey, the magnetometer was operated in a "continuous" mode along the same pre-established survey grid lines. In the continuous mode, MAG measurements were recorded on approximately 2-foot spacing intervals as the operator traversed the line. Both the total field and magnetic gradient were measured at each station point throughout the survey area. MAG measurements were digitally recorded and stored in memory in the instrument's data logger.

The data in memory were downloaded from both data loggers to a field computer. Diurnal effects were considered negligible relative to the overall range of magnetic data and short time duration of the survey. Therefore, a base station magnetometer was not needed to monitor variations in the Earth's magnetic field.

Contour plots of both the total magnetic field and magnetic gradient were prepared from the field data using Geosoft™ contour plotting software. Each magnetic anomaly (high gradient area) was analyzed with respect to cultural features present on the surface, and the potential ferrous magnetic sources buried in the subsurface. The expected configuration of a magnetic anomaly associated with a buried ferrous magnetic sources or other dipole sources is a magnetic 'high" and 'low" pair with almost concentric contours. Strong anomalies of this type were identified on the magnetic contour plots and are discussed in Section 3.

2.3.2 Test Pit Excavations

On 14 August 1996, eight test pits were excavated at the brush pile area. Test pit excavations were performed using a backhoe and were excavated to either the water table, to refusal, or to the maximum reach of the backhoe, whichever was encountered first. An OVM photoionization meter was used for air monitoring and a combustible gas meter was used to monitor gas emissions from the test pits. A summary of the soil and groundwater samples collected from the test pit excavations is presented in Table 2-2. The backhoe deposited the material to be sampled on plastic sheeting, and samples were collected using decontaminated stainless steel trowels and/or scoopulas. Complete logs, including visual descriptions of lithology, observations of groundwater occurrence, and instrument readings, were completed and are included in Appendix A. In addition, photographs were taken of each test pit during excavation and/or upon completion and are included in Appendix B.

Test pit locations are presented in Figure 2-2. Test pits TP-1 and TP-2 were excavated at locations based on Mr. Leister's observations. Test pits TP-6, TP-7, and TP-8 were located in the center of the brush pile area based on the anomalies observed during the geophysical

Table 2-2
Summary of Test Pit Soil and Groundwater Samples
Black & Decker
Hampstead, Maryland

Test Pit ID	Soil Sample ID	Groundwater Sample ID	Sample Date	Analysis
				VOC
TP-1	NS	NS	--	--
TP-2	TP-96-2	NS	14-Aug-96	X
TP-3	TP-96-3	NS	14-Aug-96	X
TP-4	TP-96-4	NS	14-Aug-96	X
TP-5	TP-96-5	NS	14-Aug-96	X
TP-6	TP-96-6	TP-96-6	14-Aug-96	X
TP-7	TP-96-7	NS	14-Aug-96	X
TP-8	NS	NS	--	--

NS - Not Sampled
ft bgs - feet below ground surface
VOC - Volatile organic compounds

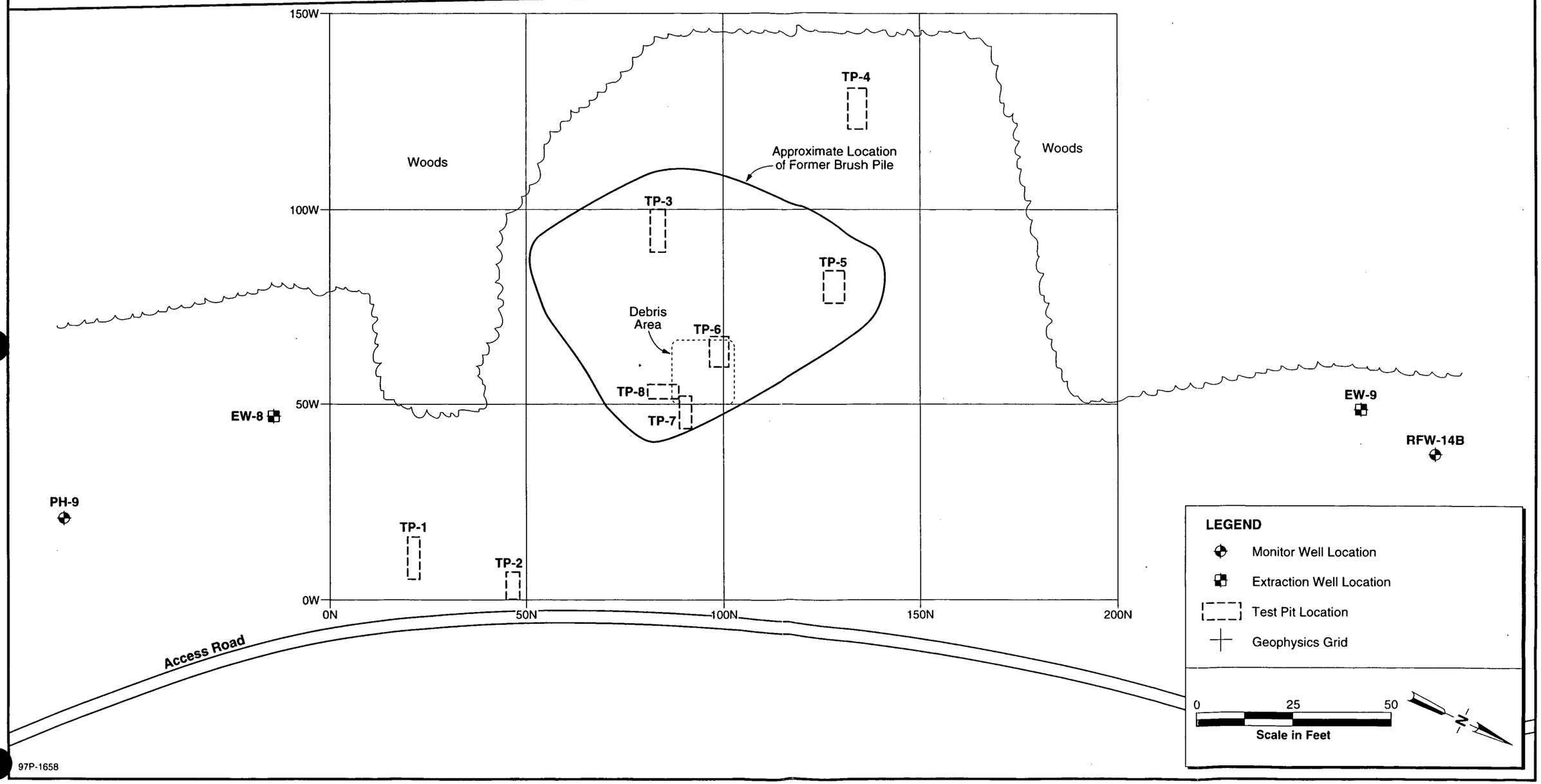

FIGURE 2-2 TEST PIT LOCATIONS
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investigation. Test pits TP-3, TP-4, and TP-5 were located throughout the remainder of brush pile area to provide complete geographic coverage of the area.

SECTION 3

RESULTS OF INVESTIGATIVE ACTIVITIES

3.1 FRACTURE TRACE ANALYSIS

Identified fracture traces were transferred to a topographic map of the site and surrounding area and are presented on Figure 3-1. Figure 3-2 presents the azimuths of the fracture traces plotted on a rose diagram to assess the preferred orientations for fracture traces. The azimuths of the traces were measured and tallied for each 20° arc of the compass. The total number of traces for each arc is represented by the distance the shading extends from the center of the circle. As seen in Figure 3-2, the primary set (most number of traces) trends N20°W to N20°E. The other sets of traces trend N80°E to S80°E, N40°E to N60°E, and N40°W to N60°W.

Meyer (1958) reports that for Carroll County, Maryland, the principal strike of the schistosity ranges from N36°E to N46°E. The N40°E to N60°E set of traces in the site area probably represents the strike of the schistosity. The N40°W to N60°W set of traces which is 90° from to the N40°E to N60°E set of traces probably represent the dip of the schistosity. The other two sets, N20°W to N20°E and N80°E to S80°E, are approximately 90° from each other.

Field checking of the identified fracture traces was performed during August 1996 and involved determining if the photolineations mapped from the aerial photographs were actually cultural features (e.g., pipelines or plow lines) or natural features (e.g., stream alignments or shallow depressions) by attempting to locate and walk the features tentatively identified as fracture traces. Field checking also included observing whether there are other surface expressions of the fracture traces, such as slight depressions, swales or vegetation changes. The fracture traces located in the site area that were confirmed by the field checking are presented on Figure 3-3.

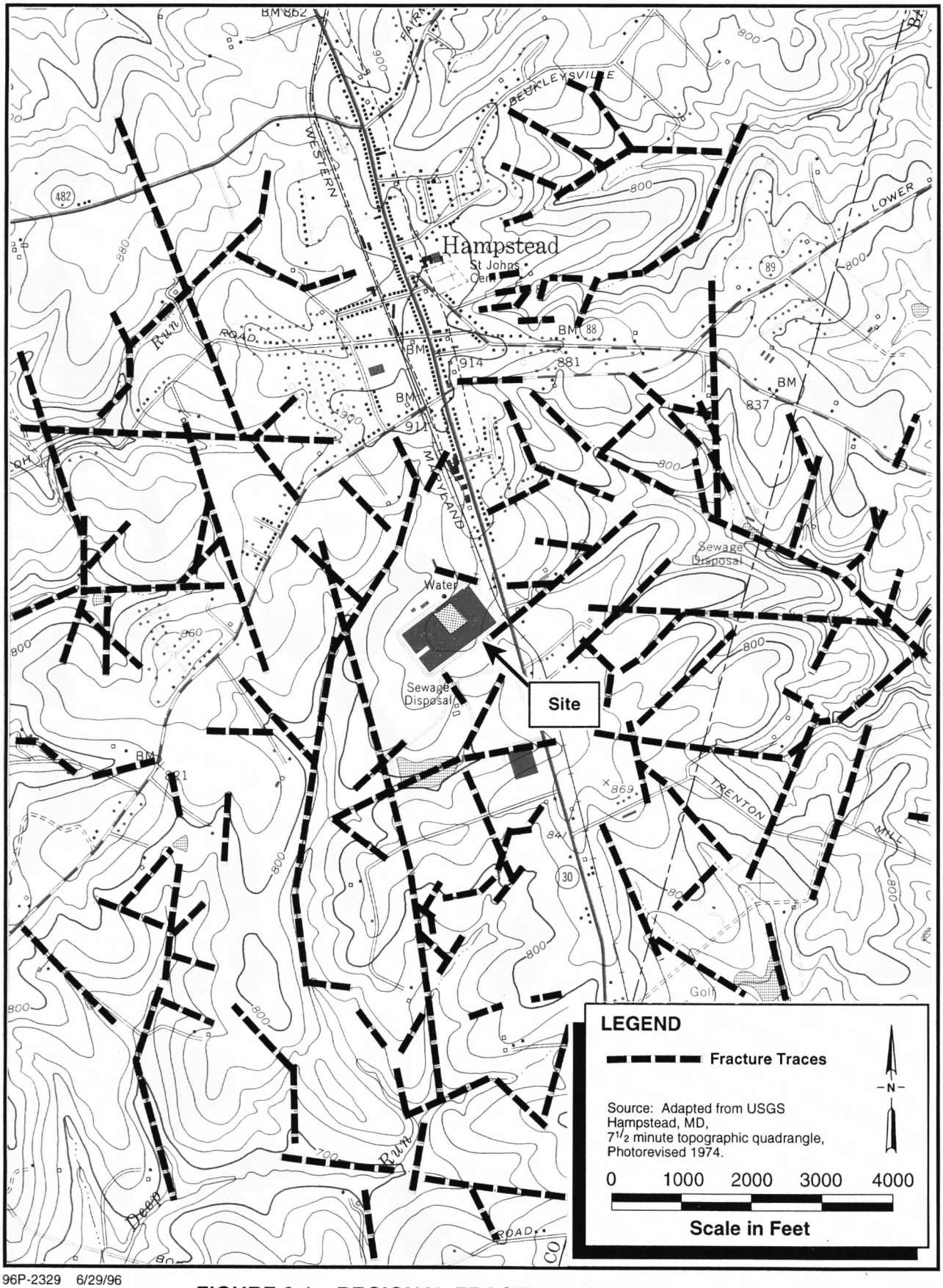

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FIGURE 3-1 REGIONAL FRACTURE TRACE MAP
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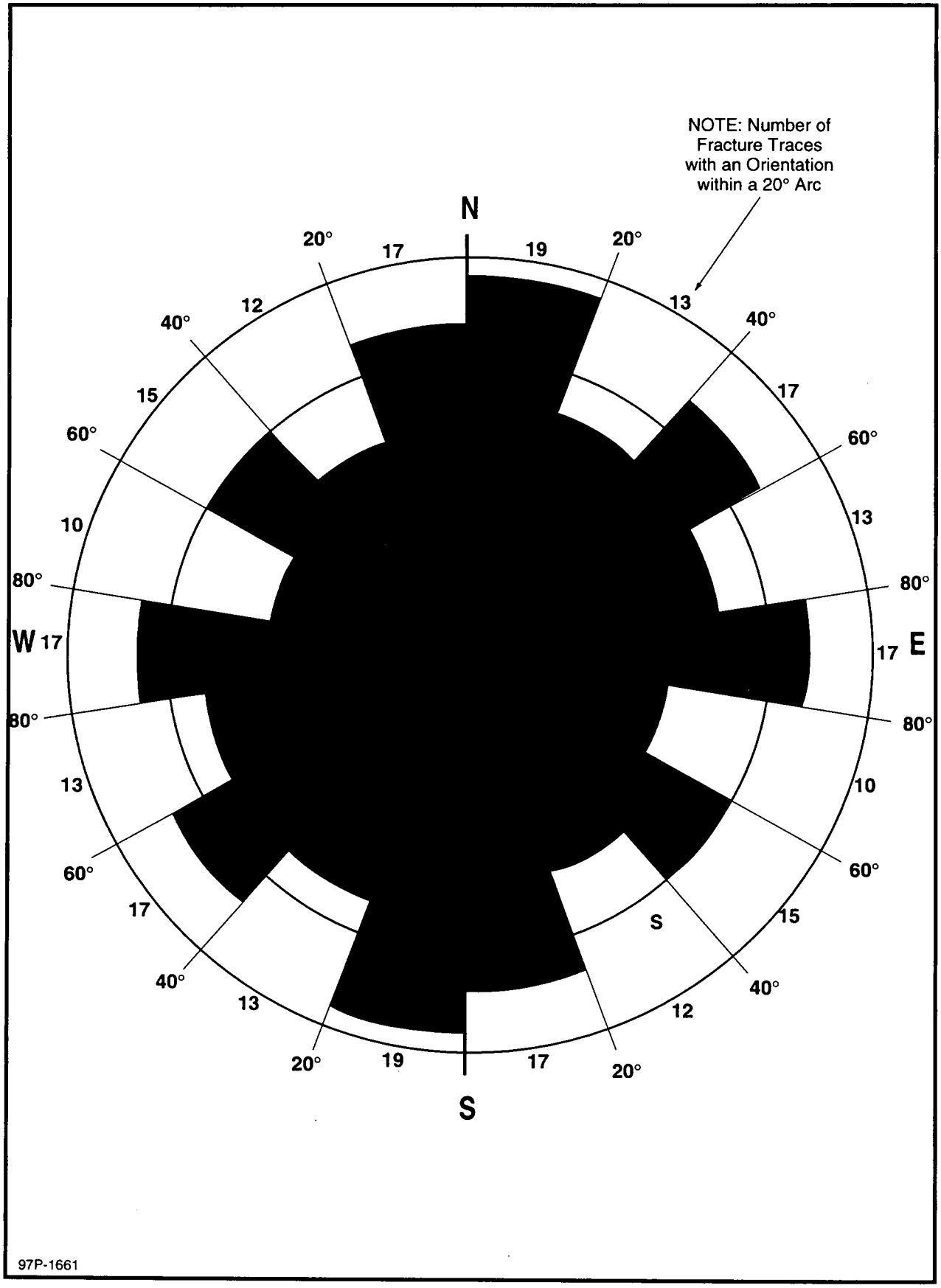

FIGURE 3-2 ROSE DIAGRAM OF FRACTURE TRACES
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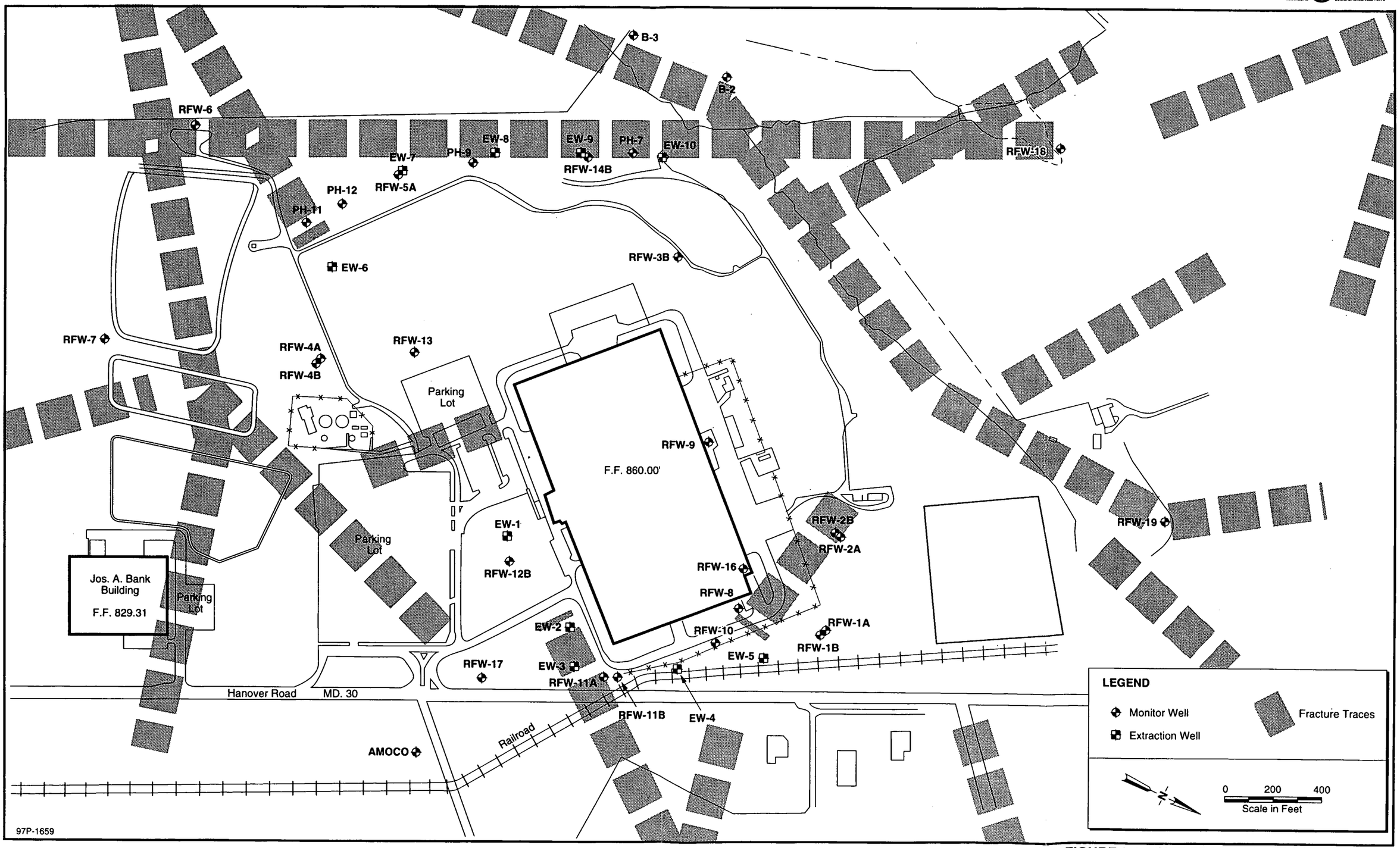

FIGURE 3-3 SITE FRACTURE TRACE MAP
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3.2 LAGOON SAMPLING

3.2.1 Surface Water

Tables 3-1 and 3-2 present summaries of the analytical results of the surface water samples collected from the lagoons during August 1996 and February 1997, respectively. The complete analytical data packages are included in Appendix C.

The analytical results indicate that no significant concentrations of VOCs above quantification limits were detected in the surface water, except for low levels of constituents, which were also found in the laboratory blanks.

3.2.2 Sediment

Tables 3-3 and 3-4 present summaries of the analytical results of the sediment samples collected from the lagoons during August 1996 and February 1997, respectively. The complete analytical data packages are included in Appendix C.

During both sampling rounds, low concentrations of 2-butanone were detected in some of the sediment samples collected from both the East and West Lagoons. Low concentrations of benzene were also detected in the sediment samples collected from the East Lagoon. In addition, low levels of constituents, which were also found in the laboratory blanks, were detected in the sediment samples collected from both the East and West Lagoons .

Table 3-1

Summary of Lagoon Surface Water Analytical Results - August 1996

Black & Decker

Hampstead, Maryland

PARAMETER	Units	EAST LAGOON			WEST LAGOON				TRIP BLANK
		EL01-01-SW	EL02-01-SW	EL03-01-SW	WL01-01-SW	WL01-01-SW (DUPLICATE)	WL02-01-SW	WL03-01-SW	
Chloromethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bromomethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Vinyl Chloride	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chloroethanane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Methylene Chloride	ug/L	5 JB	11 B	3 JB	2 BJ	1 JB	2 JB	6 B	2 JB
Acetone	ug/L	19 B	22 B	25 B	10 U	10 U	10 U	10 U	10 U
Carbon Disulfide	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,1-Dichloroethene	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,1-Dichloroethane	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,2-Dichloroethene (total)	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Chloroform	ug/L	4 J	4 J	2 J	0.9 J	1 J	1 J	1 J	5 U
1,2-Dichloroethane	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2-Butanone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Carbon Tetrachloride	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Vinyl Acetate	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bromodichloromethane	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,2-Dichloropropane	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Trichloroethene	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Dibromochloromethane	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Benzene	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Bromoform	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Hexanone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Tetrachloroethene	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Toluene	ug/L	1 J	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Chlorobenzene	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Ethylbenzene	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Styrene	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Xylene (total)	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U

Notes: U = Compound was analyzed for but not detected. Value shown is the method detection limit for quantification.

J = Indicates an estimated value.

B = Indicates that the analyte was found in the associated blank as well as in the sample.

SW1ANAL.XLS

Table 3-2

Summary of Lagoon Surface Water Analytical Results - February 1997

Black & Decker

Hampstead, Maryland

PARAMETER	Units	EAST LAGOON				WEST LAGOON			TRIP BLANK
		EL01-02-SW	EL01-02-SW (DUPLICATE)	EL02-02-SW	EL03-02-SW	WL01-02-SW	WL02-02-SW	WL03-02-SW	
Chloromethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bromomethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Vinyl Chloride	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chloroethanane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Methylene Chloride	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	8 B	3 JB
Acetone	ug/L	54 B	53 B	53 B	54 B	13 B	13 B	12 B	10 U
Carbon Disulfide	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,1-Dichloroethene	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,1-Dichloroethane	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,2-Dichloroethene (total)	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Chloroform	ug/L	3 J	3 J	3 J	3 J	5 U	5 U	5 U	5 U
1,2-Dichloroethane	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2-Butanone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Carbon Tetrachloride	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Vinyl Acetate	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bromodichloromethane	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,2-Dichloropropane	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Trichloroethene	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Dibromochloromethane	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Benzene	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Bromoform	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Hexanone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Tetrachloroethene	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Toluene	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Chlorobenzene	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Ethylbenzene	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Styrene	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Xylene (total)	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U

Notes: U = Compound was analyzed for but not detected. Value shown is the method detection limit for quantification.

J = Indicates an estimated value.

B = Indicates that the analyte was found in the associated blank as well as in the sample.

SW2ANAL.XLS

Table 3-3

Summary of Lagoon Sediment Analytical Results -August 1996
Black & Decker
Hampstead, Maryland

PARAMETER	Units	EAST LAGOON				WEST LAGOON		
		EL01-01-SED	EL02-01-SED	EL02-01-SED (DUPLICATE)	EL03-01-SED	WL01-01-SED	WL02-01-SED	WL03-01-SED
Chloromethane	ug/Kg	15000 U	120 U	12000 U	4200 U	28 U	50 U	52 U
Bromomethane	ug/Kg	15000 U	120 U	12000 U	4200 U	28 U	50 U	52 U
Vinyl Chloride	ug/Kg	15000 U	120 U	12000 U	4200 U	28 U	50 U	52 U
Chloroethanane	ug/Kg	15000 U	120 U	12000 U	4200 U	28 U	50 U	52 U
Methylene Chloride	ug/Kg	25000 B	170 B	8700 B	1400 JB	35 B	69 B	56 B
Acetone	ug/Kg	9900 BJ	950 B	7300 JB	1900 JB	160 B	740 B	100 B
Carbon Disulfide	ug/Kg	7700 U	29 J	6100 U	2100 U	14 U	25 U	26 U
1,1-Dichloroethene	ug/Kg	7700 U	61 U	6100 U	2100 U	14 U	25 U	26 U
1,1-Dichloroethane	ug/Kg	7700 U	61 U	6100 U	2100 U	14 U	25 U	26 U
1,2-Dichloroethene (total)	ug/Kg	7700 U	61 U	6100 U	2100 U	14 U	25 U	26 U
Chloroform	ug/Kg	7700 U	61 U	6100 U	2100 U	14 U	25 U	26 U
1,2-Dichloroethane	ug/Kg	7700 U	61 U	6100 U	2100 U	14 U	25 U	26 U
2-Butanone	ug/Kg	15000 U	250	12000 U	4200 U	34	170	26 J
1,1,1-Trichloroethane	ug/Kg	7700 U	61 U	6100 U	2100 U	14 U	25 U	26 U
Carbon Tetrachloride	ug/Kg	7700 U	61 U	6100 U	2100 U	14 U	25 U	26 U
Vinyl Acetate	ug/Kg	15000 U	120 U	12000 U	4200 U	28 U	50 U	52 U
Bromodichloromethane	ug/Kg	7700 U	61 U	6100 U	2100 U	14 U	25 U	26 U
1,2-Dichloropropane	ug/Kg	7700 U	61 U	6100 U	2100 U	14 U	25 U	26 U
cis-1,3-Dichloropropene	ug/Kg	7700 U	61 U	6100 U	2100 U	14 U	25 U	26 U
Trichloroethene	ug/Kg	7700 U	61 U	6100 U	2100 U	14 U	25 U	26 U
Dibromochloromethane	ug/Kg	7700 U	61 U	6100 U	2100 U	14 U	25 U	26 U
1,1,2-Trichloroethane	ug/Kg	7700 U	61 U	6100 U	2100 U	14 U	25 U	26 U
Benzene	ug/Kg	7700 U	91	6100 U	2100 U	14 U	25 U	26 U
Trans-1,3-Dichloropropene	ug/Kg	7700 U	61 U	6100 U	2100 U	14 U	25 U	26 U
Bromoform	ug/Kg	7700 U	61 U	6100 U	2100 U	14 U	25 U	26 U
4-Methyl-2-pentanone	ug/Kg	15000 U	120 U	12000 U	4200 U	28 U	50 U	52 U
2-Hexanone	ug/Kg	15000 U	120 U	12000 U	4200 U	28 U	50 U	52 U
Tetrachloroethene	ug/Kg	7700 U	61 U	6100 U	2100 U	14 U	25 U	26 U
1,1,2,2-Tetrachloroethane	ug/Kg	7700 U	61 U	6100 U	2100 U	14 U	25 U	26 U
Toluene	ug/Kg	7700 U	61 U	6100 U	2100 U	14 U	25 U	26 U
Chlorobenzene	ug/Kg	7700 U	61 U	6100 U	2100 U	14 U	25 U	26 U
Ethylbenzene	ug/Kg	7700 U	61 U	6100 U	2100 U	14 U	25 U	26 U
Styrene	ug/Kg	7700 U	61 U	6100 U	2100 U	14 U	25 U	26 U
Xylene (total)	ug/Kg	7700 U	61 U	6100 U	2100 U	14 U	25 U	26 U

Notes: U = Compound was analyzed for but not detected. Value shown is the method detection limit for quantification.

J = Indicates an estimated value.

B = Indicates that the analyte was found in the associated blank as well as in the sample.

SED1ANAL.XLS

Table 3-4
Summary of Lagoon Sediment Analytical Results -February 1997
Black & Decker
Hampstead, Maryland

PARAMETER	Units	EAST LAGOON			WEST LAGOON			
		EL01-02-SED	EL02-02-SED	EL03-02-SED	WL01-02-SED	WL01-02-SED (DUPLICATE)	WL02-02-SED	WL03-02-SED
Chloromethane	ug/Kg	12000 U	99 U	520 U	31 U	130 U	160 U	52 U
Bromomethane	ug/Kg	12000 U	99 U	520 U	31 U	130 U	160 U	52 U
Vinyl Chloride	ug/Kg	12000 U	99 U	520 U	31 U	130 U	160 U	52 U
Chloroethanane	ug/Kg	12000 U	99 U	520 U	31 U	130 U	160 U	52 U
Methylene Chloride	ug/Kg	11000 B	85 B	520 B	17 B	110 B	150 B	58 B
Acetone	ug/Kg	12000 U	130 B	1500 B	270 B	960 B	320 B	350 B
Carbon Disulfide	ug/Kg	6200 U	50 U	74 J	4 J	28 J	78 U	8 J
1,1-Dichloroethene	ug/Kg	6200 U	50 U	260 U	16 U	67 U	78 U	26 U
1,1-Dichloroethane	ug/Kg	6200 U	50 U	260 U	16 U	67 U	78 U	26 U
1,2-Dichloroethene (total)	ug/Kg	6200 U	50 U	260 U	16 U	67 U	78 U	26 U
Chloroform	ug/Kg	6200 U	50 U	260 U	16 U	67 U	78 U	26 U
1,2-Dichloroethane	ug/Kg	6200 U	50 U	260 U	16 U	67 U	78 U	26 U
2-Butanone	ug/Kg	12000 U	99 U	390 J	74	320	160 U	76
1,1,1-Trichloroethane	ug/Kg	6200 U	50 U	260 U	16 U	67 U	78 U	26 U
Carbon Tetrachloride	ug/Kg	6200 U	50 U	260 U	16 U	67 U	78 U	26 U
Vinyl Acetate	ug/Kg	12000 U	99 U	520 U	31 U	130 U	160 U	52 U
Bromodichloromethane	ug/Kg	6200 U	50 U	260 U	16 U	67 U	78 U	26 U
1,2-Dichloropropane	ug/Kg	6200 U	50 U	260 U	16 U	67 U	78 U	26 U
cis-1,3-Dichloropropene	ug/Kg	6200 U	50 U	260 U	16 U	67 U	78 U	26 U
Trichloroethene	ug/Kg	6200 U	50 U	260 U	16 U	67 U	78 U	26 U
Dibromochloromethane	ug/Kg	6200 U	50 U	260 U	16 U	67 U	78 U	26 U
1,1,2-Trichloroethane	ug/Kg	6200 U	50 U	260 U	16 U	67 U	78 U	26 U
Benzene	ug/Kg	6200 U	22 J	72 J	16 U	67 U	78 U	26 U
Trans-1,3-Dichloropropene	ug/Kg	6200 U	50 U	260 U	16 U	67 U	78 U	26 U
Bromoform	ug/Kg	6200 U	50 U	260 U	16 U	67 U	78 U	26 U
4-Methyl-2-pentanone	ug/Kg	12000 U	99 U	520 U	31 U	130 U	160 U	52 U
2-Hexanone	ug/Kg	12000 U	99 U	520 U	31 U	130 U	160 U	52 U
Tetrachloroethene	ug/Kg	6200 U	50 U	260 U	16 U	67 U	78 U	26 U
1,1,2,2-Tetrachloroethane	ug/Kg	6200 U	50 U	260 U	16 U	67 U	78 U	26 U
Toluene	ug/Kg	6200 U	50 U	260 U	16 U	67 U	78 U	26 U
Chlorobenzene	ug/Kg	6200 U	50 U	260 U	16 U	67 U	78 U	26 U
Ethylbenzene	ug/Kg	6200 U	50 U	260 U	16 U	67 U	78 U	26 U
Styrene	ug/Kg	6200 U	50 U	260 U	16 U	67 U	78 U	26 U
Xylene (total)	ug/Kg	6200 U	50 U	260 U	16 U	67 U	78 U	26 U

Notes: U = Compound was analyzed for but not detected. Value shown is the method detection limit for quantification.

J = Indicates an estimated value.

B = Indicates that the analyte was found in the associated blank as well as in the sample.

SED2ANAL.XLS

3.3 BRUSH PILE INVESTIGATION

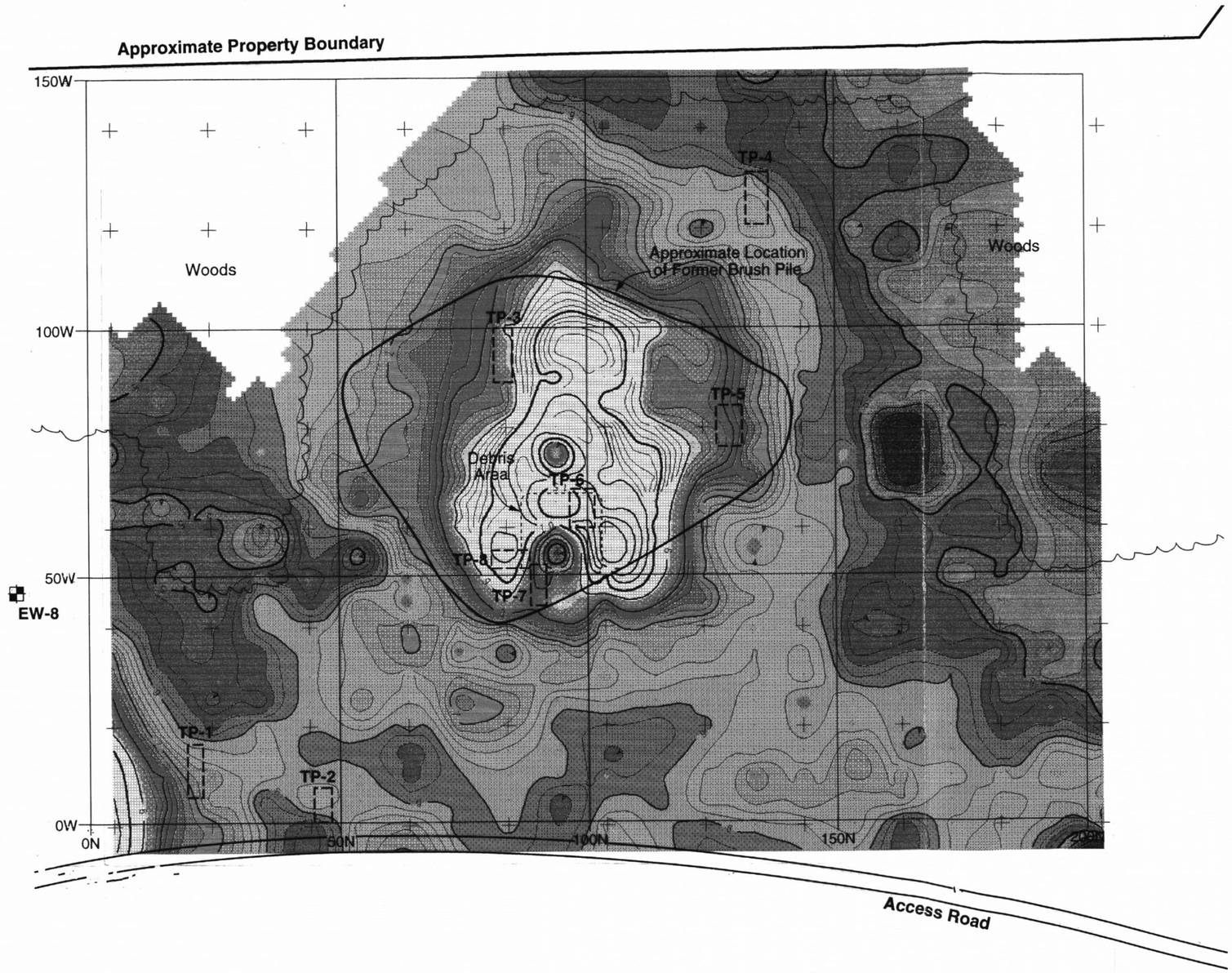
3.3.1 Geophysical Survey

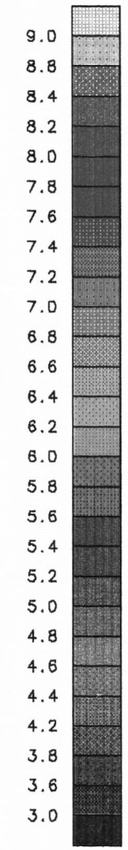
3.3.1.1 EM Results

The EM data revealed anomalous quadrature and in-phase readings throughout the site as shown on Figures 3-4 and 3-5, respectively. The strongest anomalies occurred within grid coordinates 80N to 100N/45W to 80W. These anomalies can be attributed to buried metallic objects. An area of relatively high conductivity (approximately 10 to 14 mS/m, depicted by the violet color contours on Figure 3-4) was observed in the center portion of the survey area. This is probably due to an increase in moisture content of the surface soils that were disturbed during clearing operations and the presence of buried metal. The in-phase component reveals a high and low anomaly pair within the above mentioned grid coordinates which is indicative of buried metallic objects (represented by the violet and blue color contours on Figure 3-5). Other EM anomalies found over the site appear minor in magnitude compared to the anomaly at 80N to 100N/45W to 80W and probably represent isolated metallic debris.

3.3.1.2 MAG Results

The MAG data corroborates the EM data by revealing an anomaly within the same approximate boundary as the main EM anomaly. The two components of the MAG signal, total magnetic field and magnetic gradient, delineate the anomaly boundary at grid coordinates 70N to 110N/50W to 65W as shown on Figures 3-6 and 3-7, respectively. This anomalous area is represented by the high and low, violet and blue color contour intervals and is interpreted to be buried ferrous material. Another MAG anomaly exists at relative grid coordinates 170N/130W which may be attributed to ferrous surface debris.





LEGEND

- Monitor Well Location
- Extraction Well Location
- Test Pit Location
- Geophysics Grid

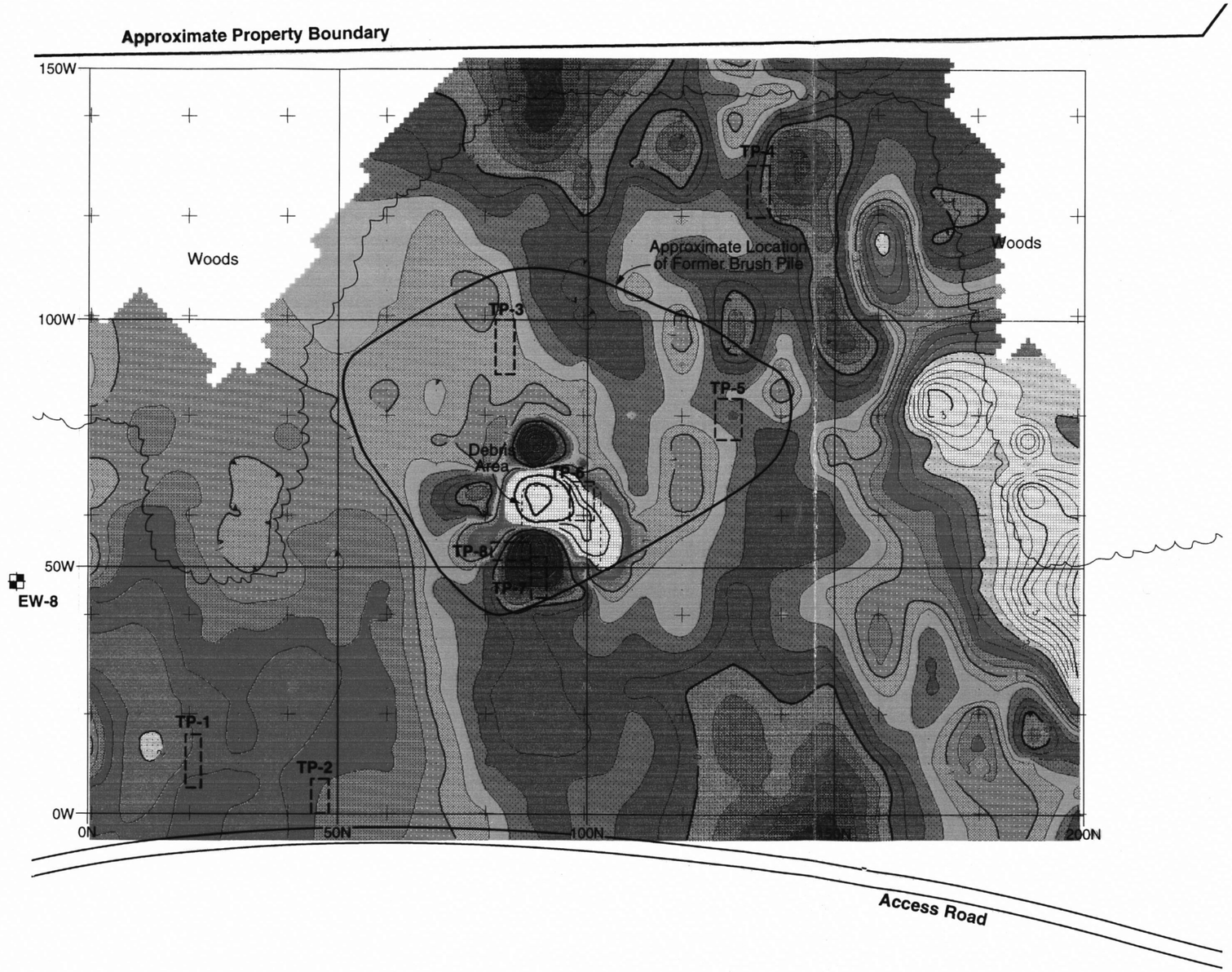
0 25 50

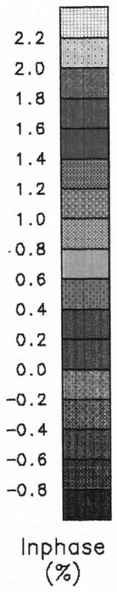
Scale in Feet

N

97P-1662

FIGURE 3-4 ELECTROMAGNETIC SURVEY – QUADRATURE COMPONENT
Supplemental Investigation Report
Black & Decker
Hampstead, Maryland





LEGEND

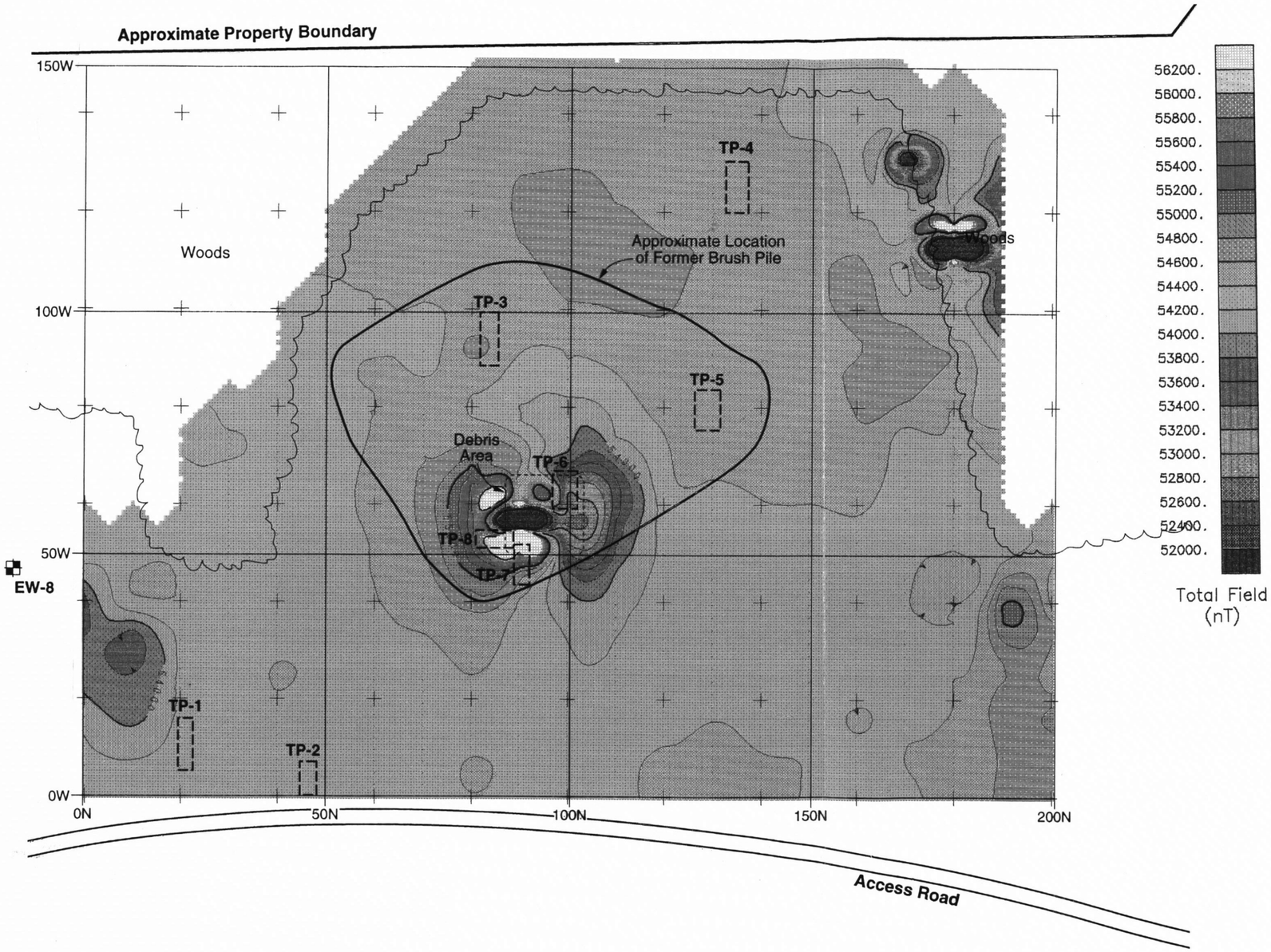
- Monitor Well Location
- Extraction Well Location
- Test Pit Location
- Geophysics Grid

0 25 50

Scale in Feet

97P-1663

FIGURE 3-5 ELECTROMAGNETIC SURVEY – INPHASE COMPONENT
Supplemental Investigation Report
Black & Decker
Hampstead, Maryland



97P-1664

FIGURE 3-6 MAGNETOMETER SURVEY – TOTAL FIELD COMPONENT
Supplemental Investigation Report
Black & Decker
Hampstead, Maryland

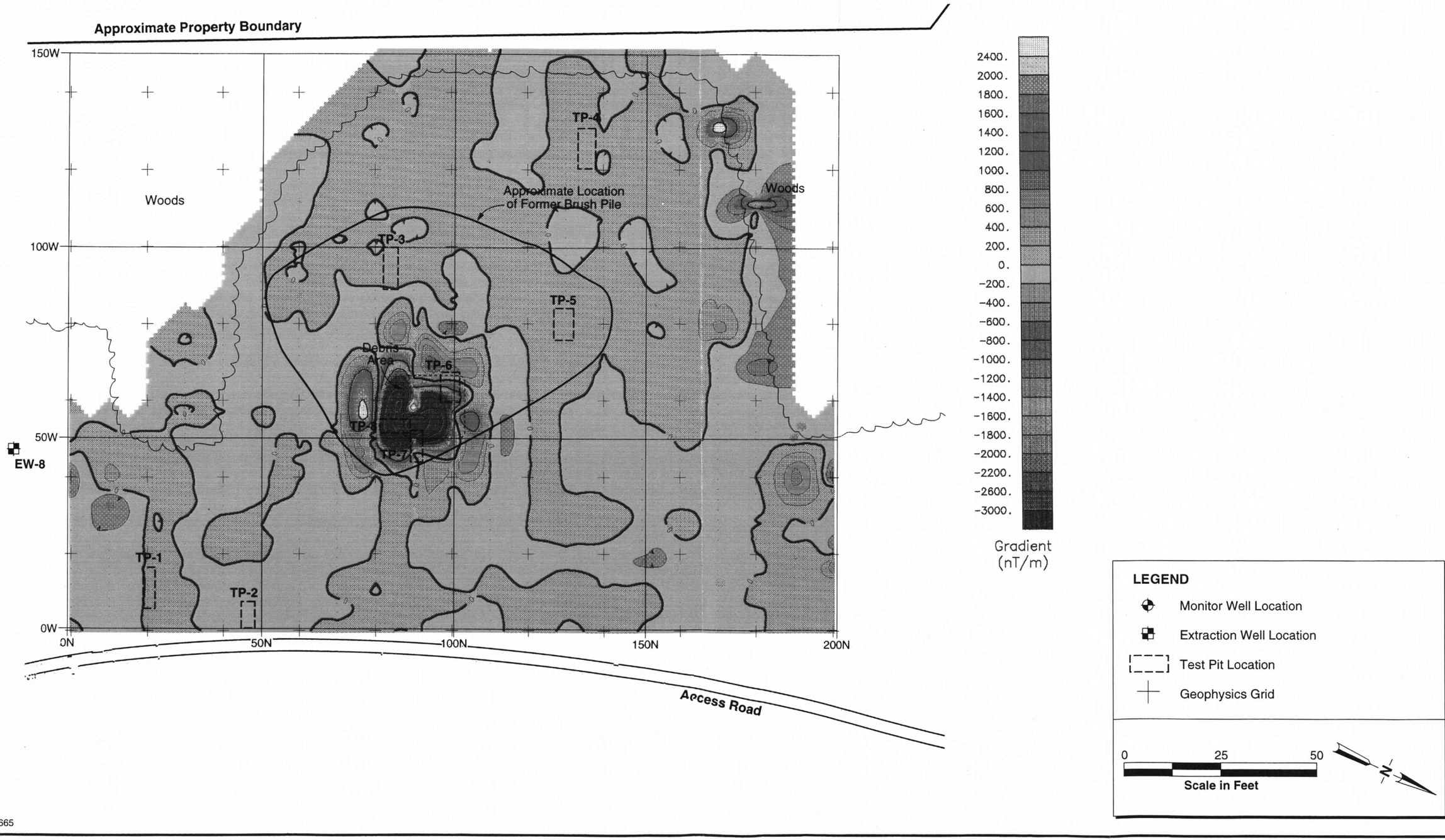


FIGURE 3-7 MAGNETOMETER SURVEY – GRADIENT COMPONENT
Supplemental Investigation Report
Black & Decker
Hampstead, Maryland

3.3.2 Test Excavations

No disturbance or evidence of debris was observed in TP-1 through TP-5, and these test pits were backfilled following excavation. However, fill material, consisting of aluminum oxide saw blades and scrap metal, was found in test pits TP-6, TP-7, and TP-8. Significant readings were not observed with an organic vapor monitor (OVM) in the soils or debris encountered in any of the test pits.

Soil samples were collected from test pits TP-2 through TP-7 and a summary of the analytical results is presented in Table 3-5. In addition, a sample of the groundwater encountered in TP-6 was collected and a summary of the analytical results is presented in Table 3-6. The complete analytical data packages are included in Appendix C.

The analytical results indicate that no concentrations of VOCs above quantification limits were detected in the test pit soil samples or the groundwater sample, except for low levels of constituents, which were also found in the laboratory blanks.

On 28 August 1996, the remainder of the debris was removed from test pits TP-6, TP-7, and TP-8, and, on 29 August 1996, these test pits were backfilled with clean soil.

Table 3-5
Summary of Test Pit Soil Sample Analytical Results
Black & Decker
Hampstead, Maryland

PARAMETER	Units	Soil Sample ID					
		TP-96-2	TP-96-3	TP-96-4	TP-96-5	TP-96-6	TP-96-7
Chloromethane	ug/Kg	12 U	12 U	12 U	13 U	12 U	12 U
Bromomethane	ug/Kg	12 U	12 U	12 U	13 U	12 U	12 U
Vinyl Chloride	ug/Kg	12 U	12 U	12 U	13 U	12 U	12 U
Chloroethanane	ug/Kg	12 U	12 U	12 U	13 U	12 U	12 U
Methylene Chloride	ug/Kg	13 B	14 B	12 B	13 B	11 B	11 B
Acetone	ug/Kg	12 U	12 U	12 U	13 U	9 JB	12 U
Carbon Disulfide	ug/Kg	6 U	6 U	6 U	6 U	6 U	6 U
1,1-Dichloroethene	ug/Kg	6 U	6 U	6 U	6 U	6 U	6 U
1,1-Dichloroethane	ug/Kg	6 U	6 U	6 U	6 U	6 U	6 U
1,2-Dichloroethene (total)	ug/Kg	6 U	6 U	6 U	6 U	6 U	6 U
Chloroform	ug/Kg	6 U	6 U	6 U	6 U	6 U	6 U
1,2-Dichloroethane	ug/Kg	6 U	6 U	6 U	6 U	6 U	6 U
2-Butanone	ug/Kg	12 U	12 U	12 U	13 U	12 U	12 U
1,1,1-Trichloroethane	ug/Kg	6 U	6 U	6 U	6 U	6 U	6 U
Carbon Tetrachloride	ug/Kg	6 U	6 U	6 U	6 U	6 U	6 U
Vinyl Acetate	ug/Kg	12 U	12 U	12 U	13 U	12 U	12 U
Bromodichloromethane	ug/Kg	6 U	6 U	6 U	6 U	6 U	6 U
1,2-Dichloropropane	ug/Kg	6 U	6 U	6 U	6 U	6 U	6 U
cis-1,3-Dichloropropene	ug/Kg	6 U	6 U	6 U	6 U	6 U	6 U
Trichloroethene	ug/Kg	6 U	6 U	6 U	6 U	6 U	6 U
Dibromochloromethane	ug/Kg	6 U	6 U	6 U	6 U	6 U	6 U
1,1,2-Trichloroethane	ug/Kg	6 U	6 U	6 U	6 U	6 U	6 U
Benzene	ug/Kg	6 U	6 U	6 U	6 U	6 U	6 U
Trans-1,3-Dichloropropene	ug/Kg	6 U	6 U	6 U	6 U	6 U	6 U
Bromoform	ug/Kg	6 U	6 U	6 U	6 U	6 U	6 U
4-Methyl-2-pentanone	ug/Kg	12 U	12 U	12 U	13 U	12 U	12 U
2-Hexanone	ug/Kg	12 U	12 U	12 U	13 U	12 U	12 U
Tetrachloroethene	ug/Kg	6 U	6 U	6 U	6 U	6 U	6 U
1,1,2,2-Tetrachloroethane	ug/Kg	6 U	6 U	6 U	6 U	6 U	6 U
Toluene	ug/Kg	6 U	6 U	6 U	6 U	6 U	6 U
Chlorobenzene	ug/Kg	6 U	6 U	6 U	6 U	6 U	6 U
Ethylbenzene	ug/Kg	6 U	6 U	6 U	6 U	6 U	6 U
Styrene	ug/Kg	6 U	6 U	6 U	6 U	6 U	6 U
Xylene (total)	ug/Kg	6 U	6 U	6 U	6 U	6 U	6 U

Notes: U = Compound was analyzed for but not detected. Value shown is the method detection limit for quantification.
J = Indicates an estimated value.
B = Indicates that the analyte was found in the associated blank as well as in the sample.

Table 3-6
Summary of Test Pit Groundwater Sample Analytical Results
Black & Decker
Hampstead, Maryland

PARAMETER	Units	Groundwater Sample ID	
		TP-96-6	TRIP BLANK
Chloromethane	ug/L	10 U	10 U
Bromomethane	ug/L	10 U	10 U
Vinyl Chloride	ug/L	10 U	10 U
Chloroethanane	ug/L	10 U	10 U
Methylene Chloride	ug/L	7 B	7 B
Acetone	ug/L	10 U	10 U
Carbon Disulfide	ug/L	5 U	5 U
1,1-Dichloroethene	ug/L	5 U	5 U
1,1-Dichloroethane	ug/L	5 U	5 U
1,2-Dichloroethene (total)	ug/L	5 U	5 U
Chloroform	ug/L	5 U	5 U
1,2-Dichloroethane	ug/L	5 U	5 U
2-Butanone	ug/L	10 U	10 U
1,1,1-Trichloroethane	ug/L	5 U	5 U
Carbon Tetrachloride	ug/L	5 U	5 U
Vinyl Acetate	ug/L	10 U	10 U
Bromodichloromethane	ug/L	5 U	5 U
1,2-Dichloropropane	ug/L	5 U	5 U
cis-1,3-Dichloropropene	ug/L	5 U	5 U
Trichloroethene	ug/L	5 U	5 U
Dibromochloromethane	ug/L	5 U	5 U
1,1,2-Trichloroethane	ug/L	5 U	5 U
Benzene	ug/L	5 U	5 U
Trans-1,3-Dichloropropene	ug/L	5 U	5 U
Bromoform	ug/L	5 U	5 U
4-Methyl-2-pentanone	ug/L	10 U	10 U
2-Hexanone	ug/L	10 U	10 U
Tetrachloroethene	ug/L	5 U	5 U
1,1,2,2-Tetrachloroethane	ug/L	5 U	5 U
Toluene	ug/L	5 U	5 U
Chlorobenzene	ug/L	5 U	5 U
Ethylbenzene	ug/L	5 U	5 U
Styrene	ug/L	5 U	5 U
Xylene (total)	ug/L	5 U	5 U

Notes: U = Compound was analyzed for but not detected. Value shown is the method detection limit for quantification.
J = Indicates an estimated value.
B = Indicates that the analyte was found in the associated blank as well as in the sample.

SECTION 4

CONCLUSIONS

4.1 FRACTURE TRACE ANALYSIS

As requested by the MDE, a fracture trace analysis of the site was completed in order to identify potential preferred zones of groundwater movement. Identified traces are shown on Figure 3-3. As can be seen on this figure, monitor wells and remediation wells are present along the major fracture traces evident at the site.

As described in the hydrogeologic conceptual site model presented in the Supplemental Remedial Work Plan (WESTON, 1995), groundwater exists at the site primarily in the transition zone between unconsolidated material and competent bedrock. Within the transition zone, any bedrock fracture orientation originally present has been largely subdued by subsequent weathering; hence, fracture orientation and occurrence does not represent a controlling influence on the overall movement of groundwater in the site area. As described in previous reports and briefly reiterated below, hydrogeologic parameters and hydraulic performance of pumping wells observed at the site support this interpretation.

The results of the remediation system design pumping tests previously performed at the site were evaluated for anisotropy to determine the potential importance of fracture flow. The results showed that there is relatively minor anisotropy at the site and confirm that there are no strong preferential flow directions present. Further, storativities were calculated and shown to be consistent with porous media dominated flow; yields of wells at the site are uniformly highest in the transitional zone which is essentially a porous media. Based on this analysis, the bedrock fracture fabric does not control actual groundwater flow directions and the transition zone behaves as a porous medium at the scale of the site groundwater flow regime.

In addition, the performance of the groundwater remediation system has demonstrated the ability to maintain pumping influence laterally throughout the site with a relatively smooth distribution of drawdowns amongst all pumping and monitor wells on a site-wide basis. Anomalous drawdowns that are typically associated with fracture influenced flow have not been commonly observed at the site.

Based on these observations, the current groundwater remediation system is effectively capturing the groundwater providing a hydraulic barrier as intended at the site. No additional action is necessary relative to the design/operation and monitoring of the groundwater system at the site at this time.

4.2 LAGOON SAMPLING

The low concentrations of VOCs detected in the surface water and sediment samples collected from the East and West Lagoons do not suggest that they are a source of groundwater contamination. No additional sampling of the Lagoons is warranted.

4.3 BRUSH PILE INVESTIGATION

Based on the geophysical survey and test pit excavations, a fill area consisting of aluminum oxide saw blades and scrap metal was delineated and removed from the subsurface at the Brush Pile area. The analytical results of the soil and groundwater samples collected from the test pit excavations indicate that the Brush Pile area is not a source of soil or groundwater contamination. No additional investigation activities at the Brush Pile area are warranted.

SECTION 5

REFERENCES

Lattman, L.H., "Techniques of Mapping Geologic Fracture Traces and Lineaments on Aerial Photographs." Photogrammetric Engineering, 1958, v. 24, no. 4, p. 568-576.

McNeill, J.D., 1980. 'Electromagnetic Terrain Conductivity Measurements at Low Induction Number." Technical Note TN-6, Geonics, Ltd., Mississauqa, Ontario.

Meyer, G. and Beal, R.M. 1958. *The Water Resources of Carroll and Frederick Counties*, Maryland Board of Natural Resources, Department of Geology, Mines and Water Resources, Bulletin 22.

Parizek, R.R., 'Lineaments and Ground Water." Reprint from ORSER-SSEL Technical Report 2-76, Pennsylvania State University, 1976.

WESTON (Roy F. Weston, Inc.). 1995. *Supplemental Remedial Work Plan, Black & Decker (U.S.) Inc., Hampstead, Maryland.*

WESTON (Roy F. Weston, Inc.). 1995. *Sampling and Analysis Plan, Black & Decker (U.S.) Inc., Hampstead, Maryland.*

AERIAL PHOTOGRAPHS:

Date	Project #	Frame #
10/9/59	ABB59035	396 and 397
4/17/74	GS-VDLJ	1-14 and 1-15
4/2/81	NHAP80	328-100 and 328-101
9/26/87	NAPPBO	105-061 and 105-062

APPENDIX A

TEST PIT LITHOLOGIC LOGS

PROJECT	Black & Decker	**TEST PIT ID**	TP-1
LOCATION	Hampstead, MD	**DATE STARTED**	14 August 1997
LOGGER	Greg Flasinski	**DATE COMPLETED**	14 August 1997
OPERATOR	Joe Schell	**TOTAL DEPTH**	7.0 ft bgs

INTERVAL (ft bgs)	FIELD SCREENING RESULTS		LITHOLOGIC DESCRIPTION
	OVM	CGI	
0-0.3	BKG	BKG	grass; topsoil
0.3-1.0	BKG	BKG	brown to orange-brown, clayey silt; dry; tree stump encountered at approx. 0.5 ft bgs; some black organic material
1.0-6.0	BKG	BKG	orange-brown silt; some roots
6.0-7.0	BKG	BKG	saprolite; quartzite;no evidence of disturbed soil; total depth at 7.0 ft bgs

ft bgs - feet below ground surface
OVM - Organic Vapor Monitor
CGI - Combustible Gas Indicator
BKG - background

PROJECT	Black & Decker	**TEST PIT ID**	TP-2
LOCATION	Hampstead, MD	**DATE STARTED**	14 August 1997
LOGGER	Greg Flasinski	**DATE COMPLETED**	14 August 1997
OPERATOR	Joe Schell	**TOTAL DEPTH**	7.0 ft bgs

INTERVAL (ft bgs)	FIELD SCREENING RESULTS		LITHOLOGIC DESCRIPTION
	OVM	CGI	
0-0.3	BKG	BKG	grass; topsoil
0.3-1.5	BKG	BKG	brown to orange, clayey silt; dry
1.5-6.0	BKG	BKG	orange-brown silt
6.0-7.0	BKG	BKG	orange-brown silt; some saprolite, quartzite; collect soil sample "TP-96-2" for VOCs at 7 ft bgs

ft bgs - feet below ground surface
OVM - Organic Vapor Monitor
CGI - Combustible Gas Indicator
BKG - background

PROJECT	Black & Decker	**TEST PIT ID**	TP-3
LOCATION	Hampstead, MD	**DATE STARTED**	14 August 1997
LOGGER	Greg Flasinski	**DATE COMPLETED**	14 August 1997
OPERATOR	Joe Schell	**TOTAL DEPTH**	8.0 ft bgs

INTERVAL (ft bgs)	FIELD SCREENING RESULTS		LITHOLOGIC DESCRIPTION
	OVM	CGI	
0-1.0	BKG	BKG	grass; brown clay with little silt; moist; organics; odor
1.0-3.5	BKG	BKG	orange-brown, silty clay with little fine sand; dry
3.5-7.0	BKG	BKG	orange-brown; grey modeling; dry
7.0-8.0	BKG	BKG	saprolite; silty; organic odor; no evidence of disturbed soils; collect soil sample "TP-96-3" for VOCs at 8 ft bgs

ft bgs - feet below ground surface
OVM - Organic Vapor Monitor
CGI - Combustible Gas Indicator
BKG - background

PROJECT	Black & Decker	**TEST PIT ID**	TP-4
LOCATION	Hampstead, MD	**DATE STARTED**	14 August 1997
LOGGER	Greg Flasinski	**DATE COMPLETED**	14 August 1997
OPERATOR	Joe Schell	**TOTAL DEPTH**	9.0 ft bgs

INTERVAL (ft bgs)	FIELD SCREENING RESULTS		LITHOLOGIC DESCRIPTION
	OVM	CGI	
0-1.0	BKG	BKG	brown clay with some silt; moist
1.0-5.0	BKG	BKG	orange-brown,silty sand; grey modleing; pieces of quartzite
5.0-9.0	BKG	BKG	sand and silt; saprolite; collect soil sample "TP-96-4" for VOCs at 9 ft bgs [MDE split sample]

ft bgs - feet below ground surface
OVM - Organic Vapor Monitor
CGI - Combustible Gas Indicator
BKG - background

PROJECT	Black & Decker	**TEST PIT ID**	TP-5
LOCATION	Hampstead, MD	**DATE STARTED**	14 August 1997
LOGGER	Greg Flasinski	**DATE COMPLETED**	14 August 1997
OPERATOR	Joe Schell	**TOTAL DEPTH**	9.0 ft bgs

INTERVAL (ft bgs)	FIELD SCREENING RESULTS		LITHOLOGIC DESCRIPTION
	OVM	CGI	
0-1.0	BKG	BKG	grass; brown silt with root material
1.0-2.0	BKG	BKG	silt with clay and some sand
3.0-4.0	BKG	BKG	layers of saprolitic soils
4.0-9.0	BKG	BKG	silt; saprolite; collect soil sample "TP-96-5" for VOCs at 9 ft bgs [MDE split sample]

ft bgs - feet below ground surface
OVM - Organic Vapor Monitor
CGI - Combustible Gas Indicator
BKG - background

PROJECT	Black & Decker	**TEST PIT ID**	TP-6
LOCATION	Hampstead, MD	**DATE STARTED**	14 August 1997
LOGGER	Greg Flasinski	**DATE COMPLETED**	28 August 1997
OPERATOR	Joe Schell	**TOTAL DEPTH**	7.5 ft bgs

INTERVAL (ft bgs)	FIELD SCREENING RESULTS		LITHOLOGIC DESCRIPTION
	OVM	CGI	
0-1.0	BKG	BKG	brown clay; some organics; piece of rope
1.0-3.0	BKG	BKG	brown clay and silt
3.0-7.5	BKG	BKG	aluminium oxide circular saw blades
7.5	BKG	BKG	wet; collect soil sample "TP-96-6" for VOCs from the side wall of the pit, adjacent to the saw blades [MDE split sample]; collect groundwater sample "TP-96-6" for VOCs from water in bottom of test pit

ft bgs - feet below ground surface
OVM - Organic Vapor Monitor
CGI - Combustible Gas Indicator
BKG - background

PROJECT	Black & Decker	**TEST PIT ID**	TP-7
LOCATION	Hampstead, MD	**DATE STARTED**	14 August 1997
LOGGER	Greg Flasinski	**DATE COMPLETED**	28 August 1997
OPERATOR	Joe Schell	**TOTAL DEPTH**	8.0 ft bgs

INTERVAL (ft bgs)	FIELD SCREENING RESULTS		LITHOLOGIC DESCRIPTION
	OVM	CGI	
0-1.0	BKG	BKG	brown clay; moist
1.0-3.0	5.4	BKG	saw blades and scrap metal (display cases)
3.0-6.5	BKG	BKG	saw blades; groundwater entering test pit at approx. 5 ft bgs
6.5-8.0	BKG	BKG	saw blades end at 7 ft bgs; collect soil sample "TP-96-7" for VOCs at 8 ft bgs [MDE split sample]

ft bgs - feet below ground surface
OVM - Organic Vapor Monitor
CGI - Combustible Gas Indicator
BKG - background

PROJECT	Black & Decker	**TEST PIT ID**	TP-8
LOCATION	Hampstead, MD	**DATE STARTED**	14 August 1997
LOGGER	Greg Flasinski	**DATE COMPLETED**	28 August 1997
OPERATOR	Joe Schell	**TOTAL DEPTH**	8.0 ft bgs

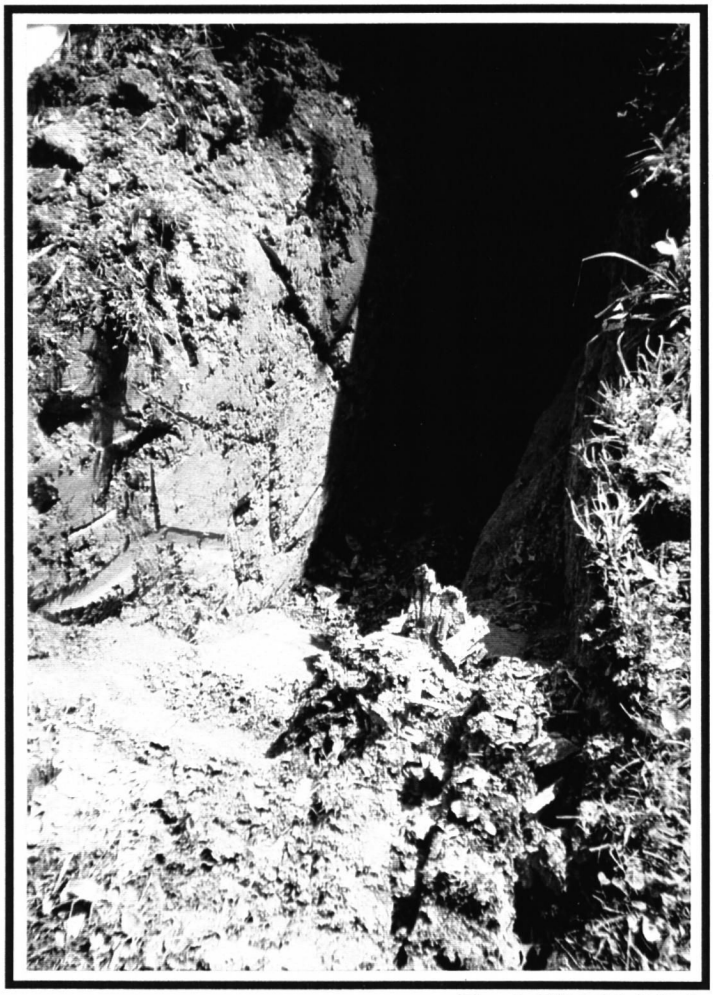
INTERVAL (ft bgs)	FIELD SCREENING RESULTS		LITHOLOGIC DESCRIPTION
	OVM	CGI	
0-1.0	BKG	BKG	brown clay; moist
1.0-3.0	BKG	BKG	brown clayey silt; moist
3.0-5.0	BKG	BKG	orange-brown silt with little sand; little modeling to grey; no debris
5.0-8.0	BKG	BKG	orange-brown silt; encounter a few saw blades in the corner of pit adjacent to TP-96-6 and TP-96-7

ft bgs - feet below ground surface
OVM - Organic Vapor Monitor
CGI - Combustible Gas Indicator
BKG - background

APPENDIX B

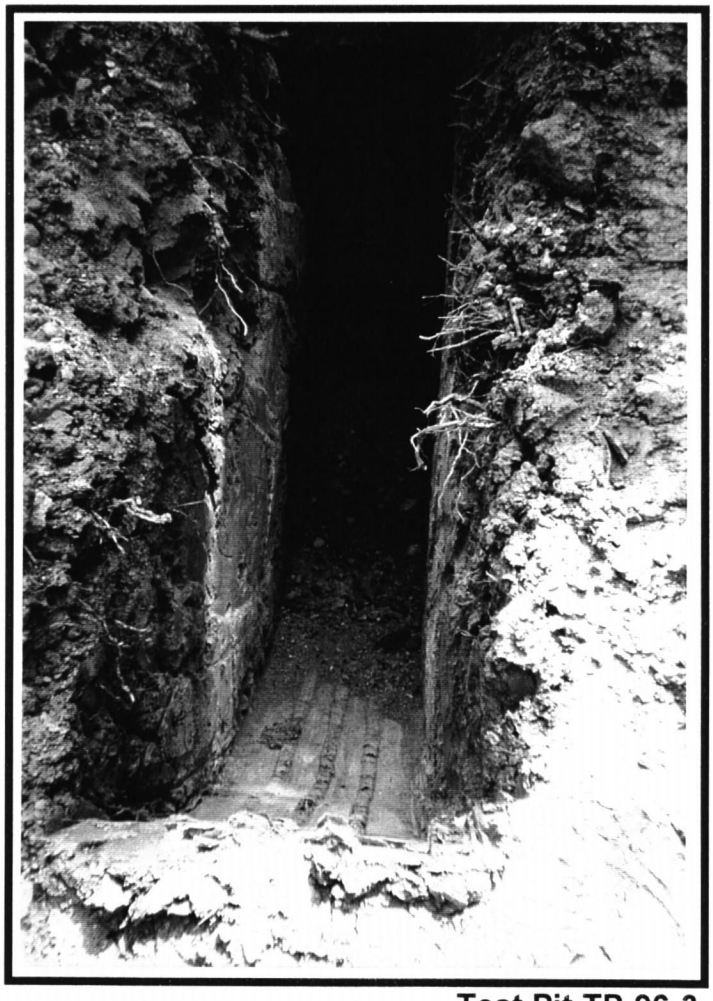
TEST PIT PHOTOGRAPHS

Test Pit TP-96-1

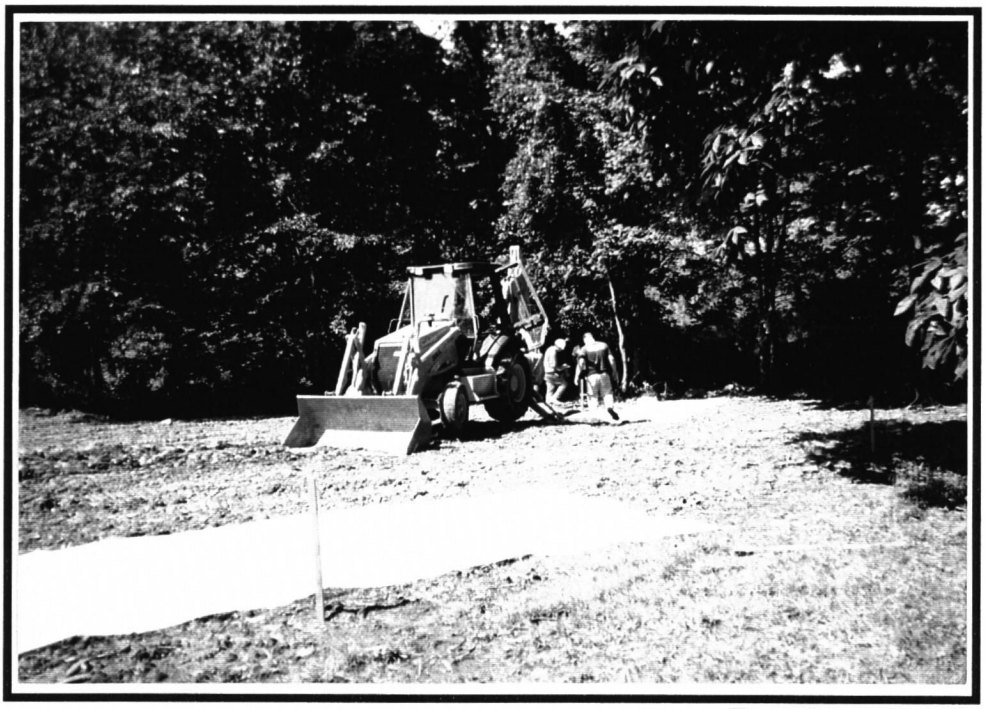


Test Pit TP-96-1

Test Pit TP-96-2



Test Pit TP-96-3



Test Pit TP-96-4

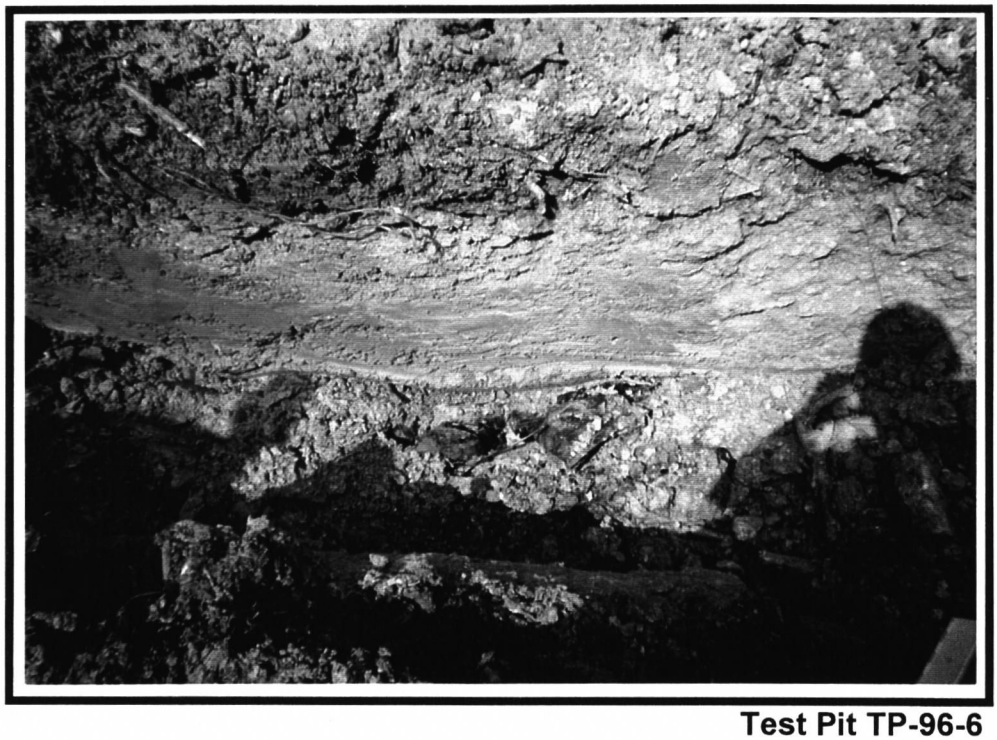
Test Pit TP-96-4

Test Pit TP-96-4

Test Pit TP-96-5

Test Pit TP-96-5

Test Pit TP-96-6

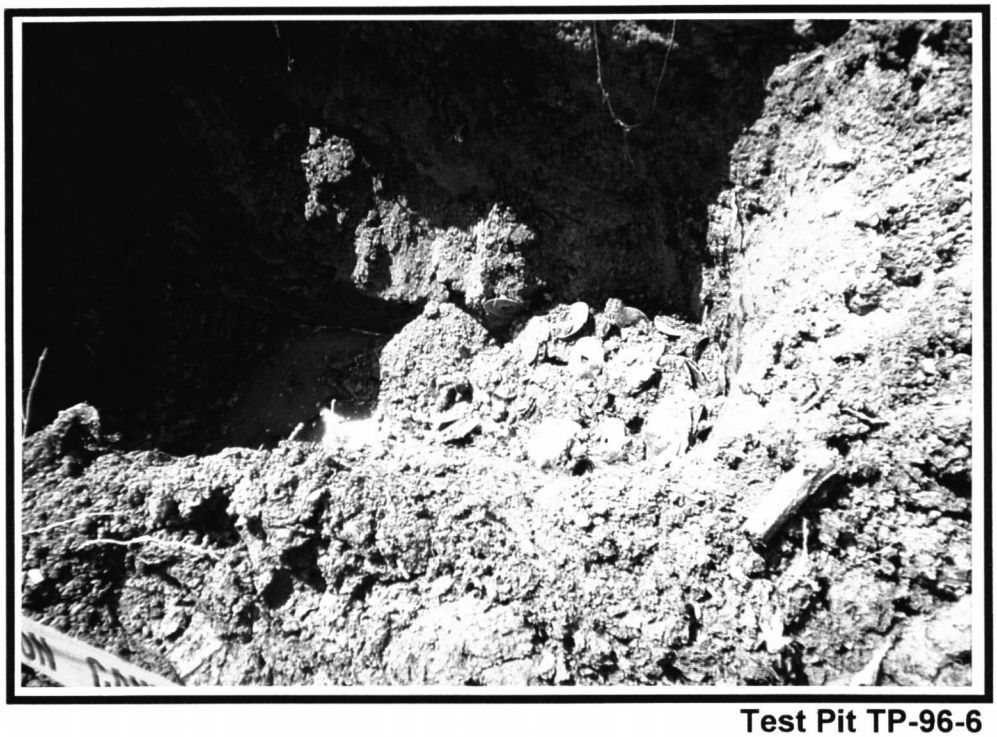


Test Pit TP-96-6

Test Pit TP-96-6

Test Pit TP-96-6

Test Pit TP-96-6

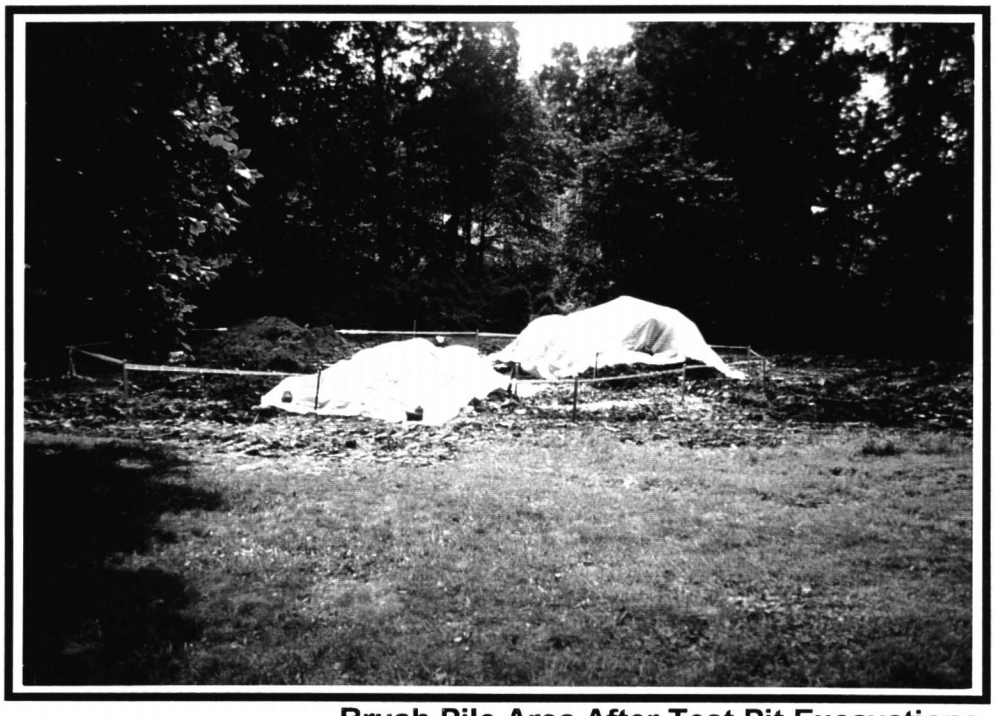


Test Pit TP-96-6

Test Pit TP-96-7

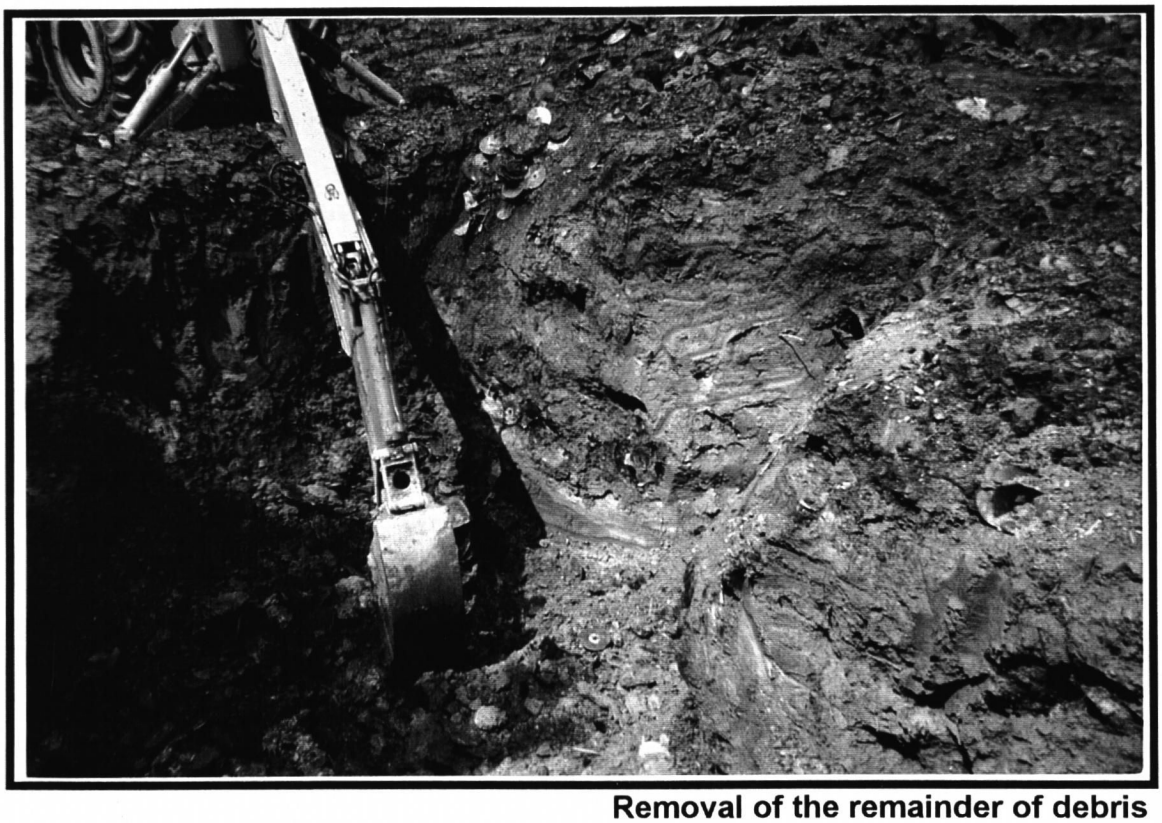
Test Pits TP-96-6 and TP-96-7

Backfilling Test Pits TP-96-1 and TP-96-2



Brush Pile Area After Test Pit Excavations

Removal of the remainder of debris



Removal of the remainder of debris

Excavation after removal of debris

Excavation after removal of debris

Excavation after removal of debris

Debris pile

Brush Pile Area After Backfilling

Brush Pile Area After Backfilling

APPENDIX C

ANALYTICAL DATA PACKAGES

LAGOON SURFACE WATER AND SEDIMENT ANALYTICAL DATA PACKAGES

AUGUST 1996

Roy F. Weston, Inc.
208 Welsh Pool Road
Lionville, Pennsylvania 19341-1333
610-701-6100 • Fax 610-701-6140

LIONVILLE LABORATORY
ANALYTICAL REPORT

Client : BLACK AND DECKER
RFW# : 9608L555

W.O. #: 02501-004-001-0000-00
Date Received: 08-08-96

GC/MS VOLATILE

The set of samples consisted of eight (8) water samples and seven (7) soil samples collected on 08-07-96.

The samples and their associated QC samples were analyzed according to criteria set forth in SW 846 Method 8240 for TCL Volatile target compounds on 08-16,17,18,19,20-96.

The following is a summary of the QC results accompanying these sample results and a description of any problems encountered during their analyses:

1. The required holding time for analysis was met.

2. Non-target compounds were detected in these samples.

3. The following samples required medium level analysis because they contained high levels of non-target compounds:

Sample ID	Dilution Factor
EL01-01-SED	Medium
EL02-01-SED, RE	Medium
EL02-01-SED (DUP)	Medium
EL03-01-SED, MS, MSD	Medium
WL02-01-SED RE	4.55

4. Twleve (12) of one-hundrd-eight (108) surrogate recoveries were outside EPA QC limits. The associated matrix spike analyses of sample EL03-01-SED fulfilled its reanalysis requirement. Samples EL02-01-SED (DUP) and EL01-01-SED were reanalyzed on 08-20-96 and reported. Samples WL02-01-SED and EL02-02-SED were diluted, reanalyzed on 08-19,20-96, and reported.

5. Two (2) of twenty (20) matrix spike recoveries were outside EPA QC limits.

6. All blank spike recoveries were within EPA QC limits.

7. The method blanks contained the common contaminants Methylene Chloride and Acetone at levels less than 3x the CRQL.

Bruce C. Miller unit leader

FOR J. Michael Taylor
Vice President and Laboratory Manager
Lionville Analytical Laboratory

9-24-96
Date

mmz/voa/08-555v.cn

GLOSSARY OF VOA DATA

DATA QUALIFIERS

U	=	Compound was analyzed for but not detected. The associated numerical value is the estimated sample quantitation limit which is included and corrected for dilution and percent moisture.
J	=	Indicates an estimated value. This flag is used under the following circumstances: 1) when estimating a concentration for tentatively identified compounds (TICs) where a 1:1 response is assumed; or 2) when the mass spectral data indicate the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. For example, if the limit of detection is 10 ug/L and a concentration of 3 ug/L is calculated, it is reported as 3J.
B	=	This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination. This flag is also used for a TIC as well as for a positively identified TCL compound.
E	=	Indicates that the compound was detected beyond the calibration range and was subsequently analyzed at a dilution.
D	=	Identifies all compounds identified in an analysis at a secondary dilution factor.
I	=	Interference.
NQ	=	Result qualitatively confirmed but not able to quantify.
N	=	Indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds (TICs), where the identification is based on a mass spectral library search. It is applied to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the N code is not used.
X	=	This flag is used for a TIC compound which is quantified relative to a response factor generated from a daily calibration standard (rather than quantified relative to the closest internal standard).
Y	=	Additional qualifiers used as required are explained in the case narrative.

WESTON

GLOSSARY OF VOA DATA

ABBREVIATIONS

BS	=	Indicates blank spike in which reagent grade water is spiked with the CLP matrix spike solutions and carried through all the steps in the method. Spike recoveries are reported.
BSD	=	Indicates blank spike duplicate.
MS	=	Indicates matrix spike.
MSD	=	Indicates matrix spike duplicate.
DL	=	Suffix added to sample number to indicate that results are from a diluted analysis.
NA	=	Not Applicable.
DF	=	Dilution Factor.
NR	=	Not Required.
SP, Z	=	Indicates Spiked Compound.

Roy F. Weston, Inc. - Lionville Laboratory
Volatiles by GC/MS, HSL List
Report Date: 09/23/96 12:14

RFW Batch Number: 9608L555 Client: BLACK AND DECKER Work Order: 02501004001 Page: 1a

005

	Cust ID:	EL01-01-SW	EL01-01-SED	EL01-01-SED	EL02-01-SW	EL02-01-SED	EL02-01-SED
Sample Information	RFW#:	001	002	002	003	004	004
	Matrix:	WATER	SEDIMENT	SEDIMENT	WATER	SEDIMENT	SEDIMENT
	D.F.:	1.00	1.00	1.00	1.00	0.962	1.00
	Units:	UG/L	UG/KG	UG/KG	UG/L	UG/KG	UG/KG
	Level:	LOW	MED	MED REPREP	LOW	LOW	MED REPREP
Surrogate Recovery	Toluene-d8	106 %	72 * %	74 * %	104 %	111 %	81 %
	Bromofluorobenzene	105 %	77 %	79 %	101 %	71 * %	82 %
	1,2-Dichloroethane-d4	97 %	68 * %	72 %	97 %	110 %	71 %
		fl	fl	fl	fl	fl	fl
Chloromethane		10 U	15000 U	15000 U	10 U	120 U	16000 U
Bromomethane		10 U	15000 U	15000 U	10 U	120 U	16000 U
Vinyl Chloride		10 U	15000 U	15000 U	10 U	120 U	16000 U
Chloroethane		10 U	15000 U	15000 U	10 U	120 U	16000 U
Methylene Chloride		5 JB	9700 B	25000 B	11 B	170 B	8400 B
Acetone		19 B	15000 U	9900 BJ	22 B	950 B	6500 BJ
Carbon Disulfide		5 U	7700 U	7700 U	5 U	29 J	7900 U
1,1-Dichloroethene		5 U	7700 U	7700 U	5 U	61 U	7900 U
1,1-Dichloroethane		5 U	7700 U	7700 U	5 U	61 U	7900 U
1,2-Dichloroethene (total)		5 U	7700 U	7700 U	5 U	61 U	7900 U
Chloroform		4 J	7700 U	7700 U	4 J	61 U	7900 U
1,2-Dichloroethane		5 U	7700 U	7700 U	5 U	61 U	7900 U
2-Butanone		10 U	15000 U	15000 U	10 U	250	16000 U
1,1,1-Trichloroethane		5 U	7700 U	7700 U	5 U	61 U	7900 U
Carbon Tetrachloride		5 U	7700 U	7700 U	5 U	61 U	7900 U
Vinyl Acetate		10 U	15000 U	15000 U	10 U	120 U	16000 U
Bromodichloromethane		5 U	7700 U	7700 U	5 U	61 U	7900 U
1,2-Dichloropropane		5 U	7700 U	7700 U	5 U	61 U	7900 U
cis-1,3-Dichloropropene		5 U	7700 U	7700 U	5 U	61 U	7900 U
Trichloroethene		5 U	7700 U	7700 U	5 U	61 U	7900 U
Dibromochloromethane		5 U	7700 U	7700 U	5 U	61 U	7900 U
1,1,2-Trichloroethane		5 U	7700 U	7700 U	5 U	61 U	7900 U
Benzene		5 U	7700 U	7700 U	5 U	91	7900 U
Trans-1,3-Dichloropropene		5 U	7700 U	7700 U	5 U	61 U	7900 U
Bromoform		5 U	7700 U	7700 U	5 U	61 U	7900 U
4-Methyl-2-pentanone		10 U	15000 U	15000 U	10 U	120 U	16000 U
2-Hexanone		10 U	15000 U	15000 U	10 U	120 U	16000 U
Tetrachloroethene		5 U	7700 U	7700 U	5 U	61 U	7900 U
1,1,2,2-Tetrachloroethane		5 U	7700 U	7700 U	5 U	61 U	7900 U

*= Outside of EPA CLP QC limits.

RFW Batch Number: **9608L555** Client: **BLACK AND DECKER** Work Order: 02501004001 Page: 1b

	Cust ID:	EL01-01-SW	EL01-01-SED	EL01-01-SED	EL02-01-SW	EL02-01-SED	EL02-01-SED
	RFW#:	001	002	002 REPREP	003	004	004 REPREP
	Level:	LOW	MED	MED	LOW	LOW	MED
Toluene		1 J	7700 U	7700 U	5 U	61 U	7900 U
Chlorobenzene		5 U	7700 U	7700 U	5 U	61 U	7900 U
Ethylbenzene		5 U	7700 U	7700 U	5 U	61 U	7900 U
Styrene		5 U	7700 U	7700 U	5 U	61 U	7900 U
Xylene (total)		5 U	7700 U	7700 U	5 U	61 U	7900 U

*= Outside of EPA CLP QC limits.

900

Roy F. Weston, Inc. Lionville Laboratory

Volatiles by GC/MS, HSL List — Report Date: 09/23/96 12:14

RFW Batch Number: 9608L555 — Client: BLACK AND DECKER — Work Order: 02501004001 — Page: 2a

007

	Cust ID:	EL02-01-SED(DUP)	EL02-01-SED(DUP)	EL03-01-SW	EL03-01-SED	EL03-01-SED	EL03-01-SED
Sample Information	RFW#:	005	005	006	007	007 MS	007 MSD
	Matrix:	SEDIMENT	SEDIMENT	WATER	SEDIMENT	SEDIMENT	SEDIMENT
	D.F.:	1.00	1.00	1.00	1.00	1.00	1.00
	Units:	UG/KG	UG/KG	UG/L	UG/KG	UG/KG	UG/KG
	Level:	MED	MED REPREP	LOW	MED	MED	MED
Surrogate Recovery	Toluene-d8	79 * %	74 * %	102 %	75 * %	74 * %	73 * %
	Bromofluorobenzene	82 %	75 %	97 %	80 %	80 %	77 %
	1,2-Dichloroethane-d4	74 %	73 %	108 %	72 %	71 %	69 * %
		fl	fl	fl	fl	fl	fl
Chloromethane		12000 U	12000 U	10 U	4200 U	4200 U	4200 U
Bromomethane		12000 U	12000 U	10 U	4200 U	4200 U	4200 U
Vinyl Chloride		12000 U	12000 U	10 U	4200 U	4200 U	4200 U
Chloroethane		12000 U	12000 U	10 U	4200 U	4200 U	4200 U
Methylene Chloride		8700 B	14000 B	3 JB	1400 JB	3400 B	4100 B
Acetone		7300 JB	4400 BJ	25 B	1900 JB	4200 B	1500 JB
Carbon Disulfide		6100 U	6100 U	5 U	2100 U	2100 U	2100 U
1,1-Dichloroethene		6100 U	6100 U	5 U	2100 U	58 * %	54 * %
1,1-Dichloroethane		6100 U	6100 U	5 U	2100 U	2100 U	2100 U
1,2-Dichloroethene (total)		6100 U	6100 U	5 U	2100 U	2100 U	2100 U
Chloroform		6100 U	6100 U	2 J	2100 U	2100 U	2100 U
1,2-Dichloroethane		6100 U	6100 U	5 U	2100 U	2100 U	2100 U
2-Butanone		12000 U	12000 U	10 U	4200 U	4200 U	4200 U
1,1,1-Trichloroethane		6100 U	6100 U	5 U	2100 U	2100 U	2100 U
Carbon Tetrachloride		6100 U	6100 U	5 U	2100 U	2100 U	2100 U
Vinyl Acetate		12000 U	12000 U	10 U	4200 U	4200 U	4200 U
Bromodichloromethane		6100 U	6100 U	5 U	2100 U	2100 U	2100 U
1,2-Dichloropropane		6100 U	6100 U	5 U	2100 U	2100 U	2100 U
cis-1,3-Dichloropropene		6100 U	6100 U	5 U	2100 U	2100 U	2100 U
Trichloroethene		6100 U	6100 U	5 U	2100 U	70 %	67 %
Dibromochloromethane		6100 U	6100 U	5 U	2100 U	2100 U	2100 U
1,1,2-Trichloroethane		6100 U	6100 U	5 U	2100 U	2100 U	2100 U
Benzene		6100 U	6100 U	5 U	2100 U	68 %	66 %
Trans-1,3-Dichloropropene		6100 U	6100 U	5 U	2100 U	2100 U	2100 U
Bromoform		6100 U	6100 U	5 U	2100 U	2100 U	2100 U
4-Methyl-2-pentanone		12000 U	12000 U	10 U	4200 U	4200 U	4200 U
2-Hexanone		12000 U	12000 U	10 U	4200 U	4200 U	4200 U
Tetrachloroethene		6100 U	6100 U	5 U	2100 U	2100 U	2100 U
1,1,2,2-Tetrachloroethane		6100 U	6100 U	5 U	2100 U	2100 U	2100 U

*= Outside of EPA CLP QC limits.

	Cust ID:	EL02-01-SED(DUP)		EL02-01-SED(DUP)		EL03-01-SW		EL03-01-SED		EL03-01-SED		EL03-01-SED	
	RFW#:	005		005		006		007		007 MS		007 MSD	
	Level:	MED		MED REPREP		LOW		MED		MED		MED	
Toluene		6100	U	6100	U	5	U	2100	U	71	%	68	%
Chlorobenzene		6100	U	6100	U	5	U	2100	U	71	%	70	%
Ethylbenzene		6100	U	6100	U	5	U	2100	U	2100	U	2100	U
Styrene		6100	U	6100	U	5	U	2100	U	2100	U	2100	U
Xylene (total)		6100	U	6100	U	5	U	2100	U	2100	U	2100	U

*= Outside of EPA CLP QC limits.

Roy F. Weston, Inc. [redacted]ionville Laboratory

Volatiles by GC/MS, HSL List — Report Date: 09/23/96 12:14

RFW Batch Number: 9608L555 — Client: BLACK AND DECKER — Work Order: 02501004001 — Page: 3a

Sample Information	Cust ID:	WL01-01-SW		WL01-01-SW(DUP)		WL01-01-SED		WL01-01-SED		WL01-01-SED		WL02-01-SW	
	RFW#:	008		009		010		010 MS		010 MSD		011	
	Matrix:	WATER		WATER		SEDIMENT		SEDIMENT		SEDIMENT		WATER	
	D.F.:	1.00		1.00		1.02		1.02		1.00		1.00	
	Units:	UG/L		UG/L		UG/KG		UG/KG		UG/KG		UG/L	
	Level:	LOW		LOW		LOW		LOW		LOW		LOW	
Surrogate Recovery	Toluene-d8	102	%	104	%	104	%	108	%	114	%	97	%
	Bromofluorobenzene	99	%	105	%	81	%	78	%	74	%	96	%
	1,2-Dichloroethane-d4	108	%	105	%	102	%	106	%	110	%	104	%
			fl		fl		fl		fl		fl		fl
Chloromethane		10	U	10	U	28	U	28	U	28	U	10	U
Bromomethane		10	U	10	U	28	U	28	U	28	U	10	U
Vinyl Chloride		10	U	10	U	28	U	28	U	28	U	10	U
Chloroethane		10	U	10	U	28	U	28	U	28	U	10	U
Methylene Chloride		2	BJ	1	JB	35	B	26	B	18	B	2	JB
Acetone		10	U	10	U	160	B	300	B	600	EB	10	U
Carbon Disulfide		5	U	5	U	14	U	14	U	14	U	5	U
1,1-Dichloroethene		5	U	5	U	14	U	90	%	93	%	5	U
1,1-Dichloroethane		5	U	5	U	14	U	14	U	14	U	5	U
1,2-Dichloroethene (total)		5	U	5	U	14	U	14	U	14	U	5	U
Chloroform		0.9	J	1	J	14	U	14	U	14	U	1	J
1,2-Dichloroethane		5	U	5	U	14	U	14	U	14	U	5	U
2-Butanone		10	U	10	U	34		63		130		10	U
1,1,1-Trichloroethane		5	U	5	U	14	U	14	U	14	U	5	U
Carbon Tetrachloride		5	U	5	U	14	U	14	U	14	U	5	U
Vinyl Acetate		10	U	10	U	28	U	28	U	28	U	10	U
Bromodichloromethane		5	U	5	U	14	U	14	U	14	U	5	U
1,2-Dichloropropane		5	U	5	U	14	U	14	U	14	U	5	U
cis-1,3-Dichloropropene		5	U	5	U	14	U	14	U	14	U	5	U
Trichloroethene		5	U	5	U	14	U	84	%	84	%	5	U
Dibromochloromethane		5	U	5	U	14	U	14	U	14	U	5	U
1,1,2-Trichloroethane		5	U	5	U	14	U	14	U	14	U	5	U
Benzene		5	U	5	U	14	U	100	%	100	%	5	U
Trans-1,3-Dichloropropene		5	U	5	U	14	U	14	U	14	U	5	U
Bromoform		5	U	5	U	14	U	14	U	14	U	5	U
4-Methyl-2-pentanone		10	U	10	U	28	U	28	U	28	U	10	U
2-Hexanone		10	U	10	U	28	U	28	U	28	U	10	U
Tetrachloroethene		5	U	5	U	14	U	14	U	14	U	5	U
1,1,2,2-Tetrachloroethane		5	U	5	U	14	U	14	U	14	U	5	U

*= Outside of EPA CLP QC limits.

	Cust ID:	WL01-01-SW	WL01-01-SW(DUP)	WL01-01-SED	WL01-01-SED	WL01-01-SED	WL02-01-SW
	RFW#:	008	009	010	010 MS	010 MSD	011
	Level:	LOW	LOW	LOW	LOW	LOW	LOW
Toluene		5 U	5 U	14 U	99 %	104 %	5 U
Chlorobenzene		5 U	5 U	14 U	92 %	93 %	5 U
Ethylbenzene		5 U	5 U	14 U	14 U	14 U	5 U
Styrene		5 U	5 U	14 U	14 U	14 U	5 U
Xylene (total)		5 U	5 U	14 U	14 U	14 U	5 U

*= Outside of EPA CLP QC limits.

010

Roy F. Weston, Inc. Lionville Laboratory

Volatiles by GC/MS, HSL List

Report Date: 09/23/96 12:14

RFW Batch Number: 9608L555 Client: BLACK AND DECKER Work Order: 02501004001 Page: 4a

011

	Cust ID:	WL02-01-SED	WL02-01-SED	WL03-01-SW	WL03-01-SW	WL03-01-SW	WL03-01-SED
Sample Information	RFW#:	012	012	013	013 MS	013 MSD	014
	Matrix:	SEDIMENT	SEDIMENT	WATER	WATER	WATER	SEDIMENT
	D.F.:	0.962	4.55	1.00	1.00	1.00	1.06
	Units:	UG/KG	UG/KG	UG/L	UG/L	UG/L	UG/KG
	Level:	LOW	LOW REPREP	LOW	LOW	LOW	LOW
Surrogate Recovery	Toluene-d8	109 %	109 %	102 %	104 %	102 %	113 %
	Bromofluorobenzene	69 * %	73 * %	101 %	102 %	102 %	84 %
	1,2-Dichloroethane-d4	94 %	102 %	102 %	104 %	106 %	107 %
		fl	fl	fl	fl	fl	fl
Chloromethane		50 U	240 U	10 U	10 U	10 U	52 U
Bromomethane		50 U	240 U	10 U	10 U	10 U	52 U
Vinyl Chloride		50 U	240 U	10 U	10 U	10 U	52 U
Chloroethane		50 U	240 U	10 U	10 U	10 U	52 U
Methylene Chloride		69 B	220 B	6 B	8 B	5 U	56 B
Acetone		740 B	370 B	10 U	10 U	9 J	100 B
Carbon Disulfide		25 U	120 U	5 U	5 U	5 U	26 U
1,1-Dichloroethene		25 U	120 U	5 U	104 %	101 %	26 U
1,1-Dichloroethane		25 U	120 U	5 U	5 U	5 U	26 U
1,2-Dichloroethene (total)		25 U	120 U	5 U	5 U	5 U	26 U
Chloroform		25 U	120 U	1 J	1 J	1 J	26 U
1,2-Dichloroethane		25 U	120 U	5 U	5 U	5 U	26 U
2-Butanone		170	96 J	10 U	10 U	10 U	26 J
1,1,1-Trichloroethane		25 U	120 U	5 U	5 U	5 U	26 U
Carbon Tetrachloride		25 U	120 U	5 U	5 U	5 U	26 U
Vinyl Acetate		50 U	240 U	10 U	10 U	10 U	52 U
Bromodichloromethane		25 U	120 U	5 U	5 U	5 U	26 U
1,2-Dichloropropane		25 U	120 U	5 U	5 U	5 U	26 U
cis-1,3-Dichloropropene		25 U	120 U	5 U	5 U	5 U	26 U
Trichloroethene		25 U	120 U	5 U	95 %	99 %	26 U
Dibromochloromethane		25 U	120 U	5 U	5 U	5 U	26 U
1,1,2-Trichloroethane		25 U	120 U	5 U	5 U	5 U	26 U
Benzene		25 U	120 U	5 U	96 %	98 %	26 U
Trans-1,3-Dichloropropene		25 U	120 U	5 U	5 U	5 U	26 U
Bromoform		25 U	120 U	5 U	5 U	5 U	26 U
4-Methyl-2-pentanone		50 U	240 U	10 U	10 U	10 U	52 U
2-Hexanone		50 U	240 U	10 U	10 U	10 U	52 U
Tetrachloroethene		25 U	120 U	5 U	5 U	5 U	26 U
1,1,2,2-Tetrachloroethane		25 U	120 U	5 U	5 U	5 U	26 U

*= Outside of EPA CLP QC limits.

RFW Batch Number: 9608L555 Client: BLACK AND DECKER Work Order: 02501004001 Page: 4b

	Cust ID:	WL02-01-SED	WL02-01-SED	WL03-01-SW	WL03-01-SW	WL03-01-SW	WL03-01-SED
	RFW#:	012	012	013	013 MS	013 MSD	014
	Level:	LOW	LOW REPREP	LOW	LOW	LOW	LOW
Toluene		25 U	120 U	5 U	98 %	96 %	26 U
Chlorobenzene		25 U	120 U	5 U	96 %	92 %	26 U
Ethylbenzene		25 U	120 U	5 U	5 U	5 U	26 U
Styrene		25 U	120 U	5 U	5 U	5 U	26 U
Xylene (total)		25 U	120 U	5 U	5 U	5 U	26 U

*= Outside of EPA CLP QC limits.

012

Roy F. Weston, Inc. - Lionville Laboratory
Volatiles by GC/MS, HSL List
Report Date: 09/23/96 12:14

RFW Batch Number: 9608L555 Client: BLACK AND DECKER Work Order: 02501004001 Page: 5a

013

	Cust ID:	TRIP BLANK		VBLKBV		VBLKHK		VBLKHK BS		VBLKCL		VBLKCK	
Sample Information	RFW#:	015		96LVX201-MB1		96LVK219-MB1		96LVK219-MB1		96LVK220-MB1		96LVW166-MB1	
	Matrix:	WATER		WATER		SOIL		SOIL		SOIL		SOIL	
	D.F.:	1.00		1.00		1.00		1.00		1.00		1.00	
	Units:	UG/L		UG/L		UG/KG		UG/KG		UG/KG		UG/KG	
	Level:	LOW		LOW		MED		MED		MED		LOW	
Surrogate Recovery	Toluene-d8	99	%	102	%	106	%	105	%	101	%	98	%
	Bromofluorobenzene	96	%	102	%	105	%	106	%	100	%	88	%
	1,2-Dichloroethane-d4	100	%	98	%	102	%	96	%	102	%	97	%
			fl		fl		fl		fl		fl		fl
Chloromethane		10	U	10	U	1200	U	1200	U	1200	U	10	U
Bromomethane		10	U	10	U	1200	U	1200	U	1200	U	10	U
Vinyl Chloride		10	U	10	U	1200	U	1200	U	1200	U	10	U
Chloroethane		10	U	10	U	1200	U	1200	U	1200	U	10	U
Methylene Chloride		2	JB	4	J	770		1000	B	1400		5	J
Acetone		10	U	8	J	420	J	390	JB	390	J	6	J
Carbon Disulfide		5	U	5	U	620	U	620	U	620	U	5	U
1,1-Dichloroethene		5	U	5	U	620	U	95	%	620	U	5	U
1,1-Dichloroethane		5	U	5	U	620	U	620	U	620	U	5	U
1,2-Dichloroethene (total)		5	U	5	U	620	U	620	U	620	U	5	U
Chloroform		5	U	5	U	620	U	620	U	620	U	5	U
1,2-Dichloroethane		5	U	5	U	620	U	620	U	620	U	5	U
2-Butanone		10	U	10	U	1200	U	1200	U	1200	U	10	U
1,1,1-Trichloroethane		5	U	5	U	620	U	620	U	620	U	5	U
Carbon Tetrachloride		5	U	5	U	620	U	620	U	620	U	5	U
Vinyl Acetate		10	U	10	U	1200	U	1200	U	1200	U	10	U
Bromodichloromethane		5	U	5	U	620	U	620	U	620	U	5	U
1,2-Dichloropropane		5	U	5	U	620	U	620	U	620	U	5	U
cis-1,3-Dichloropropene		5	U	5	U	620	U	620	U	620	U	5	U
Trichloroethene		5	U	5	U	620	U	93	%	620	U	5	U
Dibromochloromethane		5	U	5	U	620	U	620	U	620	U	5	U
1,1,2-Trichloroethane		5	U	5	U	620	U	620	U	620	U	5	U
Benzene		5	U	5	U	620	U	92	%	620	U	5	U
Trans-1,3-Dichloropropene		5	U	5	U	620	U	620	U	620	U	5	U
Bromoform		5	U	5	U	620	U	620	U	620	U	5	U
4-Methyl-2-pentanone		10	U	10	U	1200	U	1200	U	1200	U	10	U
2-Hexanone		10	U	10	U	1200	U	1200	U	1200	U	10	U
Tetrachloroethene		5	U	5	U	620	U	620	U	620	U	5	U
1,1,2,2-Tetrachloroethane		5	U	5	U	620	U	620	U	620	U	5	U

*= Outside of EPA CLP QC limits.

	Cust ID: TRIP BLANK	VBLKBV	VBLKHK	VBLKHK BS	VBLKCL	VBLKCK
	RFW#: 015	96LVX201-MB1	96LVK219-MB1	96LVK219-MB1	96LVK220-MB1	96LVW166-MB1
	Level: LOW	LOW	MED	MED	MED	LOW
Toluene	5 U	5 U	620 U	92 %	620 U	5 U
Chlorobenzene	5 U	5 U	620 U	92 %	620 U	5 U
Ethylbenzene	5 U	5 U	620 U	620 U	620 U	5 U
Styrene	5 U	5 U	620 U	620 U	620 U	5 U
Xylene (total)	5 U	5 U	620 U	620 U	620 U	5 U

*= Outside of EPA CLP QC limits.

014

Roy F. Weston, Inc. - Lionville Laboratory
Volatiles by GC/MS, HSL List
Report Date: 09/23/96 12:14

RFW Batch Number: 9608L555 Client: BLACK AND DECKER Work Order: 02501004001 Page: 6a

015

Sample Information	Cust ID:	VBLKCM	VBLKCM BS	VBLKHJ	VBLKHJ BS	VBLKCF	VBLKCF BS
	RFW#:	96LVX203-MB1	96LVX203-MB1	96LVW167-MB1	96LVW167-MB1	96LVX204-MB1	96LVX204-MB1
	Matrix:	WATER	WATER	SOIL	SOIL	WATER	WATER
	D.F.:	1.00	1.00	1.00	1.00	1.00	1.00
	Units:	UG/L	UG/L	UG/KG	UG/KG	UG/L	UG/L
	Level:	LOW	LOW	LOW	LOW	LOW	LOW
Surrogate Recovery	Toluene-d8	103 %	108 %	97 %	97 %	100 %	98 %
	Bromofluorobenzene	102 %	107 %	94 %	98 %	94 %	95 %
	1,2-Dichloroethane-d4	104 %	102 %	95 %	99 %	100 %	100 %
		fl	fl	fl	fl	fl	fl
Chloromethane		10 U	10 U	10 U	10 U	10 U	10 U
Bromomethane		10 U	10 U	10 U	10 U	10 U	10 U
Vinyl Chloride		10 U	10 U	10 U	10 U	10 U	10 U
Chloroethane		10 U	10 U	10 U	10 U	10 U	10 U
Methylene Chloride		4 J	8 B	13	9 B	1 J	1 JB
Acetone		2 J	10 U	9 J	8 JB	10 U	10 U
Carbon Disulfide		5 U	5 U	5 U	5 U	5 U	5 U
1,1-Dichloroethene		5 U	110 %	5 U	95 %	5 U	104 %
1,1-Dichloroethane		5 U	5 U	5 U	5 U	5 U	5 U
1,2-Dichloroethene (total)		5 U	5 U	5 U	5 U	5 U	5 U
Chloroform		5 U	5 U	5 U	5 U	5 U	5 U
1,2-Dichloroethane		5 U	5 U	5 U	5 U	5 U	5 U
2-Butanone		10 U	10 U	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane		5 U	5 U	5 U	5 U	5 U	5 U
Carbon Tetrachloride		5 U	5 U	5 U	5 U	5 U	5 U
Vinyl Acetate		10 U	10 U	10 U	10 U	10 U	10 U
Bromodichloromethane		5 U	5 U	5 U	5 U	5 U	5 U
1,2-Dichloropropane		5 U	5 U	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene		5 U	5 U	5 U	5 U	5 U	5 U
Trichloroethene		5 U	101 %	5 U	93 %	5 U	100 %
Dibromochloromethane		5 U	5 U	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane		5 U	5 U	5 U	5 U	5 U	5 U
Benzene		5 U	100 %	5 U	93 %	5 U	100 %
Trans-1,3-Dichloropropene		5 U	5 U	5 U	5 U	5 U	5 U
Bromoform		5 U	5 U	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone		10 U	10 U	10 U	10 U	10 U	10 U
2-Hexanone		10 U	10 U	10 U	10 U	10 U	10 U
Tetrachloroethene		5 U	5 U	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane		5 U	5 U	5 U	5 U	5 U	5 U

*= Outside of EPA CLP QC limits.

RFW Batch Number: 9608L555 Client: BLACK AND DECKER Work Order: 02501004001 Page: 6b

	Cust ID:	VBLKCM	VBLKCM BS	VBLKHJ	VBLKHJ BS	VBLKCF	VBLKCF BS
	RFW#:	96LVX203-MB1	96LVX203-MB1	96LVW167-MB1	96LVW167-MB1	96LVX204-MB1	96LVX204-MB1
	Level:	LOW	LOW	LOW	LOW	LOW	LOW
Toluene		5 U	102 %	5 U	94 %	5 U	98 %
Chlorobenzene		5 U	102 %	5 U	95 %	5 U	95 %
Ethylbenzene		5 U	5 U	5 U	5 U	5 U	5 U
Styrene		5 U	5 U	5 U	5 U	5 U	5 U
Xylene (total)		5 U	5 U	5 U	5 U	5 U	5 U

*= Outside of EPA CLP QC limits.

016

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

EL01-01-SW

Lab Name: Roy F. Weston, Inc. Work Order: 02501004001

Client: BLACK AND DECKER

Matrix: WATER

Lab Sample ID: 9608L555-001

Sample wt/vol: 5.00 (g/mL) ML

Lab File ID: X8G17

Level: (low/med) LOW

Date Received: 08/08/96

% Moisture: not dec. _____

Date Analyzed: 08/16/96

Column: (pack/cap) CAP

Dilution Factor: 1.00

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

EL01-01-SED

Lab Name: Roy F. Weston, Inc. Work Order: 02501004001

Client: BLACK AND DECKER

Matrix: SEDIMENT

Lab Sample ID: 9608L555-002

Sample wt/vol: 4.00 (g/mL) G

Lab File ID: K8J25

Level: (low/med) MED

Date Received: 08/08/96

% Moisture: not dec. 92

Date Analyzed: 08/20/96

Column: (pack/cap) CAP

Dilution Factor: 1.00

Number TICs found: 5

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN	23.182	200000	J
2.		C4-ALKYLBENZENE	23.597	200000	J
3.		C4-ALKYLBENZENE	24.059	200000	J
4.		UNKNOWN	24.174	300000	J
5.		UNKNOWN	24.613	200000	J

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

EL02-01-SW

Lab Name: Roy F. Weston, Inc. Work Order: 02501004001

Client: BLACK AND DECKER

Matrix: WATER

Lab Sample ID: 9608L555-003

Sample wt/vol: 5.00 (g/mL) ML

Lab File ID: X8G18

Level: (low/med) LOW

Date Received: 08/08/96

% Moisture: not dec. _____

Date Analyzed: 08/16/96

Column: (pack/cap) CAP

Dilution Factor: 1.00

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

EL02-01-SED

Lab Name: Roy F. Weston, Inc. Work Order: 02501004001

Client: BLACK AND DECKER

Matrix: SEDIMENT

Lab Sample ID: 9608L555-004

Sample wt/vol: 5.20 (g/mL) G

Lab File ID: W081908

Level: (low/med) LOW

Date Received: 08/08/96

% Moisture: not dec. 92

Date Analyzed: 08/19/96

Column: (pack/cap) CAP

Dilution Factor: 0.962

Number TICs found: 5

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN	22.200	40000	J
2.		UNKNOWN	22.417	30000	J
3.		UNKNOWN	22.550	70000	J
4.		UNKNOWN	22.933	30000	J
5.		UNKNOWN	23.167	70000	J

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

EL02-01-SED(DUP)

Lab Name: Roy F. Weston, Inc. Work Order: 02501004001

Client: BLACK AND DECKER

Matrix: SEDIMENT

Lab Sample ID: 9608L555-005

Sample wt/vol: 4.00 (g/mL) G

Lab File ID: K8J23

Level: (low/med) MED

Date Received: 08/08/96

% Moisture: not dec. 90

Date Analyzed: 08/20/96

Column: (pack/cap) CAP

Dilution Factor: 1.00

Number TICs found: 5

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	23.184	200000	J
2.	UNKNOWN	23.392	100000	J
3.	UNKNOWN	23.507	200000	J
4.	UNKNOWN	23.923	100000	J
5.	UNKNOWN	24.177	200000	J

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

EL03-01-SW

Lab Name: Roy F. Weston, Inc. Work Order: 02501004001

Client: BLACK AND DECKER

Matrix: WATER

Lab Sample ID: 9608L555-006

Sample wt/vol: 5.00 (g/mL) ML

Lab File ID: X8H18

Level: (low/med) LOW

Date Received: 08/08/96

% Moisture: not dec. _____

Date Analyzed: 08/18/96

Column: (pack/cap) CAP

Dilution Factor: 1.00

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

EL03-01-SED

Lab Name: Roy F. Weston, Inc. Work Order: 02501004001

Client: BLACK AND DECKER

Matrix: SEDIMENT

Lab Sample ID: 9608L555-007

Sample wt/vol: 4.00 (g/mL) G

Lab File ID: K8J21

Level: (low/med) MED

Date Received: 08/08/96

% Moisture: not dec. 70

Date Analyzed: 08/20/96

Column: (pack/cap) CAP

Dilution Factor: 1.00

Number TICs found: 5

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN	23.200	80000	J
2.		UNKNOWN	23.385	50000	J
3.		UNKNOWN	23.500	60000	J
4.		UNKNOWN	23.916	50000	J
5.		UNKNOWN	24.170	60000	J

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

WL01-01-SW

Lab Name: Roy F. Weston, Inc. Work Order: 02501004001

Client: BLACK AND DECKER

Matrix: WATER

Lab Sample ID: 9608L555-008

Sample wt/vol: 5.00 (g/mL) ML

Lab File ID: X8H19

Level: (low/med) LOW

Date Received: 08/08/96

% Moisture: not dec. _____

Date Analyzed: 08/18/96

Column: (pack/cap) CAP

Dilution Factor: 1.00

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

WL01-01-SW(DUP)

Lab Name: Roy F. Weston, Inc. Work Order: 02501004001

Client: BLACK AND DECKER

Matrix: WATER

Lab Sample ID: 9608L555-009

Sample wt/vol: 5.00 (g/mL) ML

Lab File ID: X8H20

Level: (low/med) LOW

Date Received: 08/08/96

% Moisture: not dec. _____

Date Analyzed: 08/18/96

Column: (pack/cap) CAP

Dilution Factor: 1.00

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

WL01-01-SED

Lab Name: Roy F. Weston, Inc. Work Order: 02501004001

Client: BLACK AND DECKER

Matrix: SEDIMENT

Lab Sample ID: 9608L555-010

Sample wt/vol: 4.90 (g/mL) G

Lab File ID: W081905

Level: (low/med) LOW

Date Received: 08/08/96

% Moisture: not dec. 64

Date Analyzed: 08/19/96

Column: (pack/cap) CAP

Dilution Factor: 1.02

Number TICs found: 5

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN	22.200	200	J
2.		UNKNOWN	22.400	200	J
3.		UNKNOWN	22.533	200	J
4.		UNKNOWN	22.900	200	J
5.		UNKNOWN	23.150	200	J

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

WL02-01-SW

Lab Name: Roy F. Weston, Inc. Work Order: 02501004001

Client: BLACK AND DECKER

Matrix: WATER

Lab Sample ID: 9608L555-011

Sample wt/vol: 5.00 (g/mL) ML

Lab File ID: X8H21

Level: (low/med) LOW

Date Received: 08/08/96

% Moisture: not dec. _____

Date Analyzed: 08/18/96

Column: (pack/cap) CAP

Dilution Factor: 1.00

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

WL02-01-SED

Lab Name: Roy F. Weston, Inc. Work Order: 02501004001

Client: BLACK AND DECKER

Matrix: SEDIMENT

Lab Sample ID: 9608L555-012

Sample wt/vol: 5.20 (g/mL) G

Lab File ID: W081906

Level: (low/med) LOW

Date Received: 08/08/96

% Moisture: not dec. 81

Date Analyzed: 08/19/96

Column: (pack/cap) CAP

Dilution Factor: 0.962

Number TICs found: 5

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN	22.183	3000	J
2.		UNKNOWN	22.400	4000	J
3.		UNKNOWN	22.533	4000	J
4.		UNKNOWN	22.900	3000	J
5.		UNKNOWN	23.150	4000	J

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

WL03-01-SW

Lab Name: Roy F. Weston, Inc. Work Order: 02501004001

Client: BLACK AND DECKER

Matrix: WATER

Lab Sample ID: 9608L555-013

Sample wt/vol: 5.00 (g/mL) ML

Lab File ID: X8H23

Level: (low/med) LOW

Date Received: 08/08/96

% Moisture: not dec. _____

Date Analyzed: 08/18/96

Column: (pack/cap) CAP

Dilution Factor: 1.00

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

WL03-01-SED

Lab Name: Roy F. Weston, Inc. Work Order: 02501004001

Client: BLACK AND DECKER

Matrix: SEDIMENT

Lab Sample ID: 9608L555-014

Sample wt/vol: 4.70 (g/mL) G

Lab File ID: W081907

Level: (low/med) LOW

Date Received: 08/08/96

% Moisture: not dec. 80

Date Analyzed: 08/19/96

Column: (pack/cap) CAP

Dilution Factor: 1.06

Number TICs found: 5

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN	22.183	100	J
2.		UNKNOWN	22.383	200	J
3.		UNKNOWN	22.533	200	J
4.		UNKNOWN	22.900	200	J
5.		UNKNOWN	23.150	200	J

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

TRIP BLANK

Lab Name: Roy F. Weston, Inc. Work Order: 02501004001

Client: BLACK AND DECKER

Matrix: WATER

Lab Sample ID: 9608L555-015

Sample wt/vol: 5.00 (g/mL) ML

Lab File ID: X8H22

Level: (low/med) LOW

Date Received: 08/08/96

% Moisture: not dec. _____

Date Analyzed: 08/18/96

Column: (pack/cap) CAP

Dilution Factor: 1.00

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

VBLKBV

Lab Name: Roy F. Weston, Inc. Work Order: 02501004001

Client: BLACK AND DECKER

Matrix: WATER

Lab Sample ID: 96LVX201-MB1

Sample wt/vol: 5.00 (g/mL) ML

Lab File ID: X8G04

Level: (low/med) LOW

Date Received: 08/16/96

% Moisture: not dec. _____

Date Analyzed: 08/16/96

Column: (pack/cap) CAP

Dilution Factor: 1.00

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

VBLKHK

Lab Name: Roy F. Weston, Inc. Work Order: 02501004001

Client: BLACK AND DECKER

Matrix: SOIL

Lab Sample ID: 96LVK219-MB1

Sample wt/vol: 4.00 (g/mL) G

Lab File ID: K8J19

Level: (low/med) MED

Date Received: 08/19/96

% Moisture: not dec. 0

Date Analyzed: 08/19/96

Column: (pack/cap) CAP

Dilution Factor: 1.00

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

VBLKCL

Lab Name: Roy F. Weston, Inc. Work Order: 02501004001

Client: BLACK AND DECKER

Matrix: SOIL

Lab Sample ID: 96LVK220-MB1

Sample wt/vol: 4.00 (g/mL) G

Lab File ID: K8K05

Level: (low/med) MED

Date Received: 08/20/96

% Moisture: not dec. 0

Date Analyzed: 08/20/96

Column: (pack/cap) CAP

Dilution Factor: 1.00

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

VBLKCK

Lab Name: Roy F. Weston, Inc. Work Order: 02501004001

Client: BLACK AND DECKER

Matrix: SOIL

Lab Sample ID: 96LVW166-MB1

Sample wt/vol: 5.00 (g/mL) G

Lab File ID: W081904

Level: (low/med) LOW

Date Received: 08/19/96

% Moisture: not dec. 0

Date Analyzed: 08/19/96

Column: (pack/cap) CAP

Dilution Factor: 1.00

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				

1E

CLIENT SAMPLE NO.

VBLKCM

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Roy F. Weston, Inc. Work Order: 02501004001

Client: BLACK AND DECKER

Matrix: WATER

Lab Sample ID: 96LVX203-MB1

Sample wt/vol: 5.00 (g/mL) ML

Lab File ID: X8H13

Level: (low/med) LOW

Date Received: 08/17/96

% Moisture: not dec. _____

Date Analyzed: 08/17/96

Column: (pack/cap) CAP

Dilution Factor: 1.00

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

VBLKHJ

Lab Name: Roy F. Weston, Inc. Work Order: 02501004001

Client: BLACK AND DECKER

Matrix: SOIL

Lab Sample ID: 96LVW167-MB1

Sample wt/vol: 5.00 (g/mL) G

Lab File ID: W082004

Level: (low/med) LOW

Date Received: 08/20/96

% Moisture: not dec. 0

Date Analyzed: 08/20/96

Column: (pack/cap) CAP

Dilution Factor: 1.00

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

VBLKCF

Lab Name: Roy F. Weston, Inc. Work Order: 02501004001

Client: BLACK AND DECKER

Matrix: WATER

Lab Sample ID: 96LVX204-MB1

Sample wt/vol: 5.00 (g/mL) ML

Lab File ID: X8I04

Level: (low/med) LOW

Date Received: 08/18/96

% Moisture: not dec. _____

Date Analyzed: 08/18/96

Column: (pack/cap) CAP

Dilution Factor: 1.00

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				

Roy F. Weston, Inc. - Lionville Laboratory
VOA ANALYTICAL DATA PACKAGE FOR
BLACK AND DECKER

DATE RECEIVED: 08/08/96 RFW LOT # :9608L555

CLIENT ID	RFW #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
EL01-01-SW	001	W	96LVX201	08/07/96	N/A	08/16/96
EL01-01-SED	002 M1	SE	96LVK219	08/07/96	N/A	08/20/96
EL01-01-SED	002 N1	SE	96LVK220	08/07/96	N/A	08/20/96
EL02-01-SW	003	W	96LVX201	08/07/96	N/A	08/16/96
EL02-01-SED	004	SE	96LVW166	08/07/96	N/A	08/19/96
EL02-01-SED	004 N1	SE	96LVK219	08/07/96	N/A	08/20/96
EL02-01-SED(DUP)	005 M1	SE	96LVK219	08/07/96	N/A	08/20/96
EL02-01-SED(DUP)	005 N1	SE	96LVK220	08/07/96	N/A	08/20/96
EL03-01-SW	006	W	96LVX203	08/07/96	N/A	08/18/96
EL03-01-SED	007 M1	SE	96LVK219	08/07/96	N/A	08/20/96
EL03-01-SED	007 MS M1	SE	96LVK219	08/07/96	N/A	08/19/96
EL03-01-SED	007 MSD M1	SE	96LVK219	08/07/96	N/A	08/20/96
WL01-01-SW	008	W	96LVX203	08/07/96	N/A	08/18/96
WL01-01-SW(DUP)	009	W	96LVX203	08/07/96	N/A	08/18/96
WL01-01-SED	010	SE	96LVW166	08/07/96	N/A	08/19/96
WL01-01-SED	010 MS	SE	96LVW167	08/07/96	N/A	08/20/96
WL01-01-SED	010 MSD	SE	96LVW167	08/07/96	N/A	08/20/96
WL02-01-SW	011	W	96LVX203	08/07/96	N/A	08/18/96
WL02-01-SED	012	SE	96LVW166	08/07/96	N/A	08/19/96
WL02-01-SED	012 R1	SE	96LVW166	08/07/96	N/A	08/19/96
WL03-01-SW	013	W	96LVX203	08/07/96	N/A	08/18/96
WL03-01-SW	013 MS	W	96LVX203	08/07/96	N/A	08/18/96
WL03-01-SW	013 MSD	W	96LVX204	08/07/96	N/A	08/18/96
WL03-01-SED	014	SE	96LVW166	08/07/96	N/A	08/19/96
TRIP BLANK	015	W	96LVX203	08/07/96	N/A	08/18/96
LAB QC:						
VBLKBV	MB1	W	96LVX201	N/A	N/A	08/16/96
VBLKHK	MB1	S	96LVK219	N/A	N/A	08/19/96
VBLKHK	MB1 BS	S	96LVK219	N/A	N/A	08/20/96
VBLKCL	MB1	S	96LVK220	N/A	N/A	08/20/96
VBLKCK	MB1	S	96LVW166	N/A	N/A	08/19/96
VBLKCM	MB1	W	96LVX203	N/A	N/A	08/17/96
VBLKCM	MB1 BS	W	96LVX203	N/A	N/A	08/17/96
VBLKHJ	MB1	S	96LVW167	N/A	N/A	08/20/96
VBLKHJ	MB1 BS	S	96LVW167	N/A	N/A	08/20/96
VBLKCF	MB1	W	96LVX204	N/A	N/A	08/18/96
VBLKCF	MB1 BS	W	96LVX204	N/A	N/A	08/18/96

WESTON Analytics Use Only

96C8L555

Custody Transfer Record/Lab Work Request

WESTON MANAGERS OF SCIENCE RESOURCES CONSULTANTS

040

Client Conf. - Hampstead Black + Decker

Est. Final Proj. Sampling Date 7 August 96

Work Order # 02501-004-001

Project Contact/Phone # CHRIS HARRIS/610-701-7203

AD Project Manager DIANA SAGGES

QC STD Del STD TAT STD 30 DAY

Date Rec'd 8/6/96 Date Due 9-7-96

Account # BLACK & DECK 8/6/96

Refrigerator #		1
#/Type Container	Liquid	2/CG
	Solid	1/CG
Volume	Liquid	40ml
	Solid	120ml
Preservatives	Liq.	HCl

ANALYSES REQUESTED →

ORGANIC: VOA | BNA | Pest/PCB | Herb

INORG: Metal | CN

WESTON Analytics Use Only

8240 8270

MATRIX CODES:
S - Soil
SE - Sediment
SO - Solid
SL - Sludge
W - Water
O - Oil
A - Air
DS - Drum Solids
DL - Drum Liquids
L - EP/TCLP Leachate
WI - Wipe
X - Other
F - Fish

Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected															
001	EL01-01-SW			W	8/7/96	0900	X														
2	EL01-01-SED			SE		0905	X														
3	EL02-01-SW			W		0915	X														
4	EL02-01-SED			SE		0920	X														
5	EL02-01-SED (DUP.)			SE		0920	X														
6	EL03-01-SW			W		0930	X														
7	EL03-01-SED			SE		0935	X														
8	WL01-01-SW			W		1005	X														
9	WL01-01-SW (DUP.)			W		1005	X														
010	WL01-01-SED			SE		1010	X														

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

Special Instructions:

DATE/REVISIONS:

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____

16.0°C

WESTON Analytics Use Only

Samples were:
1) Shipped ___ or Hand Delivered ✓
Airbill # _____
2) Ambient or Chilled
3) Received in Good Condition Y or N
4) Labels Indicate Properly Preserved Y or N
5) Received Within Holding Times Y or N

COC Tape Was:
1) Present on Outer Package Y or N
2) Unbroken on Outer Package Y or N
3) Present on Sample Y or N
4) Unbroken on Sample Y or N
COC Record Present Upon Sample Rec't Y or N

Discrepancies Between Samples Labels and COC Record? Y or N
NOTES:

Relinquished by	Received by	Date	Time
	Fedex	8/8/96	1000

Relinquished by	Received by	Date	Time

RFW 21-91-001/A-7/91 ___ L372 ___ L373 ___ L375 ___ L377 ___ L378 Ref# _____ Cooler# _____ 381-596a

WESTON Analytics Use Only

9608555

Custody Transfer Record/Lab Work Request

WESTON MANAGERS OF SCIENCE CONSULTANTS

041

Client Conf. HAMPSTEAD Black + Decker 8/8/96

Est. Final Proj. Sampling Date 7 August 96

Work Order # 02501-004-001

Project Contact/Phone # Chris Harris/610-701-7203

AD Project Manager D. Saggese

QC ____ Del ____ TAT Standard

Date Rec'd 8/8/96 Date Due ____

Account # ____

Refrigerator # 1

#/Type Container	Liquid	2/G
	Solid	1/C8
Volume	Liquid	40
	Solid	120
Preservatives	Liquid	HCl

ANALYSES REQUESTED → ORGANIC: VOA, BNA, Pest/PCB, Herb; INORG: Metal, CN

WESTON Analytics Use Only #

MATRIX CODES: S - Soil; SE - Sediment; SO - Solid; SL - Sludge; W - Water; O - Oil; A - Air; DS - Drum Solids; DL - Drum Liquids; L - EP/TCLP Leachate; WI - Wipe; X - Other; F - Fish

Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected	8240 8270
011	WL02-01-SW			W	8/7/96	1020	X
12	WL02-01-SED			SE		1025	X
13	WL03-01-SW			W		1035	X
14	WL03-01-SED			SE		1040	X
15	TRIP BLANK			W		—	X

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

Special Instructions:

DATE/REVISIONS:

1. ____
2. ____
3. ____
4. ____
5. ____
6. ____

WESTON Analytics Use Only

Samples were: 1) Shipped ___ or Hand Delivered ___ Airbill # ____ 2) Ambient or Chilled 3) Received in Good Condition Y or N 4) Labels Indicate Properly Preserved Y or N 5) Received Within Holding Times Y or N

COC Tape was: 1) Present on Outer Package Y or N 2) Unbroken on Outer Package Y or N 3) Present on Sample Y or N 4) Unbroken on Sample Y or N

COC Record Present Upon Sample Rec't Y or N

Discrepancies Between Samples Labels and COC Record? Y or N

NOTES:

Relinquished by	Received by	Date	Time
[signature]	Jaber	8/8/96	1000

Relinquished by	Received by	Date	Time

RFW 21-21-001/A-7/91 ____ L372 ____ L373 ____ L375 ____ L377 L378 Ref# Cooler# 381-596a

FEBRUARY 1997

Roy F. Weston, Inc.
208 Welsh Pool Road
Lionville, Pennsylvania 19341-1333
® 610-701-6100 • Fax 610-701-6140

MANAGERS DESIGNERS/CONSULTANTS

LIONVILLE LABORATORY
ANALYTICAL REPORT

Client : BLACK AND DECKER
RFW# : 9702L324

W.O. #: 02501-004-001-9999-00
Date Received: 02-20-97

GC/MS VOLATILE

The set of samples consisted of eight (8) water samples and seven (7) sediment samples collected on 02-20-97.

The samples were analyzed according to criteria set forth in SW 846 Method 8240 for TCL Volatile target compounds on 02-24,25,26,27,28-97.

The following is a summary of the QC results accompanying these sample results and a description of any problems encountered during their analyses:

1. The cooler temperature upon receipt has been recorded on the chain-of-custody.

2. The required holding time for analysis was met.

3. Non-target compounds were detected in these samples.

4. The following samples required dilution/medium level analysis because they contained high levels of non-target compounds:

Sample ID	Dilution Factor
EL01-02-SED	Medium
EL02-02-SED	Low & 5 (nominal)
EL03-02-SED	Low & 5 (nominal)
WL01-02-SED DUP.	Low & 5 (nominal)
WL02-02-SED, RE	Low & 5 (nominal)

5. Six (6) of eighty-seven (87) surrogate recoveries were outside EPA QC limits. Sample EL01-02-SED was analyzed medium level on 02-27-97 and reported. Sample WL02-02-SED was reanalyzed on 02-26-97 and reported. The analysis of sample WL03-02-SED fulfilled the reanalysis requirement for its associated matrix spike sample.

6. All matrix spike recoveries were within EPA QC limits.

7. All blank spike recoveries were within EPA QC limits.

8. The method blanks contained the common contaminants Methylene Chloride and Acetone at levels less than 4x the CRQL.

Bruce C. Ingalls unit leader for J. Michael Taylor
Vice President and Laboratory Manager
Lionville Analytical Laboratory

3-17-97
Date

mmz/voa/02-324v.cn

GLOSSARY OF VOA DATA

DATA QUALIFIERS

U = Compound was analyzed for but not detected. The associated numerical value is the estimated sample quantitation limit which is included and corrected for dilution and percent moisture.

J = Indicates an estimated value. This flag is used under the following circumstances: 1) when estimating a concentration for tentatively identified compounds (TICs) where a 1:1 response is assumed; or 2) when the mass spectral data indicate the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. For example, if the limit of detection is 10 ug/L and a concentration of 3 ug/L is calculated, it is reported as 3J.

B = This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination. This flag is also used for a TIC as well as for a positively identified TCL compound.

E = Indicates that the compound was detected beyond the calibration range and was subsequently analyzed at a dilution.

D = Identifies all compounds identified in an analysis at a secondary dilution factor.

I = Interference.

NQ = Result qualitatively confirmed but not able to quantify.

N = Indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds (TICs), where the identification is based on a mass spectral library search. It is applied to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the N code is not used.

X = This flag is used for a TIC compound which is quantified relative to a response factor generated from a daily calibration standard (rather than quantified relative to the closest internal standard).

Y = Additional qualifiers used as required are explained in the case narrative.

WESTON

GLOSSARY OF VOA DATA

ABBREVIATIONS

BS = Indicates blank spike in which reagent grade water is spiked with the CLP matrix spike solutions and carried through all the steps in the method. Spike recoveries are reported.

BSD = Indicates blank spike duplicate.

MS = Indicates matrix spike.

MSD = Indicates matrix spike duplicate.

DL = Suffix added to sample number to indicate that results are from a diluted analysis.

NA = Not Applicable.

DF = Dilution Factor.

NR = Not Required.

SP, Z = Indicates Spiked Compound.

Roy F. Weston, Inc. - Lionville Laboratory

Volatiles by GC/MS, HSL List

Report Date: 03/16/97 22:00

RFW Batch Number: **9702L324** Client: **BLACK AND DECKER** Work Order: 02501004001 Page: 1a

	Cust ID:	EL01-02-SW	EL01-02-SW	EL01-02-SW	EL01-02-SW DUP.	EL01-02-SED	EL01-02-SED
Sample Information	RFW#:	001	001 MS	001 MSD	002	003	003
	Matrix:	WATER	WATER	WATER	WATER	SEDIMENT	SEDIMENT
	D.F.:	1.00	1.00	1.00	1.00	4.55	1.00
	Units:	UG/L	UG/L	UG/L	UG/L	UG/KG	UG/KG
	Level:	LOW	LOW	LOW	LOW	LOW	MED REPREP
Surrogate Recovery	Toluene-d8	93 %	100 %	100 %	96 %	122 * %	75 * %
	Bromofluorobenzene	88 %	95 %	95 %	92 %	66 * %	77 %
	1,2-Dichloroethane-d4	99 %	105 %	105 %	105 %	110 %	75 %
		fl	fl	fl	fl	fl	fl
Chloromethane		10 U	10 U	10 U	10 U	450 U	12000 U
Bromomethane		10 U	10 U	10 U	10 U	450 U	12000 U
Vinyl Chloride		10 U	10 U	10 U	10 U	450 U	12000 U
Chloroethane		10 U	10 U	10 U	10 U	450 U	12000 U
Methylene Chloride		5 U	5 U	5 U	5 U	490 B	11000 B
Acetone		54 B	47 B	47 B	53 B	2800 B	12000 U
Carbon Disulfide		5 U	5 U	5 U	5 U	100 J	6200 U
1,1-Dichloroethene		5 U	104 %	103 %	5 U	230 U	6200 U
1,1-Dichloroethane		5 U	5 U	5 U	5 U	230 U	6200 U
1,2-Dichloroethene (total)		5 U	5 U	5 U	5 U	230 U	6200 U
Chloroform		3 J	3 J	3 J	3 J	230 U	6200 U
1,2-Dichloroethane		5 U	5 U	5 U	5 U	230 U	6200 U
2-Butanone		10 U	10 U	10 U	10 U	810	12000 U
1,1,1-Trichloroethane		5 U	5 U	5 U	5 U	230 U	6200 U
Carbon Tetrachloride		5 U	5 U	5 U	5 U	230 U	6200 U
Vinyl Acetate		10 U	10 U	10 U	10 U	450 U	12000 U
Bromodichloromethane		5 U	5 U	5 U	5 U	230 U	6200 U
1,2-Dichloropropane		5 U	5 U	5 U	5 U	230 U	6200 U
cis-1,3-Dichloropropene		5 U	5 U	5 U	5 U	230 U	6200 U
Trichloroethene		5 U	107 %	107 %	5 U	230 U	6200 U
Dibromochloromethane		5 U	5 U	5 U	5 U	230 U	6200 U
1,1,2-Trichloroethane		5 U	5 U	5 U	5 U	230 U	6200 U
Benzene		5 U	107 %	107 %	5 U	230 U	6200 U
Trans-1,3-Dichloropropene		5 U	5 U	5 U	5 U	230 U	6200 U
Bromoform		5 U	5 U	5 U	5 U	230 U	6200 U
4-Methyl-2-pentanone		10 U	10 U	10 U	10 U	450 U	12000 U
2-Hexanone		10 U	10 U	10 U	10 U	450 U	12000 U
Tetrachloroethene		5 U	5 U	5 U	5 U	230 U	6200 U
1,1,2,2-Tetrachloroethane		5 U	5 U	5 U	5 U	230 U	6200 U

*= Outside of EPA CLP QC limits.

RFW Batch Number: **9702L324** Client: **BLACK AND DECKER** Work Order: 02501004001 Page: 1b

	Cust ID:	**EL01-02-SW**	**EL01-02-SW**	**EL01-02-SW**	**EL01-02-SW DUP.**	**EL01-02-SED**	**EL01-02-SED**
	RFW#:	**001**	**001 MS**	**001 MSD**	**002**	**003**	**003**
	Level:	LOW	LOW	LOW	LOW	LOW	MED REPREP
Toluene		5 U	108 %	108 %	5 U	230 U	6200 U
Chlorobenzene		5 U	104 %	103 %	5 U	230 U	6200 U
Ethylbenzene		5 U	5 U	5 U	5 U	110 J	6200 U
Styrene		5 U	5 U	5 U	5 U	230 U	6200 U
Xylene (total)		5 U	5 U	5 U	5 U	1200	6200 U

*= Outside of EPA CLP QC limits.

900

Roy F. Weston, Inc. - Lionville Laboratory

Volatiles by GC/MS, HSL List — Report Date: 03/16/97 22:00

RFW Batch Number: **9702L324** Client: **BLACK AND DECKER** Work Order: 02501004001 Page: 2a

	Cust ID:	EL02-02-SW	EL02-02-SED	EL03-02-SW	EL03-02-SED	WL01-02-SW	WL01-02-SED
Sample Information	RFW#:	004	005	006	007	008	009
	Matrix:	WATER	SEDIMENT	WATER	SEDIMENT	WATER	SEDIMENT
	D.F.:	1.00	4.55	1.00	5.00	1.00	1.04
	Units:	UG/L	UG/KG	UG/L	UG/KG	UG/L	UG/KG
	Level:	LOW	LOW	LOW	LOW	LOW	LOW
Surrogate Recovery	Toluene-d8	94 %	109 %	96 %	96 %	96 %	110 %
	Bromofluorobenzene	88 %	102 %	90 %	91 %	89 %	77 %
	1,2-Dichloroethane-d4	102 %	109 %	104 %	98 %	106 %	101 %
Chloromethane		10 U	99 U	10 U	520 U	10 U	31 U
Bromomethane		10 U	99 U	10 U	520 U	10 U	31 U
Vinyl Chloride		10 U	99 U	10 U	520 U	10 U	31 U
Chloroethane		10 U	99 U	10 U	520 U	10 U	31 U
Methylene Chloride		5 U	85 B	5 U	520 B	5 U	17 B
Acetone		53 B	130 B	54 B	1500 B	13 B	270 B
Carbon Disulfide		5 U	50 U	5 U	74 J	5 U	4 J
1,1-Dichloroethene		5 U	50 U	5 U	260 U	5 U	16 U
1,1-Dichloroethane		5 U	50 U	5 U	260 U	5 U	16 U
1,2-Dichloroethene (total)		5 U	50 U	5 U	260 U	5 U	16 U
Chloroform		3 J	50 U	3 J	260 U	5 U	16 U
1,2-Dichloroethane		5 U	50 U	5 U	260 U	5 U	16 U
2-Butanone		10 U	99 U	10 U	390 J	10 U	74
1,1,1-Trichloroethane		5 U	50 U	5 U	260 U	5 U	16 U
Carbon Tetrachloride		5 U	50 U	5 U	260 U	5 U	16 U
Vinyl Acetate		10 U	99 U	10 U	520 U	10 U	31 U
Bromodichloromethane		5 U	50 U	5 U	260 U	5 U	16 U
1,2-Dichloropropane		5 U	50 U	5 U	260 U	5 U	16 U
cis-1,3-Dichloropropene		5 U	50 U	5 U	260 U	5 U	16 U
Trichloroethene		5 U	50 U	5 U	260 U	5 U	16 U
Dibromochloromethane		5 U	50 U	5 U	260 U	5 U	16 U
1,1,2-Trichloroethane		5 U	50 U	5 U	260 U	5 U	16 U
Benzene		5 U	22 J	5 U	72 J	5 U	16 U
Trans-1,3-Dichloropropene		5 U	50 U	5 U	260 U	5 U	16 U
Bromoform		5 U	50 U	5 U	260 U	5 U	16 U
4-Methyl-2-pentanone		10 U	99 U	10 U	520 U	10 U	31 U
2-Hexanone		10 U	99 U	10 U	520 U	10 U	31 U
Tetrachloroethene		5 U	50 U	5 U	260 U	5 U	16 U
1,1,2,2-Tetrachloroethane		5 U	50 U	5 U	260 U	5 U	16 U

*= Outside of EPA CLP QC limits.

007

RFW Batch Number: **9702L324** Client: **BLACK AND DECKER** Work Order: 02501004001 Page: 2b

	Cust ID:	**EL02-02-SW**	**EL02-02-SED**	**EL03-02-SW**	**EL03-02-SED**	**WL01-02-SW**	**WL01-02-SED**
	RFW#:	**004**	**005**	**006**	**007**	**008**	**009**
	Level:	LOW	LOW	LOW	LOW	LOW	LOW
Toluene		5 U	50 U	5 U	260 U	5 U	16 U
Chlorobenzene		5 U	50 U	5 U	260 U	5 U	16 U
Ethylbenzene		5 U	50 U	5 U	260 U	5 U	16 U
Styrene		5 U	50 U	5 U	260 U	5 U	16 U
Xylene (total)		5 U	50 U	5 U	260 U	5 U	16 U

*= Outside of EPA CLP QC limits.

008

Roy F. Weston, Inc. - Lionville Laboratory

Volatiles by GC/MS, HSL List — Report Date: 03/16/97 22:00

RFW Batch Number: **9702L324** Client: **BLACK AND DECKER** Work Order: 02501004001 Page: 3a

600

	Cust ID:	WL01-02-SED DUP.		WL02-02-SW		WL02-02-SED		WL02-02-SED		WL03-02-SW		WL03-02-SED	
Sample Information	RFW#:	010		011		012		012		013		014	
	Matrix:	SEDIMENT		WATER		SEDIMENT		SEDIMENT		WATER		SEDIMENT	
	D.F.:	4.17		1.00		4.55		4.17		1.00		1.02	
	Units:	UG/KG		UG/L		UG/KG		UG/KG		UG/L		UG/KG	
	Level:	LOW		LOW		LOW		LOW REPREP		LOW		LOW	
Surrogate Recovery	Toluene-d8	102	%	95	%	102	%	120 *	%	98	%	110	%
	Bromofluorobenzene	79	%	89	%	72 *	%	77	%	91	%	82	%
	1,2-Dichloroethane-d4	102	%	106	%	102	%	96	%	108	%	99	%
			fl		fl		fl		fl		fl		fl
Chloromethane		130	U	10	U	160	U	140	U	10	U	52	U
Bromomethane		130	U	10	U	160	U	140	U	10	U	52	U
Vinyl Chloride		130	U	10	U	160	U	140	U	10	U	52	U
Chloroethane		130	U	10	U	160	U	140	U	10	U	52	U
Methylene Chloride		110	B	5	U	150	B	160	B	8	B	58	B
Acetone		960	B	13	B	320	B	180	B	12	B	350	B
Carbon Disulfide		28	J	5	U	78	U	72	U	5	U	8	J
1,1-Dichloroethene		67	U	5	U	78	U	72	U	5	U	26	U
1,1-Dichloroethane		67	U	5	U	78	U	72	U	5	U	26	U
1,2-Dichloroethene (total)		67	U	5	U	78	U	72	U	5	U	26	U
Chloroform		67	U	5	U	78	U	72	U	5	U	26	U
1,2-Dichloroethane		67	U	5	U	78	U	72	U	5	U	26	U
2-Butanone		320		10	U	160	U	140	U	10	U	76	
1,1,1-Trichloroethane		67	U	5	U	78	U	72	U	5	U	26	U
Carbon Tetrachloride		67	U	5	U	78	U	72	U	5	U	26	U
Vinyl Acetate		130	U	10	U	160	U	140	U	10	U	52	U
Bromodichloromethane		67	U	5	U	78	U	72	U	5	U	26	U
1,2-Dichloropropane		67	U	5	U	78	U	72	U	5	U	26	U
cis-1,3-Dichloropropene		67	U	5	U	78	U	72	U	5	U	26	U
Trichloroethene		67	U	5	U	78	U	72	U	5	U	26	U
Dibromochloromethane		67	U	5	U	78	U	72	U	5	U	26	U
1,1,2-Trichloroethane		67	U	5	U	78	U	72	U	5	U	26	U
Benzene		67	U	5	U	78	U	72	U	5	U	26	U
Trans-1,3-Dichloropropene		67	U	5	U	78	U	72	U	5	U	26	U
Bromoform		67	U	5	U	78	U	72	U	5	U	26	U
4-Methyl-2-pentanone		130	U	10	U	160	U	140	U	10	U	52	U
2-Hexanone		130	U	10	U	160	U	140	U	10	U	52	U
Tetrachloroethene		67	U	5	U	78	U	72	U	5	U	26	U
1,1,2,2-Tetrachloroethane		67	U	5	U	78	U	72	U	5	U	26	U

*= Outside of EPA CLP QC limits.

RFW Batch Number: **9702L324** Client: **BLACK AND DECKER** Work Order: 02501004001 Page: 3b

	Cust ID:	**WL01-02-SED DUP.**	**WL02-02-SW**	**WL02-02-SED**	**WL02-02-SED**	**WL03-02-SW**	**WL03-02-SED**
	RFW#:	**010**	**011**	**012**	**012**	**013**	**014**
	Level:	LOW	LOW	LOW	LOW REPREP	LOW	LOW
Toluene		67 U	5 U	78 U	72 U	5 U	26 U
Chlorobenzene		67 U	5 U	78 U	72 U	5 U	26 U
Ethylbenzene		67 U	5 U	78 U	72 U	5 U	26 U
Styrene		67 U	5 U	78 U	72 U	5 U	26 U
Xylene (total)		67 U	5 U	78 U	72 U	5 U	26 U

*= Outside of EPA CLP QC limits.

010

Roy F. Weston, Inc. - Lionville Laboratory

Volatiles by GC/MS, HSL List

Report Date: 03/16/97 22:00

RFW Batch Number: **9702L324** Client: **BLACK AND DECKER** Work Order: 02501004001 Page: 4a

011

	Cust ID:	WL03-02-SED	WL03-02-SED	TRIP BLANK	VBLKMN	VBLKME	VBLKME BS
Sample Information	RFW#:	014 MS	014 MSD	015	97LVG037-MB1	97LVG038-MB1	97LVG038-MB1
	Matrix:	SEDIMENT	SEDIMENT	WATER	WATER	WATER	WATER
	D.F.:	0.980	0.962	1.00	1.00	1.00	1.00
	Units:	UG/KG	UG/KG	UG/L	UG/L	UG/L	UG/L
	Level:	LOW	LOW	LOW	LOW	LOW	LOW
Surrogate Recovery	Toluene-d8	125 * %	112 %	98 %	99 %	98 %	100 %
	Bromofluorobenzene	89 %	85 %	91 %	93 %	91 %	94 %
	1,2-Dichloroethane-d4	109 %	100 %	99 %	104 %	103 %	104 %
Chloromethane		50 U	49 U	10 U	10 U	10 U	10 U
Bromomethane		50 U	49 U	10 U	10 U	10 U	10 U
Vinyl Chloride		50 U	49 U	10 U	10 U	10 U	10 U
Chloroethane		50 U	49 U	10 U	10 U	10 U	10 U
Methylene Chloride		29 B	36 B	3 JB	4 J	2 J	2 BJ
Acetone		690 B	450 B	10 U	2 J	1 J	10 U
Carbon Disulfide		11 J	8 J	5 U	5 U	5 U	5 U
1,1-Dichloroethene		130 %	120 %	5 U	5 U	5 U	88 %
1,1-Dichloroethane		25 U	24 U	5 U	5 U	5 U	5 U
1,2-Dichloroethene (total)		25 U	24 U	5 U	5 U	5 U	5 U
Chloroform		25 U	24 U	5 U	5 U	5 U	5 U
1,2-Dichloroethane		25 U	24 U	5 U	5 U	5 U	5 U
2-Butanone		150	100	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane		25 U	24 U	5 U	5 U	5 U	5 U
Carbon Tetrachloride		25 U	24 U	5 U	5 U	5 U	5 U
Vinyl Acetate		50 U	49 U	10 U	10 U	10 U	10 U
Bromodichloromethane		25 U	24 U	5 U	5 U	5 U	5 U
1,2-Dichloropropane		25 U	24 U	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene		25 U	24 U	5 U	5 U	5 U	5 U
Trichloroethene		90 %	86 %	5 U	5 U	5 U	90 %
Dibromochloromethane		25 U	24 U	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane		25 U	24 U	5 U	5 U	5 U	5 U
Benzene		107 %	93 %	5 U	5 U	5 U	90 %
Trans-1,3-Dichloropropene		25 U	24 U	5 U	5 U	5 U	5 U
Bromoform		25 U	24 U	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone		50 U	49 U	10 U	10 U	10 U	10 U
2-Hexanone		50 U	49 U	10 U	10 U	10 U	10 U
Tetrachloroethene		25 U	24 U	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane		25 U	24 U	5 U	5 U	5 U	5 U

*= Outside of EPA CLP QC limits.

RFW Batch Number: **9702L324** Client: **BLACK AND DECKER** Work Order: 02501004001 Page: 4b

	Cust ID:	WL03-02-SED	WL03-02-SED	TRIP BLANK	VBLKMN	VBLKME	VBLKME BS
	RFW#:	014 MS	014 MSD	015	97LVG037-MB1	97LVG038-MB1	97LVG038-MB1
	Level:	LOW	LOW	LOW	LOW	LOW	LOW
Toluene		115 %	103 %	5 U	5 U	5 U	92 %
Chlorobenzene		98 %	94 %	5 U	5 U	5 U	90 %
Ethylbenzene		25 U	24 U	5 U	5 U	5 U	5 U
Styrene		25 U	24 U	5 U	5 U	5 U	5 U
Xylene (total)		25 U	24 U	5 U	5 U	5 U	5 U

*= Outside of EPA CLP QC limits.

012

Roy F. Weston, Inc. - Lionville Laboratory

Volatiles by GC/MS, HSL List

Report Date: 03/16/97 22:00

RFW Batch Number: **9702L324** Client: **BLACK AND DECKER** Work Order: 02501004001 Page: 5a

013

Sample Information	Cust ID:	VBLKMR	VBLKMR BS	VBLKNB	VBLKMY	VBLKMQ
	RFW#:	97LVX033-MB1	97LVX033-MB1	97LVW999-MB1	97LVX036-MB1	97LVX034-MB1
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL
	D.F.:	1.00	1.00	1.00	1.00	1.00
	Units:	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
	Level:	LOW	LOW	MED	LOW	LOW
Surrogate Recovery	Toluene-d8	108 %	103 %	101 %	97 %	106 %
	Bromofluorobenzene	111 %	104 %	96 %	99 %	107 %
	1,2-Dichloroethane-d4	99 %	100 %	99 %	92 %	89 %
		fl	fl	fl	fl	fl
Chloromethane		10 U	10 U	1200 U	10 U	10 U
Bromomethane		10 U	10 U	1200 U	10 U	10 U
Vinyl Chloride		10 U	10 U	1200 U	10 U	10 U
Chloroethane		10 U	10 U	1200 U	10 U	10 U
Methylene Chloride		8	11 B	1100	6	15
Acetone		15	16 B	2600	3 J	17
Carbon Disulfide		5 U	5 U	620 U	5 U	5 U
1,1-Dichloroethene		5 U	71 %	620 U	5 U	5 U
1,1-Dichloroethane		5 U	5 U	620 U	5 U	5 U
1,2-Dichloroethene (total)		5 U	5 U	620 U	5 U	5 U
Chloroform		5 U	5 U	620 U	5 U	5 U
1,2-Dichloroethane		5 U	5 U	620 U	5 U	5 U
2-Butanone		10 U	10 U	1200 U	10 U	10 U
1,1,1-Trichloroethane		5 U	5 U	620 U	5 U	5 U
Carbon Tetrachloride		5 U	5 U	620 U	5 U	5 U
Vinyl Acetate		10 U	10 U	1200 U	10 U	10 U
Bromodichloromethane		5 U	5 U	620 U	5 U	5 U
1,2-Dichloropropane		5 U	5 U	620 U	5 U	5 U
cis-1,3-Dichloropropene		5 U	5 U	620 U	5 U	5 U
Trichloroethene		5 U	89 %	620 U	5 U	5 U
Dibromochloromethane		5 U	5 U	620 U	5 U	5 U
1,1,2-Trichloroethane		5 U	5 U	620 U	5 U	5 U
Benzene		5 U	95 %	620 U	5 U	5 U
Trans-1,3-Dichloropropene		5 U	5 U	620 U	5 U	5 U
Bromoform		5 U	5 U	620 U	5 U	5 U
4-Methyl-2-pentanone		10 U	10 U	1200 U	10 U	10 U
2-Hexanone		10 U	10 U	1200 U	10 U	10 U
Tetrachloroethene		5 U	5 U	620 U	5 U	5 U
1,1,2,2-Tetrachloroethane		5 U	5 U	620 U	5 U	5 U

*= Outside of EPA CLP QC limits.

	Cust ID:	VBLKMR	VBLKMR BS	VBLKNB	VBLKMY	VBLKMQ
	RFW#:	97LVX033-MB1	97LVX033-MB1	97LVW999-MB1	97LVX036-MB1	97LVX034-MB1
	Level:	LOW	LOW	MED	LOW	LOW
Toluene		5 U	91 %	620 U	5 U	5 U
Chlorobenzene		5 U	91 %	620 U	5 U	5 U
Ethylbenzene		5 U	5 U	620 U	5 U	5 U
Styrene		5 U	5 U	620 U	5 U	5 U
Xylene (total)		5 U	5 U	620 U	5 U	5 U

*= Outside of EPA CLP QC limits.

014

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

EL01-02-SW

Lab Name: Roy F. Weston, Inc. Work Order: 02501004001

Client: BLACK AND DECKER

Matrix: WATER

Lab Sample ID: 9702L324-001

Sample wt/vol: 5.00 (g/mL) ML

Lab File ID: q022411

Level: (low/med) LOW

Date Received: 02/20/97

% Moisture: not dec. _____

Date Analyzed: 02/24/97

Column: (pack/cap) CAP

Dilution Factor: 1.00

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 590501	2-PENTANONE, 4,4-DIMETHYL-	19.235	10	NJ

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

EL01-02-SW DUP.

Lab Name: Roy F. Weston, Inc. Work Order: 02501004001

Client: BLACK AND DECKER

Matrix: WATER

Lab Sample ID: 9702L324-002

Sample wt/vol: 5.00 (g/mL) ML

Lab File ID: q022412

Level: (low/med) LOW

Date Received: 02/20/97

% Moisture: not dec. _____

Date Analyzed: 02/24/97

Column: (pack/cap) CAP

Dilution Factor: 1.00

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 590501	2-PENTANONE, 4,4-DIMETHYL-	19.232	10	NJ

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

EL01-02-SED

Lab Name: Roy F. Weston, Inc. Work Order: 02501004001

Client: BLACK AND DECKER

Matrix: SEDIMENT

Lab Sample ID: 9702L324-003

Sample wt/vol: 1.10 (g/mL) G

Lab File ID: x022506

Level: (low/med) LOW

Date Received: 02/20/97

% Moisture: not dec. 90

Date Analyzed: 02/25/97

Column: (pack/cap) CAP

Dilution Factor: 4.55

Number TICs found: 8

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		ALKANE	21.256	200	
2.		UNKNOWN	22.073	500	
3.		ALKANE	22.438	400	
4.		CYCLOALKANE	22.831	200	
5.		UNKNOWN	23.126	200	
6.		UNKNOWN	23.412	300	
7.		UNKNOWN	24.160	200	
8.		C4-ALKENYLBENZENE	24.809	200	

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

EL02-02-SW

Lab Name: Roy F. Weston, Inc. Work Order: 02501004001

Client: BLACK AND DECKER

Matrix: WATER

Lab Sample ID: 9702L324-004

Sample wt/vol: 5.00 (g/mL) ML

Lab File ID: q022413

Level: (low/med) LOW

Date Received: 02/20/97

% Moisture: not dec. _____

Date Analyzed: 02/24/97

Column: (pack/cap) CAP

Dilution Factor: 1.00

Number TICs found: 2

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	79209	METHYLACETATE	9.670	8	NJ
2.	590501	2-PENTANONE, 4,4-DIMETHYL-	19.232	10	NJ

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

EL02-02-SED

Lab Name: Roy F. Weston, Inc. Work Order: 02501004001

Client: BLACK AND DECKER

Matrix: SEDIMENT

Lab Sample ID: 9702L324-005

Sample wt/vol: 1.10 (g/mL) G

Lab File ID: x022509

Level: (low/med) LOW

Date Received: 02/20/97

% Moisture: not dec. 54

Date Analyzed: 02/25/97

Column: (pack/cap) CAP

Dilution Factor: 4.55

Number TICs found: 6

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN	23.391	1000	J
2.		UNKNOWN	23.696	700	J
3.		C4-ALKYLBENZENE	23.765	800	J
4.		UNKNOWN	24.119	700	J
5.		UNKNOWN	24.365	1000	J
6.		UNKNOWN	24.789	1000	J

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

EL03-02-SW

Lab Name: Roy F. Weston, Inc. Work Order: 02501004001

Client: BLACK AND DECKER

Matrix: WATER

Lab Sample ID: 9702L324-006

Sample wt/vol: 5.00 (g/mL) ML

Lab File ID: q022414

Level: (low/med) LOW

Date Received: 02/20/97

% Moisture: not dec. _____

Date Analyzed: 02/24/97

Column: (pack/cap) CAP

Dilution Factor: 1.00

Number TICs found: 1

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	590501	2-PENTANONE, 4,4-DIMETHYL-	19.237	20	NJ

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

EL03-02-SED

Lab Name: Roy F. Weston, Inc. Work Order: 02501004001

Client: BLACK AND DECKER

Matrix: SEDIMENT

Lab Sample ID: 9702L324-007

Sample wt/vol: 1.00 (g/mL) G

Lab File ID: x022510

Level: (low/med) LOW

Date Received: 02/20/97

% Moisture: not dec. 90

Date Analyzed: 02/25/97

Column: (pack/cap) CAP

Dilution Factor: 5.00

Number TICs found: 5

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN	22.835	4000	J
2.		UNKNOWN	23.386	7000	J
3.		UNKNOWN	23.691	3000	J
4.		UNKNOWN	24.124	3000	J
5.		UNKNOWN	24.370	4000	J

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

WL01-02-SW

Lab Name: Roy F. Weston, Inc. Work Order: 02501004001

Client: BLACK AND DECKER

Matrix: WATER

Lab Sample ID: 9702L324-008

Sample wt/vol: 5.00 (g/mL) ML

Lab File ID: q022415

Level: (low/med) LOW

Date Received: 02/20/97

% Moisture: not dec. _____

Date Analyzed: 02/24/97

Column: (pack/cap) CAP

Dilution Factor: 1.00

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 79209	METHYLACETATE	9.667	10	NJ

FORM 1 VOA-TIC 12/88 Rev.

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

WL01-02-SED

Lab Name: Roy F. Weston, Inc. Work Order: 02501004001

Client: BLACK AND DECKER

Matrix: SEDIMENT

Lab Sample ID: 9702L324-009

Sample wt/vol: 4.80 (g/mL) G

Lab File ID: x022721

Level: (low/med) LOW

Date Received: 02/20/97

% Moisture: not dec. 66

Date Analyzed: 02/28/97

Column: (pack/cap) CAP

Dilution Factor: 1.04

Number TICs found: 8

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN	21.276	400	J
2.		UNKNOWN	21.818	300	J
3.		UNKNOWN	22.073	200	J
4.		UNKNOWN	22.142	100	J
5.		UNKNOWN	23.422	200	J
6.		UNKNOWN	23.609	200	J
7.		UNKNOWN	24.170	300	J
8.		UNKNOWN	25.183	100	J

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

WL01-02-SED DUP.

Lab Name: Roy F. Weston, Inc. Work Order: 02501004001

Client: BLACK AND DECKER

Matrix: SEDIMENT

Lab Sample ID: 9702L324-010

Sample wt/vol: 1.20 (g/mL) G

Lab File ID: x022512

Level: (low/med) LOW

Date Received: 02/20/97

% Moisture: not dec. 69

Date Analyzed: 02/25/97

Column: (pack/cap) CAP

Dilution Factor: 4.17

Number TICs found: 6

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN	20.867	400	J
2.		UNKNOWN	21.261	800	J
3.		UNKNOWN	21.792	700	J
4.		UNKNOWN	22.058	400	J
5.		UNKNOWN	23.396	700	J
6.		UNKNOWN	23.584	300	J

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

WL02-02-SW

Lab Name: Roy F. Weston, Inc. Work Order: 02501004001

Client: BLACK AND DECKER

Matrix: WATER

Lab Sample ID: 9702L324-011

Sample wt/vol: 5.00 (g/mL) ML

Lab File ID: q022416

Level: (low/med) LOW

Date Received: 02/20/97

% Moisture: not dec. _____

Date Analyzed: 02/24/97

Column: (pack/cap) CAP

Dilution Factor: 1.00

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

WL02-02-SED

Lab Name: Roy F. Weston, Inc. Work Order: 02501004001

Client: BLACK AND DECKER

Matrix: SEDIMENT

Lab Sample ID: 9702L324-012

Sample wt/vol: 1.10 (g/mL) G

Lab File ID: x022513

Level: (low/med) LOW

Date Received: 02/20/97

% Moisture: not dec. 71

Date Analyzed: 02/26/97

Column: (pack/cap) CAP

Dilution Factor: 4.55

Number TICs found: 7

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN	21.264	2000	J
2.		CYCLOALKANE	21.796	1000	J
3.		UNKNOWN	22.061	1000	J
4.		UNKNOWN	22.829	1000	J
5.		UNKNOWN	23.390	2000	J
6.		UNKNOWN	23.587	1000	J
7.		UNKNOWN	24.128	1000	J

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

WL03-02-SW

Lab Name: Roy F. Weston, Inc. Work Order: 02501004001

Client: BLACK AND DECKER

Matrix: WATER

Lab Sample ID: 9702L324-013

Sample wt/vol: 5.00 (g/mL) ML

Lab File ID: q022417

Level: (low/med) LOW

Date Received: 02/20/97

% Moisture: not dec. _____

Date Analyzed: 02/24/97

Column: (pack/cap) CAP

Dilution Factor: 1.00

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

WL03-02-SED

Lab Name: Roy F. Weston, Inc. Work Order: 02501004001

Client: BLACK AND DECKER

Matrix: SEDIMENT

Lab Sample ID: 9702L324-014

Sample wt/vol: 4.90 (g/mL) G

Lab File ID: x022718

Level: (low/med) LOW

Date Received: 02/20/97

% Moisture: not dec. 80

Date Analyzed: 02/27/97

Column: (pack/cap) CAP

Dilution Factor: 1.02

Number TICs found: 5

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN	23.446	20	
2.		UNKNOWN	23.633	20	
3.		UNKNOWN	23.751	10	
4.		UNKNOWN	24.194	10	
5.		UNKNOWN	24.479	20	

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

TRIP BLANK

Lab Name: Roy F. Weston, Inc. Work Order: 02501004001

Client: BLACK AND DECKER

Matrix: WATER

Lab Sample ID: 9702L324-015

Sample wt/vol: 5.00 (g/mL) ML

Lab File ID: q022508

Level: (low/med) LOW

Date Received: 02/20/97

% Moisture: not dec. _____

Date Analyzed: 02/25/97

Column: (pack/cap) CAP

Dilution Factor: 1.00

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

VBLKMN

Lab Name: Roy F. Weston, Inc. Work Order: 02501004001

Client: BLACK AND DECKER

Matrix: WATER

Lab Sample ID: 97LVG037-MB1

Sample wt/vol: 5.00 (g/mL) ML

Lab File ID: q022405

Level: (low/med) LOW

Date Received: 02/24/97

% Moisture: not dec. _____

Date Analyzed: 02/24/97

Column: (pack/cap) CAP

Dilution Factor: 1.00

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

VBLKME

Lab Name: Roy F. Weston, Inc. Work Order: 02501004001

Client: BLACK AND DECKER

Matrix: WATER

Lab Sample ID: 97LVG038-MB1

Sample wt/vol: 5.00 (g/mL) ML

Lab File ID: q022505

Level: (low/med) LOW

Date Received: 02/25/97

% Moisture: not dec. _____

Date Analyzed: 02/25/97

Column: (pack/cap) CAP

Dilution Factor: 1.00

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

VBLKMR

Lab Name: Roy F. Weston, Inc. Work Order: 02501004001

Client: BLACK AND DECKER

Matrix: SOIL

Lab Sample ID: 97LVX033-MB1

Sample wt/vol: 5.00 (g/mL) G

Lab File ID: x022504

Level: (low/med) LOW

Date Received: 02/25/97

% Moisture: not dec. 0

Date Analyzed: 02/25/97

Column: (pack/cap) CAP

Dilution Factor: 1.00

Number TICs found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

VBLKNB

Lab Name: Roy F. Weston, Inc. Work Order: 02501004001

Client: BLACK AND DECKER

Matrix: SOIL

Lab Sample ID: 97LVW999-MB1

Sample wt/vol: 4.00 (g/mL) G

Lab File ID: W022707

Level: (low/med) MED

Date Received: 02/27/97

% Moisture: not dec. 0

Date Analyzed: 02/27/97

Column: (pack/cap) CAP

Dilution Factor: 1.00

Number TICs found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

VBLKMY

Lab Name: Roy F. Weston, Inc. Work Order: 02501004001

Client: BLACK AND DECKER

Matrix: SOIL

Lab Sample ID: 97LVX036-MB1

Sample wt/vol: 5.00 (g/mL) G

Lab File ID: x022717

Level: (low/med) LOW

Date Received: 02/27/97

% Moisture: not dec. 0

Date Analyzed: 02/27/97

Column: (pack/cap) CAP

Dilution Factor: 1.00

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

VBLKMQ

Lab Name: Roy F. Weston, Inc. Work Order: 02501004001

Client: BLACK AND DECKER

Matrix: SOIL

Lab Sample ID: 97LVX034-MB1

Sample wt/vol: 5.00 (g/mL) G

Lab File ID: x022608

Level: (low/med) LOW

Date Received: 02/26/97

% Moisture: not dec. 0

Date Analyzed: 02/26/97

Column: (pack/cap) CAP

Dilution Factor: 1.00

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				

Roy F. Weston, Inc. - Lionville Laboratory
VOA ANALYTICAL DATA PACKAGE FOR
BLACK AND DECKER

DATE RECEIVED: 02/20/97 RFW LOT # :9702L324

CLIENT ID	RFW #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
EL01-02-SW	001	W	97LVG037	02/20/97	N/A	02/24/97
EL01-02-SW	001 MS	W	97LVG038	02/20/97	N/A	02/25/97
EL01-02-SW	001 MSD	W	97LVG038	02/20/97	N/A	02/25/97
EL01-02-SW DUP.	002	W	97LVG037	02/20/97	N/A	02/24/97
EL01-02-SED	003	SE	97LVX033	02/20/97	N/A	02/25/97
EL01-02-SED	003 N1	SE	97LVW999	02/20/97	N/A	02/27/97
EL02-02-SW	004	W	97LVG037	02/20/97	N/A	02/24/97
EL02-02-SED	005	SE	97LVX033	02/20/97	N/A	02/25/97
EL03-02-SW	006	W	97LVG037	02/20/97	N/A	02/24/97
EL03-02-SED	007	SE	97LVX033	02/20/97	N/A	02/25/97
WL01-02-SW	008	W	97LVG037	02/20/97	N/A	02/24/97
WL01-02-SED	009	SE	97LVX036	02/20/97	N/A	02/28/97
WL01-02-SED DUP.	010	SE	97LVX033	02/20/97	N/A	02/25/97
WL02-02-SW	011	W	97LVG037	02/20/97	N/A	02/24/97
WL02-02-SED	012	SE	97LVX033	02/20/97	N/A	02/26/97
WL02-02-SED	012 R1	SE	97LVX034	02/20/97	N/A	02/26/97
WL03-02-SW	013	W	97LVG037	02/20/97	N/A	02/24/97
WL03-02-SED	014	SE	97LVX036	02/20/97	N/A	02/27/97
WL03-02-SED	014 MS	SE	97LVX033	02/20/97	N/A	02/26/97
WL03-02-SED	014 MSD	SE	97LVX033	02/20/97	N/A	02/26/97
TRIP BLANK	015	W	97LVG038	02/20/97	N/A	02/25/97
LAB QC:						
VBLKMN	MB1	W	97LVG037	N/A	N/A	02/24/97
VBLKME	MB1	W	97LVG038	N/A	N/A	02/25/97
VBLKME	MB1 BS	W	97LVG038	N/A	N/A	02/25/97
VBLKMR	MB1	S	97LVX033	N/A	N/A	02/25/97
VBLKMR	MB1 BS	S	97LVX033	N/A	N/A	02/26/97
VBLKNB	MB1	S	97LVW999	N/A	N/A	02/27/97
VBLKMY	MB1	S	97LVX036	N/A	N/A	02/27/97
VBLKMQ	MB1	S	97LVX034	N/A	N/A	02/26/97

WESTON Analytics Use Only

9702L324

(4) 6cmswa Sue Dunne.

Custody Transfer Record/Lab Work Request

WESTON MANAGERS DESIGNERS CONSULTANTS

Client Black & Decker

Est. Final Proj. Sampling Date 20 FEB 97

Work Order # 12501-004-001-9999-00

Project Contact/Phone # CHRIS HARRIS X7203

AD Project Manager DYANNA SAGGES

QC SW Sed TAT Standard

Date Rec'd 2/20/97 Date Due ~~3/6/97~~ 3/0/97 on 3/3/97

Account # Black & Decker

Refrigerator #		1
#/Type Container	Liquid	2/CG
	Solid	2/CG
Volume	Liquid	40
	Solid	125
Preservatives	Liq.	HCl

ANALYSES REQUESTED → ORGANIC: VOA, BNA, Pest/PCB, Herb; INORG: Metal, CN

MATRIX CODES: S - Soil; SE - Sediment; SO - Solid; SL - Sludge; W - Water; O - Oil; A - Air; DS - Drum Solids; DL - Drum Liquids; L - EP/TCLP Leachate; WI - Wipe; X - Other; F - Fish

Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected	WESTON Analytics Use Only: 8240	8021H
001	EL01-02-SW			W	2/20/97	1000	X	
2	EL01-02-SW DUP.			W		1000	X	
3	EL01-02-SED			SE		1005	X	
4	EL02-02-SW			W		1015	X	
5	EL02-02-SED			SE		1025	X	
6	EL03-02-SW			W		1030	X	
7	EL03-02-SED			SE		1035	X	
8	WL01-02-SW			W		1045	X	
9	WL01-02-SED			SE		1050	X	
010	WL01-02-SED DUP			SE	↓	1050	X	

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

Special Instructions:

DATE/REVISIONS:

3/3/97 1. TAT = 21 Day Date due = 3/13/97

1 2. per PM

3.

4.

5.

6.

5.30

WESTON Analytics Use Only

Samples were: 1) Shipped ___ or Hand Delivered ✓ Airbill # ___

2) Ambient or ~~Chilled~~

3) Received in Good Condition Y or N

4) Labels Indicate Properly Preserved Y or N

5) Received Within Holding Times Y or N

COC Tape was: 1) Present on Outer Package Y or N; 2) Unbroken on Outer Package Y or N; 3) Present on Sample Y or N; 4) Unbroken on Sample Y or N

COC Record Present Upon Sample Rec't (Y) or N

Discrepancies Between Samples Labels and COC Record? Y or N

NOTES: Custody seal tape on VOA's

Relinquished by	Received by	Date	Time
[signature]	[signature]	2/20/97	4:20

Relinquished by	Received by	Date	Time

RFW 21-21-001/A-7/91 ___ L372 ___ L373 ___ L375 ___ L377 ___ L378 Ref# ___ Cooler# ___ 381-596a

037

WESTON Analytics Use Only: 9702L324

Black & Decker

Custody Transfer Record/Lab Work Request

WESTON MANAGERS DESIGNERS CONSULTANTS

038

Client ~~CONFIDENTIAL HAMPSTEAD~~ Emhart

Est. Final Proj. Sampling Date 20 FEB 97

Work Order # 02501-004-001

Project Contact/Phone # CHRIS HARRIS/X7203

AD Project Manager DUANNA SAGGES

QC ______ TAT Standard

Date Rec'd ______ Date Due ______

Account # ______

Refrigerator #	
#/Type Container Liquid	2/CG
#/Type Container Solid	2/CG
Volume Liquid	40
Volume Solid	125
Preservatives Liquid	HCl

ANALYSES REQUESTED → ORGANIC: VOA, BNA, Pest/PCB, Herb; INORG: Metal, CN

WESTON Analytics Use Only: 8240 / 8024M

MATRIX CODES:
S - Soil
SE - Sediment
SO - Solid
SL - Sludge
W - Water
O - Oil
A - Air
DS - Drum Solids
DL - Drum Liquids
L - EP/TCLP Leachate
WI - Wipe
X - Other
F - Fish

Lab ID	Client ID/Description	MS	MSD	Matrix	Date Collected	Time Collected	VOA
011	WL02-02-SW			W	2/20/97	1055	X
12	WL02-02-SED			SE	↓	1100	X
13	WL03-02-SW			W	↓	1110	X
14	WL03-02-SED			SE	↓	1115	X
015	TRIP BLANK			W	↓	–	X

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

Special Instructions:

DATE/REVISIONS:
1.
2.
3.
4.
5.
6.

Relinquished by	Received by	Date	Time	Relinquished by	Received by	Date	Time
C Harris	[signature]	2/20/97	1430				

Discrepancies Between Samples Labels and COC Record? Y or N
NOTES:

WESTON Analytics Use Only

Samples were:
1) Shipped ___ or Hand Delivered ___
Airbill # ______
2) Ambient or Chilled
3) Received in Good Condition Y or N
4) Labels Indicate Properly Preserved Y or N
5) Received Within Holding Times Y or N

COC Tape was:
1) Present on Outer Package Y or N
2) Unbroken on Outer Package Y or N
3) Present on Sample Y or N
4) Unbroken on Sample Y or N
COC Record Present Upon Sample Rec't Y or N

BRUSH PILE TEST PIT SOIL AND GROUNDWATER ANALYTICAL DATA PACKAGE

Roy F. Weston, Inc.
208 Welsh Pool Road
Lionville, Pennsylvania 19341-1333
610-701-6100 • Fax 610-701-6140

LIONVILLE LABORATORY
ANALYTICAL REPORT

Client : BLACK AND DECKER
RFW# : 9608L650

W.O. #: 02501-004-001-0000-00
Date Received: 08-15-96

GC/MS VOLATILE

The set of samples consisted of two (2) water samples and six (6) soil samples collected on 08-14-96.

The samples were analyzed according to criteria set forth in SW 846 Method 8240 for TCL Volatile target compounds on 08-19,23-96.

The following is a summary of the QC results accompanying these sample results and a description of any problems encountered during their analyses:

1. The required holding time for analysis was met.
2. Non-target compounds were not detected in these samples.
3. All surrogate recoveries were within EPA QC limits.
4. Matrix spike analyses are associated with RFW lot 9608L555.
5. The method blanks contained the common contaminants Methylene Chloride and Acetone at levels less than 2x the CRQL.

Brian A Spitler Asst Leader

FOR J. Michael Taylor
Vice President and Laboratory Manager
Lionville Analytical Laboratory

9-11-96
Date

mmz/voa/08-650v.cn

003

GLOSSARY OF VOA DATA

DATA QUALIFIERS

U = Compound was analyzed for but not detected. The associated numerical value is the estimated sample quantitation limit which is included and corrected for dilution and percent moisture.

J = Indicates an estimated value. This flag is used under the following circumstances: 1) when estimating a concentration for tentatively identified compounds (TICs) where a 1:1 response is assumed; or 2) when the mass spectral data indicate the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. For example, if the limit of detection is 10 ug/L and a concentration of 3 ug/L is calculated, it is reported as 3J.

B = This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination. This flag is also used for a TIC as well as for a positively identified TCL compound.

E = Indicates that the compound was detected beyond the calibration range and was subsequently analyzed at a dilution.

D = Identifies all compounds identified in an analysis at a secondary dilution factor.

I = Interference.

NQ = Result qualitatively confirmed but not able to quantify.

N = Indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds (TICs), where the identification is based on a mass spectral library search. It is applied to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the N code is not used.

X = This flag is used for a TIC compound which is quantified relative to a response factor generated from a daily calibration standard (rather than quantified relative to the closest internal standard).

Y = Additional qualifiers used as required are explained in the case narrative.

GLOSSARY OF VOA DATA

ABBREVIATIONS

BS	=	Indicates blank spike in which reagent grade water is spiked with the CLP matrix spike solutions and carried through all the steps in the method. Spike recoveries are reported.
BSD	=	Indicates blank spike duplicate.
MS	=	Indicates matrix spike.
MSD	=	Indicates matrix spike duplicate.
DL	=	Suffix added to sample number to indicate that results are from a diluted analysis.
NA	=	Not Applicable.
DF	=	Dilution Factor.
NR	=	Not Required.
SP, Z	=	Indicates Spiked Compound.

Roy F. Weston, Inc. - Lionville Laboratory

Volatiles by GC/MS, HSL List

Report Date: 09/11/96 09:06

RFW Batch Number: **9608L650** Client: **BLACK AND DECKER** Work Order: 02501004001 Page: 1a

004

	Cust ID:	TP-96-2	TP-96-3	TP-96-4	TP-96-5	TP-96-6	TP-96-7
Sample Information	RFW#:	001	002	003	004	005	006
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	D.F.:	0.980	1.04	1.06	1.02	0.943	1.00
	Units:	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
Surrogate Recovery	Toluene-d8	99 %	101 %	98 %	104 %	103 %	102 %
	Bromofluorobenzene	94 %	93 %	90 %	98 %	88 %	89 %
	1,2-Dichloroethane-d4	103 %	104 %	98 %	106 %	98 %	97 %
Chloromethane		12 U	12 U	12 U	13 U	12 U	12 U
Bromomethane		12 U	12 U	12 U	13 U	12 U	12 U
Vinyl Chloride		12 U	12 U	12 U	13 U	12 U	12 U
Chloroethane		12 U	12 U	12 U	13 U	12 U	12 U
Methylene Chloride		13 B	14 B	12 B	13 B	11 B	11 B
Acetone		12 U	12 U	12 U	13 U	9 JB	12 U
Carbon Disulfide		6 U	6 U	6 U	6 U	6 U	6 U
1,1-Dichloroethene		6 U	6 U	6 U	6 U	6 U	6 U
1,1-Dichloroethane		6 U	6 U	6 U	6 U	6 U	6 U
1,2-Dichloroethene (total)		6 U	6 U	6 U	6 U	6 U	6 U
Chloroform		6 U	6 U	6 U	6 U	6 U	6 U
1,2-Dichloroethane		6 U	6 U	6 U	6 U	6 U	6 U
2-Butanone		12 U	12 U	12 U	13 U	12 U	12 U
1,1,1-Trichloroethane		6 U	6 U	6 U	6 U	6 U	6 U
Carbon Tetrachloride		6 U	6 U	6 U	6 U	6 U	6 U
Vinyl Acetate		12 U	12 U	12 U	13 U	12 U	12 U
Bromodichloromethane		6 U	6 U	6 U	6 U	6 U	6 U
1,2-Dichloropropane		6 U	6 U	6 U	6 U	6 U	6 U
cis-1,3-Dichloropropene		6 U	6 U	6 U	6 U	6 U	6 U
Trichloroethene		6 U	6 U	6 U	6 U	6 U	6 U
Dibromochloromethane		6 U	6 U	6 U	6 U	6 U	6 U
1,1,2-Trichloroethane		6 U	6 U	6 U	6 U	6 U	6 U
Benzene		6 U	6 U	6 U	6 U	6 U	6 U
Trans-1,3-Dichloropropene		6 U	6 U	6 U	6 U	6 U	6 U
Bromoform		6 U	6 U	6 U	6 U	6 U	6 U
4-Methyl-2-pentanone		12 U	12 U	12 U	13 U	12 U	12 U
2-Hexanone		12 U	12 U	12 U	13 U	12 U	12 U
Tetrachloroethene		6 U	6 U	6 U	6 U	6 U	6 U
1,1,2,2-Tetrachloroethane		6 U	6 U	6 U	6 U	6 U	6 U

*= Outside of EPA CLP QC limits.

RFW Batch Number: 9608L650 Client: BLACK AND DECKER Work Order: 02501004001 Page: 1b

Cust ID:	TP-96-2	TP-96-3	TP-96-4	TP-96-5	TP-96-6	TP-96-7
RFW#:	001	002	003	004	005	006
Toluene	6 U	6 U	6 U	6 U	6 U	6 U
Chlorobenzene	6 U	6 U	6 U	6 U	6 U	6 U
Ethylbenzene	6 U	6 U	6 U	6 U	6 U	6 U
Styrene	6 U	6 U	6 U	6 U	6 U	6 U
Xylene (total)	6 U	6 U	6 U	6 U	6 U	6 U

*= Outside of EPA CLP QC limits.

005

Roy F. Weston, Inc. - Lionville Laboratory

Volatiles by GC/MS, HSL List

RFW Batch Number: **9608L650** Client: **BLACK AND DECKER** Work Order: 02501004001 Page: 2a

Report Date: 09/11/96 09:06

	Cust ID:	TP-96-6	TRIP BLANK	VBLKDX	VBLKCK	VBLKCJ
Sample Information	RFW#:	007	008	96LVW171-MB1	96LVW166-MB1	96LVQ082-MB1
	Matrix:	WATER	WATER	SOIL	SOIL	WATER
	D.F.:	1.00	1.00	1.00	1.00	1.00
	Units:	UG/L	UG/L	UG/KG	UG/KG	UG/L
Surrogate Recovery	Toluene-d8	104 %	105 %	102 %	98 %	109 %
	Bromofluorobenzene	106 %	105 %	96 %	88 %	110 %
	1,2-Dichloroethane-d4	101 %	102 %	100 %	97 %	100 %
Chloromethane		10 U	10 U	10 U	10 U	10 U
Bromomethane		10 U	10 U	10 U	10 U	10 U
Vinyl Chloride		10 U	10 U	10 U	10 U	10 U
Chloroethane		10 U	10 U	10 U	10 U	10 U
Methylene Chloride		7 B	7 B	5	5 J	4 J
Acetone		10 U	10 U	10	6 J	2 J
Carbon Disulfide		5 U	5 U	5 U	5 U	5 U
1,1-Dichloroethene		5 U	5 U	5 U	5 U	5 U
1,1-Dichloroethane		5 U	5 U	5 U	5 U	5 U
1,2-Dichloroethene (total)		5 U	5 U	5 U	5 U	5 U
Chloroform		5 U	5 U	5 U	5 U	5 U
1,2-Dichloroethane		5 U	5 U	5 U	5 U	5 U
2-Butanone		10 U	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane		5 U	5 U	5 U	5 U	5 U
Carbon Tetrachloride		5 U	5 U	5 U	5 U	5 U
Vinyl Acetate		10 U	10 U	10 U	10 U	10 U
Bromodichloromethane		5 U	5 U	5 U	5 U	5 U
1,2-Dichloropropane		5 U	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene		5 U	5 U	5 U	5 U	5 U
Trichloroethene		5 U	5 U	5 U	5 U	5 U
Dibromochloromethane		5 U	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane		5 U	5 U	5 U	5 U	5 U
Benzene		5 U	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene		5 U	5 U	5 U	5 U	5 U
Bromoform		5 U	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone		10 U	10 U	10 U	10 U	10 U
2-Hexanone		10 U	10 U	10 U	10 U	10 U
Tetrachloroethene		5 U	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane		5 U	5 U	5 U	5 U	5 U

*= Outside of EPA CLP QC limits.

RFW Batch Number: 9608L650 Client: BLACK AND DECKER Work Order: 02501004001 Page: 2b

Cust ID:	TP-96-6	TRIP BLANK	VBLKDX	VBLKCK	VBLKCJ
RFW#:	007	008	96LVW171-MB1	96LVW166-MB1	96LVQ082-MB1
Toluene	5 U	5 U	5 U	5 U	5 U
Chlorobenzene	5 U	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U	5 U
Xylene (total)	5 U	5 U	5 U	5 U	5 U

*= Outside of EPA CLP QC limits.

Roy F. Weston, Inc. - Lionville Laboratory
VOA ANALYTICAL DATA PACKAGE FOR
BLACK AND DECKER

DATE RECEIVED: 08/15/96 RFW LOT # :9608L650

CLIENT ID	RFW #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
TP-96-2	001	S	96LVW171	08/14/96	N/A	08/23/96
TP-96-3	002	S	96LVW171	08/14/96	N/A	08/23/96
TP-96-4	003	S	96LVW171	08/14/96	N/A	08/23/96
TP-96-5	004	S	96LVW171	08/14/96	N/A	08/23/96
TP-96-6	005	S	96LVW166	08/14/96	N/A	08/19/96
TP-96-7	006	S	96LVW166	08/14/96	N/A	08/19/96
TP-96-6	007	W	96LVQ082	08/14/96	N/A	08/19/96
TRIP BLANK	008	W	96LVQ082	08/14/96	N/A	08/19/96
LAB QC:						
VBLKDX	MB1	S	96LVW171	N/A	N/A	08/23/96
VBLKCK	MB1	S	96LVW166	N/A	N/A	08/19/96
VBLKCJ	MB1	W	96LVQ082	N/A	N/A	08/19/96

WESTON Analytics Use Only

96084650

Custody Transfer Record/Lab Work Request

WESTON

Page 1 of 1

Client ~~B+D (Gen'F)~~ Black + Decker

Est. Final Proj. Sampling Date

Work Order # 023501-004-001-0000-00

Project Contact/Phone # Greg Flasinski X7293

AD Project Manager Dyana Seagers

QC STD Del STD TAT @14 DAY

Date Rec'd 8/15/96 Date Due 8-29-96

Account # BLACK+DECK

Refrigerator #

#/Type Container	Liquid	2/G
	Solid	1G
Volume	Liquid	40
	Solid	250
Preservatives		HCl

ANALYSES REQUESTED →

ORGANIC: VOA | BNA | Pest/PCB | Herb

INORG: Metal | CN

WESTON Analytics Use Only

MATRIX CODES:
S - Soil
SE - Sediment
SO - Solid
SL - Sludge
W - Water
O - Oil
A - Air
DS - Drum Solids
DL - Drum Liquids
L - EP/TCLP Leachate
WI - Wipe
X - Other
F - Fish

Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected	WESTON Analytics Use Only
1	TP-96-2			S	8/14/96	1035	✓
2	TP-96-3					*	✓
3	TP-96-4					*	✓
4	TP-96-5					1150	✓
5	TP-96-6					1220	✓
6	TP-96-7					*	✓
7	TP-96-6			W	8/14/96	1315	X
8	Trip Blank					*	X

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

Special Instructions:

Quick Turn
TP-96-6 > Soil
TP-96-7 > Soil
TP-96-6 > Water

See Dyana Seagers

5.1°C

DATE/REVISIONS: ~~8/15/96~~

1. ~~#1,4,5,7~~ no time collected
2. #5 2,3,6,8
3.
4.
5.
6.

Relinquished by	Received by	Date	Time
Dyana	Fedex	8/15/96	0930

Relinquished by	Received by	Date	Time

WESTON Analytics Use Only

Samples were:
1) Shipped ___ or Hand Delivered ✓
Airbill #
2) Ambient or Chilled
3) Received in Good Condition Y or N
4) Labels Indicate Properly Preserved Y or N
5) Received Within Holding Times Y or N

COC Tape was:
1) Present on Outer Package Y or N
2) Unbroken on Outer Package Y or N
3) Present on Sample Y or N
4) Unbroken on Sample Y or N

Discrepancies Between Samples Labels and COC Record? Y or N
NOTES:

COC Record Present Upon Sample Rec't Y or N

RFW 21-21-001/A-7/91

___ L372 ___ L373 ___ L375 ___ L377 ___ L378 Ref# 3920 Cooler# -

381-596a