

FINAL REPORT

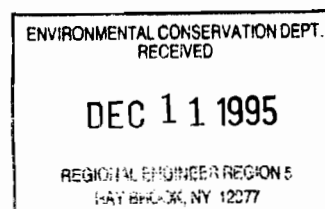
EXCAVATION AND REMOVAL OF CRUSHED, BURIED DRUMS

***MALTA ROCKET FUEL AREA SITE
MALTA, NEW YORK***

December 1995

Prepared by:

**ERM-NORTHEAST, INC.
501 New Karner Road
Suite 7
Albany, New York 12205**



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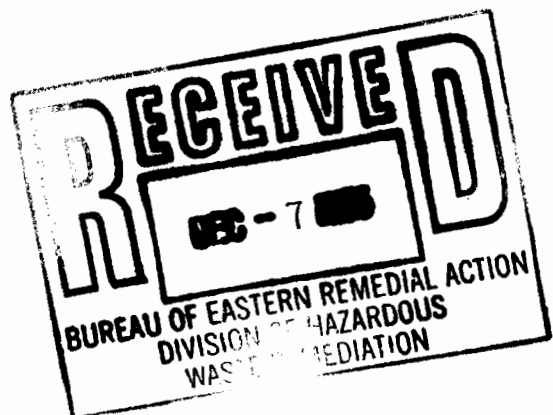


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1.0

INTRODUCTION

A Remedial Investigation (RI) to characterize and define environmental conditions at the Malta Rocket Fuel Area (MRFA) Site was recently completed (ERM-Northeast, Inc., 1995a). During the course of the RI, three locations were identified where crushed metallic drums were buried. The locations of the crushed drums were identified through the use of surface geophysical techniques (e.g., terrain conductivity) and confirmed by visual observations through test pitting. After consultation with the United States Environmental Protection Agency (USEPA), the test pits containing the crushed drums were closed with the drums left in place and covered with soil with the intent that the crushed drums would be addressed at a later date. This report documents the drum removal process including methodology, associated confirmation sampling, and drum loading and recycling.

1.1

BACKGROUND

In July 1987, the MRFA Site was placed on the National Priorities List, and in September 1989, the USEPA issued an Unilateral Administrative Order (UAO) to Advanced Nuclear Fuels, Inc., Curtiss-Wright Corporation, General Electric Company (GE), Mechanical Technology, Inc. (MTI), New York State Energy Research and Development Authority (NYSERDA), Olin Corporation, Power Technologies, Inc. (PTI), and Wright-Malta Corporation as potentially responsible parties (PRPs). The UAO required that the PRPs conduct a Remedial Investigation (RI) and Feasibility Study (FS) at the MRFA Site. In March 1990, GE, NYSERDA, and the U.S. Department of Defense (DOD) (the Participating Parties) entered into a participation agreement to perform the RI and FS. The Final RI report was submitted to the USEPA on 14 February 1995 (ERM-Northeast, Inc., 1995a) and approved in February 1995, while the Revised FS was submitted to the USEPA on 5 October 1995 (Rust Environment and Infrastructure, 1995).

The crushed drum removal action described below was performed pursuant to a USEPA-approved Work Plan for Excavation and Removal of Crushed, Buried Drums (ERM-Northeast, Inc., 1995c), Paragraph 87 of the UAO, and the protocols set forth in the RI Work Plan (WP) and RI Project Operations Plan (POP), both prepared by Geraghty and Miller, Inc. (1991a and b), and as amended with USEPA approval during the RI (ERM-Northeast, Inc., 1995b). In addition, the Health and Safety Plan (HASP) and the Quality Assurance Project Plan (QAPP) included in the POP, and as modified previously for the RI, were followed during drum removal activities.

1.2 SITE DESCRIPTION

The MRFA Site, also known as the Saratoga Research and Development Center, is located on Plains Road in the Towns of Malta and Stillwater, Saratoga County, New York. The site includes a parcel of land consisting of approximately 165 developed acres, known as the Malta Test Station, and additional undeveloped woodlands. Figure 1 identifies the location and areal extent of the MRFA Site.

A Literature Search Report (LSR) (Geraghty & Miller, Inc., 1992), prepared as part of the RI, summarizes the history of operations at the MRFA Site. The U.S. Government established the Malta Test Station in 1945, and since then it has been used for a wide range of rocket and weapons testing programs as well as for space research. Thirty-three buildings and sixteen storage or disposal areas have been constructed or established at the Test Station during its use as a research and development facility.

Adjacent to the Test Station is a restrictive "easement area" in which human habitation is prohibited. A fence surrounding the 165-acre Test Station, a single access road, and strict security also restrict public access. The central 81 acre portion of the Test Station (property of the Wright-Malta Corporation) is still

being used as a weapons and propellant testing facility. Figure 2 is a schematic illustrating the MRFA Test Station.

Forty-eight distinct Areas of Concern (AOC) were investigated during the RI. At three locations in two of these AOCs, buried crushed, metallic drums/containers were found during test pitting activities. The two AOCs in which buried drums were found, Areas D-1 and S-1, are described below.

1.2.1 Area D-1

Area D-1 is a sandy, sparsely vegetated area with no buildings or paving, located in the south-central portion of the Test Station, southwest of Areas S-5, D-5, and D-6, and at least 450 feet from the nearest Test Station building (Figures 2 and 3). A broad bowl-shaped area has been established to the south of Area D-1 due to soil removal for berm construction associated with Building 24. Toward the west side of Area D-1 the topography grades steeply upward to the top of a long bank, which runs along the northwestern side of Area D-1 and Area S-5.

According to the LSR (Geraghty and Miller, Inc., 1992), Area D-1 was formerly used as a burn pit for disposal of various waste materials including domestic trash, off-spec propellants, and spent solvents. Through RI field work (surface geophysical surveys and seven test pits), the former burn pit was located, and soil sampling within and below the burn pit was performed. No soil contamination was detected at the burn pit; however, approximately 80 feet east of the burn pit, buried crushed drums were identified at Test Pit P-78. Elevated PID headspace readings were noted during the excavation of this test pit, and a soil sample (collected from 6 to 8 feet below grade) had 16 ppm of total volatile organic compounds (VOCs) detected. The analytical results for that sample are provided in Tables D-5-1 through D-5-5 in Appendix D-5 of the RI Report.

The RI test pits also contained other miscellaneous metal including fittings, pipes, banding, sheet metal, coffee and soda cans, wire, and cable. The test pits also contained non-metal debris including ash, wood, empty glass bottles, broken glass, insulation, plastic sheeting, paper, PVC piping, electric cord, shingles, and styrofoam cups. There is no current use of this area.

1.2.2

Area S-1

Area S-1 is an open area surrounded by trees with no buildings or paving, located in the south-central portion of the Test Station, south of Areas D-1 and D-6, and at least 300 feet from the nearest Test Station building (Figures 2 and 3). According to the LSR (Geraghty and Miller, Inc., 1992), Area S-1 was formerly used for all-purpose storage of materials, including scrap metal, garbage, lumber, roofing, pipes, spray cans, and drums. The RI field work (surface geophysical surveys and 12 test pits) indicated that Area S-1 was used historically for the subsurface disposal of crushed drums and a compressed gas cylinder. Buried crushed drums were encountered at Test Pit locations P-59 and P-61, and an unlabelled compressed gas cylinder was encountered in Test Pit 57. Since no elevated photoionization detector (PID) readings were noted during the excavation of Test Pits P-59 (referred to as Area S-1 South) and P-61 (referred to as Area S-1 North), sampling was not performed in these test pits when they were excavated in October 1993. The compressed gas cylinder was subsequently found to contain boron trifluoride and was appropriately treated and disposed. A cylinder decommissioning report (ERM-Northeast, Inc., 1995d) documents the cylinder treatment and disposal methods and results.

Area S-1 test pits also contained other miscellaneous metal such as shavings, metal chunks, sheet metal, plate metal, banding, wire, cans, pipe, and angle iron as well as wood, concrete, plastic sheeting, and styrofoam. There is no current use of this area.

2.0

EXCAVATION OF CRUSHED DRUMS

The excavation and removal of the crushed, buried drums began on 7 July 1995 and was completed on 18 July 1995. The excavations were performed by MC Environmental Services, Inc. of Fort Edward, New York under the supervision of ERM-Northeast, Inc. A backhoe was used to perform the excavations, and a hand-held metal detector was used to help locate buried metal during excavation activities. All excavation activities were performed pursuant to the USEPA-approved Work Plan (ERM-Northeast, Inc., 1995c).

2.1

AREA D-1

Excavation began at Area D-1 (Test Pit P-78) on 7 July 1995 and was completed on 10 July 1995. A backhoe was used to perform the excavation, and a hand-held metal detector was used to help locate buried metal during excavation activities. The area excavated was an approximate rectangle of 44 feet long by 23 feet wide by nine feet deep and is illustrated on Figures 3 and 4. Photos 1 through 12 in Appendix A illustrate the drum excavation activities in Area D-1. A total of seven drums were excavated from Area D-1 and staged on plastic sheeting next to the excavation (Photo 8). Excavated soil was also staged (separately from the drums) on plastic sheeting next to the excavation (Photo 8). Some of the soil excavated from Area D-1 was visibly stained and had PID readings above background. Upon completion of the excavation, the drums and soil were covered with plastic sheeting. The excavation was left open pending analytical results of confirmatory soil samples collected from the excavation and soil pile, which are discussed in Section 3.0.

2.2

AREA S-1 NORTH

Excavation began at Area S-1 North (Test Pit P-61) on 10 July 1995 and was completed on 11 July 1995. Trees and brush were cleared with heavy

equipment by MC Environmental Services, Inc. The area excavated was an approximate rectangle of 50 feet long by 40 feet wide by nine feet deep as shown on Figures 3 and 5 and documented by Photos 13 through 20. A total of 140 drums were excavated from Area S-1 North and staged on plastic sheeting next to the excavation. None of the soil removed and staged on plastic sheeting was visibly stained or had PID readings above background. Upon completion of the excavation, the drums and soil were covered with plastic sheeting. The excavation was left open pending analytical results of confirmatory soil samples collected from the excavation.

While excavating in Area S-1 North, a large amount of scrap metal unrelated to the drums was found. This scrap metal consisted primarily of corrugated sheet metal, piping, and miscellaneous metal debris. It is possible that the scrap metal may be debris derived from the explosion of Building 20 in 1955. According to page 8-16 of the LSR (Geraghty and Miller, Inc., 1992), the debris from the Building 20 explosion may have been buried in "an unidentified open field, possibly the baseball field (the D-5 and, possibly, D-6 Areas)." In 1955, this open field could have extended south to the present-day Area S-1 when there were no trees present as there are today. The scrap metal was left in-place with USEPA approval.

In addition, two test pits (TP-1, TP-2) were dug farther north of the Area S-1 North excavation on 17 July 1995 (Figure 5). These test pits were dug to check for possible buried drums in that area in response to signals from the metal detector. Miscellaneous metal debris was found in both test pits including sheet metal, piping, and one empty metal 5-gallon pail. It is possible that this metal debris may also be derived from the Building 20 explosion as described above. No visible staining was observed and no drums were found in either test pit, so they were backfilled with the excavated soil.

AREA S-1 SOUTH

Excavation began at Area S-1 South (Test Pit P-59) on 12 July 1995 and was completed on 14 July 1995. Trees and brush were cleared with heavy equipment by MC Environmental Services, Inc. The area excavated was an approximate rectangle of 60 feet long by 30 feet wide by nine feet deep as shown on Figures 3 and 5 and documented by Photos 21 through 32. A total of 413 drums were excavated from Area S-1 South and placed in two piles in order to maintain backhoe mobility and egress (Photos 28 through 31). The excavated drums and soil were staged separately on plastic sheeting next to the excavation. None of the soil removed was visibly stained or had PID readings above background. Upon completion of the excavation, the drums and soil were covered with plastic sheeting. The excavation was left open pending analytical results of confirmatory soil samples collected from the excavation.

One small, stainless steel drum excavated from Area S-1 South (Photos 24 through 26) contained an unknown quantity of liquid and sludge. Vapors inside the drum exhibited PID readings of approximately 50 ppm. The drum and sludge were placed in an overpack, and the liquid was transferred into a liquid waste 55-gallon drum. All soil potentially affected by the liquid was placed on plastic sheeting and staged separately from unaffected excavated soil (Photo 27).

3.0

SAMPLING AND ANALYSIS

Post-excavation sampling and analyses were performed at the completion of each excavation, while waste characterization sampling and analyses were performed on the liquid, sludge, and soil associated with the above-referenced stainless steel drum excavated from Area S-1 South. All activities were performed pursuant to the USEPA-approved Work Plan (ERM-Northeast, Inc., 1995c).

All post-excavation samples were collected with clean stainless steel trowels or a clean hand auger. The waste characterization soil and sludge samples were collected with clean stainless steel trowels while the liquid waste samples were collected with unused, glass drum thieves. All samples were hand-delivered under chain-of-custody documentation to Adirondack Environmental Services, Inc. (AES) of Albany, New York for 48-hour turnaround analyses.

3.1

AREA D-1

Sampling of soil in the Area D-1 excavation floor, sidewall, and excavated soil pile was performed by ERM-Northeast, Inc. on 11 July 1995 (Photos 10 and 11). One grab sample was collected from the floor of the excavation (sample # D1/01), and another grab sample was collected from the northeast wall of the excavation (sample # D1/02). Both grab samples were analyzed for Target Compound List (TCL) volatile organic compounds (VOCs) and semi-volatile organic compounds (SVOCs). The soil pile sample (sample # D1/03) was analyzed for TCL VOCs (grab sample) and TCL SVOCs (composited from three different locations in the pile).

The validated analytical results are included in Appendix B and summarized in Table 1. All three samples contained detectable concentrations of some VOCs and SVOCs, but none of the detections exceeded the MRFA Comparative

Criteria. The MRFA Comparative Criteria were defined as site-specific concentrations which represent a level of environmental quality above which further characterization may be warranted (ERM-Northeast, Inc., 1994). The total VOC concentrations ranged from 28 ug/kg (D1/02) to 1,444 ug/kg (D1/01), while the total SVOC concentrations ranged from 1,460 ug/kg (D1/02) to 20,800 ug/kg (D1/03). The MRFA Comparative Criteria for total VOCs is 10,000 ug/kg and for total SVOCs is 500,000 ug/kg.

3.2

AREA S-1 NORTH

Sampling of the soil in the excavation floor and sidewall was performed by ERM-Northeast, Inc. on 12 July 1995. Two grab samples were collected for full TCL/Target Analyte List (TAL) analysis and labeled S1N/01 (excavation floor) and S1N/02 (excavation side wall).

The validated analytical results are included in Appendix B and summarized in Table 1. Both samples contained detectable concentrations of some organic compounds, but none of the detections exceeded the MRFA Comparative Criteria. The total VOC concentrations were 15 ug/kg (S1N/01) and 6 ug/kg (S1N/02), while the total SVOC concentrations were 100 ug/kg (S1N/01) and non-detect (S1N/02). The MRFA Comparative Criteria for total VOCs is 10,000 ug/kg and for total SVOCs is 500,000 ug/kg. The only pesticide detection was 0.24 ug/kg of 4,4'-DDE in S1N/01. The MRFA Comparative Criteria for 4,4'-DDE is 2,100 ug/kg. PCBs were not detected in either sample. Both samples also contained detectable concentrations of inorganic analytes. The inorganic results are included in Appendix B and summarized on Table 2. None of the concentrations exceeded the MRFA Comparative Criteria.

Sampling of the soil in the excavation floor and sidewall was performed by ERM-Northeast, Inc. on 13 July 1995. Two grab samples were collected for full TCL/TAL analysis and labeled S1S/01 (excavation floor sample, 8 to 10 feet below land surface) and S1S/02 (excavation side wall).

The validated analytical results are included in Appendix B and summarized in Table 1. Both samples contained detectable concentrations of some organic compounds, but none of the detections exceeded the MRFA Comparative Criteria. The total VOC concentrations were 13 ug/kg (S1S/01) and non-detect (S1S/02), compared to a MRFA Comparative Criteria of 10,000 ug/kg, while the total SVOC concentrations were 1,218 ug/kg (S1S/01) and 78 ug/kg (S1S/02), compared to a MRFA Comparative Criteria of 500,000 ug/kg. Pesticides and PCBs were not detected in either sample.

The validated analytical results for inorganic analytes are included in Appendix B and summarized in Table 2. Both samples contained detectable concentrations of inorganic analytes, and all inorganic analytes in the post-excavation samples were initially determined to be below the MRFA Comparative Criteria. Subsequent review of the inorganic data during preparation of this report revealed that one inorganic analyte exceeded its MRFA Comparative Criteria in one sample: mercury in the excavation floor sample S1S/01 was detected at 31.6 mg/kg (compared to a MRFA Comparative Criteria of 8.1 mg/kg), but qualified as estimated due to quality control requirements (see Appendix B). The mercury concentration in the nearby excavation side wall sample (S1S/02) was 0.15 mg/kg and as discussed below, the sample of soil (S1S/05) collected in association with the stainless steel drum that was removed from Area S-1 South (see Section 2.3), which was analyzed for TCLP waste characterization, showed nondetect for mercury (i.e., no leachable mercury) [see Table 3]. The mercury detection in S1S/01 is

interpreted not to be a concern because of its anomalous nature and limited extent, as shown by other sample results from Area S-1, and the inaccessibility of the sample location (8 to 10 feet below land surface).

As discussed in Section 2.3, one small, stainless steel drum (Photos 24 through 26) that contained an unknown quantity of liquid and sludge was excavated from Area S-1 South. Vapors inside the drum exhibited PID readings of approximately 50 ppm. The drum and sludge were placed in an overpack, and the liquid was transferred into a liquid waste drum. All soil potentially affected by the liquid was placed on plastic sheeting and staged separately from unaffected excavated soil (Photo 27). The liquid, sludge, and potentially affected soil pile were sampled by ERM on 21 July 1995 for waste characterization. On 24 July 1995, the liquid was resampled due to bottle breakage during the original shipment to the laboratory. The sludge and soil samples (S1S/03 and S1S/05, respectively) were collected with clean, metal trowels, and the liquid sample (S1S/04) was collected with unused, glass drum thieves. The analytical results are included in Appendix B and summarized in Tables 3 and 4. The analyses indicate the wastes are not hazardous, and thus the wastes can be disposed as non-hazardous at a facility to be approved by the USEPA.

BACKFILLING OF EXCAVATIONS

The post-excavation analytical results for each excavation were received within 48 hours of sample collection. The analytical results were then reviewed and submitted to the USEPA. Based on the analytical results, all three excavations were backfilled with USEPA approval. The Area D-1 excavation was backfilled on 14 July 1995, the Area S-1 North excavation (including the two additional test pits, TP-1 and TP-2) on 17 July 1995, and the Area S-1 South excavation on 18 July 1995. Backfilling was performed by MC Environmental Services, Inc.

The excavated crushed drums were removed from the MRFA Site on 2 October 1995. Drum loading was performed by Capitol Container Corporation of Albany, New York. Photos 33 and 34 illustrate the drum loading process. The drums were loaded onto 30 cubic yard, open-top dump trucks with a crane (Photos 33 and 34). An ERM-Northeast, Inc. representative provided oversight during drum loading and removal activities which included counting the drums removed from each area. As stated above, the total number of drums removed from each area is as follows: Area D-1: seven drums; Area S-1 North: 140 drums; and Area S-1 South: 413 drums. The drums were considered to be non-hazardous scrap metal, and thus could be recycled. The drums were transported by Capitol Container Corporation to Nimco Shredding Co. in Newark, New Jersey. The drums were shredded and recycled by Nimco Shredding Co. A copy of the Certificate of Destruction is provided in Appendix C.

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ERM-Northeast, Inc., 1994, Proposed Sampling Program to Establish the Extent of Contamination, Malta Rocket Fuel Area Site, January 1994.

ERM-Northeast, Inc., 1995a, Final Remedial Investigation Report, Malta Rocket Fuel Area Site, Towns of Malta and Stillwater, Saratoga County, New York, February 1995.

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Geraghty and Miller, Inc., 1991b, Project Operations Plan for the Malta Rocket Fuel Area Site, Towns of Malta and Stillwater, Saratoga County, New York, August 1991.

Geraghty and Miller, Inc., 1992, Literature Search Report for the Malta Rocket Fuel Area Site, Towns of Malta and Stillwater, Saratoga County, New York, May 1992.

Rust Environment and Infrastructure, Inc., 1995, Revised Feasibility Study, Malta Rocket Fuel Area Site, Saratoga County, New York, October 1995.

FIGURES

LEGEND

(5C)

SURFACE WATER RAYNE ID#

SOURCE: USGS ROUND LAKE AND MECHANICVILLE
7.5' QUADRANGLES

SARATOGA LAKE



SARATOGA RIDGE
WELL

SARATOGA HOLLOW
WELL

COLD SPRING WELL

APPROXIMATE ONE MILE EASEMENT BOUNDARY

GE/EXXON

SITE

NEW YORK STATE
ATOMIC AND SPACE
DEVELOPMENT AUTHORITY

Cornell Hill
Lookout Tower

Black Pond

LUTHER FOREST
WELL FIELD

Maltaville

Little
Round
Lake

Round
Lake

MALTA
STILLWATER

L
W
A
T
E
R

QUADRANGLE LOCATION

TITLE

SITE LOCATION MAP

PREPARED FOR

MALTA ROCKET FUEL AREA SITE

ERM ERM-Northeast
Environmental Resources Management

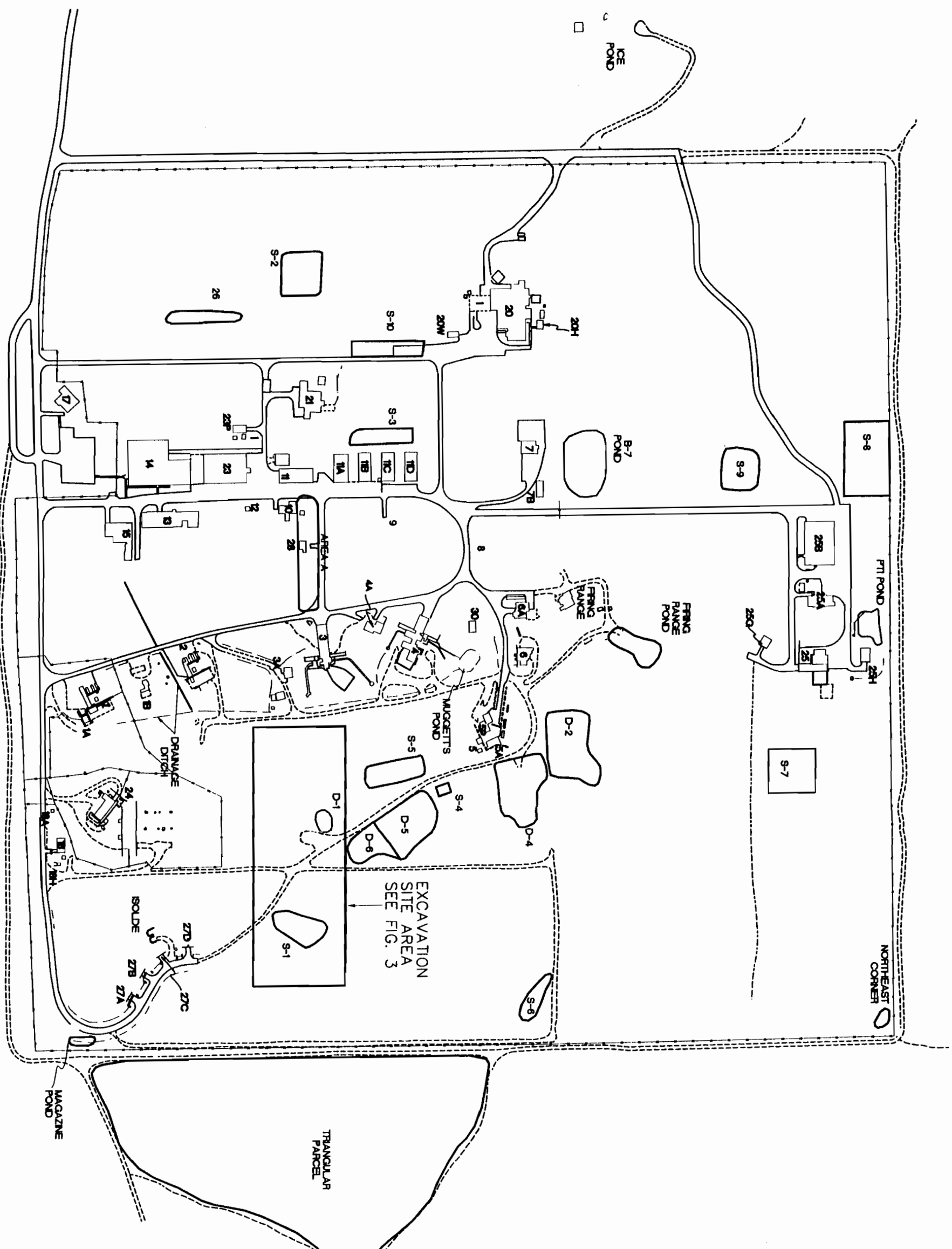
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FIGURE
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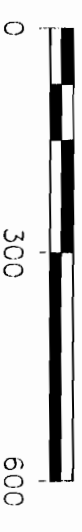


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D-1 ○ - RI AREA OF CONCERN

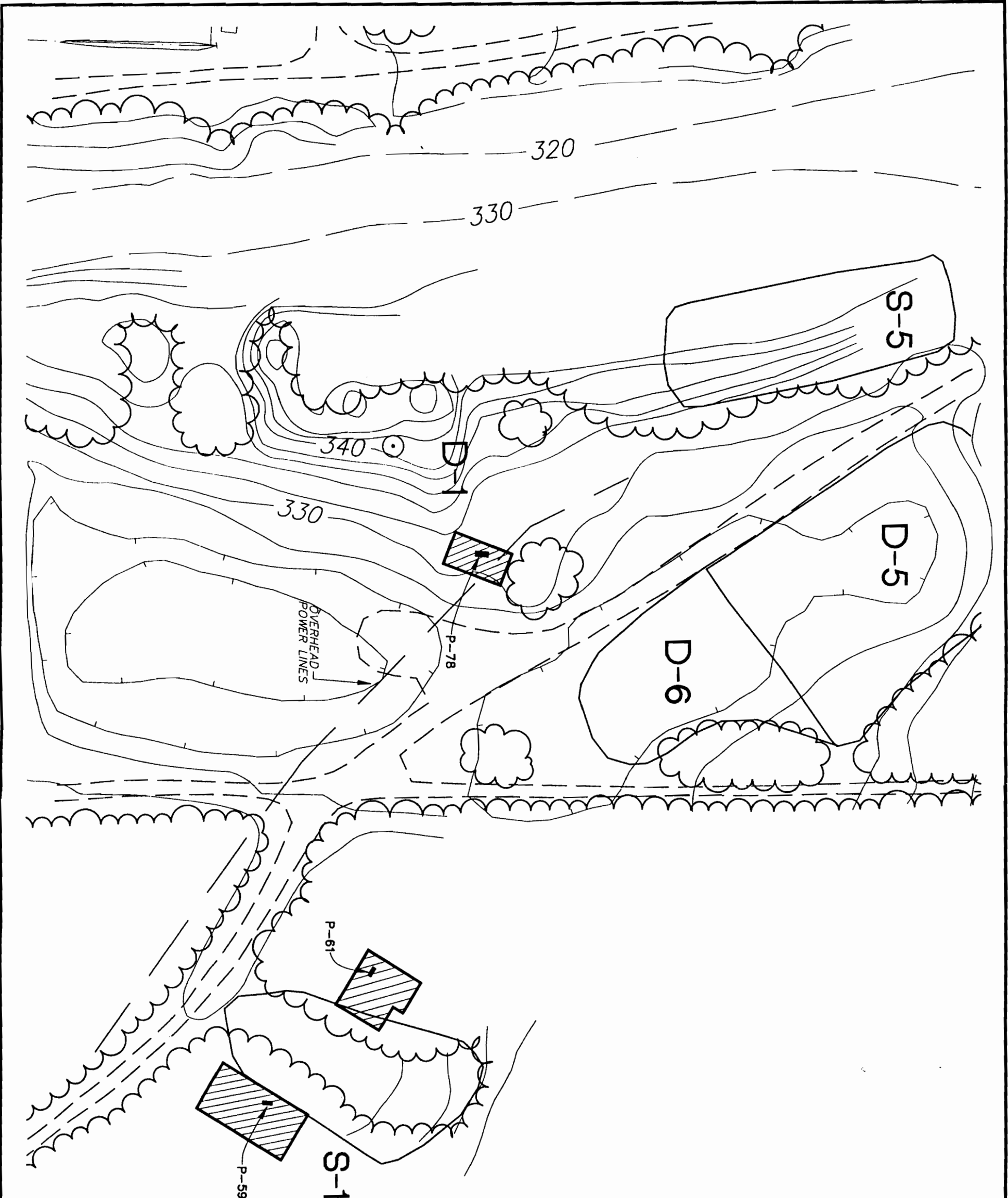


SCALE IN FEET



MRFA TEST STATION SCHEMATIC
MALTA ROCKET FUEL AREA SITE
MALTA, NY

PREPARED FOR
MALTA ROCKET FUEL AREA SITE



- LEGEND:
-  P-61 - TEST PIT LOCATIONS
 -  - EXCAVATED AREAS
 -  - FENCELINE
 -  - ROADWAYS
 -  - TREELINE
 -  - AREA D-1 BURN PIT

CRUSHED DRUM
EXCAVATION AREA MAP
MALTA ROCKET FUEL AREA SITE
MALTA, NY

PREPARED FOR
MALTA ROCKET FUEL AREA SITE



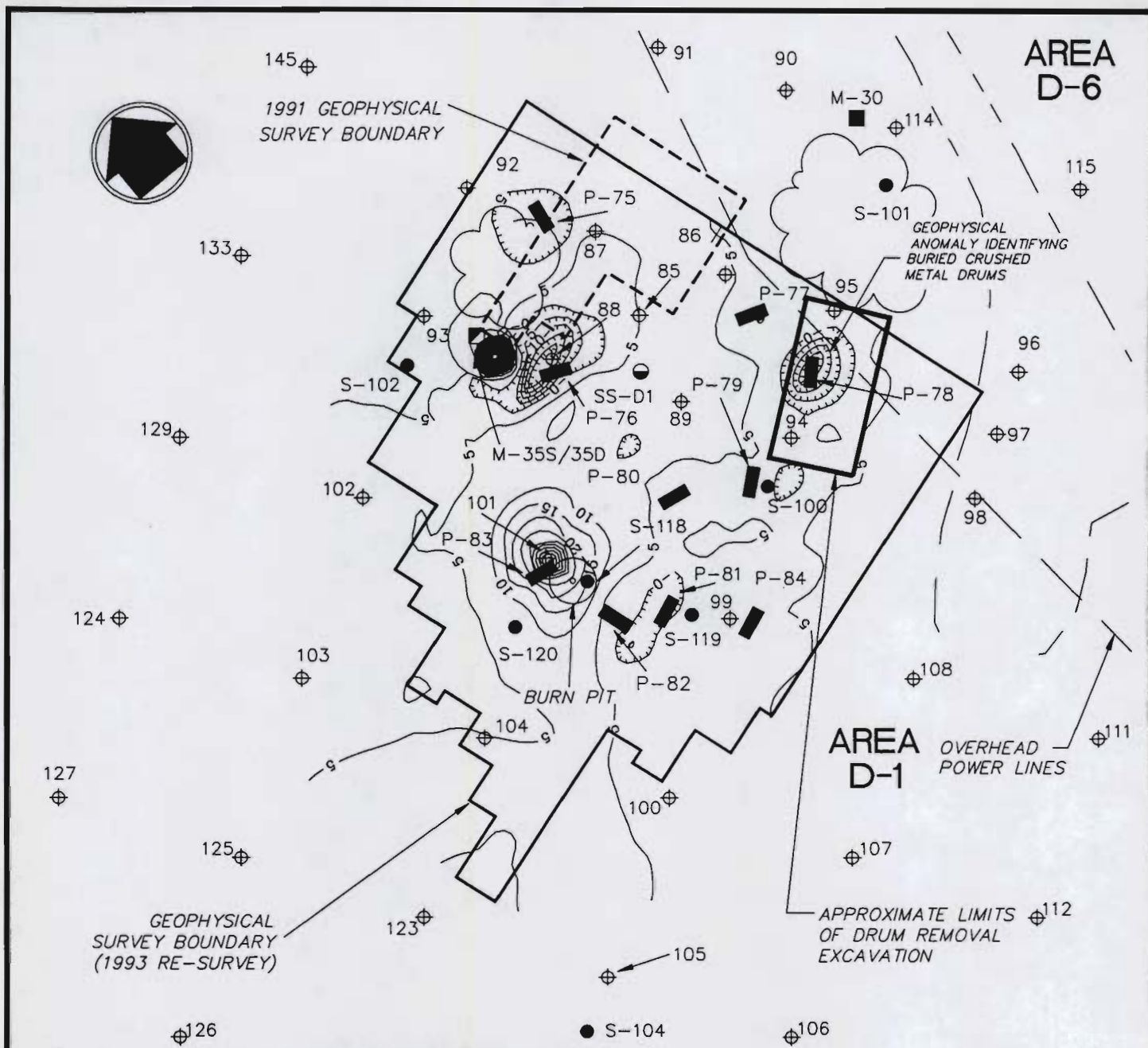
ERM-Northeast

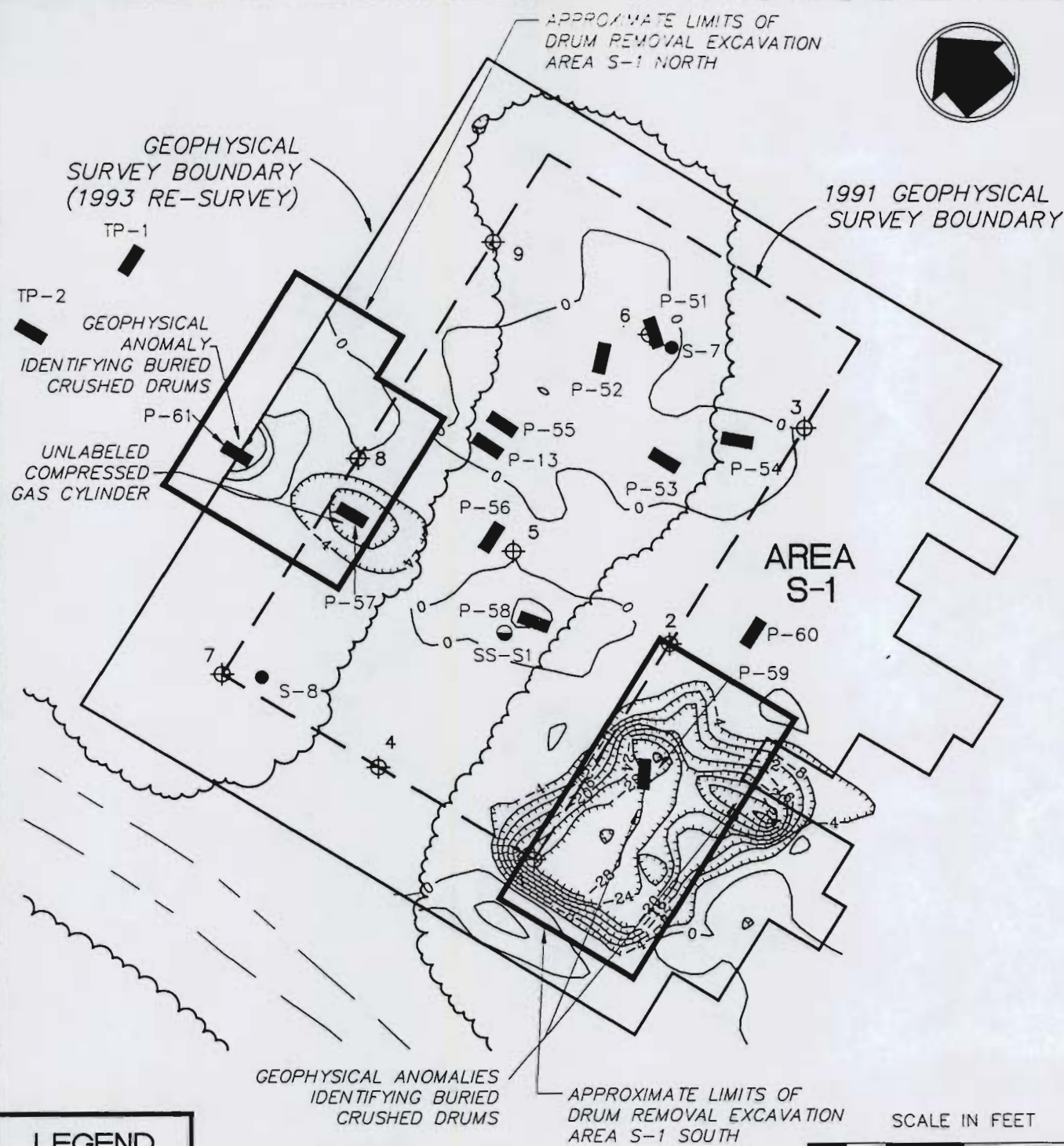
SCALE
1" = 60'

FIGURE
3

DATE
9/95

ERM

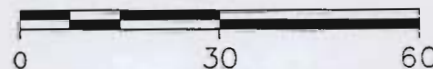




LEGEND

- TP-1
[Symbol: Black rectangle] TEST PIT DURING DRUM REMOVAL PROJECT
- 3
[Symbol: Circle with crosshair] SOIL GAS SAMPLING LOCATION & ID#
- S-8
[Symbol: Solid black circle] SOIL BORING LOCATION & ID#
- SS-S1
[Symbol: Circle with dot] SURFACE SOIL SAMPLE LOCATION & ID#
- P-13
[Symbol: Black rectangle] TEST PIT LOCATION & ID#

SCALE IN FEET



AREA S-1 CRUSHED DRUM REMOVAL LOCATIONS MALTA, NY

PREPARED FOR

MALTA ROCKET FUEL AREA SITE



ERM-Northeast

SCALE
1"=30'
DATE
09/95

FIGURE
5

2015-09-09

TABLES

TABLE 1
DRUM EXCAVATION SOIL ANALYTICAL RESULTS - ORGANIC COMPOUNDS
MALTA ROCKET FUEL AREA SITE

Target Volatile Organic Compounds*	MRFA Comparative Criteria	Area D-1 7/11/95			Area S-1 North 7/12/95			Area S-1 South 7/13/95			FB#1	TB#1	TB#2
		floor DL/01	side wall DL/02	soil pile DL/03	floor SIN/01	side wall SIN/02	floor SIS/01	side wall SIS/02					
Acetone	200	13 J	10 UJ	11 UJ	8 J	10 UJ	6 J	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	
Carbon Tetrachloride	600	18	10 U	11 U	11 U	10 U	11 UJ	10 U	10 U	10 U	10 U	10 U	
Tetrachloroethene	1400	150	10 U	35	11 U	10 U	11 UJ	10 U	10 U	10 U	10 U	10 U	
Trichloroethene	700	53	10 U	5 J	11 U	10 U	11 UJ	10 U	10 U	10 U	10 U	10 U	
Volatile Organic TICs													
Unknown Alkanes	none	300 J	NF	340 J	NF	NF	NF	NF	NF	NF	NF	NF	
Unknown Hydrocarbons	none	570 J	NF	360 J	NF	NF	NF	NF	NF	NF	30 J	NF	
Unknown Siloxanes	none	90 J	28 J	200 J	7 J	6 J	7 J	NF	NF	NF	NF	NF	
Assorted Unknowns	none	250 J	NF	70 J	NF	NF	NF	NF	NF	NF	NF	NF	
Total VOCs	10000	1444	28	1010	15	6	13	0	30	0	0	0	
Target Semi-Volatile Organic Compounds*													
1,4-Dichlorobenzene	8500	350 U	350 U	360 U	360 U	350 U	26 J	28 J	10 U	NA	NA	NA	
Bis (2-Ethylhexyl) Phthalate	50000	360 UJ	350 U	360 UJ	360 U	350 U	72 J	50 J	10 U	NA	NA	NA	
Semi-Volatile Organic TICs													
Benzene, 1,1'-oxybis-	50000	NF	270 JN	NF	NF	NF	NF	NF	NF	NF	NA	NA	
Unknown Substituted Phenol	50000	NF	NF	NF	NF	NF	NF	NF	4 J	NA	NA	NA	
Unknown Alkanes	50000	14500 J	1190 J	18400 J	NF	NF	320 J	NF	NF	NA	NA	NA	
Unknown Hydrocarbons	50000	800 J	NF	800 J	NF	NF	NF	NF	NF	NA	NA	NA	
Unknown Siloxanes	50000	600 J	NF	NF	NF	NF	NF	NF	NF	NA	NA	NA	
Assorted Unknowns	50000	2800 J	NF	1600 J	100 J	NF	800 J	NF	NF	NA	NA	NA	
Total SVOCs	500000	18700	1460	20800	100	0	1218	78	4	NA	NA	NA	
Pesticide/PCB Compounds*													
4,4'-DDE	2100	NA	NA	NA	0.24 JP	3.5 U	3.7 U	3.5 U	NA	NA	NA	NA	

Notes:

1. All concentrations are in micrograms per kilogram (ug/kg = parts per billion (ppb)) except the equipment and trip blanks which are in micrograms per liter (ug/l = ppb).
2. * = Only compounds that were detected in one or more samples are listed.
3. U = Analyte was not detected.
4. J = Semi-quantitative value due to QA/QC data validation requirements.
5. N = Compound was identified with a Chemical Abstract Services (CAS) number.
6. P = >25% difference for detected concentrations between the two GC columns. The lower value is reported.
7. NF = Compound not found on TIC list.
8. NA = Not analyzed for.

TABLE 2
DRUM EXCAVATION SOIL ANALYTICAL RESULTS
INORGANIC ANALYTES
MALTA ROCKET FUEL AREA SITE

Analytes	MRFA Comparative Criteria	Area S-1 North				Area S-1 South			
		7/12/95				7/13/95			
		floor S1N/01		side wall S1N/02		floor S1S/01		side wall S1S/02	
Aluminum	78300	5240		4780		9380		5110	
Antimony	13.2	11.2	U	10.7	U	11.4	U	10.7	U
Arsenic	8.1	2.3		2.6		5.1		1.8	B
Barium	300	20.6	B	13.9	B	20.4	B	22.2	B
Beryllium	1.0	0.37	B	0.36	B	0.52	B	0.26	B
Cadmium	13.5	0.63	U	0.61	U	0.64	U	0.60	U
Calcium	500000	390	B	334	B	239	B	177	B
Chromium	135	7.2		6.6		11.9		6.1	
Cobalt	30	3.7	B	4.6	B	8.8	B	3.3	U
Copper	999	16.4		10.3		25.2		10.8	
Iron	90000	9790		10800		18200		7740	
Lead	500	5.3	J	3.4		8.1	J	2.9	
Magnesium	500000	1320		1770		2870		1010	B
Manganese	2700	241	J	227	J	482	J	125	J
Mercury	8.1	0.07	BJ	0.10	BJ	31.6	J	0.15	J
Nickel	540	7.5	BJ	7.8	BJ	17.5	J	7.1	BJ
Potassium	525000	149	U	143	U	152	U	142	U
Selenium	2	0.41	U	0.40	BJ	0.44	B	0.40	U
Silver	135	1.4	UJ	1.3	UJ	1.4	UJ	1.3	UJ
Sodium	325000	139	U	133	U	142	U	133	U
Thallium	1.89	0.83	U	0.79	U	0.84	U	0.79	U
Vanadium	189	6.5	B	6.5	B	12.3		6.2	B
Zinc	8100	37.3		56.8		28.3		13.3	
Cyanide	540	1.1	U	1.0	U	1.1	U	1.0	U

Notes:

1. All concentrations are in milligrams per kilogram (mg/kg = parts per million (ppm)).
2. U = Analyte was not detected.
3. J = Semi-quantitative value due to QA/QC data validation requirements.
4. B = Value is above the Instrument Detection Limit (IDL) but below the Contract Required Detection Limit

TABLE 3
ANALYTICAL RESULTS FOR WASTE MATERIAL EXCAVATED
DURING CRUSHED DRUM REMOVAL
TCLP CHARACTERISTICS
MALTA ROCKET FUEL AREA SITE

TCLP Parameter	Area S-1 South		
	waste within the drum		soll outside the drum
	S1S/03 (sludge)	S1S/04 (liquid)	S1S/05 (soll)
Inorganics			
Arsenic	< 500	< 500	< 500
Barium	< 20	< 20	120
Cadmium	< 10	< 10	< 10
Chromium	< 50	< 50	< 50
Lead	< 500	< 500	< 500
Mercury	< 20	< 20	< 20
Selenium	< 100	< 100	< 100
Silver	< 20	< 20	< 20
Volatile Organic Compounds			
Benzene	< 85	< 85	< 85
Carbon Tetrachloride	< 85	< 85	< 85
Chlorobenzene	< 85	< 85	< 85
Chloroform	< 85	< 85	< 85
1,2-Dichloroethane	< 85	< 85	< 85
1,1-Dichloroethene	< 85	< 85	< 85
Methyl Ethyl Ketone	< 170	< 170	< 170
Tetrachloroethene	< 85	< 85	< 85
Trichloroethene	< 85	< 85	< 85
Vinyl Chloride	< 170	< 170	< 170
Semi-Volatile Organic Compounds			
Cresols (total)	< 100	< 100	< 100
1,4-Dichlorobenzene	< 100	< 100	< 100
2,4-Dinitrotoluene	< 100	< 100	< 100
Hexachlorobenzene	< 100	< 100	< 100
Hexachlorobutadiene	< 100	< 100	< 100
Hexachloroethane	< 100	< 100	< 100
Nitrobenzene	< 100	< 100	< 100
Pentachlorophenol	< 500	< 500	< 500
Pyridine	< 100	< 100	< 100
2,4,5-Trichlorophenol	< 100	< 100	< 100
2,4,6-Trichlorophenol	< 100	< 100	< 100
Pesticides			
Chlordane	< 5	< 5	< 5
Endrin	< 5	< 5	< 5
Heptachlor	< 5	< 5	< 5
Heptachlor Epoxide	< 5	< 5	< 5
Lindane	< 5	< 5	< 5
Methoxychlor	< 50	< 50	< 50
Toxaphene	< 50	< 50	< 50
2,4-D	< 2000	< 2000	< 2000
2,4,5-TP (Silvex)	< 200	< 200	< 200

Note:

TCLP concentrations are in micrograms per liter (ug/l = parts per billion (ppb)).

TABLE 4
ANALYTICAL RESULTS FOR WASTE MATERIAL EXCAVATED
DURING CRUSHED DRUM REMOVAL
RCRA CHARACTERISTICS AND PCBS
MALTA ROCKET FUEL AREA SITE

Parameter	Area S-1 South			
	waste within the drum		soil outside the drum	
	S1S/03 (sludge)	S1S/04 (liquid)	S1S/05 (soil)	
Corrosivity	non-corrosive	non-corrosive	non-corrosive	
Reactivity	non-reactive	non-reactive	non-reactive	
Total Cyanide	< 1 ug/g	< 1 ug/g*	< 1 ug/g	
Sulfide	< 10 ug/g	< 10 ug/g*	< 10 ug/g	
Flashpoint	> 200 °F	> 200 °F	> 200 °F	
Total PCBs	< 1 ug/g	< 1 ug/l	< 1 ug/g	

Notes:

1. ug/g = parts per million (ppm), ug/l = parts per billion (ppb).
2. * Analytical protocol for waste liquid dictates that these parameters be reported in solid units.

Appendix A

Photographs of Drum Removal Activities



Photo 1 - Excavating in Area D-1.



Photo 2 - Drum in Area D-1 excavation.



Photo 3 - MC Environmental Services worker removing drum from soil pile, Area D-1.



Photo 4 - Drum removal in Area D-1.



Photo 5 - MC Environmental Services worker screening Area D-1 excavation with metal detector.



Photo 6 - Stainless steel container excavated from Area D-1.



Photo 7 - Area D-1 Excavation.



Photo 8 - Area D-1 Excavation.



Photo 9 - Area D-1 soil pile and drum pile.



Photo 10 - ERM personnel sampling floor of Area D-1 excavation.



Photo 11 - ERM personnel sampling Area D-1 soil pile.



Photo 12 - Area D-1 backfilled.



Photo 13 - Excavating in Area S-1 North.



Photo 14 - Drum removal in Area S-1 North.



Photo 15 - Area S-1 North drum pile.

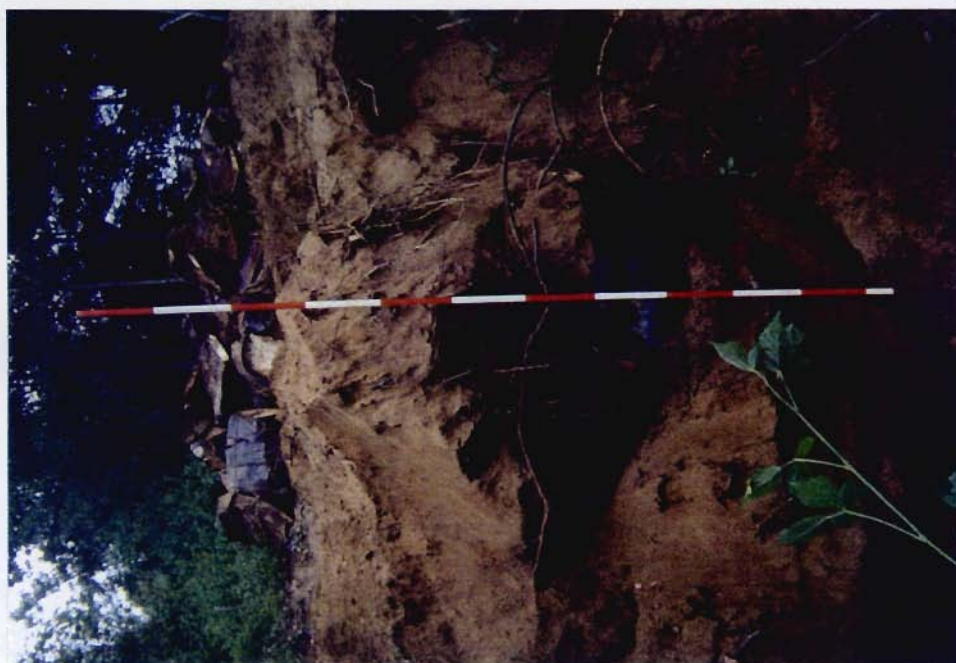


Photo 16 - Drums in Area S-1 North excavation.



Photo 17 - Scrap metal below tree in Area S-1 North excavation.



Photo 18 - Area S-1 North drum pile.



Photo 19 - Area S-1 North drum pile.



Photo 20 - Area S-1 North backfilled and staged crushed drums.

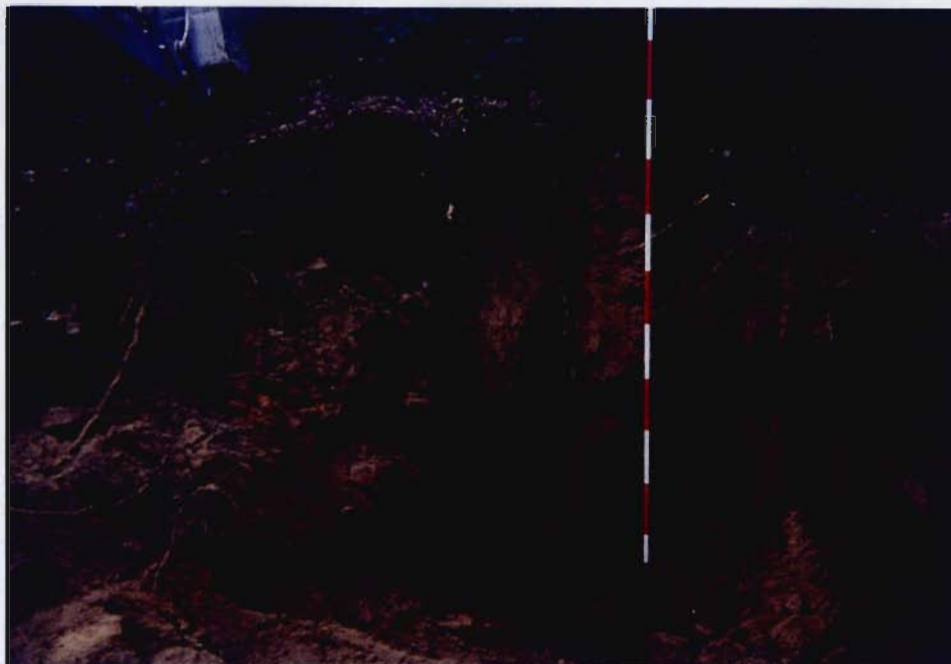


Photo 21 - Excavating in Area S-1 South.



Photo 22 - Drum removal in Area S-1 South.



Photo 23 - Drum removal in Area S-1 South.



Photo 24 - Overpacking of stainless steel drum containing liquid and sludge, Area S-1 South.



Photo 25 - Overpacked stainless steel drum containing liquid and sludge, Area S-1 South.



Photo 26 - Staging overpacked stainless steel drum containing liquid and sludge, Area S-1 South.



Photo 27 - Staging soil from area where stainless steel drum containing liquid and sludge was found, Area S-1 South.



Photo 28 - Area S-1 South drum pile number 1.



Photo 29 - Area S-1 South drum pile number 1.



Photo 30 - Area S-1 South drum pile number 2.



Photo 31 - Area S-1 South drum pile number 2.



Photo 32 - Area S-1 South backfilled.



Photo 33 - Loading crushed drums for transportation off-site.



Photo 34 - Loading crushed drums for transportation off-site.

Appendix B

Soil and Waste Analytical Results

000005

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

D1/01

Lab Name: AES, Inc.

Contract:

Lab Code: AES

Case No.: EA9514 SAS No.:

SDG No.: D1/01

Matrix: (soil/water) SOIL

Lab Sample ID: MRFA/D1/01

Sample wt/vol: 3.000 (g/mL) G

Lab File ID: D2013

Level: (low/med) LOW

Date Received: 07/11/95

% Moisture: not dec. 6.

Date Analyzed: 07/15/95

GC Column: RTX502.2 ID: .25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CAS NO.

COMPOUND

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

Q

74-87-3-----	Chloromethane	18.	U
74-83-9-----	Bromomethane	18.	U
75-01-4-----	Vinyl Chloride	18.	U
75-00-3-----	Chloroethane	18.	U
75-09-2-----	Methylene Chloride	18.	U
67-64-1-----	Acetone	13.	J
75-15-0-----	Carbon Disulfide	18.	U
75-35-4-----	1,1-Dichloroethene	18.	U
75-34-3-----	1,1-Dichloroethane	18.	U
156-60-5-----	1,2-Dichloroethene-trans	18.	U
67-66-3-----	Chloroform	18.	U
107-06-2-----	1,2-Dichloroethane	18.	U
78-93-3-----	2-Butanone	18.	U
71-55-6-----	1,1,1-Trichloroethane	18.	U
56-23-5-----	Carbon Tetrachloride	18.	U
75-27-4-----	Bromodichloromethane	18.	U
78-87-5-----	1,2-Dichloropropane	18.	U
10061-01-5-----	cis-1,3-Dichloropropene	18.	U
79-01-6-----	Trichloroethene	53.	U
124-48-1-----	Dibromochloromethane	18.	U
79-00-5-----	1,1,2-Trichloroethane	18.	U
71-43-2-----	Benzene	18.	U
10061-02-6-----	trans-1,3-Dichloropropene	18.	U
75-25-2-----	Bromoform	18.	U
108-10-1-----	4-Methyl-2-Pentanone	18.	U
591-78-6-----	2-Hexanone	18.	U
127-18-4-----	Tetrachloroethene	150.	U
79-34-5-----	1,1,2,2-Tetrachloroethane	18.	U
108-88-3-----	Toluene	18.	U
108-90-7-----	Chlorobenzene	18.	U
100-41-4-----	Ethylbenzene	18.	U
100-42-5-----	Styrene	18.	U
1330-20-7-----	Xylenes (total)	18.	U
156-59-2-----	1,2-Dichloroethene-cis	18.	U

000006

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

D1/01

Lab Name: AES, Inc.

Contract:

Lab Code: AES

Case No.: EA9514 SAS No.:

SDG No.: D1/01

Matrix: (soil/water) SOIL

Lab Sample ID: MRFA/D1/01

Sample wt/vol: 3.000 (g/mL) G

Lab File ID: D2013

Level: (low/med) LOW

Date Received: 07/11/95

% Moisture: not dec. 6.

Date Analyzed: 07/15/95

GC Column: RTX502.2 ID: .25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

Number TICs found: 12

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN SILOXANE	18.19	90.	J
2.	UNKNOWN ALKANE	18.58	100.	J
3.	UNKNOWN ALKANE	20.08	100.	J
4.	UNKNOWN ALKANE	21.25	100.	J
5.	UNKNOWN HYDROCARBON	21.92	80.	J
6.	UNKNOWN HYDROCARBON	22.29	100.	J
7.	UNKNOWN	22.38	70.	J
8.	UNKNOWN HYDROCARBON	22.75	200.	J
9.	UNKNOWN	23.49	80.	J
10.	UNKNOWN HYDROCARBON	23.79	90.	J
11.	UNKNOWN	23.95	100.	J
12.	UNKNOWN HYDROCARBON	24.48	100.	J
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
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000007

EPA SAMPLE NO.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

D1/02

Lab Name: AES, Inc.

Contract:

Lab Code: AES

Case No.: EA9514

SAS No.:

SDG No.: D1/01

Matrix: (soil/water) SOIL

Lab Sample ID: MRFA/D1/02

Sample wt/vol: 5.000 (g/mL) G

Lab File ID: D1992

Level: (low/med) LOW

Date Received: 07/11/95

% Moisture: not dec. 5.

Date Analyzed: 07/14/95

GC Column: RTX502.2 ID: .25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

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

CAS NO. COMPOUND Q

74-87-3-----	Chloromethane	10.	U+
74-83-9-----	Bromomethane	10.	U=
75-01-4-----	Vinyl Chloride	10.	U
75-00-3-----	Chloroethane	10.	U=
75-09-2-----	Methylene Chloride	10.	U
67-64-1-----	Acetone	10.	U
75-15-0-----	Carbon Disulfide	10.	U
75-35-4-----	1,1-Dichloroethene	10.	U
75-34-3-----	1,1-Dichloroethane	10.	U
156-60-5-----	1,2-Dichloroethene-trans	10.	U
67-66-3-----	Chloroform	10.	U
107-06-2-----	1,2-Dichloroethane	10.	U
78-93-3-----	2-Butanone	10.	U
71-55-6-----	1,1,1-Trichloroethane	10.	U
56-23-5-----	Carbon Tetrachloride	10.	U
75-27-4-----	Bromodichloromethane	10.	U
78-87-5-----	1,2-Dichloropropane	10.	U
10061-01-5-----	cis-1,3-Dichloropropene	10.	U
79-01-6-----	Trichloroethene	10.	U
124-48-1-----	Dibromochloromethane	10.	U
79-00-5-----	1,1,2-Trichloroethane	10.	U
71-43-2-----	Benzene	10.	U
10061-02-6-----	trans-1,3-Dichloropropene	10.	U
75-25-2-----	Bromoform	10.	U
108-10-1-----	4-Methyl-2-Pentanone	10.	U
591-78-6-----	2-Hexanone	10.	U
127-18-4-----	Tetrachloroethene	10.	U
79-34-5-----	1,1,2,2-Tetrachloroethane	10.	U
108-88-3-----	Toluene	10.	U
108-90-7-----	Chlorobenzene	10.	U
100-41-4-----	Ethylbenzene	10.	U
100-42-5-----	Styrene	10.	U
1330-20-7-----	Xylenes (total)	10.	U
156-59-2-----	1,2-Dichloroethene-cis	10.	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

000008
EPA SAMPLE NO.

D1/02

Lab Name: AES, Inc.

Contract:

Lab Code: AES

Case No.: EA9514

SAS No.:

SDG No.: D1/01

Matrix: (soil/water) SOIL

Lab Sample ID: MRFA/D1/02

Sample wt/vol: 5.000 (g/mL) G

Lab File ID: D1992

Level: (low/med) LOW

Date Received: 07/11/95

% Moisture: not dec. 5.

Date Analyzed: 07/14/95

GC Column: RTX502.2 ID: .25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

Number TICs found: 2

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. - -	UNKNOWN SILOXANE	18.22	20.	J
2. - -	UNKNOWN SILOXANE	21.80	8.	J
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
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30.				

000009

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

D1/03

Lab Name: AES, Inc.

Contract:

Lab Code: AES

Case No.: EA9514

SAS No.:

SDG No.: D1/01

Matrix: (soil/water) SOIL

Lab Sample ID: MRFA/D1/03

Sample wt/vol: 5.000 (g/mL) G

Lab File ID: D2011

Level: (low/med) LOW

Date Received: 07/11/95

% Moisture: not dec. 6.

Date Analyzed: 07/15/95

GC Column: RTX502.2 ID: .25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CAS NO.

COMPOUND

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

Q

74-87-3-----	Chloromethane	11.	UJ
74-83-9-----	Bromomethane	11.	UJ
75-01-4-----	Vinyl Chloride	11.	U
75-00-3-----	Chloroethane	11.	UJ
75-09-2-----	Methylene Chloride	11.	U
67-64-1-----	Acetone	11.	UJ
75-15-0-----	Carbon Disulfide	11.	U
75-35-4-----	1,1-Dichloroethene	11.	U
75-34-3-----	1,1-Dichloroethane	11.	U
156-60-5-----	1,2-Dichloroethene-trans	11.	U
67-66-3-----	Chloroform	3	BU
107-06-2-----	1,2-Dichloroethane	11.	U
78-93-3-----	2-Butanone	11.	UJ
71-55-6-----	1,1,1-Trichloroethane	11.	U
56-23-5-----	Carbon Tetrachloride	11.	U
75-27-4-----	Bromodichloromethane	11.	U
78-87-5-----	1,2-Dichloropropane	11.	U
10061-01-5-----	cis-1,3-Dichloropropene	11.	U
79-01-6-----	Trichloroethene	5.	J
124-48-1-----	Dibromochloromethane	11.	U
79-00-5-----	1,1,2-Trichloroethane	11.	U
71-43-2-----	Benzene	11.	U
10061-02-6-----	trans-1,3-Dichloropropene	11.	U
75-25-2-----	Bromoform	11.	U
108-10-1-----	4-Methyl-2-Pentanone	11.	UJ
591-78-6-----	2-Hexanone	11.	U
127-18-4-----	Tetrachloroethene	35.	
79-34-5-----	1,1,2,2-Tetrachloroethane	11.	U
108-88-3-----	Toluene	11.	U
108-90-7-----	Chlorobenzene	11.	U
100-41-4-----	Ethylbenzene	11.	U
100-42-5-----	Styrene	11.	U
1330-20-7-----	Xylenes (total)	11.	U
156-59-2-----	1,2-Dichloroethene-cis	11.	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

000010
EPA SAMPLE NO.

D1/03

Lab Name: AES, Inc.

Contract:

Lab Code: AES

Case No.: EA9514 SAS No.:

SDG No.: D1/01

Matrix: (soil/water) SOIL

Lab Sample ID: MRFA/D1/03

Sample wt/vol: 5.000 (g/mL) G

Lab File ID: D2011

Level: (low/med) LOW

Date Received: 07/11/95

% Moisture: not dec. 6.

Date Analyzed: 07/15/95

GC Column: RTX502.2 ID: .25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

Number TICs found: 11

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
=====	=====	=====	=====	=====
1. - -	UNKNOWN SILOXANE	18.25	200.	J
2. - -	UNKNOWN ALKANE	18.57	100.	J
3. - -	UNKNOWN ALKANE	20.07	70.	J
4. - -	UNKNOWN ALKANE	20.71	50.	J
5. - -	UNKNOWN ALKANE	21.24	70.	J
6. - -	UNKNOWN HYDROCARBON	22.74	100.	J
7. - -	UNKNOWN ALKANE	23.48	50.	J
8. - -	UNKNOWN HYDROCARBON	23.78	80.	J
9. - -	UNKNOWN HYDROCARBON	23.94	80.	J
10. - -	UNKNOWN	24.33	70.	J
11. - -	UNKNOWN HYDROCARBON	24.49	100.	J
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

000011

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

S1N/01

Lab Name: AES, Inc.

Contract:

Lab Code: AES

Case No.: EA9514 SAS No.:

SDG No.: D1/01

Matrix: (soil/water) SOIL

Lab Sample ID: MRFA/S1N/01

Sample wt/vol: 5.000 (g/mL) G

Lab File ID: D2008

Level: (low/med) LOW

Date Received: 07/12/95

% Moisture: not dec. 8.

Date Analyzed: 07/15/95

GC Column: RTX502.2 ID: .25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CAS NO.

COMPOUND

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

Q

74-87-3-----	Chloromethane	11.	UJ
74-83-9-----	Bromomethane	11.	UJ
75-01-4-----	Vinyl Chloride	11.	U
75-00-3-----	Chloroethane	11.	UJ
75-09-2-----	Methylene Chloride	11.	U
67-64-1-----	Acetone	8.	J
75-15-0-----	Carbon Disulfide	11.	U
75-35-4-----	1,1-Dichloroethene	11.	U
75-34-3-----	1,1-Dichloroethane	11.	U
156-60-5-----	1,2-Dichloroethene-trans	11.	U
67-66-3-----	Chloroform	3.	U
107-06-2-----	1,2-Dichloroethane	11.	U
78-93-3-----	2-Butanone	11.	U
71-55-6-----	1,1,1-Trichloroethane	11.	U
56-23-5-----	Carbon Tetrachloride	11.	U
75-27-4-----	Bromodichloromethane	11.	U
78-87-5-----	1,2-Dichloropropane	11.	U
10061-01-5-----	cis-1,3-Dichloropropene	11.	U
79-01-6-----	Trichloroethene	11.	U
124-48-1-----	Dibromochloromethane	11.	U
79-00-5-----	1,1,2-Trichloroethane	11.	U
71-43-2-----	Benzene	11.	U
10061-02-6-----	trans-1,3-Dichloropropene	11.	U
75-25-2-----	Bromoform	11.	U
108-10-1-----	4-Methyl-2-Pentanone	11.	UJ
591-78-6-----	2-Hexanone	11.	U
127-18-4-----	Tetrachloroethene	11.	U
79-34-5-----	1,1,2,2-Tetrachloroethane	11.	U
108-88-3-----	Toluene	11.	U
108-90-7-----	Chlorobenzene	11.	U
100-41-4-----	Ethylbenzene	11.	U
100-42-5-----	Styrene	11.	U
1330-20-7-----	Xylenes (total)	11.	U
156-59-2-----	1,2-Dichloroethene-cis	11.	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

000012
EPA SAMPLE NO.

S1N/01

Lab Name: AES, Inc.

Contract:

Lab Code: AES

Case No.: EA9514 SAS No.:

SDG No.: D1/01

Matrix: (soil/water) SOIL

Lab Sample ID: MRFA/S1N/01

Sample wt/vol: 5.000 (g/mL) G

Lab File ID: D2008

Level: (low/med) LOW

Date Received: 07/12/95

% Moisture: not dec. 8.

Date Analyzed: 07/15/95

GC Column: RTX502.2 ID: .25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
=====	=====	=====	=====	=====
1. - -	UNKNOWN SILOXANE	18.24	7.	J
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
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000013

EPA SAMPLE NO.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

S1N/02

Lab Name: AES, Inc.

Contract:

Lab Code: AES

Case No.: EA9514 SAS No.:

SDG No.: D1/01

Matrix: (soil/water) SOIL

Lab Sample ID: MRFA/S1N/02

Sample wt/vol: 5.000 (g/mL) G

Lab File ID: D1989

Level: (low/med) LOW

Date Received: 07/12/95

% Moisture: not dec. 4.

Date Analyzed: 07/14/95

GC Column: RTX502.2 ID: .25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
---------	----------	---	---

74-87-3	-----Chloromethane	10.	U
74-83-9	-----Bromomethane	10.	U
75-01-4	-----Vinyl Chloride	10.	U
75-00-3	-----Chloroethane	10.	U
75-09-2	-----Methylene Chloride	10.	U
67-64-1	-----Acetone	10.	U
75-15-0	-----Carbon Disulfide	10.	U
75-35-4	-----1,1-Dichloroethene	10.	U
75-34-3	-----1,1-Dichloroethane	10.	U
156-60-5	-----1,2-Dichloroethene-trans	10.	U
67-66-3	-----Chloroform	10.	U
107-06-2	-----1,2-Dichloroethane	10.	U
78-93-3	-----2-Butanone	10.	U
71-55-6	-----1,1,1-Trichloroethane	10.	U
56-23-5	-----Carbon Tetrachloride	10.	U
75-27-4	-----Bromodichloromethane	10.	U
78-87-5	-----1,2-Dichloropropane	10.	U
10061-01-5	-----cis-1,3-Dichloropropene	10.	U
79-01-6	-----Trichloroethene	10.	U
124-48-1	-----Dibromochloromethane	10.	U
79-00-5	-----1,1,2-Trichloroethane	10.	U
71-43-2	-----Benzene	10.	U
10061-02-6	-----trans-1,3-Dichloropropene	10.	U
75-25-2	-----Bromoform	10.	U
108-10-1	-----4-Methyl-2-Pentanone	10.	U
591-78-6	-----2-Hexanone	10.	U
127-18-4	-----Tetrachloroethene	10.	U
79-34-5	-----1,1,2,2-Tetrachloroethane	10.	U
108-88-3	-----Toluene	10.	U
108-90-7	-----Chlorobenzene	10.	U
100-41-4	-----Ethylbenzene	10.	U
100-42-5	-----Styrene	10.	U
1330-20-7	-----Xylenes (total)	10.	U
156-59-2	-----1,2-Dichloroethene-cis	10.	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

000014
EPA SAMPLE NO.

S1N/02

Lab Name: AES, Inc.

Contract:

Lab Code: AES

Case No.: EA9514 SAS No.:

SDG No.: D1/01

Matrix: (soil/water) SOIL

Lab Sample ID: MRFA/S1N/02

Sample wt/vol: 5.000 (g/mL) G

Lab File ID: D1989

Level: (low/med) LOW

Date Received: 07/12/95

% Moisture: not dec. 4.

Date Analyzed: 07/14/95

GC Column: RTX502.2 ID: .25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. - -	UNKNOWN SILOXANE	21.80	6.	J
2.				
3.				
4.				
5.				
6.				
7.				
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000015

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

S1S/01

Lab Name: AES, Inc.

Contract:

Lab Code: AES

Case No.: EA9514 SAS No.:

SDG No.: D1/01

Matrix: (soil/water) SOIL

Lab Sample ID: MRFA/S1S/01

Sample wt/vol: 5.000 (g/mL) G

Lab File ID: D1990

Level: (low/med) LOW

Date Received: 07/13/95

% Moisture: not dec. 10.

Date Analyzed: 07/14/95

GC Column: RTX502.2 ID: .25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CAS NO.

COMPOUND

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

Q

74-87-3-----	Chloromethane	11.	U J
74-83-9-----	Bromomethane	11.	U
75-01-4-----	Vinyl Chloride	11.	U
75-00-3-----	Chloroethane	11.	U
75-09-2-----	Methylene Chloride	11.	U
67-64-1-----	Acetone	6.	J
75-15-0-----	Carbon Disulfide	11.	U J
75-35-4-----	1,1-Dichloroethene	11.	U
75-34-3-----	1,1-Dichloroethane	11.	U
156-60-5-----	1,2-Dichloroethene-trans	11.	U
67-66-3-----	Chloroform	11.	U
107-06-2-----	1,2-Dichloroethane	11.	U
78-93-3-----	2-Butanone	11.	U
71-55-6-----	1,1,1-Trichloroethane	11.	U
56-23-5-----	Carbon Tetrachloride	11.	U
75-27-4-----	Bromodichloromethane	11.	U
78-87-5-----	1,2-Dichloropropane	11.	U
10061-01-5-----	cis-1,3-Dichloropropene	11.	U
79-01-6-----	Trichloroethene	11.	U
124-48-1-----	Dibromochloromethane	11.	U
79-00-5-----	1,1,2-Trichloroethane	11.	U
71-43-2-----	Benzene	11.	U
10061-02-6-----	trans-1,3-Dichloropropene	11.	U
75-25-2-----	Bromoform	11.	U
108-10-1-----	4-Methyl-2-Pentanone	11.	U
591-78-6-----	2-Hexanone	11.	U
127-18-4-----	Tetrachloroethene	11.	U
79-34-5-----	1,1,2,2-Tetrachloroethane	11.	U
108-88-3-----	Toluene	11.	U
108-90-7-----	Chlorobenzene	11.	U
100-41-4-----	Ethylbenzene	11.	U
100-42-5-----	Styrene	11.	U
1330-20-7-----	Xylenes (total)	11.	U
156-59-2-----	1,2-Dichloroethene-cis	11.	U

530-55

060016

EPA SAMPLE NO.

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

S1S/01

Lab Name: AES, Inc.

Contract:

Lab Code: AES

Case No.: EA9514

SAS No.:

SDG No.: D1/01

Matrix: (soil/water) SOIL

Lab Sample ID: MRFA/S1S/01

Sample wt/vol: 5.000 (g/mL) G

Lab File ID: D1990

Level: (low/med) LOW

Date Received: 07/13/95

% Moisture: not dec. 10.

Date Analyzed: 07/14/95

GC Column: RTX502.2 ID: .25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
=====	=====	=====	=====	=====
1. - -	UNKNOWN SILOXANE	18.22	7.	J
2.				
3.				
4.				
5.				
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000017

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

S1S/01 RE

Lab Name: AES, Inc.

Contract:

Lab Code: AES

Case No.: EA9514

SAS No.:

SDG No.: D1/01

Matrix: (soil/water) SOIL

Lab Sample ID: MRFA/S1S/01 RE

Sample wt/vol: 5.000 (g/mL) G

Lab File ID: D2010

Level: (low/med) LOW

Date Received: 07/13/95

% Moisture: not dec. 10.

Date Analyzed: 07/15/95

GC Column: RTX502.2 ID: .25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CAS NO.

COMPOUND

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

Q

74-87-3-----	Chloromethane	11.	U
74-83-9-----	Bromomethane	11.	U
75-01-4-----	Vinyl Chloride	11.	U
75-00-3-----	Chloroethane	11.	U
75-09-2-----	Methylene Chloride	11.	U
67-64-1-----	Acetone	10.	J
75-15-0-----	Carbon Disulfide	11.	U
75-35-4-----	1,1-Dichloroethene	11.	U
75-34-3-----	1,1-Dichloroethane	11.	U
156-60-5-----	1,2-Dichloroethene-trans	11.	U
67-66-3-----	Chloroform	3.	BJ
107-06-2-----	1,2-Dichloroethane	11.	U
78-93-3-----	2-Butanone	11.	U
71-55-6-----	1,1,1-Trichloroethane	11.	U
56-23-5-----	Carbon Tetrachloride	11.	U
75-27-4-----	Bromodichloromethane	11.	U
78-87-5-----	1,2-Dichloropropane	11.	U
10061-01-5-----	cis-1,3-Dichloropropene	11.	U
79-01-6-----	Trichloroethene	11.	U
124-48-1-----	Dibromochloromethane	11.	U
79-00-5-----	1,1,2-Trichloroethane	11.	U
71-43-2-----	Benzene	11.	U
10061-02-6-----	trans-1,3-Dichloropropene	11.	U
75-25-2-----	Bromoform	11.	U
108-10-1-----	4-Methyl-2-Pentanone	11.	U
591-78-6-----	2-Hexanone	11.	U
127-18-4-----	Tetrachloroethene	11.	U
79-34-5-----	1,1,2,2-Tetrachloroethane	11.	U
108-88-3-----	Toluene	11.	U
108-90-7-----	Chlorobenzene	11.	U
100-41-4-----	Ethylbenzene	11.	U
100-42-5-----	Styrene	11.	U
1330-20-7-----	Xylenes (total)	11.	U
156-59-2-----	1,2-Dichloroethene-cis	11.	U

000018

EPA SAMPLE NO.

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

S1S/01 RE

Lab Name: AES, Inc.

Contract:

Lab Code: AES

Case No.: EA9514

SAS No.:

SDG No.: D1/01

Matrix: (soil/water) SOIL

Lab Sample ID: MRFA/S1S/01 RE

Sample wt/vol: 5.000 (g/mL) G

Lab File ID: D2010

Level: (low/med) LOW

Date Received: 07/13/95

% Moisture: not dec. 10.

Date Analyzed: 07/15/95

GC Column: RTX502.2 ID: .25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

Number TICs found: 2

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN SILOXANE	18.24	10.	J
2.	UNKNOWN SILOXANE	21.82	8.	J
3.				
4.				
5.				
6.				
7.				
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26.				
27.				
28.				
29.				
30.				

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

000019
EPA SAMPLE NO.

S1S/02

Lab Name: AES, Inc.

Contract:

Lab Code: AES

Case No.: EA9514

SAS No.:

SDG No.: D1/01

Matrix: (soil/water) SOIL

Lab Sample ID: MRFA/S1S/02

Sample wt/vol: 5.000 (g/mL) G

Lab File ID: D1991

Level: (low/med) LOW

Date Received: 07/13/95

% Moisture: not dec. 4.

Date Analyzed: 07/14/95

GC Column: RTX502.2 ID: .25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
---------	----------	---	---

74-87-3-----	Chloromethane	10.	U
74-83-9-----	Bromomethane	10.	U
75-01-4-----	Vinyl Chloride	10.	U
75-00-3-----	Chloroethane	10.	U
75-09-2-----	Methylene Chloride	10.	U
67-64-1-----	Acetone	10.	U
75-15-0-----	Carbon Disulfide	10.	U
75-35-4-----	1,1-Dichloroethene	10.	U
75-34-3-----	1,1-Dichloroethane	10.	U
156-60-5-----	1,2-Dichloroethene-trans	10.	U
67-66-3-----	Chloroform	10.	U
107-06-2-----	1,2-Dichloroethane	10.	U
78-93-3-----	2-Butanone	10.	U
71-55-6-----	1,1,1-Trichloroethane	10.	U
56-23-5-----	Carbon Tetrachloride	10.	U
75-27-4-----	Bromodichloromethane	10.	U
78-87-5-----	1,2-Dichloropropane	10.	U
10061-01-5-----	cis-1,3-Dichloropropene	10.	U
79-01-6-----	Trichloroethene	10.	U
124-48-1-----	Dibromochloromethane	10.	U
79-00-5-----	1,1,2-Trichloroethane	10.	U
71-43-2-----	Benzene	10.	U
10061-02-6-----	trans-1,3-Dichloropropene	10.	U
75-25-2-----	Bromoform	10.	U
108-10-1-----	4-Methyl-2-Pentanone	10.	U
591-78-6-----	2-Hexanone	10.	U
127-18-4-----	Tetrachloroethene	10.	U
79-34-5-----	1,1,2,2-Tetrachloroethane	10.	U
108-88-3-----	Toluene	10.	U
108-90-7-----	Chlorobenzene	10.	U
100-41-4-----	Ethylbenzene	10.	U
100-42-5-----	Styrene	10.	U
1330-20-7-----	Xylenes (total)	10.	U
156-59-2-----	1,2-Dichloroethene-cis	10.	U

000020

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

S1S/02

Lab Name: AES, Inc.

Contract:

Lab Code: AES

Case No.: EA9514 SAS No.:

SDG No.: D1/01

Matrix: (soil/water) SOIL

Lab Sample ID: MRFA/S1S/02

Sample wt/vol: 5.000 (g/mL) G

Lab File ID: D1991

Level: (low/med) LOW

Date Received: 07/13/95

% Moisture: not dec. 4.

Date Analyzed: 07/14/95

GC Column: RTX502.2 ID: .25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
=====	=====	=====	=====	=====
1.				
2.				
3.				
4.				
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30.				

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

000021
EPA SAMPLE NO.

FB#1

Lab Name: AES, Inc.

Contract:

Lab Code: AES

Case No.: EA9514 SAS No.:

SDG No.: D1/01

Matrix: (soil/water) WATER

Lab Sample ID: FB#1

Sample wt/vol: 5.000 (g/mL) ML

Lab File ID: D2024

Level: (low/med) LOW

Date Received: 07/11/95

% Moisture: not dec. _____

Date Analyzed: 07/17/95

GC Column: RTX502.2 ID: .25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CAS NO.

COMPOUND

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

Q

74-87-3-----	Chloromethane	10.	U
74-83-9-----	Bromomethane	10.	U
75-01-4-----	Vinyl Chloride	10.	U
75-00-3-----	Chloroethane	10.	U
75-09-2-----	Methylene Chloride	10.	U
67-64-1-----	Acetone	10.	U
75-15-0-----	Carbon Disulfide	10.	U
75-35-4-----	1,1-Dichloroethene	10.	U
75-34-3-----	1,1-Dichloroethane	10.	U
156-60-5-----	1,2-Dichloroethene-trans	10.	U
67-66-3-----	Chloroform	10.	U
107-06-2-----	1,2-Dichloroethane	10.	U
78-93-3-----	2-Butanone	10.	U
71-55-6-----	1,1,1-Trichloroethane	10.	U
56-23-5-----	Carbon Tetrachloride	10.	U
75-27-4-----	Bromodichloromethane	10.	U
78-87-5-----	1,2-Dichloropropane	10.	U
10061-01-5-----	cis-1,3-Dichloropropene	10.	U
79-01-6-----	Trichloroethene	10.	U
124-48-1-----	Dibromochloromethane	10.	U
79-00-5-----	1,1,2-Trichloroethane	10.	U
71-43-2-----	Benzene	10.	U
10061-02-6-----	trans-1,3-Dichloropropene	10.	U
75-25-2-----	Bromoform	10.	U
108-10-1-----	4-Methyl-2-Pentanone	10.	U
591-78-6-----	2-Hexanone	10.	U
127-18-4-----	Tetrachloroethene	10.	U
79-34-5-----	1,1,2,2-Tetrachloroethane	10.	U
108-88-3-----	Toluene	10.	U
108-90-7-----	Chlorobenzene	10.	U
100-41-4-----	Ethylbenzene	10.	U
100-42-5-----	Styrene	10.	U
1330-20-7-----	Xylenes (total)	10.	U
156-59-2-----	1,2-Dichloroethene-cis	10.	U

5
3/31/95

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

000022
EPA SAMPLE NO.

FB#1

Lab Name: AES, Inc.

Contract:

Lab Code: AES

Case No.: EA9514

SAS No.:

SDG No.: D1/01

Matrix: (soil/water) WATER

Lab Sample ID: FB#1

Sample wt/vol: 5.000 (g/mL) ML

Lab File ID: D2024

Level: (low/med) LOW

Date Received: 07/11/95

% Moisture: not dec. _____

Date Analyzed: 07/17/95

GC Column: RTX502.2 ID: .25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
=====	=====	=====	=====	=====
1. - -	UNKNOWN HYDROCARBON	21.59	30.	J
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

000023
EPA SAMPLE NO.

TB#1

Lab Name: AES, Inc.

Contract:

Lab Code: AES

Case No.: EA9514 SAS No.:

SDG No.: D1/01

Matrix: (soil/water) WATER

Lab Sample ID: TB#1

Sample wt/vol: 5.000 (g/mL) ML

Lab File ID: D2025

Level: (low/med) LOW

Date Received: 07/11/95

% Moisture: not dec. _____

Date Analyzed: 07/17/95

GC Column: RTX502.2 ID: .25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

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

74-87-3	-----Chloromethane	10.	U
74-83-9	-----Bromomethane	10.	U
75-01-4	-----Vinyl Chloride	10.	U
75-00-3	-----Chloroethane	10.	U
75-09-2	-----Methylene Chloride	10.	U
67-64-1	-----Acetone	10.	U
75-15-0	-----Carbon Disulfide	10.	U
75-35-4	-----1,1-Dichloroethene	10.	U
75-34-3	-----1,1-Dichloroethane	10.	U
156-60-5	-----1,2-Dichloroethene-trans	10.	U
67-66-3	-----Chloroform	10.	U
107-06-2	-----1,2-Dichloroethane	10.	U
78-93-3	-----2-Butanone	10.	U
71-55-6	-----1,1,1-Trichloroethane	10.	U
56-23-5	-----Carbon Tetrachloride	10.	U
75-27-4	-----Bromodichloromethane	10.	U
78-87-5	-----1,2-Dichloropropane	10.	U
10061-01-5	-----cis-1,3-Dichloropropene	10.	U
79-01-6	-----Trichloroethene	10.	U
124-48-1	-----Dibromochloromethane	10.	U
79-00-5	-----1,1,2-Trichloroethane	10.	U
71-43-2	-----Benzene	10.	U
10061-02-6	-----trans-1,3-Dichloropropene	10.	U
75-25-2	-----Bromoform	10.	U
108-10-1	-----4-Methyl-2-Pentanone	10.	U
591-78-6	-----2-Hexanone	10.	U
127-18-4	-----Tetrachloroethene	10.	U
79-34-5	-----1,1,2,2-Tetrachloroethane	10.	U
108-88-3	-----Toluene	10.	U
108-90-7	-----Chlorobenzene	10.	U
100-41-4	-----Ethylbenzene	10.	U
100-42-5	-----Styrene	10.	U
1330-20-7	-----Xylenes (total)	10.	U
156-59-2	-----1,2-Dichloroethene-cis	10.	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA 800024

TB#1

Lab Name: AES, Inc.

Contract:

Lab Code: AES

Case No.: EA9514

SAS No.:

SDG No.: D1/01

Matrix: (soil/water) WATER

Lab Sample ID: TB#1

Sample wt/vol: 5.000 (g/mL) ML

Lab File ID: D2025

Level: (low/med) LOW

Date Received: 07/11/95

% Moisture: not dec. _____

Date Analyzed: 07/17/95

GC Column: RTX502.2 ID: .25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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1.				
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000025

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TB#2

Lab Name: AES, Inc.

Contract:

Lab Code: AES

Case No.: EA9514 SAS No.:

SDG No.: D1/01

Matrix: (soil/water) WATER

Lab Sample ID: TB#2

Sample wt/vol: 5.000 (g/mL) ML

Lab File ID: D2026

Level: (low/med) LOW

Date Received: 07/12/95

% Moisture: not dec. _____

Date Analyzed: 07/17/95

GC Column: RTX502.2 ID: .25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CAS NO.

COMPOUND

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

Q

74-87-3-----	Chloromethane	10.	U
74-83-9-----	Bromomethane	10.	U
75-01-4-----	Vinyl Chloride	10.	U
75-00-3-----	Chloroethane	10.	U
75-09-2-----	Methylene Chloride	10.	U
67-64-1-----	Acetone	10.	U
75-15-0-----	Carbon Disulfide	10.	U
75-35-4-----	1,1-Dichloroethene	10.	U
75-34-3-----	1,1-Dichloroethane	10.	U
156-60-5-----	1,2-Dichloroethene-trans	10.	U
67-66-3-----	Chloroform	10.	U
107-06-2-----	1,2-Dichloroethane	10.	U
78-93-3-----	2-Butanone	10.	U
71-55-6-----	1,1,1-Trichloroethane	10.	U
56-23-5-----	Carbon Tetrachloride	10.	U
75-27-4-----	Bromodichloromethane	10.	U
78-87-5-----	1,2-Dichloropropane	10.	U
10061-01-5-----	cis-1,3-Dichloropropene	10.	U
79-01-6-----	Trichloroethene	10.	U
124-48-1-----	Dibromochloromethane	10.	U
79-00-5-----	1,1,2-Trichloroethane	10.	U
71-43-2-----	Benzene	10.	U
10061-02-6-----	trans-1,3-Dichloropropene	10.	U
75-25-2-----	Bromoform	10.	U
108-10-1-----	4-Methyl-2-Pentanone	10.	U
591-78-6-----	2-Hexanone	10.	U
127-18-4-----	Tetrachloroethene	10.	U
79-34-5-----	1,1,2,2-Tetrachloroethane	10.	U
108-88-3-----	Toluene	10.	U
108-90-7-----	Chlorobenzene	10.	U
100-41-4-----	Ethylbenzene	10.	U
100-42-5-----	Styrene	10.	U
1330-20-7-----	Xylenes (total)	10.	U
156-59-2-----	1,2-Dichloroethene-cis	10.	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

000026
EPA SAMPLE NO.

TB#2

Lab Name: AES, Inc.

Contract:

Lab Code: AES

Case No.: EA9514

SAS No.:

SDG No.: D1/01

Matrix: (soil/water) WATER

Lab Sample ID: TB#2

Sample wt/vol: 5.000 (g/mL) ML

Lab File ID: D2026

Level: (low/med) LOW

Date Received: 07/12/95

% Moisture: not dec. _____

Date Analyzed: 07/17/95

GC Column: RTX502.2 ID: .25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
=====	=====	=====	=====	=====
1.				
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000027

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

D1/01

Lab Name: AES, Inc.

Contract: EA9514

Lab Code: AES

Case No.: EA9514

SAS No.:

SDG No.: D1/01

Matrix: (soil/water) SOIL

Lab Sample ID: D1/01

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: B1415

Level: (low/med) LOW

Date Received: 07/11/95

% Moisture: 6. decanted: (Y/N) N

Date Extracted: 07/12/95

Concentrated Extract Volume: 1000.0 (uL)

Date Analyzed: 07/26/95

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 5.3

CAS NO.

COMPOUND

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

Q

108-95-2-----	Phenol	350.	U
111-44-4-----	bis(-2-Chloroethyl) Ether	350.	U
95-57-8-----	2-Chlorophenol	350.	U
541-73-1-----	1,3-Dichlorobenzene	350.	U
106-46-7-----	1,4-Dichlorobenzene	350.	U
95-50-1-----	1,2-Dichlorobenzene	350.	U
95-48-7-----	2-Methylphenol	350.	U
108-60-1-----	2,2'-oxybis(1-Chloropropane)	350.	U
106-44-5-----	4-Methylphenol	350.	U
621-64-7-----	N-Nitroso-Di-n-propylamine	350.	U
67-72-1-----	Hexachloroethane	350.	U
98-95-3-----	Nitrobenzene	350.	U
78-59-1-----	Isophorone	350.	U
88-75-5-----	2-Nitrophenol	350.	U
105-67-9-----	2,4-Dimethylphenol	350.	U
111-91-1-----	bis(-2-Chloroethoxy) Methane	350.	U
120-83-2-----	2,4-Dichlorophenol	350.	U
120-82-1-----	1,2,4-Trichlorobenzene	350.	U
91-20-3-----	Naphthalene	350.	U
106-47-8-----	4-Chloroaniline	350.	U
87-68-3-----	Hexachlorobutadiene	350.	U
59-50-7-----	4-Chloro-3-methylphenol	350.	U
91-57-6-----	2-Methylnaphthalene	350.	U
77-47-4-----	Hexachlorocyclopentadiene	350.	U
88-06-2-----	2,4,6-Trichlorophenol	350.	U
95-95-4-----	2,4,5-Trichlorophenol	880.	U
91-58-7-----	2-Chloronaphthalene	350.	U
83-74-4-----	2-Nitroaniline	880.	U
131-11-3-----	Dimethyl Phthalate	350.	U
208-96-8-----	Acenaphthylene	350.	U
606-20-2-----	2,6-Dinitrotoluene	350.	U
99-09-2-----	3-Nitroaniline	880.	U
83-32-9-----	Acenaphthene	350.	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

000028
EPA SAMPLE NO.

D1/01

Lab Name: AES, Inc.

Contract: EA9514

Lab Code: AES

Case No.: EA9514

SAS No.:

SDG No.: D1/01

Matrix: (soil/water) SOIL

Lab Sample ID: D1/01

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: B1415

Level: (low/med) LOW

Date Received: 07/11/95

% Moisture: 6. decanted: (Y/N) N

Date Extracted: 07/12/95

Concentrated Extract Volume: 1000.0 (uL)

Date Analyzed: 07/26/95

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 5.3

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
---------	----------	---	---

51-28-5-----	2,4-Dinitrophenol	880.	U
100-02-7-----	4-Nitrophenol	880.	U
132-64-9-----	Dibenzofuran	350.	U
121-14-2-----	2,4-Dinitrotoluene	350.	U
84-66-2-----	Diethylphthalate	350.	U
7005-72-3-----	4-Chlorophenyl-phenylether	350.	U
86-73-7-----	Fluorene	350.	U
100-01-6-----	4-Nitroaniline	880.	U
534-52-1-----	4,6-Dinitro-2-methylphenol	880.	U
86-30-6-----	N-Nitrosodiphenylamine	350.	U
101-55-3-----	4-Bromophenyl-phenylether	350.	U
118-74-1-----	Hexachlorobenzene	350.	U
87-86-5-----	Pentachlorophenol	880.	U
85-01-8-----	Phenanthrene	350.	U
120-12-7-----	Anthracene	350.	U
100-51-6-----	Benzyl Alcohol	350.	U
84-74-2-----	Di-n-Butylphthalate	350.	U
206-44-0-----	Fluoranthene	350.	U
129-00-0-----	Pyrene	350.	U
85-68-7-----	Butylbenzylphthalate	350.	U
91-94-1-----	3,3'-Dichlorobenzidine	350.	U
56-55-3-----	Benzo(a)Anthracene	350.	U
218-01-9-----	Chrysene	350.	U
117-81-7-----	Bis(2-Ethylhexyl)Phthalate	360.	B
117-84-0-----	Di-n-octyl phthalate	350.	U
205-99-2-----	Benzo(b)fluoranthene	350.	U
207-08-9-----	Benzo(k)Fluoranthene	350.	U
50-32-8-----	Benzo(a)Pyrene	350.	U
193-39-5-----	Indeno(1,2,3-cd)Pyrene	350.	U
53-70-3-----	Dibenzo(a,h)Anthracene	350.	U
191-24-2-----	Benzo(g,h,i)Perylene	350.	U

(1) - Cannot be separated from diphenylamine

000029

EPA SAMPLE NO.

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

D1/01

Lab Name: AES, Inc.

Contract: EA9514

Lab Code: AES

Case No.: EA9514

SAS No.:

SDG No.: D1/01

Matrix: (soil/water) SOIL

Lab Sample ID: D1/01

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: B1415

Level: (low/med) LOW

Date Received: 07/11/95

% Moisture: 6. decanted: (Y/N) N

Date Extracted: 07/12/95

Concentrated Extract Volume: 1000.0 (uL)

Date Analyzed: 07/26/95

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 5.3

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

Number TICs found: 20

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	ALDOL-CONDENSATE	4.45	4000.	BJ A
2.	UNKNOWN ALKANE	6.44	500.	J
3.	UNKNOWN ALKANE	6.69	200.	J
4.	UNKNOWN SILOXANE	7.19	600.	J
5.	UNKNOWN ALKANE	7.69	800.	J
6.	UNKNOWN	8.13	200.	J
7.	UNKNOWN ALKANE	8.33	1000.	J
8.	UNKNOWN ALKANE	8.53	500.	J
9.	UNKNOWN	8.77	1000.	J
10.	UNKNOWN	9.83	700.	J
11.	UNKNOWN HYDROCARBON	11.03	100.	J
12.	UNKNOWN ALKANE	14.57	1000.	J
13.	UNKNOWN HYDROCARBON	17.36	700.	J
14.	UNKNOWN	17.59	900.	J
15.	UNKNOWN ALKANE	18.07	3000.	J
16.	UNKNOWN ALKANE	21.01	1000.	J
17.	UNKNOWN ALKANE	22.20	3000.	J
18.	UNKNOWN ALKANE	23.47	2000.	J
19.	UNKNOWN ALKANE	24.67	1000.	J
20.	UNKNOWN ALKANE	26.25	500.	J
21.				
22.				
23.				
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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

000030
EPA SAMPLE NO.

D1/01 RE

Lab Name: AES, Inc.

Contract: EA9514

Lab Code: AES

Case No.: EA9514 SAS No.:

SDG No.: D1/01

Matrix: (soil/water) SOIL

Lab Sample ID: D1/01

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: B1432

Level: (low/med) LOW

Date Received: 07/11/95

% Moisture: 6. decanted: (Y/N) N

Date Extracted: 07/12/95

Concentrated Extract Volume: 1000.0 (uL)

Date Analyzed: 07/28/95

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 5.3

CAS NO.

COMPOUND

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

Q

108-95-2-----	Phenol	350.	U
111-44-4-----	bis(-2-Chloroethyl) Ether	350.	U
95-57-8-----	2-Chlorophenol	350.	U
541-73-1-----	1,3-Dichlorobenzene	350.	U
106-46-7-----	1,4-Dichlorobenzene	350.	U
95-50-1-----	1,2-Dichlorobenzene	350.	U
95-48-7-----	2-Methylphenol	350.	U
108-60-1-----	2,2'-oxybis(1-Chloropropane)	350.	U
106-44-5-----	4-Methylphenol	350.	U
621-64-7-----	N-Nitroso-Di-n-propylamine	350.	U
67-72-1-----	Hexachloroethane	350.	U
98-95-3-----	Nitrobenzene	350.	U
78-59-1-----	Isophorone	350.	U
88-75-5-----	2-Nitrophenol	350.	U
105-67-9-----	2,4-Dimethylphenol	350.	U
111-91-1-----	bis(-2-Chloroethoxy) Methane	350.	U
120-83-2-----	2,4-Dichlorophenol	350.	U
120-82-1-----	1,2,4-Trichlorobenzene	350.	U
91-20-3-----	Naphthalene	350.	U
106-47-8-----	4-Chloroaniline	350.	U
87-68-3-----	Hexachlorobutadiene	350.	U
59-50-7-----	4-Chloro-3-methylphenol	350.	U
91-57-6-----	2-Methylnaphthalene	350.	U
77-47-4-----	Hexachlorocyclopentadiene	350.	U
88-06-2-----	2,4,6-Trichlorophenol	350.	U
95-95-4-----	2,4,5-Trichlorophenol	880.	U
91-58-7-----	2-Chloronaphthalene	350.	U
88-74-4-----	2-Nitroaniline	880.	U
131-11-3-----	Dimethyl Phthalate	350.	U
208-96-8-----	Acenaphthylene	350.	U
606-20-2-----	2,6-Dinitrotoluene	350.	U
99-09-2-----	3-Nitroaniline	880.	U
83-32-9-----	Acenaphthene	350.	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

000031
EPA SAMPLE NO.

D1/01 RE

Lab Name: AES, Inc.

Contract: EA9514

Lab Code: AES

Case No.: EA9514

SAS No.:

SDG No.: D1/01

Matrix: (soil/water) SOIL

Lab Sample ID: D1/01

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: B1432

Level: (low/med) LOW

Date Received: 07/11/95

% Moisture: 6. decanted: (Y/N) N

Date Extracted: 07/12/95

Concentrated Extract Volume: 1000.0 (uL)

Date Analyzed: 07/28/95

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 5.3

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG
---------	----------	---

Q

51-28-5-----2,4-Dinitrophenol	880.	U
100-02-7-----4-Nitrophenol	880.	U
132-64-9-----Dibenzofuran	350.	U
121-14-2-----2,4-Dinitrotoluene	350.	U
84-66-2-----Diethylphthalate	350.	U
7005-72-3-----4-Chlorophenyl-phenylether	350.	U
86-73-7-----Fluorene	350.	U
100-01-6-----4-Nitroaniline	880.	U
534-52-1-----4,6-Dinitro-2-methylphenol	880.	U
86-30-6-----N-Nitrosodiphenylamine	350.	U
101-55-3-----4-Bromophenyl-phenylether	350.	U
118-74-1-----Hexachlorobenzene	350.	U
87-86-5-----Pentachlorophenol	880.	U
85-01-8-----Phenanthrene	350.	U
120-12-7-----Anthracene	350.	U
100-51-6-----Benzyl Alcohol	350.	U
84-74-2-----Di-n-Butylphthalate	350.	U
206-44-0-----Fluoranthene	350.	U
129-00-0-----Pyrene	350.	U
85-68-7-----Butylbenzylphthalate	350.	U
91-94-1-----3,3'-Dichlorobenzidine	350.	U
56-55-3-----Benzo(a) Anthracene	350.	U
218-01-9-----Chrysene	350.	U
117-81-7-----Bis(2-Ethylhexyl) Phthalate	260.	BJ
117-84-0-----Di-n-octyl phthalate	350.	U
205-99-2-----Benzo(b) fluoranthene	350.	U
207-08-9-----Benzo(k) Fluoranthene	350.	U
50-32-8-----Benzo(a) Pyrene	350.	U
193-39-5-----Indeno(1,2,3-cd) Pyrene	350.	U
53-70-3-----Dibenzo(a,h) Anthracene	350.	U
191-24-2-----Benzo(g,h,i) Perylene	350.	U

(1) - Cannot be separated from diphenylamine

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

000032
EPA SAMPLE NO.

D1/01 RE

Lab Name: AES, Inc.

Contract: EA9514

Lab Code: AES

Case No.: EA9514

SAS No.:

SDG No.: D1/01

Matrix: (soil/water) SOIL

Lab Sample ID: D1/01

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: B1432

Level: (low/med) LOW

Date Received: 07/11/95

% Moisture: 6. decanted: (Y/N) N

Date Extracted: 07/12/95

Concentrated Extract Volume: 1000.0 (uL)

Date Analyzed: 07/28/95

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 5.3

Number TICs found: 19

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	ALDOL CONDENSATE	4.50	4000.	BJ A
2.	UNKNOWN ALKANE	6.07	70.	J
3.	UNKNOWN	6.38	90.	J
4.	UNKNOWN ALKANE	6.44	400.	J
5.	UNKNOWN	6.70	200.	J
6.	UNKNOWN SILOXANE	7.19	700.	J
7.	UNKNOWN ALKANE	7.71	700.	J
8.	UNKNOWN ALKANE	8.34	1000.	J
9.	UNKNOWN	8.81	1000.	J
10.	UNKNOWN ALKANE	14.67	1000.	J
11.	UNKNOWN ALKANE	16.65	2000.	J
12.	UNKNOWN	17.65	700.	J
13.	UNKNOWN ALKANE	19.57	900.	J
14.	UNKNOWN ALKANE	19.63	700.	J
15.	UNKNOWN ALKANE	20.94	200.	J
16.	UNKNOWN ALKANE	21.04	400.	J
17.	UNKNOWN ALKANE	22.25	700.	J
18.	UNKNOWN ALKANE	23.50	500.	J
19.	UNKNOWN ALKANE	24.71	400.	J
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

000033
EPA SAMPLE NO.

D1/02

Lab Name: AES, Inc.

Contract: EA9514

Lab Code: AES

Case No.: EA9514

SAS No.:

SDG No.: D1/01

Matrix: (soil/water) SOIL

Lab Sample ID: D1/02

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: B1404

Level: (low/med) LOW

Date Received: 07/11/95

% Moisture: 5. decanted: (Y/N) N

Date Extracted: 07/12/95

Concentrated Extract Volume: 1000.0 (uL)

Date Analyzed: 07/26/95

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: 6.2

CAS NO.

COMPOUND

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

Q

108-95-2-----	Phenol	350.	U
111-44-4-----	bis(-2-Chloroethyl) Ether	350.	U
95-57-8-----	2-Chlorophenol	350.	U
541-73-1-----	1,3-Dichlorobenzene	350.	U
106-46-7-----	1,4-Dichlorobenzene	350.	U
95-50-1-----	1,2-Dichlorobenzene	350.	U
95-48-7-----	2-Methylphenol	350.	U
108-60-1-----	2,2'-oxybis(1-Chloropropane)	350.	U
106-44-5-----	4-Methylphenol	350.	U
621-64-7-----	N-Nitroso-Di-n-propylamine	350.	U
67-72-1-----	Hexachloroethane	350.	U
98-95-3-----	Nitrobenzene	350.	U
78-59-1-----	Isophorone	350.	U
88-75-5-----	2-Nitrophenol	350.	U
105-67-9-----	2,4-Dimethylphenol	350.	U
111-91-1-----	bis(-2-Chloroethoxy) Methane	350.	U
120-83-2-----	2,4-Dichlorophenol	350.	U
120-82-1-----	1,2,4-Trichlorobenzene	350.	U
91-20-3-----	Naphthalene	350.	U
106-47-8-----	4-Chloroaniline	350.	U
87-68-3-----	Hexachlorobutadiene	350.	U
59-50-7-----	4-Chloro-3-methylphenol	350.	U
91-57-6-----	2-Methylnaphthalene	350.	U
77-47-4-----	Hexachlorocyclopentadiene	350.	U
88-06-2-----	2,4,6-Trichlorophenol	350.	U
95-95-4-----	2,4,5-Trichlorophenol	870.	U
91-58-7-----	2-Chloronaphthalene	350.	U
88-74-4-----	2-Nitroaniline	870.	U
131-11-3-----	Dimethyl Phthalate	350.	U
208-96-8-----	Acenaphthylene	350.	U
606-20-2-----	2,6-Dinitrotoluene	350.	U
99-09-2-----	3-Nitroaniline	870.	U
83-32-9-----	Acenaphthene	350.	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA ~~81615~~ **000034**

D1/02

Lab Name: AES, Inc.

Contract: EA9514

Lab Code: AES

Case No.: EA9514

SAS No.:

SDG No.: D1/01

Matrix: (soil/water) SOIL

Lab Sample ID: D1/02

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: B1404

Level: (low/med) LOW

Date Received: 07/11/95

% Moisture: 5. decanted: (Y/N) N

Date Extracted: 07/12/95

Concentrated Extract Volume: 1000.0 (uL)

Date Analyzed: 07/26/95

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 6.2

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
---------	----------	---	---

51-28-5-----2,4-Dinitrophenol	870.	U
100-02-7-----4-Nitrophenol	870.	U
132-64-9-----Dibenzofuran	350.	U
121-14-2-----2,4-Dinitrotoluene	350.	U
84-66-2-----Diethylphthalate	350.	U
7005-72-3-----4-Chlorophenyl-phenylether	350.	U
86-73-7-----Fluorene	350.	U
100-01-6-----4-Nitroaniline	870.	U
534-52-1-----4,6-Dinitro-2-methylphenol	870.	U
86-30-6-----N-Nitrosodiphenylamine	350.	U
101-55-3-----4-Bromophenyl-phenylether	350.	U
118-74-1-----Hexachlorobenzene	350.	U
87-86-5-----Pentachlorophenol	870.	U
85-01-8-----Phenanthrene	350.	U
120-12-7-----Anthracene	350.	U
100-51-6-----Benzyl Alcohol	350.	U
84-74-2-----Di-n-Butylphthalate	350.	U
206-44-0-----Fluoranthene	350.	U
129-00-0-----Pyrene	350.	U
85-68-7-----Butylbenzylphthalate	350.	U
91-94-1-----3,3'-Dichlorobenzidine	350.	U
56-55-3-----Benzo(a) Anthracene	350.	U
218-01-9-----Chrysene	350.	U
117-81-7-----Bis(2-Ethylhexyl) Phthalate	350.	U
117-84-0-----Di-n-octyl phthalate	350.	U
205-99-2-----Benzo(b) fluoranthene	350.	U
207-08-9-----Benzo(k) Fluoranthene	350.	U
50-32-8-----Benzo(a) Pyrene	350.	U
193-39-5-----Indeno(1,2,3-cd) Pyrene	350.	U
53-70-3-----Dibenzo(a,h) Anthracene	350.	U
191-24-2-----Benzo(g,h,i) Perylene	350.	U

(1) - Cannot be separated from diphenylamine

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

000035
EPA SAMPLE NO.

D1/02

Lab Name: AES, Inc.

Contract: EA9514

Lab Code: AES

Case No.: EA9514

SAS No.:

SDG No.: D1/01

Matrix: (soil/water) SOIL

Lab Sample ID: D1/02

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: B1404

Level: (low/med) LOW

Date Received: 07/11/95

% Moisture: 5. decanted: (Y/N) N

Date Extracted: 07/12/95

Concentrated Extract Volume: 1000.0 (uL)

Date Analyzed: 07/26/95

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: 6.2

Number TICs found: 12

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
=====	=====	=====	=====	=====
1. - -	ALDOL CONDENSATE	4.49	10000.	BJ A
2. 101-84-8	Benzene, 1,1'-oxybis- (9CI)	14.66	70.	J N
3. 101-84-8	Benzene, 1,1'-oxybis- (9CI)	14.90	200.	J N
4. - -	UNKNOWN ALKANE	17.93	200.	J
5. - -	UNKNOWN ALKANE	19.41	200.	J
6. - -	UNKNOWN ALKANE	19.49	200.	J
7. - -	UNKNOWN ALKANE	20.93	90.	BJ
8. - -	UNKNOWN ALKANE	22.14	200.	J
9. - -	UNKNOWN ALKANE	23.42	200.	J
10. - -	UNKNOWN ALKANE	24.64	100.	J
11. - -	UNKNOWN ALKANE	25.80	100.	BJ
12. - -	UNKNOWN	31.83	100.	BJ 7
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
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27.				
28.				
29.				
30.				

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

000036
EPA SAMPLE NO.

D1/03

Lab Name: AES, Inc.

Contract: EA9514

Lab Code: AES

Case No.: EA9514

SAS No.:

SDG No.: D1/01

Matrix: (soil/water) SOIL

Lab Sample ID: D1/03

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: B1416

Level: (low/med) LOW

Date Received: 07/11/95

% Moisture: 6. decanted: (Y/N) N

Date Extracted: 07/12/95

Concentrated Extract Volume: 1000.0 (uL)

Date Analyzed: 07/26/95

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: 6.9

CAS NO.

COMPOUND

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

Q

108-95-2-----	Phenol	360.	U
111-44-4-----	bis(-2-Chloroethyl) Ether	360.	U
95-57-8-----	2-Chlorophenol	360.	U
541-73-1-----	1,3-Dichlorobenzene	360.	U
106-46-7-----	1,4-Dichlorobenzene	360.	U
95-50-1-----	1,2-Dichlorobenzene	360.	U
95-48-7-----	2-Methylphenol	360.	U
108-60-1-----	2,2'-oxybis(1-Chloropropane)	360.	U
106-44-5-----	4-Methylphenol	360.	U
621-64-7-----	N-Nitroso-Di-n-propylamine	360.	U
67-72-1-----	Hexachloroethane	360.	U
98-95-3-----	Nitrobenzene	360.	U
78-59-1-----	Isophorone	360.	U
88-75-5-----	2-Nitrophenol	360.	U
105-67-9-----	2,4-Dimethylphenol	360.	U
111-91-1-----	bis(-2-Chloroethoxy) Methane	360.	U
120-83-2-----	2,4-Dichlorophenol	360.	U
120-82-1-----	1,2,4-Trichlorobenzene	360.	U
91-20-3-----	Naphthalene	360.	U
106-47-8-----	4-Chloroaniline	360.	U
87-68-3-----	Hexachlorobutadiene	360.	U
59-50-7-----	4-Chloro-3-methylphenol	360.	U
91-57-6-----	2-Methylnaphthalene	360.	U
77-47-4-----	Hexachlorocyclopentadiene	360.	U
88-06-2-----	2,4,6-Trichlorophenol	360.	U
95-95-4-----	2,4,5-Trichlorophenol	890.	U
91-58-7-----	2-Chloronaphthalene	360.	U
88-74-4-----	2-Nitroaniline	890.	U
131-11-3-----	Dimethyl Phthalate	360.	U
208-96-8-----	Acenaphthylene	360.	U
606-20-2-----	2,6-Dinitrotoluene	360.	U
99-09-2-----	3-Nitroaniline	890.	U
83-32-9-----	Acenaphthene	360.	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

000037
EPA SAMPLE NO.

D1/03

Lab Name: AES, Inc.

Contract: EA9514

Lab Code: AES

Case No.: EA9514

SAS No.:

SDG No.: D1/01

Matrix: (soil/water) SOIL

Lab Sample ID: D1/03

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: B1416

Level: (low/med) LOW

Date Received: 07/11/95

% Moisture: 6. decanted: (Y/N) N

Date Extracted: 07/12/95

Concentrated Extract Volume: 1000.0 (uL)

Date Analyzed: 07/26/95

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 6.9

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
---------	----------	---	---

51-28-5-----2,4-Dinitrophenol	890.	U
100-02-7-----4-Nitrophenol	890.	U
132-64-9-----Dibenzofuran	360.	U
121-14-2-----2,4-Dinitrotoluene	360.	U
84-66-2-----Diethylphthalate	360.	U
7005-72-3-----4-Chlorophenyl-phenylether	360.	U
86-73-7-----Fluorene	360.	U
100-01-6-----4-Nitroaniline	890.	U
534-52-1-----4,6-Dinitro-2-methylphenol	890.	U
86-30-6-----N-Nitrosodiphenylamine	360.	U
101-55-3-----4-Bromophenyl-phenylether	360.	U
118-74-1-----Hexachlorobenzene	360.	U
87-86-5-----Pentachlorophenol	890.	U
85-01-8-----Phenanthrene	360.	U
120-12-7-----Anthracene	360.	U
100-51-6-----Benzyl Alcohol	360.	U
84-74-2-----Di-n-Butylphthalate	360.	U
206-44-0-----Fluoranthene	360.	U
129-00-0-----Pyrene	360.	U
85-68-7-----Butylbenzylphthalate	360.	U
91-94-1-----3,3'-Dichlorobenzidine	360.	U
56-55-3-----Benzo(a)Anthracene	360.	U
218-01-9-----Chrysene	360.	U
117-81-7-----Bis(2-Ethylhexyl) Phthalate	360.	U
117-84-0-----Di-n-octyl phthalate	360.	U
205-99-2-----Benzo(b) fluoranthene	360.	U
207-08-9-----Benzo(k) Fluoranthene	360.	U
50-32-8-----Benzo(a) Pyrene	360.	U
193-39-5-----Indeno(1,2,3-cd) Pyrene	360.	U
53-70-3-----Dibenzo(a,h) Anthracene	360.	U
191-24-2-----Benzo(g,h,i) Perylene	360.	U

(1) - Cannot be separated from diphenylamine

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA 00000000 NO.

D1/03

Lab Name: AES, Inc.

Contract: EA9514

Lab Code: AES

Case No.: EA9514

SAS No.:

SDG No.: D1/01

Matrix: (soil/water) SOIL

Lab Sample ID: D1/03

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: B1416

Level: (low/med) LOW

Date Received: 07/11/95

% Moisture: 6. decanted: (Y/N) N

Date Extracted: 07/12/95

Concentrated Extract Volume: 1000.0 (uL)

Date Analyzed: 07/26/95

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 6.9

Number TICs found: 20

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	ALDOL CONDENSATE	4.38	10000.	BJ A
2.	UNKNOWN ALKANE	6.37	2000.	J
3.	UNKNOWN ALKANE	8.31	2000.	J
4.	UNKNOWN HYDROCARBON	9.50	300.	J
5.	UNKNOWN ALKANE	11.51	700.	J
6.	UNKNOWN ALKANE	14.51	2000.	J
7.	UNKNOWN ALKANE	15.88	2000.	J
8.	UNKNOWN	16.00	900.	J
9.	UNKNOWN ALKANE	16.15	700.	J
10.	UNKNOWN	16.37	300.	J
11.	UNKNOWN ALKANE	16.48	1000.	J
12.	UNKNOWN HYDROCARBON	17.29	500.	J
13.	UNKNOWN ALKANE	17.46	200.	J
14.	UNKNOWN	17.52	400.	J
15.	UNKNOWN ALKANE	17.99	900.	J
16.	UNKNOWN ALKANE	19.45	2000.	J
17.	UNKNOWN ALKANE	19.54	2000.	J
18.	UNKNOWN ALKANE	20.97	1000.	J
19.	UNKNOWN ALKANE	22.17	1000.	J
20.	UNKNOWN ALKANE	23.44	900.	J
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

000039
EPA SAMPLE NO.

D1/03 RE

Lab Name: AES, Inc.

Contract: EA9514

Lab Code: AES

Case No.: EA9514

SAS No.:

SDG No.: D1/01

Matrix: (soil/water) SOIL

Lab Sample ID: D1/03

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: B1433

Level: (low/med) LOW

Date Received: 07/11/95

% Moisture: 6. decanted: (Y/N) N

Date Extracted: 07/12/95

Concentrated Extract Volume: 1000.0 (uL)

Date Analyzed: 07/28/95

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: 6.9

CAS NO.

COMPOUND

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

Q

108-95-2-----Phenol	360.	U
111-44-4-----bis(-2-Chloroethyl) Ether	360.	U
95-57-8-----2-Chlorophenol	360.	U
541-73-1-----1,3-Dichlorobenzene	360.	U
106-46-7-----1,4-Dichlorobenzene	360.	U
95-50-1-----1,2-Dichlorobenzene	360.	U
95-48-7-----2-Methylphenol	360.	U
108-60-1-----2,2'-oxybis(1-Chloropropane)	360.	U
106-44-5-----4-Methylphenol	360.	U
621-64-7-----N-Nitroso-Di-n-propylamine	360.	U
67-72-1-----Hexachloroethane	360.	U
98-95-3-----Nitrobenzene	360.	U
78-59-1-----Isophorone	360.	U
88-75-5-----2-Nitrophenol	360.	U
105-67-9-----2,4-Dimethylphenol	360.	U
111-91-1-----bis(-2-Chloroethoxy)Methane	360.	U
120-83-2-----2,4-Dichlorophenol	360.	U
120-82-1-----1,2,4-Trichlorobenzene	360.	U
91-20-3-----Naphthalene	360.	U
106-47-8-----4-Chloroaniline	360.	U
87-68-3-----Hexachlorobutadiene	360.	U
59-50-7-----4-Chloro-3-methylphenol	360.	U
91-57-6-----2-Methylnaphthalene	360.	U
77-47-4-----Hexachlorocyclopentadiene	360.	U
88-06-2-----2,4,6-Trichlorophenol	360.	U
95-95-4-----2,4,5-Trichlorophenol	890.	U
91-58-7-----2-Chloronaphthalene	360.	U
88-74-4-----2-Nitroaniline	890.	U
131-11-3-----Dimethyl Phthalate	360.	U
208-96-8-----Acenaphthylene	360.	U
606-20-2-----2,6-Dinitrotoluene	360.	U
99-09-2-----3-Nitroaniline	890.	U
83-32-9-----Acenaphthene	360.	U

*One Smith
Analytic*

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

000040
EPA SAMPLE NO.

Lab Name: AES, Inc.

Contract: EA9514

D1/03 RE

Lab Code: AES

Case No.: EA9514 SAS No.:

SDG No.: D1/01

Matrix: (soil/water) SOIL

Lab Sample ID: D1/03

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: B1433

Level: (low/med) LOW

Date Received: 07/11/95

% Moisture: 6. decanted: (Y/N) N

Date Extracted: 07/12/95

Concentrated Extract Volume: 1000.0 (uL)

Date Analyzed: 07/28/95

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: 6.9

CAS NO.

COMPOUND

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

Q

Handwritten:
100-02-7
132-64-9
121-14-2
84-66-2
7005-72-3
86-73-7
100-01-6
534-52-1
86-30-6
101-55-3
118-74-1
87-86-5
85-01-8
120-12-7
100-51-6
84-74-2
206-44-0
129-00-0
85-68-7
91-94-1
56-55-3
218-01-9
117-81-7
117-84-0
205-99-2
207-08-9
50-32-8
193-39-5
53-70-3
191-24-2

51-28-5-----	2,4-Dinitrophenol	890.	U
100-02-7-----	4-Nitrophenol	890.	U
132-64-9-----	Dibenzofuran	360.	U
121-14-2-----	2,4-Dinitrotoluene	360.	U
84-66-2-----	Diethylphthalate	360.	U
7005-72-3-----	4-Chlorophenyl-phenylether	360.	U
86-73-7-----	Fluorene	360.	U
100-01-6-----	4-Nitroaniline	890.	U
534-52-1-----	4,6-Dinitro-2-methylphenol	890.	U
86-30-6-----	N-Nitrosodiphenylamine	360.	U
101-55-3-----	4-Bromophenyl-phenylether	360.	U
118-74-1-----	Hexachlorobenzene	360.	U
87-86-5-----	Pentachlorophenol	890.	U
85-01-8-----	Phenanthrene	360.	U
120-12-7-----	Anthracene	360.	U
100-51-6-----	Benzyl Alcohol	360.	U
84-74-2-----	Di-n-Butylphthalate	360.	U
206-44-0-----	Fluoranthene	360.	U
129-00-0-----	Pyrene	360.	U
85-68-7-----	Butylbenzylphthalate	360.	U
91-94-1-----	3,3'-Dichlorobenzidine	360.	U
56-55-3-----	Benzo(a)Anthracene	360.	U
218-01-9-----	Chrysene	360.	U
117-81-7-----	Bis(2-Ethylhexyl)Phthalate	200.	BJ
117-84-0-----	Di-n-octyl phthalate	360.	U
205-99-2-----	Benzo(b)fluoranthene	360.	U
207-08-9-----	Benzo(k)Fluoranthene	360.	U
50-32-8-----	Benzo(a)Pyrene	360.	U
193-39-5-----	Indeno(1,2,3-cd)Pyrene	360.	U
53-70-3-----	Dibenzo(a,h)Anthracene	360.	U
191-24-2-----	Benzo(g,h,i)Perylene	360.	U

(1) - Cannot be separated from diphenylamine

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

000041
EPA SAMPLE NO.

D1/03 RE

Lab Name: AES, Inc.

Contract: EA9514

Lab Code: AES

Case No.: EA9514 SAS No.:

SDG No.: D1/01

Matrix: (soil/water) SOIL

Lab Sample ID: D1/03

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: B1433

Level: (low/med) LOW

Date Received: 07/11/95

% Moisture: 6. decanted: (Y/N) N

Date Extracted: 07/12/95

Concentrated Extract Volume: 1000.0 (uL)

Date Analyzed: 07/28/95

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 6.9

Number TICs found: 20

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

*Use Table
only for
2/2/95*

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	2.80	70.	J
2.	ALDOL CONDENSATE	4.53	6000.	BJ A
3.	UNKNOWN ALKANE	6.41	500.	J
4.	UNKNOWN	6.66	300.	J
5.	UNKNOWN	7.19	300.	J
6.	UNKNOWN	7.74	200.	J
7.	UNKNOWN ALKANE	8.28	600.	J
8.	UNKNOWN ALKANE	8.34	400.	J
9.	UNKNOWN	14.61	400.	J
10.	UNKNOWN ALKANE	16.56	2000.	J
11.	UNKNOWN HYDROCARBON	17.37	700.	J
12.	UNKNOWN	17.60	700.	J
13.	UNKNOWN ALKANE	18.05	1000.	J
14.	UNKNOWN ALKANE	19.51	900.	J
15.	UNKNOWN ALKANE	19.59	1000.	J
16.	UNKNOWN ALKANE	21.02	600.	J
17.	UNKNOWN ALKANE	22.21	600.	J
18.	UNKNOWN ALKANE	23.48	400.	J
19.	UNKNOWN ALKANE	24.68	300.	J
20.	UNKNOWN ALKANE	25.86	200.	J
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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

000042
EPA SAMPLE NO.

S1N/01

Lab Name: AES, Inc.

Contract: EA9514

Lab Code: AES

Case No.: EA9514

SAS No.:

SDG No.: D1/01

Matrix: (soil/water) SOIL

Lab Sample ID: S1N/01

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: B1408

Level: (low/med) LOW

Date Received: 07/12/95

% Moisture: 8. decanted: (Y/N) N

Date Extracted: 07/12/95

Concentrated Extract Volume: 1000.0 (uL)

Date Analyzed: 07/26/95

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 5.1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
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108-95-2-----Phenol	360.	U
111-44-4-----bis(-2-Chloroethyl) Ether	360.	U
95-57-8-----2-Chlorophenol	360.	U
541-73-1-----1,3-Dichlorobenzene	360.	U
106-46-7-----1,4-Dichlorobenzene	360.	U
95-50-1-----1,2-Dichlorobenzene	360.	U
95-48-7-----2-Methylphenol	360.	U
108-60-1-----2,2'-oxybis(1-Chloropropane)	360.	U
106-44-5-----4-Methylphenol	360.	U
621-64-7-----N-Nitroso-Di-n-propylamine	360.	U
67-72-1-----Hexachloroethane	360.	U
98-95-3-----Nitrobenzene	360.	U
78-59-1-----Isophorone	360.	U
88-75-5-----2-Nitrophenol	360.	U
105-67-9-----2,4-Dimethylphenol	360.	U
111-91-1-----bis(-2-Chloroethoxy) Methane	360.	U
120-83-2-----2,4-Dichlorophenol	360.	U
120-82-1-----1,2,4-Trichlorobenzene	360.	U
91-20-3-----Naphthalene	360.	U
106-47-8-----4-Chloroaniline	360.	U
87-68-3-----Hexachlorobutadiene	360.	U
59-50-7-----4-Chloro-3-methylphenol	360.	U
91-57-6-----2-Methylnaphthalene	360.	U
77-47-4-----Hexachlorocyclopentadiene	360.	U
88-06-2-----2,4,6-Trichlorophenol	360.	U
95-95-4-----2,4,5-Trichlorophenol	910.	U
91-58-7-----2-Chloronaphthalene	360.	U
88-74-4-----2-Nitroaniline	910.	U
131-11-3-----Dimethyl Phthalate	360.	U
208-96-8-----Acenaphthylene	360.	U
606-20-2-----2,6-Dinitrotoluene	360.	U
99-09-2-----3-Nitroaniline	910.	U
83-32-9-----Acenaphthene	360.	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

000043
EPA SAMPLE NO.

S1N/01

Lab Name: AES, Inc.

Contract: EA9514

Lab Code: AES

Case No.: EA9514 SAS No.:

SDG No.: D1/01

Matrix: (soil/water) SOIL

Lab Sample ID: S1N/01

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: B1408

Level: (low/med) LOW

Date Received: 07/12/95

% Moisture: 8. decanted: (Y/N) N

Date Extracted: 07/12/95

Concentrated Extract Volume: 1000.0 (uL)

Date Analyzed: 07/26/95

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: 5.1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
---------	----------	---	---

51-28-5-----	2,4-Dinitrophenol	910.	U
100-02-7-----	4-Nitrophenol	910.	U
132-64-9-----	Dibenzofuran	360.	U
121-14-2-----	2,4-Dinitrotoluene	360.	U
84-66-2-----	Diethylphthalate	360.	U
7005-72-3-----	4-Chlorophenyl-phenylether	360.	U
86-73-7-----	Fluorene	360.	U
100-01-6-----	4-Nitroaniline	910.	U
534-52-1-----	4,6-Dinitro-2-methylphenol	910.	U
86-30-6-----	N-Nitrosodiphenylamine	360.	U
101-55-3-----	4-Bromophenyl-phenylether	360.	U
118-74-1-----	Hexachlorobenzene	360.	U
87-86-5-----	Pentachlorophenol	910.	U
85-01-8-----	Phenanthrene	360.	U
120-12-7-----	Anthracene	360.	U
100-51-6-----	Benzyl Alcohol	360.	U
84-74-2-----	Di-n-Butylphthalate	360.	U
206-44-0-----	Fluoranthene	360.	U
129-00-0-----	Pyrene	360.	U
85-68-7-----	Butylbenzylphthalate	360.	U
91-94-1-----	3,3'-Dichlorobenzidine	360.	U
56-55-3-----	Benzo(a) Anthracene	360.	U
218-01-9-----	Chrysene	360.	U
117-81-7-----	Bis(2-Ethylhexyl) Phthalate	360.	U
117-84-0-----	Di-n-octyl phthalate	360.	U
205-99-2-----	Benzo(b) fluoranthene	360.	U
207-08-9-----	Benzo(k) Fluoranthene	360.	U
50-32-8-----	Benzo(a) Pyrene	360.	U
193-39-5-----	Indeno(1,2,3-cd) Pyrene	360.	U
53-70-3-----	Dibenzo(a,h) Anthracene	360.	U
191-24-2-----	Benzo(g,h,i) Perylene	360.	U

(1) - Cannot be separated from diphenylamine

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

000024
EPA SAMPLE #

S1N/01

Lab Name: AES, Inc.

Contract: EA9514

Lab Code: AES

Case No.: EA9514 SAS No.:

SDG No.: D1/01

Matrix: (soil/water) SOIL

Lab Sample ID: S1N/01

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: B1408

Level: (low/med) LOW

Date Received: 07/12/95

% Moisture: 8. decanted: (Y/N) N

Date Extracted: 07/12/95

Concentrated Extract Volume: 1000.0 (uL)

Date Analyzed: 07/26/95

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 5.1

Number TICs found: 4

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	ALDOL CONDENSATE	4.49	7000.	BJ A
2.	ALDOL CONDENSATE	4.52	90.	J A
3.	UNKNOWN	25.68	100.	J
4.	UNKNOWN	31.84	100.	BJ
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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO. **000045**

S1N/02

Lab Name: AES, Inc.

Contract: EA9514

Lab Code: AES

Case No.: EA9514 SAS No.:

SDG No.: D1/01

Matrix: (soil/water) SOIL

Lab Sample ID: S1N/02

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: B1409

Level: (low/med) LOW

Date Received: 07/12/95

% Moisture: 4. decanted: (Y/N) N

Date Extracted: 07/12/95

Concentrated Extract Volume: 1000.0 (uL)

Date Analyzed: 07/26/95

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 5.7

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
---------	----------	---	---

108-95-2-----Phenol	350.	U
111-44-4-----bis(-2-Chloroethyl) Ether	350.	U
95-57-8-----2-Chlorophenol	350.	U
541-73-1-----1,3-Dichlorobenzene	350.	U
106-46-7-----1,4-Dichlorobenzene	350.	U
95-50-1-----1,2-Dichlorobenzene	350.	U
95-48-7-----2-Methylphenol	350.	U
108-60-1-----2,2'-oxybis(1-Chloropropane)	350.	U
106-44-5-----4-Methylphenol	350.	U
621-64-7-----N-Nitroso-Di-n-propylamine	350.	U
67-72-1-----Hexachloroethane	350.	U
98-95-3-----Nitrobenzene	350.	U
78-59-1-----Isophorone	350.	U
88-75-5-----2-Nitrophenol	350.	U
105-67-9-----2,4-Dimethylphenol	350.	U
111-91-1-----bis(-2-Chloroethoxy) Methane	350.	U
120-83-2-----2,4-Dichlorophenol	350.	U
120-82-1-----1,2,4-Trichlorobenzene	350.	U
91-20-3-----Naphthalene	350.	U
106-47-8-----4-Chloroaniline	350.	U
87-68-3-----Hexachlorobutadiene	350.	U
59-50-7-----4-Chloro-3-methylphenol	350.	U
91-57-6-----2-Methylnaphthalene	350.	U
77-47-4-----Hexachlorocyclopentadiene	350.	U
88-06-2-----2,4,6-Trichlorophenol	350.	U
95-95-4-----2,4,5-Trichlorophenol	870.	U
91-58-7-----2-Chloronaphthalene	350.	U
88-74-4-----2-Nitroaniline	870.	U
131-11-3-----Dimethyl Phthalate	350.	U
208-96-8-----Acenaphthylene	350.	U
606-20-2-----2,6-Dinitrotoluene	350.	U
99-09-2-----3-Nitroaniline	870.	U
83-32-9-----Acenaphthene	350.	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO. 000046

S1N/02

Lab Name: AES, Inc.

Contract: EA9514

Lab Code: AES

Case No.: EA9514

SAS No.:

SDG No.: D1/01

Matrix: (soil/water) SOIL

Lab Sample ID: S1N/02

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: B1409

Level: (low/med) LOW

Date Received: 07/12/95

% Moisture: 4. decanted: (Y/N) N

Date Extracted: 07/12/95

Concentrated Extract Volume: 1000.0 (uL)

Date Analyzed: 07/26/95

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: 5.7

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
---------	----------	---	---

51-28-5-----2,4-Dinitrophenol	870.	U
100-02-7-----4-Nitrophenol	870.	U
132-64-9-----Dibenzofuran	350.	U
121-14-2-----2,4-Dinitrotoluene	350.	U
84-66-2-----Diethylphthalate	350.	U
7005-72-3-----4-Chlorophenyl-phenylether	350.	U
86-73-7-----Fluorene	350.	U
100-01-6-----4-Nitroaniline	870.	U
534-52-1-----4,6-Dinitro-2-methylphenol	870.	U
86-30-6-----N-Nitrosodiphenylamine	350.	U
101-55-3-----4-Bromophenyl-phenylether	350.	U
118-74-1-----Hexachlorobenzene	350.	U
87-86-5-----Pentachlorophenol	870.	U
85-01-8-----Phenanthrene	350.	U
120-12-7-----Anthracene	350.	U
100-51-6-----Benzyl Alcohol	350.	U
84-74-2-----Di-n-Butylphthalate	350.	U
206-44-0-----Fluoranthene	350.	U
129-00-0-----Pyrene	350.	U
85-68-7-----Butylbenzylphthalate	350.	U
91-94-1-----3,3'-Dichlorobenzidine	350.	U
56-55-3-----Benzo(a) Anthracene	350.	U
218-01-9-----Chrysene	350.	U
117-81-7-----Bis(2-Ethylhexyl) Phthalate	350.	U
117-84-0-----Di-n-octyl phthalate	350.	U
205-99-2-----Benzo(b) fluoranthene	350.	U
207-08-9-----Benzo(k) Fluoranthene	350.	U
50-32-8-----Benzo(a) Pyrene	350.	U
193-39-5-----Indeno(1,2,3-cd) Pyrene	350.	U
53-70-3-----Dibenzo(a,h) Anthracene	350.	U
191-24-2-----Benzo(g,h,i) Perylene	350.	U

(1) - Cannot be separated from diphenylamine

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA ~~3000-17~~

S1N/02

Lab Name: AES, Inc.

Contract: EA9514

Lab Code: AES

Case No.: EA9514 SAS No.:

SDG No.: D1/01

Matrix: (soil/water) SOIL

Lab Sample ID: S1N/02

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: B1409

Level: (low/med) LOW

Date Received: 07/12/95

% Moisture: 4. decanted: (Y/N) N

Date Extracted: 07/12/95

Concentrated Extract Volume: 1000.0 (uL)

Date Analyzed: 07/26/95

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: 5.7

Number TICs found: 2

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. - -	ALDOL CONDENSATE	4.52	10000.	BJ A
2. - -	ALDOL CONDENSATE	4.56	90.	J A
3.				
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000048

EPA SAMPLE NO.

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

S1S/01

Lab Name: AES, Inc.

Contract: EA9514

Lab Code: AES

Case No.: EA9514

SAS No.:

SDG No.: D1/01

Matrix: (soil/water) SOIL

Lab Sample ID: S1S/01

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: B1410

Level: (low/med) LOW

Date Received: 07/13/95

% Moisture: 10. decanted: (Y/N) N

Date Extracted: 07/13/95

Concentrated Extract Volume: 1000.0 (uL)

Date Analyzed: 07/26/95

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 5.3

CAS NO.

COMPOUND

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

Q

108-95-2-----	Phenol	370.	U
111-44-4-----	bis(-2-Chloroethyl) Ether	370.	U
95-57-8-----	2-Chlorophenol	370.	U
541-73-1-----	1,3-Dichlorobenzene	370.	U
106-46-7-----	1,4-Dichlorobenzene	26.	J
95-50-1-----	1,2-Dichlorobenzene	370.	U
95-48-7-----	2-Methylphenol	370.	U
108-60-1-----	2,2'-oxybis(1-Chloropropane)	370.	U
106-44-5-----	4-Methylphenol	370.	U
621-64-7-----	N-Nitroso-Di-n-propylamine	370.	U
67-72-1-----	Hexachloroethane	370.	U
98-95-3-----	Nitrobenzene	370.	U
78-59-1-----	Isophorone	370.	U
88-75-5-----	2-Nitrophenol	370.	U
105-67-9-----	2,4-Dimethylphenol	370.	U
111-91-1-----	bis(-2-Chloroethoxy) Methane	370.	U
120-83-2-----	2,4-Dichlorophenol	370.	U
120-82-1-----	1,2,4-Trichlorobenzene	370.	U
91-20-3-----	Naphthalene	370.	U
106-47-8-----	4-Chloroaniline	370.	U
87-68-3-----	Hexachlorobutadiene	370.	U
59-50-7-----	4-Chloro-3-methylphenol	370.	U
91-57-6-----	2-Methylnaphthalene	370.	U
77-47-4-----	Hexachlorocyclopentadiene	370.	U
88-06-2-----	2,4,6-Trichlorophenol	370.	U
95-95-4-----	2,4,5-Trichlorophenol	930.	U
91-58-7-----	2-Chloronaphthalene	370.	U
88-74-4-----	2-Nitroaniline	930.	U
131-11-3-----	Dimethyl Phthalate	370.	U
208-96-8-----	Acenaphthylene	370.	U
606-20-2-----	2,6-Dinitrotoluene	370.	U
99-09-2-----	3-Nitroaniline	930.	U
83-32-9-----	Acenaphthene	370.	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE ID: 900049

S1S/01

Lab Name: AES, Inc.

Contract: EA9514

Lab Code: AES

Case No.: EA9514 SAS No.:

SDG No.: D1/01

Matrix: (soil/water) SOIL

Lab Sample ID: S1S/01

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: B1410

Level: (low/med) LOW

Date Received: 07/13/95

% Moisture: 10. decanted: (Y/N) N

Date Extracted: 07/13/95

Concentrated Extract Volume: 1000.0 (uL)

Date Analyzed: 07/26/95

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 5.3

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
---------	----------	---	---

51-28-5-----	2,4-Dinitrophenol	930.	U
100-02-7-----	4-Nitrophenol	930.	U
132-64-9-----	Dibenzofuran	370.	U
121-14-2-----	2,4-Dinitrotoluene	370.	U
84-66-2-----	Diethylphthalate	370.	U
7005-72-3-----	4-Chlorophenyl-phenylether	370.	U
86-73-7-----	Fluorene	370.	U
100-01-6-----	4-Nitroaniline	930.	U
534-52-1-----	4,6-Dinitro-2-methylphenol	930.	U
86-30-6-----	N-Nitrosodiphenylamine	370.	U
101-55-3-----	4-Bromophenyl-phenylether	370.	U
118-74-1-----	Hexachlorobenzene	370.	U
87-86-5-----	Pentachlorophenol	930.	U
85-01-8-----	Phenanthrene	370.	U
120-12-7-----	Anthracene	370.	U
100-51-6-----	Benzyl Alcohol	370.	U
84-74-2-----	Di-n-Butylphthalate	370.	U
206-44-0-----	Fluoranthene	370.	U
129-00-0-----	Pyrene	370.	U
85-68-7-----	Butylbenzylphthalate	370.	U
91-94-1-----	3,3'-Dichlorobenzidine	370.	U
56-55-3-----	Benzo(a)Anthracene	370.	U
218-01-9-----	Chrysene	370.	U
117-81-7-----	Bis(2-Ethylhexyl) Phthalate	72.	J
117-84-0-----	Di-n-octyl phthalate	370.	U
205-99-2-----	Benzo(b) fluoranthene	370.	U
207-08-9-----	Benzo(k) Fluoranthene	370.	U
50-32-8-----	Benzo(a) Pyrene	370.	U
193-39-5-----	Indeno(1,2,3-cd) Pyrene	370.	U
53-70-3-----	Dibenzo(a,h) Anthracene	370.	U
191-24-2-----	Benzo(g,h,i) Perylene	370.	U

(1) - Cannot be separated from diphenylamine

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

000050
EPA SAMPLE NO.

S1S/01

Lab Name: AES, Inc.

Contract: EA9514

Lab Code: AES

Case No.: EA9514 SAS No.:

SDG No.: D1/01

Matrix: (soil/water) SOIL

Lab Sample ID: S1S/01

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: B1410

Level: (low/med) LOW

Date Received: 07/13/95

Moisture: 10. decanted: (Y/N) N

Date Extracted: 07/13/95

Concentrated Extract Volume: 1000.0 (uL)

Date Analyzed: 07/26/95

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: 5.3

Number TICs found: 8

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	ALDOL CONDENSATE	4.46	5000.	BJ A
2.	ALDOL CONDENSATE	4.48	70.	BJ A
3.	UNKNOWN	25.68	500.	J
4.	UNKNOWN	27.89	300.	J
5.	UNKNOWN ALKANE	28.00	70.	J
6.	UNKNOWN ALKANE	30.02	90.	J
7.	UNKNOWN ALKANE	30.98	90.	J
8.	UNKNOWN ALKANE	31.90	70.	J
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8/2/95

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

S1S/02

Lab Name: AES, Inc.

Contract: EA9514

Lab Code: AES

Case No.: EA9514 SAS No.:

SDG No.: D1/01

Matrix: (soil/water) SOIL

Lab Sample ID: S1S/02

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: B1411

Level: (low/med) LOW

Date Received: 07/13/95

% Moisture: 4. decanted: (Y/N) N

Date Extracted: 07/13/95

Concentrated Extract Volume: 1000.0 (uL)

Date Analyzed: 07/26/95

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 4.6

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
---------	----------	---	---

108-95-2-----	Phenol	350.	U
111-44-4-----	bis(-2-Chloroethyl) Ether	350.	U
95-57-8-----	2-Chlorophenol	350.	U
541-73-1-----	1,3-Dichlorobenzene	350.	U
106-46-7-----	1,4-Dichlorobenzene	28.	J
95-50-1-----	1,2-Dichlorobenzene	350.	U
95-48-7-----	2-Methylphenol	350.	U
108-60-1-----	2,2'-oxybis(1-Chloropropane)	350.	U
106-44-5-----	4-Methylphenol	350.	U
621-64-7-----	N-Nitroso-Di-n-propylamine	350.	U
67-72-1-----	Hexachloroethane	350.	U
98-95-3-----	Nitrobenzene	350.	U
78-59-1-----	Isophorone	350.	U
88-75-5-----	2-Nitrophenol	350.	U
105-67-9-----	2,4-Dimethylphenol	350.	U
111-91-1-----	bis(-2-Chloroethoxy) Methane	350.	U
120-83-2-----	2,4-Dichlorophenol	350.	U
120-82-1-----	1,2,4-Trichlorobenzene	350.	U
91-20-3-----	Naphthalene	350.	U
106-47-8-----	4-Chloroaniline	350.	U
87-68-3-----	Hexachlorobutadiene	350.	U
59-50-7-----	4-Chloro-3-methylphenol	350.	U
91-57-6-----	2-Methylnaphthalene	350.	U
77-47-4-----	Hexachlorocyclopentadiene	350.	U
88-06-2-----	2,4,6-Trichlorophenol	350.	U
95-95-4-----	2,4,5-Trichlorophenol	870.	U
91-58-7-----	2-Chloronaphthalene	350.	U
88-74-4-----	2-Nitroaniline	870.	U
131-11-3-----	Dimethyl Phthalate	350.	U
208-96-8-----	Acenaphthylene	350.	U
606-20-2-----	2,6-Dinitrotoluene	350.	U
99-09-2-----	3-Nitroaniline	870.	U
83-32-9-----	Acenaphthene	350.	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

000052
EPA SAMPLE NO.

S1S/02

Lab Name: AES, Inc.

Contract: EA9514

Lab Code: AES

Case No.: EA9514 SAS No.:

SDG No.: D1/01

Matrix: (soil/water) SOIL

Lab Sample ID: S1S/02

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: B1411

Level: (low/med) LOW

Date Received: 07/13/95

% Moisture: 4. decanted: (Y/N) N

Date Extracted: 07/13/95

Concentrated Extract Volume: 1000.0 (uL)

Date Analyzed: 07/26/95

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

PC Cleanup: (Y/N) N pH: 4.6

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
---------	----------	---	---

51-28-5-----2,4-Dinitrophenol	870.	U
100-02-7-----4-Nitrophenol	870.	U
132-64-9-----Dibenzofuran	350.	U
121-14-2-----2,4-Dinitrotoluene	350.	U
84-66-2-----Diethylphthalate	350.	U
7005-72-3-----4-Chlorophenyl-phenylether	350.	U
86-73-7-----Fluorene	350.	U
100-01-6-----4-Nitroaniline	870.	U
534-52-1-----4,6-Dinitro-2-methylphenol	870.	U
86-30-6-----N-Nitrosodiphenylamine	350.	U
101-55-3-----4-Bromophenyl-phenylether	350.	U
118-74-1-----Hexachlorobenzene	350.	U
87-86-5-----Pentachlorophenol	870.	U
85-01-8-----Phenanthrene	350.	U
120-12-7-----Anthracene	350.	U
100-51-6-----Benzyl Alcohol	350.	U
84-74-2-----Di-n-Butylphthalate	350.	U
206-44-0-----Fluoranthene	350.	U
129-00-0-----Pyrene	350.	U
85-68-7-----Butylbenzylphthalate	350.	U
91-94-1-----3,3'-Dichlorobenzidine	350.	U
56-55-3-----Benzo(a) Anthracene	350.	U
218-01-9-----Chrysene	350.	U
117-81-7-----Bis(2-Ethylhexyl) Phthalate	50.	J
117-84-0-----Di-n-octyl phthalate	350.	U
205-99-2-----Benzo(b) fluoranthene	350.	U
207-08-9-----Benzo(k) Fluoranthene	350.	U
50-32-8-----Benzo(a) Pyrene	350.	U
193-39-5-----Indeno(1,2,3-cd) Pyrene	350.	U
53-70-3-----Dibenzo(a,h) Anthracene	350.	U
191-24-2-----Benzo(g,h,i) Perylene	350.	U

(1) - Cannot be separated from diphenylamine

000053

EPA SAMPLE NO.

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

S1S/02

Lab Name: AES, Inc.

Contract: EA9514

Lab Code: AES

Case No.: EA9514 SAS No.:

SDG No.: D1/01

Matrix: (soil/water) SOIL

Lab Sample ID: S1S/02

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: B1411

Level: (low/med) LOW

Date Received: 07/13/95

% Moisture: 4. decanted: (Y/N) N

Date Extracted: 07/13/95

Concentrated Extract Volume: 1000.0 (uL)

Date Analyzed: 07/26/95

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GC Cleanup: (Y/N) N

pH: 4.6

Number TICs found: 2

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. - -	ALDOL CONDENSATE	4.47	6000.	BJ A
2. - -	ALDOL CONDENSATE	4.50	90.	BJ A
3.				
4.				
5.				
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27.				
28.				
29.				
30.				

R
R
(2)
8/3/95

000054

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FB1

Lab Name: AES, Inc.

Contract: EA9514

Lab Code: AES

Case No.: EA9514 SAS No.:

SDG No.: D1/01

Matrix: (soil/water) WATER

Lab Sample ID: FB1

Sample wt/vol: 1000.0 (g/mL) ML

Lab File ID: B1414

Level: (low/med) LOW

Date Received: 07/11/95

Moisture: _____ decanted: (Y/N) _____

Date Extracted: 07/11/95

Concentrated Extract Volume: 1000.0 (uL)

Date Analyzed: 07/26/95

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: 7.0

CAS NO.

COMPOUND

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

Q

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

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

000055
EPA SAMPLE NO.

FB1

Lab Name: AES, Inc.

Contract: EA9514

Lab Code: AES

Case No.: EA9514

SAS No.:

SDG No.: D1/01

Matrix: (soil/water) WATER

Lab Sample ID: FB1

Sample wt/vol: 1000.0 (g/mL) ML

Lab File ID: B1414

Level: (low/med) LOW

Date Received: 07/11/95

Moisture: _____ decanted: (Y/N) _____

Date Extracted: 07/11/95

Concentrated Extract Volume: 1000.0 (uL)

Date Analyzed: 07/26/95

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

PC Cleanup: (Y/N) N

pH: 7.0

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

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

(1) - Cannot be separated from diphenylamine

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
000056

FB1

Lab Name: AES, Inc.

Contract: EA9514

Lab Code: AES

Case No.: EA9514 SAS No.:

SDG No.: D1/01

Matrix: (soil/water) WATER

Lab Sample ID: FB1

Sample wt/vol: 1000.0 (g/mL) ML

Lab File ID: B1414

Level: (low/med) LOW

Date Received: 07/11/95

Moisture: _____ decanted: (Y/N) _____

Date Extracted: 07/11/95

Concentrated Extract Volume: 1000.0 (uL)

Date Analyzed: 07/26/95

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

S/C Cleanup: (Y/N) N

pH: 7.0

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. - -	UNKNOWN SUBSTITUTED PHENOL	16.68	4.	J
2.				
3.				
4.				
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1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

000057
EPA SAMPLE NO.

S1N01

Lab Name: AES, INC

Contract: 1

Lab Code: AES

Case No. E9514 SAS No.:

SDG No.: D101

Matrix: (soil/water) SOIL

Lab Sample ID: S1N01

Sample wt/vol: 30.0 (g/ml) G

Lab File ID:

% Moisture: 8 decanted: (Y/N) N

Date Received: 7/12/95

Extraction: (SepF/Cont/Sonc) SONC

Date Extracted: 7/12/95

Concentrated Extract Volume: 10000 (uL)

Date Analyzed: 7/13/95

Injection Volume: 1.5 (uL)

Dilution Factor: 1.0

GC Cleanup: (Y/N) N pH: 5.1

Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	1.8	U
319-85-7	beta-BHC	1.8	U
319-86-8	delta-BHC	1.8	U
58-89-9	gamma-BHC (Lindane)	1.8	U
76-44-8	Heptachlor	1.8	U
309-00-2	Aldrin	1.8	U
1024-57-3	Heptachlor epoxide	1.8	U
959-98-8	Endosulfan I	0.056	JP R
60-57-1	Dieldrin	3.6	U
72-55-9	4,4'-DDE	0.24	JP
72-20-8	Endrin	3.6	U
33213-65-9	Endosulfan II	3.6	U
72-54-8	4,4'-DDD	3.6	U
1031-07-8	Endosulfan sulfate	0.25	JP R
50-29-3	4,4'-DDT	3.6	U
72-43-5	Methoxychlor	18.	U
53494-70-5	Endrin ketone	3.6	U
7421-36-3	Endrin aldehyde	3.6	U
5103-71-9	alpha-Chlordane	1.8	U
5103-74-2	gamma-Chlordane	1.8	U
8001-35-2	Toxaphene	180.	U
12674-11-2	Aroclor-1016	36.	U
11104-28-2	Aroclor-1221	72.	U
11141-16-5	Aroclor-1232	36.	U
53469-21-9	Aroclor-1242	36.	U
12672-29-6	Aroclor-1248	36.	U
11097-69-1	Aroclor-1254	36.	U
11096-82-5	Aroclor-1260	36.	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

000058
EPA SAMPLE NO.

S1N02

Lab Name: AES, INC

Contract: 1

Lab Code: AES

Case No. E9514 SAS No.:

SDG No.: D101

Matrix: (soil/water) SOIL

Lab Sample ID: S1N02

Sample wt/vol: 30.0 (g/ml) G

Lab File ID:

Moisture: 4 decanted: (Y/N) N

Date Received: 7/12/95

Extraction: (SepF/Cont/Sonc) SONC

Date Extracted: 7/12/95

Concentrated Extract Volume: 10000 (uL)

Date Analyzed: 7/13/95

Injection Volume: 1.5 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: 5.7

Sulfur Cleanup: (Y/N) N

CAS NO.

COMPOUND

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

Q

319-84-6	alpha-BHC	1.7	U
319-85-7	beta-BHC	1.7	U
319-86-8	delta-BHC	1.7	U
58-89-9	gamma-BHC (Lindane)	1.7	U
76-44-8	Heptachlor	1.7	U
309-00-2	Aldrin	1.7	U
1024-57-3	Heptachlor epoxide	1.7	U
959-98-8	Endosulfan I	1.7	U
60-57-1	Dieldrin	3.5	U
72-55-9	4,4'-DDE	3.5	U
72-20-8	Endrin	3.5	U
33213-65-9	Endosulfan II	3.5	U
72-54-8	4,4'-DDD	3.5	U
1031-07-8	Endosulfan sulfate	3.5	U
50-29-3	4,4'-DDT	3.5	U
72-43-5	Methoxychlor	17.	U
53494-70-5	Endrin ketone	3.5	U
7421-36-3	Endrin aldehyde	3.5	U
5103-71-9	alpha-Chlordane	1.7	U
5103-74-2	gamma-Chlordane	1.7	U
8001-35-2	Toxaphene	170.	U
12674-11-2	Aroclor-1016	35.	U
11104-28-2	Aroclor-1221	69.	U
11141-16-5	Aroclor-1232	35.	U
53469-21-9	Aroclor-1242	35.	U
12672-29-6	Aroclor-1248	35.	U
11097-69-1	Aroclor-1254	35.	U
11096-82-5	Aroclor-1260	35.	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

000059
EPA SAMPLE NO.

S1S01

Lab Name: AES, INC

Contract: 1

Lab Code: AES

Case No. E9514

SAS No.:

SDG No.: D101

Matrix: (soil/water) SOIL

Lab Sample ID: S1S01

Sample wt/vol: 30.0 (g/ml) G

Lab File ID:

Moisture: 10 decanted: (Y/N) N

Date Received: 7/13/95

Extraction: (SepF/Cont/Sonc) SONC

Date Extracted: 7/13/95

Concentrated Extract Volume: 10000 (uL)

Date Analyzed: 7/14/95

Injection Volume: 1.5 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 5.3

Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	1.9	U
319-85-7	beta-BHC	1.9	U
319-86-8	delta-BHC	1.9	U
58-89-9	gamma-BHC (Lindane)	1.9	U
76-44-8	Heptachlor	1.9	U
309-00-2	Aldrin	1.9	U
1024-57-3	Heptachlor epoxide	1.9	U
959-98-8	Endosulfan I	1.9	U
60-57-1	Dieldrin	3.7	U
72-55-9	4,4'-DDE	3.7	U
72-20-8	Endrin	3.7	U
33213-65-9	Endosulfan II	3.7	U
72-54-8	4,4'-DDD	3.7	U
1031-07-8	Endosulfan sulfate	3.7	U
50-29-3	4,4'-DDT	3.7	U
72-43-5	Methoxychlor	19.	U
53494-70-5	Endrin ketone	3.7	U
7421-36-3	Endrin aldehyde	3.7	U
5103-71-9	alpha-Chlordane	1.9	U
5103-74-2	gamma-Chlordane	1.9	U
8001-35-2	Toxaphene	190.	U
12674-11-2	Aroclor-1016	37.	U
11104-28-2	Aroclor-1221	74.	U
11141-16-5	Aroclor-1232	37.	U
53469-21-9	Aroclor-1242	37.	U
12672-29-6	Aroclor-1248	37.	U
11097-69-1	Aroclor-1254	37.	U
11096-82-5	Aroclor-1260	37.	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

000060
EPA SAMPLE NO.

S1S02

Lab Name: AES, INC

Contract: 1

Lab Code: AES

Case No. E9514 SAS No.:

SDG No.: D101

Matrix: (soil/water) SOIL

Lab Sample ID: S1S02

Sample wt/vol: 30.0 (g/ml) G

Lab File ID:

% Moisture: 4 decanted: (Y/N) N

Date Received: 7/13/95

Extraction: (SepF/Cont/Sonc) SONC

Date Extracted: 7/13/95

Concentrated Extract Volume: 10000 (uL)

Date Analyzed: 7/14/95

Injection Volume: 1.5 (uL)

Dilution Factor: 1.0

SFC Cleanup: (Y/N) N pH: 4.6

Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	1.7	U
319-85-7	beta-BHC	1.7	U
319-86-8	delta-BHC	1.7	U
58-89-9	gamma-BHC (Lindane)	1.7	U
76-44-8	Heptachlor	1.7	U
309-00-2	Aldrin	1.7	U
1024-57-3	Heptachlor epoxide	1.7	U
959-98-8	Endosulfan I	1.7	U
60-57-1	Dieldrin	3.5	U
72-55-9	4,4'-DDE	3.5	U
72-20-8	Endrin	3.5	U
33213-65-9	Endosulfan II	3.5	U
72-54-8	4,4'-DDD	3.5	U
1031-07-8	Endosulfan sulfate	3.5	U
50-29-3	4,4'-DDT	3.5	U
72-43-5	Methoxychlor	17.	U
53494-70-5	Endrin ketone	3.5	U
7421-36-3	Endrin aldehyde	3.5	U
5103-71-9	alpha-Chlordane	1.7	U
5103-74-2	gamma-Chlordane	1.7	U
8001-35-2	Toxaphene	170.	U
12674-11-2	Aroclor-1016	35.	U
11104-28-2	Aroclor-1221	69.	U
11141-16-5	Aroclor-1232	35.	U
53469-21-9	Aroclor-1242	35.	U
12672-29-6	Aroclor-1248	35.	U
11097-69-1	Aroclor-1254	35.	U
11096-82-5	Aroclor-1260	35.	U

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MRFA/SIN/01

Lab Name: ADIRONDACK ENVIRONMENTAL Contract: _____

Lab Code: AES Case No.: SAS No.: SDG No.: MRFA/S

Matrix (soil/water): SOIL Lab Sample ID: MRFA/SIN/01

Level (low/med): LOW Date Received: 07/12/95

Solids: 91.7

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	5240	-		P
7440-36-0	Antimony	11.2	U		P
7440-38-2	Arsenic	2.3			F
7440-39-3	Barium	20.6	B		P
7440-41-7	Beryllium	0.37	B		P
7440-43-9	Cadmium	0.63	U	N	P
7440-70-2	Calcium	390	B		P
7440-47-3	Chromium	7.2			P
7440-48-4	Cobalt	3.7	B		P
7440-50-8	Copper	16.4			P
7439-89-6	Iron	9790			P
7439-92-1	Lead	5.3	J	W	F
7439-95-4	Magnesium	1320			P
7439-96-5	Manganese	241	J	E	P
7439-97-6	Mercury	0.07	B	J N	AV
7440-02-0	Nickel	7.5	B	J	P
7440-09-7	Potassium	149	U		P
7782-49-2	Selenium	0.41	U		F
7440-22-4	Silver	1.4	U	N	P
7440-23-5	Sodium	139	U		P
7440-28-0	Thallium	0.83	U	N	F
7440-62-2	Vanadium	6.5	B		P
7440-66-6	Zinc	37.3		*	P
	Boron				NR

8/3/95

Color Before: BROWN Clarity Before: Texture: FINE

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:

000061

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MRFA/SIN/02

b Name: ADIRONDACK_ENVIRONMENTAL Contract: _____

Lab Code: AES Case No.: SAS No.: SDG No.: MRFA/S

Matrix (soil/water): SOIL Lab Sample ID: MRFA/SIN/02

Level (low/med): LOW Date Received: 07/12/95

Solids: 95.8

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4780	—	—	P
7440-36-0	Antimony	10.7	U	—	P
7440-38-2	Arsenic	2.6	—	—	F
7440-39-3	Barium	13.9	B	—	P
7440-41-7	Beryllium	0.36	B	—	P
7440-43-9	Cadmium	0.61	U	N	P
7440-70-2	Calcium	334	B	—	P
7440-47-3	Chromium	6.6	—	—	P
7440-48-4	Cobalt	4.6	B	—	P
7440-50-8	Copper	10.3	—	—	P
7439-89-6	Iron	10800	—	—	P
7439-92-1	Lead	3.4	—	—	F
7439-95-4	Magnesium	1770	—	—	P
7439-96-5	Manganese	227	J	E	P
7439-97-6	Mercury	0.10	B	J N	AV
7440-02-0	Nickel	7.8	B	J	P
7440-09-7	Potassium	143	U	—	P
7782-49-2	Selenium	0.40	B	J W	F
7440-22-4	Silver	1.3	U	J N	P
7440-23-5	Sodium	133	U	—	P
7440-28-0	Thallium	0.79	U	N	F
7440-62-2	Vanadium	6.5	B	—	P
7440-66-6	Zinc	56.8	—	*	P
	Boron	—	—	—	NR

Color Before: BROWN Clarity Before: Texture: FINE

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MRFA/SIS/01

Lab Name: ADIRONDACK ENVIRONMENTAL Contract: _____

Lab Code: AES Case No.: SAS No.: SDG No.: MRFA/S

Matrix (soil/water): SOIL Lab Sample ID: MRFA/SIS/01

Level (low/med): LOW Date Received: 07/12/95

% Solids: 90.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	9380	-		P
7440-36-0	Antimony	11.4	U		P
7440-38-2	Arsenic	5.1	-		F
7440-39-3	Barium	20.4	B		P
7440-41-7	Beryllium	0.52	B		P
7440-43-9	Cadmium	0.64	U	N	P
7440-70-2	Calcium	239	B		P
7440-47-3	Chromium	11.9	-		P
7440-48-4	Cobalt	8.8	B		P
7440-50-8	Copper	25.2	-		P
7439-89-6	Iron	18200	-		P
7439-92-1	Lead	8.1	I	W	F
7439-95-4	Magnesium	2870	-		P
7439-96-5	Manganese	482	I	E	P
7439-97-6	Mercury	31.6	I	N	AV
7440-02-0	Nickel	17.5	I		P
7440-09-7	Potassium	152	U		P
7782-49-2	Selenium	0.44	B		F
7440-22-4	Silver	1.4	U	N	P
7440-23-5	Sodium	142	U		P
7440-28-0	Thallium	0.84	U	N	F
7440-62-2	Vanadium	12.3	-		P
7440-66-6	Zinc	28.3	-	*	P
	Boron		-		NR

Color Before: BROWN Clarity Before: Texture: FINE

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MRFA/SIS/02

Lab Name: ADIRONDACK_ENVIRONMENTAL_ Contract: _____

Lab Code: AES_ Case No.: _____ SAS No.: _____ SDG No.: MRFA/S

Matrix (soil/water): SOIL_ Lab Sample ID: MRFA/SIS/02_

Level (low/med): LOW_ Date Received: 07/12/95

% Solids: _96.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	5110	-		P
7440-36-0	Antimony	10.7	U		P
7440-38-2	Arsenic	1.8	B		F
7440-39-3	Barium	22.2	B		P
7440-41-7	Beryllium	0.26	B		P
7440-43-9	Cadmium	0.60	U	N	P
7440-70-2	Calcium	177	B		P
7440-47-3	Chromium	6.1			P
7440-48-4	Cobalt	3.3	U		P
7440-50-8	Copper	10.8			P
7439-89-6	Iron	7740			P
7439-92-1	Lead	2.9			F
7439-95-4	Magnesium	1010	B		P
7439-96-5	Manganese	125	J	E	P
7439-97-6	Mercury	0.15	J	N	AV
7440-02-0	Nickel	7.1	B	J	P
7440-09-7	Potassium	142	U		P
7782-49-2	Selenium	0.40	U	W	F
7440-22-4	Silver	1.3	U	N	P
7440-23-5	Sodium	133	U		P
7440-28-0	Thallium	0.79	U	N	F
7440-62-2	Vanadium	6.2	B		P
7440-66-6	Zinc	13.3		*	P
	Boron				NR

Color Before: BROWN_ Clarity Before: _____ Texture: FINE_

Color After: YELLOW_ Clarity After: CLEAR_ Artifacts: _____

Comments:

000064

WET CHEMISTRY ANALYSES

MRFA/D1/01
MR: RA9514

Client Sample ID	Lab Sample ID	Matrix	Date Rec'd	Date Analyzed	Parameter	%SOLID	Result Flag	Units
MRFA/S1M/01	950712 Q01	SO	7/12/95	7/14/95	CLP-CYANIDE	92	1.1 U	MG/KG
MRFA/S1M/02	950712 Q02	SO	7/12/95	7/14/95	CLP-CYANIDE	96	1.0 U	MG/KG
MRFA/S1S/01	950713 C01	SO	7/13/95	7/14/95	CLP-CYANIDE	90	1.1 U	MG/KG
MRFA/S1S/02	950713 C02	SO	7/13/95	7/14/95	CLP-CYANIDE	96	1.0 U	MG/KG

ADDITIONAL RESOURCES

PARTIAL LISTING OF LABS APPROVED BY NEW YORK STATE FOR LEAD DRINKING WATER ANALYSIS:

Aquatech	802-655-1203 (Colchester, VT)
Bender Hygienic Laboratory	518-472-9124 (Albany)
Hudson Environmental Services	518-792-3863 (Queensbury)
Northeast Analytical	518-346-4592 (Schenectady)
Phoenix Environmental Laboratory	203-645-1102 (Manchester, CT)

If you have any additional questions regarding lead in drinking water, please contact your Postmaster or District Lead Coordinator, Janis Brown at 518-452-2260.



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LABORATORY REPORT

for

ERM Northeast
501 New Karner Road
Suite 7
Albany, NY 12205

Attention: William Miller

Purchase Order #: 380.205

Number of samples analyzed: 4
Report date: 08/31/95

LAP ID#: 10709

AES Project IDs: 950721 W 950724 I
Invoice #: 153740

AIHA ID#: 12144-001



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CLIENT: EPM Northeast

Date Sampled: 07/21/95

CLIENT'S SAMPLE ID: MRFA/SIS/03

Date sample received: 07/21/95

AES sample #: 950721 WO1

Samples taken by: CB Mongillo

Location: MRFA

MATRIX: Solid Sample

grab

<u>PARAMETER PERFORMED</u>	<u>METHOD</u>	<u>RESULT</u>	<u>UNITS</u>	<u>NOTEBOOK REF</u>	<u>TEST DATE</u>
Corrosivity	SW-846	Non	Corosive	JF-L-31	08/09/95
Reactivity	SW-846 Sec.7.3	Non	Reactive	MC-E-17	08/07/95
Cyanide, Total	EPA-9010	<1	ug/g	JF-M-24	08/09/95
Sulfide	EPA-9030	<10	ug/g	MC-E-17	08/07/95
Flashpoint	ASTM D93-77	>200	°F	MC-D-4	08/08/95
PCB	EPA-8080	<1	ug/g	KF-PCB-R-9	07/31/95
TCLP Extraction (ZHE)	EPA-1311	Complete		MG-BA-6	07/26/95
Benzene - TCLP Extract	EPA-8240	<85	ug/l	MG-BA-6	07/27/95
Carbon Tetrachloride-TCLP Ext.	EPA-8240	<85	ug/l	MG-BA-6	07/27/95
Chlorobenzene-TCLP Extract	EPA-8240	<85	ug/l	MG-BA-6	07/27/95
Chloroform-TCLP Extract	EPA-8240	<85	ug/l	MG-BA-6	07/27/95
1,2-Dichloroethane-TCLP Ext.	EPA-8240	<85	ug/l	MG-BA-6	07/27/95
1,1-Dichloroethene-TCLP Ext.	EPA-8240	<85	ug/l	MG-BA-6	07/27/95
Methyl Ethyl Ketone-TCLP Ext.	EPA-8240	<170	ug/l	MG-BA-6	07/27/95
Tetrachlorethylene-TCLP Ext.	EPA-8240	<85	ug/l	MG-BA-6	07/27/95
Trichloroethylene-TCLP Extract	EPA-8240	<85	ug/l	MG-BA-6	07/27/95
Vinyl Chloride-TCLP Extraction	EPA-8240	<170	ug/l	MG-BA-6	07/27/95
TCLP Extraction	EPA-1311	Complete		TCLP-B-36	07/24/95
Nitrobenzene-TCLP Extract	EPA-8270	<100	ug/l	MT-AZ-43	07/31/95
Pyridine-TCLP Extract	EPA-8270	<100	ug/l	MT-AZ-43	07/31/95



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CLIENT: ERM Northeast Date Sampled: 07/21/95
CLIENT'S SAMPLE ID: MRFA/SIS/03 Date sample received: 07/21/95
AES sample #: 950721 W01 Samples taken by: CB Mongillo Location: MRFA
MATRIX: Solid Sample grab

continued:

<u>PARAMETER PERFORMED</u>	<u>METHOD</u>	<u>RESULT</u>	<u>UNITS</u>	<u>NOTEBOOK REF</u>	<u>TEST DATE</u>
Cresols (Total) TCLP Extract.	EPA-8270	<100	ug/l	MT-AZ-43	07/31/95
1,4-Dichlorobenzene-TCLP Ext.	EPA-8270	<100	ug/l	MT-AZ-43	07/31/95
2,4-Dinitrotoluene-TCLP Ext.	EPA-8270	<100	ug/l	MT-AZ-43	07/31/95
Hexachlorobenzene-TCLP Extract	EPA-8270	<100	ug/l	MT-AZ-43	07/31/95
Hexachlorobutadiene-TCLP Ext.	EPA-8270	<100	ug/l	MT-AZ-43	07/31/95
Hexachloroethane-TCLP Extract	EPA-8270	<100	ug/l	MT-AZ-43	07/31/95
Pentachlorophenol-TCLP Extract	EPA-8270	<500	ug/l	MT-AZ-43	07/31/95
2,4,5-Trichlorophenol-TCLP Ext	EPA-8270	<100	ug/l	MT-AZ-43	07/31/95
2,4,6-Trichlorophenol-TCLP Ext	EPA-8270	<100	ug/l	MT-AZ-43	07/31/95
Chlordane -TCLP Extract	EPA-8080	<0.005	mg/l	SO-TG-B25	07/27/95
Dieldrin-TCLP Extract	EPA-8080	<0.005	mg/l	SO-TG-B25	07/27/95
Heptachlor-TCLP Extract	EPA-8080	<0.005	mg/l	SO-TG-B25	07/27/95
Heptachlor Epoxide-TCLP Ext.	EPA-8080	<0.005	mg/l	SO-TG-B25	07/27/95
Endosulfan-TCLP Extract	EPA-8080	<0.005	mg/l	SO-TG-B25	07/27/95
Methoxychlor-TCLP Extract	EPA-8080	<0.05	mg/l	SO-TG-B25	07/27/95
Dioxaphene-TCLP Extract	EPA-8080	<0.05	mg/l	SO-TG-B25	07/27/95
2,4-D TCLP Extract	EPA-8150	<2	mg/l	KS-TG-B25	08/01/95
2,4,5-TP (Silvex)-TCLP Extract	EPA-8150	<0.2	mg/l	KS-TG-B25	08/01/95
Arsenic-TCLP Extract	EPA-6010	<0.5	mg/l	WC-I-1F-7	07/30/95
Barium-TCLP Extract	EPA-6010	0.02	mg/l	WC-I-1F-7	07/30/95



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CLIENT: EPM Northeast

Date Sampled: 07/21/95

CLIENT'S SAMPLE ID: MRFA/SIS/03

Date sample received: 07/21/95

AES sample #: 950721 W01

Samples taken by: CB Mongillo

Location: MRFA

MATRIX: Solid Sample

grab

continued:

<u>PARAMETER PERFORMED</u>	<u>METHOD</u>	<u>RESULT</u>	<u>UNITS</u>	<u>NOTEBOOK REF</u>	<u>TEST DATE</u>
Cadmium-TCLP Extract	EPA-6010	<0.01	mg/l	WC-I-1F-7	07/30/95
Chromium-TCLP Extract	EPA-6010	<0.05	mg/l	WC-I-1F-7	07/30/95
Lead-TCLP Extract	EPA-6010	<0.5	mg/l	WC-I-1F-7	07/30/95
Mercury-TCLP Extract	EPA-7470	<0.02	mg/l	SM-PSG-50	07/31/95
Selenium-TCLP Extract	EPA-6010	<0.1	mg/l	WC-I-1F-7	07/30/95
Silver-TCLP Extraction	EPA-6010	<0.02	mg/l	WC-I-1F-7	07/30/95



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CLIENT: EPH Northeast
CLIENT'S SAMPLE ID: MRFA/SIS/04
AES sample #: 950721 W02
Date Sampled: 07/21/95
Date sample received: 07/21/95
Samples taken by: CB Mongillo
Location: MRFA
MATRIX: Liquid Waste
grab

<u>PARAMETER PERFORMED</u>	<u>METHOD</u>	<u>RESULT</u>	<u>UNITS</u>	<u>NOTEBOOK REF</u>	<u>TEST DATE</u>
TCLP Extraction (ZHE)	EPA-1311	Complete		MG-BA-6	07/26/95
Benzene - TCLP Extract	EPA-8240	<85	ug/l	MG-BA-6	07/28/95
Carbon Tetrachloride-TCLP Ext.	EPA-8240	<85	ug/l	MG-BA-6	07/28/95
Chlorobenzene-TCLP Extract	EPA-8240	<85	ug/l	MG-BA-6	07/28/95
Chloroform-TCLP Extract	EPA-8240	<85	ug/l	MG-BA-6	07/28/95
1,2-Dichloroethane-TCLP Ext.	EPA-8240	<85	ug/l	MG-BA-6	07/28/95
1,1-Dichloroethene-TCLP Ext.	EPA-8240	<85	ug/l	MG-BA-6	07/28/95
Methyl Ethyl Ketone-TCLP Ext.	EPA-8240	<170	ug/l	MG-BA-6	07/28/95
Tetrachlorethylene-TCLP Ext.	EPA-8240	<85	ug/l	MG-BA-6	07/28/95
Trichloroethylene-TCLP Extract	EPA-8240	<85	ug/l	MG-BA-6	07/28/95
Vinyl Chloride-TCLP Extraction	EPA-8240	<170	ug/l	MG-BA-6	07/28/95
TCLP Extraction	EPA-1311	Complete		EPT-E	07/28/95
Arsenic-TCLP Extract	EPA-6010	<0.5	mg/l	WC-I-1F-7	07/30/95
Barium-TCLP Extract	EPA-6010	0.02	mg/l	WC-I-1F-7	07/30/95
Cadmium-TCLP Extract	EPA-6010	<0.01	mg/l	WC-I-1F-7	07/30/95
Chromium-TCLP Extract	EPA-6010	<0.05	mg/l	WC-I-1F-7	07/30/95
Lead-TCLP Extract	EPA-6010	<0.5	mg/l	WC-I-1F-7	07/30/95
Mercury-TCLP Extract	EPA-7470	<0.02	mg/l	SM-PSG-50	07/31/95
Selenium-TCLP Extract	EPA-6010	<0.1	mg/l	WC-I-1F-7	07/30/95
Silver-TCLP Extraction	EPA-6010	<0.02	mg/l	WC-I-1F-7	07/30/95



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CLIENT: ERM Northeast

Date Sampled: 07/21/95

CLIENT'S SAMPLE ID: MRFA/SIS/05

Date sample received: 07/21/95

AES sample #: 950721 W03

Samples taken by: CB Mongillo

Location: MRFA

MATRIX: Solid Sample

grab

<u>PARAMETER PERFORMED</u>	<u>METHOD</u>	<u>RESULT</u>	<u>UNITS</u>	<u>NOTEBOOK REF</u>	<u>TEST DATE</u>
Corrosivity	SW-846	Non	Corosive	JF-L-31	08/09/95
Reactivity	SW-846 Sec.7.3	Non	Reactive	MC-E-17	08/08/95
Cyanide, Total	EPA-9010	<1	ug/g	JF-M-24	08/09/95
Sulfide	EPA-9030	<10	ug/g	MC-E-17	08/07/95
Flashpoint	ASTM D93-77	>200	°F	MC-D-4	08/08/95
PCB	EPA-8080	<1	ug/g	KF-PCB-R-9	07/31/95
TCLP Extraction (ZHE)	EPA-1311	Complete		MG-BA-6	07/26/95
Benzene - TCLP Extract	EPA-8240	<85	ug/l	MG-BA-6	07/28/95
Carbon Tetrachloride-TCLP Ext.	EPA-8240	<85	ug/l	MG-BA-6	07/28/95
Chlorobenzene-TCLP Extract	EPA-8240	<85	ug/l	MG-BA-6	07/28/95
Chloroform-TCLP Extract	EPA-8240	<85	ug/l	MG-BA-6	07/28/95
1,2-Dichloroethane-TCLP Ext.	EPA-8240	<85	ug/l	MG-BA-6	07/28/95
1,1-Dichloroethene-TCLP Ext.	EPA-8240	<85	ug/l	MG-BA-6	07/28/95
Methyl Ethyl Ketone-TCLP Ext.	EPA-8240	<170	ug/l	MG-BA-6	07/28/95
Tetrachlorethylene-TCLP Ext.	EPA-8240	<85	ug/l	MG-BA-6	07/28/95
Trichloroethylene-TCLP Extract	EPA-8240	<85	ug/l	MG-BA-6	07/28/95
Vinyl Chloride-TCLP Extraction	EPA-8240	<170	ug/l	MG-BA-6	07/28/95
TCLP Extraction	EPA-1311	Complete		TCLP-B-36	07/24/95
Nitrobenzene-TCLP Extract	EPA-8270	<100	ug/l	MT-AZ-43	07/31/95
Pyridine-TCLP Extract	EPA-8270	<100	ug/l	MT-AZ-43	07/31/95



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CLIENT: ERM Northeast

CLIENT'S SAMPLE ID: MRFA/SIS/05

AES sample #: 950721 W03

Samples taken by: CB Mongillo

MATRIX: Solid Sample

Date Sampled: 07/21/95

Date sample received: 07/21/95

Location: MRFA

grab

continued:

<u>PARAMETER PERFORMED</u>	<u>METHOD</u>	<u>RESULT</u>	<u>UNITS</u>	<u>NOTEBOOK REF</u>	<u>TEST DATE</u>
Cresols (Total) TCLP Extract.	EPA-8270	<100	ug/l	MT-AZ-43	07/31/95
1,4-Dichlorobenzene-TCLP Ext.	EPA-8270	<100	ug/l	MT-AZ-43	07/31/95
2,4-Dinitrotoluene-TCLP Ext.	EPA-8270	<100	ug/l	MT-AZ-43	07/31/95
Hexachlorobenzene-TCLP Extract	EPA-8270	<100	ug/l	MT-AZ-43	07/31/95
Hexachlorobutadiene-TCLP Ext.	EPA-8270	<100	ug/l	MT-AZ-43	07/31/95
Hexachloroethane-TCLP Extract	EPA-8270	<100	ug/l	MT-AZ-43	07/31/95
Pentachlorophenol-TCLP Extract	EPA-8270	<500	ug/l	MT-AZ-43	07/31/95
2,4,5-Trichlorophenol-TCLP Ext	EPA-8270	<100	ug/l	MT-AZ-43	07/31/95
2,4,6-Trichlorophenol-TCLP Ext	EPA-8270	<100	ug/l	MT-AZ-43	07/31/95
Chlordane -TCLP Extract	EPA-8080	<0.005	mg/l	SO-TG-B25	07/27/95
Endrin-TCLP Extract	EPA-8080	<0.005	mg/l	SO-TG-B25	07/27/95
Heptachlor-TCLP Extract	EPA-8080	<0.005	mg/l	SO-TG-B25	07/27/95
Heptachlor Epoxide-TCLP Ext.	EPA-8080	<0.005	mg/l	SO-TG-B25	07/27/95
Lindane-TCLP Extract	EPA-8080	<0.005	mg/l	SO-TG-B25	07/27/95
Methoxychlor-TCLP Extract	EPA-8080	<0.05	mg/l	SO-TG-B25	07/27/95
Toxaphene-TCLP Extract	EPA-8080	<0.05	mg/l	SO-TG-B25	07/27/95
2,4-D TCLP Extract	EPA-8150	<2	mg/l	KS-TG-B25	08/01/95
2,4,5-TP (Silvex)-TCLP Extract	EPA-8150	<0.2	mg/l	KS-TG-B25	08/01/95
Arsenic-TCLP Extract	EPA-6010	<0.5	mg/l	WC-I-1F-7	07/30/95
Barium-TCLP Extract	EPA-6010	0.12	mg/l	WC-I-1F-7	07/30/95



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CLIENT: EPM Northeast

CLIENT'S SAMPLE ID: MRFA/SIS/05

AES sample #: 950721 W03

Date Sampled: 07/21/95

Date sample received: 07/21/95

Samples taken by: CB Mongillo

Location: MRFA

MATRIX: Solid Sample

grab

continued:

<u>PARAMETER PERFORMED</u>	<u>METHOD</u>	<u>RESULT</u>	<u>UNITS</u>	<u>NOTEBOOK REF</u>	<u>TEST DATE</u>
Cadmium-TCLP Extract	EPA-6010	<0.01	mg/l	WC-I-1F-7	07/30/95
Chromium-TCLP Extract	EPA-6010	<0.05	mg/l	WC-I-1F-7	07/30/95
Lead-TCLP Extract	EPA-6010	<0.5	mg/l	WC-I-1F-7	07/30/95
Mercury-TCLP Extract	EPA-7470	<0.02	mg/l	SM-PSG-50	07/31/95
Selenium-TCLP Extract	EPA-6010	<0.1	mg/l	WC-I-1F-7	07/30/95
Silver-TCLP Extraction	EPA-6010	<0.02	mg/l	WC-I-1F-7	07/30/95



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CLIENT: EPM Northeast Date Sampled: 07/24/95
CLIENT'S SAMPLE ID: MRFA/SIS/04A Date sample received: 07/24/95
AES sample #: 950724 IO1 Samples taken by: CB Mongillo Location: MRFA
MATRIX: Liquid Waste grab

PARAMETER PERFORMED	METHOD	RESULT	UNITS	NOTES/REF	TEST DATE
Corrosivity	SW-846	Non	Corosive	JF-L-31	08/09/95
Reactivity	SW-846 Sec.7.3	Non	Reactive	JF-D-4	08/10/95
Cyanide, Total	EPA-9010	<1	ug/g	JF-M-24	08/09/95
Sulfide	EPA-9030	<10	ug/g	MC-E-17	08/07/95
Flashpoint	ASTM D93-77	>200	°F	JF-D-4	08/10/95
PCB	EPA-8080	<1	ug/l	KE-PCB-R-9	07/31/95
TCLP Extraction	EPA-1311	Complete		MT-AZ-44	07/25/95
Nitrobenzene-TCLP Extract	EPA-8270	<100	ug/l	MT-AZ-44	07/31/95
Pyridine-TCLP Extract	EPA-8270	<100	ug/l	MT-AZ-44	07/31/95
Cresols (Total) TCLP Extract.	EPA-8270	<100	ug/l	MT-AZ-44	07/31/95
1,4-Dichlorobenzene-TCLP Ext.	EPA-8270	<100	ug/l	MT-AZ-44	07/31/95
2,4-Dinitrotoluene-TCLP Ext.	EPA-8270	<100	ug/l	MT-AZ-44	07/31/95
Hexachlorobenzene-TCLP Extract	EPA-8270	<100	ug/l	MT-AZ-44	07/31/95
Hexachlorobutadiene-TCLP Ext.	EPA-8270	<100	ug/l	MT-AZ-44	07/31/95
Hexachloroethane-TCLP Extract	EPA-8270	<100	ug/l	MT-AZ-44	07/31/95
Pentachlorophenol-TCLP Extract	EPA-8270	<500	ug/l	MT-AZ-44	07/31/95
2,4,5-Trichlorophenol-TCLP Ext	EPA-8270	<100	ug/l	MT-AZ-44	07/31/95
2,4,6-Trichlorophenol-TCLP Ext	EPA-8270	<100	ug/l	MT-AZ-44	07/31/95
Chlordane -TCLP Extract	EPA-8080	<0.005	mg/l	SO-TG-B25	07/23/95
Endrin-TCLP Extract	EPA-8080	<0.005	mg/l	SO-TG-B25	07/23/95



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CLIENT: ERM Northeast

Date Sampled: 07/24/95

CLIENT'S SAMPLE ID: MRFA/SIS/04A

Date sample received: 07/24/95

AES sample #: 950724 IO1

Samples taken by: CB Mongillo

Location: MRFA

MATRIX: Liquid Waste

grab

continued:

<u>PAPAMETER PERFORMED</u>	<u>METHOD</u>	<u>RESULT</u>	<u>UNITS</u>	<u>NOTEBOOK REF</u>	<u>TEST DATE</u>
Heptachlor-TCLP Extract	EPA-8080	<0.005	mg/l	SO-TG-B25	07/28/95
Heptachlor Epoxide-TCLP Ext.	EPA-8080	<0.005	mg/l	SO-TG-B25	07/28/95
Lindane-TCLP Extract	EPA-8080	<0.005	mg/l	SO-TG-B25	07/28/95
Methoxychlor-TCLP Extract	EPA-8080	<0.05	mg/l	SO-TG-B25	07/28/95
Toxaphene-TCLP Extract	EPA-8080	<0.05	mg/l	SO-TG-B25	07/28/95
2,4-D TCLP Extract	EPA-3150	<2	mg/l	KS-TG-B25	08/01/95
2,4,5-TP (Silvex)-TCLP Extract	EPA-8150	<0.2	mg/l	KS-TG-B25	08/01/95

APPROVED BY:

Report date: 08/31/95



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CHAIN OF CUSTODY RECORD

CLIENT NAME ERM-NORTHEAST	PROJECT NAME (Location) MRFA	SAMPLERS: (Names) C. BRETT MINGILLO
ADDRESS ALBANY, NY	PO NUMBER 380.205	SAMPLERS: (Signature) <i>C. Brett Mingillo</i>

AES SAMPLE NUMBER	CLIENT SAMPLE IDENTIFICATION & LOCATION	DATE SAMPLED	TIME A=a.m. P=p.m.	SAMPLE TYPE			NUMBER OF CONT'S	ANALYSIS REQUIRED
				MATRIX	COMP	GRAB		
950734 I.C.1	MRFA/SIS/04A	7/24/95	0830	L		X		TCLP SODA & PESTICIDES
			A					
			P					
			A					
			P					
			A					
			P					
			A					
			P					
			A					
			P					
			A					
			P					
			A					
			P					
			A					
			P					
			A					
			P					

THE ABOVE BOTTLES ARE REPLACEMENTS
OF BROKEN BOTTLES FROM SAMPLE BATCHES
DELIVERED ON 7/21/95

Turnaround Time:		Laboratory Approval:	
Relinquished by: (Signature) <i>C. Brett Mingillo</i>	Received by: (Signature) <i>V. M. ...</i>	Date/Time 7/24/95 10:45	
Relinquished by: (Signature)	Received by: (Signature)	Date/Time	
Relinquished by: (Signature)	Received by: (Signature)	Date/Time	
Dispatched by: (Signature)	Date/Time	Received for Laboratory by: <i>J. ...</i>	Date/Time 7/24/95 11:18 AM
Method of Shipment:	Send Report To:	Client Phone No.:	

The Laboratory reserves the right to return hazardous samples to the client or may levy an appropriate fee per container for disposal.

WHITE - Lab Copy

YELLOW - Sampler Copy

PINK - Generator Copy

Adirondack Environmental Services, Inc.



314 North Pearl Street
Albany, New York 12207
518-434-4546 / 434-0891 FAX

A full service analytical research laboratory offering solutions to environmental concerns

CHAIN OF CUSTODY RECORD

CLIENT NAME ERM - NORTHEAST	PROJECT NAME (Location) MRFA	SAMPLERS: (Names) C. BRETT MONGILLO
ADDRESS 9T ALBANY NY	PO NUMBER 380 - 205	SAMPLERS: (Signature) C. Brett Mongillo

AES SAMPLE NUMBER	CLIENT SAMPLE IDENTIFICATION & LOCATION	DATE SAMPLED	TIME A = a.m. P = p.m.	SAMPLE TYPE			NUMBER OF CONT'S	ANALYSIS REQUIRED
				MATRIX	COMP	GRAB		
950721 ^{W01}	MRFA / SIS / 03	7/21/95	0826	S		X		TCLP & RCCA
~~950722~~ ^{W02}	MRFA / SIS / 04	↓	0851	L		X		CHARACTERISTK
~~950723~~ ^{W03}	MRFA / SIS / 05	↓	0933	S	X			↓
~~TCLP Semi-Volatiles were~~ ~~broken during shipment. ERM will~~ ~~resample - per client~~ C. Brett Mongillo 7/21/95				A				
				P				
				A				
				P				
				A				
				P				
				A				
				P				
				A				
				P				
				A				
				P				
				A				
				P				
				A				

Turnaround Time:

STANDARD

Laboratory Approval:

Relinquished by: (Signature) <i>C. Brett Mongillo</i>	Received by: (Signature) <i>[Signature]</i> #197	Date/Time 7/21/95 11:20	
Relinquished by: (Signature) <i>[Signature]</i> 197	Received by: (Signature)	Date/Time 7/21/95 11:45	
Relinquished by: (Signature)	Received by: (Signature)	Date/Time	
Dispatched by: (Signature)	Date/Time	Received for Laboratory by: <i>[Signature]</i>	Date/Time 7/21/95 2:20pm
Method of Shipment:	Send Report To:	Client Phone No.:	

The Laboratory reserves the right to return hazardous samples to the client or may levy an appropriate fee per container for disposal.

WHITE - Lab Copy

YELLOW - Sampler Copy

PINK - Generator Copy

Adirondack Environmental Services, Inc.

950721-W
950724-I
#153740

**DATA VALIDATION OF SOIL SAMPLE ANALYSES
MALTA ROCKET FUELS AREA
CRUSHED DRUM REMOVAL
ERM-NORTHEAST PROJECT NUMBER 380.205
ADIRONDACK ENVIRONMENTAL SERVICES, INC.
CASE NO. EA9514, SDG NO. MRFA/D1/01**

Deliverables

The above referenced Data Summary Package and Sample Data Package contain results of the analyses of seven soil samples plus QC samples for Target Compound List (TCL) Semi-Volatile Organic Compounds (SVOCs) and Lead. TAL/TCL analyses were performed using USEPA CLP Methods for Multi-Media, Multi-Concentrations (OLM01 and ILM02). The data have been validated according to the protocols and QC requirements of OLM01, ILM02, the USEPA Region II Validation Standard Operating Procedure (SOP) HW-6, Revision 8 "CLP Organics Data Review and Preliminary Review" (modified), the USEPA Region II SOP HW-2, Revision 11 "Evaluation of Metals Data for the Contract Laboratory Program," and the reviewer's professional judgment.



The validation report pertains to the following samples:

<u>Samples</u>	<u>QC Samples</u>
D1/01	FB#1 (VOC & SVOC only)
D1/02	TB#1
D1/03	TB#2
S1N/01	S1N/01 MS/MSD
S1N/02	
S1S/01	
S1S/02	

ORGANICS

The following items/criteria were reviewed for this report:

- Quantitation/detection limits
- Holding times
- GC/MS tuning and performance
- Initial and continuing calibration data
- Procedural blank data
- Field blank data
- Internal standard areas, retention times, summary and data
- Surrogate recoveries, summary and data
- MS/MSD/MSB recoveries, summary and data
- Chromatograms and mass spectra
- Data system printouts
- Qualitative and quantitative compound identification
- Case narrative and deliverables compliance

The items listed above were technically and contractually in compliance with USEPA CLP protocols with the exceptions discussed in the text below. The data have been validated according to the procedures outlined above and qualified accordingly. Summary forms, narrative and chain-of-custody forms are attached.

VOLATILES

- The following table lists blanks, blank contaminants and concentrations and associated samples. Based on the observed concentrations of chloroform in the blanks, the observed concentration of this compound in all associated field samples is negated (all less than five times the concentration in the highest associated blank). If a blank is not listed in this table, no contaminants were detected in that blank. It should be noted that detected siloxanes are probably column bleeds and not actual sample contaminants

Blank ID	Compound (Concentration in µg/kg)	Associated Samples
VBLK02	Chloroform (3J)	S1N/01, S1S/01 RE, D1/01, D1/03
FB#1	Unk. Hydrocarbon @ 21.59 (30J)	All Samples

- Sample S1S/01 exhibited low internal standard areas for all three internal standards in both the initial and re-analyses, with similar results between the two sets of analyses. Therefore, the initial analysis should be used, with all results considered estimated and positive results flagged "J" and non-detects flagged "UJ."
- The following table lists compounds that exceeded 30% percent relative standard deviation (%RSD) for response factors (RF) in the initial calibration (I) or 25% percent difference (%D) between the initial calibration average response factor and the continuing calibration (C) response factor. Associated field samples are also listed. Positive results for these compounds in the associated samples are considered estimated and flagged "J" while non-detect results are flagged "UJ."

Calibration	Compound	Deficiency	Associated Samples
I - 7/17/95 (1313-1543)	Acetone	%RSD = 54.9	FB#1, TB#1, TB#2
I - 7/13/95 (1302-1644)	Bromomethane	%RSD = 39.7	All Soils
	Chloroethane	%RSD = 32.9	
	Acetone	%RSD = 35.3	
C - 7/14/95 (0809)	Chloromethane	%D = 52.5	S1N/02, S1S/01, S1S/02, D1/02
C - 7/15/95 (1534)	Chloromethane	%D = 40.5	S1N/01, S1S/01RE, D1/01, D1/03
	2-Butanone	%D = 43.8	
	4-Methyl-2-Pentanone	%D = 33.7	

SEMI-VOLATILES

- The following table lists blanks, blank contaminants and concentrations and associated samples. Aldol condensation products are negated in all samples in which they occur. Phthalates are negated in associated samples if the sample concentration is less than ten times that of the blank. All other compounds are negated if their concentration in the sample is less than five times that of the highest associated blank.

Blank ID	Compound (Concentration $\mu\text{g/kg}$)	Associated Samples
SBLK02	Bis(2-ethylhexyl)phthalate (370) Aldol @ 4.54 (6000JA) Unknown @ 25.68 (300J) Unknown @ 27.88 (200J) Unknown Alkane @ 25.81 (80J) Unknown @ 31.84 (200J)	D1/02, S1N/01, S1N/02, D1/01, D1/03, D1/01RE, D1/03RE
SBLK03	Aldol @ 4.50 (6000JA) Aldol @ 4.53 (70JA)	S1S/01, S1S/02
FB#1	Unk. Subs. Phenol @ 16.68 (4J $\mu\text{g/l}$)	All Soil Samples

- Samples D1/01 and D1/03 exhibited internal standards naphthalene-d8, acenaphthene-d10, phenanthrene-d10, chrysene-d12 and perylene-d12 with low area counts in both the initial and re-analyses, with similar results between the two sets of analyses for each sample. Therefore, the initial analyses of each sample should be used, with all results considered estimated and positive results flagged "J" and non-detects flagged "UJ."

- The continuing calibration from 7/27/95 (1539) exhibited several compounds with percent difference results greater than the 25% QC limit, however this calibration is only associated with the re-analyses of samples D1/01 and D1/03. Since the re-analyses of these two samples are not to be used (see above), no qualification of the sample data is necessary.

PESTICIDE/PCB

- Dieldrin (24.5%), 4,4'-DDE (21.7%), endrin (21.2%) and methoxychlor (26.1%) exhibited percent relative standard deviations (%RSD) greater than the 20% QC limit in the initial calibration on column DB-1701. Due to this deficiency, all results for these compounds in all samples are considered estimated, with positive results flagged "J" and non-detects "UJ."
- Method blank PBLKE2 contained 0.26 µg/l of endosulfan sulfate and 1.9 µg/l of methoxychlor. Neither compound was detected in any of the associated samples, therefore no qualification of the sample data is required.
- Several PEM, INDA, and INDB calibration verification standards exhibit compounds that exceed the 25% RPD QC limit on one or both columns. Positive sample results for these affected compounds are qualified as estimated and flagged "J" and non-detects "UJ" for associated samples.

Standard	Compound	RPD	Associated Samples
PEM04 (DB-1701)	4,4'-DDT	26.7	All Samples
PEM04 (DB-1701)	Methoxychlor	30.7	
PEM04 (DB-1701)	Endrin	56.0	
PEM04 (DB-608)	Endrin	36.0	
PEM06 (DB-1701)	4,4'-DDT	26.7	All Samples
PEM06 (DB-1701)	Endrin	48.0	
PEM06 (DB-1701)	Methoxychlor	30.7	
PEM06 (DB-1701)	4,4'-DDT	26.7	All Samples
PEM06 (DB-1701)	Endrin	41.3	
PEM06 (DB-1701)	Methoxychlor	25.3	
INDAM03 (DB-1701)	Endrin	33.3	All Samples
INDAM04 (DB-1701)	Endrin	36.7	

- The following table lists samples in which compounds were detected but quantitated at concentrations differing by more than

25% RPD on the two GC columns. As such, the sample results have been flagged "J." Note that several compounds in several samples exhibited extremely high RPDs. Those results are rejected. Also note that it is the professional opinion of the data reviewer that the large RPD values are due, in many instances, to the coincidental occurrence of peaks falling within the retention time window for a given compound on both GC columns. However it is likely that these peaks do not, in fact, represent the actual compound of interest, but rather extraneous peaks occurring within that particular time window.

Sample	Compound	RPD
S1N/01	Endosulfan Sulfate	1260
	4,4'-DDE	41.7
	Endosulfan I	1150

- The following table lists samples that exhibited one or more surrogates outside of 60%-150% QC limits. Qualification of sample data due to surrogates outside of advisory QC limits is limited to those samples that exhibit a surrogate outside of QC limits on both GC columns. If tetrachlorometaxylene is deficient, pesticide compounds are qualified. If decachlorobiphenyl is deficient, PCB aroclors are qualified. Positive results are flagged "J" and non-detects "UJ." (Note that a dash (-) indicates acceptable surrogate recovery.)

Sample ID	Surrogate			
	TCMX (1701)	TCMX (608)	DCB (1701)	DCB (608)
PBLKE1	51	49	--	--
PBLKE2	43	41	52	--
MSB	--	55	--	--
S1N/01	--	--	45	56
S1N/01 MS	--	--	25	35
S1N/01 MSD	--	--	47	56
S1S/01	28	16	15	17
S1S/02	43	33	25	40

INORGANICS

The following items/criteria were reviewed:

- Case narrative
- Deliverable requirements
- Holding times
- Calibrations
- Lab blanks
- ICP interference check sample analysis
- CRDL standard analysis
- Matrix spike analysis
- Lab duplicate sample analysis
- Laboratory control sample results
- ICP serial dilution analysis
- GFAA post-digestion spike results
- Method of standard additions (MSA) results
- Detection limits

The items listed above were technically acceptable and in compliance with USEPA CLP protocols with the exceptions discussed in the text below. The data have been validated according to the procedures outlined above and qualified accordingly.

- Cadmium (125.9%), silver (58.3%), mercury (138.3%) and thallium (127.1%) spiked sample recoveries were outside of 75%-125% QC limits. Cadmium post-digestion spike recovery was within of these QC limits. Positive sample results for each of these metals should be considered estimated and flagged "J." Non-detect silver results should be flagged "UJ."
- The initial antimony (129.4%), initial and final nickel (123.9% and 125.5%) and lead associated with samples S1N/01 and S1N/02 (126.0%) CRDL standards exhibited recoveries that are slightly greater than the 120% upper QC limit and may indicate potential high bias in positive sample results at concentrations near the CRDL. Therefore positive sample concentrations of these metals up to two times the CRDL (antimony and nickel) or up to the CRDL (lead) should be considered estimated and flagged "J."
- The selenium analytical spike recoveries in S1N/02 (119%) and S1S/02 (123%) and the lead analytical spike recoveries in S1N/01 (116.7%) and S1S/01 (115.9%) were outside of 85%-115% QC limits. Positive results for these metals in these samples are considered estimated and flagged "J".

- The mercury calibration linear correlation was less than 0.995 (0.9941), therefore all mercury results are considered estimated and flagged "J" for positive results, "UJ" for non-detects.
- The ICP serial dilution percent difference result for manganese (10.8%) exceeded the 10% QC limit with the initial sample concentration greater than 50 times the instrument detection limit (IDL). All positive sample results for manganese are considered estimated and flagged "J."

Package Summary

The sample data are valid and useable with qualifications as noted in this review.

Signed: _____

Douglas A. Wolf, P.G.
Data Validation Manager

Dated: _____

8/30/95

Appendix C

Certificate of Crushed Drum Destruction

GINAL

RECEIVED - ALBANY

NIMCO SHREDDING CO.
P.O. BOX 5157 • NEWARK, N.J. 07105
PRIDE IN PERFORMANCE®

OUR CORPORATE
ENVIRONMENTAL PROGRAMS

ANT LOCATION:

DOREMUS AVENUE

DATE: 10/07/95 , TIME IN: 05.17 AM , TIME OUT: 05.36 AM

RECEIPT NO: 288156

*** CERTIFICATE OF WEIGHT ***

SUPPLIER NAME: Leto, Charlie

VEHICLE:

PRODUCT DELIVERED: LIGHT IRON

GROSS WEIGHT: 89880

TARE WEIGHT: (43800)

DEDUCT WEIGHT: (5000) REASON: DIRT/MUD

NET WEIGHT: 41080 (LBS)

ALL MATERIALS IN THIS LOAD (41080LBS) HAVE BEEN DESTROYED BY SHREDDING PROCESS
FOR THE PURPOSE OF REMELTING.

HOLD PAYMENT DELIVERY RECEIPT

.....PLEASE DRIVE SAFELY.....