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Environmental Restoration Program

RECONNAISSANCE SAMPLING REPORT DECONTAMINATION AND DECOMMISSIONING AREAS, OPERABLE UNIT 6

MOUND PLANT
MIAMISBURG, OHIO

May 1992

FINAL

Department of Energy
Albuquerque Field Office

Environmental Restoration Program
Technical Support Office
Los Alamos National Laboratory

REFERENCE USE ONLY

ENVIRONMENTAL RESTORATION PROGRAM

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US DOE MOUND PLANT
RECONNAISSANCE SAMPLING REPORT
DECONTAMINATION AND DECOMMISSIONING AREAS
OPERABLE UNIT 6
APRIL 1992
RESPONSE TO COMMENTS

COMMENTS FROM U.S. EPA

General Comments

3. "Vagueness" and "lack of clarity" with regard to the radionuclide thorium have been removed from the text. The following statement has been added to Section 3, second paragraph:

   "Thorium, as used in this report, will mean all isotopes of thorium unless specifically stated otherwise."

Specific Comments

1. The references in Table II.2 to a "water sample" and "field duplicate (water)" sample in Area 4/4a have been footnoted with the following statement:

   "In Area 4/4a water samples were planned to be collected from monitoring well 227. This sampling was deferred until the October 1989 quarterly groundwater sampling activity. Groundwater and surface water samples were not collected during the 1989 reconnaissance investigation."

2. Table III.1 has been changed to reflect the plutonium-238 concentrations quoted in sections 3.3 (Area 11) and 3.6 (Area 17) of the text.

3. A total of sixteen (16) locations were sampled in Area 14 during the 1989 reconnaissance investigation. Sampling locations 0071, 0072, 0075, and 0078 will be added to Figure 3.9 to reflect this.

4. Table IV.1 has been modified to incorporate the data from sampling location 0078 in Area 14.

COMMENTS FROM OHIO EPA

Specific Comments

1. Area D, acid leach field has been added to the list of D&D sites sampled in the Executive Summary, and has been included in Table II.1.

2a. Soil samples collected during the 1989 reconnaissance investigation were analyzed for all Target Analyte List parameters with the exception of cyanide. Section 3 of the text has been modified to reflect this.

2b. Table IV.2 has been modified to reflect a sample holding time for mercury of 28 days.

ADDITIONAL CHANGES AND MODIFICATIONS

In addition to the changes and modifications to the text incorporating regulatory agency comments, the following additional changes and modifications have been incorporated.

1. The list of acronyms (page v) has been modified to include acronyms originally omitted.

2. Reference citations throughout the text and references in section 8 (References) have been modified to reflect current documentation and have been corrected for typographical errors.

3. The following modifications have been made to Table II.2:

   "Total TCL" has been change to "Total TCL and TAL", and

   "TCL semivolatile organics, metal, and pesticides/PCBs" has been changed to "TCL semivolatile organics and pesticides/PCBs, and TAL metals",

4. The following modifications have been made to Table IV.1:

   "VOAs" has been changed to "TCL volatile organics",

   "BNAs, pesticides/PCBs" has been changed to "TCL semivolatile organics and pesticides/PCBs",

   "metals" has been changed to "TAL metals", and

   "Total TCL" has been changed to "Total TCL and TAL".

5. The following changes have been incorporated into section 6.2.1 of the text:

   The statement "In Area 11, nine borings were made, rather than the ten planned" has been changed to "In Area 11, nine borings were advanced, rather than the twelve planned". Twelve samples were proposed in the 1989 Sampling Plan.

   The statement "In Area 11, no sample 49 was collected" has been deleted from the text. This sample was collected and results are included in the text.

   The statement "In Area 14, seven samples were collected, rather than the eight planned" has been deleted from the text. According to the 1989 Sampling Plan, 16 samples were proposed for Area 14, and 16 samples were collected.

   The statement "Area 16, no sample 80 was collected (the sample was in gravel)" has been deleted from the text. This sample was collected and the results are provided in the text.

6. Data sheets for Area 14, locations 0080 through 0103 have been removed from Appendix B. These locations were not part of the 1989 reconnaissance investigation but were sampled in August 1991 during an investigation to assess the presence or absence of potential nonradioactive contaminants in a subsection of Area 14. These data will be provided in a report detailing this sampling event (report due mid April).

7. Data sheets for Area 17, locations 0090 through 0129 have been removed from Appendix B. These locations were not part of the 1989 reconnaissance investigation but were sampled in September 1991 during an investigation to assess the presence or absence of potential nonradioactive contaminants in a subsection of Area 17. These data will be provided in a report detailing this sampling event (report due mid April).

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ACRONYMS

AA	atomic absorption
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CLP	contract laboratory program
D&D	Decontamination and Decommissioning
DOE	U.S. Department of Energy
EPA	U.S. Environmental Protection Agency
FFA	Federal Facility Agreement
FIDLER	field instrument for the detection of low-energy radiation
FS	feasibility study
GC	gas chromatography
ICP	inductively coupled plasma
LDL	lower detection limit
MS	matrix spike
MSD	matrix spike duplicate
NA	not applicable
NE	not established
PCB	polychlorinated biphenyl
PRG	preliminary remediation goals
QA	quality assurance
QC	quality control
RCRA	Resource Conservation and Recovery Act
RI	remedial investigation
RPD	relative percent difference
SM/PP	Special Metallurgical/Plutonium Processing
SOP	Standard Operating Procedure
TAL	Target Analyte List
TCL	Target Compound List
TIC	tentatively identified compounds
WTS	waste transfer system
XRF	X-ray fluorescence

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EXECUTIVE SUMMARY

Field activities associated with the 1989 Reconnaissance Sampling were conducted during the summer of 1989. Surface and borehole soils and aqueous Quality Assurance (QA) samples were collected from the following Mound Plant Decontamination and Decommissioning Program areas:

- Area 1, bulk transfer of the thorium drums;
- Area 4, WD Building influent tank overflow;
- Area 4a, sewage sludge drying pits;
- Area 11, contamination from SM Building operations;
- Area 14, radioactive waste line break;
- Area 16, sanitary sewage septic tank and leach basin for the SM Building;
- Area 17, area under the SM Building;
- Area 19, underground waste transfer line; and
- Area D, acid leach field.

The samples were analyzed in accordance with U.S. Environmental Protection Agency (EPA), Contract Laboratory Program (CLP) guidelines to evaluate the potential for chemical contamination in the areas of known radionuclide contamination. A portion of the chemical data was obtained from the analytical laboratory with the calibration data and other information required for the validation process. The data entered into the validation process was considerably greater than the 10 percent identified in the original sampling plan. The data used in the validation included analytical results from Areas 1, 4/4a, 11, 14, 16, and 19. These packages included data for volatile organic compounds, semivolatile organic compounds, pesticides/polychlorinated biphenyls (PCBs), and metals.

In general, the data are usable, with some qualifiers, for the purposes stated for the reconnaissance activity with the exception of the metals data, for which data validation was not possible. This was because of both laboratory analytical problems and information not available in the analytical packages. The conservative interpretation of the metals data is that they should be viewed as estimates and treated as assumptions until background data and confirmatory data are available.

For the organic chemicals, no area-specific or more general Mound Plant chemical contamination patterns have been identified.

Chemicals found above the detection limits are sporadic and limited in number. A final decision about the chemical contamination of an area will require information on background levels of chemicals and inclusion of data from other sources such as the Miscellaneous Sites in Operable Unit 3 for the Mound Plant. Some of the data from this activity may impact areas assigned to the Mound Plant Decontamination and Decommissioning Program. With the levels of chemicals identified in this study, need for the identification of remedial technologies or for waste treatability studies for chemicals cannot be made.

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1. INTRODUCTION

A Federal Facility Agreement (FFA) for the U.S. Department of Energy (DOE) Mound Plant, was signed by the DOE and the U.S. Environmental Protection Agency (EPA) Region V pursuant to the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), Section 120, and became effective in October, 1990. The FFA directs the DOE to conduct remedial investigations (RI) and feasibility studies (FS) to determine the nature and extent of environmental contamination and evaluate the feasibility of remedial alternatives. Prior to the effective date of the FFA, the DOE had been conducting environmental investigations that the FFA recognizes were not reviewed nor approved by EPA.

Investigations conducted by DOE prior to the effective date of the FFA have been used by the DOE in the scoping of the RI/FS. The FFA describes "limited field investigations," which are undertaken "if the conceptual understanding of a site is poor and the collection of site-specific data would greatly enhance the scoping "effort" (EPA 1990). This report presents the results of a limited field investigation conducted in 1989, that consisted of sampling and analysis of radioactively contaminated soils for non-radioactive hazardous substances.

1.1. PURPOSE OF REPORT

1.1.1. Scope

This report presents the results of sampling and analysis of radioactively contaminated soil areas that were included in the Mound Plant Decontamination and Decommissioning (D&D) Program as of 1989. Those areas, along with additional areas that have been proposed and accepted for D&D since 1989, are included in the currently defined Mound Plant Operable Unit 6, D&D Program Sites.

The 1989 sampling and analysis was designed to characterize the presence or absence of non-radioactive hazardous substances (DOE 1989a), and the results of those hazardous constituents analyses are the focus of this report. Some on-site analyses for plutonium-238 and thorium-232 were completed as part of the hazardous constituents investigation, and these results are also reported. In addition, the radiological characterization of Mound Plant as a whole, to be used to scope the RI/FS, was executed separately and has been reported previously (DOE 1991a).

This report addresses mainly the presence or absence of hazardous constituents, so it includes some but not all suggested elements (EPA 1988b) of an RI/FS report. Specifically, many of the physical

characteristics of the study area and the history of the contaminated areas have been described elsewhere (DOE 1991b).

1.1.2. Objectives

The results of this limited field investigation are reported to support the scoping of the RI/FS. Typical scoping activities, and thus the intended uses of the data, are to

- Develop the conceptual site model, specifically types of contaminants and affected media, to
  - assist in identifying affected media to determine if sampling is necessary,
  - assist in identifying the necessary types of analyses,
  - assist in identifying potential remedial technologies.
- Determine the need for waste treatability studies.
- Support the conceptual modelling of potential exposure pathways and receptors that will assist in the preliminary assessment of risk (including calculating preliminary remediation goals [PRGs]), providing some of the data used in that modelling.

Further, these data are reported to fulfill FFA requirements for the DOE to provide a site background report to the EPA, including existing data on contaminants. The DOE will also use these data as the basis for remedial action cost estimates.

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2. RECONNAISSANCE SAMPLING ACTIVITY PLANNING

2.1. DATA NEEDS

The data needs established for the 1989 reconnaissance sampling were to provide information on potential nonradioactive contaminants in the D&D areas at the Mound Plant. These data would provide information for planning and other purposes until more complete site characterization data were available.

The data would be used to support or deny the case for chemical contamination in areas known to have radionuclide contamination. Presently identified contaminants are listed in Table II.1. The data will be used to plan future sampling and such activities as a preliminary risk assessment.

The samples planned in the Reconnaissance Sampling Plan (DOE 1989b) are listed in Table II.2. The analytical levels used are level I for field analysis. Laboratory analysis is planned as level III with full level III methods (these levels are described in Table II.3). However, a minimum of 10 percent of the data would have full contract laboratory program (CLP) package reporting with sufficient calibration reporting for validation. The analyte list for the analyses is given in Table II.4. The field Quality Control (QC) samples planned include trip blanks, rinsate blanks, ambient blanks, and field duplicates. These are discussed further in subsection 2.2, Sampling Strategy.

2.2. SAMPLING STRATEGY

The decisions for sampling strategy are listed in Table II.1. The controlling document for the activity was the Reconnaissance Sampling Plan with appendixed Health and Safety Plan and QA Plan. The Standard Operating Procedures (SOPs) for the activity are listed in Table II.5.

Radionuclide activity for collected soil samples was measured by the Mound Plant Soil Screening Facility prior to sample shipment to the analytical laboratory. Water samples, because they were for analytical quality control, were not screened. The following types of field samples were planned in order to assess field quality control.

2.2.1. Trip Blanks

Trip blanks are used to evaluate contamination that may be introduced into the samples during shipment. Vials of deionized/distilled water are sent from the analytical laboratory to be used as trip blanks.

Table II.1. Sampling Strategy Planned for Reconnaissance Sampling Activity

Release Site	Known Radionuclide Contaminants	Planned Action	Rationale for Sampling Strategy
Area 1, bulk transfer of the thorium drums	Plutonium-238, thorium, and tritium	Biased sampling of soil	Drainage pathway runoff is being used as a tracer.
Area 4, WD Building influent tank overflow	Plutonium-238, thorium, cesium-137, and cobalt-60	Biased sampling of soil	Sample next to the influent tank that overflowed.
Area 4a, sewage sludge drying pits	Plutonium-238, thorium, cesium-137, and cobalt 60	Biased sampling of soil	Sample at the former location of the sewage sludge drying pits.
Area 11, contamination from SM Building operations	Plutonium-238 and thorium	Systematic sampling of soil	No known deposits of hazardous chemicals.
Area 14, radioactive waste line break	Plutonium-238	Systematic sampling of soil	No known deposits of hazardous chemicals.
Area 16, sanitary sewage septic tank and leach basin for the SM Building	Plutonium-238 and thorium	Biased and random sampling of soil	Radioactive contamination is being used as a tracer.
Area 17, area under the SM Building	Plutonium-238 and thorium	Biased and systematic sampling of soil	Biased sampling near tanks and systematic where the soil has been excavated.
Area 19, underground wastewater line	Plutonium-238	Biased sampling of soil	Soil sampling at the location of past leaks.
Old sanitary wastewater treatment plant	None suspected	No action	Inactive since 1975, no contamination or evidence of releases/spills.
Area D, acid leach field	Plutonium-238, thorium, and cobalt-60	Random sampling of soil	Uniform deposition of contaminants at the leach field.

Table II.2. Planned D&D Program Sites Sample Parameters

Area	Sample Type	Sample Number	Analytical Parameters
1	Near-surface soil	72	TCL volatile organics
		36	TCL semivolatile organics, pesticides/PCBs, and TAL metals
	Decontamination water	1	TCL volatile organics
	Trip blank[a]	2	TCL volatile organics
	Rinsate blank	2	Total TCL and TAL[b]
	Ambient blank	1	TCL volatile organics
	Field duplicate	2	TCL semivolatile organics, pesticides/PCBs, and TAL metals
4/4a	Surface soil	8	Total TCL and TAL[b]
	Subsurface soil	32	Total TCL and TAL[b]
	Water sample[c]	1	TCL semivolatile organics and pesticides/PCBs
	Decontamination water	1	TCL volatile organics
	Trip blank[a]	1	TCL volatile organics
	Rinsate blank	2	Total TCL and TAL[b]
	Ambient blank	1	TCL volatile organics
	Field duplicate (soil)	2	TCL semivolatile organics, pesticides/PCBs, and TAL metals
	Field duplicate (water)[c]	1	TCL semivolatile organics and pesticides/PCBs
11	Surface soil	12	Total TCL and TAL[b]
	Subsurface soil	24	TCL volatile organics
	Subsurface soil	12	TCL semivolatile organics, pesticides/PCBs, and TAL metals
	Decontamination water	1	TCL volatile organics
	Trip blank[a]	1	TCL volatile organics
	Rinsate blank	1	Total TCL and TAL[b]
	Ambient blank	1	TCL volatile organics
	Field duplicate	1	TCL semivolatile organics, pesticides/PCBs, and TAL metals

Table II.2. (page 2 of 3)

Area	Sample Type	Sample Number	Analytical Parameters
14	Surface soil	16	Total TCL and TAL[b]
	Decontamination water	1	TCL volatile organics
	Trip blank[a]	1	TCL volatile organics
	Rinsate blank	1	Total TCL and TAL[b]
	Ambient blank	1	TCL volatile organics
	Field duplicate	1	TCL semivolatile organics, pesticides/PCBs, and TAL metals
16	Surface soil	8	Total TCL and TAL[b]
	Subsurface soil	28	Total TCL and TAL[b]
	Decontamination water	1	TCL volatile organics
	Trip blank[a]	1	TCL volatile organics
	Rinsate blank	2	Total TCL and TAL[b]
	Ambient blank	1	TCL volatile organics
	Field duplicate	2	TCL semivolatile organics, pesticides/PCBs, and TAL metals
17	Surface soil	8	Total TCL and TAL[b]
	Subsurface soil	9	Total TCL and TAL[b]
	Decontamination water	1	TCL volatile organics
	Trip blank[a]	1	TCL volatile organics
	Rinsate blank	1	Total TCL and TAL[b]
	Ambient blank	1	TCL volatile organics
	Field duplicate	1	TCL semivolatile organics, pesticides/PCBs, and TAL metals
19	Near-surface soil	3	Total TCL and TAL[b]
	Subsurface soil	6	Total TCL and TAL[b]
	Decontamination water	1	TCL volatile organics
	Trip blank[a]	1	TCL volatile organics
	Rinsate blank	1	Total TCL and TAL[b]
	Ambient blank	1	TCL volatile organics
	Field duplicate	1	TCL semivolatile organics, pesticides/PCBs, and TAL metals

Table II.2. (page 3 of 3)

Area	Sample Type	Sample Number	Analytical Parameters
D	Surface soil	5	Total TCL and TAL[b]
	Subsurface soil	15	Total TCL and TAL[b]
	Decontamination water	1	TCL volatile organics
p	Trip blank[a]	1	TCL volatile organics
	Rinsate blank	1	Total TCL and TAL[b]
	Ambient blank	1	TCL volatile organics
	Field duplicate	1	TCL semivolatile organics, pesticides/PCBs, and TAL metals
Old sanitary watewater treatment plant	No samples will be taken	-	-
Summary of all areas	Water sample	2	TCL semivolatile organics, pesticides/PCBs, and TAL metals
	Water sample[a]	25	TCL volatile organics
	Water sample	11	Total TCL and TAL[b]
	Soil sample	150	Total TCL and TAL[b]
	Soil sample	59	TCL semivolatile organics, pesticides/PCBs, and TAL metals
	Soil sample	96	TCL volatile organics

[a]The number of trip blanks is approximate.
[b]Total TCL is TCL volatile organics, semivolatile organics, pesticides/PCBs, and TAL metals.
[c]In Area 4/4a, water samples were planned to be collected from monitoring well 227. This sampling was deferred until the October 1989 quarterly groundwater sampling activity. Groundwater and surface water samples were not collected during the 1989 reconnaissance investigation.
TAL - Target Analyte List
TCL - Target Compound List

Table II.3. Summary of Analytical Levels Appropriate to Data Uses (EPA 1987)

Data Uses	Analytical Level	Type of Analysis	Limitations	Data Quality
Site characterization, instruments calibrated, monitoring during implementation	Level I	Total organic/inorganic vapor detection using portable instruments Field test kits	Instruments respond to naturally occurring compounds	If instruments calibrated and data interpreted correctly, can provide indication of contamination
Site characterization, evaluation of alternatives, engineering design, monitoring during implementation	Level II	Variety of organics by GC; inorganics by AA; XRF Tentative identification; analyte-specific Detection limits vary from low ppm to low ppb	Tentative identification Techniques/instruments limited mostly to volatiles, metals	Dependent on QA/QC steps employed Data typically reported in concentration ranges
Risk assessment, site characterization, evaluation of alternatives, engineering design, monitoring during implementation	Level III	Organics/inorganics using EPA procedures other than CLP can be analyte-specific RCRA characteristic tests	Tentative identification in some cases Can provide data of same quality as Level IV	Similar detection limits to CLP Less rigorous QA/QC
Risk assessment, evaluation of alternatives, engineering design	Level IV	TCL organics/inorganics by GC/MS:AA; ICP Low ppb detection limit	Tentative identification of non-TCL parameters Some time may be required for validation of packages	Goal is data of known quality Rigorous QA/QC
Risk assessement	Level V	Nonconventional parameters Method specific detection limits Modification of existing methods	May require method development modification Mechanism to obtain services requires special lead time	Method-specific

GC - gas chromatography
AA - atomic absorption
XRF - X-ray fluorescence
MS - mass spectrometry
ICP - inductively coupled plasma
EPA - Environmental Protection Agency
CLP - Contract Laboratory Program
RCRA - Resource Conservation and Recovery Act
TCL - Target Compound List

Table II.4. TAL and TCL Constituents

TAL Metals		TCL Volatile Organics		TCL Semivolatile Organics		TCL Pesticides/PCBs	
1.	Aluminum	1.	Chloromethane	1.	Phenol	1.	alpha-BHC
2.	Antimony	2.	Bromomethane	2.	*bis*(2-Chloroethyl) ether	2.	beta-BHC
3.	Arsenic	3.	Vinyl chloride	3.	2-Chlorophenol	3.	delta-BHC
4.	Barium	4.	Chloroethane	4.	1,3-Dichlorobenzene	4.	gamma-BHC (Lindane)
5.	Beryllium	5.	Methylene chloride	5.	1,4-Dichlorobenzene	5.	Heptachlor
6.	Cadmium	6.	Acetone	6.	Benzyl alcohol	6.	Aldrin
7.	Calcium	7.	Carbon disulfide	7.	1,2-Dichlorobenzene	7.	Heptachlor epoxide
8.	Chromium (total)	8.	1,1-Dichloroethene	8.	2-Methylphenol	8.	Endosulfan I
9.	Cobalt	9.	1,1-Dichloroethane	9.	*bis*(2-Chloroisopropyl) ether	9.	Dieldrin
10.	Copper	10.	1,2-Dichloroethene (total)	10.	4-Methylphenol	10.	4,4'-DDE
11.	Iron	11.	Chloroform	11.	N-Nitroso-di-n-dipropylamine	11.	Endrin
12.	Lead	12.	1,2-Dichloroethane	12.	Hexachloroethane	12.	Endosulfan II
13.	Magnesium	13.	2-Butanone	13.	Nitrobenzene	13.	4,4'-DDD
14.	Manganese	14.	1,1,1-Trichloroethane	14.	Isophorone	14.	Endosulfan sulfate
15.	Mercury	15.	Carbon tetrachloride	15.	2-Nitrophenol	15.	4,4'-DDT
16.	Nickel	16.	Vinyl acetate	16.	2,4-Dimethylphenol	16.	Methoxychlor
17.	Potassium	17.	Bromodichloromethane	17.	Benzoic acid	17.	Endrin ketone
18.	Selenium	18.	1,2-Dichloropropane	18.	*bis*(2-Chloroethoxy)methane	18.	alpha-Chlordane
19.	Silver	19.	1,3-*cis*-Dichloropropene	19.	2,4-Dichlorophenol	19.	gamma-Chlordane
20.	Sodium	20.	Trichloroethene	20.	1,2,4-Trichlorobenzene	20.	Toxaphene
21.	Thallium	21.	Dibromochloromethane	21.	Naphthalene	21.	Aroclor-1016
22.	Vanadium	22.	1,1,2-Tricholoroethane	22.	4-Chloroaniline	22.	Aroclor-1221
23.	Zinc	23.	Benzene	23.	Hexachlorobutadiene	23.	Aroclor-1232
		24.	1,3,-*trans*-Dicholoropropene	24.	4-Chloro-3-methylphenol (para-chloro-meta-cresol)	24.	Aroclor-1242
		25.	Bromoform	25.	2-Methylnaphthalene	25.	Aroclor-1248
		26.	4-Methyl-2-pentanone	26.	Hexachlorocyclopentadiene	26.	Aroclor-1254
		27.	2-Hexanone	27.	2,4,6-Trichlorophenol	27.	Aroclor-1260
		28.	Tetrachloroethene	28.	2,4,5-Trichlorophenol		
		29.	Toluene	29.	2-Chloronaphthalene		
		30.	1,1,2,2-Tetrachloroethane	30.	2-Nitroaniline		
		31.	Chlorobenzene	31.	Dimethylphthalate		
		32.	Ethyl benzene	32.	Acenaphthylene		
		33.	Styrene	33.	2,6-Dinitrotoluene		
		34.	Xylenes (total)	34.	3-Nitroaniline		
				35.	Acenaphthene		
				36.	2,4-Dinitrophenol		
				37.	4-Nitrophenol		
				38.	Dibenzofuran		
				39.	2,4-Dinitrotoluene		

Table II.4. (page 2 of 2)

TAL Metals	TCL Volatile Organics	TCL Semivolatile Organics	TCL Pesticides/PCBs
		40. Diethylphthalate	
		41. 4-Chlorophenyl-phenyl ether	
		42. Fluorene	
		43. 4-Nitroaniline	
		44. 4,6-Dinitro-2-methyl-phenol	
		45. N-nitrosodiphenylamine	
		46. 4-Bromophenyl-phenyl-ether	
		47. Hexachlorobenzene	
		48. Pentachlorophenol	
		49. Phenanthrene	
		50. Anthracene	
		51. Di-n-butylphthalate	
		52. Fluoranthene	
		53. Pyrene	
		54. Butylbenzylphthalate	
		55. 3,3'-Dichlorobenzidine	
		56. Benzo(a)anthracene	
		57. Chrysene	
		58. *bis*(2-Ethylhexyl) phthalate	
		59. Di-n-octylphthalate	
		60. Benzo(b)fluoranthene	
		61. Benzo(k)fluoranthene	
		62. Benzo(a)pyrene	
		63. Indeno(1,2,3-cd)pyrene	
		64. Dibenz(a,h)anthracene	
		65. Benzo(g,h,i)perylene	

PCB - polychlorinated biphenyl
TAL - Target Analyte List
TCL - Target Compound List

Table II.5. Standard Operating Procedures Used During Reconnaissance Sampling

SOPs	Title
1.1	General Instructions for Field Personnel
1.3	Sample Control and Documentation
1.4	Sample Containers and Documentation
1.5	Guide to Handling, Packaging, and Shipping
1.6	General Equipment Decontamination
1.7	Sampling for Removable Alpha Contamination
1.8	Personnel Decontamination - Level D Protection
1.9	Personnel Decontamination - Level C Protection
4.1	Soil Boring
4.2	Rock Boring
5.1	Soil and Rock Borehole Logging and Sampling
5.2	Soil Sampling with a Spade and Scoop
5.3	Subsurface Solid Sampling with Hand Auger and Thin Wall Sampler
5.8	Soil Sampling with a Stainless Steel Surface Soil Sampler

Two 40-ml vials were placed in each shipping container with the samples. These vials were then analyzed for Target Compound List (TCL) volatile organics.

2.2.2. Rinsate Blanks

Rinsate blanks are used to evaluate the success of the equipment decontamination process. After decontamination, the sampling equipment is rinsed a final time with deionized/distilled water. This rinsate is collected and analyzed for the same parameters as the soil samples collected that day. Typically, one rinsate blank is collected for every 20 samples or one per day.

2.2.3. Ambient Blanks

Ambient blanks are used to evaluate contamination that may be introduced to the soil samples from the ambient work area. They are made by placing an open sample of deionized/distilled water in the work area, then shipping it with soil samples collected from the area. Typically, one ambient blank is collected per area and analyzed for TCL volatile organics. This resulted in a total of eight water samples, because Areas 4 and 4a were addressed together.

2.2.4. Field Duplicates

Field duplicates are prepared to evaluate sample and sampling technique reproducibility. Although true duplicate soil samples are not possible because soil is not homogeneous, thorough mixing of the soil will help to make a more homogeneous sample. They were analyzed for the same parameters as the original sample, with the omission of volatile organics, which are lost in the mixing process.

After completion of sampling, the sample locations were surveyed. Mound Plant coordinates were used. The level of control stated in the Sampling Plan (DOE 1989b) was horizontal control ±0.1 ft and ±0.01 ft for vertical control.

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3. DISCUSSION OF FIELD SAMPLING

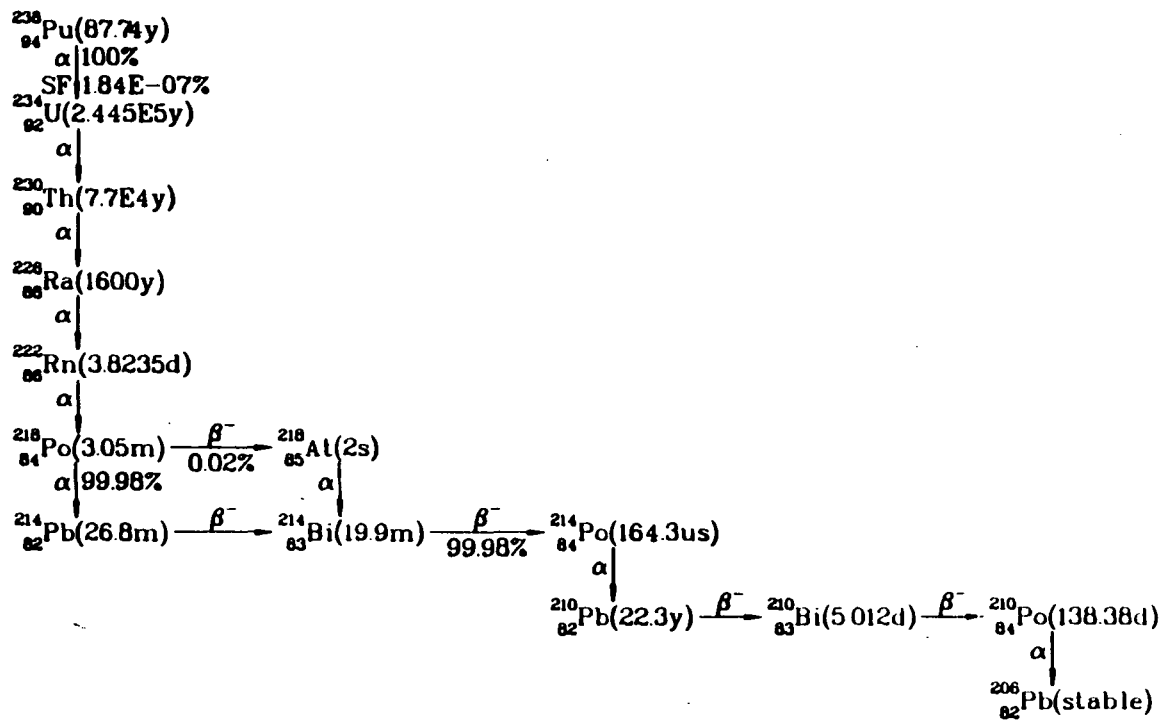
The following section presents a brief physical description of the Operable Unit 6 D&D areas sampled during the 1989 reconnaissance investigation. These areas are listed in Table II.2. Two documents were relied on substantially for this section (DOE 1991c and DOE 1989b) and are not specifically referenced in text.

Soils within Operable Unit 6 areas were contaminated by a number of past Mound Plant activities, including radioactive waste line breaks, leakage of thorium and plutonium waste packages, and use of septic or acid leach fields. Investigations performed by Mound Plant personnel have confirmed radioactive soil contamination, mainly plutonium-238 and thorium, within many of the Operable Unit 6 areas. Thorium, as used in this report, means all isotopes of thorium, unless specifically stated otherwise. Additional radioactive contaminants included cesium-137, cobalt-60, and polonium-210 (now decayed). Decay series for these contaminants are provided in Figures 3.1 through 3.5. One such investigation performed by Mound Plant personnel for potential radioactive contaminants on Mound Plant property was the Mound Site Survey Project (Stought et al. 1988).

The Mound Site Survey Project consisted of a systematic survey of radioactively contaminated soils conducted from 1982 through 1985. The survey was conducted to document the radionuclide levels present in the exposed land areas within the Mound Plant boundaries and to characterize environmental radioactive contaminants on a Site-wide scale in order to provide the DOE with the basis for estimating the cost and time required for stabilizing or removing radioactively contaminated soils.

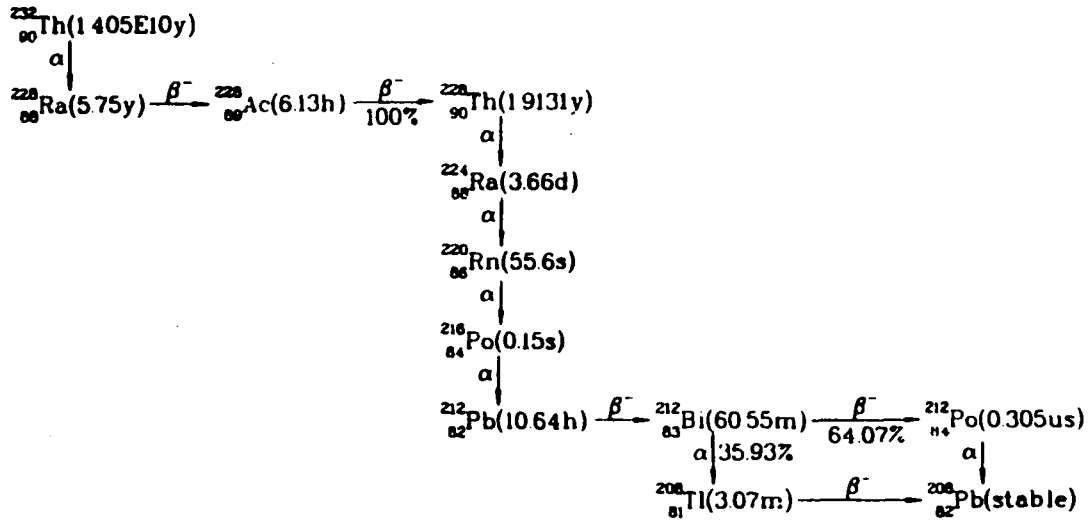
During the Site Survey Project, surface and subsurface soil samples collected from the now-designated Operable Unit 6 areas were analyzed primarily for plutonium-238 and thorium. Select samples were also analyzed for cobalt-60, cesium-137, radium-226, americium-241, and actinium-227. Information obtained from this survey is presented in the Operable Unit 9, Site Scoping Report: Volume 3 - Radiological Site Survey (DOE 1991a). Table III.1 lists the maximum radioactivity concentrations observed in soil samples collected from Operable Unit 6 areas during the Site Survey Project.

Operable Unit 6 areas may have been affected by chemicals from known contaminated sites through natural processes (wind, surface water or groundwater transport, and erosion) or by actions of man (excavation, hauling, dumping, etc.). Information on potential contaminants is available from a review of waste management and operating practices used to develop a list of chemicals used at Mound Plant (DOE 1991c). In addition, all Operable Unit 6 areas are in locations directly affected by grounds maintenance operations, which could include the use of fertilizers, herbicides, pesticides, and ice removal chemicals (DOE 1986). In order to quantify this information, soils within nine Operable Unit



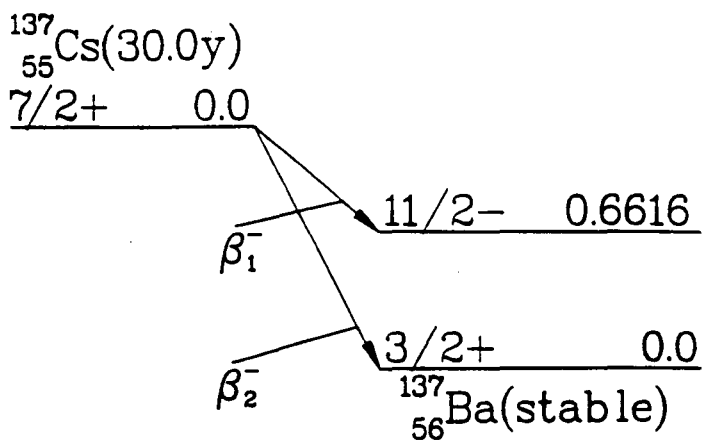
Ref.: ICRP 1979

Figure 3.1. Plutonium-238 decay series.



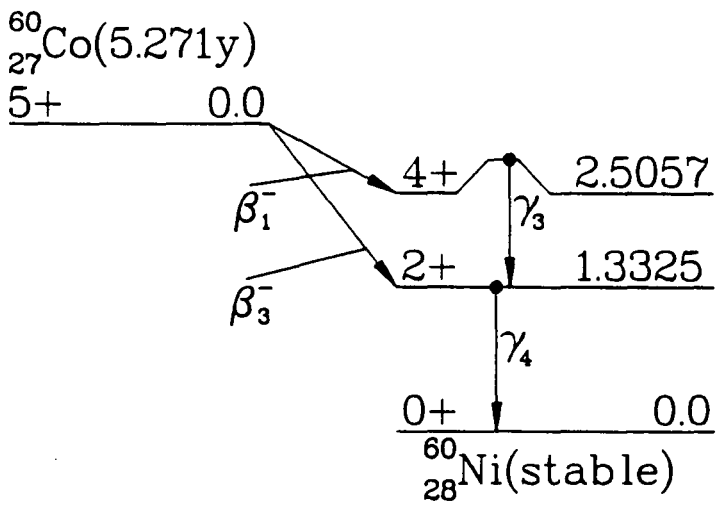
Ref: ICRP 1979

Figure 3.2. Thorium-232 decay series.



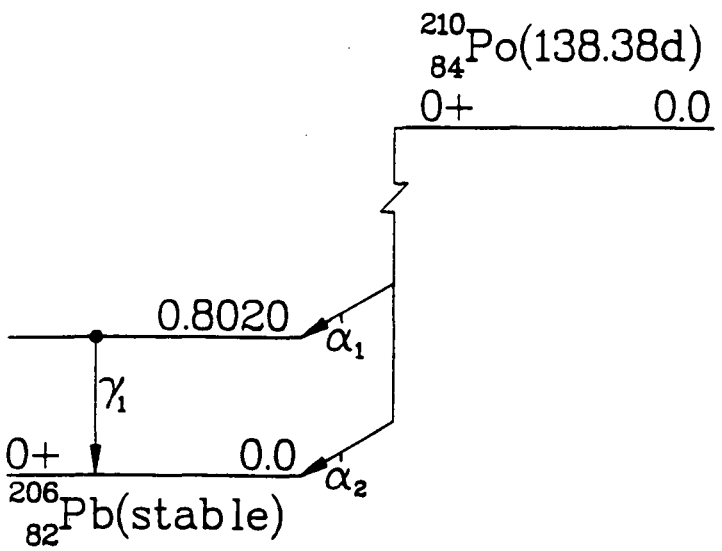
Ref.: ICRP 1983

Figure 3.3. Cesium-137 decay series.



Ref.: ICRP 1983

Figure 3.4. Cobalt-60 decay series.



Ref.: ICRP 1983

Figure 3.5. Polonium-210 decay series.

Table III.1. Maximum Radioactivity Concentrations in Soil Samples During Mound Site Survey Project

Site	Plutonium-238 (pCi/g)	Thorium (pCi/g)	Tritium (pCi/mL)	Cobalt-60 (pCi/g)	Cesium-137 (pCi/g)	Radium-226 (pCi/g)	Americium-241 (pCi/g)	Actinium-227 (pCi/g)	Bismuth-207	Bismuth-210m
Area 1	34,000	54.30	1.67	LDL	0.6	1.1	LDL	-	-	-
Areas 4/ 4a	355.00	<2	-	LDL	LDL	1.2	1.0	-	-	-
Area 11	870	5.65	-	-	-	-	-	-	-	-
Area 14	133.90	2.24	-	LDL	LDL	1.2	LDL	-	-	-
Area 16	144.0	3.46	0.35	LDL	LDL	1.2	LDL	-	-	-
Area 17	494	9.99	-	LDL	LDL	0.9	LDL	-	-	-
Area 19[a]	1057	-	-	-	-	-	-	-	-	-
Area D	0.98	<2	-	-	-	-	-	-	-	-
Current Remedial Action Guidelines[b]										
NA	100/25[c]	5 surface 15 subsurface	5,200	80	80	5 surface 15 subsurface	20	25	NE	NE

[a]Sampling of Area 19 was verification sampling conducted after remedial action.
[b]Current remedial action guidelines are subject to change, pending additional pathways analysis and risk assessment.
[c]Current D&D cleanup level is 100 pCi/g; 25 pCi/g, if feasible (as low as reasonably achievable [ALARA]).
- Dash indicates that no data are available for the given area and given radionuclide.
LDL - The measurement concentration was below the lower detection limit, estimated to be 0.5 pCi/g for cobalt-60, cesium-137, and americium-214; and 1 pCi/g for radium-226 and actinium- 227.
NA - Not applicable
NE - Not established
pCi/g - picocuries per gram
pCi/mL - picocuries per milliliter
Ci - curies

6 areas were sampled during a reconnaissance investigation conducted in the summer of 1989 (DOE 1989b). The objectives of this investigation were to identify potential nonradioactive contaminants within the soils and to determine if a hazardous or mixed waste problem existed at the nine areas prior to soil remediation by the Mound Plant D&D Program. Because of radioactive contamination, it was determined that soils within the Operable Unit 6 D&D areas would be remediated by excavation, followed by disposal at a DOE-operated repository. If these soils could be considered as hazardous or mixed waste, the repository would not be able to accept the excavated soils and an alternate remedial action would need to be planned for the Operable Unit 6 areas. During the reconnaissance investigation, surface and subsurface soil samples were collected and analyzed for Target Analyte List (TAL) metals, Target Compound List (TCL) volatile and semivolatile organic compounds and pesticides/PCBs (Table II.4). Analysis for cyanide was not performed on the collected samples. CLP protocols were used for the analyses. In addition, collected soil samples were analyzed at the Mound Plant Soil Screening Facility for plutonium-238 and thorium-232, in accordance with Mound Plant protocols. This radionuclide analysis was for transportation purposes only. The site history and sampling from the reconnaissance investigation are provided in the remainder of this section, followed by a description of analytical methods and QA/QC.

3.1. AREA 1, BULK TRANSFER OF THORIUM DRUMS (HISTORICAL)

Area 1 is a large area surrounding Building 21 on the southern edge of the SM/PP Hill (Figure 3.6). The area covers approximately 400,000 sq ft and includes the following two drainage pathways, one approximately 300-ft long, extending southwest onto the new Mound Plant property and one approximately 600-ft long, extending west along the north side of a paved road. The latter drainage pathway was excavated and covered with concrete in the summer of 1989. Excavated soils were placed immediately adjacent to the drainage pathway.

Area 1 was used for staging drums containing thorium and for the transfer of thorium from drums to storage bins in Building 21. Building 21 was constructed in 1964, and thorium from aged drums was placed in this building in bulk form. Soils that became contaminated with thorium during the transfer process were removed in 1966, and the area was backfilled with clean soil. In 1967, Area 1 was used as a staging area for plutonium-238 waste packages, resulting in some small plutonium-238 releases. In 1969, a drum containing plutonium-238 leaked, and the area was cleaned up and backfilled. In 1975, the bulk thorium stored in Building 21 was removed, and an initial cleanup of the building was conducted in 1976. Following cleanup, drums of Cotter concentrate were staged in the building. Cotter concentrate is a high-activity material resulting from uranium milling and contains uranium decay products such as thorium and radium. This material was removed in 1987.

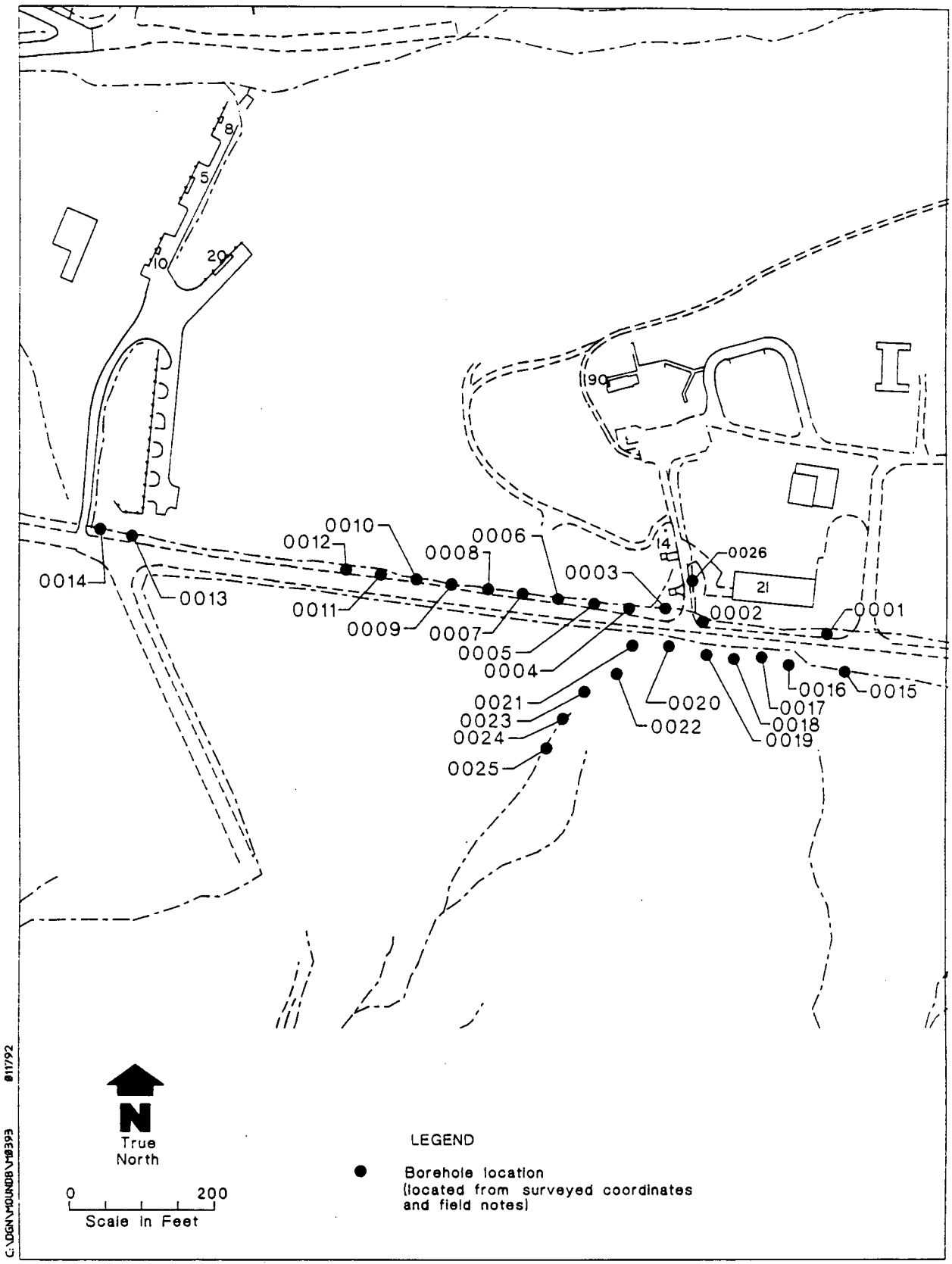


Figure 3.6. Borehole locations in Area 1

The Mound Site Survey Project collected and analyzed soil samples from Area 1. Maximum plutonium-238 and thorium concentrations of 34,000 picocuries per gram (pCi/g) and 54.3 pCi/g, respectively, were observed. This stated plutonium-238 concentration is much higher than all other concentrations of plutonium-238 observed in Area 1. Soil samples collected during the 1989 reconnaissance investigation and analyzed at the Mound Plant Soil Screening Facility reflected maximum plutonium-238 and thorium-232 concentrations of 40 pCi/g and 185 pCi/g, respectively.

Surface and subsurface soil samples were collected from 26 sampling locations within Area 1 for the analyses of TAL and TCL constituents during the 1989 reconnaissance investigation. Of the 26 locations, three were located in the immediate vicinity of Building 21 (MND09-0001, MND08-0002, and MND08-0026), 11 were along the southern drainage pathway (MND08-0015 through MND08-0025), and the remaining 12 were along the northern drainage pathway (MND08-0003 through MND08-0014). At each location, a boring was advanced to a depth ranging from 0 ft to approximately 4 ft below ground surface. Borings in the immediate vicinity of Building 21, and along the southern drainage pathway, were advanced using a hand auger. Borings along the northern drainage pathway were advanced utilizing a truck-mounted hollow-stem auger drill rig. These borings were advanced through the above-referenced concrete channel.

3.2. AREA 4, WD BUILDING INFLUENT TANK OVERFLOW, AND AREA 4A, SLUDGE DRYING PITS

Areas 4 and 4a are located on the southern slope of the Main Hill, surrounding the WD Building. The Area 4 influent tanks are located on the north side of the WD Building. The Area 4a sludge drying pits are immediately west of the WD Building and south of Building 56 (Figure 3.7). The combined size of Areas 4 and 4a is approximately 25,000 sq ft (DOE 1986).

In 1965, the WD Building influent tanks overflowed, contaminating the surrounding area with polonium-210 and cobalt-60. Plutonium-238 has also been detected in the area, but the exact source is unknown. Three major possibilities are storage of waste packages, sanitary disposal facility operations that include contaminated storm sewer inflow, or the 1969 cleanup of Area 14.

In 1965, the sludge drying pits were contaminated with polonium-210 and cobalt-60 when the WD influent tanks overflowed. The liquid waste flowed southwest around the WD Building, contaminating the drying pits. A waste line break near Building 48 (Area 5 of Operable Unit 5) may also have contributed some polonium-210 and cobalt-60 contamination to the drying pits as a result of cross-contamination of the sanitary and process sewer lines.

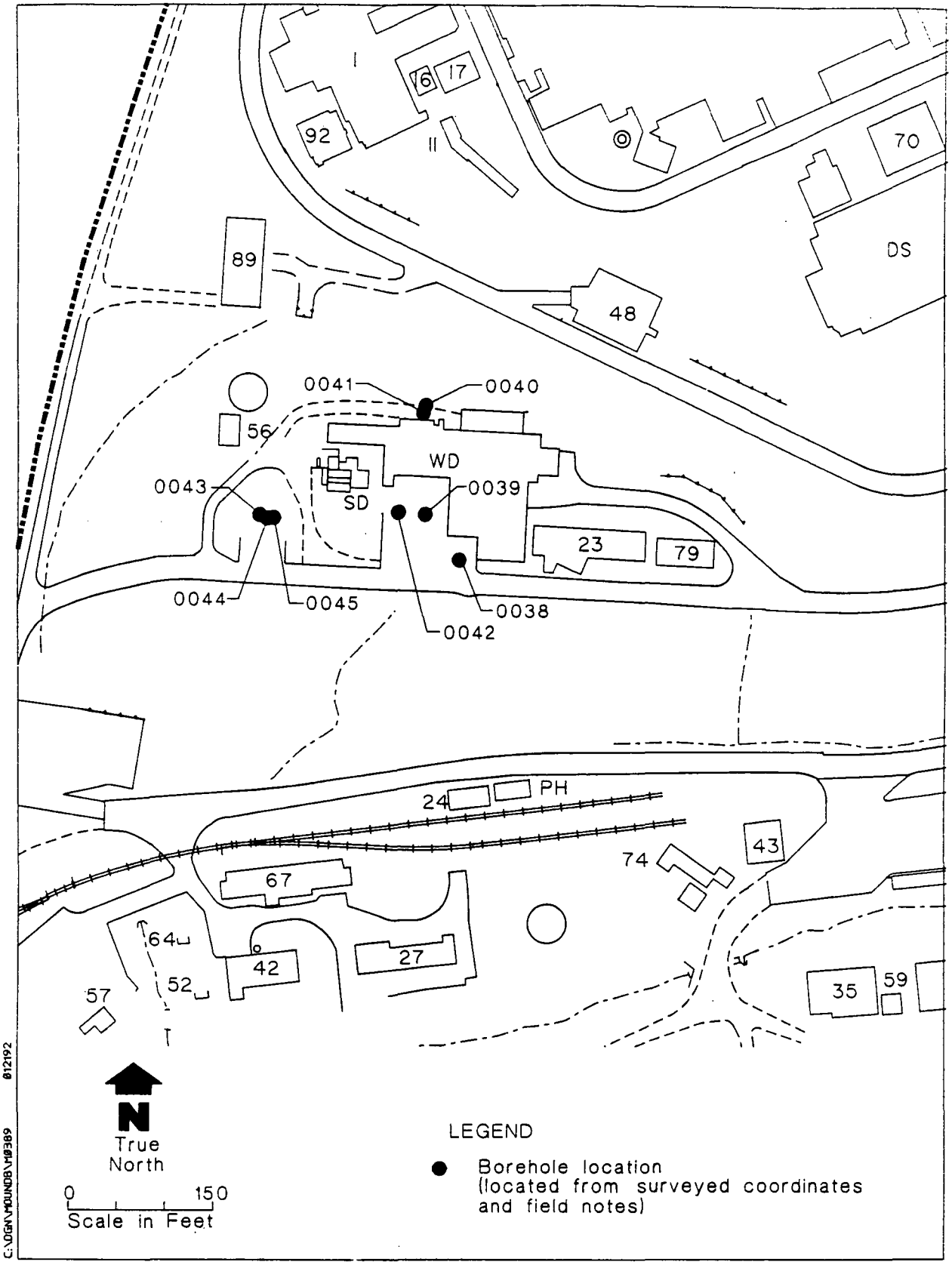


Figure 3.7. Borehole locations in Area 4/4a

Because of its short half-life (138.4 days) the polonium-210 is no longer present due to radioactive decay. The polonium was formed by the activation of aluminum-encapsulated bismuth-209. Activation of the aluminum encapsulation resulted in the formation of cobalt-60 from the cobalt impurity in the aluminum. Cobalt-60 has a longer half-life (5.6 years) and would still be present in small amounts.

In 1974, a transuranic waste container leaked plutonium-238 in concentrations greater than 100 nanocuries per gram (nCi/g). The leak occurred on the south side of the WD Building adjacent to the loading dock.

The Mound Site Survey Project collected and analyzed soil samples from Areas 4 and 4a. Concentrations of plutonium-238 (355 pCi/g), radium-226 (1.2 pCi/g), and americium-241 (1.0 pCi/g), were observed in these areas. Concentrations of thorium above 2 pCi/g (background) were not observed and concentrations of cobalt-60 were below the lower detection limit. Soil samples collected during the 1989 reconnaissance investigation and analyzed at the Mound Plant Soil Screening Facility reflected maximum plutonium-238 and thorium-232 concentrations of 225 pCi/g and 9 pCi/g, respectively.

Surface and subsurface soil samples were collected from eight sampling locations within Areas 4 and 4a for analyses of TAL and TCL constituents during the 1989 reconnaissance investigation. Of the eight locations, three were on the south side of the WD Building in the area associated with the 1974 transuranic waste container leak (MND09-0038, MND09-0039, and MND09-0042), two were on the north side of the WD Building adjacent to the WD Building influent tanks (MND09-0040 and MND09-0041), and the remaining three were adjacent to the old sludge drying pits (MND09-0043 through MND09-0045). Mobile trailers, used by field crews during the Area 14 D&D effort, were positioned directly over the old sludge drying pits, prohibiting the collection of soil samples from directly beneath the beds. At each of the above locations, a boring was advanced, using a truck-mounted hollow-stem auger drill rig to a depth ranging from 0 to approximately 8 ft below ground surface.

3.3. AREA 11, CONTAMINATION FROM SM BUILDING OPERATIONS

Area 11 is located on the SM/PP Hill west of Building 38 (Plutonium Processing). It is mostly confined to the east side of the SM/PP road (Figure 3.8). Area 11 is approximately 50 ft by 75 ft (3,700 sq ft) and is covered by approximately 3 to 5 ft of fill dirt. Area 11 was used before 1965 as a staging area for wastes from the SM Building, including contaminated equipment.

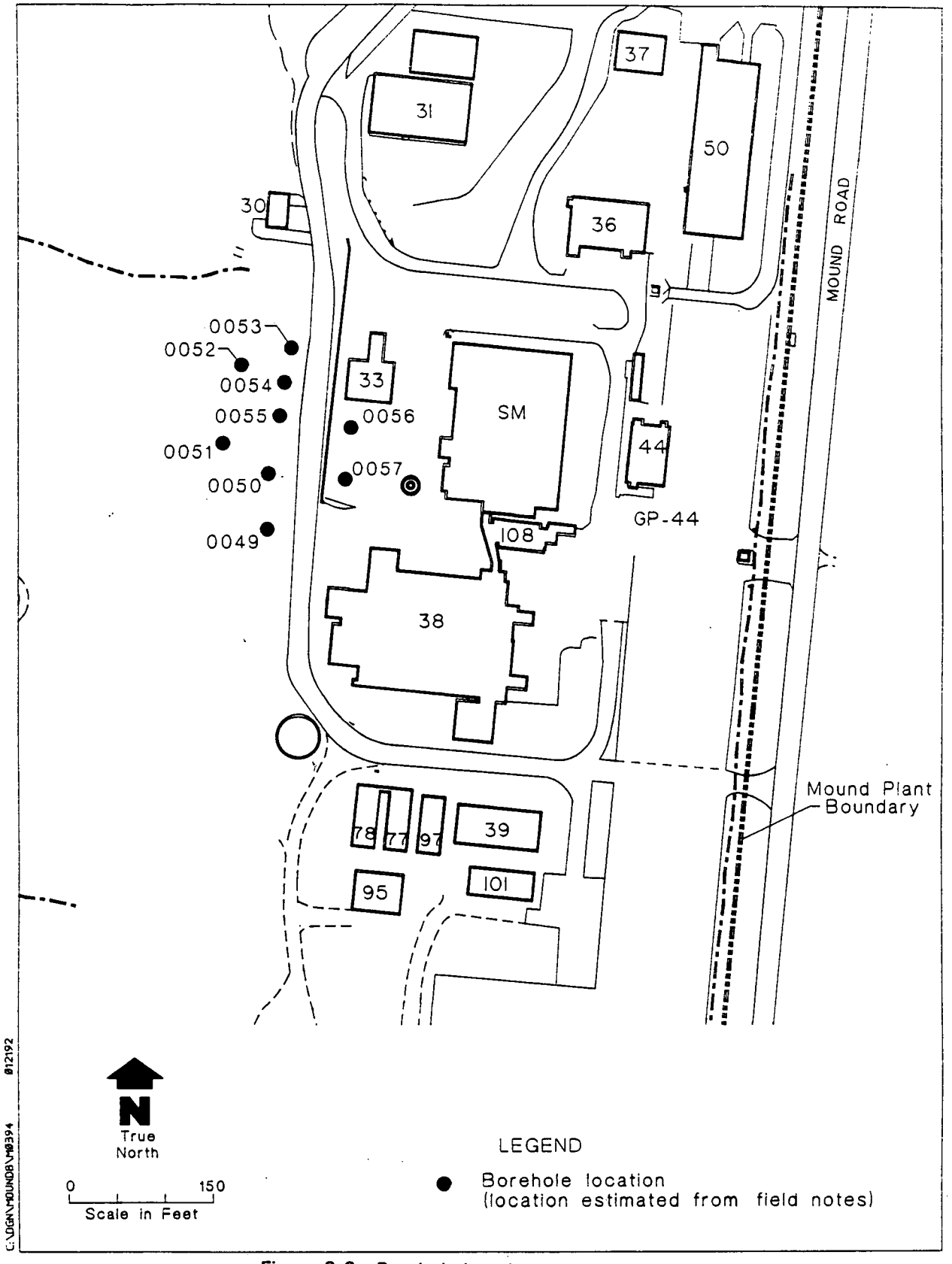


Figure 3.8. Borehole locations in Area 11

The Mound Site Survey Project analyzed soil samples collected from Area 11 for plutonium-238 and thorium. Maximum concentrations observed for plutonium-238 and thorium were 870 pCi/g and 5.65 pCi/g, respectively. Soil samples collected during the 1989 reconnaissance investigation reflected maximum concentrations of plutonium-238 and thorium-232 of 64,000 pCi/g and 69 pCi/g, respectively.

Surface and subsurface soil samples were collected from nine sampling locations within Area 11 for the analyses of TAL and TCL constituents during the 1989 reconnaissance investigation. At each location a boring was advanced to a depth ranging from 0 ft to approximately 8 ft below ground surface, using a truck-mounted hollow-stem auger drill rig.

3.4. AREA 14, RADIOACTIVE WASTE LINE BREAK

Radioactively contaminated liquid waste was transferred from the SM/PP Hill to the WD Building via two parallel underground pipelines. The liquid waste was gravity fed from the SM/PP Hill to Building 41, where it was held in two underground storage tanks. The waste was then pumped uphill to the WD Building. This Waste Transfer System (WTS) began operation in 1967 and handled primarily solutions of plutonium-238 in nitric acid and, to a lesser extent, solutions of plutonium-238 in sodium hydroxide.

At various times throughout the operation of the WTS, leaks occurred in the waste lines, and unknown amounts of solutions were released to the environment. A waste line rupture in 1969 released a large quantity of plutonium-238 waste upslope from Building 41, in what is now known as Area 14 (Figure 3.9). The surrounding soils became contaminated with plutonium-238. A partial cleanup of the area was performed in 1969 during which approximately 964 cubic feet of soil was removed and shipped offsite for disposal. The area was then backfilled with clean soil. A rainstorm during remediation caused some of the plutonium-contaminated soil to be washed away from the original point of deposition through the plant drainage ditch to an abandoned remnant of the Miami-Erie Canal (Operable Unit 4).

The WTS continued to operate until 1976, when the system was permanently shut down. The final remediation of the WTS was performed between 1985 and 1990. As part of this remediation, Building 41 and its tanks were removed in 1987.

Limited sampling was performed in Area 14 during the site survey project because remedial actions by the D&D Program were pending. The results of the sampling are presented in Table III.1. Soil

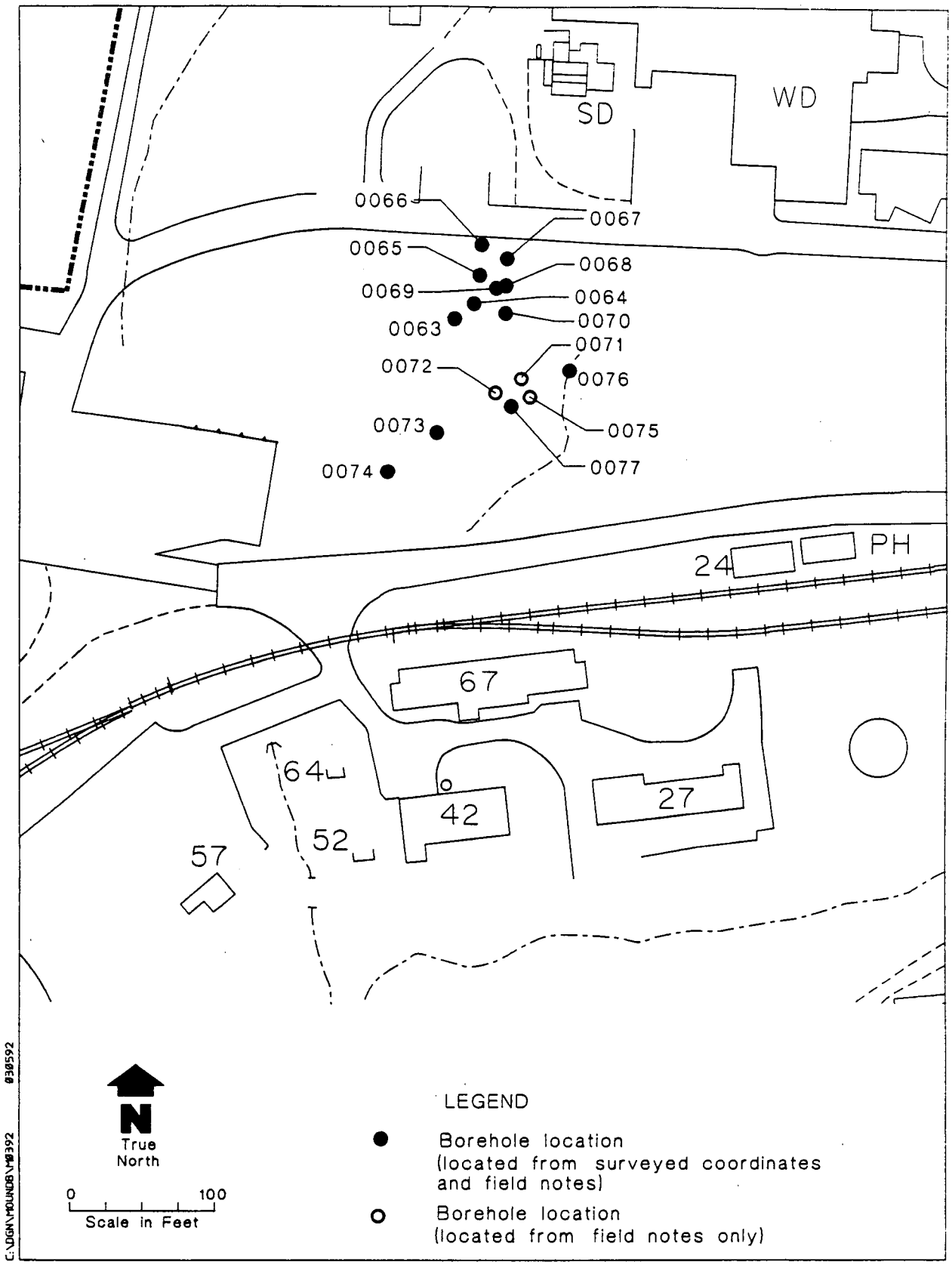


Figure 3.9. Borehole locations in Area 14

samples collected during the 1989 reconnaissance investigation and screened at the Mound Plant Soil Screening Facility reflected maximum plutonium-238 and thorium-232 concentrations of 8,400 pCi/g and 20 pCi/g, respectively. The Mound Plant D&D Program verified the remediation of radioactively contaminated soils by conducting field instrument for the detection of low energy radiation (FIDLER) surveys and collecting soil samples for radionuclide analyses at the Mound Plant Soil Screening Facility. The results from this survey have not yet been published. In 1990, the remediated area was sampled by Argonne National Laboratory (Argonne 1990) to independently verify the remediation of radioactively contaminated soils as a check of the Mound Plant D&D Program. Results from the Argonne sampling indicated concentrations of plutonium-238 remaining in the area ranged from 0.1 pCi/g to 240 pCi/g, with an average concentration of 19 pCi/g, compared with a goal of no greater than 100 pCi/g average and 300 pCi/g maximum.

Surface soil samples were collected from 16 sampling locations within Area 14 for the analyses of TAL and TCL constituents during the 1989 reconnaissance investigation. These sixteen sampling points (MND11-0063 through MND11-0078) were primarily located between the WD Building and Building 41 (razed), downgradient of the location of the 1969 waste line break.

In August 1991, sampling was conducted to identify potential nonradioactive contaminants in a subsection of Area 14 where a proposed Fuel Oil Storage System is to be constructed (DOE 1991d). Data from this sampling event are pending.

3.5. AREA 16, SANITARY SEWAGE SEPTIC TANK AND LEACH FIELD FOR THE SM BUILDING

Area 16 is located on the west side of the SM/PP Hill, below Building 30 (Figure 3.10). The area covers approximately 15,500 sq ft. The SM Building was constructed in 1960 and served as the nuclear processing facility for plutonium-238. The SM Building septic tank and leach field were used from 1960 to 1963 or 1964, when the building was connected to the site sanitary sewage disposal system. The septic tank and leach field were connected only to the toilets within the building. Therefore, contamination may not be due to the leach field but to a storm sewer that crosses the leach field. Process wastewater, floor drains, and sink drains were treated by a wastewater treatment system within the SM Building. In 1966, the process wastewater was disconnected from the SM treatment system and was piped to the WD Building for treatment. The Mound Plant D&D Program is currently (January 1992) removing radioactively contaminated soils, the septic tank, the tank distribution box, and a storm sewer head wall from Area 16.

The Mound Site Survey Project analyzed soil samples that were collected from Area 16. Maximum plutonium-238 and thorium concentrations observed were 144 pCi/g and 3.46 pCi/g, respectively. Soil

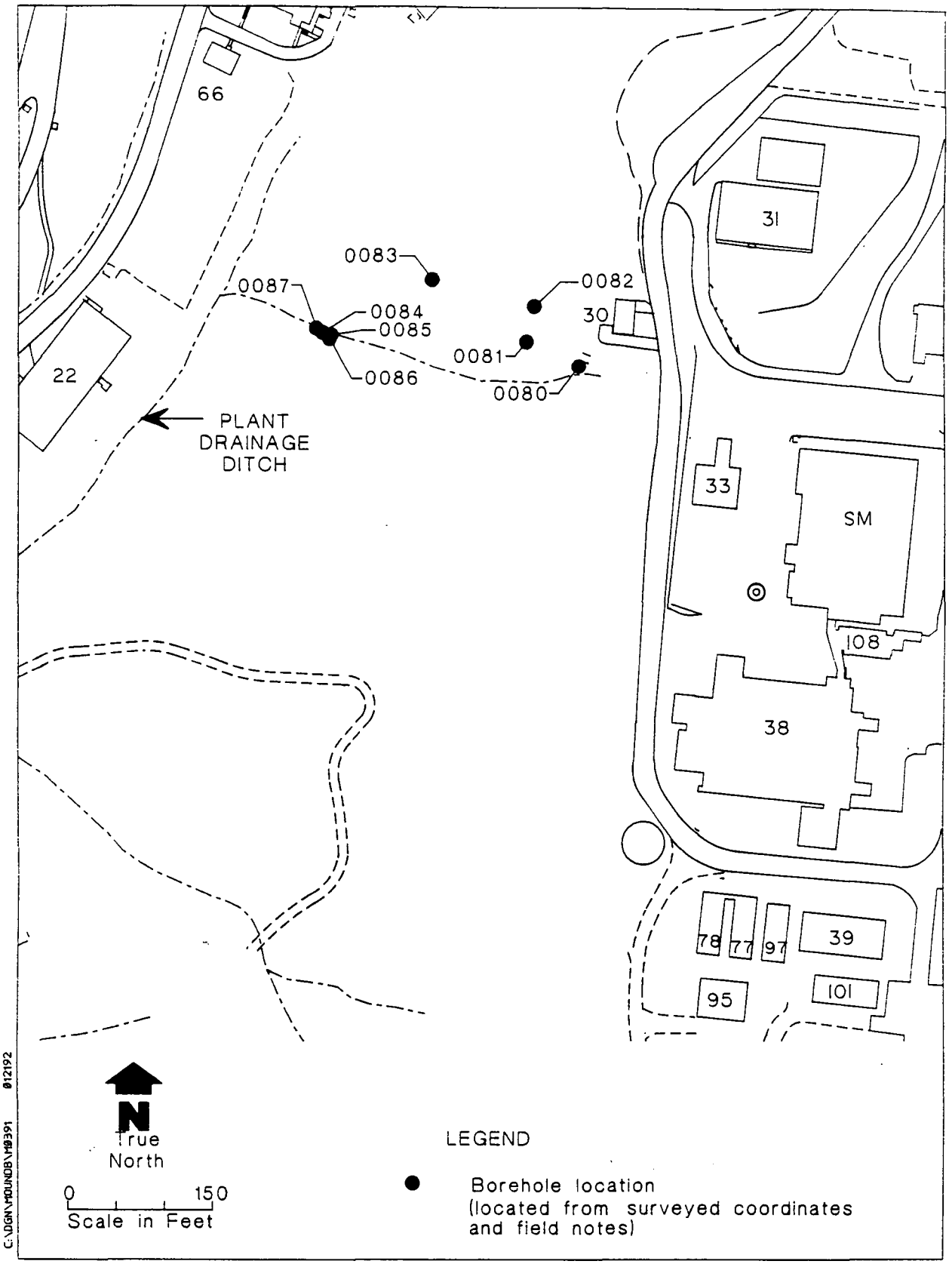


Figure 3.10. Borehole locations in Area 16

samples collected during the 1989 reconnaissance investigation and analyzed at the Mound Plant Soil Screening Facility reflect maximum plutonium-238 and thorium-232 concentrations of 2,400 pCi/g and 5 pCi/g, respectively. This contamination may have originated from surface water runoff from a storm sewer that runs through the area or from contaminated floor mop water that was disposed of by pouring down the SM Building toilets. The western edge of Area 16, downgradient of the leach field, may also be contaminated as a result of receiving drainage from the leach field.

Surface and/or subsurface soil samples were collected from eight locations within Area 16 for the analyses of TAL and TCL constituents during the 1989 reconnaissance investigation. Of the eight locations, one was near the septic tank (MND12-0080), two were within the leach field (MND12-0081 and MND12-0082), one was immediately downgradient of the leach field (MND12-0083), and the remaining four at the western edge of the area (MND12-0084 through MND12-0087). At locations MND12-0080 through MND12-0083, a boring was advanced to a depth of 0 ft to approximately 14 ft below ground surface using a truck-mounted hollow-stem auger drill rig. Only surface samples were collected at the remaining four locations as terrain limited access to a drill rig and subsurface materials limited the ability to hand auger.

3.6. AREA 17, UNDER THE SM BUILDING

Area 17 is located under and immediately surrounding the SM Building (Figure 3.11). The area around the SM Building includes an asphalt parking lot and Buildings 34 and 44. Area 17 covers approximately 40,000 sq ft. The SM Building was used from 1960 to 1970 for special metallurgical studies and is undergoing D&D as part of the Mound Plant D&D Program. Soils beneath the Building are contaminated, mainly with plutonium-238, as a result of leaks in sumps, piping, and tanks used during processing activities. The sumps, piping, tanks, and other structures once present in the SM Building have all been removed by the Mound Plant D&D Program.

The Mound Site Survey Project collected and analyzed soil samples from Area 17. Maximum concentrations for plutonium-238 and thorium measured were 494 pCi/g and 9.99 pCi/g, respectively. Sampling was not conducted beneath or inside the SM Building, where the highest contamination existed. Soil samples analyzed at Mound Plant Soil Screening Facility during the 1989 reconnaissance investigation reflected maximum plutonium-238 and thorium-232 concentrations of 3,300 pCi/g and 6 pCi/g, respectively.

Surface and/or subsurface soil samples were collected from nine sampling locations within Area 17 for the analyses of TAL and TCL constituents during the 1989 reconnaissance investigation. Of the nine locations, five were inside the SM Building (MND13-0090 through MND13-0094), three were adjacent

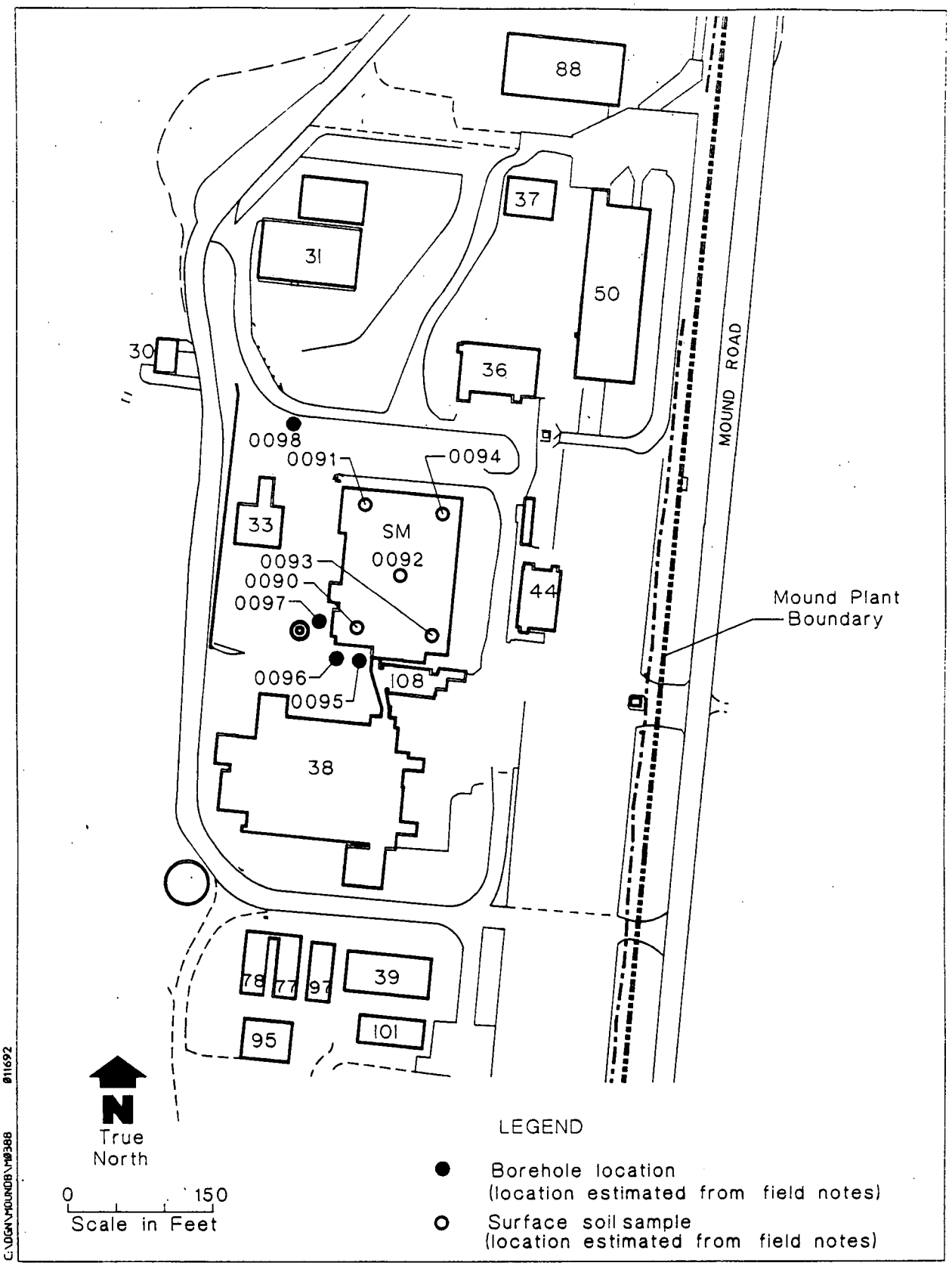


Figure 3.11. Borehole locations in Area 17

to former alpha-wastewater underground storage tanks at the southwest corner of the SM Building (MND13-0095 through MND13-0097), and one was northwest of the SM Building along an east-west trending grass culvert (MND13-0098). The five sampling locations within the SM Building were all surface samples in the sense that augering was not used to collect the soil samples. However, due to the soil excavation work that occurred within the SM Building prior to sample collection, these locations were actually 5 ft to 8 ft below the natural ground surface elevation outside the SM Building. The remaining four locations were advanced to depths ranging from 0 ft to approximately 15 ft below ground surface, using a truck-mounted hollow-stem auger drill rig.

In September 1991, sampling was conducted to identify potential nonradioactive contaminants in a subsection of Area 17, known as the SM Annex (DOE 1991e). The SM Annex was a structural addition to the north side of the SM Building that was razed in 1989 and 1990. Data from this sampling event are pending.

3.7. AREA 19, UNDERGROUND WASTE TRANSFER LINE (WASTE DISPOSAL PIPELINE)

Area 19 consists of soils that surrounded two underground waste transfer lines (1.5- and 2-inch diameter) that were used to transfer low-activity and higher-activity plutonium-238 liquid waste from Building 38 on the SM/PP Hill to Building 41 (razed) immediately below the WD Building (Figure 3.12). These lines were part of the WTS. Use of the lines began in 1967. The lines, each approximately 1,800 ft long, were flanged at 10-ft intervals and operated by gravity feed. The depth of the waste lines varied from approximately 4 ft to 17 ft below ground surface. Use of the low-activity line was discontinued in September 1974, and use of the higher-activity line was discontinued in April 1976 because of leakage. Samples were not collected in Area 19 during the Mound Site Survey Project because this area was in the process of being remediated by the Mound Plant D&D Program.

The lines themselves were removed by the Mound Plant D&D Program from 1982 to 1986. As the waste lines were removed, the adjacent soils were analyzed, and radioactively contaminated soils were removed. The target cleanup level was 100 pCi/g of plutonium-238 average and 300 pCi/g maximum.

A study to verify this cleanup was performed by Battelle in 1986 and included the analysis of 248 soil samples from 62 locations. This verification sampling was performed after all excavations were backfilled. The verification study concluded that more than 90 percent of the samples analyzed contained levels of plutonium-238 within one standard deviation of the 100 pCi/g cleanup level. Because the study was conducted after all excavations were backfilled, original soils may not have been sampled at all depths and the results may not be representative of the remaining plutonium-238 concentrations in Area 19. During the verification study, two hotspots were encountered at 410 and 1,057 pCi/g of plutonium-238. Because the Mound Plant D&D Program guideline for cleanup is to an

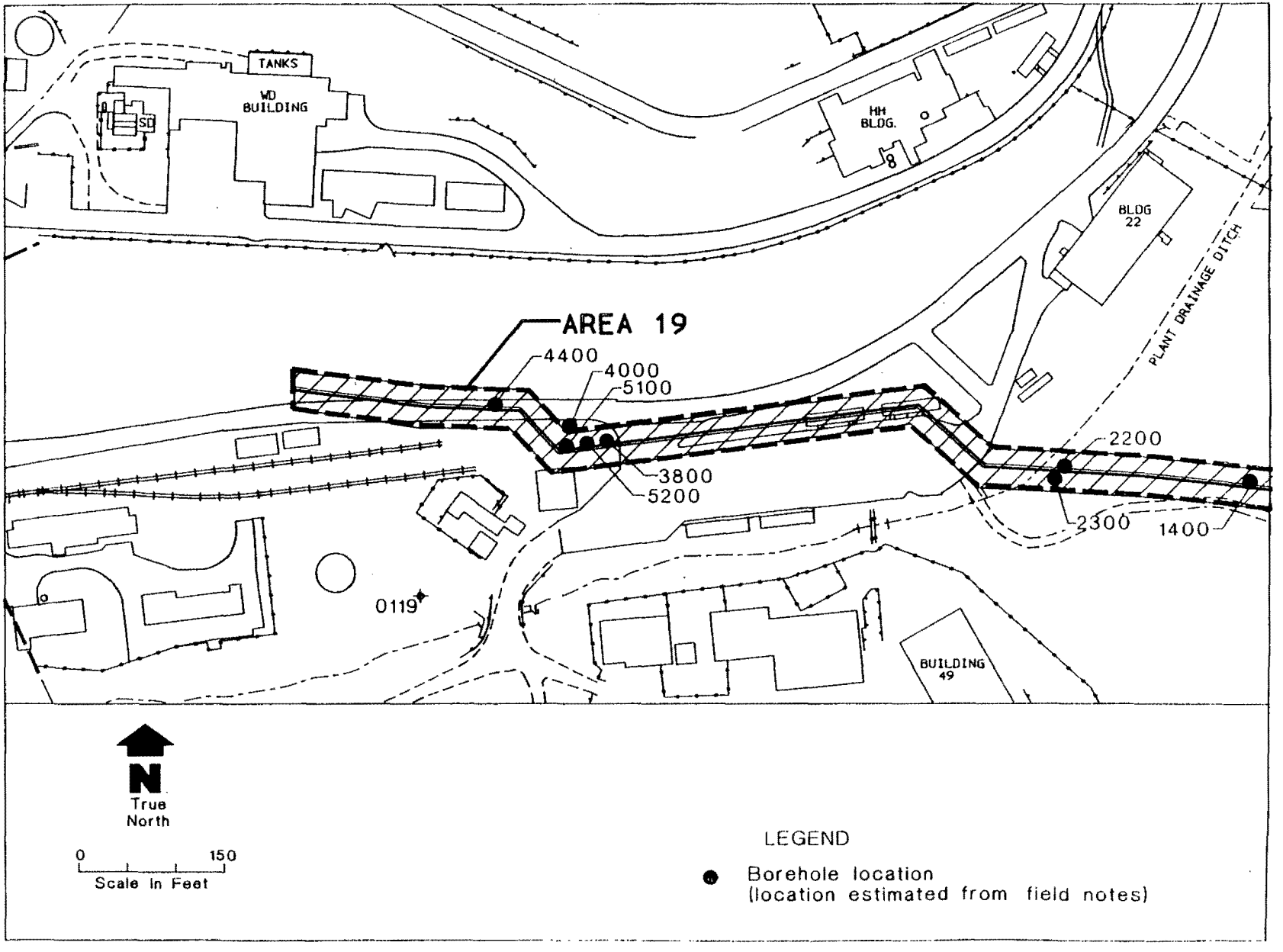


Figure 3.12. Borehole locations in Area 19

average concentration of 100 pCi/g and a maximum of 300 pCi/g plutonium-238, soils at these locations were removed. Soil samples collected during the 1989 reconnaissance investigation reflected maximum plutonium-238 and thorium-232 concentrations of 68 and 1 pCi/g, respectively.

Surface and subsurface soil samples were collected from eight sampling locations within Area 19 for the analyses of TAL and TCL constituents during the 1989 reconnaissance investigation. These locations followed the original path of the waste lines and were chosen based on the 1986 verification survey by Battelle, which demonstrated that elevated plutonium-238 exists at these locations. At each location, a boring was advanced to a depth ranging from 0 ft to approximately 8 ft below ground surface. All locations, with the exception of MND14-2200, were advanced using a truck-mounted hollow-stem auger drill rig. Location MND14-0022 was advanced using a hand auger.

3.8. AREA D, THE ACID LEACH FIELD

The Area D is located west of Building 38 on the upper slope of the SM/PP Hill (Figure 3.13). The leach field was constructed to treat material spilled within the acid preparation room in Building 38. Tanks inside Building 38 that contained nitric acid or caustic solutions were surrounded by a metal tray to catch leaks or spills. In the event of a leak or spill, the liquid would be collected by the tray and routed through a pipe to the leach field. The leach field, which was placed in service in 1967, had a surface area of approximately 10 ft by 10 ft and was filled with limestone to neutralize any acid routed to it. In 1987, the acid and caustic tanks within Building 38 were taken out of service and the pipeline from Building 38 leading to the leach field was capped. During its operational life, the leach field was used infrequently and not on a routine basis.

The Mound Site Survey Project collected and analyzed one soil sample from Area D. No significant plutonium-238 or thorium contamination was detected in the sample (0.98 pCi/g of plutonium-238 and less than 2 pCi/g of thorium). Soil samples screened at the Mound Plant Soil Screening Facility during the 1989 reconnaissance investigation reflected maximum plutonium-238 and thorium-232 concentrations of 18 pCi/g and 1.5 pCi/g, respectively.

Surface and subsurface soil samples were collected from five locations within Area D for the analyses of TAL and TCL constituents during the 1989 reconnaissance investigation. At each location, a boring was advanced to a depth ranging from 0 to approximately 14 ft below ground surface using a truck-mounted hollow-stem auger drill rig.

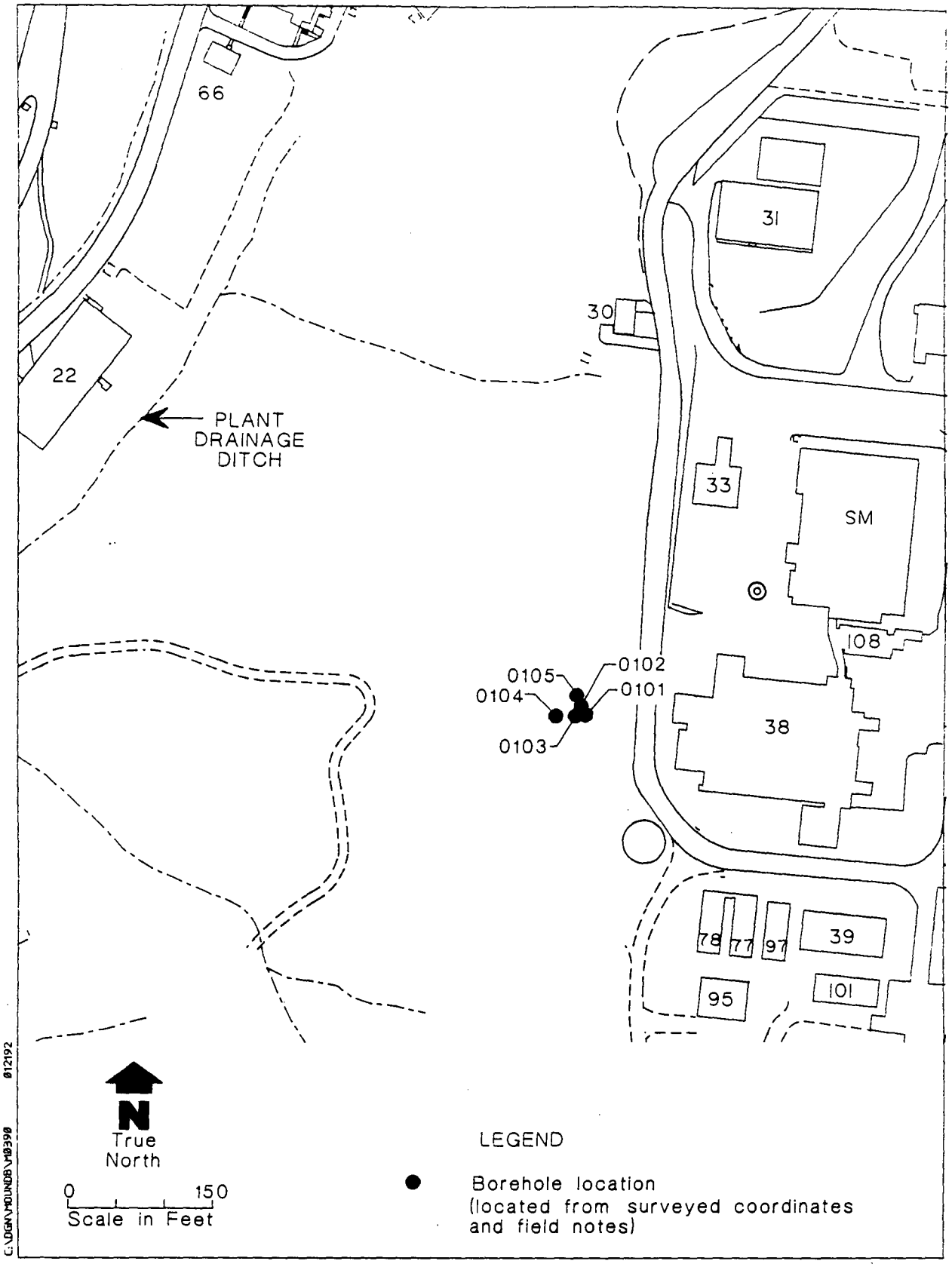


Figure 3.13. Borehole locations in Area D

4

Cardinal®

4. SAMPLE ANALYSIS

4.1. PREVIOUS DATA

Prior to the reconnaissance sampling activity, little quantitative data existed concerning possible chemical contamination of the Mount Plant Decontamination and Decommissioning Sites. Existing data are available for the soil gas analyses (DOE 1989a). Radionuclide data are available in Site Scoping Report Vol. III (DOE 1991a) and Stought et al. (1988). The Site Scoping Report Vol. 7, Waste Management Report (DOE 1991c) contains general information on chemical processes and chemical usage at Mound Plant.

4.2. CHEMICAL ANALYSIS

After collection in the field, soil samples were analyzed at the Mound Plant Soil Screening Facility for plutonium-238 and thorium-232. Results are found in Table IV.1 in the column for activity. This table also identifies samples by analyte group, date of collection, depth location, and laboratory batch. The samples were shipped to the IT Corporation Mixed Waste Laboratory in Oak Ridge, Tennessee, for extraction and coordination of the analytical activities. Shipment was done in accordance with the QA Plan and SOP 1.3, Sample Control and Documentation, which identifies the chain of custody (Custody Transfer Record/Lab Work Request) form used and SOP 1.5, Guide to Handling, Packaging, and Shipping (May 1988). Soil and water extracts were transferred from the Oak Ridge to the IT Analytical Services Laboratory in Knoxville, Tennessee, when lower radioactivity levels permitted.

The analyte and methods identified in the Sampling Plan are listed in Table IV.2.

- The TCL volatile compounds were analyzed at Knoxville by gas chromatography/mass spectroscopy, according to EPA CLP 2/88 Statement of Work (EPA 1988c).

- The TCL semivolatile organic compounds were analyzed at Knoxville by gas chromatography/mass spectroscopy, according to EPA CLP 2/88 Statement of Work (EPA 1988c).

- The Hazardous Substance List volatile compounds were analyzed at Oak Ridge according to the EPA 10/86 Statement of Work (EPA 1986). The changes between the Hazardous Substance List volatiles and the TCL list are minor and are as follows:

  The Hazardous Substance List includes *trans*-1,2-dichloroethene rather than 1,2-dichloroethene (total) as on the TCL list. The Hazardous Substance List includes *cis*-1,3-dichloropropene rather than *trans*-1,3-dichloropropene. The Hazardous Substance List also includes 2-chloroethyl vinyl ether. There is no TCL equivalent chemical.

- The Hazardous Substance List metals were analyzed at Oak Ridge, according to the EPA CLP 7/87 Statement of Work (EPA 1987). This uses the TAL list of inorganics.

Data packages were received at the WESTON Albuquerque office from the laboratory in both hard copy and on electronic medium. Laboratory batch REA 35527 was received on electronic medium only. The electronic version of the data was loaded into a WESTON-developed analytical database, DART, described in Appendix A. A wide range of data presentation formats and parameter sorting capabilities are available. Data tables for data above the detection limits are presented in Appendix B, along with a data qualifiers list. When data indicate a detection limit of 0.0, all data are included. This occurs when no detection limit was reported by the laboratory.

Samples from several areas are often included in one analytical laboratory batch, three batches of samples are water samples only and include a trip blank and rinsate samples. These were run separately as a lot at the analytical laboratory. A rinsate may not be part of the lot containing the soil samples with which it was associated. Summary tables showing the batch numbers, identifier, and sample location coordinates are found in Table IV.1. Table IV.3 identifies batches, number of analyses of each type, and data packages later used for data validation. Table IV.4 reports the matrix spike (MS) and matrix spike duplicate (MSD) or duplicate and spike quality control samples that have been identified for the analytical batches as given in the case narrative. Table IV.5 is a summary of case narrative comments.

4.3. DISCUSSION OF LABORATORY ANALYSES

The inorganic compounds (metals) section of the analysis presented the most difficulties and resulted in data being qualified with MS outside QC limits and MSD values outside QC limits. For furnace analysis, serial dilutions resulted in qualified data for some analyses. The qualifier E indicates what serial dilutions were outside the QC limits. Examples of these qualifiers can be observed in the data reported in Appendix B. These problems are consistent in many data packages and are indicative of a systematic problem such as an interference. The problem is exhibited to a lesser extent in the water samples but applies to water and soil preparations. The extent of the problem means that on the basis of the original analysis, the metals results should be viewed more as estimates than as absolute reported values prior to reevaluation as a result of the validation process. The problems encountered with selenium are common, due to volatility of the element and high mass species formed. The semivolatile compounds analysis indicated a group of tentatively identified compounds (TICs), often indicated in the case narrative as being contaminants picked up during the extraction process and related to acetone used in the extraction. Acetone was not used in field equipment decontamination or in the field for other purposes. These chemicals were found in water samples treated as individual

batches, such as REA 35572. It should be strongly suspected that these TICs come from the analytical process. This was confirmed by comments from the data validation processes.

Some extracts formed tarry extracts. This included water QC samples such as those in REA 35572.

The chemicals that were determined to be above detectablility limits do not form patterns and do not appear systematic in distribution.

No systematic problems were found in the volatile compounds or in the analysis of pesticides or PCBs.

Trichloroethane and tetrachloroethane were found in blanks and samples in REA 35532. The pesticide and arochlor analyses for this batch had 32 of 37 pesticide surrogate recoveries outside of the QC limits.

Table IV.1. Sample Identification

Area 1 Sample Numbers

Area/Location/Sample	Depth (ft)	Analyte	Date	Activity[a]	Lab	Batch Number	Location Mound Coordinates		
							South	West	Ground Elevation
MND08-0001-0001	0.2-0.4[b]	TCL volatile organics	08/17/89	7.0/9.9	REA	35572	3813.01	3530.12	871.7
MND08-0001-0002	0.8-1.0[b]	TCL volatile organics	08/17/89	7.0/9.9	REA	35572			
MND08-0001-0003	0.0-1.0	TCL semivolatile organics and pesticides/PCBs	08/17/89	7.0/9.9	REA	35572			
MND08-0001-0003	0.0-0.2	TAL metals	07/21/89	11/1.1	REA	35527			
MND08-0002-0001	0.2-0.4[b]	TCL volatile organics	08/17/89	15/4.7	REA	35572	3727.23	3680.32	863.3
MND08-0002-0002	0.6-0.8[b]	TCL volatile organics	08/17/89	15/4.7	REA	35572			
MND08-0002-0003	0.0-0.8	TCL semivolatile organics and pesticides/PCBs	08/17/89	15/4.7	REA	35572			
MND08-0002-0003	0.0-0.8	TAL metals	07/21/89	15/4.7	REA	35527			
MND08-0003-0001	0.5-2.0	TCL volatile organics	08/03/89	0.0/0.5	REA	35550	3689.06	3720.20	859.9
MND08-0003-0003	0.5-2.0	TCL semivolatile organics and pesticides/PCBs	08/03/89	0.0/0.5	REA	35550			
MND08-0003-0003	0.5-2.0	TAL metals	07/21/89	0.0/0.3	REA	35527			
MND08-0004-0001	0.5-2.0	TCL volatile organics	08/03/89	19/0.8	REA	35550	3668.39	3766.01	854.7
MND08-0004-0003	0.5-2.0	TCL semivolatile organics and pesticides/PCBs	08/03/89	19/0.8	REA	35550			
MND08-0004-0003	0.5-2.0	TAL metals	07/21/89	3.0/1.0	REA	35527			

Table IV.1. Sample Identification (page 2 of 19)

Area 1 Sample Numbers

Area/Location/Sample	Depth (ft)	Analyte	Date	Activity[a]	Lab	Batch Number	Location Mound Coordinates		
							South	West	Ground Elevation
MND08-0005-0001	0.5-2.0	TCL volatile organics	08/03/89	15/0.7	REA	35550	3842.64	3807.85	850.4
MND08-0005-0003	0.5-2.0	TCL semivolatile organics and pesticides/PCBs	08/03/89	15/0.7	REA	35550			
MND08-0005-0003	0.5-2.0	TAL metals	07/21/89	15/0.4	REA	35527			
MND08-0006-0001	0.5-2.0	TCL volatile organics	08/03/89	0.0/0.8	REA	35550	3615.86	3850.74	845.0
MND08-0006-0003	0.5-2.0	TCL semivolatile organics and pesticides/PCBs	08/03/89	0.0/0.8	REA	35550			
MND08-0006-0003	0.5-2.0	TAL metals	07/21/89	0.0/0.5	REA	35527			
MND08-0007-0001	0.5-2.0	TCL volatile organics	08/03/89	12/0.7	REA	35550	3588.91	3892.26	840.1
MND08-0007-0002	2.0-2.5	TCL volatile organics	08/03/89	12/0.7	REA	35550			
MND08-0007-0003	0.5-2.5	TCL semivolatile organics and pesticides/PCBs	08/03/89	12/0.7	REA	35550			
MND08-0007-0003	0.5-2.5	TAL metals	07/22/89	4.0/0.8	REA	35532			
MND08-0008-0001	0.5-2.0	TCL volatile organics	08/03/89	20/1.4	REA	35550	3563.67	3933.14	834.8
MND08-0008-0002	2.0-3.0	TCL volatile organics	08/03/89	20/1.4	REA	35550			
MND08-0008-0003	0.5-3.0	TCL semivolatile organics and pesticides/PCBs	08/03/89	20/1.4	REA	35550			
MND08-0008-0003	0.5-3.0	TAL metals	07/22/89	7/1.4	REA	35532			

Table IV.1. Sample Identification (page 3 of 19)

Area 1 Sample Numbers

Area/Location/Sample	Depth (ft)	Analyte	Date	Activity[a]	Lab	Batch Number	Location Mound Coordinates		
							South	West	Ground Elevation
MND08-0009-0001	0.5-2.0	TCL volatile organics	08/03/89	2.0/1.1	REA	35550	3536.57	3976.50	828.6
MND08-0009-0002	2.0-3.0	TCL volatile organics	08/03/89	2.0/1.1	REA	35550			
MND08-0009-0003	0.5-3.0	TCL semivolatile organics and pesticides/PCBs	08/03/89	2.0/1.1	REA	35550			
MND08-0009-0003	0.5-3.0	TAL metals	07/22/89	0.0/1.0	REA	35532			
MND08-0010-0001	0.5-2.0	TCL volatile organics	08/03/89	13/1.0	REA	35554	3510.73	4017.93	821.8
MND08-0010-0002	2.0-2.5	TCL volatile organics	08/03/89	13/1.0	REA	35554			
MND08-0010-0003	0.5-2.5	TCL semivolatile organics and pesticides/PCBs	08/03/89	13/1.0	REA	35554			
MND08-0010-0003	0.5-2.5	TAL metals	07/22/89	14/0.6	REA	35532			
MND08-0011-0001	0.5-2.0	TCL volatile organics	08/04/89	9.0/1.2	REA	35554	3484.20	4059.97	814.9
MND08-0011-0002	2.0-3.0	TCL volatile organics	08/04/89	9.0/1.2	REA	35554			
MND08-0011-0003	0.5-3.0	TCL semivolatile organics and pesticides/PCBs	08/04/89	9.0/1.2	REA	35554			
MND08-0011-0003	0.5-3.0	TAL metals	07/22/89	17/0.6	REA	35532			
MND08-0012-0001	0.5-1.0	TCL volatile organics	08/04/89	15/0.9	REA	35554	3458.33	4101.01	807.1
MND08-0012-0003	0.5-1.0	TCL semivolatile organics and pesticides/PCBs	08/04/89	15/0.9	REA	35554			
MND08-0012-0003	0.5-1.0	TAL metals	07/22/89	11/0.1	REA	35532			

Table IV.1. Sample Identification (page 4 of 19)

Area 1 Sample Numbers

Area/Location/Sample	Depth (ft)	Analyte	Date	Activity[a]	Lab	Batch Number	Location Mound Coordinates		
							South	West	Ground Elevation
MND08-0013-0001	0.5-2.0	TCL volatile organics	08/08/89	11/0.7	REA	35559	3294.07	4350.73	747.6
MND08-0013-0003	0.5-2.0	TCL semivolatile organics and pesticides/PCBs	08/08/89	11/0.7	REA	85559			
MND08-0013-0003	0.5-4.0	TAL metals	07/22/89	6.0/1.2	REA	35532			
MND08-0014-0001	0.5-2.0	TCL volatile organics	08/08/89	9.0/0.8	REA	35559	3267.30	4387.29	740.1
MND08-0014-0002	2.0-3.5	TCL volatile organics	08/08/89	9.0/0.8	REA	35559			
MND08-0014-0003	0.5-3.5	TCL semivolatile organics and pesticides/PCBs	08/08/89	9.0/0.8	REA	35559			
MND08-0014-0003	0.5-3.5	TAL metals	07/22/89	10/0.5	REA	35532			
MND08-0015-0001	0.2-0.5	TCL volatile organics	08/16/89	7.0/2.0	REA	35568	3870.83	3529.14	866.9
MND08-0015-0002	1.5-2.0	TCL volatile organics	08/16/89	7.0/2.0	REA	35568			
MND08-0015-0003	0.0-2.0	TCL semivolatile organics and pesticides/PCBs	08/16/89	7.0/2.0	REA	35568			
MND08-0015-0003	0.0-2.0	TAL metals	08/16/89	7.0/2.0	REA	35568			
MND08-0016-0001	0.2-0.5	TCL volatile organics	08/16/89	13/10	REA	35568	3829.98	3596.49	865.3
MND08-0016-0002	1.6-1.8	TCL volatile organics	08/16/89	13/10	REA	35568			
MND08-0016-0003	0.0-1.8	TCL semivolatile organics and pesticides/PCBs	08/16/89	13/10	REA	35568			
MND08-0016-0003	0.0-1.8	TAL metals	08/16/89	13/10	REA	35568			

Table IV.1. Sample Identification (page 5 of 19)

Area 1 Sample Numbers

Area/Location/Sample	Depth (ft)	Analyte	Date	Activity[a]	Lab	Batch Number	Location Mound Coordinates		
							South	West	Ground Elevation
MND08-0017-0001	0.2-0.4	TCL volatile organics	08/16/89	5.0/7.5	REA	35568	3804.92	3626.26	864.9
MND08-0017-0002	1.5-1.75	TCL volatile organics	08/16/89	5.0/7.5	REA	35568			
MND08-0017-0003	0.0-1.75	TCL semivolatile organics and pesticides/PCBs	08/16/89	5.0/7.5	REA	35568			
MND08-0017-0003	0.0-1.75	TAL metals	08/16/89	5.0/7.5	REA	35568			
MND08-0018-0001	0.3-0.5	TCL volatile organics	08/16/89	16/1.4	REA	35568	3791.21	3662.28	860.9
MND08-0018-0002	1.3-1.5	TCL volatile organics	08/16/89	16/1.4	REA	35568			
MND08-0018-0003	0.0-1.5	TCL semivolatile organics and pesticides/PCBs	08/16/89	16/1.4	REA	35568			
MND08-0018-0003	0.0-1.5	TAL metals	08/16/89	16/1.4	REA	35568			
MND08-0019-0001	0.0-0.3	TCL volatile organics	08/16/89	11/7.4	REA	35568	3770.61	3694.73	859.6
MND08-0019-0001	0.0-0.3	TCL semivolatile organics and pesticides/PCBs	08/16/89	11/7.4	REA	35568			
MND08-0019-0001	0.0-0.3	TAL metals	08/16/89	11/7.4	REA	35568			
MND08-0020-0001	0.3-0.5	TCL volatile organics	08/16/89	19/3.1	REA	35568	3738.25	3737.06	854.9
MND08-0020-0002	1.2-1.5	TCL volatile organics	08/16/89	19/3.1	REA	35568			
MND08-0020-0003	0.0-1.5	TCL semivolatile organics and pesticides/PCBs	08/16/89	19/3.1	REA	35568			
MND08-0020-0003	0.0-1.5	TAL metals	08/16/89	19/3.1	REA	35568			

Table IV.1. Sample Identification (page 6 of 19)

Area 1 Sample Numbers

Area/Location/Sample	Depth (ft)	Analyte	Date	Activity[a]	Lab	Batch Number	Location Mound Coordinates		
							South	West	Ground Elevation
MND08-0021-0001	0.1-0.25	TCL volatile organics	08/16/89	1.0/1.2	REA	35572	3716.93	3783.07	848.5
MND08-0021-0002	0.85-0.95	TCL volatile organics	08/16/89	1.0/1.2	REA	35572			
MND08-0021-0003	0.0-0.95	TCL semivolatile organics and pesticides/PCBs	08/16/89	1.0/1.2	REA	35572			
MND08-0021-0003	0.0-0.95	TAL metals	08/16/89	1.0/1.2	REA	35572			
MND08-0022-0001	0.2-0.4	TCL volatile organics	08/17/89	25/2.0	REA	35572	3743.58	3819.17	839.1
MND08-0022-0002	0.5-0.75	TCL volatile organics	08/17/89	25/2.0	REA	35572			
MND08-0022-0003	0.0-0.75	TCL semivolatile organics and pesticides/PCBs	08/17/89	25/2.0	REA	35572			
MND08-0022-0003	0.0-0.75	TAL metals	08/17/89	25/2.0					
MND08-0023-0001	0.2-0.4	TCL volatile organics	08/17/89	38/11.3	REA	35572	3747.60	3870.08	829.2
MND08-0023-0002	0.55-0.75	TCL volatile organics	08/17/89	38/11.3	REA	35572			
MND08-0023-0003	0.0-0.75	TCL semivolatile organics and pesticides/PCBs	08/17/89	38/11.3	REA	35572			
MND08-0023-0003	0.0-0.75	TAL metals	08/17/89	38/11.3					

Table IV.1. Sample Identification (page 7 of 19)

Area 1 Sample Numbers

Area/Location/Sample	Depth (ft)	Analyte	Date	Activity[a]	Lab	Batch Number	Location Mound Coordinates		
							South	West	Ground Elevation
MND08-0024-0001	0.3-0.5	TCL volatile organics	08/17/89	25/1.1	REA	35572	3769.22	3913.00	819.4
MND08-0024-0002	0.9-1.1	TCL volatile organics	08/17/89	25/1.1	REA	35572			
MND08-0024-0003	0.0-1.1	TCL semivolatile organics and pesticides/PCBs	08/17/89	25/1.1	REA	35572			
MND08-0024-0003	0.0-1.1	TAL metals	08/17/89	25/1.1					
MND08-0025-0001	0.2-0.4	TCL volatile organics	08/17/89	20/1.5	REA	35572	3797.60	3950.58	811.2
MND08-0025-0002	0.5-0.75	TCL volatile organics	08/17/89	20/1.5	REA	35572			
MND08-0025-0003	0.5-0.75	TCL semivolatile organics and pesticides/PCBs	08/17/89	20/1.5	REA	35572			
MND08-0025-0003	0.5-0.75	TAL metals	08/17/89	20/1.5					
MND08-0026-0001	0.2-0.4[b]	TCL volatile organics	08/17/89	40/185.3	REA	35572	3669.17	3669.96	868.6
MND08-0026-0002	0.8-1.0[b]	TCL volatile organics	08/17/89	40/185.3	REA	35572			
MND08-0026-0003	0.0-1.0	TCL semivolatile organics and pesticides/PCBs	08/17/89	40/185.3	REA	35572			
MND08-0026-0003	0.0-1.0	TAL metals	08/17/89	40/185.3					

Table IV.1. Sample Identification (page 8 of 19)

Area 4/4A Sample Numbers

Area/Location/Sample	Depth (ft)	Analyte	Date	Activity[a]	Lab	Batch Number	Location Mound Coordinates		
							South	West	Ground Elevation
Area 4									
MND09-0038-0001	0.0-0.5	Total TCL and TAL[b]	08/16/89	0.0/3.9	REA	35567	2031.35	3663.99	785.2
MND09-0038-0002	0.5-2.0	Total TCL and TAL[b]	08/16/89	1.0/0.6	REA	35567			
MND09-0038-0003	2.0-4.0	Total TCL and TAL[b]	08/16/89	0.0/3.4	REA	35567			
MND09-0038	No recovery at 4.0-6.0								
MND09-0038-0005	6.0-8.0	Total TCL and TAL[b]	08/16/89	5.0/1.5	REA	35567			
MND09-0039-0001	0.0-0.5	Total TCL and TAL[b]	08/16/89	14/3.1	REA	35567	1973.63	3676.83	787.9
MND09-0039-0002	0.5-2.0	Total TCL and TAL[b]	08/16/89	8.0/1.0	REA	35567			
MND09-0039-0003	2.0-4.0	Total TCL and TAL[b]	08/16/89	38/8.7	REA	35567			
MND09-0039-0004	4.0-6.0	TCL volatile organics	08/16/89	9.0/1.1	REA	35567			
MND09-0039	No recovery at 6.0-8.0								
MND09-0040-0001	0.0-0.5	Total TCL and TAL[b]	08/16/89	12/0.8	REA	35568	1870.53	3629.65	812.6
MND09-0040-0002	0.5-2.0	Total TCL and TAL[b]	08/16/89	10/5.7	REA	35568			
MND09-0040	Auger refusal after 2.0								

Table IV.1. Sample Identification (page 9 of 19)

Area 4/4A Sample Numbers

Area/Location/Sample	Depth (ft)	Analyte	Date	Activity[a]	Lab	Batch Number	Location Mound Coordinates		
							South	West	Ground Elevation
MND09-0041-0001	0.0-0.5	Total TCL and TAL[b]	08/16/89	10/0.2	REA	35568	1876.62	3635.27	812.2
MND09-0041-0002	0.5-2.0	Total TCL and TAL[b]	08/16/89	5.0/4.6	REA	35568			
MND09-0041-0003	2.0-4.0	TCL volatile organics	08/16/89	7.0/0.4					
MND09-0041-0004	4.0-6.0	Total TCL and TAL[b]	08/16/89	9.0/2.3	REA	35568			
MND09-0041-0005	6.0-8.0	Total TCL and TAL[b]	08/16/89	6.0/0.5	REA	35568			
MND09-0042-0001	0.0-0.5	Total TCL and TAL[b]	08/16/89	8.0/2.0	REA	35568	1959.91	3701.30	787.8
MND09-0042-0002	0.5-2.0	Total TCL and TAL[b]	08/16/89	6.0/1.2	REA	35568			
MND09-0042	No recovery at 2.0-4.0								
MND09-0042-0004	4.0-6.0	TCL volatile organics	08/16/89	6.0/9.4					
MND09-0042	No recovery at 6.0-8.0								
Area 4a									
MND09-0043-0001	0.0-0.5	Total TCL and TAL[b]	08/17/89	32/0.2	REA	35572	1903.07	3833.20	790.1
MND09-0043-0002	0.5-2.0	Total TCL and TAL[b]	08/17/89	9.0/0.9	REA	35572			
MND09-0043-0003	2.0-4.0	Total TCL and TAL[b]	08/17/89	0.0/1.0	REA	35572			
MND09-0043-0004	4.0-6.0	Total TCL and TAL[b]	08/17/89	11/1.5	REA	35572			
MND09-0043-0005	6.0-8.0	TCL volatile organics	08/17/89	11/6.7	REA	35572			

Table IV.1. Sample Identification (page 10 of 19)

Area 4/4A Sample Numbers

Area/Location/Sample	Depth (ft)	Analyte	Date	Activity[a]	Lab	Batch Number	Location Mound Coordinates		
							South	West	Ground Elevation
MND09-0044-0001	0.0-0.5	Total TCL and TAL[b]	08/17/89	0.0/0.3	REA	35572	1909.67	3827.39	790.0
MND09-0044-0002	0.5-2.0	Total TCL and TAL[b]	08/17/89	2.0/0.8	REA	35572			
MND09-0044-0003	2.0-4.0	Total TCL and TAL[b]	08/17/89	7.0/5.8	REA	35572			
MND09-0044-0004	4.0-6.0	Total TCL and TAL[b]	08/17/89	0.0/0.8	REA	35572			
MND09-0044	No recovery at 6.0-8.0								
MND09-0045-0001	0.0-0.5	Total TCL and TAL[b]	08/17/89	225/0.7	REA	35572	1911.80	3821.19	790.1
MND09-0045-0002	0.5-2.0	Total TCL and TAL[b]	08/17/89	8.0/4.4	REA	35572			
MND09-0045	No recovery at 2.0-4.0								
MND09-0045	No recovery at 4.0-6.0								
MND09-0045-0005	6.0-8.0	Total TCL and TAL[b]	08/17/89	2.0/0.8	REA	35572			
MND09-0046	This location will be sampled when the WTS project is completed.								

Table IV.1 Sample Identification (page 11 of 19)

Area 11 Sample Numbers

Area/Location/Sample	Depth (ft)	Analyte	Date	Activity[a]	Lab	Batch Number	Location Mound Coordinates		
							South	West	Ground Elevation
MND10-0049-0001	0.0-0.5	Total TCL and TAL[b]	07/24/89	0.0/2.8	REA	35532	3081.11	2347.36	876.1
MND10-0049-0002	5.0-6.0	TCL volatile organics	08/08/89	4.0/0.4	REA	35559			
MND10-0049-0004	3.0-6.0	TCL semivolatile organics and pesticides/PCBs TAL metals	08/08/89	4.0/0.4	REA	35559			
MND10-0050-0001	0.0-0.5	Total TCL and TAL[b]	07/24/89	7.0/0.4	REA	35532	3083.26	2336.27	875.8
MND10-0050-0003	5.0-6.0	TCL volatile organics	07/24/89	5.0/0.3	REA	35532			
MND10-0050-0004	3.0-6.0	TCL semivolatile organics and pesticides/PCBs TAL metals	07/24/89	5.0/0.3	REA	35532			
MND10-0051-0001	0.0-0.5	Total TCL and TAL[b]	07/25/89	23/0.5	REA	35535	3079.42	2295.05	874.4
MND10-0051-0003	6.0-6.5	TCL volatile organics	07/25/89	11/0.9	REA	35535			
MND10-0051-0004	3.5-6.5	TCL semivolatile organics and pesticides/PCBs TAL metals	07/25/89	11/0.935	REA	35535			
MND10-0052-0001	0.0-0.5	Total TCL and TAL[b]	07/25/89	23/0.6	REA	35535	3087.87	2269.09	873.5
MND10-0052-0003	3.0-4.5	TCL volatile organics	07/25/89	6.0/0.7	REA	35535			
MND10-0052-0004	3.0-4.5	TCL semivolatile organics and pesticides/PCBs TAL metals	07/25/89	6.0/0.7		35535			
MND10-0053-0001	0.0-0.5	Total TCL and TAL[b]	07/24/89	10/0.7	REA	35532	3104.52	2279.11	874.2
MND10-0053-0003	7.0-7.5	TCL volatile organics	07/24/89	10/0.6	REA	35532			
MND10-0053-0004	3.0-7.5	TCL semivolatile organics and pesticides/PCBs TAL metals	07/24/89	10/0.6	REA	35532			
MND10-0054-0001	0.0-0.5	Total TCL and TAL[b]	07/24/89	18/0.1	REA	35532	3098.88	2299.65	874.7
MND10-0054-0003	6.0-6.5	TCL volatile organics	07/24/89	12/0.1	REA	35532			
MND10-0054-0004	3.0-6.5	TCL semivolatile organics and pesticides/PCBs TAL metals	07/24/89	12/0.1	REA	35532			

Table IV.1. Sample Identification (page 12 of 19)

Area 11 Sample Numbers

Area/Location/Sample	Depth (ft)	Analyte	Date	Activity[a]	Lab	Batch Number	Location Mound Coordinates		
							South	West	Ground Elevation
MND10-0055-0001	0.0-0.5	Total TCL and TAL[b]	07/24/89	5.0/0.4	REA	35532	3089.64	2319.25	875.3
MND10-0055-0002	6.7-7.0	TCL volatile organics	07/24/89	23/0.2	REA	35532			
MND10-0055-0003	8.0-8.2	TCL volatile organics	07/24/89	23/0.2	REA	35532			
MND10-0055-0004	3.0-8.2	TCL semivolatile organics and pesticides/PCBs TAL metals	07/24/89	23/0.2	REA	35532			
MND10-0056-0001	0.0-0.5	Total TCL and TAL[b]	08/06/89	8.0/1.9	REA	35555	3117.95	2271.32	881.2
MND10-0056-0003	3.0-5.0	TCL volatile organics	08/06/89	2056/1.5	REA	35555			
MND10-0056-0004	3.0-5.0	TCL semivolatile organics and pesticides/PCBs TAL metals	08/06/89	2056/1.5	REA	35555			
MND10-0057-0001	0.0-0.5	Total TCL and TAL[b]	08/06/89	21476/9	REA	35555	3146.86	2273.98	880.6
MND10-0057-0003	3.0-5.0	TCL volatile organics	08/06/89	64643/69.1	REA	35555			
MND10-0057-0004	3.0-5.0	TCL semivolatile organics and pesticides/PCBs TAL metals	08/06/89	64643/69.1	REA	35555			

Table IV.1. Sample Identification (page 13 of 19)

Area 14 Sample Numbers

Area/Location/Sample	Depth (ft)	Analyte	Date	Activity[a]	Lab	Batch Number	Location Mound Coordinates		
							South	West	Ground Elevation
MND11-0063-0001	0.0-0.5	Total TCL and TAL[b]	07/23/89	47/0.8	REA	35532	2021.35	3884.17	768.7
MND11-0064-0001	0.0-0.5	Total TCL and TAL[b]	07/23/89	293/1.9	REA	35532	2017.44	3867.51	768.7
MND11-0065-0001	0.0-0.5	Total TCL and TAL[b]	07/23/89	9.0/0.5	REA	35532	2001.41	3855.88	770.9
MND11-0066-0001	0.0-0.5	Total TCL and TAL[b]	07/23/89	37/0.9	REA	35532	1982.66	3846.00	775.9
MND11-0067-0001	0.0-0.5	Total TCL and TAL[b]	07/23/89	18/1.1	REA	35532	1998.76	3833.75	775.1
MND11-0068-0001	0.0-0.5	Total TCL and TAL[b]	07/23/89	173/1.8	REA	35532	2015.52	3842.17	768.4
MND11-0069-0001	0.0-0.5	Total TCL and TAL[b]	07/23/89	32.1.2	REA	35532	2014.24	3849.14	767.5
MND11-0070-0001	0.0-0.5	Total TCL and TAL[b]	07/23/89	9.0/1.8	REA	35532	2032.80	3850.43	762.9
MND11-0071-0001	0.0-0.5	Total TCL and TAL[b]	07/23/89	8435/5.1	REA	35532			
MND11-0072-0001	0.0-0.5	Total TCL and TAL[b]	07/23/89	7127/20.4	REA	35532			
MND11-0073-0001	0.0-0.5	Total TCL and TAL[b]	07/23/89	172/1.2	REA	35532	2087.89	3927.87	747.6
MND11-0074-0001	0.0-0.5	Total TCL and TAL[b]	07/23/89	158/0.8	REA	35532	2098.45	3970.15	747.4
MND11-0075-0001	0.0-0.5	Total TCL and TAL[b]	07/23/89	64/0.7	REA	35532			
MND11-0076-0001	0.0-0.5	Total TCL and TAL[b]	07/23/89	253/1.1	REA	35532	2086.81	3826.13	757.2
MND11-0077-0001	0.0-0.5	Total TCL and TAL[b]	07/23/89	1427/2.2	REA	35532	2092.57	3873.33	749.7
MND11-0078-0001	Not sent to laboratory because of hold time			53					

Table IV.1. Sample Identification (page 14 of 19)

Area 16 Sample Numbers

Area/Location/Sample	Depth (ft)	Analyte	Date	Activity[a]	Lab	Batch Number	Location Mound Coordinates		
							South	West	Ground Elevation
MND12-0080-0001	3.0-5.0	TCL volatile organics, TCL semivolatile organics and pesticides/PCBs	08/08/89	8.0/4.4	REA	35559	2637.30	2360.77	859.9
MND12-0080-0002	5.0-6.5	TAL metals	07/21/89	10/0.2	REA	35527			
MND12-0080-0002	5.0-6.5	TCL volatile organics, TCL semivolatile organics and pesticides/PCBs	08/08/89	33/0.6	REA	35559			
MND12-0080-0003	8.0-9.5	TAL metals	07/21/89	10/0.3	REA	35527			
MND12-0080-0003	8.0-9.5	TCL volatile organics, TCL semivolatile organics and pesticides/PCBs	08/08/89	11/4.0	REA	35559			
MND12-0080-0004	13-13.5	TAL metals	07/21/89	31/1.4	REA	35527			
MND12-0080-0004	13-13.5	TCL volatile organics, TCL semivolatile organics and pesticides/PCBs	08/08/89	31/1.4	REA	35539			
MND12-0081-0001	0.0-0.5	Total TCL and TAL[b]	07/25/89	28/0.8	REA	35535	2591.64	2399.49	845.6
MND12-0081-0002	3.0-5.0	Total TCL and TAL[b]	07/25/89	28/0.2	REA	35535			
MND12-0081-0003	8.0-9.5	Total TCL and TAL[b]	07/25/89	2.0/0.4	REA	35535			
MND12-0081	No recovery after 9.5								
MND12-0082-0001	0.0-0.5	Total TCL and TAL[b]	07/25/89	385/0.7	REA	35535	2561.39	2376.93	845.6
MND12-0082-0002	3.0-4.5	Total TCL and TAL[b]	07/25/89	45/0.8	REA	35535			
MND12-0082	No recovery after 9.5								
MND12-0083-0001	0.0-0.5	Total TCL and TAL[b]	07/25/89	43/0.8	REA	35535	2492.68	2462.76	818.4
MND12-0083-0002	3.0-4.5	Total TCL and TAL[b]	07/25/89	7.0/1.1	REA	35535			
MND12-0083-0003	8.0-9.5	Total TCL and TAL[b]	07/25/89	19/0.6	REA	35535			
MND12-0083-0004	13-14.5	Total TCL and TAL[b]	07/25/89	23/0.6	REA	35535			
MND12-0084-0001	0.0-0.5	Total TCL and TAL[b]	08/17/89	1233/4.5	REA	35572	2495.71	2588.86	786.9
MND12-0085-0001	0.0-0.5	Total TCL and TAL[b]	08/17/89	1149/0.9	REA	35572	2501.62	2581.55	790.5
MND12-0086-0001	0.0-0.5	Total TCL and TAL[b]	08/17/89	279/1.0	REA	35572	2504.42	2584.78	789.3
MND12-0087-0001	0.0-0.5	Total TCL and TAL[b]	08/17/89	2416/5.3	REA	35572	2488.85	2593.01	785.1

Table IV.1. Sample Identification (page 15 of 19)

Area 17 Sample Numbers

Area/Location/Sample	Depth (ft)	Analyte	Date	Activity[a]	Lab	Batch Number	Location Mound Coordinates		
							South	West	Ground Elevation
MND13-0090-0001	0.0-0.5	Total TCL and TAL[b]	07/26/89	50/6.5	REA	35538			
MND13-0091-0001	0.0-0.5	Total TCL and TAL[b]	07/26/89	683/1.9	REA	35538			
MND13-0092-0001	0.0-0.5	Total TCL and TAL[b]	07/26/89	99/0.3	REA	35538			
MND13-0093-0001	0.0-0.5	Total TCL and TAL[b]	07/26/89	3319/5.4	REA	35538			
MND13-0094-0001	0.0-0.5	Total TCL and TAL[b]	07/26/89	0.0/0.6	REA	35538			
MND13-0095-0001	0.0-0.5	Total TCL and TAL[b]	08/05/89	21/0.7	REA	35555	3155.58	2136.33	835.7
MND13-0095-0002	3.0-5.0	Total TCL and TAL[b]	08/05/89	184/0.7	REA	35555			
MND13-0095-0003	8.0-10.0	Total TCL and TAL[b]	08/05/89	40/0.8	REA	35555			
MND13-0095-0004	13.0-15.0	Total TCL and TAL[b]	08/05/89	27/0.4	REA	35555			
MND13-0096-0001	0.0-0.5	Total TCL and TAL[b]	08/05/89	138/0.5	REA	35555	3155.88	2154.45	886.6
MND13-0096-0002	3.0-5.0	Total TCL and TAL[b]	08/05/89	69/0.6	REA	35555			
MND13-0096-0003	8.0-10.0	Total TCL and TAL[b]	08/05/89	77/1.0	REA	35555			
MND13-0096	No recovery after 10.0								
MND13-0097-0001	0.0-0.5	Total TCL and TAL[b]	08/05/89	3.0/0.2	REA	35555	3123.19	2167.24	884.9
MND13-0097-0002	3.0-5.0	Total TCL and TAL[b]	08/05/89	15/0.3	REA	35555			
MND13-0097-0003	8.0-10.0	Total TCL and TAL[b]	08/05/89	156/0.5	REA	35555			
MND13-0097	No recovery after 10.0								
MND13-0098-0001	0.0-0.5	Total TCL and TAL[b]	08/06/89	534/5.1	REA	35555	2704.29	2194.78	874.6
MND13-0098-0002	3.0-5.0	Total TCL and TAL[b]	08/06/89	25/0.5	REA	35555			
MND13-0098	No recovery after 5.0								

Table IV.1. Sample Identification (page 16 of 19)

Area 19 Sample Numbers

Area/Location/Sample	Depth (ft)	Analyte	Date	Activity[a]	Lab	Batch Number	Location Mound Coordinates		
							South	West	Ground Elevation
MND14-1400-0002	5.0-8.0	Total TCL and TAL[b]	08/01/89	0.0/1.0	REA	35547	2817.72	2694.28	814.0
MND14-2200-0002	3.0-4.0	Total TCL and TAL[b]	08/01/89	21/1.6	REA	35547	2611.46	3042.02	750.2
MND14-2300-0002	3.0-6.0	Total TCL and TAL[b]	08/01/89	35/1.1	REA	35547	2613.27	3060.62	749.6
MND14-3800-0002	2.0-5.0	Total TCL and TAL[b]	08/03/89	14/1.2	REA	35550	2406.08	3455.03	747.1
MND14-4000-0002	5.0-8.0	Total TCL and TAL[b]	08/03/89	29/1.2	REA	35556	2383.50	3482.23	746.5
MND14-4400-0002	2.0-5.0	Total TCL and TAL[b]	08/17/89	8.0/0.4	REA	35568	2294.67	3555.80	745.2
MND14-4700 Not sampled because it is inside the building being used to store soil from the WTS hillside.									
MND14-5100-0002	0.03-3.0	Total TCL and TAL[b]	08/03/89	68/1.1	REA	35550	2395.15	3489.36	745.8
MND14-5200-0002	0.0-3.0	Total TCL and TAL[b]	08/03/89	20/0.8	REA	35550	2404.77	3468.02	746.2

Table IV.1. Sample Identification (page 17 of 19)

Area D Sample Numbers

Area/Location/Sample	Depth (ft)	Analyte	Date	Activity[a]	Lab	Batch Number	Location Mound Coordinates		
							South	West	Ground Elevation
MND15-0101-0001	0.0-0.5	TAL metals	07/19/89	5.0/0.7	REA	35526	2971.97	2503.66	876.4
MND15-0101-0001	0.0-0.5	TCL volatile organics, TCL semivolatile organics, and pesticides/PCBs	08/02/89	0.2/0.5	REA	35548			
MND15-0101-0002	3.0-5.0	TAL metals	07/19/89	4.0/1.0	REA	35526			
MND15-0101-0002	3.0-5.0	TCL volatile organics, TCL semivolatile organics, and pesticides/PCBs	08/02/89	10/0.6	REA	35526			
MND15-0101-0003	8.0-9.5	TAL metals	07/19/89	13/0.7	REA	35526			
MND15-0101-0003	8.0-9.5	TCL volatile organics, TCL semivolatile organics, and pesticides/PCBs	08/02/89	6.0/1.0	REA	35526			
MND15-0101-0004	13.0-14.0	Total TCL and TAL[b]	08/02/89	4.0/0.7	REA	35526			
MND15-0102-0001	0.0-0.5	TAL metals	07/20/89	2.0/0.6	REA	35526	2960.81	2504.53	875.8
MND15-0102-0001	0.0-0.5	TCL volatile organics, TCL semivolatile organics, and pesticides/PCBs	08/02/89	0.0/0.5	REA	35548			
MND15-0102-0002	3.0-5.0	TAL metals	07/20/89	9.0/1.3	REA	35526			
MND15-0102-0002	3.0-5.0	TCL volatile organics, TCL semivolatile organics, and pesticides/PCBs	08/02/89	7.0/0.7	REA	35548			
MND15-0102-0003	8.0-10.0	TAL metals	07/20/89	1.0/0.3	REA	35526			
MND15-0102-0003	8.0-10.0	TCL volatile organics, TCL semivolatile organics, and pesticides/PCBs	08/02/89	2.0/0.3	REA	35548			
MND15-0102-0004	13.0-14.5	TAL metals	07/20/89	4.0/0.7	REA	35526			

Table IV.1. Sample Identification (page 18 of 19)

Area D Sample Numbers

Area/Location/Sample	Depth (ft)	Analyte	Date	Activity[a]	Lab	Batch Number	Location Mound Coordinates		
							South	West	Ground Elevation
MND15-0103-0001	0.0-0.5	TAL metals	07/20/89	8.0/0.6	REA	35526	2967.94	2514.14	875.7
MND15-0103-0001	0.0-0.5	TCL volatile organics, TCL semivolatile organics, and pesticides/PCBs	08/02/89	2.0/0.8	REA	35548			
MND15-0103-0002	3.0-5.0	TAL metals	07/20/89	3.0/0.4	REA	35526			
MND15-0103-0002	3.0-5.0	TCL volatile organics, TCL semivolatile organics, and pesticides/PCBs	08/02/89	7.0/0.5	REA	35548			
MND15-0103-0003	8.0-10.0	TAL metals	07/20/89	0.0/1.5	REA	35526			
MND15-0103-0003	8.0-10.0	TCL volatile organics, TCL semivolatile organics, and pesticides/PCBs	08/02/89	2.0/0.9	REA	35548			
MND15-0103-0004	13.0-14.5	TAL metals	07/20/89	6.0/0.6	REA	35526			
MND15-0103-0004	13.0-14.5	TCL volatile organics, TCL semivolatile organics, and pesticides/PCBs	08/02/89	8.0/0.5	REA	35548			
MND15-0104-0001	0.0-0.5	TAL metals	07/20/89	12/0.9	REA	35527	2959.65	2532.95	874.3
MND15-0104-0001	0.0-0.5	TCL volatile organics, TCL semivolatile organics, and pesticides/PCBs	08/02/89	5.0/0.6	REA	35548			
MND15-0104-0002	3.0-5.0	TAL metals	07/20/89	7.0/0.5	REA	35527			
MND15-0104-0002	3.0-5.0	TCL volatile organics, TCL semivolatile organics, and pesticides/PCBs	08/02/89	0.0/0.7	REA	35548			
MND15-0104-0003	8.0-10.0	TAL metals	07/20/89	6.0/0.8	REA	35527			
MND15-0104-0003	8.0-10.0	TCL volatile organics, TCL semivolatile organics, and pesticides/PCBs	08/02/89	1.0/0.3	REA	35548			
MND15-0104-0004	13.0-14.5	TAL metals	07/20/89	10/1.0	REA	35527			
MND15-0104-0004	13.0-14.5	TCL volatile organics, TCL semivolatile organics, and pesticides/PCBs	08/02/89	5.0/0 7	REA	35548			

Table IV.1. Sample Identification (page 19 of 19)

Area D Sample Numbers

Area/Location/Sample	Depth (ft)	Analyte	Date	Activity[a]	Lab	Batch Number	Location Mound Coordinates		
							South	West	Ground Elevation
MND15-0105-0001	0.0-0.5	TAL metals	07/20/89	11/0.7	REA	35527	2948.62	2503.93	874.9
MND15-0105-0001	0.0-0.5	TCL volatile organics, TCL semivolatile organics, and pesticides/PCBs	08/02/89	7.0/0.6	REA	35548			
MND15-0105-0002	3.0-5.0	TAL metals	07/21/89	3.0/0.9	REA	35527			
MND15-0105-0002	3.0-5.0	TCL volatile organics, TCL semivolatile organics, and pesticides/PCBs	08/02/89	3.0/0.7	REA	35548			
MND15-0105-0003	8.0-9.5	TAL metals	07/21/89	18/0.1	REA	35527			
MND15-0105-0003	8.0-9.5	TCL volatile organics, TCL semivolatile organics, and pesticides/PCBs	08/02/89	9.0/0.6	REA	35548			
MND15-0105-0004	13.0-14.0	TAL metals	07/21/89	3.0/0.7	REA	35527			
MND15-0105-0004	13.0-14.0	TCL volatile organics, TCL semivolatile organics, and pesticides/PCBs	08/02/89	6.0/0.7	REA	35548			

[a]Activity is in (pCi/g of Pu-238)/(pCi/g of Th-232). Samples were analyzed at the Mound Plant Soil Screening Facility.
[b]Total TCL and TAL is TCL volatile organics, TCL semivolatile organics, pesticides/PCBs, and TAL metals.

Note: The outflow was surveyed as 2978.65 south, 2497.94 west, with an elevation of 876.5 ft as a reference.

Table IV.2. Analysis Plan for Soil/Sediment and Water Samples

Analytical Methods for Soil/Sediment and Water				
Parameter	EPA Method	Sample Volume (g) Soil	Sample Volume (mL) Water	Holding Time (days)
TCL Metals		200	200	180
1. Aluminum	6010 (ICP)			
2. Antimony	6010 (ICP)			
3. Arsenic	7060 (furnace AA)			
4. Barium	6010 (ICP)			
5. Beryllium	6010 (ICP)			
6. Cadmium	6010 (ICP)			
7. Calcium	6010 (ICP)			
8. Chromium (total)	6010 (ICP)			
9. Cobalt	6010 (ICP)			
10. Copper	6010 (ICP)			
11. Iron	6010 (ICP)			
12. Lead	7421 (furnace AA)			
13. Magnesium	6010 (ICP)			
14. Manganese	6010 (ICP)			
15. Mercury	7471 (cold vapor AA)			28
16. Nickel	6010 (ICP)			
17. Potassium	6010 (ICP)			
18. Selenium	7740 (furnace AA)			
19. Silver	6010 (ICP)			
20. Sodium	6010 (ICP)			
21. Thallium	7841 (furnace AA)			
22. Vanadium	6010 (ICP)			
23. Zinc	6010 (ICP)			
TCL Volatile Organics	8240 (GC/MS)	5	40	14
1. Chloromethane				
2. Bromoethane				
3. Vinyl Chloride				
4. Chloroethane				
5. Methylene Chloride				
6. Acetone				
7. Carbon Disulfide				
8. 1,1-Dichloroethene				
9. 1,1-Dichloroethane				
10. 1,2-Dichloroethene (total)				
11. Chloroform				
12. 1,2-Dichloroethane				
13. 2-Butanone				

Table IV.2. (page 2 of 5)

Analytical Methods for Soil/Sediment and Water				
Parameter	EPA Method	Sample Volume (g) Soil	Sample Volume (mL) Water	Holding Time (days)
TCL Volatile Organics (Continued)	8240 (GC/MS)	5	40	14
14. 1,1,1-Trichloroethane				
15. Carbon Tetrachloride				
16. Vinyl Acetate				
17. Bromodichloromethane				
18. 1,2-Dichloropropane				
19. *cis*-1,3-Dichloropropene				
20. Trichloroethene				
21. Dibromochloromethane				
22. 1,1,2-Trichloroethane				
23. Benzene				
24. *trans*-1,3-Dichloropropene				
25. Bromoform				
26. 4-Methyl-2-pentanone				
27. 2-Hexanone				
28. Tetrachloroethene				
29. Toluene				
30. 1,1,2,2-Tetrachloroethane				
31. Chlorobenzene				
32. Ethyl Benzene				
33. Styrene				
34. Xylenes (Total)				
TCL Semivolatile Organics	8270 (GC/MS)	10-30	1000	7/40[a]
1. Phenol				
2. *bis*(2-Chloroethyl) ether				
3. 2-Chlorophenol				
4. 1,3-Dichlorobenzene				
5. 1,4-Dichlorobenzene				
6. Benzyl alcohol				
7. 1,2-Dichlorobenzene				
8. 2-Methylphenol				
9. *bis*(2-Chloroisopropyl) ether				
10. 4-Methylphenol				
11. N-Nitroso-di-n-dipropylamine				
12. Hexachloroethane				
13. Nitrobenzene				
14. Isophorone				
15. 2-Nitrophenol				

Table IV.2. (page 3 of 5)

Analytical Methods for Soil/Sediment and Water				
Parameter	EPA Method	Sample Volume (g) Soil	Sample Volume (mL) Water	Holding Time (days)
TCL Semivolatile Organics (Continued)	8270 (GC/MS)	10-30	1000	7/40[a]
16. 2,4-Dimethylphenol				
17. Benzoic acid				
18. *bis*(2-Chloroethoxy) methane				
19. 2,4-Dichlorophenol				
20. 1,2,4-Trichlorobenzene				
21. Naphthalene				
22. 4-Chloroaniline				
23. Hexachlorobutadiene				
24. 4-Chloro-3-methylphenol (para-chloro-meta-cresol)				
25. 2-Methylnaphthalene				
26. Hexachlorocyclopentadiene				
27. 2,4,6-Trichlorophenol				
28. 2,4,5-Trichlorophenol				
29. 2-Chloronaphthalene				
30. 2-Nitroaniline				
31. Dimethylphthalate				
32. Acenaphthylene				
33. 2,6-Dinitrotoluene				
34. 3-Nitroaniline				
35. Acenaphthene				
36. 2,4-Dinitrophenol				
37. 4-Nitrophenol				
38. Dibenzofuran				
39. 2,4-Dinitrotoluene				
40. Diethylphthalate				
41. 4-Chlorophenyl-phenyl ether				
42. Fluorene				
43. 4-Nitroaniline				
44. 4,6-Dinitro-2-methyl-phenol				
45. N-nitrosodiphenylamine				
46. 4-Bromophenyl-phenyl-ether				
47. Hexachlorobenzene				
48. Pentachlorophenol				
49. Phenanthrene				
50. Anthracene				
51. Di-n-butylphthalate				

Table IV.2. (page 4 of 5)

Analytical Methods for Soil/Sediment and Water				
Parameter	EPA Method	Sample Volume (g) Soil	Sample Volume (mL) Water	Holding Time (days)
TCL Semivolatile Organics (Continued)	8270 (GC/MS)	10-30	1000	7/40[a]
52. Fluoranthene				
53. Pyrene				
54. Butylbenzylphthalate				
55. 3,3'-Dichlorobenzidine				
56. Benzo(a)anthracene				
57. Chrysene				
58. *bis*(2-Ethylhexyl) phthalate				
59. Di-n-octylphthalate				
60. Benzo(b)fluoranthene				
61. Benzo(k)fluoranthene				
62. Benzo(a)pyrene				
63. Indeno(1,2,3-cd)pyrene				
64. Dibenz(a,h)anthracene				
65. Benzo(g,h,i)perylene				
TCL Pesticides/PCBs	8080 (GC)	10-30	1000	7/40[a]
1. alpha-BHC				
2. beta-BHC				
3. delta-BHC				
4. gamma-BHC (Lindane)				
5. Heptachlor				
6. Aldrin				
7. Heptachlor epoxide				
8. Endosulfan I				
9. Dieldrin				
10. 4,4'-DDE				
11. Endrin				
12. Endosulfan II				
13. 4,4'-DDD				
14. Endosulfan sulfate				
15. 4,4'-DDT				
16. Methoxychlor				
17. Endrin ketone				
18. alpha-Chlordane				
19. gamma-Chlordane				
20. Toxaphene				
21. Aroclor-1016				

Table IV.2. (page 5 of 5)

Analytical Methods for Soil/Sediment and Water				
Parameter	EPA Method	Sample Volume (g) Soil	Sample Volume (mL) Water	Holding Time (days)
TCL Pesticides/PCBs (Continued)	8080 (GC)	10-30	1000	7/40[a]
22. Aroclor-1221				
23. Aroclor-1232				
24. Aroclor-1242				
25. Aroclor-1248				
26. Aroclor-1254				
27. Aroclor-1260				

[a]Extract within 7 days; analysis within 40 days of extraction.
EPA - U.S. Environmental Protection Agency
TCL - Target Compound List
ICP - inductively coupled plasma
AA - atomic absorption
GC - gas chromatography
MS - mass spectrometry
PCBs - polychlorinated biphenyls

Table IV.3. Summary of Batch Contents

Batch Number	Date (1989)	Validated	Areas Sampled	QC Water Only	Volatile Organics	Semi-volatiles	Pesticide/ PCB	Metals
REA35526	7/19+20	NO	D		-	-	-	11
REA35527	7/20+21	NO	1,16,D		-	-	-	17
REA35532	7/22+23+24	YES	1,11,14		25*	24*	24*	32
REA35535	7/25	YES	11,16		13*	13*	13*	13*
REA35538	7/26	YES	17		5	5*	5	5
REA35547	8/1	YES	19		3	3*	3	3
REA35548	8/2	NO	D		19	19	19	1
REA35550	8/3	NO	1,19		16	12	12	4
REA35554[1]	8/4	NO	1		3	2	2	-
REA35555	8/5+6	NO	11,17		16	16	16	16
REA35558				x				
REA35559	8/8	YES	1,11,16		8*	7	7*	1*
REA35567	8/16	YES	4/4A		8*	7	7*	7*
REA35568	8/16	NO	4/4A		22	15	15	15
REA35569				x				
REA35570				x				
REA35572	8/17	NO	1,4/4A,16		32	23	23	21
REA35574				x				

* Validated Data
[1]Data in this batch were tracked through the laboratory as batch number REA35554, and sent as an electronic deliverable under this batch number. The electronic deliverable indicated that individual sample records in this batch were numbered REA35550 by the laboratory.

Table IV.4. Laboratory Quality Control Samples

Batch	Analysis	Control	Sample
REA 35526	Metals	D/S	MND15-0102-0001 MND15-0106-0001
REA 35527	Metals		No case narrative available
REA 35532	Volatiles	MS/MSD	MND11-0063-0001
	Semivolatiles	MS/MSD	MND10-0055-0004 MND11-0067-0001
	Pesticides/PCB	MS/MSD	MND11-0067-0001
	Metals	D/S	MND10-0055-0011 MND15-0106-1006 MND08-0013-0003
REA 35535	Inorganics	D	MND10-0055-0001
REA 35539	Volatiles		Not listed in case narrative
	Semivolatiles	MS/MSD	MND13-0099-0001 MND13-0099-1001
	Pesticides/PCB	MS/MSD	MND13-0090-0001 MND13-0099-1001
REA 35547	Volatiles	MS/MSD	MND14-1400-0002
	Semivolatiles	MS/MSD	MND14-2200-0002
	Pesticides/PCB	MS/MSD	MND14-2200-0002
	Metals	D/S	MND14-2200-0002
REA 35548	Volatiles	MS/MSD	MND15-0101-0001
	Semivolatiles		Not listed in case narrative
	Pesticides	MS/MSD	MND15-0101-0003
	Metals	D/S	MND14-2200-0002 from REA 35547
REA 35550	Volatiles	MS/MSD	MND15-0106-1003 MND08-003-0001
	Semivolatiles	MS/MSD	Not listed in case narrative
	Pesticides	MS/MSD	MND08-0003-0003
	Metals	D/S	MND15-106-1001 REA 35526
REA 35554	Volatiles	MS/MSD	MND08-0011-0001
	Semivolatiles		Not listed in case narrative
	Pesticides/PCB		Not given.
REA 35555	Volatiles	MS/MSD	MND13-0090-0001
	Semivolatiles	MS/MSD	MND13-0098-0001
	Pesticides/PCBs		MND13-0098-0001
	Metals		MND13-0098-0001
REA 35558 Water only	Volatiles	MS/MSD	MND-15-0106-1003 from REA 35538
	Semivolatiles		Not listed in case narrative
	Pesticides/PCBs	MS/MSD	MND15-0106-1001 from REA 35526

Table IV.4. (page 2 of 2)

Batch	Analysis	Control	Sample
REA 35535	Volatiles	MS/MSD	MND10-0052-0001
	Pesticides/PCBs		Not stated. Done same lab as vol.
	Metals	D/S	MND10-0052-0001
REA 35559	Volatiles	MS/MSD	MND08-0013-0001
	Semivolatiles	MS/MSD	MND10-0049-0004
	Pesticides/PCBs		Not listed, but run with volatiles
	Metals	D/S	MND13-0098-0001
REA 35567	Volatiles	MS/MSD	MND09-0038-0002
	Semivolatiles		Not listed in case narrative
	Pesticides/PCB	MS/MSD	MND10-49-0004 from REA 35559
	Metals	D/S	MND09-0038-0002
REA 35568	Volatiles	MS/MSD	MND09-0015-0002
	Semivolatiles		Not listed in case narrative
	Pesticides/PCB	MS/MSD	MND09-0041-0001
	Metals	D/S	MND08-0018-0003
REA 35569 Water only	Volatiles	MS/MSD	MND09-0047-1001
	Semivolatiles		Not listed in case narrative
	Pesticides/PCB	MS/MSD	MND09-0047-1001
	Metals	D/S	MND09-0047-1001 MND0900471002 used Hg
REA 35570 Water only	Volatiles	MS/MSD	MND09-0047-1001 from REA 35569
	Semivolatiles		Not listed in case narrative
	Pesticides/PCB	MS/MSD	MND09-0047-1001 from REA 35569
	Metals	D/S	MND09-0047-1002 from REA 35569
REA 35572	Volatiles	MS/MSD	MND09-0043-0001
	Semivolatiles		Not listed in case narrative
	Pesticides/PCB	MS/MSD	MND09-0044-0001
	Metals	D/S	MND08-0018-0003 REA 35568
REA 35574 Water only	Volatiles	MS/MSD	MND09-0043-0001 from REA 35572

MS/MSD Matrix spike/Matrix spike duplicate
D/S Duplicate

Table IV.5. Summary of Information from Laboratory Case Narratives

Package	Analysis	Comments
REA35526	Metals	Duplicates for aluminum, barium, manganese, sodium and zinc were out of QC limits. The matrix spike for antimony, cadmium, chromium, manganese, nickel and silver were outside QC limits. The matrix spike for selenium on GFAA was out of QC limits.
REA35527	Metals	No case narrative available.
REA35532	Volatiles	MND 10 0055 0003, MND 11 0071 0001 and MND 11 0063 000MS had internal standard areas slightly below 50% of the QC limits. Trichloroethene and tetrachloroethene were in blanks.
	Semivolatiles	Some samples were re-extracted outside of holding times. Acetone by-products were identified. Some indication of saturated hydrocarbons found.
	Pesticides	2 of 2 water pesticide surrogate recoveries outside QC limits. 32 of 37 soil pesticide surrogate recoveries were outside QC limits.
	Metals (A and B groups)	Serial dilutions for cadmium and vanadium did not meet QC limits. Matrix spikes for antimony, cobalt, chromium, manganese and zinc were out of QC limits.
		B group serial dilutions for zinc did not meet QC limits. Duplicate for zinc in water sample was outside limits. Matrix spike for antimony, chromium, copper, manganese, silver and zinc were outside QC limits.
		A group selenium for GFAA matrix spike and serial dilutions did not meet QC requirements.
REA35535	Volatiles	1,2-dichloroethane had a slightly low recovery in the matrix spike duplicates. No impacting problems identified.
	Semivolatiles	Acetone byproducts identified.
	Pesticides	1 of 2 soil pesticide surrogate outside QC limits. Dilution for endosulfan II was greater than 15% secondary dilution factor. Samples were quantified from the confirmation column.
	Metals	The batch number is incorrect on the report. Serial dilutions for cadmium, iron, manganese, vanadium and zinc did not meet QC limits. Duplicates for chromium, antimony, cadmium, manganese and silver were out of QC limits. Matrix spike for selenium on GFAA was out of QC limits.
REA35538	Volatiles	No significant problems reported.
	Semivolatiles	No significant problems. Acetone byproducts identified.
	Pesticides	4 of 5 water pesticide surrogates were out of QC limits. 5 of 9 soil pesticide surrogates were out of QC limits. 1 of 6 MSD recoveries were out of QC limits.
	Metals	No problems identified.
REA35547	Volatiles	No significant problems identified.
	Semivolatiles	Acetone byproducts identified.
	Pesticides	4 of 9 surrogates were outside QC limits.
	Metals	Duplicates for barium and zinc were outside QC limits for soil. Zinc was outside limits for water. Matrix spike for antimony was outside limits.

Table IV.5. (page 2 of 3)

Package	Analysis	Comments
REA35548	Volatiles	Problems were identified but not impacting.
	Semivolatiles	Instrument daily standard low and MS/MSD analysis showed 3 of 33 parameters outside advisory limits. Acetone byproducts identified.
	Pesticides	Dilution and some retention time problems. Data qualifiers used.
	Metals	No reported problems.
REA35550	Volatiles	No method blank run. No impacting problems reported.
	Semivolatiles	Re-extraction for rerun MND 08 0003 0003 out of hold time. Acetone extraction byproducts identified.
	Pesticides	1 of 17 soil surrogate recoveries was out of QC limits. 1 soil matrix spike was out of QC limits.
	Metals	No problems were reported.
REA35554	Volatiles	No impacting problems identified. Toluene in MND 08 0011 0001.
	Semivolatiles	Acetone byproducts found. Hydrocarbon aromatics and organic acids were tentatively identified.
	Pesticides	1 of 10 soil pesticide recoveries was out of QC limits.
	Metals	No problems reported.
REA35555	Volatiles	Samples re-analyzed were out of CLP holding times.
	Semivolatiles	No significant problems.
	Pesticides	11 of 26 surrogate recoveries were out of limits. Some samples may have been double spiked.
	Metals	Duplicates for calcium and zinc were out of limits. Matrix spikes for antimony, barium and zinc were out of limits for GFAA. Matrix spikes for all elements were out of limits.
REA35558	Volatiles	No reported problems.
	Semivolatiles	No significant problems.
	Pesticides	2 of 2 surrogate recoveries out. All concentrations below reporting limits.
	Metals	Duplicate for zinc out of QC limits for GFAA. Lead and selenium MS were out of QC limits.
REA35559	Volatiles	No problems reported.
	Semivolatiles	Minor problems with samples. 1,4-dichlorobenzene out of advisory limits on MS/MSD. Possible inhomogeneity in extraction. Acetone byproducts identified.
	Pesticides	8 of 19 surrogate recoveries out of limits. Some samples may have been over-spiked.
	Metals	MS for antimony, barium and zinc were out of limits. GFAA selenium was outside QC limits.

Table IV.5. (page 3 of 3)

Package	Analysis	Comments
REA35567	Volatiles	No problems reported.
	Semivolatiles	Matrix effect on MND 09 0038 0001. Acetone byproducts identified. No other impacting problems identified.
	Pesticides	1 of 19 soil samples was out of QC limits.
	Metals	Serial dilutions for iron, manganese and zinc out of QC limits. Matrix spike for antimony, barium, cadmium and manganese were out of limits. Matrix spikes on GFAA were out of limits for selenium and arsenic.
REA35568	Volatiles	No problems reported.
	Semivolatiles	Re-analysis of some samples beyond hold times. Acetone byproducts identified.
	Pesticides	7 of 28 soil surrogate recoveries were out of limits. 1 of 6 duplicates were out of limits. 5 of 12 matrix spike recoveries were out of QC limits.
	Metals	Duplicates for calcium, chromium, magnesium and nickel were out of QC limits. Serial dilution for iron was out of QC limits.
REA35569 (water QC samples only)	Volatiles	No problems reported.
	Semivolatiles	No problems impacting the data were identified.
	Pesticides	No problems reported.
	Metals	Duplicate and matrix spike values for iron were out of limits.
REA35570	Volatiles	No reported problems.
	Semivolatiles	No reported problems.
	Pesticides	No reported problems.
	Metals	Duplicate and matrix spike values for iron were out of QC limits.
REA35572	Volatiles	MND 12 0089 1004 foamed in the sparger tube when purged. Internal standard areas and surrogates were out of QC limits. MND 08 0001 0002 had 1 internal standard out of QC limits. No problems with other soils.
	Semivolatiles	Some extracts were tarry. Random surrogate recoveries were high. 1 of 33 MS/MSD parameters out of advisory limits. Acetone byproducts identified. Tentative identification of hydrocarbon species. Bromohexane tentatively identified. This has been seen in background from other projects.
	Pesticides	14 of 44 soil surrogate recoveries were out of QC limits. 1 of 6 soil pesticide duplicates was out of QC limits.
	Metals	Run in two groups; A group had duplicates for calcium, chromium, magnesium and nickel were out of QC limits.
REA35574 (QC water samples only)	Volatiles	Some QC problems were identified. All samples in batch were water QC samples.

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5. DATA VALIDATION

Data validation is a systematic process done according to prescribed guidelines that evaluates the laboratory analysis used for a set of samples. For the data contained in this report, the validation was done in accordance with USEPA guidelines:

- For organic compounds, validation was done using "Laboratory Data Validation - Functional Guidelines for Evaluation of Organic Analyses" (EPA 1988d).
- For the inorganic compounds (metals), validation was done using "Laboratory Data Validation -Functional Guidelines for Evaluating Inorganic Analyses" (EPA 1988e).

As a result of data validation, the raw analytical results can be adjusted. For example, nominal detection limits may be adjusted upward if compounds are found in the blank samples that indicate analytical laboratory cross-contamination.

The full CLP data packages required for validation according to the USEPA functional guidelines were not available for all of the data included in this report. The available packages were used to validate the corresponding data.

Appendix C contains the tables indicating the changes in the analytical values as a result of the data validation process. The data in Appendix B are the full set of data above the detectable limit or for those data points with qualifiers, as originally reported by the analytical laboratory. This was done for the purposes of uniform comparison between samples or between samples and QC samples.

The data validation reports include information on the following topics.

- Case summary including laboratory arrival conditions, sample numbers, and sample identifications
- Data completeness, including associated comments
- Sample holding times
- Quality control checks, including calibration, method blanks, surrogate spikes, matrix spike/matrix spike duplicate or duplicate/spike for metals, systems performance, and chemical identification
- Results of quality control checks

The data validation reports are slightly different for organic compounds and inorganic compounds. Table V.1 summarizes the significant information from the narrative portion of the reports.

Table V.1. Summary of Data Validation Results

Batch REA35532
Volatiles
All positive and non-detected results for samples MND10-0050-03 and MND11-0063-001 were estimated due to exceeded holding times.
All positive and non-detected results in samples MND10-0062-1003 and MND10-0055-002 were estimated because toluene-d8 did not meet surrogate recovery QC criteria.
Contaminants found in the blanks and detected in the associated samples below the action level were qualified as undetected "U" in the samples.
All results for sample MND11-0055-0003 were rejected because the areas of all three internal standards were lower than the QC limits.
Values for 4-methyl-2-pentanone, 2-hexanone, 1,1,2,2-tetrachloroethane, tetrachloroethene, toluene, chlorobenzene, ethylbenzene, styrene, and xylenes were estimated in sample MND11-0071-0001 due to low area response for the corresponding internal standard chlorobenzene-d5.
Semivolatiles
Accept all data with qualifications on tables in Appendix C.
Pesticides
The sample results that were changed are listed in Appendix C. The diluted results for several samples were utilized. Positive results and non-detected results in all samples were estimated due to exceeded holding times.

Note: All changes indicated are part of the data change tables in Appendix C.

Table V.1. (page 2 of 4)

Batch REA35535
Volatiles
Accept all data with qualifications listed in Appendix C.
Semivolatiles
Accept all data with qualifications listed in Appendix C.
Pesticides
The diluted sample results were accepted for samples MND10-0052-0001 and MND12-0082-0002. Positive and non-detected results were estimated in all samples due to exceeded holding times.
Metals
Sample results cannot be verified without the necessary information as noted in Section 2 of this report. All data are **estimated**, except K and Se, for sample MND10-0062-1001.

Batch REA35538
Semivolatiles
Non-detected results for benzoic acid were estimated in all samples due to a percent difference in a continuing calibration check or greater than 50. Non-detected results for 3-nitroaniline and 3,3'-dichlorobenzidine were estimated in samples MND13-0090-0001, MND13-0091-0001, MND13-0092-0001, MND13-0093-0001, MND13-0094-0001 due to a percent difference in a continuing calibration check of greater than 50.
The non-detected result for 4-nitrophenol was estimated in sample MND13-0099-1001 due to poor spike recovery and a relative percent difference (RPD) of 164.

Table V.1. (page 3 of 4)

Batch REA35547
Semivolatiles
Non-detected results for benzoic acid were estimated in samples MND14-1400-0002 and MND14-2200-0002 due to a percent difference in a continuing calibration check of greater than 50. Non-detected results for 3-nitroaniline, 4-chlorphenyl-phenylether and dibenz(a,h)anthracene were estimated in samples MND14-2300-0002 due to a percent difference in a continuing calibration check of greater than 50. However, positive and non-detected results in all samples were estimated due to exceeded holding times.

Batch REA35559
Volatiles
Accept all data with qualifications listed in Appendix C.
Pesticides
The sample results which were accepted are listed in Appendix C. The diluted results for all samples were utilized. Positive and non-detected results in all samples were estimated due to exceeding holding times.
Metals
Sample results cannot be verified without the preparation logs, which include sample weights used for the soil digestions. All positive results and non-detected results are estimated unless otherwise noted in Appendix C. High concentrations of interferents in the sample have resulted in data for Be, Cd, Cr, Co, and Ni to be rejected. Data for selenium have been rejected, since the analytical spike recovery did not meet the acceptance criteria.

Table V.1. (page 4 of 4)

Batch REA35567
Volatiles
Methylene chloride and acetone were reported as undetected in all samples except sample MND09-0039-0002 due to blank contamination. Due to a percent difference greater than 50 for acetone in a continuing calibration check, the positive result in sample MND09-0039-0002 and the non-detected results in samples MND-09-0039-001, MND09-0039-0003, MND09-0039-004, and MND09-0047-1007 were estimated for this compound. Compound 2-hexanone was reported as undetected in sample MND09-0038-0002 due to blank contamination. Non-detected results for 2-butanone were estimated in samples MND09-0039-0001, MND09-0039-0003, MND09-0039-0004, and MND09-0047-1007 due to a percent difference of greater than 50 during a continuing calibration check.
Pesticides
Accept results of diluted samples.
Metals
Sample results cannot be verified without the preparation logs which include sample weights used for soil digestions. All positive results and non-detected results are estimated unless otherwise noted on Table 5. The laboratory apparently used an aqueous matrix for preparing the Laboratory Control Sample. All data are estimated for this reason unless otherwise noted. Non-compliant CRAs, CRIs, and CCVs have also caused some sample results to be qualified as estimated. High concentrations of interferents in the samples have resulted in some data for certain analytes to be rejected. Samples that were not analyzed by Method of Additions for As and Pb as required by the SOW are estimated.

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6. QUALITY ASSURANCE

6.1. GENERAL QUALITY ASSURANCE CONTROL

The activity was governed by the requirements in the Reconnaissance Sampling Plans (DOE 1989b) and the appendixed Health and Safety and Quality Assurance Plans. Field work was done in accordance with the Environmental Restoration Standard Operating Procedures (SOPs) listed in Table II.5. Deviations from the plan and procedures are covered in the Field Quality Assurance section below. Deviations from the plan are not listed when sample depth could not be attained because rock strata were encountered (auger refusal depth less than planned).

6.2. FIELD QUALITY ASSURANCE

The audit required by the Quality Assurance Plan was completed as a joint Quality Assurance Health and Safety audit on August 7, 1989. The audit is recorded in the field notebooks of the field team. No formal deficiencies were identified. The following items were addressed by the audit and stressed by the audit team.

- Completeness of signatures indicating training to the Health and Safety plan and SOPs and knowledge of the SOPs were investigated.
- Instrument calibration documentation was evaluated.
- Field notebook completeness was evaluated.
- Health and Safety practices were discussed.
- It was observed that a tap water sample would be required if tap water was used in final decontamination steps and only laboratory grade methanol should be used in decontamination. The final decontamination steps were distilled water and laboratory grade methanol only.
- Deviation reports are required when samples are held onsite over 12 hours. This has been the case when samples were taken over weekends or when screening for radionuclide levels was not completed during the shift when the samples were collected.

The following have been identified as deviations from plan and procedures.

6.2.1. Area-Specific Changes

In Area 1 the drainage pathways could not be located along the south side of the plant boundary with sufficient accuracy to assure the samples taken were as planned. Three drainage paths were expected, but only two were identified. The resulting samples taken are identified in the field maps.

In area 4/4a, a water sample was planned to be taken from well 227. This was deferred until the October 1989 quarterly water sampling activity. No water samples were taken as part of this reconnaissance activity.

In 4/4a incorrect totals of samples were identified in the planning document. The samples collected are those shown in field maps and with the surveyed coordinates.

In Area 11, nine borings were advanced, rather than the twelve planned.

In the 1989 SAP, a maximum of 16 samples were planned and 16 samples were collected in the field. Sample 78 was collected and screened for radionuclides, but was not sent to the laboratory for analysis.

In Area 16, trees and other vegetation prevented use of a drill rig at all sampling locations.

In Area 16, problems were encountered in locating the former septic tank site. Samples taken are those from the points surveyed.

In Area 17, Mound Plant staff took the samples inside the SM buildings. This was because of high radionuclide activity levels. These points were not surveyed for sample location.

In Area 17, borehole was added to include the area of the storm drain northwest of the SM Building because of the potential for contamination identified by Mound Plant staff.

In Area 19, location 47 was not sampled. The location was inside a temporary building and was not accessible during the 1989 reconnaissance investigation.

In Area D, Sample locations were shifted because of overhead utility lines. The locations are those surveyed.

6.2.2. General Changes

Samples taken for organic analyses, to be included in laboratory batches REA 35526 and REA 35527, were recollected and included in other batches after they arrived at the laboratory warm. The samples for metals were usable and were analyzed.

The bottles used for volatile analysis samples were clear glass supplied by the laboratory and not amber glass, as required.

Hold times exceeded the 12-hour requirement in the field when soil radionuclide screening was not completed during a single shift.

6.3. POST FIELD ACTIVITY QUALITY ASSURANCE

The laboratory analyses and data validation are discussed in sections 4 and 5 of this report. The goal of 10 percent of the data validated was met. The following items should also be noted in conjunction with quality issues.

- No full audit report for the field audit has been located. It is probable that none was written.
- There is no case narrative and no hard copy of the data report for package REA 35527.
- No electronic data package is available for batch REA 35554. This batch was analyzed at the Oak Ridge laboratory except for semivolatile compounds, which were analyzed at Knoxville. WESTON has not been able to obtain the electronic version of these data. Most of these data were inadvertently transmitted with batch REA 35550.
- Land survey coordinates for Area 17 do not match the field map.
- Hold times in the laboratory were exceeded in samples indicated in data and validation reports.

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7. CONCLUSIONS AND USABILITY OF DATA FROM THIS STUDY

7.1. CONCLUSIONS

1. There is no systematic organic chemical contamination of the Decontamination and Decommissioning areas in general and no specific patterns of organic chemical contamination within a single area. The chemical analyses done include only the CLP included chemicals and have not been tailored for this activity. This does not mean that chemical contamination should not be considered in the future. Much of the sampling was done on a biased sampling basis from the standpoint of area land use, topography, and prior information. From this standpoint, the data should provide conservative if not worst-case values.

2. The semivolatile analyses are impacted by the acetone byproducts from the routine extraction process. These products include carbonyl compounds such as aldol or related products. These appear as tentatively identified compounds and are not part of the analyte list. These byproducts are acceptable and are commonly found in analytical results for semivolatiles.

3. There are some instances of potential contamination of samples, possibly during field collection. These have been identified in the validation process and appear not to bias the overall results. It is nearly impossible to match a rinsate sample with field samples because of the numbering conventions and the tendency to place water samples in a laboratory batch together.

4. The problems associated with loading laboratory packages for REA 35550 and REA 35554 complicate the data analysis, but this should not impact a significant portion of the data or any final conclusions.

5. Pesticide/PCB data will require the availability of background data before full interpretation can be completed.

6. The metals data are, as a whole, not validatable, based on the analytical problems encountered and the data package information available to the validation team. Under the best of circumstances, background chemical data would be required for interpretation.

7.2. DATA USABILITY

In general, the data appear to be usable for planning purposes and for other activities identified in the activity planning document (DOE 1989b). The validation process was carried out on a sufficient portion of the data to identify the basic problems encountered in the data set. The most severe problems were associated with the metals data, which was not validatable. The conservative approach would be to treat all nonreject metals data as estimates. The matrix effects, caused possibly by calcium, should trigger chemical evaluation as rapidly as possible after the return of data from a laboratory. Background data for metals would help in this analysis, as it would for interpretation of the pesticide/PCB results.

7.3. SUMMARY AND CONCLUSIONS

The data presented in this report indicate that the presence of non-radioactive hazardous substances in the Mound Plant D&D Program soil areas is limited. This conclusion is limited by

- the lack of accepted data on concentrations of potential contaminants at background locations, especially for metals, and
- the lack of prior review of the sampling and analysis plan by the regulatory agencies.

The lack of background data will by addressed by planned investigations (DOE 1991b).

In fulfillment of the objectives of this report (Section 1), it can be concluded that

- the limited, low concentration presence of hazardous constituents at some sample locations does not indicate any locations where further sampling is necessary.
- Future analyses at D&D Program sites should include VOCs and, until background concentrations are determined and compared to this 1989 data, should also include semi-volatile organics, pesticides, and metals,
- Pending the results of background characterization, there is no need for waste treatability studies beyond any needed for radioactively contaminated soils, and
- No potential remedial technologies have been identified beyond those needed for radioactively contaminated soils.

The other objectives of the report, supporting the conceptual modelling of exposure pathways and receptors, and fulfilling FFA requirements to provide site background, have been met by providing the data in this report. The DOE will also use these data as the justification to estimated that costs for remediating D&D Program sites will be due only to radioactive contamination, and not because of other hazardous constituents.

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APPENDIX A

APPENDIX A

DATA TYPES ADDRESSED

The data types that are stored in the DART are those most common to remedial investigation/feasability studies. A hierarchical structure of data structures are maintained so that defensibility and tracking can be achieved. The modular approach to DART software makes adding data structures not accounted for an easy process.

The following is a summary of data file types and their contents:

Facility Information - Provides information about where data are collected.

Facility Id
Facility Type
Facility Name
Facility Location
Facility Manager
Facility Area
Facility Standard Drawing Scale

Location Information - Provides information about the specific sampling location.

Location Id
Location Type
North Coordinate
East Coordinate
Elevation
Driller Code
Date Location Established
Depth
Diameter
Location Cross Reference

Well Completion Information - Provides information about the well characteristics of a sampling location that has been defined as a well.

Location Id
Installer Code
Date Installed
Casing Elevation
Casing Depth
Casing Diameter
Seal End Depth
Geologic Formation of Completion
Screen Beginning Depth
Screen Length
Background Flag
Abandoned Flag
Abandoned Date
Flag

Well Completion Cont.

Well Owner
Filter Pack Length Hydraulic Flow Relationship
Flow Relationship
Screen Unit Area
Casing Material Code

Water Quality Results - Contains results from field parameters and from analytical laboratories.

Location Id
Date Sampled
Sample Id
Laboratory Code
Parameter Id
Parameter Value Indicator
Parameter Value
Detection Limit
Water Sample Type Code
Batch Number
Flag

Soil Chemistry Results - Contains results from field parameters and from analytical laboratories.

Location Id
Date Sampled
Sample Id
Laboratory Code
Parameter Id
Parameter Value Qualifier
Parameter Value
Parameter Value Uncertainty
Detection Limit
Soil Sample Type Code
Batch Number
Sample Beginning Depth
Sample End Depth

Groundwater Levels - Contains results from groundwater levels measured during a field investigation.

Location Id
Date Logged
Log Time
Depth to Water
Logger Code
Flag

Project Dependant Requirements

The DART system has been developed to provide consistent methodologies for the storage, reporting, and analysis of data for projects requiring the need for the following:

- A central secure repository for project data
- A quality assured/quality controlled database
- Standardized report quality data reports
- Standardized methodologies for analyzing data
- A system where project participants can access data

The system has the capability for the storage, retrieval, and reporting of various data types as noted in Appendix A. It is noted, that the configuration of the DART modules has made it possible to include or exclude additional data types, reporting capabilities, and analysis capabilities as defined by project needs.

HARDWARE REQUIREMENTS

The hardware configuration is strictly dependant on the size of the individual projects. The following hardware configuration would probably by sufficient for a small to medium sized project. Again, a systems analysis should be preformed to determine the exact hardware requirements based on long term data volume and project requirements.

286/386 Based IBM compatible
30 MB hard disk space
EGA/VGA Display Monitor
HP Laserjet Series or Standard Line Printer

Local Area Network Version - The DART system is available for use by multi-users on a Local Area Network (LAN). This allows project data to be accessed simultaneously by a number of project participants. A systems analysis is required to determine system configuration and requirements.

System Administrator

It is recommended that a system administrator be assigned to establish and maintain coding conventions, coordinate electronic deliverables, maintain data entry and maintain backup systems. This will provide a central resource responsible for the maintenance of the system.

Dart Analysis and Retrieval Tools

January 1992

OVERVIEW

The DART is a PC-based technical database management system in which the central secure repository for the data types listed in Appendix A are stored. Along with storage capabilities DART has systems which allow these data types to be reported and analyzed in several formats. Options have been incorporated that allow users to only report and analyze subsets of data as specified by the user. Data may also be imported to third party software packages such as spreadsheets, models, graphics, and word processing systems. The capabilities of the system allow scientists and engineers the ability to perform standard reporting and analysis required by projects in a cost effective, time saving, and quality assured manner.

CAPABILITIES

MAIN MENU OPTIONS:

The following summarizes the main menu options of the DART system:

OVERVIEW OF MAIN MENU OPTIONS

A - **Go to the Data Retrieval Menu** - This system allows user specified data sets to be retrieved from the central database. The central database remains intact while data sets retrieved by the user can be reported and analyzed through the Analysis and Reporting Processor or imported into third party software packages.

B - **Analysis and Reporting Processor** - This system has the capabilities to report and analyze data sets as retrieved from the Data Retrieval System. Pre-formatted and pre-specified analysis and reporting capabilities have been added as menu driven selections which allow the user to produce report quality products and to analyze data. A summary of reporting capabilities are contained in Appendix B. Appendix E contains some examples of the data reports available.

C - **View/Browse** - This system allows data to be viewed or browsed through screen interaction.

D - **Prepare Data for Model/Graphics Input Menu** - Allows user specified data sets to be directly imported into third party software packages of models. Appendix C lists the models that directly interact with DART software.

E - System Options Menu - Utility menu that allows system options to be modified. Also used by the system administrator to add, delete, or modify the user database.

F - Data Entry System - Allows those with authorization the capability to enter, modify, and delete data as required. A sub-menu allows data to be loaded through batch loading systems to allow analytical data recorded on magnetic media to be accepted into the system.

G - Sample Tracking System - Allows samples to be tracked and status reports to be generated.

H - Shell out to the DOS Operating System - Capability to go to the DOS prompt and execute DOS commands while remaining in the DART system environment.

I - List Users Currently Logged on the System - List the users that are currently logged into the DART system.

J - Help for this Menu - Provides on-line help capabilities.

Q - Quit the DART system and return to the DOS prompt - Complete DART processing and return to DOS.

DATA ENTRY SYSTEMS

Data can be entered into the system via screen entry or by batch loading systems that accept data delivered on disk media by analytical laboratories.

QUALITY ASSURANCE/QUALITY CONTROL

Security features of the system only allow data to be modified by those users who have proper authority through the username, password system. All others will have options to view and retrieve subsets of data but the main database will remain unchanged.

Automated backup procedures assure that data are backed up and secure.

The system has been designed to provide data integrity to the central secure repository for the data. For instance, it will not allow duplicate data results to be in the database. Other checks at all levels are used so that bad data is filtered and the user is advised that there is a problem.

SAMPLE TRACKING

A sample tracking system is available in the DART system to track the receipt of analytical samples and associated results. Sample information from the chain-of-custody is entered into the system. As the data are electronically entered through the batch loading system, they are checked against the information in sample tracking. Reports can be generated from the sample tracking system to determine what has not been received from the laboratory.

Slug Test Data - Contains results recorded during a slug test field investigation.

Location Id
Date Logged
Slug Volume
Elapsed Time
Depth to Water
Logger Code
Flag

Pump Test Data - Contains results recorded during a pump test field investigation.

Location Id
Date Logged
Distance
Elapsed Time
Depth to Water
Pump Rate
Logger Code
Flag

Recovery Test Data - Contains results recorded during a recovery test.

Location Id
Date Logged
Distance
Elapsed Time
Depth to Water
Logger Code
Flag

B

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APPENDIX B

QUALIFIERS/RECOVERY FLAGS

U - Indicates compound was analyzed for but not detected. The sample quantitation limit must be corrected for dilution and for percent moisture.

J - Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the mass spectral data indicate the presence of a compound that meets the identification criteria but the result is less than the sample quantitation limit but greater than zero.

C - This flag applies to pesticide results where the identification has been confirmed by GC/MS.

B - This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

E - This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis. This flag will <u>not</u> apply to pesticides/PCBs analyzed by GC/EC methods. If one or more compounds have a response greater than full scale, the sample or extract must be diluted and reanalyzed. If the dilution of the extract causes any compounds identified in the first analysis to be below the calibration range in the second analysis, then the results of both analyses shall be reported on separate Forms I. The Form I for the diluted sample shall have the "DL" suffix appended to the sample number.

D - This flag identifies all compounds identified in an analysis at a secondary dilution factor.

A - This flag indicates that a TIC is a suspected aldol-condensation product.

X - Estimated value due to a confirmed compound which is off-scale in both columns.

Y - Indistinguishable isomer in tentatively identified compounds.

Z - No estimated value reported, or an elevated CRQL reported because matrix effects interfere with or obscure the compound on one or both columns. In either situation, the compound does not confirm as a positive identification.

* - Values outside of contract required QC limits.

Inorganic

N = Matrix spikes outside QC limits
* = Duplicate values outside QC limits
E = Furnace anal. spike <40%; ICP serial dilution outside QC limits
W = Furnace anal. spike recovery outside + or - 15% window
S = Method of standard used (MSA)
+ = Correlation coefficient for MSA <0.995

SOIL CHEMISTRY DATA
FACILITY: MND08 AREA 1
07/21/89 TO 08/17/89
LOCATION: 0001
NORTH COORDINATE: 46186.99
EAST COORDINATE: 46469.88
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
0.0 - 1.	PLUTONIUM-238	0003	F	08/17/89	PCI/G		7.	-	-
	THORIUM-232	0003	F	08/17/89	PCI/G		9.9	-	-
0.0 - 2.0	ALUMINUM, TOTAL	0003	F	07/21/89	MG/KG		6950.	-	1.00
	ARSENIC, TOTAL	0003	F	07/21/89	MG/KG		6.1	-	1.00
	BARIUM, TOTAL	0003	F	07/21/89	MG/KG		434.	-	1.00
	BERYLLIUM, TOTAL	0003	F	07/21/89	MG/KG		1.4	-	1.00
	CADMIUM, TOTAL	0003	F	07/21/89	MG/KG		5.9	-	1.00
	CALCIUM, TOTAL	0003	F	07/21/89	MG/KG		91200.	-	1.00
	CHROMIUM, TOTAL	0003	F	07/21/89	MG/KG	E	32.8	-	1.00
	COBALT, TOTAL	0003	F	07/21/89	MG/KG		14.	-	1.00
	COPPER, TOTAL	0003	F	07/21/89	MG/KG		12.1	-	1.00
	IRON, TOTAL	0003	F	07/21/89	MG/KG		15200.	-	1.00
	LEAD, TOTAL	0003	F	07/21/89	MG/KG		20.5	-	1.00
	MAGNESIUM, TOTAL	0003	F	07/21/89	MG/KG		34800.	-	1.00
	MANGANESE, TOTAL	0003	F	07/21/89	MG/KG		329.	-	1.00
	NICKEL, TOTAL	0003	F	07/21/89	MG/KG		32.9	-	1.00
0.0 - 2.	PLUTONIUM-238	0003	F	07/21/89	PCI/G		11.	-	-
0.0 - 2.0	POTASSIUM, TOTAL	0003	F	07/21/89	MG/KG	B	1040.	-	1.00
	SELENIUM, TOTAL	0003	F	07/21/89	MG/KG	B	.49	-	1.00
	SILVER, TOTAL	0003	F	07/21/89	MG/KG		3.3	-	1.00
	SODIUM, TOTAL	0003	F	07/21/89	MG/KG		1980.	-	1.00
0.0 - 2.	THORIUM-232	0003	F	07/21/89	PCI/G		1.1	-	-
0.0 - 2.0	VANADIUM, TOTAL	0003	F	07/21/89	MG/KG		26.2	-	1.00
	ZINC, TOTAL	0003	F	07/21/89	MG/KG		825.	-	1.00

PARAMETER VALUE QUALIFIERS (PVQ):
E = DET BEYOND CALIBRATION RANGE
B = PRESENT IN BLANK

SAMPLE TYPE CODES:
F = FIELD SAMPLE

SOIL CHEMISTRY DATA
FACILITY: MND08 AREA 1
07/21/89 TO 08/17/89
LOCATION: 0002
NORTH COORDINATE: 46272.77
EAST COORDINATE: 46319.68
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
0.0 - 1.	PLUTONIUM-238	0003	F	08/17/89	PCI/G		15.	-	-
	THORIUM-232	0003	F	08/17/89	PCI/G		4.7	-	-

SAMPLE TYPE CODES:
F = FIELD SAMPLE

SOIL CHEMISTRY DATA
FACILITY: MND08 AREA 1
07/21/89 TO 08/17/89
LOCATION: 0003
NORTH COORDINATE: 46310.94
EAST COORDINATE: 46279.8
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
0.5 - 2.0	ALUMINUM, TOTAL	0003	F	07/21/89	MG/KG		7610.	-	1.00
	ARSENIC, TOTAL	0003	F	07/21/89	MG/KG		4.7	-	1.00
	BARIUM, TOTAL	0003	F	07/21/89	MG/KG		453.	-	1.00
	BERYLLIUM, TOTAL	0003	F	07/21/89	MG/KG		1.9	-	1.00
	CADMIUM, TOTAL	0003	F	07/21/89	MG/KG		7.5	-	1.00
	CALCIUM, TOTAL	0003	F	07/21/89	MG/KG		163000.	-	1.00
	CHROMIUM, TOTAL	0003	F	07/21/89	MG/KG	E	36.	-	1.00
	COBALT, TOTAL	0003	F	07/21/89	MG/KG		12.7	-	1.00
	COPPER, TOTAL	0003	F	07/21/89	MG/KG		8.5	-	1.00
	IRON, TOTAL	0003	F	07/21/89	MG/KG		14000.	-	1.00
	LEAD, TOTAL	0003	F	07/21/89	MG/KG		9.4	-	1.00
	MAGNESIUM, TOTAL	0003	F	07/21/89	MG/KG		50600.	-	1.00
	MANGANESE, TOTAL	0003	F	07/21/89	MG/KG		355.	-	1.00
	MERCURY, TOTAL	0003	F	07/21/89	MG/KG		.41	-	1.00
	NICKEL, TOTAL	0003	F	07/21/89	MG/KG		35.2	-	1.00
.5 - 2.	PLUTONIUM-238	0003	F	07/21/89	PCI/G		10.	-	-
0.5 - 2.0	POTASSIUM, TOTAL	0003	F	07/21/89	MG/KG		1590.	-	1.00
	SODIUM, TOTAL	0003	F	07/21/89	MG/KG		2510.	-	1.00
	THALLIUM, TOTAL	0003	F	07/21/89	MG/KG	B	.37	-	1.00
.5 - 2.	THORIUM-232	0003	F	07/21/89	PCI/G		.3	-	-
0.5 - 2.0	VANADIUM, TOTAL	0003	F	07/21/89	MG/KG		31.1	-	1.00
	ZINC, TOTAL	0003	F	07/21/89	MG/KG		263.	-	1.00
.5 - 2.	ACETONE	0001	F	08/03/89	UG/KG	J	6.	11.	1.
	BIS(2-ETHYLHEXYL)PHTHALATE	0003	F	08/03/89	UG/KG	J	67.	420.	1.
	DICHLOROMETHANE-METHYLENE CHLORIDE	0001	F	08/03/89	UG/KG	B	6.	5.	1.
	N-NITROSODIPHENYLAMINE	0003	F	08/03/89	UG/KG	JB	100.	420.	1.
	PLUTONIUM-238	0003	F	08/03/89	PCI/G		0.	-	-
	THORIUM-232	0003	F	08/03/89	PCI/G		.5	-	-

PARAMETER VALUE QUALIFIERS (PVQ):
E = DET BEYOND CALIBRATION RANGE
B = PRESENT IN BLANK
J = PRESENT BELOW DETECTION LIMIT
JB = PRS BLW DET LMT(J)PRS IN BLANK

SAMPLE TYPE CODES:
F = FIELD SAMPLE

SOIL CHEMISTRY DATA
FACILITY: MND08 AREA 1
07/21/89 TO 08/17/89
LOCATION: 0004
NORTH COORDINATE: 46331.61
EAST COORDINATE: 46233.99
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
0.5 - 2.0	ALUMINUM, TOTAL	0003	F	07/21/89	MG/KG		4000.	-	1.00
	ARSENIC, TOTAL	0003	F	07/21/89	MG/KG		5.9	-	1.00
	BARIUM, TOTAL	0003	F	07/21/89	MG/KG		352.	-	1.00
	BERYLLIUM, TOTAL	0003	F	07/21/89	MG/KG		1.7	-	1.00
	CADMIUM, TOTAL	0003	F	07/21/89	MG/KG		8.1	-	1.00
	CALCIUM, TOTAL	0003	F	07/21/89	MG/KG		187000.	-	1.00
	CHROMIUM, TOTAL	0003	F	07/21/89	MG/KG	E	32.3	-	1.00
	COBALT, TOTAL	0003	F	07/21/89	MG/KG	B	9.9	-	1.00
	COPPER, TOTAL	0003	F	07/21/89	MG/KG	B	3.1	-	1.00
	IRON, TOTAL	0003	F	07/21/89	MG/KG		6240.	-	1.00
	LEAD, TOTAL	0003	F	07/21/89	MG/KG		23.8	-	1.00
	MAGNESIUM, TOTAL	0003	F	07/21/89	MG/KG		71700.	-	1.00
	MANGANESE, TOTAL	0003	F	07/21/89	MG/KG		244.	-	1.00
	MERCURY, TOTAL	0003	F	07/21/89	MG/KG		.12	-	1.00
	NICKEL, TOTAL	0003	F	07/21/89	MG/KG		23.2	-	1.00
.5 - 2.	PLUTONIUM-238	0003	F	07/21/89	PCI/G		3.	-	-
0.5 - 2.0	POTASSIUM, TOTAL	0003	F	07/21/89	MG/KG	B	919.	-	1.00
	SODIUM, TOTAL	0003	F	07/21/89	MG/KG		1800.	-	1.00
	THALLIUM, TOTAL	0003	F	07/21/89	MG/KG	B	.47	-	1.00
.5 - 2.	THORIUM-232	0003	F	07/21/89	PCI/G		1.0	-	-
0.5 - 2.0	VANADIUM, TOTAL	0003	F	07/21/89	MG/KG		31.4	-	1.00
	ZINC, TOTAL	0003	F	07/21/89	MG/KG		175.	-	1.00
.5 - 2.	ACETONE	0001	F	08/03/89	UG/KG	J	9.	12.	1.
	DICHLOROMETHANE-METHYLENE CHLORIDE	0001	F	08/03/89	UG/KG	B	10.	6.	1.
	N-NITROSODIPHENYLAMINE	0003	F	08/03/89	UG/KG	JB	210.	800.	2.
	PLUTONIUM-238	0003	F	08/03/89	PCI/G		19.	-	-
	THORIUM-232	0003	F	08/03/89	PCI/G		.8	-	-

PARAMETER VALUE QUALIFIERS (PVQ):
E = DET BEYOND CALIBRATION RANGE
B = PRESENT IN BLANK
J = PRESENT BELOW DETECTION LIMIT
JB = PRS BLW DET LMT(J)PRS IN BLANK

SAMPLE TYPE CODES:
F = FIELD SAMPLE

SOIL CHEMISTRY DATA
FACILITY: MND08 AREA 1
07/21/89 TO 08/17/89
LOCATION: 0005
NORTH COORDINATE: 46357.36
EAST COORDINATE: 46192.15
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
0.5 - 2.0	ALUMINUM, TOTAL	0003	F	07/21/89	MG/KG		5420.	-	1.00
	ARSENIC, TOTAL	0003	F	07/21/89	MG/KG		3.5	-	1.00
	BARIUM, TOTAL	0003	F	07/21/89	MG/KG		361.	-	1.00
	BERYLLIUM, TOTAL	0003	F	07/21/89	MG/KG		1.6	-	1.00
	CADMIUM, TOTAL	0003	F	07/21/89	MG/KG		7.7	-	1.00
	CALCIUM, TOTAL	0003	F	07/21/89	MG/KG		195000.	-	1.00
	CHROMIUM, TOTAL	0003	F	07/21/89	MG/KG	E	30.1	-	1.00
	COBALT, TOTAL	0003	F	07/21/89	MG/KG		11.4	-	1.00
	COPPER, TOTAL	0003	F	07/21/89	MG/KG	B	3.1	-	1.00
	IRON, TOTAL	0003	F	07/21/89	MG/KG		9230.	-	1.00
	LEAD, TOTAL	0003	F	07/21/89	MG/KG		3.8	-	1.00
	MAGNESIUM, TOTAL	0003	F	07/21/89	MG/KG		61000.	-	1.00
	MANGANESE, TOTAL	0003	F	07/21/89	MG/KG		239.	-	1.00
	NICKEL, TOTAL	0003	F	07/21/89	MG/KG		29.8	-	1.00
.5 - 2.	PLUTONIUM-238	0003	F	07/21/89	PCI/G		15.	-	-
0.5 - 2.0	POTASSIUM, TOTAL	0003	F	07/21/89	MG/KG		1630.	-	1.00
	SODIUM, TOTAL	0003	F	07/21/89	MG/KG		2100.	-	1.00
	THALLIUM, TOTAL	0003	F	07/21/89	MG/KG	B	.23	-	1.00
.5 - 2.	THORIUM-232	0003	F	07/21/89	PCI/G		.4	-	-
0.5 - 2.0	VANADIUM, TOTAL	0003	F	07/21/89	MG/KG		31.3	-	1.00
	ZINC, TOTAL	0003	F	07/21/89	MG/KG		184.	-	1.00
.5 - 2.	2-BUTANONE	0001	F	08/03/89	UG/KG	J	5.	12.	1.
	ACETONE	0001	F	08/03/89	UG/KG		96.	12.	1.
	DICHLOROMETHANE-METHYLENE CHLORIDE	0001	F	08/03/89	UG/KG	B	7.	6.	1.
	N-NITROSODIPHENYLAMINE	0003	F	08/03/89	UG/KG	JB	78.	390.	1.
	PLUTONIUM-238	0003	F	08/03/89	PCI/G		15.	-	-
	THORIUM-232	0003	F	08/03/89	PCI/G		.7	-	-
	TOLUENE	0001	F	08/03/89	UG/KG	J	2.	6.	1.

PARAMETER VALUE QUALIFIERS (PVQ):
E = DET BEYOND CALIBRATION RANGE
B = PRESENT IN BLANK
J = PRESENT BELOW DETECTION LIMIT
JB = PRS BLW DET LMT(J)PRS IN BLANK

SAMPLE TYPE CODES:
F = FIELD SAMPLE

SOIL CHEMISTRY DATA
FACILITY: MND08 AREA 1
07/21/89 TO 08/17/89
LOCATION: 0006
NORTH COORDINATE: 46384.14
EAST COORDINATE: 46149.26
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
0.5 - 2.0	ALUMINUM, TOTAL	0003	F	07/21/89	MG/KG		5710.	-	1.00
	ARSENIC, TOTAL	0003	F	07/21/89	MG/KG		3.1	-	1.00
	BARIUM, TOTAL	0003	F	07/21/89	MG/KG		347.	-	1.00
	BERYLLIUM, TOTAL	0003	F	07/21/89	MG/KG		1.4	-	1.00
	CADMIUM, TOTAL	0003	F	07/21/89	MG/KG		7.2	-	1.00
	CALCIUM, TOTAL	0003	F	07/21/89	MG/KG		198000.	-	1.00
	CHROMIUM, TOTAL	0003	F	07/21/89	MG/KG	E	34.8	-	1.00
	COBALT, TOTAL	0003	F	07/21/89	MG/KG	B	9.2	-	1.00
	IRON, TOTAL	0003	F	07/21/89	MG/KG		6230.	-	1.00
	LEAD, TOTAL	0003	F	07/21/89	MG/KG		3.4	-	1.00
	MAGNESIUM, TOTAL	0003	F	07/21/89	MG/KG		56100.	-	1.00
	MANGANESE, TOTAL	0003	F	07/21/89	MG/KG		204.	-	1.00
	NICKEL, TOTAL	0003	F	07/21/89	MG/KG		25.	-	1.00
.5 - 2.	PLUTONIUM-238	0003	F	07/21/89	PCI/G		.8	-	-
0.5 - 2.0	POTASSIUM, TOTAL	0003	F	07/21/89	MG/KG	B	961.	-	1.00
	SODIUM, TOTAL	0003	F	07/21/89	MG/KG		1780.	-	1.00
	THALLIUM, TOTAL	0003	F	07/21/89	MG/KG	B	.32	-	1.00
.5 - 2.	THORIUM-232	0003	F	07/21/89	PCI/G		0.	-	-
0.5 - 2.0	VANADIUM, TOTAL	0003	F	07/21/89	MG/KG		33.4	-	1.00
	ZINC, TOTAL	0003	F	07/21/89	MG/KG		175.	-	1.00
.5 - 2.	BIS(2-ETHYLHEXYL)PHTHALATE	0003	F	08/03/89	UG/KG	J	87.	830.	2.
	DICHLOROMETHANE-METHYLENE CHLORIDE	0001	F	08/03/89	UG/KG	B	10.	6.	1.
	N-NITROSODIPHENYLAMINE	0003	F	08/03/89	UG/KG	JB	130.	830.	2.
	PLUTONIUM-238	0003	F	08/03/89	PCI/G		0.	-	-
	THORIUM-232	0003	F	08/03/89	PCI/G		.5	-	-
	TOLUENE	0001	F	08/03/89	UG/KG	J	3.	6.	1.

PARAMETER VALUE QUALIFIERS (PVQ):
E = DET BEYOND CALIBRATION RANGE
B = PRESENT IN BLANK
J = PRESENT BELOW DETECTION LIMIT
JB = PRS BLW DET LMT(J)PRS IN BLANK

SAMPLE TYPE CODES:
F = FIELD SAMPLE

SOIL CHEMISTRY DATA
FACILITY: MND08 AREA 1
07/21/89 TO 08/17/89
LOCATION: 0007
NORTH COORDINATE: 46411.09
EAST COORDINATE: 46107.74
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
.5 - 2.	DICHLOROMETHANE-METHYLENE CHLORIDE	0001	F	08/03/89	UG/KG	JB	5.	6.	1.
	TOLUENE	0001	F	08/03/89	UG/KG	J	2.	6.	1.
.5 - 2.5	ALUMINUM, TOTAL	0003	F	07/22/89	MG/KG		13600.	0.	1.
	BARIUM, TOTAL	0003	F	07/22/89	MG/KG		604.	0.	1.
	BERYLLIUM	0003	F	07/22/89	MG/KG	B	1.	0.	1.
	CADMIUM, TOTAL	0003	F	07/22/89	MG/KG	E	3.3	0.	1.
	CALCIUM, TOTAL	0003	F	07/22/89	MG/KG		93000.	0.	1.
	CHROMIUM, TOTAL	0003	F	07/22/89	MG/KG	N	22.4	0.	1.
	COBALT, TOTAL	0003	F	07/22/89	MG/KG	N	13.4	0.	1.
	COPPER, TOTAL	0003	F	07/22/89	MG/KG	N	12.1	0.	1.
	IRON, TOTAL	0003	F	07/22/89	MG/KG		20100.	0.	1.
	LEAD, TOTAL	0003	F	07/22/89	MG/KG	N	5.2	0.	1.
	MAGNESIUM, TOTAL	0003	F	07/22/89	MG/KG		7900.	0.	1.
	MERCURY, TOTAL	0003	F	07/22/89	MG/KG		.17	0.	1.
	NICKEL, TOTAL	0003	F	07/22/89	MG/KG	N	35.5	0.	1.
	PLUTONIUM-238	0003	F	07/22/89	PCI/G		4.	-	-
	POTASSIUM, TOTAL	0003	F	07/22/89	MG/KG		2260.	0.	1.
	SILVER, TOTAL	0003	F	07/22/89	MG/KG		2.4	0.	1.
	SODIUM, TOTAL	0003	F	07/22/89	MG/KG		2820.	0.	1.
	THORIUM-232	0003	F	07/22/89	PCI/G		.8	-	-
	VANADIUM, TOTAL	0003	F	07/22/89	MG/KG	E	17.4	0.	1.
	ZINC, TOTAL	0003	F	07/22/89	MG/KG	N	404.	0.	1.
	PLUTONIUM-238	0003	F	08/03/89	PCI/G		12.	-	-
	THORIUM-232	0003	F	08/03/89	PCI/G		.7	-	-
2. - 2.5	2-BUTANONE	0002	F	08/03/89	UG/KG	J	4.	11.	1.
	ACETONE	0002	F	08/03/89	UG/KG		75.	11.	1.
	DICHLOROMETHANE-METHYLENE CHLORIDE	0002	F	08/03/89	UG/KG	JB	5.	6.	1.
	TOLUENE	0002	F	08/03/89	UG/KG	J	3.	6.	1.

PARAMETER VALUE QUALIFIERS (PVQ):
JB = PRS BLW DET LMT(J)PRS IN BLANK
J = PRESENT BELOW DETECTION LIMIT
B = PRESENT IN BLANK
E = DET BEYOND CALIBRATION RANGE
N = PRS BLW DET LMT(J) NOT SPIKED

SAMPLE TYPE CODES:
F = FIELD SAMPLE

SOIL CHEMISTRY DATA
FACILITY: MND08 AREA 1
07/21/89 TO 08/17/89
LOCATION: 0008
NORTH COORDINATE: 46436.33
EAST COORDINATE: 46066.86
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
.5 - 2.	2-BUTANONE	0001	F	08/03/89	UG/KG	J	3.	12.	1.
	ACETONE	0001	F	08/03/89	UG/KG		31.	12.	1.
	DICHLOROMETHANE-METHYLENE CHLORIDE	0001	F	08/03/89	UG/KG	B	12.	6.	1.
	TOLUENE	0001	F	08/03/89	UG/KG		10.	6.	1.
.5 - 3.	ALUMINUM, TOTAL	0003	F	07/22/89	MG/KG		15500.	0.	1.
	ARSENIC, TOTAL	0003	F	07/22/89	MG/KG		3.8	0.	1.
	BARIUM, TOTAL	0003	F	07/22/89	MG/KG		546.	0.	1.
	BERYLLIUM	0003	F	07/22/89	MG/KG		1.2	0.	1.
	CADMIUM, TOTAL	0003	F	07/22/89	MG/KG	E	4.5	0.	1.
	CALCIUM, TOTAL	0003	F	07/22/89	MG/KG		63800.	0.	1.
	CHROMIUM, TOTAL	0003	F	07/22/89	MG/KG	N	25.5	0.	1.
	COBALT, TOTAL	0003	F	07/22/89	MG/KG	N	23.8	0.	1.
	COPPER, TOTAL	0003	F	07/22/89	MG/KG	N	50.7	0.	1.
	IRON, TOTAL	0003	F	07/22/89	MG/KG		27100.	0.	1.
	LEAD, TOTAL	0003	F	07/22/89	MG/KG	N	7.	0.	1.
	MAGNESIUM, TOTAL	0003	F	07/22/89	MG/KG		120000.	0.	1.
	MERCURY, TOTAL	0003	F	07/22/89	MG/KG		1.4	0.	1.
	NICKEL, TOTAL	0003	F	07/22/89	MG/KG	N	45.1	0.	1.
	PLUTONIUM-238	0003	F	07/22/89	PCI/G		7.	-	-
	POTASSIUM, TOTAL	0003	F	07/22/89	MG/KG		326000.	0.	1.
	SILVER, TOTAL	0003	F	07/22/89	MG/KG		4.4	0.	1.
	SODIUM, TOTAL	0003	F	07/22/89	MG/KG		2370.	0.	1.
	THORIUM-232	0003	F	07/22/89	PCI/G		1.4	-	-
	VANADIUM, TOTAL	0003	F	07/22/89	MG/KG	E	19.2	0.	1.
	ZINC, TOTAL	0003	F	07/22/89	MG/KG	N	392.	0.	1.
	BIS(2-ETHYLHEXYL)PHTHALATE	0003	F	08/03/89	UG/KG	J	56.	400.	1.
	N-NITROSODIPHENYLAMINE	0003	F	08/03/89	UG/KG	JB	65.	400.	1.
	PLUTONIUM-238	0003	F	08/03/89	PCI/G		20.	-	-
	THORIUM-232	0003	F	08/03/89	PCI/G		1.4	-	-
2. - 3.	ACETONE	0002	F	08/03/89	UG/KG		27.	12.	1.
	DICHLOROMETHANE-METHYLENE CHLORIDE	0002	F	08/03/89	UG/KG	B	8.	6.	1.
	TOLUENE	0002	F	08/03/89	UG/KG	J	5.	6.	1.

PARAMETER VALUE QUALIFIERS (PVQ):
J = PRESENT BELOW DETECTION LIMIT
B = PRESENT IN BLANK
E = DET BEYOND CALIBRATION RANGE
N = PRS BLW DET LMT(J) NOT SPIKED
JB = PRS BLW DET LMT(J)PRS IN BLANK

SAMPLE TYPE CODES:
F = FIELD SAMPLE

SOIL CHEMISTRY DATA
FACILITY: MND08 AREA 1
07/21/89 TO 08/17/89
LOCATION: 0009
NORTH COORDINATE: 46463.43
EAST COORDINATE: 46023.5
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
.5 - 2.	ACETONE	0001	F	08/03/89	UG/KG	J	12.	12.	1.
	DICHLOROMETHANE-METHYLENE CHLORIDE	0001	F	08/03/89	UG/KG	JB	6.	6.	1.
	TOLUENE	0001	F	08/03/89	UG/KG	J	1.	6.	1.
.5 - 3.	ALUMINUM, TOTAL	0003	F	07/22/89	MG/KG		12200.	0.	1.
	BARIUM, TOTAL	0003	F	07/22/89	MG/KG		431.	0.	1.
	BERYLLIUM	0003	F	07/22/89	MG/KG		.92	0.	1.
	CADMIUM, TOTAL	0003	F	07/22/89	MG/KG	E	4.4	0.	1.
	CALCIUM, TOTAL	0003	F	07/22/89	MG/KG		74300.	0.	1.
	CHROMIUM, TOTAL	0003	F	07/22/89	MG/KG	N	20.	0.	1.
	COBALT, TOTAL	0003	F	07/22/89	MG/KG	N	14.7	0.	1.
	COPPER, TOTAL	0003	F	07/22/89	MG/KG	N	9.6	0.	1.
	IRON, TOTAL	0003	F	07/22/89	MG/KG		21300.	0.	1.
	LEAD, TOTAL	0003	F	07/22/89	MG/KG	N	3.7	0.	1.
	MAGNESIUM, TOTAL	0003	F	07/22/89	MG/KG		14600.	0.	1.
	MERCURY, TOTAL	0003	F	07/22/89	MG/KG		.12	0.	1.
	NICKEL, TOTAL	0003	F	07/22/89	MG/KG	N	37.4	0.	1.
	PLUTONIUM-238	0003	F	07/22/89	PCI/G		0.	-	-
	POTASSIUM, TOTAL	0003	F	07/22/89	MG/KG		2770.	0.	1.
	SILVER, TOTAL	0003	F	07/22/89	MG/KG		2.2	0.	1.
	SODIUM, TOTAL	0003	F	07/22/89	MG/KG		2030.	0.	1.
	THALLIUM, TOTAL	0003	F	07/22/89	MG/KG	B	.2	0.	1.
	THORIUM-232	0003	F	07/22/89	PCI/G		1.0	-	-
	VANADIUM, TOTAL	0003	F	07/22/89	MG/KG	E	14.7	0.	1.
	ZINC, TOTAL	0003	F	07/22/89	MG/KG	N	319.	0.	1.
	PLUTONIUM-238	0003	F	08/03/89	PCI/G		2.	-	-
	THORIUM-232	0003	F	08/03/89	PCI/G		1.1	-	-
2. - 3.	DICHLOROMETHANE-METHYLENE CHLORIDE	0002	F	08/03/89	UG/KG	JB	6.	6.	1.
	TOLUENE	0002	F	08/03/89	UG/KG	J	5.	6.	1.

PARAMETER VALUE QUALIFIERS (PVQ):
J = PRESENT BELOW DETECTION LIMIT
JB = PRS BLW DET LMT(J)PRS IN BLANK
E = DET BEYOND CALIBRATION RANGE
N = PRS BLW DET LMT(J) NOT SPIKED
B = PRESENT IN BLANK

SAMPLE TYPE CODES:
F = FIELD SAMPLE

SOIL CHEMISTRY DATA
FACILITY: MND08 AREA 1
07/21/89 TO 08/17/89
LOCATION: 0010
NORTH COORDINATE: 46489.27
EAST COORDINATE: 45982.07
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
.5 - 2.	ACETONE	0001	F	08/03/89	UG/KG	J	9.	12.	1.
	DICHLOROMETHANE-METHYLENE CHLORIDE	0001	F	08/03/89	UG/KG	B	6.	6.	1.
	TOLUENE	0001	F	08/03/89	UG/KG	J	2.	6.	1.
.5 - 2.5	ALUMINUM, TOTAL	0003	F	07/22/89	MG/KG		12800.	0.	1.
	BARIUM, TOTAL	0003	F	07/22/89	MG/KG		461.	0.	1.
	BERYLLIUM	0003	F	07/22/89	MG/KG		1.2	0.	1.
	CADMIUM, TOTAL	0003	F	07/22/89	MG/KG	E	4.3	0.	1.
	CALCIUM, TOTAL	0003	F	07/22/89	MG/KG		115000.	0.	1.
	CHROMIUM, TOTAL	0003	F	07/22/89	MG/KG	N	20.6	0.	1.
	COBALT, TOTAL	0003	F	07/22/89	MG/KG	N	16.5	0.	1.
	COPPER, TOTAL	0003	F	07/22/89	MG/KG	N	13.8	0.	1.
	IRON, TOTAL	0003	F	07/22/89	MG/KG		20400.	0.	1.
	LEAD, TOTAL	0003	F	07/22/89	MG/KG	N	3.9	0.	1.
	MAGNESIUM, TOTAL	0003	F	07/22/89	MG/KG		17100.	0.	1.
	MERCURY, TOTAL	0003	F	07/22/89	MG/KG		.18	0.	1.
	NICKEL, TOTAL	0003	F	07/22/89	MG/KG	N	40.6	0.	1.
	PLUTONIUM-238	0003	F	07/22/89	PCI/G		14.	-	-
	POTASSIUM, TOTAL	0003	F	07/22/89	MG/KG		2740.	0.	1.
	SODIUM, TOTAL	0003	F	07/22/89	MG/KG		2290.	0.	1.
	THALLIUM, TOTAL	0003	F	07/22/89	MG/KG	B	.24	0.	1.
	THORIUM-232	0003	F	07/22/89	PCI/G		.6	-	-
	VANADIUM, TOTAL	0003	F	07/22/89	MG/KG	E	19.5	0.	1.
	ZINC, TOTAL	0003	F	07/22/89	MG/KG	N	320.	0.	1.
	N-NITROSODIPHENYLAMINE	0003	F	08/03/89	UG/KG	JB	57.	380.	1.
	PLUTONIUM-238	0003	F	08/03/89	PCI/G		13.	-	-
	THORIUM-232	0003	F	08/03/89	PCI/G		1.0	-	-
2. - 2.5	ACETONE	0002	F	08/03/89	UG/KG	J	10.	12.	1.
	DICHLOROMETHANE-METHYLENE CHLORIDE	0002	F	08/03/89	UG/KG	B	12.	6.	1.

PARAMETER VALUE QUALIFIERS (PVQ):
J = PRESENT BELOW DETECTION LIMIT
B = PRESENT IN BLANK
E = DET BEYOND CALIBRATION RANGE
N = PRS BLW DET LMT(J) NOT SPIKED
JB = PRS BLW DET LMT(J)PRS IN BLANK

SAMPLE TYPE CODES:
F = FIELD SAMPLE

SOIL CHEMISTRY DATA
FACILITY: MND08 AREA 1
07/21/89 TO 08/17/89
LOCATION: 0011
NORTH COORDINATE: 46515.8
EAST COORDINATE: 45940.13
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
.5 - 3.	ALUMINUM, TOTAL	0003	F	07/22/89	MG/KG		18100.	0.	1.
	BARIUM, TOTAL	0003	F	07/22/89	MG/KG		472.	0.	1.
	BERYLLIUM	0003	F	07/22/89	MG/KG		1.3	0.	1.
	CADMIUM, TOTAL	0003	F	07/22/89	MG/KG	E	4.5	0.	1.
	CALCIUM, TOTAL	0003	F	07/22/89	MG/KG		39900.	0.	1.
	CHROMIUM, TOTAL	0003	F	07/22/89	MG/KG	N	26.5	0.	1.
	COBALT, TOTAL	0003	F	07/22/89	MG/KG	N	19.8	0.	1.
	COPPER, TOTAL	0003	F	07/22/89	MG/KG	N	39.3	0.	1.
	IRON, TOTAL	0003	F	07/22/89	MG/KG		25900.	0.	1.
	LEAD, TOTAL	0003	F	07/22/89	MG/KG	N	7.4	0.	1.
	MAGNESIUM, TOTAL	0003	F	07/22/89	MG/KG		12500.	0.	1.
	NICKEL, TOTAL	0003	F	07/22/89	MG/KG	N	47.5	0.	1.
	PLUTONIUM-238	0003	F	07/22/89	PCI/G		7.	-	-
	POTASSIUM, TOTAL	0003	F	07/22/89	MG/KG		3310.	0.	1.
	SILVER, TOTAL	0003	F	07/22/89	MG/KG		3.8	0.	1.
	SODIUM, TOTAL	0003	F	07/22/89	MG/KG		2110.	0.	1.
	THORIUM-232	0003	F	07/22/89	PCI/G		.6	-	-
	VANADIUM, TOTAL	0003	F	07/22/89	MG/KG	E	19.8	0.	1.
	ZINC, TOTAL	0003	F	07/22/89	MG/KG	N	340.	0.	1.
	N-NITROSODIPHENYLAMINE	0003	F	08/04/89	UG/KG	JB	130.	400.	1.
	PLUTONIUM-238	0003	F	08/04/89	PCI/G		9.	-	-
	THORIUM-232	0003	F	08/04/89	PCI/G		1.2	-	-

PARAMETER VALUE QUALIFIERS (PVQ):
E = DET BEYOND CALIBRATION RANGE
N = PRS BLW DET LMT(J) NOT SPIKED
JB = PRS BLW DET LMT(J)PRS IN BLANK

SAMPLE TYPE CODES:
F = FIELD SAMPLE

SOIL CHEMISTRY DATA
FACILITY: MND08 AREA 1
07/21/89 TO 08/17/89
LOCATION: 0012
NORTH COORDINATE: 46541.67
EAST COORDINATE: 45898.99
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
.5 - 1.	ALUMINUM, TOTAL	0003	F	07/22/89	MG/KG		4650.	0.	1.
	ARSENIC, TOTAL	0003	F	07/22/89	MG/KG		3.9	0.	1.
	BARIUM, TOTAL	0003	F	07/22/89	MG/KG		370.	0.	1.
	BERYLLIUM	0003	F	07/22/89	MG/KG		.96	0.	1.
	CADMIUM, TOTAL	0003	F	07/22/89	MG/KG	E	6.2	0.	1.
	CALCIUM, TOTAL	0003	F	07/22/89	MG/KG		181000.	0.	1.
	CHROMIUM, TOTAL	0003	F	07/22/89	MG/KG	N	10.2	0.	1.
	COBALT, TOTAL	0003	F	07/22/89	MG/KG	N	10.7	0.	1.
	COPPER, TOTAL	0003	F	07/22/89	MG/KG	N	5.6	0.	1.
	IRON, TOTAL	0003	F	07/22/89	MG/KG		12500.	0.	1.
	LEAD, TOTAL	0003	F	07/22/89	MG/KG	N	4.9	0.	1.
	MAGNESIUM, TOTAL	0003	F	07/22/89	MG/KG		38300.	0.	1.
	NICKEL, TOTAL	0003	F	07/22/89	MG/KG	N	247.	0.	1.
	PLUTONIUM-238	0003	F	07/22/89	PCI/G		11.	-	-
	POTASSIUM, TOTAL	0003	F	07/22/89	MG/KG		1360.	0.	1.
	SODIUM, TOTAL	0003	F	07/22/89	MG/KG		1840.	0.	1.
	THORIUM-232	0003	F	07/22/89	PCI/G		.1	-	-
	VANADIUM, TOTAL	0003	F	07/22/89	MG/KG	E	19.9	0.	1.
	ZINC, TOTAL	0003	F	07/22/89	MG/KG	N	234.	0.	1.
	4-METHYLPHENOL	0003	F	08/04/89	UG/KG		410.	390.	1.
	N-NITROSODIPHENYLAMINE	0003	F	08/04/89	UG/KG	JB	140.	390.	1.
	PHENOL	0003	F	08/04/89	UG/KG	J	320.	390.	1.
	PLUTONIUM-238	0003	F	08/04/89	PCI/G		15.	-	-
	THORIUM-232	0003	F	08/04/89	PCI/G		.9	-	-

PARAMETER VALUE QUALIFIERS (PVQ):
E = DET BEYOND CALIBRATION RANGE
N = PRS BLW DET LMT(J) NOT SPIKED
JB = PRS BLW DET LMT(J)PRS IN BLANK
J = PRESENT BELOW DETECTION LIMIT
B = PRESENT IN BLANK

SAMPLE TYPE CODES:
F = FIELD SAMPLE

SOIL CHEMISTRY DATA
FACILITY: MND08 AREA 1
07/21/89 TO 08/17/89
LOCATION: 0013
NORTH COORDINATE: 46705.93
EAST COORDINATE: 45649.27
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
.5 - 2.	2-BUTANONE	0001	F	08/08/89	UG/KG	B	17.	11.	1.
	4-METHYL-2-PENTANONE	0001	F	08/08/89	UG/KG	JB	1.	11.	1.
	ACETONE	0001	F	08/08/89	UG/KG	B	150.	11.	1.
	DICHLOROMETHANE-METHYLENE CHLORIDE	0001	F	08/08/89	UG/KG	JB	4.	6.	1.
.5 - 4.	ALUMINUM, TOTAL	0003	F	07/22/89	MG/KG		6450.	0.	1.
	ARSENIC, TOTAL	0003	F	07/22/89	MG/KG		5.9	0.	1.
	BARIUM, TOTAL	0003	F	07/22/89	MG/KG		483.	0.	1.
	BERYLLIUM	0003	F	07/22/89	MG/KG		.91	0.	1.
	CADMIUM, TOTAL	0003	F	07/22/89	MG/KG	E	6.7	0.	1.
	CALCIUM, TOTAL	0003	F	07/22/89	MG/KG		98600.	0.	1.
	CHROMIUM, TOTAL	0003	F	07/22/89	MG/KG	N	17.1	0.	1.
	COBALT, TOTAL	0003	F	07/22/89	MG/KG	N	10.9	0.	1.
	COPPER, TOTAL	0003	F	07/22/89	MG/KG	N	11.1	0.	1.
	IRON, TOTAL	0003	F	07/22/89	MG/KG		12500.	0.	1.
	LEAD, TOTAL	0003	F	07/22/89	MG/KG	N	10.7	0.	1.
	MAGNESIUM, TOTAL	0003	F	07/22/89	MG/KG		44400.	0.	1.
	NICKEL, TOTAL	0003	F	07/22/89	MG/KG	N	28.2	0.	1.
	PLUTONIUM-238	0003	F	07/22/89	PCI/G		6.	-	-
	POTASSIUM, TOTAL	0003	F	07/22/89	MG/KG		1700.	0.	1.
	SODIUM, TOTAL	0003	F	07/22/89	MG/KG		2400.	0.	1.
	THORIUM-232	0003	F	07/22/89	PCI/G		1.2	-	-
	VANADIUM, TOTAL	0003	F	07/22/89	MG/KG	E	22.2	0.	1.
	ZINC, TOTAL	0003	F	07/22/89	MG/KG	N	313.	0.	1.
	PLUTONIUM-238	0003	F	08/08/89	PCI/G		11.	-	-
	THORIUM-232	0003	F	08/08/89	PCI/G		.7	-	-

PARAMETER VALUE QUALIFIERS (PVQ):
B = PRESENT IN BLANK
JB = PRS BLW DET LMT(J)PRS IN BLANK
E = DET BEYOND CALIBRATION RANGE
N = PRS BLW DET LMT(J) NOT SPIKED

SAMPLE TYPE CODES:
F = FIELD SAMPLE

SOIL CHEMISTRY DATA
FACILITY: MND08 AREA 1
07/21/89 TO 08/17/89
LOCATION: 0014
NORTH COORDINATE: 46732.7
EAST COORDINATE: 45612.71
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
.5 - 2.	ACETONE	0001	F	08/08/89	UG/KG	B	18.	11.	1.
	DICHLOROMETHANE-METHYLENE CHLORIDE	0001	F	08/08/89	UG/KG	B	6.	6.	1.
	TOLUENE	0001	F	08/08/89	UG/KG	J	2.	6.	1.
.5 - 3.	ACETONE	0003	F	08/08/89	UG/KG	JB	5.	11.	1.
	BROMODICHLOROMETHANE	0003	F	08/08/89	UG/KG	J	5.	6.	1.
	CHLOROFORM	0003	F	08/08/89	UG/KG		24.	6.	1.
	DIBROMOCHLOROMETHANE	0003	F	08/08/89	UG/KG	J	1.	6.	1.
	DICHLOROMETHANE-METHYLENE CHLORIDE	0003	F	08/08/89	UG/KG	JB	3.	6.	1.
	PHENOL	0003	F	08/08/89	UG/KG	J	85.	390.	1.
	PLUTONIUM-238	0003	F	08/08/89	PCI/G		9.	-	-
	THORIUM-232	0003	F	08/08/89	PCI/G		.8	-	-
.5 - 3.5	ALUMINUM, TOTAL	0003	F	07/22/89	MG/KG		5690.	0.	1.
	ARSENIC, TOTAL	0003	F	07/22/89	MG/KG		4.2	0.	1.
	BARIUM, TOTAL	0003	F	07/22/89	MG/KG		374.	0.	1.
	BERYLLIUM	0003	F	07/22/89	MG/KG		.86	0.	1.
	CADMIUM, TOTAL	0003	F	07/22/89	MG/KG	E	6.6	0.	1.
	CALCIUM, TOTAL	0003	F	07/22/89	MG/KG		104000.	0.	1.
	CHROMIUM, TOTAL	0003	F	07/22/89	MG/KG	N	15.4	0.	1.
	COBALT, TOTAL	0003	F	07/22/89	MG/KG	N	10.6	0.	1.
	COPPER, TOTAL	0003	F	07/22/89	MG/KG	N	8.5	0.	1.
	IRON, TOTAL	0003	F	07/22/89	MG/KG		11000.	0.	1.
	LEAD, TOTAL	0003	F	07/22/89	MG/KG	N	6.2	0.	1.
	MAGNESIUM, TOTAL	0003	F	07/22/89	MG/KG		48500.	0.	1.
	NICKEL, TOTAL	0003	F	07/22/89	MG/KG	N	25.3	0.	1.
	PLUTONIUM-238	0003	F	07/22/89	PCI/G		10.	-	-
	POTASSIUM, TOTAL	0003	F	07/22/89	MG/KG		1140.	0.	1.
	SODIUM, TOTAL	0003	F	07/22/89	MG/KG		1800.	0.	1.
	THORIUM-232	0003	F	07/22/89	PCI/G		.5	-	-
	VANADIUM, TOTAL	0003	F	07/22/89	MG/KG	E	21.2	0.	1.
	ZINC, TOTAL	0003	F	07/22/89	MG/KG	N	241.	0.	1.

PARAMETER VALUE QUALIFIERS (PVQ):
B = PRESENT IN BLANK
J = PRESENT BELOW DETECTION LIMIT
JB = PRS BLW DET LMT(J)PRS IN BLANK
E = DET BEYOND CALIBRATION RANGE
N = PRS BLW DET LMT(J) NOT SPIKED

SAMPLE TYPE CODES:
F = FIELD SAMPLE

SOIL CHEMISTRY DATA
FACILITY: MND08 AREA 1
07/21/89 TO 08/17/89
LOCATION: 0015
NORTH COORDINATE: 46129.17
EAST COORDINATE: 46470.86
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
0.0 - 2.	ALUMINUM, TOTAL	0003	F	08/16/89	MG/KG		11600.	0.	1.
	ARSENIC, TOTAL	0003	F	08/16/89	MG/KG		6.6	0.	1.
	BARIUM, TOTAL	0003	F	08/16/89	MG/KG		342.	0.	1.
	BERYLLIUM	0003	F	08/16/89	MG/KG		1.	0.	1.
	CADMIUM, TOTAL	0003	F	08/16/89	MG/KG		2.8	0.	1.
	CALCIUM, TOTAL	0003	F	08/16/89	MG/KG	*	5600.	0.	1.
	CHROMIUM, TOTAL	0003	F	08/16/89	MG/KG	*	14.4	0.	1.
	COBALT, TOTAL	0003	F	08/16/89	MG/KG		17.7	0.	1.
	COPPER, TOTAL	0003	F	08/16/89	MG/KG		14.2	0.	1.
	IRON, TOTAL	0003	F	08/16/89	MG/KG	E	23300.	0.	1.
	LEAD, TOTAL	0003	F	08/16/89	MG/KG		18.6	0.	1.
	MAGNESIUM, TOTAL	0003	F	08/16/89	MG/KG	*	2870.	0.	1.
	MANGANESE, TOTAL	0003	F	08/16/89	MG/KG		796.	0.	1.
	MERCURY, TOTAL	0003	F	08/16/89	MG/KG	N	.64	0.	1.
	NICKEL, TOTAL	0003	F	08/16/89	MG/KG	*	31.2	0.	1.
	PLUTONIUM-238	0003	F	08/16/89	PCI/G		7.	-	-
	POTASSIUM, TOTAL	0003	F	08/16/89	MG/KG		1140.	0.	1.
	SODIUM, TOTAL	0003	F	08/16/89	MG/KG		2580.	0.	1.
	THALLIUM, TOTAL	0003	F	08/16/89	MG/KG	B	.27	0.	1.
	THORIUM-232	0003	F	08/16/89	PCI/G		2.0	-	-
	VANADIUM, TOTAL	0003	F	08/16/89	MG/KG		18.1	0.	1.
	ZINC, TOTAL	0003	F	08/16/89	MG/KG		206.	0.	1.

PARAMETER VALUE QUALIFIERS (PVQ):
* = CONTROL LIMITS NOT APPLICABLE
E = DET BEYOND CALIBRATION RANGE
N = PRS BLW DET LMT(J) NOT SPIKED
B = PRESENT IN BLANK

SAMPLE TYPE CODES:
F = FIELD SAMPLE

SOIL CHEMISTRY DATA
FACILITY: MND08 AREA 1
07/21/89 TO 08/17/89
LOCATION: 0016
NORTH COORDINATE: 46170.02
EAST COORDINATE: 46403.51
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
0.0 - 1.8	ALUMINUM, TOTAL	0003	F	08/16/89	MG/KG		11500.	0.	1.
	ARSENIC, TOTAL	0003	F	08/16/89	MG/KG		9.7	0.	1.
	BARIUM, TOTAL	0003	F	08/16/89	MG/KG		372.	0.	1.
	BERYLLIUM	0003	F	08/16/89	MG/KG		1.1	0.	1.
	CADMIUM, TOTAL	0003	F	08/16/89	MG/KG		3.2	0.	1.
	CALCIUM, TOTAL	0003	F	08/16/89	MG/KG	*	4800.	0.	1.
	CHROMIUM, TOTAL	0003	F	08/16/89	MG/KG	*	16.3	0.	1.
	COBALT, TOTAL	0003	F	08/16/89	MG/KG		17.	0.	1.
	COPPER, TOTAL	0003	F	08/16/89	MG/KG		18.5	0.	1.
	IRON, TOTAL	0003	F	08/16/89	MG/KG	E	27800.	0.	1.
	LEAD, TOTAL	0003	F	08/16/89	MG/KG		21.7	0.	1.
	MAGNESIUM, TOTAL	0003	F	08/16/89	MG/KG	*	3090.	0.	1.
	MANGANESE, TOTAL	0003	F	08/16/89	MG/KG		587.	0.	1.
	NICKEL, TOTAL	0003	F	08/16/89	MG/KG	*	38.4	0.	1.
	PLUTONIUM-238	0003	F	08/16/89	PCI/G		13.	-	-
	POTASSIUM, TOTAL	0003	F	08/16/89	MG/KG		1340.	0.	1.
	SODIUM, TOTAL	0003	F	08/16/89	MG/KG		1520.	0.	1.
	THALLIUM, TOTAL	0003	F	08/16/89	MG/KG	B	.3	0.	1.
	THORIUM-232	0003	F	08/16/89	PCI/G		10.0	-	-
	VANADIUM, TOTAL	0003	F	08/16/89	MG/KG		18.8	0.	1.
	ZINC, TOTAL	0003	F	08/16/89	MG/KG		249.	0.	1.

PARAMETER VALUE QUALIFIERS (PVQ):
* = CONTROL LIMITS NOT APPLICABLE
E = DET BEYOND CALIBRATION RANGE
B = PRESENT IN BLANK

SAMPLE TYPE CODES:
F = FIELD SAMPLE

SOIL CHEMISTRY DATA
FACILITY: MND08 AREA 1
07/21/89 TO 08/17/89
LOCATION: 0017
NORTH COORDINATE: 46195.08
EAST COORDINATE: 46373.74
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
0.0 - 1.75	ALUMINUM, TOTAL	0003	F	08/16/89	MG/KG		8390.	0.	1.
	ARSENIC, TOTAL	0003	F	08/16/89	MG/KG		3.2	0.	1.
	BARIUM, TOTAL	0003	F	08/16/89	MG/KG		304.	0.	1.
	BERYLLIUM	0003	F	08/16/89	MG/KG		1.2	0.	1.
	CADMIUM, TOTAL	0003	F	08/16/89	MG/KG		5.9	0.	1.
	CALCIUM, TOTAL	0003	F	08/16/89	MG/KG	*	151000.	0.	1.
	CHROMIUM, TOTAL	0003	F	08/16/89	MG/KG	*	13.6	0.	1.
	COBALT, TOTAL	0003	F	08/16/89	MG/KG		11.9	0.	1.
	COPPER, TOTAL	0003	F	08/16/89	MG/KG		8.2	0.	1.
	IRON, TOTAL	0003	F	08/16/89	MG/KG	E	18000.	0.	1.
	LEAD, TOTAL	0003	F	08/16/89	MG/KG		8.8	0.	1.
	MAGNESIUM, TOTAL	0003	F	08/16/89	MG/KG	*	35900.	0.	1.
	MANGANESE, TOTAL	0003	F	08/16/89	MG/KG		354.	0.	1.
	NICKEL, TOTAL	0003	F	08/16/89	MG/KG	*	33.6	0.	1.
	PLUTONIUM-238	0003	F	08/16/89	PCI/G		5.	-	-
	POTASSIUM, TOTAL	0003	F	08/16/89	MG/KG		1650.	0.	1.
	SODIUM, TOTAL	0003	F	08/16/89	MG/KG		1830.	0.	1.
	THORIUM-232	0003	F	08/16/89	PCI/G		7.5	-	-
	VANADIUM, TOTAL	0003	F	08/16/89	MG/KG		22.	0.	1.
	ZINC, TOTAL	0003	F	08/16/89	MG/KG		195.	0.	1.

PARAMETER VALUE QUALIFIERS (PVQ):
* = CONTROL LIMITS NOT APPLICABLE
E = DET BEYOND CALIBRATION RANGE

SAMPLE TYPE CODES:
F = FIELD SAMPLE

SOIL CHEMISTRY DATA
FACILITY: MND08 AREA 1
07/21/89 TO 08/17/89
LOCATION: 0018
NORTH COORDINATE: 46208.79
EAST COORDINATE: 46337.72
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
0.0 - 1.5	ALUMINUM, TOTAL	0003	F	08/16/89	MG/KG		9990.	0.	1.
	ALUMINUM, TOTAL	C003	LD	08/16/89	MG/KG		10408.12	0.	1.
	ARSENIC, TOTAL	0003	F	08/16/89	MG/KG		10.9	0.	1.
	ARSENIC, TOTAL	C003	LD	08/16/89	MG/KG		10.23	0.	1.
	BARIUM, TOTAL	0003	F	08/16/89	MG/KG		303.	0.	1.
	BARIUM, TOTAL	C003	LD	08/16/89	MG/KG		362.64	0.	1.
	BERYLLIUM	0003	F	08/16/89	MG/KG		.97	0.	1.
	BERYLLIUM	C003	LD	08/16/89	MG/KG		1.1	0.	1.
	CADMIUM, TOTAL	0003	F	08/16/89	MG/KG		2.8	0.	1.
	CADMIUM, TOTAL	C003	LD	08/16/89	MG/KG		3.28	0.	1.
	CALCIUM, TOTAL	0003	F	08/16/89	MG/KG	*	6530.	0.	1.
	CALCIUM, TOTAL	C003	LD	08/16/89	MG/KG		9870.12	0.	1.
	CHROMIUM, TOTAL	0003	F	08/16/89	MG/KG	*	15.3	0.	1.
	CHROMIUM, TOTAL	C003	LD	08/16/89	MG/KG		32.58	0.	1.
	COBALT, TOTAL	0003	F	08/16/89	MG/KG		11.7	0.	1.
	COBALT, TOTAL	C003	LD	08/16/89	MG/KG		13.29	0.	1.
	COPPER, TOTAL	0003	F	08/16/89	MG/KG		18.4	0.	1.
	COPPER, TOTAL	C003	LD	08/16/89	MG/KG		18.73	0.	1.
	IRON, TOTAL	0003	F	08/16/89	MG/KG	E	20900.	0.	1.
	IRON, TOTAL	C003	LD	08/16/89	MG/KG		23251.18	0.	1.
	LEAD, TOTAL	0003	F	08/16/89	MG/KG		41.7	0.	1.
	LEAD, TOTAL	C003	LD	08/16/89	MG/KG		45.38	0.	1.
	MAGNESIUM, TOTAL	0003	F	08/16/89	MG/KG	*	3340.	0.	1.
	MAGNESIUM, TOTAL	C003	LD	08/16/89	MG/KG		4668.85	0.	1.
	MANGANESE, TOTAL	0003	F	08/16/89	MG/KG		316.	0.	1.
	MANGANESE, TOTAL	C003	LD	08/16/89	MG/KG		347.56	0.	1.
	MERCURY, TOTAL	C003	LD	08/16/89	MG/KG		.18	0.	1.
	NICKEL, TOTAL	0003	F	08/16/89	MG/KG	*	28.4	0.	1.
	NICKEL, TOTAL	C003	LD	08/16/89	MG/KG		37.29	0.	1.
	PLUTONIUM-238	0003	F	08/16/89	PCI/G		16.	-	-
	POTASSIUM, TOTAL	0003	F	08/16/89	MG/KG		1290.	0.	1.
	POTASSIUM, TOTAL	C003	LD	08/16/89	MG/KG		1479.05	0.	1.
	SODIUM, TOTAL	0003	F	08/16/89	MG/KG		4030.	0.	1.
	SODIUM, TOTAL	C003	LD	08/16/89	MG/KG		4263.03	0.	1.
	THALLIUM, TOTAL	C003	LD	08/16/89	MG/KG	B	.36	0.	1.
	THORIUM-232	0003	F	08/16/89	PCI/G		1.4	-	-
	VANADIUM, TOTAL	0003	F	08/16/89	MG/KG		20.	0.	1.
	VANADIUM, TOTAL	C003	LD	08/16/89	MG/KG		22.13	0.	1.
	ZINC, TOTAL	0003	F	08/16/89	MG/KG		318.	0.	1.
	ZINC, TOTAL	C003	LD	08/16/89	MG/KG		332.85	0.	1.

PARAMETER VALUE QUALIFIERS (PVQ):
* = CONTROL LIMITS NOT APPLICABLE
E = DET BEYOND CALIBRATION RANGE
B = PRESENT IN BLANK

SAMPLE TYPE CODES:
F = FIELD SAMPLE
LD = LAB DUPLICATE

SOIL CHEMISTRY DATA
FACILITY: MND08 AREA 1
07/21/89 TO 08/17/89
LOCATION: 0019
NORTH COORDINATE: 46229.39
EAST COORDINATE: 46305.27
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
0.0 - .5	ALUMINUM, TOTAL	0001	F	08/16/89	MG/KG		6940.	0.	1.
	ARSENIC, TOTAL	0001	F	08/16/89	MG/KG		7.9	0.	1.
	BARIUM, TOTAL	0001	F	08/16/89	MG/KG		385.	0.	1.
	BERYLLIUM	0001	F	08/16/89	MG/KG		1.1	0.	1.
	CADMIUM, TOTAL	0001	F	08/16/89	MG/KG		3.6	0.	1.
	CALCIUM, TOTAL	0001	F	08/16/89	MG/KG	*	110000.	0.	1.
	CHROMIUM, TOTAL	0001	F	08/16/89	MG/KG	*	15.9	0.	1.
	COBALT, TOTAL	0001	F	08/16/89	MG/KG	B	10.	0.	1.
	COPPER, TOTAL	0001	F	08/16/89	MG/KG		9.6	0.	1.
	IRON, TOTAL	0001	F	08/16/89	MG/KG	E	15500.	0.	1.
	LEAD, TOTAL	0001	F	08/16/89	MG/KG		45.	0.	1.
	MAGNESIUM, TOTAL	0001	F	08/16/89	MG/KG	*	14200.	0.	1.
	MANGANESE, TOTAL	0001	F	08/16/89	MG/KG		474.	0.	1.
	NICKEL, TOTAL	0001	F	08/16/89	MG/KG	*	24.	0.	1.
	PLUTONIUM-238	0001	F	08/16/89	PCI/G		11.	-	-
	POTASSIUM, TOTAL	0001	F	08/16/89	MG/KG	B	994.	0.	1.
	SODIUM, TOTAL	0001	F	08/16/89	MG/KG		2750.	0.	1.
	THORIUM-232	0001	F	08/16/89	PCI/G		7.4	-	-
	VANADIUM, TOTAL	0001	F	08/16/89	MG/KG		21.3	0.	1.
	ZINC, TOTAL	0001	F	08/16/89	MG/KG		231.	0.	1.

PARAMETER VALUE QUALIFIERS (PVQ):
* = CONTROL LIMITS NOT APPLICABLE
B = PRESENT IN BLANK
E = DET BEYOND CALIBRATION RANGE

SAMPLE TYPE CODES:
F = FIELD SAMPLE

SOIL CHEMISTRY DATA
FACILITY: MND08 AREA 1
07/21/89 TO 08/17/89
LOCATION: 0020
NORTH COORDINATE: 46261.75
EAST COORDINATE: 46262.94
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
0.0 - 1.25	ALUMINUM, TOTAL	0003	F	08/16/89	MG/KG		10500.	0.	1.
	ARSENIC, TOTAL	0003	F	08/16/89	MG/KG		7.5	0.	1.
	BARIUM, TOTAL	0003	F	08/16/89	MG/KG		466.	0.	1.
	BERYLLIUM	0003	F	08/16/89	MG/KG		1.2	0.	1.
	CADMIUM, TOTAL	0003	F	08/16/89	MG/KG		4.8	0.	1.
	CALCIUM, TOTAL	0003	F	08/16/89	MG/KG	*	72200.	0.	1.
	CHROMIUM, TOTAL	0003	F	08/16/89	MG/KG	*	20.9	0.	1.
	COBALT, TOTAL	0003	F	08/16/89	MG/KG		13.4	0.	1.
	COPPER, TOTAL	0003	F	08/16/89	MG/KG		14.6	0.	1.
	IRON, TOTAL	0003	F	08/16/89	MG/KG	E	22400.	0.	1.
	LEAD, TOTAL	0003	F	08/16/89	MG/KG		19.	0.	1.
	MAGNESIUM, TOTAL	0003	F	08/16/89	MG/KG	*	18400.	0.	1.
	MANGANESE, TOTAL	0003	F	08/16/89	MG/KG		599.	0.	1.
	NICKEL, TOTAL	0003	F	08/16/89	MG/KG	*	34.7	0.	1.
	PLUTONIUM-238	0003	F	08/16/89	PCI/G		19.	-	-
	POTASSIUM, TOTAL	0003	F	08/16/89	MG/KG		2030.	0.	1.
	SILVER, TOTAL	0003	F	08/16/89	MG/KG		3.4	0.	1.
	SODIUM, TOTAL	0003	F	08/16/89	MG/KG		2140.	0.	1.
	THALLIUM, TOTAL	0003	F	08/16/89	MG/KG	B	.23	0.	1.
	THORIUM-232	0003	F	08/16/89	PCI/G		3.1	-	-
	VANADIUM, TOTAL	0003	F	08/16/89	MG/KG		23.2	0.	1.
	ZINC, TOTAL	0003	F	08/16/89	MG/KG		337.	0.	1.

PARAMETER VALUE QUALIFIERS (PVQ):
* = CONTROL LIMITS NOT APPLICABLE
E = DET BEYOND CALIBRATION RANGE
B = PRESENT IN BLANK

SAMPLE TYPE CODES:
F = FIELD SAMPLE

SOIL CHEMISTRY DATA
FACILITY: MND08 AREA 1
07/21/89 TO 08/17/89
LOCATION: 0021
NORTH COORDINATE: 46283.07
EAST COORDINATE: 46216.93
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
0.0 - .95	PLUTONIUM-238	0003	F	08/17/89	PCI/G		1.	-	-
	THORIUM-232	0003	F	08/17/89	PCI/G		1.2	-	-

SAMPLE TYPE CODES:
F = FIELD SAMPLE

SOIL CHEMISTRY DATA
FACILITY: MND08 AREA 1
07/21/89 TO 08/17/89
LOCATION: 0022
NORTH COORDINATE: 46256.42
EAST COORDINATE: 46180.83
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
0.0 - .75	PLUTONIUM-238	0003	F	08/17/89	PCI/G		25.	-	-
	THORIUM-232	0003	F	08/17/89	PCI/G		2.0	-	-

SAMPLE TYPE CODES:
F = FIELD SAMPLE

SOIL CHEMISTRY DATA
FACILITY: MND08 AREA 1
07/21/89 TO 08/17/89
LOCATION: 0023
NORTH COORDINATE: 46252.4
EAST COORDINATE: 46129.92
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
0.0 - .75	PLUTONIUM-238	0003	F	08/17/89	PCI/G		38.	-	-
	THORIUM-232	0003	F	08/17/89	PCI/G		11.3	-	-

SAMPLE TYPE CODES:
F = FIELD SAMPLE

SOIL CHEMISTRY DATA
FACILITY: MND08 AREA 1
07/21/89 TO 08/17/89
LOCATION: 0024
NORTH COORDINATE: 46230.78
EAST COORDINATE: 46987.
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
0.0 - 1.1	PLUTONIUM-238	0003	F	08/17/89	PCI/G		25.	-	-
	THORIUM-232	0003	F	08/17/89	PCI/G		1.1	-	-

SAMPLE TYPE CODES:
F = FIELD SAMPLE

SOIL CHEMISTRY DATA
FACILITY: MND08 AREA 1
07/21/89 TO 08/17/89
LOCATION: 0025
NORTH COORDINATE: 46202.4
EAST COORDINATE: 46049.42
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
0.0 - .75	PLUTONIUM-238	0003	F	08/17/89	PCI/G		20.	-	-
	THORIUM-232	0003	F	08/17/89	PCI/G		1.5	-	-

SAMPLE TYPE CODES:
F = FIELD SAMPLE

SOIL CHEMISTRY DATA
FACILITY: MND08 AREA 1
07/21/89 TO 08/17/89
LOCATION: 0026
NORTH COORDINATE: 46330.83
EAST COORDINATE: 46330.04
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
0.0 - 1.	PLUTONIUM-238	0003	F	08/17/89	PCI/G		40.	-	-
	THORIUM-232	0003	F	08/17/89	PCI/G		185.3	-	-

SAMPLE TYPE CODES:
F = FIELD SAMPLE

SOIL CHEMISTRY DATA
FACILITY: MND08 AREA 1
07/21/89 TO 08/17/89
LOCATION: 2011
NORTH COORDINATE: 46515.8
EAST COORDINATE: 45940.13
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
.5 - 2.5	ALUMINUM, TOTAL	0003	F	07/22/89	MG/KG		14800.	0.	1.
	BARIUM, TOTAL	0003	F	07/22/89	MG/KG		480.	0.	1.
	BERYLLIUM	0003	F	07/22/89	MG/KG		1.1	0.	1.
	CADMIUM, TOTAL	0003	F	07/22/89	MG/KG	E	4.8	0.	1.
	CALCIUM, TOTAL	0003	F	07/22/89	MG/KG		48400.	0.	1.
	CHROMIUM, TOTAL	0003	F	07/22/89	MG/KG	N	24.2	0.	1.
	COBALT, TOTAL	0003	F	07/22/89	MG/KG	N	19.8	0.	1.
	COPPER, TOTAL	0003	F	07/22/89	MG/KG	N	25.	0.	1.
	IRON, TOTAL	0003	F	07/22/89	MG/KG		25800.	0.	1.
	LEAD, TOTAL	0003	F	07/22/89	MG/KG	N	7.5	0.	1.
	MAGNESIUM, TOTAL	0003	F	07/22/89	MG/KG		15100.	0.	1.
	MERCURY, TOTAL	0003	F	07/22/89	MG/KG		.63	0.	1.
	NICKEL, TOTAL	0003	F	07/22/89	MG/KG	N	46.8	0.	1.
	POTASSIUM, TOTAL	0003	F	07/22/89	MG/KG		2520.	0.	1.
	SILVER, TOTAL	0003	F	07/22/89	MG/KG		4.6	0.	1.
	SODIUM, TOTAL	0003	F	07/22/89	MG/KG		2030.	0.	1.
	VANADIUM, TOTAL	0003	F	07/22/89	MG/KG	E	17.1	0.	1.
	ZINC, TOTAL	0003	F	07/22/89	MG/KG	N	366.	0.	1.

PARAMETER VALUE QUALIFIERS (PVQ):
E = DET BEYOND CALIBRATION RANGE
N = PRS BLW DET LMT(J) NOT SPIKED

SAMPLE TYPE CODES:
F = FIELD SAMPLE

SOIL CHEMISTRY DATA
FACILITY: MND08 AREA 1
07/21/89 TO 08/17/89
LOCATION: 2014
NORTH COORDINATE: 99999999.99
EAST COORDINATE: 99999999.99
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
.5 - 3.5	ALUMINUM, TOTAL	0003	F	07/22/89	MG/KG		6960.	0.	1.
	BARIUM, TOTAL	0003	F	07/22/89	MG/KG		554.	0.	1.
	BERYLLIUM	0003	F	07/22/89	MG/KG	B	.95	0.	1.
	CADMIUM, TOTAL	0003	F	07/22/89	MG/KG	E	6.3	0.	1.
	CALCIUM, TOTAL	0003	F	07/22/89	MG/KG		87800.	0.	1.
	CHROMIUM, TOTAL	0003	F	07/22/89	MG/KG	N	19.6	0.	1.
	COBALT, TOTAL	0003	F	07/22/89	MG/KG	N	11.9	0.	1.
	COPPER, TOTAL	0003	F	07/22/89	MG/KG	N	11.	0.	1.
	IRON, TOTAL	0003	F	07/22/89	MG/KG		14100.	0.	1.
	LEAD, TOTAL	0003	F	07/22/89	MG/KG	N	5.4	0.	1.
	MAGNESIUM, TOTAL	0003	F	07/22/89	MG/KG		36900.	0.	1.
	NICKEL, TOTAL	0003	F	07/22/89	MG/KG	N	30.2	0.	1.
	POTASSIUM, TOTAL	0003	F	07/22/89	MG/KG		1950.	0.	1.
	SILVER, TOTAL	0003	F	07/22/89	MG/KG		2.7	0.	1.
	SODIUM, TOTAL	0003	F	07/22/89	MG/KG		2610.	0.	1.
	VANADIUM, TOTAL	0003	F	07/22/89	MG/KG	E	23.9	0.	1.
	ZINC, TOTAL	0003	F	07/22/89	MG/KG	N	350.	0.	1.
	PHENOL	0003	F	08/08/89	UG/KG	J	120.	380.	1.

PARAMETER VALUE QUALIFIERS (PVQ):
B = PRESENT IN BLANK
E = DET BEYOND CALIBRATION RANGE
N = PRS BLW DET LMT(J) NOT SPIKED
J = PRESENT BELOW DETECTION LIMIT

SAMPLE TYPE CODES:
F = FIELD SAMPLE

DATA FILE NAME: SCI10001.DAT

SOIL CHEMISTRY DATA
FACILITY: MND09 AREA 4/4A
08/16/89 TO 08/17/89
LOCATION: 0038
NORTH COORDINATE: 47968.65
EAST COORDINATE: 46336.01
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
0.0 - .5	2-METHYLNAPHTHALENE	0001	F	08/16/89	UG/KG	J	510.	2800.	8.
	ALUMINUM, TOTAL	0001	F	08/16/89	MG/KG		3510.	0.	1.
	ALUMINUM, TOTAL	C001	LD	08/16/89	MG/KG		4420.32	0.	1.
	ARSENIC, TOTAL	0001	F	08/16/89	MG/KG	N	4.7	0.	1.
	ARSENIC, TOTAL	C001	LD	08/16/89	MG/KG		2.97	0.	1.
	BARIUM, TOTAL	0001	F	08/16/89	MG/KG	N	333.	0.	1.
	BARIUM, TOTAL	C001	LD	08/16/89	MG/KG		311.58	0.	1.
	BERYLLIUM	0001	F	08/16/89	MG/KG	B	.79	0.	1.
	BERYLLIUM	C001	LD	08/16/89	MG/KG		.92	0.	1.
	CADMIUM, TOTAL	0001	F	08/16/89	MG/KG	N	6.4	0.	1.
	CADMIUM, TOTAL	C001	LD	08/16/89	MG/KG		7.13	0.	1.
	CALCIUM, TOTAL	0001	F	08/16/89	MG/KG		212000.	0.	1.
	CALCIUM, TOTAL	C001	LD	08/16/89	MG/KG		178648.66	0.	1.
	CHROMIUM, TOTAL	0001	F	08/16/89	MG/KG		6.5	0.	1.
	CHROMIUM, TOTAL	C001	LD	08/16/89	MG/KG		9.02	0.	1.
	COBALT, TOTAL	0001	F	08/16/89	MG/KG	B	7.5	0.	1.
	COBALT, TOTAL	C001	LD	08/16/89	MG/KG		8.91	0.	1.
	COPPER, TOTAL	C001	LD	08/16/89	MG/KG	B	3.32	0.	1.
	IRON, TOTAL	0001	F	08/16/89	MG/KG	E	5870.	0.	1.
	IRON, TOTAL	C001	LD	08/16/89	MG/KG		9913.94	0.	1.
	MAGNESIUM, TOTAL	0001	F	08/16/89	MG/KG		49600.	0.	1.
	MAGNESIUM, TOTAL	C001	LD	08/16/89	MG/KG		57142.86	0.	1.
	MANGANESE, TOTAL	C001	LD	08/16/89	MG/KG		235.14	0.	1.
	MERCURY, TOTAL	C001	LD	08/16/89	MG/KG		.07	0.	1.
	N-NITROSODIPHENYLAMINE	0001	F	08/16/89	UG/KG	J	1400.	2800.	8.
	NICKEL, TOTAL	0001	F	08/16/89	MG/KG		16.2	0.	1.
	NICKEL, TOTAL	C001	LD	08/16/89	MG/KG		21.5	0.	1.
	PHENANTHRENE	0001	F	08/16/89	UG/KG	J	540.	2800.	8.
	PLUTONIUM-238	0001	F	08/16/89	PCI/G		0.	-	-
	POTASSIUM, TOTAL	0001	F	08/16/89	MG/KG	B	737.	0.	1.
	POTASSIUM, TOTAL	C001	LD	08/16/89	MG/KG		1005.06	0.	1.
	SODIUM, TOTAL	0001	F	08/16/89	MG/KG	B	881.	0.	1.
	SODIUM, TOTAL	C001	LD	08/16/89	MG/KG		1723.99	0.	1.
	THORIUM-232	0001	F	08/16/89	PCI/G		3.9	-	-
	VANADIUM, TOTAL	0001	F	08/16/89	MG/KG	•	27.3	0.	1.
	VANADIUM, TOTAL	C001	LD	08/16/89	MG/KG		46.92	0.	1.
	ZINC, TOTAL	C001	LD	08/16/89	MG/KG		179.18	0.	1.
	2-METHYLNAPHTHALENE	0001	F	08/17/89	UG/KG	J	760.	2800.	8.
	N-NITROSODIPHENYLAMINE	0001	F	08/17/89	UG/KG	J	770.	2800.	8.
	PHENANTHRENE	0001	F	08/17/89	UG/KG	J	780.	2800.	8.
.5 - 2.	ALUMINUM, TOTAL	0002	F	08/16/89	MG/KG		4600.	0.	1.
	ARSENIC, TOTAL	0002	F	08/16/89	MG/KG	N	3.7	0.	1.
	BARIUM, TOTAL	0002	F	08/16/89	MG/KG	N	291.	0.	1.
	BERYLLIUM	0002	F	08/16/89	MG/KG		.88	0.	1.
	CADMIUM, TOTAL	0002	F	08/16/89	MG/KG	N	7.6	0.	1.
	CALCIUM, TOTAL	0002	F	08/16/89	MG/KG		180000.	0.	1.
	CHROMIUM, TOTAL	0002	F	08/16/89	MG/KG		8.9	0.	1.
	COBALT, TOTAL	0002	F	08/16/89	MG/KG		9.5	0.	1.
	COPPER, TOTAL	0002	F	08/16/89	MG/KG	B	2.6	0.	1.
	IRON, TOTAL	0002	F	08/16/89	MG/KG	E	11300.	0.	1.
	MAGNESIUM, TOTAL	0002	F	08/16/89	MG/KG		59700.	0.	1.
	MERCURY, TOTAL	0002	F	08/16/89	MG/KG		.15	0.	1.
	N-NITROSODIPHENYLAMINE	0002	F	08/16/89	UG/KG	J	42.	410.	1.
	NICKEL, TOTAL	0002	F	08/16/89	MG/KG		21.5	0.	1.
	PLUTONIUM-238	0002	F	08/16/89	PCI/G		1.	-	-
	POTASSIUM, TOTAL	0002	F	08/16/89	MG/KG		1070.	0.	1.
	SODIUM, TOTAL	0002	F	08/16/89	MG/KG		1470.	0.	1.
	THORIUM-232	0002	F	08/16/89	PCI/G		.6	-	-

PARAMETER VALUE QUALIFIERS (PVQ):
J = PRESENT BELOW DETECTION LIMIT
N = PRS BLW DET LMT(J) NOT SPIKED
B = PRESENT IN BLANK
E = DET BEYOND CALIBRATION RANGE
* = CONTROL LIMITS NOT APPLICABLE

SAMPLE TYPE CODES:
F = FIELD SAMPLE
LD = LAB DUPLICATE

SOIL CHEMISTRY DATA
FACILITY: MND09 AREA 4/4A
08/16/89 TO 08/17/89
LOCATION: 0038
NORTH COORDINATE: 47968.65
EAST COORDINATE: 46336.01
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
.5 - 2.	VANADIUM, TOTAL	0002	F	08/16/89	MG/KG	*	33.6	0.	1.
2. - 4.	ALUMINUM, TOTAL	0003	F	08/16/89	MG/KG		1390.	0.	1.
	ARSENIC, TOTAL	0003	F	08/16/89	MG/KG	N	2.2	0.	1.
	BARIUM, TOTAL	0003	F	08/16/89	MG/KG	N	687.	0.	1.
	BERYLLIUM	0003	F	08/16/89	MG/KG		1.5	0.	1.
	CADMIUM, TOTAL	0003	F	08/16/89	MG/KG	N	5.7	0.	1.
	CHROMIUM, TOTAL	0003	F	08/16/89	MG/KG		26.3	0.	1.
	COBALT, TOTAL	0003	F	08/16/89	MG/KG		22.1	0.	1.
	COPPER, TOTAL	0003	F	08/16/89	MG/KG		18.2	0.	1.
	IRON, TOTAL	0003	F	08/16/89	MG/KG	E	25100.	0.	1.
	MAGNESIUM, TOTAL	0003	F	08/16/89	MG/KG		18700.	0.	1.
	NICKEL, TOTAL	0003	F	08/16/89	MG/KG		47.1	0.	1.
	PLUTONIUM-238	0003	F	08/16/89	PCI/G		0.	-	-
	POTASSIUM, TOTAL	0003	F	08/16/89	MG/KG		3530.	0.	1.
	SILVER, TOTAL	0003	F	08/16/89	MG/KG	N	2.7	0.	1.
	SODIUM, TOTAL	0003	F	08/16/89	MG/KG		2990.	0.	1.
	THORIUM-232	0003	F	08/16/89	PCI/G		3.4	-	-
	VANADIUM, TOTAL	0003	F	08/16/89	MG/KG	*	22.9	0.	1.
6. - 8.	ALUMINUM, TOTAL	0005	F	08/16/89	MG/KG		15900.	0.	1.
	ARSENIC, TOTAL	0005	F	08/16/89	MG/KG	N	5.3	0.	1.
	BARIUM, TOTAL	0005	F	08/16/89	MG/KG	N	275.	0.	1.
	BERYLLIUM	0005	F	08/16/89	MG/KG		1.1	0.	1.
	CADMIUM, TOTAL	0005	F	08/16/89	MG/KG	N	4.4	0.	1.
	CHROMIUM, TOTAL	0005	F	08/16/89	MG/KG		20.3	0.	1.
	COBALT, TOTAL	0005	F	08/16/89	MG/KG		22.2	0.	1.
	COPPER, TOTAL	0005	F	08/16/89	MG/KG		21.9	0.	1.
	MAGNESIUM, TOTAL	0005	F	08/16/89	MG/KG		5010.	0.	1.
	NICKEL, TOTAL	0005	F	08/16/89	MG/KG		46.1	0.	1.
	PLUTONIUM-238	0005	F	08/16/89	PCI/G		5.	-	-
	POTASSIUM, TOTAL	0005	F	08/16/89	MG/KG		2290.	0.	1.
	SILVER, TOTAL	0005	F	08/16/89	MG/KG	N	2.4	0.	1.
	SODIUM, TOTAL	0005	F	08/16/89	MG/KG		929.	0.	1.
	THORIUM-232	0005	F	08/16/89	PCI/G		1.5	-	-
	VANADIUM, TOTAL	0005	F	08/16/89	MG/KG	*	16.	0.	1.

PARAMETER VALUE QUALIFIERS (PVQ):
* = CONTROL LIMITS NOT APPLICABLE
N = PRS BLW DET LMT(J) NOT SPIKED
E = DET BEYOND CALIBRATION RANGE

SAMPLE TYPE CODES:
F = FIELD SAMPLE

SOIL CHEMISTRY DATA
FACILITY: MND09 AREA 4/4A
08/16/89 TO 08/17/89
LOCATION: 0039
NORTH COORDINATE: 48026.37
EAST COORDINATE: 46323.17
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
0.0 - .5	ALUMINUM, TOTAL	0001	F	08/16/89	MG/KG		4960.	0.	1.
	ARSENIC, TOTAL	0001	F	08/16/89	MG/KG	N	2.8	0.	1.
	BARIUM, TOTAL	0001	F	08/16/89	MG/KG	N	250.	0.	1.
	BERYLLIUM	0001	F	08/16/89	MG/KG	B	.81	0.	1.
	CADMIUM, TOTAL	0001	F	08/16/89	MG/KG	N	6.8	0.	1.
	CHROMIUM, TOTAL	0001	F	08/16/89	MG/KG		12.8	0.	1.
	COBALT, TOTAL	0001	F	08/16/89	MG/KG		8.9	0.	1.
	COPPER, TOTAL	0001	F	08/16/89	MG/KG		5.4	0.	1.
	IRON, TOTAL	0001	F	08/16/89	MG/KG	E	7540.	0.	1.
	MAGNESIUM, TOTAL	0001	F	08/16/89	MG/KG		55100.	0.	1.
	MERCURY, TOTAL	0001	F	08/16/89	MG/KG		.23	0.	1.
	N-NITROSODIPHENYLAMINE	0001	F	08/16/89	UG/KG	J	490.	3000.	8.
	NICKEL, TOTAL	0001	F	08/16/89	MG/KG		19.6	0.	1.
	PLUTONIUM-238	0001	F	08/16/89	PCI/G		14.	-	-
	POTASSIUM, TOTAL	0001	F	08/16/89	MG/KG		1070.	0.	1.
	SODIUM, TOTAL	0001	F	08/16/89	MG/KG		1170.	0.	1.
	THORIUM-232	0001	F	08/16/89	PCI/G		3.1	-	-
	VANADIUM, TOTAL	0001	F	08/16/89	MG/KG	*	22.9	0.	1.
.5 - 2.	ALUMINUM, TOTAL	0002	F	08/16/89	MG/KG		16500.	0.	1.
	ARSENIC, TOTAL	0002	F	08/16/89	MG/KG	N	5.	0.	1.
	BARIUM, TOTAL	0002	F	08/16/89	MG/KG	N	662.	0.	1.
	BERYLLIUM	0002	F	08/16/89	MG/KG		1.3	0.	1.
	CADMIUM, TOTAL	0002	F	08/16/89	MG/KG	N	5.4	0.	1.
	CHROMIUM, TOTAL	0002	F	08/16/89	MG/KG		26.2	0.	1.
	COBALT, TOTAL	0002	F	08/16/89	MG/KG		24.5	0.	1.
	COPPER, TOTAL	0002	F	08/16/89	MG/KG		24.3	0.	1.
	DI-N-BUTYL PHTHALATE	0002	F	08/16/89	UG/KG	J	45.	410.	1.
	MAGNESIUM, TOTAL	0002	F	08/16/89	MG/KG		8930.	0.	1.
	N-NITROSODIPHENYLAMINE	0002	F	08/16/89	UG/KG	J	58.	410.	1.
	NICKEL, TOTAL	0002	F	08/16/89	MG/KG		52.5	0.	1.
	PLUTONIUM-238	0002	F	08/16/89	PCI/G		8.	-	-
	POTASSIUM, TOTAL	0002	F	08/16/89	MG/KG		2980.	0.	1.
	SILVER, TOTAL	0002	F	08/16/89	MG/KG	N	3.9	0.	1.
	SODIUM, TOTAL	0002	F	08/16/89	MG/KG		2650.	0.	1.
	THALLIUM, TOTAL	0002	F	08/16/89	MG/KG	B	.3	0.	1.
	THORIUM-232	0002	F	08/16/89	PCI/G		1.0	-	-
	VANADIUM, TOTAL	0002	F	08/16/89	MG/KG	*	13.5	0.	1.
2. - 4.	ALUMINUM, TOTAL	0003	F	08/16/89	MG/KG		13800.	0.	1.
	BARIUM, TOTAL	0003	F	08/16/89	MG/KG	N	521.	0.	1.
	BERYLLIUM	0003	F	08/16/89	MG/KG		1.2	0.	1.
	CADMIUM, TOTAL	0003	F	08/16/89	MG/KG	N	5.2	0.	1.
	CHROMIUM, TOTAL	0003	F	08/16/89	MG/KG		23.3	0.	1.
	COBALT, TOTAL	0003	F	08/16/89	MG/KG		20.7	0.	1.
	COPPER, TOTAL	0003	F	08/16/89	MG/KG		27.2	0.	1.
	IRON, TOTAL	0003	F	08/16/89	MG/KG	E	31400.	0.	1.
	MAGNESIUM, TOTAL	0003	F	08/16/89	MG/KG		15600.	0.	1.
	NICKEL, TOTAL	0003	F	08/16/89	MG/KG		46.6	0.	1.
	PLUTONIUM-238	0003	F	08/16/89	PCI/G		38.	-	-
	POTASSIUM, TOTAL	0003	F	08/16/89	MG/KG		2770.	0.	1.
	SODIUM, TOTAL	0003	F	08/16/89	MG/KG		2170.	0.	1.
	THORIUM-232	0003	F	08/16/89	PCI/G		8.7	-	-
	VANADIUM, TOTAL	0003	F	08/16/89	MG/KG	*	16.4	0.	1.
4. - 6.	PLUTONIUM-238	0004	F	08/16/89	PCI/G		9.	-	-
	THORIUM-232	0004	F	08/16/89	PCI/G		1.1	-	-

PARAMETER VALUE QUALIFIERS (PVQ):
N = PRS BLW DET LMT(J) NOT SPIKED
B = PRESENT IN BLANK
= DET BEYOND CALIBRATION RANGE
= PRESENT BELOW DETECTION LIMIT
* = CONTROL LIMITS NOT APPLICABLE

SAMPLE TYPE CODES:
F = FIELD SAMPLE

SOIL CHEMISTRY DATA
FACILITY: MND09 AREA 4/4A
08/16/89 TO 08/17/89
LOCATION: 0040
NORTH COORDINATE: 48129.47
EAST COORDINATE: 46370.35
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
0.0 - .5	ALUMINUM, TOTAL	0001	F	08/16/89	MG/KG		9860.	0.	1.
	ARSENIC, TOTAL	0001	F	08/16/89	MG/KG		3.9	0.	1.
	BARIUM, TOTAL	0001	F	08/16/89	MG/KG		465.	0.	1.
	BERYLLIUM	0001	F	08/16/89	MG/KG		1.2	0.	1.
	CADMIUM, TOTAL	0001	F	08/16/89	MG/KG		4.5	0.	1.
	CALCIUM, TOTAL	0001	F	08/16/89	MG/KG	*	113000.	0.	1.
	CHROMIUM, TOTAL	0001	F	08/16/89	MG/KG	*	18.	0.	1.
	COBALT, TOTAL	0001	F	08/16/89	MG/KG		13.6	0.	1.
	COPPER, TOTAL	0001	F	08/16/89	MG/KG		13.3	0.	1.
	IRON, TOTAL	0001	F	08/16/89	MG/KG	E	20700.	0.	1.
	LEAD, TOTAL	0001	F	08/16/89	MG/KG		11.5	0.	1.
	MAGNESIUM, TOTAL	0001	F	08/16/89	MG/KG	*	20600.	0.	1.
	MANGANESE, TOTAL	0001	F	08/16/89	MG/KG		565.	0.	1.
	NICKEL, TOTAL	0001	F	08/16/89	MG/KG	*	32.5	0.	1.
	PLUTONIUM-238	0001	F	08/16/89	PCI/G		12.	-	-
	POTASSIUM, TOTAL	0001	F	08/16/89	MG/KG		2030.	0.	1.
	SODIUM, TOTAL	0001	F	08/16/89	MG/KG		2140.	0.	1.
	THORIUM-232	0001	F	08/16/89	PCI/G		.8	-	-
	VANADIUM, TOTAL	0001	F	08/16/89	MG/KG		19.8	0.	1.
	ZINC, TOTAL	0001	F	08/16/89	MG/KG		303.	0.	1.
.5 - 2.	ALUMINUM, TOTAL	0002	F	08/16/89	MG/KG		8120.	0.	1.
	ARSENIC, TOTAL	0002	F	08/16/89	MG/KG		3.7	0.	1.
	BARIUM, TOTAL	0002	F	08/16/89	MG/KG		351.	0.	1.
	BERYLLIUM	0002	F	08/16/89	MG/KG		1.	0.	1.
	CADMIUM, TOTAL	0002	F	08/16/89	MG/KG		5.	0.	1.
	CALCIUM, TOTAL	0002	F	08/16/89	MG/KG	*	112000.	0.	1.
	CHROMIUM, TOTAL	0002	F	08/16/89	MG/KG	*	14.7	0.	1.
	COBALT, TOTAL	0002	F	08/16/89	MG/KG		10.7	0.	1.
	COPPER, TOTAL	0002	F	08/16/89	MG/KG		10.6	0.	1.
	IRON, TOTAL	0002	F	08/16/89	MG/KG	E	15900.	0.	1.
	LEAD, TOTAL	0002	F	08/16/89	MG/KG		27.2	0.	1.
	MAGNESIUM, TOTAL	0002	F	08/16/89	MG/KG	*	28300.	0.	1.
	MANGANESE, TOTAL	0002	F	08/16/89	MG/KG		392.	0.	1.
	NICKEL, TOTAL	0002	F	08/16/89	MG/KG	*	26.9	0.	1.
	PLUTONIUM-238	0002	F	08/16/89	PCI/G		10.	-	-
	POTASSIUM, TOTAL	0002	F	08/16/89	MG/KG		1780.	0.	1.
	SODIUM, TOTAL	0002	F	08/16/89	MG/KG		1540.	0.	1.
	THALLIUM, TOTAL	0002	F	08/16/89	MG/KG	B	.22	0.	1.
	THORIUM-232	0002	F	08/16/89	PCI/G		5.7	-	-
	VANADIUM, TOTAL	0002	F	08/16/89	MG/KG		20.2	0.	1.
	ZINC, TOTAL	0002	F	08/16/89	MG/KG		230.	0.	1.

PARAMETER VALUE QUALIFIERS (PVQ):
* = CONTROL LIMITS NOT APPLICABLE
E = DET BEYOND CALIBRATION RANGE
B = PRESENT IN BLANK

SAMPLE TYPE CODES:
F = FIELD SAMPLE

SOIL CHEMISTRY DATA
FACILITY: MND09 AREA 4/4A
08/16/89 TO 08/17/89
LOCATION: 0041
NORTH COORDINATE: 48123.38
EAST COORDINATE: 46364.73
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
0.0 - .5	ALUMINUM, TOTAL	0001	F	08/16/89	MG/KG		611.	0.	1.
	ARSENIC, TOTAL	0001	F	08/16/89	MG/KG	B	1.9	0.	1.
	BARIUM, TOTAL	0001	F	08/16/89	MG/KG		216.	0.	1.
	BERYLLIUM	0001	F	08/16/89	MG/KG	B	.69	0.	1.
	CADMIUM, TOTAL	0001	F	08/16/89	MG/KG		7.5	0.	1.
	CALCIUM, TOTAL	0001	F	08/16/89	MG/KG	*	144000.	0.	1.
	CHROMIUM, TOTAL	0001	F	08/16/89	MG/KG	*	5.4	0.	1.
	COBALT, TOTAL	0001	F	08/16/89	MG/KG	B	5.6	0.	1.
	IRON, TOTAL	0001	F	08/16/89	MG/KG	E	4350.	0.	1.
	LEAD, TOTAL	0001	F	08/16/89	MG/KG		15.2	0.	1.
	MAGNESIUM, TOTAL	0001	F	08/16/89	MG/KG	*	78200.	0.	1.
	MANGANESE, TOTAL	0001	F	08/16/89	MG/KG		133.	0.	1.
	NICKEL, TOTAL	0001	F	08/16/89	MG/KG	*	10.6	0.	1.
	PLUTONIUM-238	0001	F	08/16/89	PCI/G		10.	-	-
	POTASSIUM, TOTAL	0001	F	08/16/89	MG/KG	B	425.	0.	1.
	SODIUM, TOTAL	0001	F	08/16/89	MG/KG		1160.	0.	1.
	THORIUM-232	0001	F	08/16/89	PCI/G		.2	-	-
	VANADIUM, TOTAL	0001	F	08/16/89	MG/KG		18.9	0.	1.
	ZINC, TOTAL	0001	F	08/16/89	MG/KG		127.	0.	1.
.5 - 2.	ALUMINUM, TOTAL	0002	F	08/16/89	MG/KG		2290.	0.	1.
	ARSENIC, TOTAL	0002	F	08/16/89	MG/KG		7.6	0.	1.
	BARIUM, TOTAL	0002	F	08/16/89	MG/KG		315.	0.	1.
	BERYLLIUM	0002	F	08/16/89	MG/KG	B	.77	0.	1.
	CADMIUM, TOTAL	0002	F	08/16/89	MG/KG		6.6	0.	1.
	CALCIUM, TOTAL	0002	F	08/16/89	MG/KG	*	123000.	0.	1.
	CHROMIUM, TOTAL	0002	F	08/16/89	MG/KG	*	11.	0.	1.
	COBALT, TOTAL	0002	F	08/16/89	MG/KG	B	6.3	0.	1.
	COPPER, TOTAL	0002	F	08/16/89	MG/KG	B	4.4	0.	1.
	IRON, TOTAL	0002	F	08/16/89	MG/KG	E	6280.	0.	1.
	LEAD, TOTAL	0002	F	08/16/89	MG/KG		11.2	0.	1.
	MAGNESIUM, TOTAL	0002	F	08/16/89	MG/KG	*	55700.	0.	1.
	MANGANESE, TOTAL	0002	F	08/16/89	MG/KG		332.	0.	1.
	NICKEL, TOTAL	0002	F	08/16/89	MG/KG	*	18.7	0.	1.
	PLUTONIUM-238	0002	F	08/16/89	PCI/G		5.	-	-
	POTASSIUM, TOTAL	0002	F	08/16/89	MG/KG	B	651.	0.	1.
	SODIUM, TOTAL	0002	F	08/16/89	MG/KG		1450.	0.	1.
	THALLIUM, TOTAL	0002	F	08/16/89	MG/KG	B	.22	0.	1.
	THORIUM-232	0002	F	08/16/89	PCI/G		4.6	-	-
	VANADIUM, TOTAL	0002	F	08/16/89	MG/KG		18.1	0.	1.
	ZINC, TOTAL	0002	F	08/16/89	MG/KG		182.	0.	1.
2. - 4.	PLUTONIUM-238	0003	F	08/16/89	PCI/G		7.	-	-
	THORIUM-232	0003	F	08/16/89	PCI/G		.4	-	-
4. - 6.	ALUMINUM, TOTAL	0004	F	08/16/89	MG/KG		1680.	0.	1.
	ARSENIC, TOTAL	0004	F	08/16/89	MG/KG		2.5	0.	1.
	BARIUM, TOTAL	0004	F	08/16/89	MG/KG		268.	0.	1.
	BERYLLIUM	0004	F	08/16/89	MG/KG	B	.78	0.	1.
	CADMIUM, TOTAL	0004	F	08/16/89	MG/KG		6.7	0.	1.
	CALCIUM, TOTAL	0004	F	08/16/89	MG/KG	*	145000.	0.	1.
	CHROMIUM, TOTAL	0004	F	08/16/89	MG/KG	*	7.	0.	1.
	COBALT, TOTAL	0004	F	08/16/89	MG/KG	B	6.2	0.	1.
	COPPER, TOTAL	0004	F	08/16/89	MG/KG	B	2.8	0.	1.
	IRON, TOTAL	0004	F	08/16/89	MG/KG	E	4870.	0.	1.
	LEAD, TOTAL	0004	F	08/16/89	MG/KG		6.2	0.	1.
	MAGNESIUM, TOTAL	0004	F	08/16/89	MG/KG	*	64500.	0.	1.
	MANGANESE, TOTAL	0004	F	08/16/89	MG/KG		234.	0.	1.
	NICKEL, TOTAL	0004	F	08/16/89	MG/KG	*	15.3	0.	1.
	PLUTONIUM-238	0004	F	08/16/89	PCI/G		9.	-	-
	POTASSIUM, TOTAL	0004	F	08/16/89	MG/KG	B	526.	0.	1.

RAMETER VALUE QUALIFIERS (PVQ):
= PRESENT IN BLANK
* = CONTROL LIMITS NOT APPLICABLE
E = DET BEYOND CALIBRATION RANGE

SAMPLE TYPE CODES:
F = FIELD SAMPLE

SOIL CHEMISTRY DATA
FACILITY: MND09 AREA 4/4A
08/16/89 TO 08/17/89
LOCATION: 0041
NORTH COORDINATE: 48123.38
EAST COORDINATE: 46364.73
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
4. - 6.	SODIUM, TOTAL	0004	F	08/16/89	MG/KG		1390.	0.	1.
	THORIUM-232	0004	F	08/16/89	PCI/G		2.3	-	-
	VANADIUM, TOTAL	0004	F	08/16/89	MG/KG		20.1	0.	1.
	ZINC, TOTAL	0004	F	08/16/89	MG/KG		157.	0.	1.
6. - 8.	ALUMINUM, TOTAL	0005	F	08/16/89	MG/KG		2100.	0.	1.
	ARSENIC, TOTAL	0005	F	08/16/89	MG/KG		2.7	0.	1.
	BARIUM, TOTAL	0005	F	08/16/89	MG/KG		258.	0.	1.
	BERYLLIUM	0005	F	08/16/89	MG/KG	B	.74	0.	1.
	CADMIUM, TOTAL	0005	F	08/16/89	MG/KG		5.8	0.	1.
	CHROMIUM, TOTAL	0005	F	08/16/89	MG/KG	*	9.3	0.	1.
	COBALT, TOTAL	0005	F	08/16/89	MG/KG	B	6.1	0.	1.
	COPPER, TOTAL	0005	F	08/16/89	MG/KG	B	3.5	0.	1.
	IRON, TOTAL	0005	F	08/16/89	MG/KG	E	5330.	0.	1.
	LEAD, TOTAL	0005	F	08/16/89	MG/KG		4.5	0.	1.
	MAGNESIUM, TOTAL	0005	F	08/16/89	MG/KG	*	52700.	0.	1.
	MANGANESE, TOTAL	0005	F	08/16/89	MG/KG		230.	0.	1.
	NICKEL, TOTAL	0005	F	08/16/89	MG/KG	*	16.6	0.	1.
	PLUTONIUM-238	0005	F	08/16/89	PCI/G		6.	-	-
	POTASSIUM, TOTAL	0005	F	08/16/89	MG/KG	B	541.	0.	1.
	SODIUM, TOTAL	0005	F	08/16/89	MG/KG		1300.	0.	1.
	THORIUM-232	0005	F	08/16/89	PCI/G		.5	-	-
	VANADIUM, TOTAL	0005	F	08/16/89	MG/KG		18.5	0.	1.
	ZINC, TOTAL	0005	F	08/16/89	MG/KG		157.	0.	1.

PARAMETER VALUE QUALIFIERS (PVQ):
B = PRESENT IN BLANK
* = CONTROL LIMITS NOT APPLICABLE
E = DET BEYOND CALIBRATION RANGE

SAMPLE TYPE CODES:
F = FIELD SAMPLE

SOIL CHEMISTRY DATA
FACILITY: MND09 AREA 4/4A
08/16/89 TO 08/17/89
LOCATION: 0042
NORTH COORDINATE: 48040.09
EAST COORDINATE: 46298.7
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
0.0 - .5	ALUMINUM, TOTAL	0001	F	08/16/89	MG/KG		1160.	0.	1.
	ARSENIC, TOTAL	0001	F	08/16/89	MG/KG		2.3	0.	1.
	BARIUM, TOTAL	0001	F	08/16/89	MG/KG		253.	0.	1.
	BERYLLIUM	0001	F	08/16/89	MG/KG		.8	0.	1.
	CADMIUM, TOTAL	0001	F	08/16/89	MG/KG		8.3	0.	1.
	CALCIUM, TOTAL	0001	F	08/16/89	MG/KG	*	179000.	0.	1.
	CHROMIUM, TOTAL	0001	F	08/16/89	MG/KG	*	3.1	0.	1.
	COBALT, TOTAL	0001	F	08/16/89	MG/KG	B	6.6	0.	1.
	IRON, TOTAL	0001	F	08/16/89	MG/KG	E	3310.	0.	1.
	LEAD, TOTAL	0001	F	08/16/89	MG/KG		6.7	0.	1.
	MAGNESIUM, TOTAL	0001	F	08/16/89	MG/KG	*	99600.	0.	1.
	MANGANESE, TOTAL	0001	F	08/16/89	MG/KG		145.	0.	1.
	NICKEL, TOTAL	0001	F	08/16/89	MG/KG	*	7.9	0.	1.
	PLUTONIUM-238	0001	F	08/16/89	PCI/G		8.	-	-
	POTASSIUM, TOTAL	0001	F	08/16/89	MG/KG	B	530.	0.	1.
	SODIUM, TOTAL	0001	F	08/16/89	MG/KG		1420.	0.	1.
	THALLIUM, TOTAL	0001	F	08/16/89	MG/KG	B	.16	0.	1.
	THORIUM-232	0001	F	08/16/89	PCI/G		2.0	-	-
	VANADIUM, TOTAL	0001	F	08/16/89	MG/KG		21.4	0.	1.
	ZINC, TOTAL	0001	F	08/16/89	MG/KG		185.	0.	1.
.5 - 2.	ALUMINUM, TOTAL	0002	F	08/16/89	MG/KG		13200.	0.	1.
	ARSENIC, TOTAL	0002	F	08/16/89	MG/KG	B	1.6	0.	1.
	BARIUM, TOTAL	0002	F	08/16/89	MG/KG		357.	0.	1.
	BERYLLIUM	0002	F	08/16/89	MG/KG		1.3	0.	1.
	CADMIUM, TOTAL	0002	F	08/16/89	MG/KG		4.4	0.	1.
	CALCIUM, TOTAL	0002	F	08/16/89	MG/KG	*	119000.	0.	1.
	CHROMIUM, TOTAL	0002	F	08/16/89	MG/KG	*	18.1	0.	1.
	COBALT, TOTAL	0002	F	08/16/89	MG/KG		17.3	0.	1.
	COPPER, TOTAL	0002	F	08/16/89	MG/KG		12.4	0.	1.
	IRON, TOTAL	0002	F	08/16/89	MG/KG	E	26900.	0.	1.
	LEAD, TOTAL	0002	F	08/16/89	MG/KG		8.1	0.	1.
	MAGNESIUM, TOTAL	0002	F	08/16/89	MG/KG	*	143000.	0.	1.
	MANGANESE, TOTAL	0002	F	08/16/89	MG/KG		722.	0.	1.
	NICKEL, TOTAL	0002	F	08/16/89	MG/KG	*	40.9	0.	1.
	PLUTONIUM-238	0002	F	08/16/89	PCI/G		6.	-	-
	POTASSIUM, TOTAL	0002	F	08/16/89	MG/KG		2030.	0.	1.
	SODIUM, TOTAL	0002	F	08/16/89	MG/KG		1780.	0.	1.
	THORIUM-232	0002	F	08/16/89	PCI/G		1.2	-	-
	VANADIUM, TOTAL	0002	F	08/16/89	MG/KG		19.	0.	1.
	ZINC, TOTAL	0002	F	08/16/89	MG/KG		263.	0.	1.
4. - 6.	PLUTONIUM-238	0004	F	08/16/89	PCI/G		6.	-	-
	THORIUM-232	0004	F	08/16/89	PCI/G		9.4	-	-

PARAMETER VALUE QUALIFIERS (PVQ):
* = CONTROL LIMITS NOT APPLICABLE
B = PRESENT IN BLANK
E = DET BEYOND CALIBRATION RANGE

SAMPLE TYPE CODES:
F = FIELD SAMPLE

SOIL CHEMISTRY DATA
FACILITY: MND09 AREA 4/4A
08/16/89 TO 08/17/89
LOCATION: 0043
NORTH COORDINATE: 48096.23
EAST COORDINATE: 46166.8
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
0.0 - .5	ARSENIC, TOTAL	0001	F	08/17/89	MG/KG		4.4	0.	1.
	LEAD, TOTAL	0001	F	08/17/89	MG/KG		14.5	0.	1.
	PLUTONIUM-238	0001	F	08/17/89	PCI/G		32.	-	-
	THORIUM-232	0001	F	08/17/89	PCI/G		.2	-	-
.5 - 2.	ARSENIC, TOTAL	0002	F	08/17/89	MG/KG		2.5	0.	1.
	LEAD, TOTAL	0002	F	08/17/89	MG/KG		16.4	0.	1.
	PLUTONIUM-238	0002	F	08/17/89	PCI/G		9.	-	-
	THORIUM-232	0002	F	08/17/89	PCI/G		.9	-	-
2. - 4.	ARSENIC, TOTAL	0003	F	08/17/89	MG/KG		18.6	0.	1.
	LEAD, TOTAL	0003	F	08/17/89	MG/KG		105.	0.	1.
	PLUTONIUM-238	0003	F	08/17/89	PCI/G		0.	-	-
	THORIUM-232	0003	F	08/17/89	PCI/G		1.0	-	-
4. - 6.	ARSENIC, TOTAL	0004	F	08/17/89	MG/KG		3.2	0.	1.
	LEAD, TOTAL	0004	F	08/17/89	MG/KG		40.9	0.	1.
	PLUTONIUM-238	0004	F	08/17/89	PCI/G		11.	-	-
	THORIUM-232	0004	F	08/17/89	PCI/G		1.5	-	-
6. - 8.	PLUTONIUM-238	0005	F	08/17/89	PCI/G		11.	-	-
	THORIUM-232	0005	F	08/17/89	PCI/G		6.7	-	-

SAMPLE TYPE CODES:
F = FIELD SAMPLE

SOIL CHEMISTRY DATA
FACILITY: MND09 AREA 4/4A
08/16/89 TO 08/17/89
LOCATION: 0044
NORTH COORDINATE: 48090.33
EAST COORDINATE: 46172.61
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
0.0 - .5	ARSENIC, TOTAL	0001	F	08/17/89	MG/KG		2.7	0.	1.
	LEAD, TOTAL	0001	F	08/17/89	MG/KG		8.2	0.	1.
	PLUTONIUM-238	0001	F	08/17/89	PCI/G		0.	-	-
	THORIUM-232	0001	F	08/17/89	PCI/G		.3	-	-
.5 - 2.	ARSENIC, TOTAL	0002	F	08/17/89	MG/KG		8.	0.	1.
	LEAD, TOTAL	0002	F	08/17/89	MG/KG		29.6	0.	1.
	PLUTONIUM-238	0002	F	08/17/89	PCI/G		2.	-	-
	THORIUM-232	0002	F	08/17/89	PCI/G		.8	-	-
2. - 4.	ARSENIC, TOTAL	0003	F	08/17/89	MG/KG		5.	0.	1.
	LEAD, TOTAL	0003	F	08/17/89	MG/KG		10.8	0.	1.
	PLUTONIUM-238	0003	F	08/17/89	PCI/G		7.	-	-
	THORIUM-232	0003	F	08/17/89	PCI/G		5.8	-	-
4. - 6.	ARSENIC, TOTAL	0004	F	08/17/89	MG/KG		4.5	0.	1.
	LEAD, TOTAL	0004	F	08/17/89	MG/KG		17.7	0.	1.
	PLUTONIUM-238	0004	F	08/17/89	PCI/G		0.	-	-
	THORIUM-232	0004	F	08/17/89	PCI/G		.8	-	-

SAMPLE TYPE CODES:
F = FIELD SAMPLE

SOIL CHEMISTRY DATA
FACILITY: MND09 AREA 4/4A
08/16/89 TO 08/17/89
LOCATION: 0045
NORTH COORDINATE: 48088.2
EAST COORDINATE: 46178.81
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
0.0 - .5	ARSENIC, TOTAL	0001	F	08/17/89	MG/KG		5.2	0.	1.
	LEAD, TOTAL	0001	F	08/17/89	MG/KG		55.5	0.	1.
	PLUTONIUM-238	0001	F	08/17/89	PCI/G		225.	-	-
	THORIUM-232	0001	F	08/17/89	PCI/G		.7	-	-
.5 - 2.	ARSENIC, TOTAL	0002	F	08/17/89	MG/KG		1.7	0.	1.
	LEAD, TOTAL	0002	F	08/17/89	MG/KG		6.1	0.	1.
	PLUTONIUM-238	0002	F	08/17/89	PCI/G		8.	-	-
	THORIUM-232	0002	F	08/17/89	PCI/G		4.4	-	-
6. - 8.	ARSENIC, TOTAL	0005	F	08/17/89	MG/KG		5.6	0.	1.
	LEAD, TOTAL	0005	F	08/17/89	MG/KG		14.4	0.	1.
	PLUTONIUM-238	0005	F	08/17/89	PCI/G		2.	-	-
	THORIUM-232	0005	F	08/17/89	PCI/G		.8	-	-

SAMPLE TYPE CODES:
F = FIELD SAMPLE

SOIL CHEMISTRY DATA
FACILITY: MND09 AREA 4/4A
08/16/89 TO 08/17/89
LOCATION: 2038
NORTH COORDINATE: 47968.65
EAST COORDINATE: 46336.01
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
6. - 8.	ALUMINUM, TOTAL	0005	F	08/16/89	MG/KG		21900.	0.	1.
	ARSENIC, TOTAL	0005	F	08/16/89	MG/KG	N	5.7	0.	1.
	BARIUM, TOTAL	0005	F	08/16/89	MG/KG	N	371.	0.	1.
	BERYLLIUM	0005	F	08/16/89	MG/KG		1.5	0.	1.
	CADMIUM, TOTAL	0005	F	08/16/89	MG/KG	N	5.1	0.	1.
	CHROMIUM, TOTAL	0005	F	08/16/89	MG/KG		25.9	0.	1.
	COBALT, TOTAL	0005	F	08/16/89	MG/KG		26.1	0.	1.
	COPPER, TOTAL	0005	F	08/16/89	MG/KG		27.5	0.	1.
	MAGNESIUM, TOTAL	0005	F	08/16/89	MG/KG		6050.	0.	1.
	NICKEL, TOTAL	0005	F	08/16/89	MG/KG		55.3	0.	1.
	POTASSIUM, TOTAL	0005	F	08/16/89	MG/KG		3460.	0.	1.
	SILVER, TOTAL	0005	F	08/16/89	MG/KG	N	2.3	0.	1.
	SODIUM, TOTAL	0005	F	08/16/89	MG/KG		1350.	0.	1.
	VANADIUM, TOTAL	0005	F	08/16/89	MG/KG	*	23.5	0.	1.

PARAMETER VALUE QUALIFIERS (PVQ):
N = PRS BLW DET LMT(J) NOT SPIKED
* = CONTROL LIMITS NOT APPLICABLE

SAMPLE TYPE CODES:
F = FIELD SAMPLE

SOIL CHEMISTRY DATA
FACILITY: MND09 AREA 4/4A
08/16/89 TO 08/17/89
LOCATION: 2039
NORTH COORDINATE: 48026.37
EAST COORDINATE: 46323.17
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
0.0 - .5	ALUMINUM, TOTAL	0001	F	08/16/89	MG/KG		2640.	0.	1.
	ARSENIC, TOTAL	0001	F	08/16/89	MG/KG	N	2.8	0.	1.
	BARIUM, TOTAL	0001	F	08/16/89	MG/KG	N	276.	0.	1.
	BERYLLIUM	0001	F	08/16/89	MG/KG		.84	0.	1.
	CADMIUM, TOTAL	0001	F	08/16/89	MG/KG	N	8.7	0.	1.
	CHROMIUM, TOTAL	0001	F	08/16/89	MG/KG		8.	0.	1.
	COBALT, TOTAL	0001	F	08/16/89	MG/KG		9.1	0.	1.
	IRON, TOTAL	0001	F	08/16/89	MG/KG	E	5430.	0.	1.
	MAGNESIUM, TOTAL	0001	F	08/16/89	MG/KG		88200.	0.	1.
	N-NITROSODIPHENYLAMINE	0001	F	08/16/89	UG/KG	J	330.	3000.	8.
	NICKEL, TOTAL	0001	F	08/16/89	MG/KG		13.8	0.	1.
	POTASSIUM, TOTAL	0001	F	08/16/89	MG/KG	B	703.	0.	1.
	SODIUM, TOTAL	0001	F	08/16/89	MG/KG		1430.	0.	1.
	VANADIUM, TOTAL	0001	F	08/16/89	MG/KG	*	24.	0.	1.

PARAMETER VALUE QUALIFIERS (PVQ):
N = PRS BLW DET LMT(J) NOT SPIKED
E = DET BEYOND CALIBRATION RANGE
J = PRESENT BELOW DETECTION LIMIT
B = PRESENT IN BLANK
* = CONTROL LIMITS NOT APPLICABLE

SAMPLE TYPE CODES:
F = FIELD SAMPLE

DATA FILE NAME: SCI10001.DAT

SOIL CHEMISTRY DATA
FACILITY: MND10 AREA 11
07/24/89 TO 08/09/89
LOCATION: 0049
NORTH COORDINATE: 46918.89
EAST COORDINATE: 47652.64
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
0.0 - .5	2-BUTANONE	0001	F	07/24/89	UG/KG	JB	37.	56.	1.
	ACETONE	0001	F	07/24/89	UG/KG	J	12.	56.	1.
	ALUMINUM, TOTAL	0001	F	07/24/89	MG/KG		5180.	0.	1.
	ARSENIC, TOTAL	0001	F	07/24/89	MG/KG	B	1.7	0.	1.
	BARIUM, TOTAL	0001	F	07/24/89	MG/KG		361.	0.	1.
	BENZO(A)ANTHRACENE	0001	F	07/24/89	UG/KG	J	640.	-	1.
	BENZO(A)PYRENE	0001	F	07/24/89	UG/KG	J	710.	-	1.
	BENZO(B)FLUORANTHENE	0001	F	07/24/89	UG/KG	J	1500.	-	1.
	BENZO(K)FLUORANTHENE	0001	F	07/24/89	UG/KG	J	1600.	-	1.
	BERYLLIUM	0001	F	07/24/89	MG/KG	B	.96	0.	1.
	BIS(2-ETHYLHEXYL)PHTHALATE	0001	F	07/24/89	UG/KG		4000.	-	1.
	BUTYL BENZYL PHTHALATE	0001	F	07/24/89	UG/KG	J	1000.	-	1.
	CADMIUM, TOTAL	0001	F	07/24/89	MG/KG		5.7	0.	1.
	CALCIUM, TOTAL	0001	F	07/24/89	MG/KG		115000.	0.	1.
	CHROMIUM, TOTAL	0001	F	07/24/89	MG/KG	N	23.3	0.	1.
	CHRYSENE	0001	F	07/24/89	UG/KG	J	880.	-	1.
	COBALT, TOTAL	0001	F	07/24/89	MG/KG	B	5.9	0.	1.
	COPPER, TOTAL	0001	F	07/24/89	MG/KG	N	10.4	0.	1.
	DICHLOROMETHANE-METHYLENE CHLORIDE	0001	F	07/24/89	UG/KG	B	92.	28.	1.
	FLUORANTHENE	0001	F	07/24/89	UG/KG	J	950.	-	1.
	IRON, TOTAL	0001	F	07/24/89	MG/KG		7220.	0.	1.
	MAGNESIUM, TOTAL	0001	F	07/24/89	MG/KG		39700.	0.	1.
	MANGANESE, TOTAL	0001	F	07/24/89	MG/KG	N	214.	0.	1.
	NICKEL, TOTAL	0001	F	07/24/89	MG/KG		20.6	0.	1.
	PHENANTHRENE	0001	F	07/24/89	UG/KG	J	330.	-	1.
	POTASSIUM, TOTAL	0001	F	07/24/89	MG/KG		2080.	0.	1.
	PYRENE	0001	F	07/24/89	UG/KG	J	2700.	-	1.
	SODIUM, TOTAL	0001	F	07/24/89	MG/KG		1670.	0.	1.
	TETRACHLOROETHENE	0001	F	07/24/89	UG/KG	JB	9.	28.	1.
	TOLUENE	0001	F	07/24/89	UG/KG	J	6.	28.	1.
	VANADIUM, TOTAL	0001	F	07/24/89	MG/KG		22.9	0.	1.
	PLUTONIUM-238	0001	F	08/08/89	PCI/G		0.	-	-
	THORIUM-232	0001	F	08/08/89	PCI/G		2.8	-	-
.5 - 3.	ACETONE	0002	F	08/08/89	UG/KG	JB	6.	11.	1.
	DICHLOROMETHANE-METHYLENE CHLORIDE	0002	F	08/08/89	UG/KG	JB	3.	5.	1.
3. - 6.	BENZO(A)ANTHRACENE	0004	F	08/08/89	UG/KG	J	62.	360.	1.
	BENZO(A)PYRENE	0004	F	08/08/89	UG/KG	J	58.	360.	1.
	BENZO(B)FLUORANTHENE	0004	F	08/08/89	UG/KG	J	74.	360.	1.
	BENZO(K)FLUORANTHENE	0004	F	08/08/89	UG/KG	J	65.	360.	1.
	BIS(2-ETHYLHEXYL)PHTHALATE	0004	F	08/08/89	UG/KG	J	57.	360.	1.
	CHRYSENE	0004	F	08/08/89	UG/KG	J	72.	360.	1.
	FLUORANTHENE	0004	F	08/08/89	UG/KG	J	110.	360.	1.
	INDENO(1,2,3-CD)PYRENE	0004	F	08/08/89	UG/KG	J	53.	360.	1.
	PHENANTHRENE	0004	F	08/08/89	UG/KG	J	43.	360.	1.
	PLUTONIUM-238	0004	F	08/08/89	PCI/G		4.	-	-
	PYRENE	0004	F	08/08/89	UG/KG	J	89.	360.	1.
	THORIUM-232	0004	F	08/08/89	PCI/G		.4	-	-

PARAMETER VALUE QUALIFIERS (PVQ):
JB = PRS BLW DET LMT(J)PRS IN BLANK
J = PRESENT BELOW DETECTION LIMIT
B = PRESENT IN BLANK
N = PRS BLW DET LMT(J) NOT SPIKED

SAMPLE TYPE CODES:
F = FIELD SAMPLE

SOIL CHEMISTRY DATA
FACILITY: MND10 AREA 11
07/24/89 TO 08/09/89
LOCATION: 0050
NORTH COORDINATE: 46916.74
EAST COORDINATE: 47663.73
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
0.0 - .5	ACETONE	0001	F	07/24/89	UG/KG	JB	8.	11.	1.
	ALUMINUM, TOTAL	0001	F	07/24/89	MG/KG		2980.	0.	1.
	ARSENIC, TOTAL	0001	F	07/24/89	MG/KG	B	1.7	0.	1.
	BARIUM, TOTAL	0001	F	07/24/89	MG/KG		330.	0.	1.
	BENZO(A)ANTHRACENE	0001	F	07/24/89	UG/KG	J	1500.	3000.	8.
	BENZO(A)PYRENE	0001	F	07/24/89	UG/KG	J	1600.	3000.	8.
	BENZO(B)FLUORANTHENE	0001	F	07/24/89	UG/KG	J	2600.	3000.	8.
	BENZO(K)FLUORANTHENE	0001	F	07/24/89	UG/KG	J	2500.	3000.	8.
	BERYLLIUM	0001	F	07/24/89	MG/KG	B	.85	0.	1.
	BETA-BHC	0001	F	07/24/89	UG/KG		50.	46.	5.
	BIS(2-ETHYLHEXYL)PHTHALATE	0001	F	07/24/89	UG/KG		4700.	3000.	8.
	CADMIUM, TOTAL	0001	F	07/24/89	MG/KG		7.	0.	1.
	CALCIUM, TOTAL	0001	F	07/24/89	MG/KG		146000.	0.	1.
	CHROMIUM, TOTAL	0001	F	07/24/89	MG/KG	N	13.8	0.	1.
	CHRYSENE	0001	F	07/24/89	UG/KG	J	1500.	3000.	8.
	COBALT, TOTAL	0001	F	07/24/89	MG/KG	B	6.5	0.	1.
	COPPER, TOTAL	0001	F	07/24/89	MG/KG	N	12.9	0.	1.
	DICHLOROMETHANE-METHYLENE CHLORIDE	0001	F	07/24/89	UG/KG	B	7.	6.	1.
	IRON, TOTAL	0001	F	07/24/89	MG/KG		6070.	0.	1.
	MAGNESIUM, TOTAL	0001	F	07/24/89	MG/KG		62100.	0.	1.
	MANGANESE, TOTAL	0001	F	07/24/89	MG/KG	N	225.	0.	1.
	NICKEL, TOTAL	0001	F	07/24/89	MG/KG		17.	0.	1.
	PLUTONIUM-238	0001	F	07/24/89	PCI/G		7.	-	-
	POTASSIUM, TOTAL	0001	F	07/24/89	MG/KG	B	639.	0.	1.
	PYRENE	0001	F	07/24/89	UG/KG		5000.	3000.	8.
	SODIUM, TOTAL	0001	F	07/24/89	MG/KG		1590.	0.	1.
	THORIUM-232	0001	F	07/24/89	PCI/G		.4	-	-
	VANADIUM, TOTAL	0001	F	07/24/89	MG/KG		21.9	0.	1.
	1,1,1-TRICHLOROETHANE	0001	F	07/25/89	UG/KG		41.	6.	5.
	2-BUTANONE	0001	F	07/25/89	UG/KG	JB	21.	11.	5.
	BETA-BHC	0001	F	07/25/89	UG/KG	D	99.	93.	10.
	DICHLOROMETHANE-METHYLENE CHLORIDE	0001	F	07/25/89	UG/KG	B	130.	6.	5.
	ENDOSULFAN I(ALPHA)	0001	F	07/25/89	UG/KG	D	95.	93.	10.
	TETRACHLOROETHENE	0001	F	07/25/89	UG/KG	JB	10.	6.	5.
0.0 - 6.	ALUMINUM, TOTAL	0004	F	07/24/89	MG/KG		1910.	0.	1.
	BARIUM, TOTAL	0004	F	07/24/89	MG/KG		343.	0.	1.
	BERYLLIUM	0004	F	07/24/89	MG/KG	B	.79	0.	1.
	BIS(2-ETHYLHEXYL)PHTHALATE	0004	F	07/24/89	UG/KG	J	83.	720.	2.
	CADMIUM, TOTAL	0004	F	07/24/89	MG/KG		5.9	0.	1.
	CALCIUM, TOTAL	0004	F	07/24/89	MG/KG		197000.	0.	1.
	CHROMIUM, TOTAL	0004	F	07/24/89	MG/KG	N	4.	0.	1.
	COBALT, TOTAL	0004	F	07/24/89	MG/KG	B	6.8	0.	1.
	DI-N-OCTYL PHTHALATE	0004	F	07/24/89	UG/KG	J	76.	720.	2.
	IRON, TOTAL	0004	F	07/24/89	MG/KG		5830.	0.	1.
	MAGNESIUM, TOTAL	0004	F	07/24/89	MG/KG		46900.	0.	1.
	MANGANESE, TOTAL	0004	F	07/24/89	MG/KG	N	293.	0.	1.
	NICKEL, TOTAL	0004	F	07/24/89	MG/KG		20.8	0.	1.
	PLUTONIUM-238	0004	F	07/24/89	PCI/G		5.	-	-
	POTASSIUM, TOTAL	0004	F	07/24/89	MG/KG	B	616.	0.	1.
	SODIUM, TOTAL	0004	F	07/24/89	MG/KG		1730.	0.	1.
	THALLIUM, TOTAL	0004	F	07/24/89	MG/KG	B	.16	0.	1.
	THORIUM-232	0004	F	07/24/89	PCI/G		.3	-	-
	VANADIUM, TOTAL	0004	F	07/24/89	MG/KG		17.5	0.	1.
4.5 - 6.	1,1,1-TRICHLOROETHANE	0003	F	07/24/89	UG/KG	J	7.	5.	1.
	ACETONE	0003	F	07/24/89	UG/KG	JB	48.	10.	1.
	DICHLOROMETHANE-METHYLENE CHLORIDE	0003	F	07/24/89	UG/KG	B	61.	5.	1.
	TOLUENE	0003	F	07/24/89	UG/KG	J	6.	5.	1.

PARAMETER VALUE QUALIFIERS (PVQ):
JB = PRS BLW DET LMT(J)PRS IN BLANK
B = PRESENT IN BLANK
J = PRESENT BELOW DETECTION LIMIT
N = PRS BLW DET LMT(J) NOT SPIKED
D = DUPLICATE ANALYSIS OF A SAMPLE

SAMPLE TYPE CODES:
F = FIELD SAMPLE

SOIL CHEMISTRY DATA
FACILITY: MND10 AREA 11
07/24/89 TO 08/09/89
LOCATION: 0051
NORTH COORDINATE: 46910.36
EAST COORDINATE: 47704.95
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
0.0 - .5	2-BUTANONE	0001	F	07/25/89	UG/KG	B	12.	11.	1.
	BENZO(A)ANTHRACENE	0001	F	07/25/89	UG/KG	J	520.	1800.	5.
	BENZO(A)PYRENE	0001	F	07/25/89	UG/KG	J	400.	1800.	5.
	BENZO(B)FLUORANTHENE	0001	F	07/25/89	UG/KG	J	450.	1800.	5.
	CHRYSENE	0001	F	07/25/89	UG/KG	J	800.	1800.	5.
	ENDRIN KETONE	0001	F	07/25/89	UG/KG		39.	35.	2.
	FLUORANTHENE	0001	F	07/25/89	UG/KG	J	1100.	1800.	5.
	PHENANTHRENE	0001	F	07/25/89	UG/KG	J	670.	1800.	5.
	PLUTONIUM-238	0001	F	07/25/89	PCI/G		23.	-	-
	PYRENE	0001	F	07/25/89	UG/KG	J	1200.	1800.	5.
	TETRACHLOROETHENE	0001	F	07/25/89	UG/KG	JB	3.	5.	1.
	THORIUM-232	0001	F	07/25/89	PCI/G		.5	-	-
	TOLUENE	0001	F	07/25/89	UG/KG	J	3.	5.	1.
3. - 6.5	PLUTONIUM-238	0004	F	07/25/89	PCI/G		11.	-	-
	THORIUM-232	0004	F	07/25/89	PCI/G		.9	-	-
6. - 6.5	1,1,1-TRICHLOROETHANE	0003	F	07/25/89	UG/KG	J	1.	6.	1.
	2-BUTANONE	0003	F	07/25/89	UG/KG	JB	4.	11.	1.
	ACETONE	0003	F	07/25/89	UG/KG	B	17.	11.	1.
	DICHLOROMETHANE-METHYLENE CHLORIDE	0003	F	07/25/89	UG/KG	B	20.	6.	1.
	TETRACHLOROETHENE	0003	F	07/25/89	UG/KG	JB	2.	6.	1.
	TOLUENE	0003	F	07/25/89	UG/KG	J	1.	6.	1.

PARAMETER VALUE QUALIFIERS (PVQ):
B = PRESENT IN BLANK
J = PRESENT BELOW DETECTION LIMIT
JB = PRS BLW DET LMT(J)PRS IN BLANK

SAMPLE TYPE CODES:
F = FIELD SAMPLE

SOIL CHEMISTRY DATA
FACILITY: MND10 AREA 11
07/24/89 TO 08/09/89
LOCATION: 0052
NORTH COORDINATE: 46912.13
EAST COORDINATE: 47730.91
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
0.0 - .5	1,1,1-TRICHLOROETHANE	0001	F	07/25/89	UG/KG	J	3.	5.	1.
	2-BUTANONE	0001	F	07/25/89	UG/KG	JB	2.	11.	1.
	ACETONE	0001	F	07/25/89	UG/KG	JB	4.	11.	1.
	AROCLOR-1254	0001	F	07/25/89	UG/KG	J	56.	170.	1.
	AROCLOR-1260	0001	F	07/25/89	UG/KG	J	21.	170.	1.
	BENZO(A)ANTHRACENE	0001	F	07/25/89	UG/KG	J	240.	1800.	5.
	BENZO(K)FLUORANTHENE	0001	F	07/25/89	UG/KG	J	280.	1800.	5.
	CHRYSENE	0001	F	07/25/89	UG/KG	J	330.	1800.	5.
	DICHLOROMETHANE-METHYLENE CHLORIDE	0001	F	07/25/89	UG/KG	B	19.	5.	1.
	FLUORANTHENE	0001	F	07/25/89	UG/KG	J	550.	1800.	5.
	PHENANTHRENE	0001	F	07/25/89	UG/KG	J	440.	1800.	5.
	PLUTONIUM-238	0001	F	07/25/89	PCI/G		23.	-	-
	PYRENE	0001	F	07/25/89	UG/KG	J	590.	1800.	5.
	TETRACHLOROETHENE	0001	F	07/25/89	UG/KG	JB	2.	5.	1.
	THORIUM-232	0001	F	07/25/89	PCI/G		.6	-	-
	BETA-BHC	0001	F	07/26/89	UG/KG	D	48.	26.	3.
3. - 4.5	2-BUTANONE	0003	F	07/25/89	UG/KG	JB	3.	11.	1.
	ACETONE	0003	F	07/25/89	UG/KG	B	16.	11.	1.
	DICHLOROMETHANE-METHYLENE CHLORIDE	0003	F	07/25/89	UG/KG	B	24.	6.	1.
	PLUTONIUM-238	0004	F	07/25/89	PCI/G		6.	-	-
	TETRACHLOROETHENE	0003	F	07/25/89	UG/KG	JB	2.	6.	1.
	THORIUM-232	0004	F	07/25/89	PCI/G		.7	-	-

PARAMETER VALUE QUALIFIERS (PVQ):
J = PRESENT BELOW DETECTION LIMIT
JB = PRS BLW DET LMT(J)PRS IN BLANK
B = PRESENT IN BLANK
D = DUPLICATE ANALYSIS OF A SAMPLE

SAMPLE TYPE CODES:
F = FIELD SAMPLE

SOIL CHEMISTRY DATA
FACILITY: MND10 AREA 11
07/24/89 TO 08/09/89
LOCATION: 0053
NORTH COORDINATE: 46895.48
EAST COORDINATE: 47720.89
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
0.0 - .5	ALUMINUM, TOTAL	0001	F	07/24/89	MG/KG		1430.	0.	1.
	ARSENIC, TOTAL	0001	F	07/24/89	MG/KG		2.1	0.	1.
	BARIUM, TOTAL	0001	F	07/24/89	MG/KG		373.	0.	1.
	BERYLLIUM	0001	F	07/24/89	MG/KG	B	.77	0.	1.
	CADMIUM, TOTAL	0001	F	07/24/89	MG/KG		6.4	0.	1.
	CALCIUM, TOTAL	0001	F	07/24/89	MG/KG		196000.	0.	1.
	CHROMIUM, TOTAL	0001	F	07/24/89	MG/KG	N	4.1	0.	1.
	COBALT, TOTAL	0001	F	07/24/89	MG/KG	B	6.1	0.	1.
	FLUORANTHENE	0001	F	07/24/89	UG/KG	J	120.	710.	2.
	IRON, TOTAL	0001	F	07/24/89	MG/KG		4390.	0.	1.
	MAGNESIUM, TOTAL	0001	F	07/24/89	MG/KG		56300.	0.	1.
	MANGANESE, TOTAL	0001	F	07/24/89	MG/KG	N	362.	0.	1.
	N-NITROSODIPHENYLAMINE	0001	F	07/24/89	UG/KG	JB	140.	710.	2.
	NICKEL, TOTAL	0001	F	07/24/89	MG/KG		15.4	0.	1.
	PLUTONIUM-238	0001	F	07/24/89	PCI/G		10.	-	-
	POTASSIUM, TOTAL	0001	F	07/24/89	MG/KG	B	593.	0.	1.
	PYRENE	0001	F	07/24/89	UG/KG	J	89.	710.	2.
	SODIUM, TOTAL	0001	F	07/24/89	MG/KG		2750.	0.	1.
	THORIUM-232	0001	F	07/24/89	PCI/G		.1	-	-
	VANADIUM, TOTAL	0001	F	07/24/89	MG/KG		17.8	0.	1.
3. - 7.5	ALUMINUM, TOTAL	0004	F	07/24/89	MG/KG		13100.	0.	1.
	ARSENIC, TOTAL	0004	F	07/24/89	MG/KG		5.2	0.	1.
	BARIUM, TOTAL	0004	F	07/24/89	MG/KG		481.	0.	1.
	BERYLLIUM	0004	F	07/24/89	MG/KG		1.1	0.	1.
	BIS(2-ETHYLHEXYL)PHTHALATE	0004	F	07/24/89	UG/KG	J	96.	790.	2.
	CADMIUM, TOTAL	0004	F	07/24/89	MG/KG		4.2	0.	1.
	CALCIUM, TOTAL	0004	F	07/24/89	MG/KG		65500.	0.	1.
	CHROMIUM, TOTAL	0004	F	07/24/89	MG/KG	N	19.6	0.	1.
	COBALT, TOTAL	0004	F	07/24/89	MG/KG		13.8	0.	1.
	COPPER, TOTAL	0004	F	07/24/89	MG/KG	N	15.3	0.	1.
	DI-N-OCTYL PHTHALATE	0004	F	07/24/89	UG/KG	J	82.	790.	2.
	FLUORANTHENE	0004	F	07/24/89	UG/KG	J	140.	790.	2.
	IRON, TOTAL	0004	F	07/24/89	MG/KG		24600.	0.	1.
	MAGNESIUM, TOTAL	0004	F	07/24/89	MG/KG		10700.	0.	1.
	MANGANESE, TOTAL	0004	F	07/24/89	MG/KG	N	498.	0.	1.
	NICKEL, TOTAL	0004	F	07/24/89	MG/KG		39.9	0.	1.
	PHENANTHRENE	0004	F	07/24/89	UG/KG	J	87.	790.	2.
	PLUTONIUM-238	0004	F	07/24/89	PCI/G		10.	-	-
	POTASSIUM, TOTAL	0004	F	07/24/89	MG/KG		2200.	0.	1.
	PYRENE	0004	F	07/24/89	UG/KG	J	110.	790.	2.
	SILVER, TOTAL	0004	F	07/24/89	MG/KG	N	2.9	0.	1.
	SODIUM, TOTAL	0004	F	07/24/89	MG/KG		4080.	0.	1.
	THALLIUM, TOTAL	0004	F	07/24/89	MG/KG	B	.23	0.	1.
	THORIUM-232	0004	F	07/24/89	PCI/G		.6	-	-
	VANADIUM, TOTAL	0004	F	07/24/89	MG/KG		16.3	0.	1.
7. - 7.5	1,1,1-TRICHLOROETHANE	0003	F	07/24/89	UG/KG	J	2.	5.	1.
	2-BUTANONE	0003	F	07/24/89	UG/KG	JB	5.	11.	1.
	ACETONE	0003	F	07/24/89	UG/KG	B	15.	11.	1.
	DICHLOROMETHANE-METHYLENE CHLORIDE	0003	F	07/24/89	UG/KG	B	22.	5.	1.
	TETRACHLOROETHENE	0003	F	07/24/89	UG/KG	JB	1.	5.	1.

PARAMETER VALUE QUALIFIERS (PVQ):
B = PRESENT IN BLANK
N = PRS BLW DET LMT(J) NOT SPIKED
J = PRESENT BELOW DETECTION LIMIT
JB = PRS BLW DET LMT(J)PRS IN BLANK

SAMPLE TYPE CODES:
F = FIELD SAMPLE

SOIL CHEMISTRY DATA
FACILITY: MND10 AREA 11
07/24/89 TO 08/09/89
LOCATION: 0054
NORTH COORDINATE: 46901.12
EAST COORDINATE: 47700.35
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
0.0 - .5	1,1,1-TRICHLOROETHANE	0001	F	07/24/89	UG/KG	J	1.	5.	1.
	2-BUTANONE	0001	F	07/24/89	UG/KG	JB	3.	10.	1.
	ACETONE	0001	F	07/24/89	UG/KG		11.	10.	1.
	ALUMINUM, TOTAL	0001	F	07/24/89	MG/KG		1510.	0.	1.
	ARSENIC, TOTAL	0001	F	07/24/89	MG/KG		2.2	0.	1.
	BARIUM, TOTAL	0001	F	07/24/89	MG/KG		430.	0.	1.
	BENZO(K)FLUORANTHENE	0001	F	07/24/89	UG/KG	J	180.	1800.	5.
	BERYLLIUM	0001	F	07/24/89	MG/KG	B	.8	0.	1.
	CADMIUM, TOTAL	0001	F	07/24/89	MG/KG		8.	0.	1.
	CALCIUM, TOTAL	0001	F	07/24/89	MG/KG		176000.	0.	1.
	CHROMIUM, TOTAL	0001	F	07/24/89	MG/KG	N	8.1	0.	1.
	CHRYSENE	0001	F	07/24/89	UG/KG	J	200.	1800.	5.
	COBALT, TOTAL	0001	F	07/24/89	MG/KG	B	6.9	0.	1.
	DICHLOROMETHANE-METHYLENE CHLORIDE	0001	F	07/24/89	UG/KG	B	18.	5.	1.
	FLUORANTHENE	0001	F	07/24/89	UG/KG	J	310.	1800.	5.
	IRON, TOTAL	0001	F	07/24/89	MG/KG		3940.	0.	1.
	MAGNESIUM, TOTAL	0001	F	07/24/89	MG/KG		78100.	0.	1.
	MANGANESE, TOTAL	0001	F	07/24/89	MG/KG	N	264.	0.	1.
	N-NITROSODIPHENYLAMINE	0001	F	07/24/89	UG/KG	J	330.	1800.	5.
	NICKEL, TOTAL	0001	F	07/24/89	MG/KG		17.8	0.	1.
	PLUTONIUM-238	0001	F	07/24/89	PCI/G		18.	-	-
	POTASSIUM, TOTAL	0001	F	07/24/89	MG/KG	B	627.	0.	1.
	PYRENE	0001	F	07/24/89	UG/KG	J	290.	1800.	5.
	SODIUM, TOTAL	0001	F	07/24/89	MG/KG		2430.	0.	1.
	TETRACHLOROETHENE	0001	F	07/24/89	UG/KG	JB	1.	5.	1.
	THORIUM-232	0001	F	07/24/89	PCI/G		.1	-	-
	TOLUENE	0001	F	07/24/89	UG/KG	J	3.	5.	1.
	VANADIUM, TOTAL	0001	F	07/24/89	MG/KG		21.	0.	1.
3. - 6.5	ALUMINUM, TOTAL	0004	F	07/24/89	MG/KG		7650.	0.	1.
	BARIUM, TOTAL	0004	F	07/24/89	MG/KG		460.	0.	1.
	BERYLLIUM	0004	F	07/24/89	MG/KG	B	.79	0.	1.
	CADMIUM, TOTAL	0004	F	07/24/89	MG/KG		3.9	0.	1.
	CALCIUM, TOTAL	0004	F	07/24/89	MG/KG		99800.	0.	1.
	CHROMIUM, TOTAL	0004	F	07/24/89	MG/KG	N	14.3	0.	1.
	COBALT, TOTAL	0004	F	07/24/89	MG/KG		11.6	0.	1.
	COPPER, TOTAL	0004	F	07/24/89	MG/KG	N	8.3	0.	1.
	IRON, TOTAL	0004	F	07/24/89	MG/KG		17300.	0.	1.
	MAGNESIUM, TOTAL	0004	F	07/24/89	MG/KG		15100.	0.	1.
	MANGANESE, TOTAL	0004	F	07/24/89	MG/KG	N	323.	0.	1.
	NICKEL, TOTAL	0004	F	07/24/89	MG/KG		32.5	0.	1.
	PLUTONIUM-238	0004	F	07/24/89	PCI/G		12.	-	-
	POTASSIUM, TOTAL	0004	F	07/24/89	MG/KG		2280.	0.	1.
	SODIUM, TOTAL	0004	F	07/24/89	MG/KG		3440.	0.	1.
	THORIUM-232	0004	F	07/24/89	PCI/G		.1	-	-
	VANADIUM, TOTAL	0004	F	07/24/89	MG/KG		11.7	0.	1.
6. - 6.5	1,1,1-TRICHLOROETHANE	0003	F	07/24/89	UG/KG		8.	5.	1.
	2-BUTANONE	0003	F	07/24/89	UG/KG	JB	4.	10.	1.
	ACETONE	0003	F	07/24/89	UG/KG		18.	10.	1.
	DICHLOROMETHANE-METHYLENE CHLORIDE	0003	F	07/24/89	UG/KG	B	16.	5.	1.
	TETRACHLOROETHENE	0003	F	07/24/89	UG/KG	JB	1.	5.	1.
	TOLUENE	0003	F	07/24/89	UG/KG	J	2.	5.	1.

PARAMETER VALUE QUALIFIERS (PVQ):
J = PRESENT BELOW DETECTION LIMIT
JB = PRS BLW DET LMT(J)PRS IN BLANK
B = PRESENT IN BLANK
N = PRS BLW DET LMT(J) NOT SPIKED

SAMPLE TYPE CODES:
F = FIELD SAMPLE

SOIL CHEMISTRY DATA
FACILITY: MND10 AREA 11
07/24/89 TO 08/09/89
LOCATION: 0055
NORTH COORDINATE: 46910.36
EAST COORDINATE: 47680.75
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
0.0 - .5	1,1,1-TRICHLOROETHANE	0001	F	07/24/89	UG/KG		33.	5.	1.
	2-BUTANONE	0001	F	07/24/89	UG/KG	JB	5.	10.	1.
	ACETONE	0001	F	07/24/89	UG/KG	J	10.	10.	1.
	ALUMINUM, TOTAL	0001	F	07/24/89	MG/KG		2440.	0.	1.
	ARSENIC, TOTAL	0001	F	07/24/89	MG/KG		3.	0.	1.
	BARIUM, TOTAL	0001	F	07/24/89	MG/KG		389.	0.	1.
	BENZOIC ACID	0001	F	07/24/89	UG/KG	J	280.	7000.	4.
	BERYLLIUM	0001	F	07/24/89	MG/KG	B	.71	0.	1.
	CADMIUM, TOTAL	0001	F	07/24/89	MG/KG		6.7	0.	1.
	CALCIUM, TOTAL	0001	F	07/24/89	MG/KG		162000.	0.	1.
	CHROMIUM, TOTAL	0001	F	07/24/89	MG/KG	N	9.3	0.	1.
	COBALT, TOTAL	0001	F	07/24/89	MG/KG	B	7.1	0.	1.
	DICHLOROMETHANE-METHYLENE CHLORIDE	0001	F	07/24/89	UG/KG	B	18.	5.	1.
	IRON, TOTAL	0001	F	07/24/89	MG/KG		6700.	0.	1.
	MAGNESIUM, TOTAL	0001	F	07/24/89	MG/KG		54700.	0.	1.
	MANGANESE, TOTAL	0001	F	07/24/89	MG/KG	N	328.	0.	1.
	N-NITROSODIPHENYLAMINE	0001	F	07/24/89	UG/KG	J	530.	1400.	4.
	NICKEL, TOTAL	0001	F	07/24/89	MG/KG		18.5	0.	1.
	PLUTONIUM-238	0001	F	07/24/89	PCI/G		5.	-	-
	POTASSIUM, TOTAL	0001	F	07/24/89	MG/KG	B	689.	0.	1.
	SODIUM, TOTAL	0001	F	07/24/89	MG/KG		2090.	0.	1.
	TETRACHLOROETHENE	0001	F	07/24/89	UG/KG	JB	2.	5.	1.
	THORIUM-232	0001	F	07/24/89	PCI/G		.4	-	-
	TOLUENE	0001	F	07/24/89	UG/KG	J	1.	5.	1.
	VANADIUM, TOTAL	0001	F	07/24/89	MG/KG		18.2	0.	1.
0.0 - 8.2	ALUMINUM, TOTAL	0004	F	07/24/89	MG/KG		2460.	0.	1.
	ARSENIC, TOTAL	0004	F	07/24/89	MG/KG		3.8	0.	1.
	BARIUM, TOTAL	0004	F	07/24/89	MG/KG		424.	0.	1.
	BENZOIC ACID	0004	F	07/24/89	UG/KG	J	180.	7100.	4.
	BERYLLIUM	0004	F	07/24/89	MG/KG	B	.81	0.	1.
	CADMIUM, TOTAL	0004	F	07/24/89	MG/KG		6.8	0.	1.
	CALCIUM, TOTAL	0004	F	07/24/89	MG/KG		189000.	0.	1.
	CHROMIUM, TOTAL	0004	F	07/24/89	MG/KG	N	7.1	0.	1.
	COBALT, TOTAL	0004	F	07/24/89	MG/KG	B	7.3	0.	1.
	IRON, TOTAL	0004	F	07/24/89	MG/KG		6050.	0.	1.
	MAGNESIUM, TOTAL	0004	F	07/24/89	MG/KG		56600.	0.	1.
	MANGANESE, TOTAL	0004	F	07/24/89	MG/KG	N	265.	0.	1.
	MERCURY, TOTAL	0004	F	07/24/89	MG/KG	N	.12	0.	1.
	N-NITROSODIPHENYLAMINE	0004	F	07/24/89	UG/KG	J	280.	1400.	4.
	NICKEL, TOTAL	0004	F	07/24/89	MG/KG		17.7	0.	1.
	PLUTONIUM-238	0004	F	07/24/89	PCI/G		23.	-	-
	POTASSIUM, TOTAL	0004	F	07/24/89	MG/KG	B	761.	0.	1.
	SODIUM, TOTAL	0004	F	07/24/89	MG/KG		2150.	0.	1.
	THORIUM-232	0004	F	07/24/89	PCI/G		.2	-	-
	VANADIUM, TOTAL	0004	F	07/24/89	MG/KG		19.2	0.	1.
6.7 - 7.	1,1,1-TRICHLOROETHANE	0002	F	07/24/89	UG/KG	J	2.	5.	1.
	2-BUTANONE	0002	F	07/24/89	UG/KG	JB	5.	10.	1.
	4-METHYL-2-PENTANONE	0002	F	07/24/89	UG/KG	J	2.	10.	1.
	ACETONE	0002	F	07/24/89	UG/KG		23.	10.	1.
	DICHLOROMETHANE-METHYLENE CHLORIDE	0002	F	07/24/89	UG/KG	B	17.	5.	1.
	TETRACHLOROETHENE	0002	F	07/24/89	UG/KG	JB	4.	5.	1.
	TOLUENE	0002	F	07/24/89	UG/KG	J	2.	5.	1.
8. - 8.2	2-BUTANONE	0003	F	07/24/89	UG/KG	JB	2.	11.	1.
	4-METHYL-2-PENTANONE	0003	F	07/24/89	UG/KG	J	2.	11.	1.
	ACETONE	0003	F	07/24/89	UG/KG		20.	11.	1.
	CHLOROFORM	0003	F	07/24/89	UG/KG	J	1.	5.	1.
	DICHLOROMETHANE-METHYLENE CHLORIDE	0003	F	07/24/89	UG/KG	B	17.	5.	1.

ARAMETER VALUE QUALIFIERS (PVQ):
B = PRS BLW DET LMT(J)PRS IN BLANK
J = PRESENT BELOW DETECTION LIMIT
B = PRESENT IN BLANK
N = PRS BLW DET LMT(J) NOT SPIKED

SAMPLE TYPE CODES:
F = FIELD SAMPLE

SOIL CHEMISTRY DATA
FACILITY: MND10 AREA 11
07/24/89 TO 08/09/89
LOCATION: 0055
NORTH COORDINATE: 46910.36
EAST COORDINATE: 47680.75
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
8. - 8.2	TOLUENE	0003	F	07/24/89	UG/KG	J	2.	5.	1.

PARAMETER VALUE QUALIFIERS (PVQ):
J = PRESENT BELOW DETECTION LIMIT

SAMPLE TYPE CODES:
F = FIELD SAMPLE

SOIL CHEMISTRY DATA
FACILITY: MND10 AREA 11
07/24/89 TO 08/09/89
LOCATION: 0056
NORTH COORDINATE: 46882.05
EAST COORDINATE: 47228.68
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
.5 - 1.	2-BUTANONE	0001	F	08/06/89	UG/KG	J	9.	11.	1.
	ACETONE	0001	F	08/06/89	UG/KG	B	21.	11.	1.
	ALUMINUM, TOTAL	0001	F	08/06/89	MG/KG		1080.	0.	1.
	ARSENIC, TOTAL	0001	F	08/06/89	MG/KG	B	1.9	0.	1.
	BARIUM, TOTAL	0001	F	08/06/89	MG/KG	N	254.	0.	1.
	CADMIUM, TOTAL	0001	F	08/06/89	MG/KG		6.8	0.	1.
	CALCIUM, TOTAL	0001	F	08/06/89	MG/KG	*	186000.	0.	1.
	CHROMIUM, TOTAL	0001	F	08/06/89	MG/KG		6.4	0.	1.
	COBALT, TOTAL	0001	F	08/06/89	MG/KG	B	6.3	0.	1.
	DICHLOROMETHANE-METHYLENE CHLORIDE	0001	F	08/06/89	UG/KG	JB	4.	5.	1.
	ETHYLBENZENE	0001	F	08/06/89	UG/KG	J	3.	5.	1.
	FLUORANTHENE	0001	F	08/06/89	UG/KG	J	21000.	77000.	8.
	IRON, TOTAL	0001	F	08/06/89	MG/KG		3420.	0.	1.
	LEAD, TOTAL	0001	F	08/06/89	MG/KG		4.8	0.	1.
	MAGNESIUM, TOTAL	0001	F	08/06/89	MG/KG		62900.	0.	1.
	MANGANESE, TOTAL	0001	F	08/06/89	MG/KG	*	186.	0.	1.
	NICKEL, TOTAL	0001	F	08/06/89	MG/KG		15.7	0.	1.
	PLUTONIUM-238	0001	F	08/06/89	PCI/G		8.	-	-
	POTASSIUM, TOTAL	0001	F	08/06/89	MG/KG	B	509.	0.	1.
	SODIUM, TOTAL	0001	F	08/06/89	MG/KG		1260.	0.	1.
	THALLIUM, TOTAL	0001	F	08/06/89	MG/KG	B	.21	0.	1.
	THORIUM-232	0001	F	08/06/89	PCI/G		1.9	-	-
	TOLUENE	0001	F	08/06/89	UG/KG	B	14.	5.	1.
	TOTAL XYLENES	0001	F	08/06/89	UG/KG		6.	5.	1.
	TRICHLOROETHENE	0001	F	08/06/89	UG/KG	J	2.	5.	1.
	VANADIUM, TOTAL	0001	F	08/06/89	MG/KG		26.1	0.	1.
	ZINC, TOTAL	0001	F	08/06/89	MG/KG	N	210.	0.	1.
	1,1,1-TRICHLOROETHANE	0001	F	08/07/89	UG/KG	J	2.	5.	1.
	2-BUTANONE	0001	F	08/07/89	UG/KG	J	2.	10.	1.
	ACETONE	0001	F	08/07/89	UG/KG	B	14.	10.	1.
	DICHLOROMETHANE-METHYLENE CHLORIDE	0001	F	08/07/89	UG/KG	JB	5.	5.	1.
	ETHYLBENZENE	0001	F	08/07/89	UG/KG	J	3.	5.	1.
	TOLUENE	0001	F	08/07/89	UG/KG	B	57.	5.	1.
	TOTAL XYLENES	0001	F	08/07/89	UG/KG	J	4.	5.	1.
	TRICHLOROETHENE	0001	F	08/07/89	UG/KG	J	2.	5.	1.
3. - 5.	ACETONE	0002	F	08/06/89	UG/KG	JB	9.	11.	1.
	ALUMINUM, TOTAL	0004	F	08/06/89	MG/KG		4510.	0.	1.
	ARSENIC, TOTAL	0004	F	08/06/89	MG/KG	B	1.4	0.	1.
	BARIUM, TOTAL	0004	F	08/06/89	MG/KG	N	327.	0.	1.
	BERYLLIUM	0004	F	08/06/89	MG/KG		1.2	0.	1.
	CADMIUM, TOTAL	0004	F	08/06/89	MG/KG		3.1	0.	1.
	CALCIUM, TOTAL	0004	F	08/06/89	MG/KG	*	267000.	0.	1.
	CHROMIUM, TOTAL	0004	F	08/06/89	MG/KG		3.8	0.	1.
	COBALT, TOTAL	0004	F	08/06/89	MG/KG	B	8.6	0.	1.
	DICHLOROMETHANE-METHYLENE CHLORIDE	0002	F	08/06/89	UG/KG	B	6.	5.	1.
	IRON, TOTAL	0004	F	08/06/89	MG/KG		10900.	0.	1.
	LEAD, TOTAL	0004	F	08/06/89	MG/KG		7.7	0.	1.
	MAGNESIUM, TOTAL	0004	F	08/06/89	MG/KG		11700.	0.	1.
	MANGANESE, TOTAL	0004	F	08/06/89	MG/KG	*	300.	0.	1.
	NICKEL, TOTAL	0004	F	08/06/89	MG/KG		22.6	0.	1.
	PLUTONIUM-238	0004	F	08/06/89	PCI/G		2056.	-	-
	POTASSIUM, TOTAL	0004	F	08/06/89	MG/KG	B	999.	0.	1.
	SODIUM, TOTAL	0004	F	08/06/89	MG/KG		1650.	0.	1.
	THORIUM-232	0004	F	08/06/89	PCI/G		1.5	-	-
	TOLUENE	0002	F	08/06/89	UG/KG	JB	5.	5.	1.
	VANADIUM, TOTAL	0004	F	08/06/89	MG/KG		17.2	0.	1.
	ZINC, TOTAL	0004	F	08/06/89	MG/KG	N	217.	0.	1.
	BETA-BHC	0004	F	08/07/89	UG/KG	D	160.	43.	5.

PARAMETER VALUE QUALIFIERS (PVQ):
J = PRESENT BELOW DETECTION LIMIT
B = PRESENT IN BLANK
N = PRS BLW DET LMT(J) NOT SPIKED
* = CONTROL LIMITS NOT APPLICABLE
JB = PRS BLW DET LMT(J)PRS IN BLANK
D = DUPLICATE ANALYSIS OF A SAMPLE

SAMPLE TYPE CODES:
F = FIELD SAMPLE

SOIL CHEMISTRY DATA
FACILITY: MND10 AREA 11
07/24/89 TO 08/09/89
LOCATION: 0057
NORTH COORDINATE: 46853.14
EAST COORDINATE: 47726.02
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
.5 - 1.	ACETONE	0001	F	08/06/89	UG/KG	JB	5.	11.	1.
	ALUMINUM, TOTAL	0001	F	08/06/89	MG/KG		7610.	0.	1.
	ARSENIC, TOTAL	0001	F	08/06/89	MG/KG		5.3	0.	1.
	BARIUM, TOTAL	0001	F	08/06/89	MG/KG	N	350.	0.	1.
	BENZO(A)ANTHRACENE	0001	F	08/06/89	UG/KG	J	610.	3100.	8.
	BENZO(A)PYRENE	0001	F	08/06/89	UG/KG	J	490.	3100.	8.
	BENZO(B)FLUORANTHENE	0001	F	08/06/89	UG/KG	J	550.	3100.	8.
	BERYLLIUM	0001	F	08/06/89	MG/KG		1.3	0.	1.
	CADMIUM, TOTAL	0001	F	08/06/89	MG/KG		4.2	0.	1.
	CALCIUM, TOTAL	0001	F	08/06/89	MG/KG	*	78600.	0.	1.
	CHROMIUM, TOTAL	0001	F	08/06/89	MG/KG		17.8	0.	1.
	CHRYSENE	0001	F	08/06/89	UG/KG	J	590.	3100.	8.
	COBALT, TOTAL	0001	F	08/06/89	MG/KG		10.6	0.	1.
	COPPER, TOTAL	0001	F	08/06/89	MG/KG		12.9	0.	1.
	DICHLOROMETHANE-METHYLENE CHLORIDE	0001	F	08/06/89	UG/KG	JB	4.	6.	1.
	FLUORANTHENE	0001	F	08/06/89	UG/KG	J	1700.	3100.	8.
	IRON, TOTAL	0001	F	08/06/89	MG/KG		15200.	0.	1.
	LEAD, TOTAL	0001	F	08/06/89	MG/KG		15.7	0.	1.
	MAGNESIUM, TOTAL	0001	F	08/06/89	MG/KG		18800.	0.	1.
	MANGANESE, TOTAL	0001	F	08/06/89	MG/KG	*	341.	0.	1.
	MERCURY, TOTAL	0001	F	08/06/89	MG/KG	N	.12	0.	1.
	NICKEL, TOTAL	0001	F	08/06/89	MG/KG		27.2	0.	1.
	PHENANTHRENE	0001	F	08/06/89	UG/KG	J	1400.	3100.	8.
	PLUTONIUM-238	0001	F	08/06/89	PCI/G		21476.	-	-
	POTASSIUM, TOTAL	0001	F	08/06/89	MG/KG	B	923.	0.	1.
	PYRENE	0001	F	08/06/89	UG/KG	J	1200.	3100.	8.
	SODIUM, TOTAL	0001	F	08/06/89	MG/KG		2000.	0.	1.
	THORIUM-232	0001	F	08/06/89	PCI/G		5.0	-	-
	TOLUENE	0001	F	08/06/89	UG/KG	JB	3.	6.	1.
	VANADIUM, TOTAL	0001	F	08/06/89	MG/KG		23.7	0.	1.
	ZINC, TOTAL	0001	F	08/06/89	MG/KG	N	245.	0.	1.
3. - 5.	ACETONE	0002	F	08/06/89	UG/KG	JB	5.	11.	1.
	ALUMINUM, TOTAL	0004	F	08/06/89	MG/KG		7550.	0.	1.
	ARSENIC, TOTAL	0004	F	08/06/89	MG/KG		4.4	0.	1.
	BARIUM, TOTAL	0004	F	08/06/89	MG/KG	N	382.	0.	1.
	BENZO(A)ANTHRACENE	0004	F	08/06/89	UG/KG	J	350.	2200.	6.
	BENZO(A)PYRENE	0004	F	08/06/89	UG/KG	J	310.	2200.	6.
	BENZO(B)FLUORANTHENE	0004	F	08/06/89	UG/KG	J	270.	2200.	6.
	BENZO(K)FLUORANTHENE	0004	F	08/06/89	UG/KG	J	340.	2200.	6.
	BERYLLIUM	0004	F	08/06/89	MG/KG		1.3	0.	1.
	BETA-BHC	0004	F	08/06/89	UG/KG	J	24.	27.	3.
	CADMIUM, TOTAL	0004	F	08/06/89	MG/KG		3.9	0.	1.
	CALCIUM, TOTAL	0004	F	08/06/89	MG/KG	*	161000.	0.	1.
	CHROMIUM, TOTAL	0004	F	08/06/89	MG/KG		13.9	0.	1.
	CHRYSENE	0004	F	08/06/89	UG/KG	J	340.	2200.	6.
	COBALT, TOTAL	0004	F	08/06/89	MG/KG		11.1	0.	1.
	COPPER, TOTAL	0004	F	08/06/89	MG/KG		6.8	0.	1.
	DICHLOROMETHANE-METHYLENE CHLORIDE	0002	F	08/06/89	UG/KG	JB	4.	5.	1.
	FLUORANTHENE	0004	F	08/06/89	UG/KG	J	830.	2200.	6.
	IRON, TOTAL	0004	F	08/06/89	MG/KG		16200.	0.	1.
	LEAD, TOTAL	0004	F	08/06/89	MG/KG		13.4	0.	1.
	MAGNESIUM, TOTAL	0004	F	08/06/89	MG/KG		14100.	0.	1.
	MANGANESE, TOTAL	0004	F	08/06/89	MG/KG	*	370.	0.	1.
	MERCURY, TOTAL	0004	F	08/06/89	MG/KG	N	.14	0.	1.
	NICKEL, TOTAL	0004	F	08/06/89	MG/KG		28.7	0.	1.
	PHENANTHRENE	0004	F	08/06/89	UG/KG	J	680.	2200.	6.
	PLUTONIUM-238	0004	F	08/06/89	PCI/G		64643.	-	-
	POTASSIUM, TOTAL	0004	F	08/06/89	MG/KG		1350.	0.	1.

PARAMETER VALUE QUALIFIERS (PVQ):
JB = PRS BLW DET LMT(J)PRS IN BLANK
N = PRS BLW DET LMT(J) NOT SPIKED
J = PRESENT BELOW DETECTION LIMIT
* = CONTROL LIMITS NOT APPLICABLE
B = PRESENT IN BLANK

SAMPLE TYPE CODES:
F = FIELD SAMPLE

SOIL CHEMISTRY DATA
FACILITY: MND10 AREA 11
07/24/89 TO 08/09/89
LOCATION: 0057
NORTH COORDINATE: 46853.14
EAST COORDINATE: 47726.02
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
3. - 5.	PYRENE	0004	F	08/06/89	UG/KG	J	560.	2200.	6.
	SODIUM, TOTAL	0004	F	08/06/89	MG/KG		1970.	0.	1.
	THALLIUM, TOTAL	0004	F	08/06/89	MG/KG	B	.33	0.	1.
	THORIUM-232	0004	F	08/06/89	PCI/G		69.1	-	-
	TOLUENE	0002	F	08/06/89	UG/KG	B	8.	5.	1.
	VANADIUM, TOTAL	0004	F	08/06/89	MG/KG		19.8	0.	1.
	ZINC, TOTAL	0004	F	08/06/89	MG/KG	N	302.	0.	1.

PARAMETER VALUE QUALIFIERS (PVQ):
J = PRESENT BELOW DETECTION LIMIT
B = PRESENT IN BLANK
N = PRS BLW DET LMT(J) NOT SPIKED

SAMPLE TYPE CODES:
F = FIELD SAMPLE
D = FIELD DUPLICATE

SOIL CHEMISTRY DATA
FACILITY: MND10 AREA 11
07/24/89 TO 08/09/89
LOCATION: 2052
NORTH COORDINATE: 46912.13
EAST COORDINATE: 47730.91
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
0.0 - .5	PYRENE	0001	D	07/25/89	UG/KG	J	180.	-	1.

PARAMETER VALUE QUALIFIERS (PVQ):
J = PRESENT BELOW DETECTION LIMIT

SAMPLE TYPE CODES:
D = FIELD DUPLICATE

DATA FILE NAME: SCI10001.DAT

SOIL CHEMISTRY DATA
FACILITY: MND11 AREA 14
07/23/89 TO 08/28/91
LOCATION: 0063
NORTH COORDINATE: 47978.65
EAST COORDINATE: 46115.83
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
0.0 - .5	1,1,1-TRICHLOROETHANE	0001	F	07/23/89	UG/KG		11.	5.	1.
	ACETONE	0001	F	07/23/89	UG/KG	JB	2.	11.	1.
	ALUMINUM, TOTAL	0001	F	07/23/89	MG/KG		12200.	0.	1.
	BARIUM, TOTAL	0001	F	07/23/89	MG/KG		496.	0.	1.
	BERYLLIUM	0001	F	07/23/89	MG/KG		1.1	0.	1.
	BIS(2-ETHYLHEXYL)PHTHALATE	0001	F	07/23/89	UG/KG	J	43.	370.	1.
	CADMIUM, TOTAL	0001	F	07/23/89	MG/KG	E	4.1	0.	1.
	CALCIUM, TOTAL	0001	F	07/23/89	MG/KG		84400.	0.	1.
	CHROMIUM, TOTAL	0001	F	07/23/89	MG/KG	N	21.9	0.	1.
	COBALT, TOTAL	0001	F	07/23/89	MG/KG	N	15.8	0.	1.
	COPPER, TOTAL	0001	F	07/23/89	MG/KG	N	13.5	0.	1.
	DICHLOROMETHANE-METHYLENE CHLORIDE	0001	F	07/23/89	UG/KG	B	14.	5.	1.
	IRON, TOTAL	0001	F	07/23/89	MG/KG		20900.	0.	1.
	LEAD, TOTAL	0001	F	07/23/89	MG/KG	N	9.7	0.	1.
	MAGNESIUM, TOTAL	0001	F	07/23/89	MG/KG		11200.	0.	1.
	N-NITROSODIPHENYLAMINE	0001	F	07/23/89	UG/KG	JB	110.	370.	1.
	NICKEL, TOTAL	0001	F	07/23/89	MG/KG	N	36.3	0.	1.
	PLUTONIUM-238	0001	F	07/23/89	PCI/G		47.	-	-
	POTASSIUM, TOTAL	0001	F	07/23/89	MG/KG		2510.	0.	1.
	SILVER, TOTAL	0001	F	07/23/89	MG/KG		2.3	0.	1.
	SODIUM, TOTAL	0001	F	07/23/89	MG/KG		2080.	0.	1.
	TETRACHLOROETHENE	0001	F	07/23/89	UG/KG	J	2.	5.	1.
	THORIUM-232	0001	F	07/23/89	PCI/G		.8	-	-
	TOLUENE	0001	F	07/23/89	UG/KG	J	2.	5.	1.
	TRICHLOROETHENE	0001	F	07/23/89	UG/KG	J	2.	5.	1.
	VANADIUM, TOTAL	0001	F	07/23/89	MG/KG	E	18.8	0.	1.
	ZINC, TOTAL	0001	F	07/23/89	MG/KG	N	342.	0.	1.

ARAMETER VALUE QUALIFIERS (PVQ):
JB = PRS BLW DET LMT(J)PRS IN BLANK
J = PRESENT BELOW DETECTION LIMIT
E = DET BEYOND CALIBRATION RANGE
N = PRS BLW DET LMT(J) NOT SPIKED
B = PRESENT IN BLANK

SAMPLE TYPE CODES:
F = FIELD SAMPLE

SOIL CHEMISTRY DATA
FACILITY: MND11 AREA 14
07/23/89 TO 08/28/91
LOCATION: 0064
NORTH COORDINATE: 47982.56
EAST COORDINATE: 46132.49
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
0.0 - .5	1,1,1-TRICHLOROETHANE	0001	F	07/23/89	UG/KG	J	3.	6.	1.
	2-BUTANONE	0001	F	07/23/89	UG/KG	JB	6.	11.	1.
	ACETONE	0001	F	07/23/89	UG/KG	B	24.	11.	1.
	ALUMINUM, TOTAL	0001	F	07/23/89	MG/KG		11300.	0.	1.
	ARSENIC, TOTAL	0001	F	07/23/89	MG/KG		5.1	0.	1.
	BARIUM, TOTAL	0001	F	07/23/89	MG/KG		502.	0.	1.
	BERYLLIUM	0001	F	07/23/89	MG/KG		1.3	0.	1.
	CADMIUM, TOTAL	0001	F	07/23/89	MG/KG	E	5.7	0.	1.
	CALCIUM, TOTAL	0001	F	07/23/89	MG/KG		153000.	0.	1.
	CHLOROFORM	0001	F	07/23/89	UG/KG	J	1.	6.	1.
	CHROMIUM, TOTAL	0001	F	07/23/89	MG/KG	N	21.5	0.	1.
	COBALT, TOTAL	0001	F	07/23/89	MG/KG	N	18.4	0.	1.
	COPPER, TOTAL	0001	F	07/23/89	MG/KG	N	12.3	0.	1.
	DICHLOROMETHANE-METHYLENE CHLORIDE	0001	F	07/23/89	UG/KG	B	20.	6.	1.
	IRON, TOTAL	0001	F	07/23/89	MG/KG		20900.	0.	1.
	LEAD, TOTAL	0001	F	07/23/89	MG/KG	N	13.4	0.	1.
	MAGNESIUM, TOTAL	0001	F	07/23/89	MG/KG		21300.	0.	1.
	MERCURY, TOTAL	0001	F	07/23/89	MG/KG		.13	0.	1.
	N-NITROSODIPHENYLAMINE	0001	F	07/23/89	UG/KG	JB	120.	380.	1.
	NICKEL, TOTAL	0001	F	07/23/89	MG/KG	N	38.4	0.	1.
	PLUTONIUM-238	0001	F	07/23/89	PCI/G		293.	-	-
	POTASSIUM, TOTAL	0001	F	07/23/89	MG/KG		2510.	0.	1.
	SODIUM, TOTAL	0001	F	07/23/89	MG/KG		2210.	0.	1.
	TETRACHLOROETHENE	0001	F	07/23/89	UG/KG	JB	4.	6.	1.
	THALLIUM, TOTAL	0001	F	07/23/89	MG/KG	B	.31	0.	1.
	THORIUM-232	0001	F	07/23/89	PCI/G		1.9	-	-
	VANADIUM, TOTAL	0001	F	07/23/89	MG/KG	E	26.2	0.	1.
	ZINC, TOTAL	0001	F	07/23/89	MG/KG	N	331.	0.	1.

PARAMETER VALUE QUALIFIERS (PVQ):
J = PRESENT BELOW DETECTION LIMIT
JB = PRS BLW DET LMT(J)PRS IN BLANK
B = PRESENT IN BLANK
E = DET BEYOND CALIBRATION RANGE
N = PRS BLW DET LMT(J) NOT SPIKED

SAMPLE TYPE CODES:
F = FIELD SAMPLE

SOIL CHEMISTRY DATA
FACILITY: MND11 AREA 14
07/23/89 TO 08/28/91
LOCATION: 0065
NORTH COORDINATE: 47998.59
EAST COORDINATE: 46144.12
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
0.0 - .5	2-BUTANONE	0001	F	07/23/89	UG/KG	JB	8.	11.	1.
	2-HEXANONE	0001	F	07/23/89	UG/KG	J	3.	11.	1.
	4-METHYL-2-PENTANONE	0001	F	07/23/89	UG/KG	J	3.	11.	1.
	ACETONE	0001	F	07/23/89	UG/KG	B	18.	11.	1.
	ALUMINUM, TOTAL	0001	F	07/23/89	MG/KG		8850.	0.	1.
	ARSENIC, TOTAL	0001	F	07/23/89	MG/KG		3.7	0.	1.
	BARIUM, TOTAL	0001	F	07/23/89	MG/KG		492.	0.	1.
	BERYLLIUM	0001	F	07/23/89	MG/KG		1.1	0.	1.
	CADMIUM, TOTAL	0001	F	07/23/89	MG/KG	E	4.2	0.	1.
	CALCIUM, TOTAL	0001	F	07/23/89	MG/KG		121000.	0.	1.
	CHROMIUM, TOTAL	0001	F	07/23/89	MG/KG	N	18.1	0.	1.
	COBALT, TOTAL	0001	F	07/23/89	MG/KG	N	15.5	0.	1.
	COPPER, TOTAL	0001	F	07/23/89	MG/KG	N	12.3	0.	1.
	DICHLOROMETHANE-METHYLENE CHLORIDE	0001	F	07/23/89	UG/KG	B	130.	6.	1.
	IRON, TOTAL	0001	F	07/23/89	MG/KG		18300.	0.	1.
	LEAD, TOTAL	0001	F	07/23/89	MG/KG	N	14.4	0.	1.
	MAGNESIUM, TOTAL	0001	F	07/23/89	MG/KG		13300.	0.	1.
	MERCURY, TOTAL	0001	F	07/23/89	MG/KG		.91	0.	1.
	N-NITROSODIPHENYLAMINE	0001	F	07/23/89	UG/KG	JB	160.	740.	2.
	NICKEL, TOTAL	0001	F	07/23/89	MG/KG	N	32.4	0.	1.
	PLUTONIUM-238	0001	F	07/23/89	PCI/G		9.	-	-
	POTASSIUM, TOTAL	0001	F	07/23/89	MG/KG		1810.	0.	1.
	SODIUM, TOTAL	0001	F	07/23/89	MG/KG		2130.	0.	1.
	THORIUM-232	0001	F	07/23/89	PCI/G		.5	-	-
	VANADIUM, TOTAL	0001	F	07/23/89	MG/KG	E	20.5	0.	1.
	ZINC, TOTAL	0001	F	07/23/89	MG/KG	N	338.	0.	1.

PARAMETER VALUE QUALIFIERS (PVQ):
J = PRS BLW DET LMT(J)PRS IN BLANK
= PRESENT BELOW DETECTION LIMIT
B = PRESENT IN BLANK
E = DET BEYOND CALIBRATION RANGE
N = PRS BLW DET LMT(J) NOT SPIKED

SAMPLE TYPE CODES:
F = FIELD SAMPLE

SOIL CHEMISTRY DATA
FACILITY: MND11 AREA 14
07/23/89 TO 08/28/91
LOCATION: 0066
NORTH COORDINATE: 48017.34
EAST COORDINATE: 46154.
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
0.0 - .5	2-BUTANONE	0001	F	07/23/89	UG/KG	JB	4.	11.	1.
	ACETONE	0001	F	07/23/89	UG/KG	B	15.	11.	1.
	ALUMINUM, TOTAL	0001	F	07/23/89	MG/KG		10500.	0.	1.
	ARSENIC, TOTAL	0001	F	07/23/89	MG/KG		4.8	0.	1.
	BARIUM, TOTAL	0001	F	07/23/89	MG/KG		332.	0.	1.
	BENZO(B)FLUORANTHENE	0001	F	07/23/89	UG/KG	J	98.	760.	2.
	BERYLLIUM	0001	F	07/23/89	MG/KG		.97	0.	1.
	CADMIUM, TOTAL	0001	F	07/23/89	MG/KG	E	3.9	0.	1.
	CALCIUM, TOTAL	0001	F	07/23/89	MG/KG		93100.	0.	1.
	CHROMIUM, TOTAL	0001	F	07/23/89	MG/KG	N	18.5	0.	1.
	COBALT, TOTAL	0001	F	07/23/89	MG/KG	N	15.2	0.	1.
	COPPER, TOTAL	0001	F	07/23/89	MG/KG	N	20.8	0.	1.
	DICHLOROMETHANE-METHYLENE CHLORIDE	0001	F	07/23/89	UG/KG	B	31.	6.	1.
	FLUORANTHENE	0001	F	07/23/89	UG/KG	J	150.	760.	2.
	IRON, TOTAL	0001	F	07/23/89	MG/KG		19200.	0.	1.
	LEAD, TOTAL	0001	F	07/23/89	MG/KG	N	18.	0.	1.
	MAGNESIUM, TOTAL	0001	F	07/23/89	MG/KG		11000.	0.	1.
	MERCURY, TOTAL	0001	F	07/23/89	MG/KG		.54	0.	1.
	N-NITROSODIPHENYLAMINE	0001	F	07/23/89	UG/KG	JB	130.	760.	2.
	NICKEL, TOTAL	0001	F	07/23/89	MG/KG	N	33.4	0.	1.
	PHENANTHRENE	0001	F	07/23/89	UG/KG	J	93.	760.	2.
	PLUTONIUM-238	0001	F	07/23/89	PCI/G		37.	-	-
	POTASSIUM, TOTAL	0001	F	07/23/89	MG/KG		1820.	0.	1.
	SODIUM, TOTAL	0001	F	07/23/89	MG/KG		1560.	0.	1.
	THORIUM-232	0001	F	07/23/89	PCI/G		.9	-	-
	TRICHLOROETHENE	0001	F	07/23/89	UG/KG	J	3.	6.	1.
	VANADIUM, TOTAL	0001	F	07/23/89	MG/KG	E	18.8	0.	1.
	ZINC, TOTAL	0001	F	07/23/89	MG/KG	N	219.	0.	1.

PARAMETER VALUE QUALIFIERS (PVQ):
JB = PRS BLW DET LMT(J)PRS IN BLANK
B = PRESENT IN BLANK
J = PRESENT BELOW DETECTION LIMIT
E = DET BEYOND CALIBRATION RANGE
N = PRS BLW DET LMT(J) NOT SPIKED

SAMPLE TYPE CODES:
F = FIELD SAMPLE

SOIL CHEMISTRY DATA
FACILITY: MND11 AREA 14
07/23/89 TO 08/28/91
LOCATION: 0067
NORTH COORDINATE: 48001.24
EAST COORDINATE: 46166.25
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
0.0 - .5	2-BUTANONE	0001	F	07/23/89	UG/KG	JB	4.	11.	1.
	ALUMINUM, TOTAL	0001	F	07/23/89	MG/KG		14500.	0.	1.
	BARIUM, TOTAL	0001	F	07/23/89	MG/KG		436.	0.	1.
	BERYLLIUM	0001	F	07/23/89	MG/KG		1.1	0.	1.
	CADMIUM, TOTAL	0001	F	07/23/89	MG/KG	E	4.1	0.	1.
	CALCIUM, TOTAL	0001	F	07/23/89	MG/KG		54300.	0.	1.
	CHROMIUM, TOTAL	0001	F	07/23/89	MG/KG	N	23.2	0.	1.
	COBALT, TOTAL	0001	F	07/23/89	MG/KG	N	17.4	0.	1.
	COPPER, TOTAL	0001	F	07/23/89	MG/KG	N	20.5	0.	1.
	DICHLOROMETHANE-METHYLENE CHLORIDE	0001	F	07/23/89	UG/KG	B	30.	6.	1.
	IRON, TOTAL	0001	F	07/23/89	MG/KG		23800.	0.	1.
	LEAD, TOTAL	0001	F	07/23/89	MG/KG	N	7.4	0.	1.
	MAGNESIUM, TOTAL	0001	F	07/23/89	MG/KG		10600.	0.	1.
	MERCURY, TOTAL	0001	F	07/23/89	MG/KG		.22	0.	1.
	N-NITROSODIPHENYLAMINE	0001	F	07/23/89	UG/KG	JB	110.	770.	2.
	NICKEL, TOTAL	0001	F	07/23/89	MG/KG	N	40.6	0.	1.
	PLUTONIUM-238	0001	F	07/23/89	PCI/G		18.	-	-
	POTASSIUM, TOTAL	0001	F	07/23/89	MG/KG		2700.	0.	1.
	SILVER, TOTAL	0001	F	07/23/89	MG/KG		3.9	0.	1.
	SODIUM, TOTAL	0001	F	07/23/89	MG/KG		1910.	0.	1.
	THORIUM-232	0001	F	07/23/89	PCI/G		1.1	-	-
	VANADIUM, TOTAL	0001	F	07/23/89	MG/KG	E	16.9	0.	1.
	ZINC, TOTAL	0001	F	07/23/89	MG/KG	N	272.	0.	1.

PARAMETER VALUE QUALIFIERS (PVQ):
JB = PRS BLW DET LMT(J)PRS IN BLANK
E = DET BEYOND CALIBRATION RANGE
N = PRS BLW DET LMT(J) NOT SPIKED
= PRESENT IN BLANK

SAMPLE TYPE CODES:
F = FIELD SAMPLE

SOIL CHEMISTRY DATA
FACILITY: MND11 AREA 14
07/23/89 TO 08/28/91
LOCATION: 0068
NORTH COORDINATE: 47984.48
EAST COORDINATE: 46157.83
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
0.0 - .5	2-BUTANONE	0001	F	07/23/89	UG/KG	JB	3.	13.	1.
	ACETONE	0001	F	07/23/89	UG/KG	B	15.	13.	1.
	ALUMINUM, TOTAL	0001	F	07/23/89	MG/KG		9660.	0.	1.
	ARSENIC, TOTAL	0001	F	07/23/89	MG/KG		4.4	0.	1.
	BARIUM, TOTAL	0001	F	07/23/89	MG/KG		497.	0.	1.
	BERYLLIUM	0001	F	07/23/89	MG/KG	B	.87	0.	1.
	CADMIUM, TOTAL	0001	F	07/23/89	MG/KG	E	3.6	0.	1.
	CALCIUM, TOTAL	0001	F	07/23/89	MG/KG		35600.	0.	1.
	CHROMIUM, TOTAL	0001	F	07/23/89	MG/KG	N	19.	0.	1.
	COBALT, TOTAL	0001	F	07/23/89	MG/KG	N	13.9	0.	1.
	COPPER, TOTAL	0001	F	07/23/89	MG/KG	N	15.9	0.	1.
	DICHLOROMETHANE-METHYLENE CHLORIDE	0001	F	07/23/89	UG/KG	B	16.	6.	1.
	IRON, TOTAL	0001	F	07/23/89	MG/KG		16800.	0.	1.
	LEAD, TOTAL	0001	F	07/23/89	MG/KG	N	16.7	0.	1.
	MAGNESIUM, TOTAL	0001	F	07/23/89	MG/KG		9720.	0.	1.
	N-NITROSODIPHENYLAMINE	0001	F	07/23/89	UG/KG	JB	130.	840.	2.
	NICKEL, TOTAL	0001	F	07/23/89	MG/KG	N	29.1	0.	1.
	PLUTONIUM-238	0001	F	07/23/89	PCI/G		173.	-	-
	POTASSIUM, TOTAL	0001	F	07/23/89	MG/KG		2620.	0.	1.
	SILVER, TOTAL	0001	F	07/23/89	MG/KG		4.	0.	1.
	SODIUM, TOTAL	0001	F	07/23/89	MG/KG		2300.	0.	1.
	THALLIUM, TOTAL	0001	F	07/23/89	MG/KG	B	.27	0.	1.
	THORIUM-232	0001	F	07/23/89	PCI/G		1.8	-	-
	VANADIUM, TOTAL	0001	F	07/23/89	MG/KG	E	19.8	0.	1.
	ZINC, TOTAL	0001	F	07/23/89	MG/KG	N	298.	0.	1.

PARAMETER VALUE QUALIFIERS (PVQ):
JB = PRS BLW DET LMT(J)PRS IN BLANK
B = PRESENT IN BLANK
E = DET BEYOND CALIBRATION RANGE
N = PRS BLW DET LMT(J) NOT SPIKED

SAMPLE TYPE CODES:
F = FIELD SAMPLE

SOIL CHEMISTRY DATA
FACILITY: MND11 AREA 14
07/23/89 TO 08/28/91
LOCATION: 0069
NORTH COORDINATE: 47985.76
EAST COORDINATE: 46150.86
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
0.0 - .5	2-BUTANONE	0001	F	07/23/89	UG/KG	JB	2.	12.	1.
	ACETONE	0001	F	07/23/89	UG/KG	JB	12.	12.	1.
	ALUMINUM, TOTAL	0001	F	07/23/89	MG/KG		13900.	0.	1.
	BARIUM, TOTAL	0001	F	07/23/89	MG/KG		428.	0.	1.
	BERYLLIUM	0001	F	07/23/89	MG/KG		1.1	0.	1.
	CADMIUM, TOTAL	0001	F	07/23/89	MG/KG	E	4.3	0.	1.
	CALCIUM, TOTAL	0001	F	07/23/89	MG/KG		65000.	0.	1.
	CARBON DISULFIDE	0001	F	07/23/89	UG/KG	J	3.	6.	1.
	CHROMIUM, TOTAL	0001	F	07/23/89	MG/KG	N	23.8	0.	1.
	COBALT, TOTAL	0001	F	07/23/89	MG/KG	N	18.7	0.	1.
	COPPER, TOTAL	0001	F	07/23/89	MG/KG	N	17.	0.	1.
	DICHLOROMETHANE-METHYLENE CHLORIDE	0001	F	07/23/89	UG/KG	B	21.	6.	1.
	IRON, TOTAL	0001	F	07/23/89	MG/KG		25900.	0.	1.
	LEAD, TOTAL	0001	F	07/23/89	MG/KG	N	13.	0.	1.
	MAGNESIUM, TOTAL	0001	F	07/23/89	MG/KG		8210.	0.	1.
	MERCURY, TOTAL	0001	F	07/23/89	MG/KG		.13	0.	1.
	N-NITROSODIPHENYLAMINE	0001	F	07/23/89	UG/KG	JB	140.	830.	2.
	NICKEL, TOTAL	0001	F	07/23/89	MG/KG	N	43.1	0.	1.
	PLUTONIUM-238	0001	F	07/23/89	PCI/G		32.	-	-
	POTASSIUM, TOTAL	0001	F	07/23/89	MG/KG		3100.	0.	1.
	SILVER, TOTAL	0001	F	07/23/89	MG/KG		3.6	0.	1.
	SODIUM, TOTAL	0001	F	07/23/89	MG/KG		2180.	0.	1.
	THALLIUM, TOTAL	0001	F	07/23/89	MG/KG	B	.24	0.	1.
	THORIUM-232	0001	F	07/23/89	PCI/G		1.2	-	-
	VANADIUM, TOTAL	0001	F	07/23/89	MG/KG	E	17.8	0.	1.
	ZINC, TOTAL	0001	F	07/23/89	MG/KG	N	316.	0.	1.

PARAMETER VALUE QUALIFIERS (PVQ):
JB = PRS BLW DET LMT(J)PRS IN BLANK
E = DET BEYOND CALIBRATION RANGE
J = PRESENT BELOW DETECTION LIMIT
N = PRS BLW DET LMT(J) NOT SPIKED
B = PRESENT IN BLANK

SAMPLE TYPE CODES:
F = FIELD SAMPLE

SOIL CHEMISTRY DATA
FACILITY: MND11 AREA 14
07/23/89 TO 08/28/91
LOCATION: 0070
NORTH COORDINATE: 47967.2
EAST COORDINATE: 46149.57
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
0.0 - .5	2-BUTANONE	0001	F	07/23/89	UG/KG	JB	4.	12.	1.
	ACETONE	0001	F	07/23/89	UG/KG	B	16.	12.	1.
	ALUMINUM, TOTAL	0001	F	07/23/89	MG/KG		7250.	0.	1.
	ARSENIC, TOTAL	0001	F	07/23/89	MG/KG		6.2	0.	1.
	BARIUM, TOTAL	0001	F	07/23/89	MG/KG		494.	0.	1.
	BERYLLIUM	0001	F	07/23/89	MG/KG	B	.83	0.	1.
	CADMIUM, TOTAL	0001	F	07/23/89	MG/KG	E	5.	0.	1.
	CALCIUM, TOTAL	0001	F	07/23/89	MG/KG		75300.	0.	1.
	CHROMIUM, TOTAL	0001	F	07/23/89	MG/KG	N	16.2	0.	1.
	COBALT, TOTAL	0001	F	07/23/89	MG/KG	N	10.8	0.	1.
	COPPER, TOTAL	0001	F	07/23/89	MG/KG	N	13.8	0.	1.
	DICHLOROMETHANE-METHYLENE CHLORIDE	0001	F	07/23/89	UG/KG	B	20.	6.	1.
	IRON, TOTAL	0001	F	07/23/89	MG/KG		15200.	0.	1.
	LEAD, TOTAL	0001	F	07/23/89	MG/KG	N	.13	0.	1.
	MAGNESIUM, TOTAL	0001	F	07/23/89	MG/KG		26500.	0.	1.
	MERCURY, TOTAL	0001	F	07/23/89	MG/KG		.85	0.	1.
	N-NITROSODIPHENYLAMINE	0001	F	07/23/89	UG/KG	JB	260.	830.	2.
	NICKEL, TOTAL	0001	F	07/23/89	MG/KG	N	27.6	0.	1.
	PLUTONIUM-238	0001	F	07/23/89	PCI/G		9.	-	-
	POTASSIUM, TOTAL	0001	F	07/23/89	MG/KG		2520.	0.	1.
	SODIUM, TOTAL	0001	F	07/23/89	MG/KG		2190.	0.	1.
	THORIUM-232	0001	F	07/23/89	PCI/G		1.8	-	-
	VANADIUM, TOTAL	0001	F	07/23/89	MG/KG	E	20.3	0.	1.
	ZINC, TOTAL	0001	F	07/23/89	MG/KG	N	326.	0.	1.

PARAMETER VALUE QUALIFIERS (PVQ):
JB = PRS BLW DET LMT(J)PRS IN BLANK
B = PRESENT IN BLANK
E = DET BEYOND CALIBRATION RANGE
N = PRS BLW DET LMT(J) NOT SPIKED
J = PRESENT BELOW DETECTION LIMIT

SAMPLE TYPE CODES:
F = FIELD SAMPLE

SOIL CHEMISTRY DATA
FACILITY: MND11 AREA 14
07/23/89 TO 08/28/91
LOCATION: 0071
NORTH COORDINATE: 99999999.99
EAST COORDINATE: 99999999.99
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
0.0 - .5	1,1,1-TRICHLOROETHANE	0001	F	07/23/89	UG/KG	J	4.	6.	1.
	2-BUTANONE	0001	F	07/23/89	UG/KG	JB	4.	12.	1.
	ACETONE	0001	F	07/23/89	UG/KG	J	9.	12.	1.
	ALUMINUM, TOTAL	0001	F	07/23/89	MG/KG		9280.	0.	1.
	ARSENIC, TOTAL	0001	F	07/23/89	MG/KG		4.5	0.	1.
	BARIUM, TOTAL	0001	F	07/23/89	MG/KG		484.	0.	1.
	BERYLLIUM	0001	F	07/23/89	MG/KG	B	.96	0.	1.
	CADMIUM, TOTAL	0001	F	07/23/89	MG/KG		4.5	0.	1.
	CALCIUM, TOTAL	0001	F	07/23/89	MG/KG		72600.	0.	1.
	CHROMIUM, TOTAL	0001	F	07/23/89	MG/KG	N	18.5	0.	1.
	COBALT, TOTAL	0001	F	07/23/89	MG/KG		16.7	0.	1.
	COPPER, TOTAL	0001	F	07/23/89	MG/KG	N	18.1	0.	1.
	DICHLOROMETHANE-METHYLENE CHLORIDE	0001	F	07/23/89	UG/KG	B	30.	6.	1.
	IRON, TOTAL	0001	F	07/23/89	MG/KG		21600.	0.	1.
	MAGNESIUM, TOTAL	0001	F	07/23/89	MG/KG		17100.	0.	1.
	MANGANESE, TOTAL	0001	F	07/23/89	MG/KG	N	590.	0.	1.
	NICKEL, TOTAL	0001	F	07/23/89	MG/KG		35.5	0.	1.
	PLUTONIUM-238	0001	F	07/23/89	PCI/G		8435.	-	-
	POTASSIUM, TOTAL	0001	F	07/23/89	MG/KG		2260.	0.	1.
	SILVER, TOTAL	0001	F	07/23/89	MG/KG	N	2.2	0.	1.
	SODIUM, TOTAL	0001	F	07/23/89	MG/KG		2140.	0.	1.
	TETRACHLOROETHENE	0001	F	07/23/89	UG/KG	JB	3.	6.	1.
	THORIUM-232	0001	F	07/23/89	PCI/G		5.1	-	-
	TOLUENE	0001	F	07/23/89	UG/KG		6.	6.	1.
	TRICHLOROETHENE	0001	F	07/23/89	UG/KG	J	3.	6.	1.
	VANADIUM, TOTAL	0001	F	07/23/89	MG/KG		16.	0.	1.
	ACTINIUM-228	0001	F	07/24/89	PCI/G		.486	-	-
	AMERICIUM-241	0001	F	07/24/89	PCI/G		33.6	-	-
	CESIUM-137	0001	F	07/24/89	PCI/G		.018	-	-
	LEAD-212	0001	F	07/24/89	PCI/G		.393	-	-
	LEAD-214	0001	F	07/24/89	PCI/G		.350	-	-
	N-NITROSODIPHENYLAMINE	0001	F	07/24/89	UG/KG	JB	150.	330.	2.
	PLUTONIUM-238	0001	F	07/24/89	PCI/G		6150.	-	-
	POTASSIUM-40	0001	F	07/24/89	PCI/G		14.7	-	-
	THALLIUM-208	0001	F	07/24/89	PCI/G		.151	-	-

PARAMETER VALUE QUALIFIERS (PVQ):
J = PRESENT BELOW DETECTION LIMIT
JB = PRS BLW DET LMT(J)PRS IN BLANK
B = PRESENT IN BLANK
N = PRS BLW DET LMT(J) NOT SPIKED

SAMPLE TYPE CODES:
F = FIELD SAMPLE

SOIL CHEMISTRY DATA
FACILITY: MND11 AREA 14
07/23/89 TO 08/28/91
LOCATION: 0072
NORTH COORDINATE: 99999999.99
EAST COORDINATE: 99999999.99
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
0.0 - .5	1,1,1-TRICHLOROETHANE	0001	F	07/23/89	UG/KG	J	5.	6.	1.
	2-BUTANONE	0001	F	07/23/89	UG/KG	JB	8.	11.	1.
	ALUMINUM, TOTAL	0001	F	07/23/89	MG/KG		4640.	0.	1.
	ARSENIC, TOTAL	0001	F	07/23/89	MG/KG		3.9	0.	1.
	BARIUM, TOTAL	0001	F	07/23/89	MG/KG		468.	0.	1.
	BENZO(A)ANTHRACENE	0001	F	07/23/89	UG/KG	J	110.	780.	2.
	BENZO(A)PYRENE	0001	F	07/23/89	UG/KG	J	90.	780.	2.
	BENZO(B)FLUORANTHENE	0001	F	07/23/89	UG/KG	J	81.	780.	2.
	BENZO(K)FLUORANTHENE	0001	F	07/23/89	UG/KG	J	130.	780.	2.
	BERYLLIUM	0001	F	07/23/89	MG/KG	B	.75	0.	1.
	CADMIUM, TOTAL	0001	F	07/23/89	MG/KG		4.	0.	1.
	CALCIUM, TOTAL	0001	F	07/23/89	MG/KG		89000.	0.	1.
	CHROMIUM, TOTAL	0001	F	07/23/89	MG/KG	N	14.5	0.	1.
	CHRYSENE	0001	F	07/23/89	UG/KG	J	120.	780.	2.
	COBALT, TOTAL	0001	F	07/23/89	MG/KG	B	7.7	0.	1.
	COPPER, TOTAL	0001	F	07/23/89	MG/KG	N	9.8	0.	1.
	DICHLOROMETHANE-METHYLENE CHLORIDE	0001	F	07/23/89	UG/KG	B	23.	6.	1.
	FLUORANTHENE	0001	F	07/23/89	UG/KG	J	230.	780.	2.
	IRON, TOTAL	0001	F	07/23/89	MG/KG		9700.	0.	1.
	MAGNESIUM, TOTAL	0001	F	07/23/89	MG/KG		21200.	0.	1.
	MANGANESE, TOTAL	0001	F	07/23/89	MG/KG	N	381.	0.	1.
	N-NITROSODIPHENYLAMINE	0001	F	07/23/89	UG/KG	J	79.	780.	2.
	NICKEL, TOTAL	0001	F	07/23/89	MG/KG		21.	0.	1.
	PHENANTHRENE	0001	F	07/23/89	UG/KG	J	180.	780.	2.
	PLUTONIUM-238	0001	F	07/23/89	PCI/G		7127.	-	-
	POTASSIUM, TOTAL	0001	F	07/23/89	MG/KG		1540.	0.	1.
	PYRENE	0001	F	07/23/89	UG/KG	J	210.	780.	2.
	SODIUM, TOTAL	0001	F	07/23/89	MG/KG		1940.	0.	1.
	TETRACHLOROETHENE	0001	F	07/23/89	UG/KG	JB	4.	6.	1.
	THORIUM-232	0001	F	07/23/89	PCI/G		20.4	-	-
	TOLUENE	0001	F	07/23/89	UG/KG	J	5.	6.	1.
	TRICHLOROETHENE	0001	F	07/23/89	UG/KG	J	3.	6.	1.
	VANADIUM, TOTAL	0001	F	07/23/89	MG/KG		16.2	0.	1.
	ACTINIUM-228	0001	F	07/24/89	PCI/G		.335	-	-
	AMERICIUM-241	0001	F	07/24/89	PCI/G		17.4	-	-
	CESIUM-137	0001	F	07/24/89	PCI/G		.093	-	-
	LEAD-212	0001	F	07/24/89	PCI/G		.296	-	-
	LEAD-214	0001	F	07/24/89	PCI/G		.223	-	-
	PLUTONIUM-238	0001	F	07/24/89	PCI/G		3090.	-	-
	POTASSIUM-40	0001	F	07/24/89	PCI/G		5.23	-	-
	THALLIUM-208	0001	F	07/24/89	PCI/G		.161	-	-

PARAMETER VALUE QUALIFIERS (PVQ):
J = PRESENT BELOW DETECTION LIMIT
JB = PRS BLW DET LMT(J)PRS IN BLANK
B = PRESENT IN BLANK
N = PRS BLW DET LMT(J) NOT SPIKED

SAMPLE TYPE CODES:
F = FIELD SAMPLE

SOIL CHEMISTRY DATA
FACILITY: MND11 AREA 14
07/23/89 TO 08/28/91
LOCATION: 0073
NORTH COORDINATE: 47912.11
EAST COORDINATE: 46072.13
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
0.0 - .5	2-BUTANONE	0001	F	07/23/89	UG/KG	JB	9.	13.	1.
	ACETONE	0001	F	07/23/89	UG/KG	B	28.	13.	1.
	ALUMINUM, TOTAL	0001	F	07/23/89	MG/KG		21.	0.	1.
	ANTHRACENE	0001	F	07/23/89	UG/KG	J	290.	2200.	5.
	ARSENIC, TOTAL	0001	F	07/23/89	MG/KG		.021	0.	1.
	BARIUM, TOTAL	0001	F	07/23/89	MG/KG		3.5	0.	1.
	BENZO(A)ANTHRACENE	0001	F	07/23/89	UG/KG	J	860.	2200.	5.
	BENZO(A)PYRENE	0001	F	07/23/89	UG/KG	J	910.	2200.	5.
	BENZO(B)FLUORANTHENE	0001	F	07/23/89	UG/KG	J	1900.	2200.	5.
	BENZO(K)FLUORANTHENE	0001	F	07/23/89	UG/KG	J	1800.	2200.	5.
	BERYLLIUM	0001	F	07/23/89	MG/KG	B	.0044	0.	1.
	BIS(2-ETHYLHEXYL)PHTHALATE	0001	F	07/23/89	UG/KG		4800.	2200.	5.
	BUTYL BENZYL PHTHALATE	0001	F	07/23/89	UG/KG	J	1000.	2200.	5.
	CADMIUM, TOTAL	0001	F	07/23/89	MG/KG		.026	0.	1.
	CALCIUM, TOTAL	0001	F	07/23/89	MG/KG		732.	0.	1.
	CARBON DISULFIDE	0001	F	07/23/89	UG/KG	J	2.	6.	1.
	CHROMIUM, TOTAL	0001	F	07/23/89	MG/KG	N	.058	0.	1.
	CHRYSENE	0001	F	07/23/89	UG/KG	J	1000.	2200.	5.
	COBALT, TOTAL	0001	F	07/23/89	MG/KG	B	.05	0.	1.
	COPPER, TOTAL	0001	F	07/23/89	MG/KG	N	.042	0.	1.
	DI-N-OCTYL PHTHALATE	0001	F	07/23/89	UG/KG	J	410.	2200.	5.
	DICHLOROMETHANE-METHYLENE CHLORIDE	0001	F	07/23/89	UG/KG	B	20.	6.	1.
	FLUORANTHENE	0001	F	07/23/89	UG/KG	J	1100.	2200.	5.
	IRON, TOTAL	0001	F	07/23/89	MG/KG		57.8	0.	1.
	MAGNESIUM, TOTAL	0001	F	07/23/89	MG/KG		175.	0.	1.
	MANGANESE, TOTAL	0001	F	07/23/89	MG/KG	N	2.1	0.	1.
	MERCURY, TOTAL	0001	F	07/23/89	MG/KG	N	1.1	0.	1.
	NICKEL, TOTAL	0001	F	07/23/89	MG/KG		.12	0.	1.
	PHENANTHRENE	0001	F	07/23/89	UG/KG	J	480.	2200.	5.
	PLUTONIUM-238	0001	F	07/23/89	PCI/G		172.	-	-
	POTASSIUM, TOTAL	0001	F	07/23/89	MG/KG		7.2	0.	1.
	PYRENE	0001	F	07/23/89	UG/KG		2800.	2200.	5.
	SODIUM, TOTAL	0001	F	07/23/89	MG/KG		13.8	0.	1.
	THORIUM-232	0001	F	07/23/89	PCI/G		1.2	-	-
	TOLUENE	0001	F	07/23/89	UG/KG	J	6.	6.	1.
	VANADIUM, TOTAL	0001	F	07/23/89	MG/KG		.089	0.	1.

PARAMETER VALUE QUALIFIERS (PVQ):
JB = PRS BLW DET LMT(J)PRS IN BLANK
B = PRESENT IN BLANK
J = PRESENT BELOW DETECTION LIMIT
N = PRS BLW DET LMT(J) NOT SPIKED

SAMPLE TYPE CODES:
F = FIELD SAMPLE

SOIL CHEMISTRY DATA
FACILITY: MND11 AREA 14
07/23/89 TO 08/28/91
LOCATION: 0074
NORTH COORDINATE: 47901.55
EAST COORDINATE: 46029.85
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
0.0 - .5	1,1,1-TRICHLOROETHANE	0001	F	07/23/89	UG/KG	J	6.	8.	1.
	2-BUTANONE	0001	F	07/23/89	UG/KG	JB	10.	15.	1.
	4,4'-DDT	0001	F	07/23/89	UG/KG		27.	25.	1.
	ACETONE	0001	F	07/23/89	UG/KG	JB	2.	15.	1.
	ALUMINUM, TOTAL	0001	F	07/23/89	MG/KG		4150.	0.	1.
	ARSENIC, TOTAL	0001	F	07/23/89	MG/KG	B	.52	0.	1.
	BARIUM, TOTAL	0001	F	07/23/89	MG/KG		529.	0.	1.
	BERYLLIUM	0001	F	07/23/89	MG/KG		1.2	0.	1.
	BIS(2-ETHYLHEXYL)PHTHALATE	0001	F	07/23/89	UG/KG	J	240.	1000.	2.
	CADMIUM, TOTAL	0001	F	07/23/89	MG/KG		6.7	0.	1.
	CALCIUM, TOTAL	0001	F	07/23/89	MG/KG		196000.	0.	1.
	CHLOROFORM	0001	F	07/23/89	UG/KG	J	2.	8.	1.
	CHROMIUM, TOTAL	0001	F	07/23/89	MG/KG	N	9.9	0.	1.
	COBALT, TOTAL	0001	F	07/23/89	MG/KG		12.6	0.	1.
	DI-N-OCTYL PHTHALATE	0001	F	07/23/89	UG/KG	J	110.	1000.	2.
	DICHLOROMETHANE-METHYLENE CHLORIDE	0001	F	07/23/89	UG/KG	B	31.	8.	1.
	IRON, TOTAL	0001	F	07/23/89	MG/KG		8390.	0.	1.
	MAGNESIUM, TOTAL	0001	F	07/23/89	MG/KG		52700.	0.	1.
	MANGANESE, TOTAL	0001	F	07/23/89	MG/KG	N	334.	0.	1.
	N-NITROSODIPHENYLAMINE	0001	F	07/23/89	UG/KG	JB	320.	1000.	2.
	NICKEL, TOTAL	0001	F	07/23/89	MG/KG		20.4	0.	1.
	PHENANTHRENE	0001	F	07/23/89	UG/KG	J	170.	1000.	2.
	PLUTONIUM-238	0001	F	07/23/89	PCI/G		158.	-	-
	POTASSIUM, TOTAL	0001	F	07/23/89	MG/KG		2160.	0.	1.
	SODIUM, TOTAL	0001	F	07/23/89	MG/KG		2460.	0.	1.
	TETRACHLOROETHENE	0001	F	07/23/89	UG/KG	JB	6.	8.	1.
	THORIUM-232	0001	F	07/23/89	PCI/G		.8	-	-
	TOLUENE	0001	F	07/23/89	UG/KG	J	3.	8.	1.
	TRICHLOROETHENE	0001	F	07/23/89	UG/KG	J	2.	8.	1.
	VANADIUM, TOTAL	0001	F	07/23/89	MG/KG		22.3	0.	1.

PARAMETER VALUE QUALIFIERS (PVQ):
J = PRESENT BELOW DETECTION LIMIT
JB = PRS BLW DET LMT(J)PRS IN BLANK
B = PRESENT IN BLANK
N = PRS BLW DET LMT(J) NOT SPIKED

SAMPLE TYPE CODES:
F = FIELD SAMPLE

SOIL CHEMISTRY DATA
FACILITY: MND11 AREA 14
07/23/89 TO 08/28/91
LOCATION: 0075
NORTH COORDINATE: 99999999.99
EAST COORDINATE: 99999999.99
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
0.0 - .5	2-BUTANONE	0001	F	07/23/89	UG/KG	JB	3.	12.	1.
	ACETONE	0001	F	07/23/89	UG/KG	B	15.	12.	1.
	ALUMINUM, TOTAL	0001	F	07/23/89	MG/KG		11800.	0.	1.
	ARSENIC, TOTAL	0001	F	07/23/89	MG/KG		4.5	0.	1.
	BARIUM, TOTAL	0001	F	07/23/89	MG/KG		579.	0.	1.
	BERYLLIUM	0001	F	07/23/89	MG/KG	B	1.	0.	1.
	BETA-BHC	0001	F	07/23/89	UG/KG		13.	10.	1.
	CADMIUM, TOTAL	0001	F	07/23/89	MG/KG		4.7	0.	1.
	CALCIUM, TOTAL	0001	F	07/23/89	MG/KG		57500.	0.	1.
	CHROMIUM, TOTAL	0001	F	07/23/89	MG/KG	N	21.4	0.	1.
	COBALT, TOTAL	0001	F	07/23/89	MG/KG		19.9	0.	1.
	COPPER, TOTAL	0001	F	07/23/89	MG/KG	N	21.	0.	1.
	DICHLOROMETHANE-METHYLENE CHLORIDE	0001	F	07/23/89	UG/KG	B	17.	6.	1.
	IRON, TOTAL	0001	F	07/23/89	MG/KG		26300.	0.	1.
	MAGNESIUM, TOTAL	0001	F	07/23/89	MG/KG		14600.	0.	1.
	MANGANESE, TOTAL	0001	F	07/23/89	MG/KG	N	572.	0.	1.
	N-NITROSODIPHENYLAMINE	0001	F	07/23/89	UG/KG	JB	240.	820.	2.
	NICKEL, TOTAL	0001	F	07/23/89	MG/KG		46.7	0.	1.
	PLUTONIUM-238	0001	F	07/23/89	PCI/G		64.	-	-
	POTASSIUM, TOTAL	0001	F	07/23/89	MG/KG		2620.	0.	1.
	SILVER, TOTAL	0001	F	07/23/89	MG/KG	N	3.3	0.	1.
	SODIUM, TOTAL	0001	F	07/23/89	MG/KG		2480.	0.	1.
	THORIUM-232	0001	F	07/23/89	PCI/G		.7	-	-
	TOLUENE	0001	F	07/23/89	UG/KG		9.	6.	1.
	VANADIUM, TOTAL	0001	F	07/23/89	MG/KG		15.9	0.	1.

PARAMETER VALUE QUALIFIERS (PVQ):
JB = PRS BLW DET LMT(J)PRS IN BLANK
B = PRESENT IN BLANK
N = PRS BLW DET LMT(J) NOT SPIKED

SAMPLE TYPE CODES:
F = FIELD SAMPLE

SOIL CHEMISTRY DATA
FACILITY: MND11 AREA 14
07/23/89 TO 08/28/91
LOCATION: 0076
NORTH COORDINATE: 47913.19
EAST COORDINATE: 46173.87
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
0.0 - .5	2-BUTANONE	0001	F	07/23/89	UG/KG	JB	5.	12.	1.
	ACETONE	0001	F	07/23/89	UG/KG	B	13.	12.	1.
	ALUMINUM, TOTAL	0001	F	07/23/89	MG/KG		12500.	0.	1.
	ARSENIC, TOTAL	0001	F	07/23/89	MG/KG		2.7	0.	1.
	BARIUM, TOTAL	0001	F	07/23/89	MG/KG		623.	0.	1.
	BENZO(K)FLUORANTHENE	0001	F	07/23/89	UG/KG	J	92.	800.	2.
	BERYLLIUM	0001	F	07/23/89	MG/KG		1.1	0.	1.
	CADMIUM, TOTAL	0001	F	07/23/89	MG/KG		4.2	0.	1.
	CALCIUM, TOTAL	0001	F	07/23/89	MG/KG		95700.	0.	1.
	CHROMIUM, TOTAL	0001	F	07/23/89	MG/KG	N	19.9	0.	1.
	CHRYSENE	0001	F	07/23/89	UG/KG	J	99.	800.	2.
	COBALT, TOTAL	0001	F	07/23/89	MG/KG		16.8	0.	1.
	COPPER, TOTAL	0001	F	07/23/89	MG/KG	N	18.9	0.	1.
	DICHLOROMETHANE-METHYLENE CHLORIDE	0001	F	07/23/89	UG/KG	B	20.	6.	1.
	FLUORANTHENE	0001	F	07/23/89	UG/KG	J	250.	800.	2.
	IRON, TOTAL	0001	F	07/23/89	MG/KG		23100.	0.	1.
	MAGNESIUM, TOTAL	0001	F	07/23/89	MG/KG		12600.	0.	1.
	MANGANESE, TOTAL	0001	F	07/23/89	MG/KG	N	556.	0.	1.
	N-NITROSODIPHENYLAMINE	0001	F	07/23/89	UG/KG	JB	160.	800.	2.
	NICKEL, TOTAL	0001	F	07/23/89	MG/KG		40.5	0.	1.
	PENTACHLOROPHENOL	0001	F	07/23/89	UG/KG	J	190.	3900.	2.
	PLUTONIUM-238	0001	F	07/23/89	PCI/G		253.	-	-
	POTASSIUM, TOTAL	0001	F	07/23/89	MG/KG		2850.	0.	1.
	PYRENE	0001	F	07/23/89	UG/KG	J	190.	800.	2.
	SODIUM, TOTAL	0001	F	07/23/89	MG/KG		2620.	0.	1.
	THORIUM-232	0001	F	07/23/89	PCI/G		1.1	-	-
	TOLUENE	0001	F	07/23/89	UG/KG	J	4.	6.	1.
	VANADIUM, TOTAL	0001	F	07/23/89	MG/KG		16.3	0.	1.

PARAMETER VALUE QUALIFIERS (PVQ):
JB = PRS BLW DET LMT(J)PRS IN BLANK
B = PRESENT IN BLANK
J = PRESENT BELOW DETECTION LIMIT
N = PRS BLW DET LMT(J) NOT SPIKED

SAMPLE TYPE CODES:
F = FIELD SAMPLE

SOIL CHEMISTRY DATA
FACILITY: MND11 AREA 14
07/23/89 TO 08/28/91
LOCATION: 0077
NORTH COORDINATE: 47907.43
EAST COORDINATE: 46126.67
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
0.0 - .5	2-BUTANONE	0001	F	07/23/89	UG/KG	JB	5.	12.	1.
	4,4'-DDE	0001	F	07/23/89	UG/KG		54.	41.	2.
	ALUMINUM, TOTAL	0001	F	07/23/89	MG/KG		4020.	0.	1.
	ARSENIC, TOTAL	0001	F	07/23/89	MG/KG		2.3	0.	1.
	BARIUM, TOTAL	0001	F	07/23/89	MG/KG		356.	0.	1.
	BERYLLIUM	0001	F	07/23/89	MG/KG		.81	0.	1.
	CADMIUM, TOTAL	0001	F	07/23/89	MG/KG		7.2	0.	1.
	CALCIUM, TOTAL	0001	F	07/23/89	MG/KG		141000.	0.	1.
	CHROMIUM, TOTAL	0001	F	07/23/89	MG/KG	N	9.7	0.	1.
	COBALT, TOTAL	0001	F	07/23/89	MG/KG		9.3	0.	1.
	COPPER, TOTAL	0001	F	07/23/89	MG/KG	N	6.3	0.	1.
	DICHLOROMETHANE-METHYLENE CHLORIDE	0001	F	07/23/89	UG/KG	B	22.	6.	1.
	IRON, TOTAL	0001	F	07/23/89	MG/KG		8800.	0.	1.
	MAGNESIUM, TOTAL	0001	F	07/23/89	MG/KG		63200.	0.	1.
	MANGANESE, TOTAL	0001	F	07/23/89	MG/KG	N	275.	0.	1.
	NICKEL, TOTAL	0001	F	07/23/89	MG/KG		20.	0.	1.
	PLUTONIUM-238	0001	F	07/23/89	PCI/G		1427.	-	-
	POTASSIUM, TOTAL	0001	F	07/23/89	MG/KG		1990.	0.	1.
	SODIUM, TOTAL	0001	F	07/23/89	MG/KG		1710.	0.	1.
	TETRACHLOROETHENE	0001	F	07/23/89	UG/KG	JB	2.	6.	1.
	THORIUM-232	0001	F	07/23/89	PCI/G		2.2	-	-
	TOLUENE	0001	F	07/23/89	UG/KG	J	1.	6.	1.
	VANADIUM, TOTAL	0001	F	07/23/89	MG/KG		19.	0.	1.

PARAMETER VALUE QUALIFIERS (PVQ):
JB = PRS BLW DET LMT(J)PRS IN BLANK
N = PRS BLW DET LMT(J) NOT SPIKED
B = PRESENT IN BLANK
= PRESENT BELOW DETECTION LIMIT

SAMPLE TYPE CODES:
F = FIELD SAMPLE

SOIL CHEMISTRY DATA
FACILITY: MND11 AREA 14
07/23/89 TO 08/28/91
LOCATION: 0078
NORTH COORDINATE: 99999999.99
EAST COORDINATE: 99999999.99
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
0.0 - .5	PLUTONIUM-238	0001	F	07/23/89	PCI/G		53.	-	-
	THORIUM-232	0001	F	07/23/89	PCI/G		1.0	-	-

SAMPLE TYPE CODES:
F = FIELD SAMPLE

SOIL CHEMISTRY DATA
FACILITY: MND12 AREA 16
07/21/89 TO 08/17/89
LOCATION: 0080
NORTH COORDINATE: 47362.7
EAST COORDINATE: 47639.23
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
3. - 5.	PLUTONIUM-238	0001	F	07/21/89	PCI/G		11.	-	-
	THORIUM-232	0001	F	07/21/89	PCI/G		.1	-	-
3. - 6.	ACETONE	0001	F	08/08/89	UG/KG	JB	5.	11.	1.
	BROMODICHLOROMETHANE	0001	F	08/08/89	UG/KG	J	3.	6.	1.
	CHLOROFORM	0001	F	08/08/89	UG/KG		11.	6.	1.
	DICHLOROMETHANE-METHYLENE CHLORIDE	0001	F	08/08/89	UG/KG	JB	3.	6.	1.
	PLUTONIUM-238	0001	F	08/08/89	PCI/G		8.	-	-
	THORIUM-232	0001	F	08/08/89	PCI/G		4.4	-	-
5.0 - 6.5	ALUMINUM, TOTAL	0002	F	07/21/89	MG/KG		10500.	-	1.00
	ARSENIC, TOTAL	0002	F	07/21/89	MG/KG		4.9	-	1.00
	BARIUM, TOTAL	0002	F	07/21/89	MG/KG		491.	-	1.00
	BERYLLIUM, TOTAL	0002	F	07/21/89	MG/KG		1.6	-	1.00
	CADMIUM, TOTAL	0002	F	07/21/89	MG/KG		3.8	-	1.00
	CALCIUM, TOTAL	0002	F	07/21/89	MG/KG		81000.	-	1.00
	CHROMIUM, TOTAL	0002	F	07/21/89	MG/KG	E	28.8	-	1.00
	COBALT, TOTAL	0002	F	07/21/89	MG/KG		14.4	-	1.00
	COPPER, TOTAL	0002	F	07/21/89	MG/KG		14.5	-	1.00
	IRON, TOTAL	0002	F	07/21/89	MG/KG		20000.	-	1.00
	LEAD, TOTAL	0002	F	07/21/89	MG/KG		25.3	-	1.00
	MAGNESIUM, TOTAL	0002	F	07/21/89	MG/KG		12000.	-	1.00
	MANGANESE, TOTAL	0002	F	07/21/89	MG/KG		440.	-	1.00
	MERCURY, TOTAL	0002	F	07/21/89	MG/KG		.13	-	1.00
	NICKEL, TOTAL	0002	F	07/21/89	MG/KG		35.7	-	1.00
5. - 6.5	PLUTONIUM-238	0002	F	07/21/89	PCI/G		10.	-	-
5.0 - 6.5	POTASSIUM, TOTAL	0002	F	07/21/89	MG/KG		1980.	-	1.00
	SILVER, TOTAL	0002	F	07/21/89	MG/KG		2.5	-	1.00
	SODIUM, TOTAL	0002	F	07/21/89	MG/KG		2300.	-	1.00
	THALLIUM, TOTAL	0002	F	07/21/89	MG/KG	B	.44	-	1.00
5. - 6.5	THORIUM-232	0002	F	07/21/89	PCI/G		.2	-	-
5.0 - 6.5	VANADIUM, TOTAL	0002	F	07/21/89	MG/KG		21.1	-	1.00
	ZINC, TOTAL	0002	F	07/21/89	MG/KG		327.	-	1.00
5. - 6.5	ACETONE	0002	F	08/08/89	UG/KG	JB	5.	11.	1.
	BENZO(B)FLUORANTHENE	0002	F	08/08/89	UG/KG	J	45.	390.	1.
	BIS(2-ETHYLHEXYL)PHTHALATE	0002	F	08/08/89	UG/KG	J	48.	390.	1.
	DICHLOROMETHANE-METHYLENE CHLORIDE	0002	F	08/08/89	UG/KG	JB	4.	6.	1.
	PHENOL	0002	F	08/08/89	UG/KG	J	61.	390.	1.
	PLUTONIUM-238	0002	F	08/08/89	PCI/G		33.	-	-
	THORIUM-232	0002	F	08/08/89	PCI/G		.6	-	-
8.0 - 9.5	ALUMINUM, TOTAL	0003	F	07/21/89	MG/KG		3990.	-	1.00
	ARSENIC, TOTAL	0003	F	07/21/89	MG/KG		3.6	-	1.00
	BARIUM, TOTAL	0003	F	07/21/89	MG/KG		352.	-	1.00
	BERYLLIUM, TOTAL	0003	F	07/21/89	MG/KG		1.2	-	1.00
	CADMIUM, TOTAL	0003	F	07/21/89	MG/KG		5.	-	1.00
	CALCIUM, TOTAL	0003	F	07/21/89	MG/KG		113000.	-	1.00
	CHROMIUM, TOTAL	0003	F	07/21/89	MG/KG	E	27.1	-	1.00
	COBALT, TOTAL	0003	F	07/21/89	MG/KG	B	8.4	-	1.00
	COPPER, TOTAL	0003	F	07/21/89	MG/KG		7.2	-	1.00
	IRON, TOTAL	0003	F	07/21/89	MG/KG		9280.	-	1.00
	LEAD, TOTAL	0003	F	07/21/89	MG/KG		6.7	-	1.00
	MAGNESIUM, TOTAL	0003	F	07/21/89	MG/KG		34100.	-	1.00
	MANGANESE, TOTAL	0003	F	07/21/89	MG/KG		232.	-	1.00
	NICKEL, TOTAL	0003	F	07/21/89	MG/KG		23.1	-	1.00

RAMETER VALUE QUALIFIERS (PVQ):
JB = PRS BLW DET LMT(J)PRS IN BLANK
J = PRESENT BELOW DETECTION LIMIT
E = DET BEYOND CALIBRATION RANGE
B = PRESENT IN BLANK

SAMPLE TYPE CODES:
F = FIELD SAMPLE

SOIL CHEMISTRY DATA
FACILITY: MND12 AREA 16
07/21/89 TO 08/17/89
LOCATION: 0080
NORTH COORDINATE: 47362.7
EAST COORDINATE: 47639.23
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
8. - 9.5	PLUTONIUM-238	0003	F	07/21/89	PCI/G		8.	-	-
8.0 - 9.5	POTASSIUM, TOTAL	0003	F	07/21/89	MG/KG	B	956.	-	1.00
	SODIUM, TOTAL	0003	F	07/21/89	MG/KG		1690.	-	1.00
8. - 9.5	THORIUM-232	0003	F	07/21/89	PCI/G		.2	-	-
8.0 - 9.5	VANADIUM, TOTAL	0003	F	07/21/89	MG/KG		22.2	-	1.00
	ZINC, TOTAL	0003	F	07/21/89	MG/KG		214.	-	1.00
8. - 9.5	ACETONE	0003	F	08/08/89	UG/KG	J	5.	11.	1.
	DICHLOROMETHANE-METHYLENE CHLORIDE	0003	F	08/08/89	UG/KG	JB	5.	5.	1.
	PLUTONIUM-238	0003	F	08/08/89	PCI/G		11.	-	-
	THORIUM-232	0003	F	08/08/89	PCI/G		4.0	-	-
	TOLUENE	0003	F	08/08/89	UG/KG	J	1.	5.	1.
13.0 - 13.5	ALUMINUM, TOTAL	0004	F	07/21/89	MG/KG		12000.	-	1.00
	ARSENIC, TOTAL	0004	F	07/21/89	MG/KG		3.	-	1.00
	BARIUM, TOTAL	0004	F	07/21/89	MG/KG		443.	-	1.00
	BERYLLIUM, TOTAL	0004	F	07/21/89	MG/KG		1.5	-	1.00
	CADMIUM, TOTAL	0004	F	07/21/89	MG/KG		3.7	-	1.00
	CALCIUM, TOTAL	0004	F	07/21/89	MG/KG		83800.	-	1.00
	CHROMIUM, TOTAL	0004	F	07/21/89	MG/KG	E	29.7	-	1.00
	COBALT, TOTAL	0004	F	07/21/89	MG/KG		16.6	-	1.00
	COPPER, TOTAL	0004	F	07/21/89	MG/KG		11.3	-	1.00
	IRON, TOTAL	0004	F	07/21/89	MG/KG		23700.	-	1.00
	LEAD, TOTAL	0004	F	07/21/89	MG/KG		5.9	-	1.00
	MAGNESIUM, TOTAL	0004	F	07/21/89	MG/KG		5580.	-	1.00
	MANGANESE, TOTAL	0004	F	07/21/89	MG/KG		411.	-	1.00
	MERCURY, TOTAL	0004	F	07/21/89	MG/KG		.24	-	1.00
	NICKEL, TOTAL	0004	F	07/21/89	MG/KG		39.	-	1.00
13. - 13.5	PLUTONIUM-238	0004	F	07/21/89	PCI/G		43.	-	-
13.0 - 13.5	POTASSIUM, TOTAL	0004	F	07/21/89	MG/KG		1940.	-	1.00
	SELENIUM, TOTAL	0004	F	07/21/89	MG/KG	B	.77	-	1.00
	SILVER, TOTAL	0004	F	07/21/89	MG/KG		2.8	-	1.00
	SODIUM, TOTAL	0004	F	07/21/89	MG/KG		1980.	-	1.00
13. - 13.5	THORIUM-232	0004	F	07/21/89	PCI/G		.9	-	-
13.0 - 13.5	VANADIUM, TOTAL	0004	F	07/21/89	MG/KG		19.1	-	1.00
	ZINC, TOTAL	0004	F	07/21/89	MG/KG		270.	-	1.00
13. - 13.5	ACETONE	0004	F	08/08/89	UG/KG	J	5.	11.	1.
	BIS(2-ETHYLHEXYL)PHTHALATE	0004	F	08/08/89	UG/KG	J	44.	380.	1.
	DICHLOROMETHANE-METHYLENE CHLORIDE	0004	F	08/08/89	UG/KG	JB	5.	6.	1.
	PLUTONIUM-238	0004	F	08/08/89	PCI/G		31.	-	-
	THORIUM-232	0004	F	08/08/89	PCI/G		1.4	-	-

PARAMETER VALUE QUALIFIERS (PVQ):
B = PRESENT IN BLANK
J = PRESENT BELOW DETECTION LIMIT
JB = PRS BLW DET LMT(J)PRS IN BLANK
E = DET BEYOND CALIBRATION RANGE

SAMPLE TYPE CODES:
F = FIELD SAMPLE

SOIL CHEMISTRY DATA
FACILITY: MND12 AREA 16
07/21/89 TO 08/17/89
LOCATION: 0081
NORTH COORDINATE: 47408.36
EAST COORDINATE: 47600.51
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
0.0 - .5	2-BUTANONE	0001	F	07/25/89	UG/KG	JB	3.	13.	1.
	ACETONE	0001	F	07/25/89	UG/KG	B	19.	13.	1.
	DICHLOROMETHANE-METHYLENE CHLORIDE	0001	F	07/25/89	UG/KG	B	38.	6.	1.
	PLUTONIUM-238	0001	F	07/25/89	PCI/G		28.	-	-
	THORIUM-232	0001	F	07/25/89	PCI/G		.8	-	-
3. - 5.	2-BUTANONE	0002	F	07/25/89	UG/KG	JB	12.	12.	1.
	ACETONE	0002	F	07/25/89	UG/KG	JB	2.	12.	1.
	DICHLOROMETHANE-METHYLENE CHLORIDE	0002	F	07/25/89	UG/KG	B	14.	6.	1.
	PLUTONIUM-238	0002	F	07/25/89	PCI/G		28.	-	-
	TETRACHLOROETHENE	0002	F	07/25/89	UG/KG	JB	2.	6.	1.
	THORIUM-232	0002	F	07/25/89	PCI/G		.2	-	-
	TOLUENE	0002	F	07/25/89	UG/KG	J	1.	6.	1.
8. - 9.5	2-BUTANONE	0003	F	07/25/89	UG/KG	JB	4.	11.	1.
	ACETONE	0003	F	07/25/89	UG/KG	B	29.	11.	1.
	DICHLOROMETHANE-METHYLENE CHLORIDE	0003	F	07/25/89	UG/KG	B	27.	6.	1.
	PLUTONIUM-238	0003	F	07/25/89	PCI/G		2.	-	-
	TETRACHLOROETHENE	0003	F	07/25/89	UG/KG	JB	2.	6.	1.
	THORIUM-232	0003	F	07/25/89	PCI/G		.4	-	-
	TOLUENE	0003	F	07/25/89	UG/KG	J	1.	6.	1.
	TRICHLOROETHENE	0003	F	07/25/89	UG/KG	J	1.	6.	1.

PARAMETER VALUE QUALIFIERS (PVQ):
JB = PRS BLW DET LMT(J)PRS IN BLANK
B = PRESENT IN BLANK
J = PRESENT BELOW DETECTION LIMIT

SAMPLE TYPE CODES:
F = FIELD SAMPLE

SOIL CHEMISTRY DATA
FACILITY: MND12 AREA 16
07/21/89 TO 08/17/89
LOCATION: 0082
NORTH COORDINATE: 47438.61
EAST COORDINATE: 47623.07
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
0.0 - .5	1,1,1-TRICHLOROETHANE	0001	F	07/25/89	UG/KG	J	6.	6.	1.
	ACETONE	0001	F	07/25/89	UG/KG	JB	12.	13.	1.
	BIS(2-ETHYLHEXYL)PHTHALATE	0001	F	07/25/89	UG/KG	J	98.	860.	2.
	DICHLOROMETHANE-METHYLENE CHLORIDE	0001	F	07/25/89	UG/KG	B	22.	6.	1.
	PLUTONIUM-238	0001	F	07/25/89	PCI/G		385.	-	-
	PYRENE	0001	F	07/25/89	UG/KG	J	89.	860.	2.
	THORIUM-232	0001	F	07/25/89	PCI/G		.7	-	-
3. - 4.5	2-BUTANONE	0002	F	07/25/89	UG/KG	JB	11.	11.	1.
	DICHLOROMETHANE-METHYLENE CHLORIDE	0002	F	07/25/89	UG/KG	B	16.	6.	1.
	PLUTONIUM-238	0002	F	07/25/89	PCI/G		45.	-	-
	THORIUM-232	0002	F	07/25/89	PCI/G		.8	-	-

PARAMETER VALUE QUALIFIERS (PVQ):
J = PRESENT BELOW DETECTION LIMIT
JB = PRS BLW DET LMT(J)PRS IN BLANK
B = PRESENT IN BLANK

SAMPLE TYPE CODES:
F = FIELD SAMPLE

SOIL CHEMISTRY DATA
FACILITY: MND12 AREA 16
07/21/89 TO 08/17/89
LOCATION: 0083
NORTH COORDINATE: 47507.32
EAST COORDINATE: 47537.24
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
0.0 - .5	2-BUTANONE	0001	F	07/25/89	UG/KG	B	30.	11.	1.
	DICHLOROMETHANE-METHYLENE CHLORIDE	0001	F	07/25/89	UG/KG	B	16.	6.	1.
	PLUTONIUM-238	0001	F	07/25/89	PCI/G		43.	-	-
	THORIUM-232	0001	F	07/25/89	PCI/G		.8	-	-
3. - 4.5	1,1,1-TRICHLOROETHANE	0002	F	07/25/89	UG/KG	J	3.	6.	1.
	2-BUTANONE	0002	F	07/25/89	UG/KG	JB	3.	11.	1.
	ACETONE	0002	F	07/25/89	UG/KG	JB	8.	11.	1.
	DICHLOROMETHANE-METHYLENE CHLORIDE	0002	F	07/25/89	UG/KG	B	18.	6.	1.
	PLUTONIUM-238	0002	F	07/25/89	PCI/G		7.	-	-
	THORIUM-232	0002	F	07/25/89	PCI/G		1.1	-	-
8. - 9.5	1,1,1-TRICHLOROETHANE	0003	F	07/25/89	UG/KG	J	5.	6.	1.
	2-BUTANONE	0003	F	07/25/89	UG/KG	JB	4.	12.	1.
	ACETONE	0003	F	07/25/89	UG/KG	B	20.	12.	1.
	DICHLOROMETHANE-METHYLENE CHLORIDE	0003	F	07/25/89	UG/KG	B	21.	6.	1.
	PLUTONIUM-238	0003	F	07/25/89	PCI/G		19.	-	-
	THORIUM-232	0003	F	07/25/89	PCI/G		.6	-	-
	TOLUENE	0003	F	07/25/89	UG/KG	J	2.	6.	1.
13. - 14.5	1,1,1-TRICHLOROETHANE	0004	F	07/25/89	UG/KG		6.	6.	1.
	ACETONE	0004	F	07/25/89	UG/KG	B	20.	11.	1.
	DICHLOROMETHANE-METHYLENE CHLORIDE	0004	F	07/25/89	UG/KG	B	16.	6.	1.
	PLUTONIUM-238	0004	F	07/25/89	PCI/G		23.	-	-
	THORIUM-232	0004	F	07/25/89	PCI/G		.6	-	-
	TOLUENE	0004	F	07/25/89	UG/KG	J	1.	6.	1.

PARAMETER VALUE QUALIFIERS (PVQ):
B = PRESENT IN BLANK
J = PRESENT BELOW DETECTION LIMIT
JB = PRS BLW DET LMT(J)PRS IN BLANK

SAMPLE TYPE CODES:
F = FIELD SAMPLE

SOIL CHEMISTRY DATA
FACILITY: MND12 AREA 16
07/21/89 TO 08/17/89
LOCATION: 0084
NORTH COORDINATE: 47504.29
EAST COORDINATE: 47411.14
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
0.0 - .5	ARSENIC, TOTAL	0001	F	08/17/89	MG/KG		5.4	0.	1.
	LEAD, TOTAL	0001	F	08/17/89	MG/KG		41.7	0.	1.
	PLUTONIUM-238	0001	F	08/17/89	PCI/G		1233.	-	-
	THORIUM-232	0001	F	08/17/89	PCI/G		4.5	-	-

SAMPLE TYPE CODES:
F = FIELD SAMPLE

SOIL CHEMISTRY DATA
FACILITY: MND12 AREA 16
07/21/89 TO 08/17/89
LOCATION: 0085
NORTH COORDINATE: 47498.38
EAST COORDINATE: 47418.45
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
0.0 - .5	ARSENIC, TOTAL	0001	F	08/17/89	MG/KG		4.6	0.	1.
	LEAD, TOTAL	0001	F	08/17/89	MG/KG		41.7	0.	1.
	PLUTONIUM-238	0001	F	08/17/89	PCI/G		1149.	-	-
	THORIUM-232	0001	F	08/17/89	PCI/G		.9	-	-

SAMPLE TYPE CODES:
F = FIELD SAMPLE

SOIL CHEMISTRY DATA
FACILITY: MND12 AREA 16
07/21/89 TO 08/17/89
LOCATION: 0086
NORTH COORDINATE: 47495.58
EAST COORDINATE: 47415.22
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
0.0 - .5	ARSENIC, TOTAL	0001	F	08/17/89	MG/KG		6.5	0.	1.
	LEAD, TOTAL	0001	F	08/17/89	MG/KG		39.7	0.	1.
	PLUTONIUM-238	0001	F	08/17/89	PCI/G		279.	-	-
	THORIUM-232	0001	F	08/17/89	PCI/G		1.0	-	-

SAMPLE TYPE CODES:
F = FIELD SAMPLE

SOIL CHEMISTRY DATA
FACILITY: MND12 AREA 16
07/21/89 TO 08/17/89
LOCATION: 0087
NORTH COORDINATE: 47511.15
EAST COORDINATE: 47406.99
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
0.0 - .5	PLUTONIUM-238	0001	F	08/17/89	PCI/G		2416.	-	-
	THORIUM-232	0001	F	08/17/89	PCI/G		5.3	-	-

SAMPLE TYPE CODES:
F = FIELD SAMPLE

DATA FILE NAME: SCI10001.DAT

SOIL CHEMISTRY DATA
FACILITY: MND13 AREA 17
07/26/89 TO 09/04/91
LOCATION: 0091
NORTH COORDINATE: 99999999.99
EAST COORDINATE: 99999999.99
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
0.0 - .5	1,1,1-TRICHLOROETHANE	0001	F	07/26/89	UG/KG	J	3.	5.	1.
	2-BUTANONE	0001	F	07/26/89	UG/KG	JB	6.	11.	1.
	ACETONE	0001	F	07/26/89	UG/KG	B	15.	11.	1.
	DICHLOROMETHANE-METHYLENE CHLORIDE	0001	F	07/26/89	UG/KG	B	22.	5.	1.
	PLUTONIUM-238	0001	F	07/26/89	PCI/G		683.	-	-
	TETRACHLOROETHENE	0001	F	07/26/89	UG/KG	JB	2.	5.	1.
	THORIUM-232	0001	F	07/26/89	PCI/G		1.9	-	-
	TOLUENE	0001	F	07/26/89	UG/KG	J	1.	5.	1.

PARAMETER VALUE QUALIFIERS (PVQ):
J = PRESENT BELOW DETECTION LIMIT
JB = PRS BLW DET LMT(J)PRS IN BLANK
B = PRESENT IN BLANK

SAMPLE TYPE CODES:
F = FIELD SAMPLE

SOIL CHEMISTRY DATA
FACILITY: MND13 AREA 17
07/26/89 TO 09/04/91
LOCATION: 0092
NORTH COORDINATE: 99999999.99
EAST COORDINATE: 99999999.99
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
0.0 - .5	1,1,1-TRICHLOROETHANE	0001	F	07/26/89	UG/KG		19.	6.	1.
	2-BUTANONE	0001	F	07/26/89	UG/KG	JB	2.	11.	1.
	DICHLOROMETHANE-METHYLENE CHLORIDE	0001	F	07/26/89	UG/KG	B	23.	6.	1.
	PLUTONIUM-238	0001	F	07/26/89	PCI/G		99.	-	-
	TETRACHLOROETHENE	0001	F	07/26/89	UG/KG	JB	4.	6.	1.
	THORIUM-232	0001	F	07/26/89	PCI/G		.3	-	-
	TRICHLOROETHENE	0001	F	07/26/89	UG/KG	J	2.	6.	1.

PARAMETER VALUE QUALIFIERS (PVQ):
JB = PRS BLW DET LMT(J)PRS IN BLANK
B = PRESENT IN BLANK
J = PRESENT BELOW DETECTION LIMIT

SAMPLE TYPE CODES:
F = FIELD SAMPLE

SOIL CHEMISTRY DATA
FACILITY: MND13 AREA 17
07/26/89 TO 09/04/91
LOCATION: 0093
NORTH COORDINATE: 99999999.99
EAST COORDINATE: 99999999.99
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
0.0 - .5	1,1,1-TRICHLOROETHANE	0001	F	07/26/89	UG/KG	J	2.	5.	1.
	2-BUTANONE	0001	F	07/26/89	UG/KG	JB	3.	11.	1.
	ACETONE	0001	F	07/26/89	UG/KG	B	12.	11.	1.
	DICHLOROMETHANE-METHYLENE CHLORIDE	0001	F	07/26/89	UG/KG	B	18.	5.	1.
	PLUTONIUM-238	0001	F	07/26/89	PCI/G		3319.	-	-
	TETRACHLOROETHENE	0001	F	07/26/89	UG/KG	JB	2.	5.	1.
	THORIUM-232	0001	F	07/26/89	PCI/G		5.4	-	-
	TOLUENE	0001	F	07/26/89	UG/KG	J	1.	5.	1.

PARAMETER VALUE QUALIFIERS (PVQ):
J = PRESENT BELOW DETECTION LIMIT
JB = PRS BLW DET LMT(J)PRS IN BLANK
B = PRESENT IN BLANK

SAMPLE TYPE CODES:
F = FIELD SAMPLE

SOIL CHEMISTRY DATA
FACILITY: MND13 AREA 17
07/26/89 TO 09/04/91
LOCATION: 0094
NORTH COORDINATE: 99999999.99
EAST COORDINATE: 99999999.99
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
0.0 - .5	1,1,1-TRICHLOROETHANE	0001	F	07/26/89	UG/KG	J	1.	5.	1.
	2-BUTANONE	0001	F	07/26/89	UG/KG	JB	5.	10.	1.
	ACETONE	0001	F	07/26/89	UG/KG	B	18.	10.	1.
	DICHLOROMETHANE-METHYLENE CHLORIDE	0001	F	07/26/89	UG/KG	B	23.	5.	1.
	PLUTONIUM-238	0001	F	07/26/89	PCI/G		0.	-	-
	TETRACHLOROETHENE	0001	F	07/26/89	UG/KG	JB	3.	5.	1.
	THORIUM-232	0001	F	07/26/89	PCI/G		.6	-	-
	TOLUENE	0001	F	07/26/89	UG/KG	J	1.	5.	1.

PARAMETER VALUE QUALIFIERS (PVQ):
J = PRESENT BELOW DETECTION LIMIT
JB = PRS BLW DET LMT(J)PRS IN BLANK
B = PRESENT IN BLANK

SAMPLE TYPE CODES:
F = FIELD SAMPLE

SOIL CHEMISTRY DATA
FACILITY: MND13 AREA 17
07/26/89 TO 09/04/91
LOCATION: 0095
NORTH COORDINATE: 46844.42
EAST COORDINATE: 47863.67
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
0.0 - .5	ACETONE	0001	F	08/05/89	UG/KG	J	4.	13.	1.
	ALUMINUM, TOTAL	0001	F	08/05/89	MG/KG		6370.	0.	1.
	ARSENIC, TOTAL	0001	F	08/05/89	MG/KG		4.8	0.	1.
	BARIUM, TOTAL	0001	F	08/05/89	MG/KG	N	470.	0.	1.
	BERYLLIUM	0001	F	08/05/89	MG/KG		1.4	0.	1.
	CADMIUM, TOTAL	0001	F	08/05/89	MG/KG		5.5	0.	1.
	CALCIUM, TOTAL	0001	F	08/05/89	MG/KG	*	130000.	0.	1.
	CHROMIUM, TOTAL	0001	F	08/05/89	MG/KG		18.9	0.	1.
	COBALT, TOTAL	0001	F	08/05/89	MG/KG	B	11.2	0.	1.
	COPPER, TOTAL	0001	F	08/05/89	MG/KG		10.9	0.	1.
	DICHLOROMETHANE-METHYLENE CHLORIDE	0001	F	08/05/89	UG/KG	B	8.	6.	1.
	IRON, TOTAL	0001	F	08/05/89	MG/KG		15200.	0.	1.
	LEAD, TOTAL	0001	F	08/05/89	MG/KG		16.5	0.	1.
	MAGNESIUM, TOTAL	0001	F	08/05/89	MG/KG		27500.	0.	1.
	MANGANESE, TOTAL	0001	F	08/05/89	MG/KG	*	306.	0.	1.
	NICKEL, TOTAL	0001	F	08/05/89	MG/KG		29.2	0.	1.
	PLUTONIUM-238	0001	F	08/05/89	PCI/G		21.	-	-
	POTASSIUM, TOTAL	0001	F	08/05/89	MG/KG	B	1010.	0.	1.
	SODIUM, TOTAL	0001	F	08/05/89	MG/KG		1940.	0.	1.
	THALLIUM, TOTAL	0001	F	08/05/89	MG/KG	B	.26	0.	1.
	THORIUM-232	0001	F	08/05/89	PCI/G		.7	-	-
	VANADIUM, TOTAL	0001	F	08/05/89	MG/KG		21.5	0.	1.
	ZINC, TOTAL	0001	F	08/05/89	MG/KG	N	310.	0.	1.
3. - 5.	ACETONE	0002	F	08/05/89	UG/KG	J	1.	12.	1.
	ALUMINUM, TOTAL	0002	F	08/05/89	MG/KG		2940.	0.	1.
	ARSENIC, TOTAL	0002	F	08/05/89	MG/KG		3.3	0.	1.
	BARIUM, TOTAL	0002	F	08/05/89	MG/KG	N	271.	0.	1.
	BERYLLIUM	0002	F	08/05/89	MG/KG		1.1	0.	1.
	CADMIUM, TOTAL	0002	F	08/05/89	MG/KG		7.3	0.	1.
	CALCIUM, TOTAL	0002	F	08/05/89	MG/KG	*	156000.	0.	1.
	CHROMIUM, TOTAL	0002	F	08/05/89	MG/KG		12.	0.	1.
	COBALT, TOTAL	0002	F	08/05/89	MG/KG	B	8.6	0.	1.
	COPPER, TOTAL	0002	F	08/05/89	MG/KG		5.4	0.	1.
	DICHLOROMETHANE-METHYLENE CHLORIDE	0002	F	08/05/89	UG/KG	B	11.	6.	1.
	IRON, TOTAL	0002	F	08/05/89	MG/KG		8330.	0.	1.
	LEAD, TOTAL	0002	F	08/05/89	MG/KG		12.9	0.	1.
	MAGNESIUM, TOTAL	0002	F	08/05/89	MG/KG		57800.	0.	1.
	MANGANESE, TOTAL	0002	F	08/05/89	MG/KG	*	261.	0.	1.
	MERCURY, TOTAL	0002	F	08/05/89	MG/KG	N	.24	0.	1.
	NICKEL, TOTAL	0002	F	08/05/89	MG/KG		21.1	0.	1.
	PLUTONIUM-238	0002	F	08/05/89	PCI/G		184.	-	-
	POTASSIUM, TOTAL	0002	F	08/05/89	MG/KG	B	718.	0.	1.
	SODIUM, TOTAL	0002	F	08/05/89	MG/KG		1330.	0.	1.
	THALLIUM, TOTAL	0002	F	08/05/89	MG/KG	B	.34	0.	1.
	THORIUM-232	0002	F	08/05/89	PCI/G		.7	-	-
	VANADIUM, TOTAL	0002	F	08/05/89	MG/KG		20.6	0.	1.
	ZINC, TOTAL	0002	F	08/05/89	MG/KG	N	212.	0.	1.
8. - 10.	ACETONE	0003	F	08/05/89	UG/KG	J	2.	11.	1.
	ALUMINUM, TOTAL	0003	F	08/05/89	MG/KG		1720.	0.	1.
	ARSENIC, TOTAL	0003	F	08/05/89	MG/KG		3.3	0.	1.
	BARIUM, TOTAL	0003	F	08/05/89	MG/KG	N	387.	0.	1.
	BERYLLIUM	0003	F	08/05/89	MG/KG		1.2	0.	1.
	CADMIUM, TOTAL	0003	F	08/05/89	MG/KG		6.7	0.	1.
	CALCIUM, TOTAL	0003	F	08/05/89	MG/KG	*	164000.	0.	1.
	CHROMIUM, TOTAL	0003	F	08/05/89	MG/KG		15.7	0.	1.
	COBALT, TOTAL	0003	F	08/05/89	MG/KG	B	6.8	0.	1.
	COPPER, TOTAL	0003	F	08/05/89	MG/KG	B	3.5	0.	1.
	DICHLOROMETHANE-METHYLENE CHLORIDE	0003	F	08/05/89	UG/KG	JB	4.	6.	1.

PARAMETER VALUE QUALIFIERS (PVQ):
J = PRESENT BELOW DETECTION LIMIT
N = PRS BLW DET LMT(J) NOT SPIKED
* = CONTROL LIMITS NOT APPLICABLE
B = PRESENT IN BLANK
JB = PRS BLW DET LMT(J)PRS IN BLANK

SAMPLE TYPE CODES:
F = FIELD SAMPLE

SOIL CHEMISTRY DATA
FACILITY: MND13 AREA 17
07/26/89 TO 09/04/91
LOCATION: 0095
NORTH COORDINATE: 46844.42
EAST COORDINATE: 47863.67
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
8. - 10.	FLUORANTHENE	0003	F	08/05/89	UG/KG	J	130.	1100.	3.
	IRON, TOTAL	0003	F	08/05/89	MG/KG		4860.	0.	1.
	LEAD, TOTAL	0003	F	08/05/89	MG/KG		5.9	0.	1.
	MAGNESIUM, TOTAL	0003	F	08/05/89	MG/KG		53400.	0.	1.
	MANGANESE, TOTAL	0003	F	08/05/89	MG/KG	*	173.	0.	1.
	NICKEL, TOTAL	0003	F	08/05/89	MG/KG		19.3	0.	1.
	PLUTONIUM-238	0003	F	08/05/89	PCI/G		40.	-	-
	POTASSIUM, TOTAL	0003	F	08/05/89	MG/KG	B	678.	0.	1.
	PYRENE	0003	F	08/05/89	UG/KG	J	120.	1100.	3.
	SODIUM, TOTAL	0003	F	08/05/89	MG/KG		1850.	0.	1.
	THORIUM-232	0003	F	08/05/89	PCI/G		.8	-	-
	VANADIUM, TOTAL	0003	F	08/05/89	MG/KG		20.8	0.	1.
	ZINC, TOTAL	0003	F	08/05/89	MG/KG	N	255.	0.	1.
13. - 15.	ALUMINUM, TOTAL	0004	F	08/05/89	MG/KG		5040.	0.	1.
	AROCLOR-1260	0004	F	08/05/89	UG/KG	J	79.	170.	1.
	ARSENIC, TOTAL	0004	F	08/05/89	MG/KG		2.4	0.	1.
	BARIUM, TOTAL	0004	F	08/05/89	MG/KG	N	268.	0.	1.
	BERYLLIUM	0004	F	08/05/89	MG/KG		1.2	0.	1.
	CADMIUM, TOTAL	0004	F	08/05/89	MG/KG		4.4	0.	1.
	CALCIUM, TOTAL	0004	F	08/05/89	MG/KG	*	163000.	0.	1.
	CARBON DISULFIDE	0004	F	08/05/89	UG/KG	J	3.	5.	1.
	CHROMIUM, TOTAL	0004	F	08/05/89	MG/KG		12.	0.	1.
	COBALT, TOTAL	0004	F	08/05/89	MG/KG		9.7	0.	1.
	COPPER, TOTAL	0004	F	08/05/89	MG/KG	B	4.5	0.	1.
	DICHLOROMETHANE-METHYLENE CHLORIDE	0004	F	08/05/89	UG/KG	B	6.	5.	1.
	FLUORANTHENE	0004	F	08/05/89	UG/KG	J	140.	1400.	4.
	IRON, TOTAL	0004	F	08/05/89	MG/KG		128000.	0.	1.
	LEAD, TOTAL	0004	F	08/05/89	MG/KG		9.5	0.	1.
	MAGNESIUM, TOTAL	0004	F	08/05/89	MG/KG		21500.	0.	1.
	MANGANESE, TOTAL	0004	F	08/05/89	MG/KG	*	284.	0.	1.
	NICKEL, TOTAL	0004	F	08/05/89	MG/KG		27.1	0.	1.
	PLUTONIUM-238	0004	F	08/05/89	PCI/G		27.	-	-
	POTASSIUM, TOTAL	0004	F	08/05/89	MG/KG		1280.	0.	1.
	SODIUM, TOTAL	0004	F	08/05/89	MG/KG		1300.	0.	1.
	THALLIUM, TOTAL	0004	F	08/05/89	MG/KG	B	.17	0.	1.
	THORIUM-232	0004	F	08/05/89	PCI/G		.4	-	-
	TRICHLOROETHENE	0004	F	08/05/89	UG/KG		21.	5.	1.
	VANADIUM, TOTAL	0004	F	08/05/89	MG/KG		15.8	0.	1.
	ZINC, TOTAL	0004	F	08/05/89	MG/KG	N	201.	0.	1.
	ENDOSULFAN I(ALPHA)	0004	F	08/06/89	UG/KG	D	17.	8.	2.

PARAMETER VALUE QUALIFIERS (PVQ):
J = PRESENT BELOW DETECTION LIMIT
* = CONTROL LIMITS NOT APPLICABLE
B = PRESENT IN BLANK
N = PRS BLW DET LMT(J) NOT SPIKED
D = DUPLICATE ANALYSIS OF A SAMPLE

SAMPLE TYPE CODES:
F = FIELD SAMPLE

SOIL CHEMISTRY DATA
FACILITY: MND13 AREA 17
07/26/89 TO 09/04/91
LOCATION: 0096
NORTH COORDINATE: 46844.12
EAST COORDINATE: 47845.55
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
0.0 - .5	ACETONE	0001	F	08/05/89	UG/KG	J	1.	11.	1.
	ALUMINUM, TOTAL	0001	F	08/05/89	MG/KG		5850.	0.	1.
	ARSENIC, TOTAL	0001	F	08/05/89	MG/KG		2.5	0.	1.
	BARIUM, TOTAL	0001	F	08/05/89	MG/KG	N	514.	0.	1.
	BERYLLIUM	0001	F	08/05/89	MG/KG		1.2	0.	1.
	CADMIUM, TOTAL	0001	F	08/05/89	MG/KG		6.4	0.	1.
	CALCIUM, TOTAL	0001	F	08/05/89	MG/KG	*	125000.	0.	1.
	CHROMIUM, TOTAL	0001	F	08/05/89	MG/KG		18.3	0.	1.
	COBALT, TOTAL	0001	F	08/05/89	MG/KG		11.4	0.	1.
	COPPER, TOTAL	0001	F	08/05/89	MG/KG		10.1	0.	1.
	DICHLOROMETHANE-METHYLENE CHLORIDE	0001	F	08/05/89	UG/KG	JB	5.	6.	1.
	IRON, TOTAL	0001	F	08/05/89	MG/KG		14500.	0.	1.
	LEAD, TOTAL	0001	F	08/05/89	MG/KG		11.9	0.	1.
	MAGNESIUM, TOTAL	0001	F	08/05/89	MG/KG		38600.	0.	1.
	MANGANESE, TOTAL	0001	F	08/05/89	MG/KG	*	310.	0.	1.
	NICKEL, TOTAL	0001	F	08/05/89	MG/KG		30.3	0.	1.
	PLUTONIUM-238	0001	F	08/05/89	PCI/G		138.	-	-
	POTASSIUM, TOTAL	0001	F	08/05/89	MG/KG		1530.	0.	1.
	SODIUM, TOTAL	0001	F	08/05/89	MG/KG		2650.	0.	1.
	THORIUM-232	0001	F	08/05/89	PCI/G		.5	-	-
	VANADIUM, TOTAL	0001	F	08/05/89	MG/KG		20.5	0.	1.
	ZINC, TOTAL	0001	F	08/05/89	MG/KG	N	352.	0.	1.
3. - 5.	ALUMINUM, TOTAL	0002	F	08/05/89	MG/KG		3910.	0.	1.
	BARIUM, TOTAL	0002	F	08/05/89	MG/KG	N	499.	0.	1.
	BERYLLIUM	0002	F	08/05/89	MG/KG		1.1	0.	1.
	CADMIUM, TOTAL	0002	F	08/05/89	MG/KG		6.4	0.	1.
	CALCIUM, TOTAL	0002	F	08/05/89	MG/KG	*	159000.	0.	1.
	CHROMIUM, TOTAL	0002	F	08/05/89	MG/KG		15.8	0.	1.
	COBALT, TOTAL	0002	F	08/05/89	MG/KG	B	9.3	0.	1.
	COPPER, TOTAL	0002	F	08/05/89	MG/KG		6.8	0.	1.
	DICHLOROMETHANE-METHYLENE CHLORIDE	0002	F	08/05/89	UG/KG	B	6.	6.	1.
	IRON, TOTAL	0002	F	08/05/89	MG/KG		10300.	0.	1.
	LEAD, TOTAL	0002	F	08/05/89	MG/KG		13.7	0.	1.
	MAGNESIUM, TOTAL	0002	F	08/05/89	MG/KG		42000.	0.	1.
	MANGANESE, TOTAL	0002	F	08/05/89	MG/KG	*	270.	0.	1.
	NICKEL, TOTAL	0002	F	08/05/89	MG/KG		24.1	0.	1.
	PLUTONIUM-238	0002	F	08/05/89	PCI/G		69.	-	-
	POTASSIUM, TOTAL	0002	F	08/05/89	MG/KG		1240.	0.	1.
	SODIUM, TOTAL	0002	F	08/05/89	MG/KG		2280.	0.	1.
	THALLIUM, TOTAL	0002	F	08/05/89	MG/KG	B	.25	0.	1.
	THORIUM-232	0002	F	08/05/89	PCI/G		.6	-	-
	VANADIUM, TOTAL	0002	F	08/05/89	MG/KG		21.8	0.	1.
	ZINC, TOTAL	0002	F	08/05/89	MG/KG	N	336.	0.	1.
8. - 10.	ACETONE	0003	F	08/05/89	UG/KG	J	3.	13.	1.
	ALUMINUM, TOTAL	0003	F	08/05/89	MG/KG		1470.	0.	1.
	ARSENIC, TOTAL	0003	F	08/05/89	MG/KG		9.6	0.	1.
	BARIUM, TOTAL	0003	F	08/05/89	MG/KG	N	442.	0.	1.
	BERYLLIUM	0003	F	08/05/89	MG/KG	B	.98	0.	1.
	CADMIUM, TOTAL	0003	F	08/05/89	MG/KG		5.9	0.	1.
	CALCIUM, TOTAL	0003	F	08/05/89	MG/KG	*	164000.	0.	1.
	CHROMIUM, TOTAL	0003	F	08/05/89	MG/KG		17.6	0.	1.
	COBALT, TOTAL	0003	F	08/05/89	MG/KG	B	6.7	0.	1.
	COPPER, TOTAL	0003	F	08/05/89	MG/KG	B	3.6	0.	1.
	DICHLOROMETHANE-METHYLENE CHLORIDE	0003	F	08/05/89	UG/KG	B	7.	6.	1.
	FLUORANTHENE	0003	F	08/05/89	UG/KG	J	690.	2600.	6.
	IRON, TOTAL	0003	F	08/05/89	MG/KG		6070.	0.	1.
	LEAD, TOTAL	0003	F	08/05/89	MG/KG		6.2	0.	1.

PARAMETER VALUE QUALIFIERS (PVQ):
J = PRESENT BELOW DETECTION LIMIT
N = PRS BLW DET LMT(J) NOT SPIKED
* = CONTROL LIMITS NOT APPLICABLE
JB = PRS BLW DET LMT(J)PRS IN BLANK
B = PRESENT IN BLANK

SAMPLE TYPE CODES:
F = FIELD SAMPLE

SOIL CHEMISTRY DATA
FACILITY: MND13 AREA 17
07/26/89 TO 09/04/91
LOCATION: 0096
NORTH COORDINATE: 46844.12
EAST COORDINATE: 47845.55
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
8. - 10.	MAGNESIUM, TOTAL	0003	F	08/05/89	MG/KG		41700.	0.	1.
	MANGANESE, TOTAL	0003	F	08/05/89	MG/KG	*	179.	0.	1.
	MERCURY, TOTAL	0003	F	08/05/89	MG/KG	N	.11	0.	1.
	NICKEL, TOTAL	0003	F	08/05/89	MG/KG		19.6	0.	1.
	PLUTONIUM-238	0003	F	08/05/89	PCI/G		77.	-	-
	POTASSIUM, TOTAL	0003	F	08/05/89	MG/KG	B	788.	0.	1.
	PYRENE	0003	F	08/05/89	UG/KG	J	440.	2600.	6.
	SODIUM, TOTAL	0003	F	08/05/89	MG/KG		2090.	0.	1.
	THALLIUM, TOTAL	0003	F	08/05/89	MG/KG	B	.35	0.	1.
	THORIUM-232	0003	F	08/05/89	PCI/G		1.0	-	-
	VANADIUM, TOTAL	0003	F	08/05/89	MG/KG		18.	0.	1.
	ZINC, TOTAL	0003	F	08/05/89	MG/KG	N	288.	0.	1.

PARAMETER VALUE QUALIFIERS (PVQ):
* = CONTROL LIMITS NOT APPLICABLE
N = PRS BLW DET LMT(J) NOT SPIKED
B = PRESENT IN BLANK
J = PRESENT BELOW DETECTION LIMIT

SAMPLE TYPE CODES:
F = FIELD SAMPLE

SOIL CHEMISTRY DATA
FACILITY: MND13 AREA 17
07/26/89 TO 09/04/91
LOCATION: 0097
NORTH COORDINATE: 46876.81
EAST COORDINATE: 47832.76
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
0.0 - .5	ACETONE	0001	F	08/05/89	UG/KG	J	3.	11.	1.
	ALUMINUM, TOTAL	0001	F	08/05/89	MG/KG		596.	0.	1.
	ARSENIC, TOTAL	0001	F	08/05/89	MG/KG		2.4	0.	1.
	BARIUM, TOTAL	0001	F	08/05/89	MG/KG	N	323.	0.	1.
	BENZO(B)FLUORANTHENE	0001	F	08/05/89	UG/KG	J	160.	1100.	3.
	BERYLLIUM	0001	F	08/05/89	MG/KG		1.	0.	1.
	CADMIUM, TOTAL	0001	F	08/05/89	MG/KG		9.6	0.	1.
	CALCIUM, TOTAL	0001	F	08/05/89	MG/KG	*	214000.	0.	1.
	CHROMIUM, TOTAL	0001	F	08/05/89	MG/KG		6.8	0.	1.
	COBALT, TOTAL	0001	F	08/05/89	MG/KG	B	7.4	0.	1.
	DICHLOROMETHANE-METHYLENE CHLORIDE	0001	F	08/05/89	UG/KG	JB	5.	5.	1.
	FLUORANTHENE	0001	F	08/05/89	UG/KG	J	140.	1100.	3.
	IRON, TOTAL	0001	F	08/05/89	MG/KG		3730.	0.	1.
	LEAD, TOTAL	0001	F	08/05/89	MG/KG		9.7	0.	1.
	MAGNESIUM, TOTAL	0001	F	08/05/89	MG/KG		103000.	0.	1.
	MANGANESE, TOTAL	0001	F	08/05/89	MG/KG	*	246.	0.	1.
	NICKEL, TOTAL	0001	F	08/05/89	MG/KG		11.8	0.	1.
	PLUTONIUM-238	0001	F	08/05/89	PCI/G		3.	-	-
	POTASSIUM, TOTAL	0001	F	08/05/89	MG/KG	B	678.	0.	1.
	SODIUM, TOTAL	0001	F	08/05/89	MG/KG		1810.	0.	1.
	THORIUM-232	0001	F	08/05/89	PCI/G		.2	-	-
	VANADIUM, TOTAL	0001	F	08/05/89	MG/KG		23.9	0.	1.
	ZINC, TOTAL	0001	F	08/05/89	MG/KG	N	192.	0.	1.
3. - 5.	ACETONE	0002	F	08/05/89	UG/KG	J	2.	11.	1.
	ALUMINUM, TOTAL	0002	F	08/05/89	MG/KG		3690.	0.	1.
	ALUMINUM, TOTAL	0003	F	08/05/89	MG/KG		6190.	0.	1.
	ARSENIC, TOTAL	0002	F	08/05/89	MG/KG		6.2	0.	1.
	ARSENIC, TOTAL	0003	F	08/05/89	MG/KG		6.7	0.	1.
	BARIUM, TOTAL	0002	F	08/05/89	MG/KG	N	504.	0.	1.
	BARIUM, TOTAL	0003	F	08/05/89	MG/KG	N	499.	0.	1.
	BENZO(A)ANTHRACENE	0002	F	08/05/89	UG/KG	J	130.	1200.	3.
	BENZO(B)FLUORANTHENE	0002	F	08/05/89	UG/KG	J	260.	1200.	3.
	BERYLLIUM	0002	F	08/05/89	MG/KG		1.2	0.	1.
	BERYLLIUM, TOTAL	0003	F	08/05/89	MG/KG		1.1	0.	1.
	BIS(2-ETHYLHEXYL)PHTHALATE	0002	F	08/05/89	UG/KG	J	300.	1200.	3.
	BROMODICHLOROMETHANE	0002	F	08/05/89	UG/KG	J	1.	6.	1.
	CADMIUM, TOTAL	0002	F	08/05/89	MG/KG		8.7	0.	1.
	CADMIUM, TOTAL	0003	F	08/05/89	MG/KG		6.5	0.	1.
	CALCIUM, TOTAL	0002	F	08/05/89	MG/KG	*	181000.	0.	1.
	CALCIUM, TOTAL	0003	F	08/05/89	MG/KG	*	118000.	0.	1.
	CHLOROFORM	0002	F	08/05/89	UG/KG		10.	6.	1.
	CHROMIUM, TOTAL	0002	F	08/05/89	MG/KG		12.9	0.	1.
	CHROMIUM, TOTAL	0003	F	08/05/89	MG/KG		15.7	0.	1.
	CHRYSENE	0002	F	08/05/89	UG/KG	J	140.	1200.	3.
	COBALT, TOTAL	0002	F	08/05/89	MG/KG	B	9.9	0.	1.
	COBALT, TOTAL	0003	F	08/05/89	MG/KG		10.3	0.	1.
	COPPER, TOTAL	0002	F	08/05/89	MG/KG	B	2.6	0.	1.
	COPPER, TOTAL	0003	F	08/05/89	MG/KG		9.3	0.	1.
	DICHLOROMETHANE-METHYLENE CHLORIDE	0002	F	08/05/89	UG/KG	B	7.	6.	1.
	FLUORANTHENE	0002	F	08/05/89	UG/KG	J	290.	1200.	3.
	IRON, TOTAL	0002	F	08/05/89	MG/KG		7460.	0.	1.
	IRON, TOTAL	0003	F	08/05/89	MG/KG		12000.	0.	1.
	LEAD, TOTAL	0002	F	08/05/89	MG/KG		21.1	0.	1.
	LEAD, TOTAL	0003	F	08/05/89	MG/KG		18.8	0.	1.
	MAGNESIUM, TOTAL	0002	F	08/05/89	MG/KG		77900.	0.	1.
	MAGNESIUM, TOTAL	0003	F	08/05/89	MG/KG		44800.	0.	1.
	MANGANESE, TOTAL	0002	F	08/05/89	MG/KG	*	309.	0.	1.
	MANGANESE, TOTAL	0003	F	08/05/89	MG/KG	*	390.	0.	1.

PARAMETER VALUE QUALIFIERS (PVQ):
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B = PRESENT IN BLANK
JB = PRS BLW DET LMT(J)PRS IN BLANK

SAMPLE TYPE CODES:
F = FIELD SAMPLE

SOIL CHEMISTRY DATA
FACILITY: MND13 AREA 17
07/26/89 TO 09/04/91
LOCATION: 0097
NORTH COORDINATE: 46876.81
EAST COORDINATE: 47832.76
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
3. - 5.	MERCURY, TOTAL	0002	F	08/05/89	MG/KG	N	.14	0.	1.
	MERCURY, TOTAL	0003	F	08/05/89	MG/KG	N	.18	0.	1.
	NICKEL, TOTAL	0002	F	08/05/89	MG/KG		22.4	0.	1.
	NICKEL, TOTAL	0003	F	08/05/89	MG/KG		26.9	0.	1.
	PHENANTHRENE	0002	F	08/05/89	UG/KG	J	170.	1200.	3.
	PLUTONIUM-238	0002	F	08/05/89	PCI/G		15.	-	-
	POTASSIUM, TOTAL	0002	F	08/05/89	MG/KG	B	930.	0.	1.
	POTASSIUM, TOTAL	0003	F	08/05/89	MG/KG		1210.	0.	1.
	PYRENE	0002	F	08/05/89	UG/KG	J	220.	1200.	3.
	SODIUM, TOTAL	0002	F	08/05/89	MG/KG		2290.	0.	1.
	SODIUM, TOTAL	0003	F	08/05/89	MG/KG		2150.	0.	1.
	THALLIUM, TOTAL	0002	F	08/05/89	MG/KG	B	.23	0.	1.
	THALLIUM, TOTAL	0003	F	08/05/89	MG/KG	B	.38	0.	1.
	THORIUM-232	0002	F	08/05/89	PCI/G		.3	-	-
	VANADIUM, TOTAL	0002	F	08/05/89	MG/KG		26.4	0.	1.
	VANADIUM, TOTAL	0003	F	08/05/89	MG/KG		23.1	0.	1.
	ZINC, TOTAL	0002	F	08/05/89	MG/KG	N	323.	0.	1.
	ZINC, TOTAL	0003	F	08/05/89	MG/KG	N	322.	0.	1.
8. - 10.	BENZO(A)ANTHRACENE	0003	F	08/06/89	UG/KG	J	150.	330.	3.
	BENZO(A)PYRENE	0003	F	08/06/89	UG/KG	J	120.	330.	3.
	BENZO(B)FLUORANTHENE	0003	F	08/06/89	UG/KG	J	210.	330.	3.
	BIS(2-ETHYLHEXYL)PHTHALATE	0003	F	08/06/89	UG/KG	J	180.	330.	3.
	CHRYSENE	0003	F	08/06/89	UG/KG	J	200.	330.	3.
	FLUORANTHENE	0003	F	08/06/89	UG/KG	J	400.	330.	3.
	PHENANTHRENE	0003	F	08/06/89	UG/KG	J	250.	330.	3.
	PLUTONIUM-238	0003	F	08/06/89	PCI/G		156.	-	-
	PYRENE	0003	F	08/06/89	UG/KG	J	380.	330.	3.
	THORIUM-232	0003	F	08/06/89	PCI/G		.5	-	-

PARAMETER VALUE QUALIFIERS (PVQ):
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B = PRESENT IN BLANK
JB = PRS BLW DET LMT(J)PRS IN BLANK

SAMPLE TYPE CODES:
F = FIELD SAMPLE

SOIL CHEMISTRY DATA
FACILITY: MND13 AREA 17
07/26/89 TO 09/04/91
LOCATION: 0098
NORTH COORDINATE: 47295.71
EAST COORDINATE: 47805.22
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
0.0 - .5	ACETONE	0001	F	08/06/89	UG/KG	JB	9.	11.	1.
	ALUMINUM, TOTAL	0001	F	08/06/89	MG/KG		7610.	0.	1.
	ARSENIC, TOTAL	0001	F	08/06/89	MG/KG		5.7	0.	1.
	BARIUM, TOTAL	0001	F	08/06/89	MG/KG	N	413.	0.	1.
	BENZO(A)ANTHRACENE	0001	F	08/06/89	UG/KG	J	280.	1300.	4.
	BENZO(A)PYRENE	0001	F	08/06/89	UG/KG	J	290.	1300.	4.
	BENZO(B)FLUORANTHENE	0001	F	08/06/89	UG/KG	J	310.	1300.	4.
	BENZO(G,H,I)PERYLENE	0001	F	08/06/89	UG/KG	J	220.	1300.	4.
	BENZO(K)FLUORANTHENE	0001	F	08/06/89	UG/KG	J	280.	1300.	4.
	BERYLLIUM	0001	F	08/06/89	MG/KG		1.2	0.	1.
	CADMIUM, TOTAL	0001	F	08/06/89	MG/KG		3.8	0.	1.
	CALCIUM, TOTAL	0001	F	08/06/89	MG/KG	*	42600.	0.	1.
	CHROMIUM, TOTAL	0001	F	08/06/89	MG/KG		16.9	0.	1.
	CHRYSENE	0001	F	08/06/89	UG/KG	J	340.	1300.	4.
	COBALT, TOTAL	0001	F	08/06/89	MG/KG		15.4	0.	1.
	COPPER, TOTAL	0001	F	08/06/89	MG/KG		17.4	0.	1.
	DICHLOROMETHANE-METHYLENE CHLORIDE	0001	F	08/06/89	UG/KG	JB	4.	6.	1.
	FLUORANTHENE	0001	F	08/06/89	UG/KG	J	590.	1300.	4.
	INDENO(1,2,3-CD)PYRENE	0001	F	08/06/89	UG/KG	J	170.	1300.	4.
	IRON, TOTAL	0001	F	08/06/89	MG/KG		17700.	0.	1.
	LEAD, TOTAL	0001	F	08/06/89	MG/KG		27.	0.	1.
	MAGNESIUM, TOTAL	0001	F	08/06/89	MG/KG		10900.	0.	1.
	MANGANESE, TOTAL	0001	F	08/06/89	MG/KG	*	1010.	0.	1.
	NICKEL, TOTAL	0001	F	08/06/89	MG/KG		30.4	0.	1.
	PHENANTHRENE	0001	F	08/06/89	UG/KG	J	170.	1300.	4.
	PLUTONIUM-238	0001	F	08/06/89	PCI/G		534.	-	-
	POTASSIUM, TOTAL	0001	F	08/06/89	MG/KG		1150.	0.	1.
	PYRENE	0001	F	08/06/89	UG/KG	J	620.	1300.	4.
	SILVER, TOTAL	0001	F	08/06/89	MG/KG		2.6	0.	1.
	SODIUM, TOTAL	0001	F	08/06/89	MG/KG		1580.	0.	1.
	THALLIUM, TOTAL	0001	F	08/06/89	MG/KG	B	.36	0.	1.
	THORIUM-232	0001	F	08/06/89	PCI/G		5.1	-	-
	TOLUENE	0001	F	08/06/89	UG/KG	JB	3.	6.	1.
	VANADIUM, TOTAL	0001	F	08/06/89	MG/KG		19.6	0.	1.
	ZINC, TOTAL	0001	F	08/06/89	MG/KG	N	263.	0.	1.
3. - 5.	ACETONE	0002	F	08/06/89	UG/KG	JB	10.	12.	1.
	ALUMINUM, TOTAL	0002	F	08/06/89	MG/KG		9370.	0.	1.
	ARSENIC, TOTAL	0002	F	08/06/89	MG/KG		6.4	0.	1.
	BARIUM, TOTAL	0002	F	08/06/89	MG/KG	N	393.	0.	1.
	BERYLLIUM	0002	F	08/06/89	MG/KG		1.3	0.	1.
	CADMIUM, TOTAL	0002	F	08/06/89	MG/KG		3.4	0.	1.
	CALCIUM, TOTAL	0002	F	08/06/89	MG/KG	*	34400.	0.	1.
	CHROMIUM, TOTAL	0002	F	08/06/89	MG/KG		19.	0.	1.
	COBALT, TOTAL	0002	F	08/06/89	MG/KG		16.8	0.	1.
	COPPER, TOTAL	0002	F	08/06/89	MG/KG		18.1	0.	1.
	DICHLOROMETHANE-METHYLENE CHLORIDE	0002	F	08/06/89	UG/KG	JB	5.	6.	1.
	FLUORANTHENE	0002	F	08/06/89	UG/KG	J	160.	990.	3.
	IRON, TOTAL	0002	F	08/06/89	MG/KG		18500.	0.	1.
	LEAD, TOTAL	0002	F	08/06/89	MG/KG		22.1	0.	1.
	MAGNESIUM, TOTAL	0002	F	08/06/89	MG/KG		8080.	0.	1.
	MANGANESE, TOTAL	0002	F	08/06/89	MG/KG	*	579.	0.	1.
	MERCURY, TOTAL	0002	F	08/06/89	MG/KG	N	.17	0.	1.
	NICKEL, TOTAL	0002	F	08/06/89	MG/KG		31.7	0.	1.
	PLUTONIUM-238	0002	F	08/06/89	PCI/G		25.	-	-
	POTASSIUM, TOTAL	0002	F	08/06/89	MG/KG		1150.	0.	1.
	PYRENE	0002	F	08/06/89	UG/KG	J	130.	990.	3.
	SILVER, TOTAL	0002	F	08/06/89	MG/KG		3.2	0.	1.
	SODIUM, TOTAL	0002	F	08/06/89	MG/KG		1840.	0.	1.

PARAMETER VALUE QUALIFIERS (PVQ):
JB = PRS BLW DET LMT(J)PRS IN BLANK
N = PRS BLW DET LMT(J) NOT SPIKED
J = PRESENT BELOW DETECTION LIMIT
* = CONTROL LIMITS NOT APPLICABLE
B = PRESENT IN BLANK

SAMPLE TYPE CODES:
F = FIELD SAMPLE

SOIL CHEMISTRY DATA
FACILITY: MND13 AREA 17
07/26/89 TO 09/04/91
LOCATION: 0098
NORTH COORDINATE: 47295.71
EAST COORDINATE: 47805.22
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
3. - 5.	THORIUM-232	0002	F	08/06/89	PCI/G		.5	-	-
	TOLUENE	0002	F	08/06/89	UG/KG	B	7.	6.	1.
	TRICHLOROETHENE	0002	F	08/06/89	UG/KG	J	1.	6.	1.
	VANADIUM, TOTAL	0002	F	08/06/89	MG/KG		20.7	0.	1.
	ZINC, TOTAL	0002	F	08/06/89	MG/KG	N	263.	0.	1.
	ACETONE	0003	F	08/07/89	UG/KG	J	2.	12.	1.
	DICHLOROMETHANE-METHYLENE CHLORIDE	0003	F	08/07/89	UG/KG	JB	5.	6.	1.

PARAMETER VALUE QUALIFIERS (PVQ):
B = PRESENT IN BLANK
J = PRESENT BELOW DETECTION LIMIT
N = PRS BLW DET LMT(J) NOT SPIKED
JB = PRS BLW DET LMT(J)PRS IN BLANK

SAMPLE TYPE CODES:
F = FIELD SAMPLE

SOIL CHEMISTRY DATA
FACILITY: MND14 AREA 19
08/01/89 TO 08/17/89
LOCATION: 0044
NORTH COORDINATE: 99999999.99
EAST COORDINATE: 99999999.99
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
2. - 5.	PLUTONIUM-238	0002	F	08/17/89	PCI/G		8.	-	-
	THORIUM-232	0002	F	08/17/89	PCI/G		.4	-	-

PARAMETER VALUE QUALIFIERS (PVQ):
B = PRESENT IN BLANK

SAMPLE TYPE CODES:
F = FIELD SAMPLE

SOIL CHEMISTRY DATA
FACILITY: MND14 AREA 19
08/01/89 TO 08/17/89
LOCATION: 1400
NORTH COORDINATE: 47182.28
EAST COORDINATE: 47035.72
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
5. - 8.	ACETONE	0002	F	08/01/89	UG/KG	B	14.	12.	1.
	ALUMINUM, TOTAL	0002	F	08/01/89	MG/KG		16000.	0.	1.
	ARSENIC, TOTAL	0002	F	08/01/89	MG/KG		5.5	0.	1.
	BARIUM, TOTAL	0002	F	08/01/89	MG/KG	*	521.	0.	1.
	BERYLLIUM	0002	F	08/01/89	MG/KG		1.1	0.	1.
	CADMIUM, TOTAL	0002	F	08/01/89	MG/KG		3.8	0.	1.
	CALCIUM, TOTAL	0002	F	08/01/89	MG/KG		19500.	0.	1.
	CHROMIUM, TOTAL	0002	F	08/01/89	MG/KG		19.8	0.	1.
	COBALT, TOTAL	0002	F	08/01/89	MG/KG		18.6	0.	1.
	COPPER, TOTAL	0002	F	08/01/89	MG/KG		14.6	0.	1.
	DICHLOROMETHANE-METHYLENE CHLORIDE	0002	F	08/01/89	UG/KG	B	16.	6.	1.
	IRON, TOTAL	0002	F	08/01/89	MG/KG		31400.	0.	1.
	LEAD, TOTAL	0002	F	08/01/89	MG/KG	N	14.8	0.	1.
	MAGNESIUM, TOTAL	0002	F	08/01/89	MG/KG		5630.	0.	1.
	MANGANESE, TOTAL	0002	F	08/01/89	MG/KG		1500.	0.	1.
	NICKEL, TOTAL	0002	F	08/01/89	MG/KG		43.	0.	1.
	PLUTONIUM-238	0002	F	08/01/89	PCI/G		0.	-	-
	POTASSIUM, TOTAL	0002	F	08/01/89	MG/KG		2010.	0.	1.
	SILVER, TOTAL	0002	F	08/01/89	MG/KG		3.	0.	1.
	SODIUM, TOTAL	0002	F	08/01/89	MG/KG		2280.	0.	1.
	THORIUM-232	0002	F	08/01/89	PCI/G		1.0	-	-
	VANADIUM, TOTAL	0002	F	08/01/89	MG/KG		17.5	0.	1.
	ZINC, TOTAL	0002	F	08/01/89	MG/KG	*	299.	0.	1.

PARAMETER VALUE QUALIFIERS (PVQ):
B = PRESENT IN BLANK
* = CONTROL LIMITS NOT APPLICABLE
N = PRS BLW DET LMT(J) NOT SPIKED
= PRESENT BELOW DETECTION LIMIT

SAMPLE TYPE CODES:
F = FIELD SAMPLE

SOIL CHEMISTRY DATA
FACILITY: MND14 AREA 19
08/01/89 TO 08/17/89
LOCATION: 2200
NORTH COORDINATE: 47388.54
EAST COORDINATE: 46957.98
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
3. - 4.	1,1,1-TRICHLOROETHANE	0002	F	08/01/89	UG/KG	J	2.	7.	1.
	2-BUTANONE	0002	F	08/01/89	UG/KG	J	2.	13.	1.
	ACETONE	0002	F	08/01/89	UG/KG	B	19.	13.	1.
	ALUMINUM, TOTAL	0002	F	08/01/89	MG/KG		9820.	0.	1.
	ARSENIC, TOTAL	0002	F	08/01/89	MG/KG		10.3	0.	1.
	BARIUM, TOTAL	0002	F	08/01/89	MG/KG	*	573.	0.	1.
	BERYLLIUM	0002	F	08/01/89	MG/KG	B	1.1	0.	1.
	CADMIUM, TOTAL	0002	F	08/01/89	MG/KG		4.3	0.	1.
	CALCIUM, TOTAL	0002	F	08/01/89	MG/KG		35300.	0.	1.
	CHROMIUM, TOTAL	0002	F	08/01/89	MG/KG		18.2	0.	1.
	COBALT, TOTAL	0002	F	08/01/89	MG/KG		13.2	0.	1.
	COPPER, TOTAL	0002	F	08/01/89	MG/KG		17.2	0.	1.
	DICHLOROMETHANE-METHYLENE CHLORIDE	0002	F	08/01/89	UG/KG	B	16.	7.	1.
	FLUORANTHENE	0002	F	08/01/89	UG/KG	J	51.	460.	1.
	IRON, TOTAL	0002	F	08/01/89	MG/KG		21200.	0.	1.
	LEAD, TOTAL	0002	F	08/01/89	MG/KG	N	15.1	0.	1.
	MAGNESIUM, TOTAL	0002	F	08/01/89	MG/KG		16200.	0.	1.
	MANGANESE, TOTAL	0002	F	08/01/89	MG/KG		452.	0.	1.
	NICKEL, TOTAL	0002	F	08/01/89	MG/KG		32.3	0.	1.
	PLUTONIUM-238	0002	F	08/01/89	PCI/G		21.	-	-
	POTASSIUM, TOTAL	0002	F	08/01/89	MG/KG	B	1290.	0.	1.
	PYRENE	0002	F	08/01/89	UG/KG	J	61.	460.	1.
	SILVER, TOTAL	0002	F	08/01/89	MG/KG		4.2	0.	1.
	SODIUM, TOTAL	0002	F	08/01/89	MG/KG		2630.	0.	1.
	THALLIUM, TOTAL	0002	F	08/01/89	MG/KG	B	.58	0.	1.
	THORIUM-232	0002	F	08/01/89	PCI/G		1.6	-	-
	TOLUENE	0002	F	08/01/89	UG/KG	J	2.	7.	1.
	VANADIUM, TOTAL	0002	F	08/01/89	MG/KG		20.7	0.	1.
	ZINC, TOTAL	0002	F	08/01/89	MG/KG	*	349.	0.	1.

PARAMETER VALUE QUALIFIERS (PVQ):
J = PRESENT BELOW DETECTION LIMIT
B = PRESENT IN BLANK
* = CONTROL LIMITS NOT APPLICABLE
N = PRS BLW DET LMT(J) NOT SPIKED

SAMPLE TYPE CODES:
F = FIELD SAMPLE

SOIL CHEMISTRY DATA
FACILITY: MND14 AREA 19
08/01/89 TO 08/17/89
LOCATION: 2300
NORTH COORDINATE: 47386.73
EAST COORDINATE: 46939.8
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
3. - 6.	1,1,1-TRICHLOROETHANE	0002	F	08/01/89	UG/KG	J	1.	5.	1.
	2-BUTANONE	0002	F	08/01/89	UG/KG		13.	11.	1.
	4-METHYL-2-PENTANONE	0002	F	08/01/89	UG/KG	J	6.	11.	1.
	ACETONE	0002	F	08/01/89	UG/KG	B	42.	11.	1.
	ALUMINUM, TOTAL	0002	F	08/01/89	MG/KG		11700.	0.	1.
	ARSENIC, TOTAL	0002	F	08/01/89	MG/KG		6.4	0.	1.
	BARIUM, TOTAL	0002	F	08/01/89	MG/KG	*	440.	0.	1.
	BENZOIC ACID	0002	F	08/01/89	UG/KG	J	68.	1800.	1.
	BERYLLIUM	0002	F	08/01/89	MG/KG	B	.9	0.	1.
	CADMIUM, TOTAL	0002	F	08/01/89	MG/KG		3.2	0.	1.
	CALCIUM, TOTAL	0002	F	08/01/89	MG/KG		4680.	0.	1.
	CHROMIUM, TOTAL	0002	F	08/01/89	MG/KG		13.2	0.	1.
	COBALT, TOTAL	0002	F	08/01/89	MG/KG		16.	0.	1.
	COPPER, TOTAL	0002	F	08/01/89	MG/KG		14.7	0.	1.
	DICHLOROMETHANE-METHYLENE CHLORIDE	0002	F	08/01/89	UG/KG	B	57.	5.	1.
	ETHYLBENZENE	0002	F	08/01/89	UG/KG	J	2.	5.	1.
	IRON, TOTAL	0002	F	08/01/89	MG/KG		25800.	0.	1.
	LEAD, TOTAL	0002	F	08/01/89	MG/KG	N	4.5	0.	1.
	MAGNESIUM, TOTAL	0002	F	08/01/89	MG/KG		3060.	0.	1.
	MANGANESE, TOTAL	0002	F	08/01/89	MG/KG		1180.	0.	1.
	NICKEL, TOTAL	0002	F	08/01/89	MG/KG		33.4	0.	1.
	PLUTONIUM-238	0002	F	08/01/89	PCI/G		35.	-	-
	POTASSIUM, TOTAL	0002	F	08/01/89	MG/KG		1580.	0.	1.
	SODIUM, TOTAL	0002	F	08/01/89	MG/KG		1910.	0.	1.
	THALLIUM, TOTAL	0002	F	08/01/89	MG/KG	B	.19	0.	1.
	THORIUM-232	0002	F	08/01/89	PCI/G		1.1	-	-
	TOLUENE	0002	F	08/01/89	UG/KG	J	3.	5.	1.
	VANADIUM, TOTAL	0002	F	08/01/89	MG/KG		15.7	0.	1.
	ZINC, TOTAL	0002	F	08/01/89	MG/KG	*	257.	0.	1.

PARAMETER VALUE QUALIFIERS (PVQ):
J = PRESENT BELOW DETECTION LIMIT
B = PRESENT IN BLANK
* = CONTROL LIMITS NOT APPLICABLE
N = PRS BLW DET LMT(J) NOT SPIKED

SAMPLE TYPE CODES:
F = FIELD SAMPLE

SOIL CHEMISTRY DATA
FACILITY: MND14 AREA 19
08/01/89 TO 08/17/89
LOCATION: 2440
NORTH COORDINATE: 47705.33
EAST COORDINATE: 46444.2
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
2. - 5.	ARSENIC, TOTAL	0002	F	08/17/89	MG/KG		5.5	0.	1.
	LEAD, TOTAL	0002	F	08/17/89	MG/KG .		10.	0.	1.

PARAMETER VALUE QUALIFIERS (PVQ):
J = PRESENT BELOW DETECTION LIMIT

SAMPLE TYPE CODES:
F = FIELD SAMPLE

SOIL CHEMISTRY DATA
FACILITY: MND14 AREA 19
08/01/89 TO 08/17/89
LOCATION: 3800
NORTH COORDINATE: 47593.92
EAST COORDINATE: 46544.97
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
2. - 5.	ACENAPHTHYLENE	0002	F	08/04/89	UG/KG	J	230.	810.	2.
	ANTHRACENE	0002	F	08/04/89	UG/KG	J	220.	810.	2.
	BENZO(A)ANTHRACENE	0002	F	08/04/89	UG/KG	J	430.	810.	2.
	BENZO(A)PYRENE	0002	F	08/04/89	UG/KG	J	370.	810.	2.
	BENZO(B)FLUORANTHENE	0002	F	08/04/89	UG/KG	J	430.	810.	2.
	BENZO(G,H,I)PERYLENE	0002	F	08/04/89	UG/KG	J	260.	810.	2.
	BENZO(K)FLUORANTHENE	0002	F	08/04/89	UG/KG	J	360.	810.	2.
	CHRYSENE	0002	F	08/04/89	UG/KG	J	480.	810.	2.
	DIBENZ(A,H)ANTHRACENE	0002	F	08/04/89	UG/KG	J	120.	810.	2.
	FLUORANTHENE	0002	F	08/04/89	UG/KG		1000.	810.	2.
	INDENO(1,2,3-CD)PYRENE	0002	F	08/04/89	UG/KG	J	250.	810.	2.
	N-NITROSODIPHENYLAMINE	0002	F	08/04/89	UG/KG	JB	110.	810.	2.
	PHENANTHRENE	0002	F	08/04/89	UG/KG	J	470.	810.	2.
	PLUTONIUM-238	0002	F	08/04/89	PCI/G		14.	-	-
	PYRENE	0002	F	08/04/89	UG/KG		890.	810.	2.
	THORIUM-232	0002	F	08/04/89	PCI/G		1.2	-	-

PARAMETER VALUE QUALIFIERS (PVQ):
J = PRESENT BELOW DETECTION LIMIT
JB = PRS BLW DET LMT(J)PRS IN BLANK

SAMPLE TYPE CODES:
F = FIELD SAMPLE

SOIL CHEMISTRY DATA
FACILITY: MND14 AREA 19
08/01/89 TO 08/17/89
LOCATION: 4000
NORTH COORDINATE: 47616.5
EAST COORDINATE: 46517.77
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
5. - 8.	N-NITROSODIPHENYLAMINE	0002	F	08/04/89	UG/KG	JB	66.	390.	1.
	PLUTONIUM-238	0002	F	08/04/89	PCI/G		29.	-	-
	THORIUM-232	0002	F	08/04/89	PCI/G		1.2	-	-

PARAMETER VALUE QUALIFIERS (PVQ):
JB = PRS BLW DET LMT(J)PRS IN BLANK

SAMPLE TYPE CODES:
F = FIELD SAMPLE

SOIL CHEMISTRY DATA
FACILITY: MND14 AREA 19
08/01/89 TO 08/17/89
LOCATION: 4400
NORTH COORDINATE: 47705.33
EAST COORDINATE: 46444.2
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
2. - 5.	ARSENIC, TOTAL	0002	F	08/17/89	MG/KG		6.2	0.	1.
	LEAD, TOTAL	0002	F	08/17/89	MG/KG		10.4	0.	1.

PARAMETER VALUE QUALIFIERS (PVQ):
JB = PRS BLW DET LMT(J)PRS IN BLANK

SAMPLE TYPE CODES:
F = FIELD SAMPLE

SOIL CHEMISTRY DATA
FACILITY: MND14 AREA 19
08/01/89 TO 08/17/89
LOCATION: 5100
NORTH COORDINATE: 47604.85
EAST COORDINATE: 46510.64
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
0.0 - 3.	N-NITROSODIPHENYLAMINE	0002	F	08/04/89	UG/KG	JB	53.	400.	1.
	PLUTONIUM-238	0002	F	08/04/89	PCI/G		68.	-	-
	THORIUM-232	0002	F	08/04/89	PCI/G		1.1	-	-

PARAMETER VALUE QUALIFIERS (PVQ):
JB = PRS BLW DET LMT(J)PRS IN BLANK
J = PRESENT BELOW DETECTION LIMIT

SAMPLE TYPE CODES:
F = FIELD SAMPLE

SOIL CHEMISTRY DATA
FACILITY: MND14 AREA 19
08/01/89 TO 08/17/89
LOCATION: 5200
NORTH COORDINATE: 47595.23
EAST COORDINATE: 46513.98
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
0.0 - 3.	ACENAPHTHYLENE	0002	F	08/04/89	UG/KG	J	220.	750.	2.
	ANTHRACENE	0002	F	08/04/89	UG/KG	J	120.	750.	2.
	BENZO(A)ANTHRACENE	0002	F	08/04/89	UG/KG	J	450.	750.	2.
	BENZO(A)PYRENE	0002	F	08/04/89	UG/KG	J	110.	750.	2.
	BENZO(B)FLUORANTHENE	0002	F	08/04/89	UG/KG	J	590.	750.	2.
	BENZO(G,H,I)PERYLENE	0002	F	08/04/89	UG/KG	J	310.	750.	2.
	BENZO(K)FLUORANTHENE	0002	F	08/04/89	UG/KG	J	430.	750.	2.
	CHRYSENE	0002	F	08/04/89	UG/KG	J	520.	750.	2.
	DIBENZ(A,H)ANTHRACENE	0002	F	08/04/89	UG/KG	J	130.	750.	2.
	FLUORANTHENE	0002	F	08/04/89	UG/KG		790.	750.	2.
	INDENO(1,2,3-CD)PYRENE	0002	F	08/04/89	UG/KG	J	270.	750.	2.
	N-NITROSODIPHENYLAMINE	0002	F	08/04/89	UG/KG	JB	110.	750.	2.
	PHENANTHRENE	0002	F	08/04/89	UG/KG	J	290.	750.	2.
	PLUTONIUM-238	0002	F	08/04/89	PCI/G		20.	-	-
	PYRENE	0002	F	08/04/89	UG/KG		900.	750.	2.
	THORIUM-232	0002	F	08/04/89	PCI/G		.8	-	-

PARAMETER VALUE QUALIFIERS (PVQ):
J = PRESENT BELOW DETECTION LIMIT
JB = PRS BLW DET LMT(J)PRS IN BLANK

SAMPLE TYPE CODES:
F = FIELD SAMPLE

DATA FILE NAME: SCI10001.DAT

SOIL CHEMISTRY DATA
FACILITY: MND15 AREA D
07/19/89 TO 08/03/89
LOCATION: 0101
NORTH COORDINATE: 47028.03
EAST COORDINATE: 47496.34
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
0.0 - .5	ALUMINUM, TOTAL	0001	F	07/19/89	MG/KG	*	3770.	0.	1.
	ARSENIC, TOTAL	0001	F	07/19/89	MG/KG		4.9	0.	1.
	BARIUM, TOTAL	0001	F	07/19/89	MG/KG	*	230.	0.	1.
	BERYLLIUM	0001	F	07/19/89	MG/KG	B	.83	0.	1.
	CALCIUM, TOTAL	0001	F	07/19/89	MG/KG		96600.	0.	1.
	CHROMIUM, TOTAL	0001	F	07/19/89	MG/KG	N	14.2	0.	1.
	COBALT, TOTAL	0001	F	07/19/89	MG/KG	B	7.9	0.	1.
	COPPER, TOTAL	0001	F	07/19/89	MG/KG		9.9	0.	1.
	IRON, TOTAL	0001	F	07/19/89	MG/KG		9790.	0.	1.
	LEAD, TOTAL	0001	F	07/19/89	MG/KG		11.6	0.	1.
	MAGNESIUM, TOTAL	0001	F	07/19/89	MG/KG		31800.	0.	1.
	NICKEL, TOTAL	0001	F	07/19/89	MG/KG	N	27.7	0.	1.
	POTASSIUM, TOTAL	0001	F	07/19/89	MG/KG	B	686.	0.	1.
	SODIUM, TOTAL	0001	F	07/19/89	MG/KG	*	1080.	0.	1.
	VANADIUM, TOTAL	0001	F	07/19/89	MG/KG	E	18.1	0.	1.
	ZINC, TOTAL	0001	F	07/19/89	MG/KG	*	145.	0.	1.
	PLUTONIUM-238	0001	F	07/20/89	PCI/G		5.	-	-
	THORIUM-232	0001	F	07/20/89	PCI/G		.7	-	-
	PLUTONIUM-238	0001	F	08/02/89	PCI/G		0.	-	-
	THORIUM-232	0001	F	08/02/89	PCI/G		.5	-	-
3. - 5.	ALUMINUM, TOTAL	0002	F	07/20/89	MG/KG	*	8360.	0.	1.
	ARSENIC, TOTAL	0002	F	07/20/89	MG/KG		5.7	0.	1.
	BARIUM, TOTAL	0002	F	07/20/89	MG/KG	*	352.	0.	1.
	BERYLLIUM	0002	F	07/20/89	MG/KG	B	1.	0.	1.
	CALCIUM, TOTAL	0002	F	07/20/89	MG/KG		99600.	0.	1.
	CHROMIUM, TOTAL	0002	F	07/20/89	MG/KG	N	20.5	0.	1.
	COBALT, TOTAL	0002	F	07/20/89	MG/KG		12.8	0.	1.
	COPPER, TOTAL	0002	F	07/20/89	MG/KG		13.7	0.	1.
	IRON, TOTAL	0002	F	07/20/89	MG/KG		16100.	0.	1.
	LEAD, TOTAL	0002	F	07/20/89	MG/KG		14.4	0.	1.
	MAGNESIUM, TOTAL	0002	F	07/20/89	MG/KG		35500.	0.	1.
	NICKEL, TOTAL	0002	F	07/20/89	MG/KG	N	48.3	0.	1.
	PLUTONIUM-238	0002	F	07/20/89	PCI/G		4.	-	-
	POTASSIUM, TOTAL	0002	F	07/20/89	MG/KG		1430.	0.	1.
	SILVER, TOTAL	0002	F	07/20/89	MG/KG	N	2.5	0.	1.
	SODIUM, TOTAL	0002	F	07/20/89	MG/KG	*	1750.	0.	1.
	THORIUM-232	0002	F	07/20/89	PCI/G		1.0	-	-
	VANADIUM, TOTAL	0002	F	07/20/89	MG/KG	E	22.9	0.	1.
	ZINC, TOTAL	0002	F	07/20/89	MG/KG	*	230.	0.	1.
	PLUTONIUM-238	0002	F	08/02/89	PCI/G		10.	-	-
	THORIUM-232	0002	F	08/02/89	PCI/G		.6	-	-
8. - 9.5	ALUMINUM, TOTAL	0003	F	07/20/89	MG/KG	*	7570.	0.	1.
	ARSENIC, TOTAL	0003	F	07/20/89	MG/KG		5.9	0.	1.
	BARIUM, TOTAL	0003	F	07/20/89	MG/KG	*	320.	0.	1.
	BERYLLIUM	0003	F	07/20/89	MG/KG		.92	0.	1.
	CALCIUM, TOTAL	0003	F	07/20/89	MG/KG		111000.	0.	1.
	CHROMIUM, TOTAL	0003	F	07/20/89	MG/KG	N	17.2	0.	1.
	COBALT, TOTAL	0003	F	07/20/89	MG/KG		10.5	0.	1.
	COPPER, TOTAL	0003	F	07/20/89	MG/KG		10.1	0.	1.
	IRON, TOTAL	0003	F	07/20/89	MG/KG		14500.	0.	1.
	LEAD, TOTAL	0003	F	07/20/89	MG/KG		19.6	0.	1.
	MAGNESIUM, TOTAL	0003	F	07/20/89	MG/KG		26600.	0.	1.
	NICKEL, TOTAL	0003	F	07/20/89	MG/KG	N	32.2	0.	1.
	PLUTONIUM-238	0003	F	07/20/89	PCI/G		13.	-	-
	POTASSIUM, TOTAL	0003	F	07/20/89	MG/KG		1400.	0.	1.
	SODIUM, TOTAL	0003	F	07/20/89	MG/KG	*	1580.	0.	1.
	THORIUM-232	0003	F	07/20/89	PCI/G		.7	-	-
	VANADIUM, TOTAL	0003	F	07/20/89	MG/KG	E	20.2	0.	1.

PARAMETER VALUE QUALIFIERS (PVQ):
* = CONTROL LIMITS NOT APPLICABLE
B = PRESENT IN BLANK
N = PRS BLW DET LMT(J) NOT SPIKED
E = DET BEYOND CALIBRATION RANGE

SAMPLE TYPE CODES:
F = FIELD SAMPLE

SOIL CHEMISTRY DATA
FACILITY: MND15 AREA D
07/19/89 TO 08/03/89
LOCATION: 0101
NORTH COORDINATE: 47028.03
EAST COORDINATE: 47496.34
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
8. - 9.5	ZINC, TOTAL	0003	F	07/20/89	MG/KG	*	209.	0.	1.
8. - 10.	PLUTONIUM-238	0003	F	08/02/89	PCI/G		6.	-	-
	THORIUM-232	0003	F	08/02/89	PCI/G		1.0	-	-
13. - 14.	PLUTONIUM-238	0004	F	07/20/89	PCI/G		13.	-	-
	THORIUM-232	0004	F	07/20/89	PCI/G		.2	-	-
	PLUTONIUM-238	0004	F	08/02/89	PCI/G		4.	-	-
	THORIUM-232	0004	F	08/02/89	PCI/G		.7	-	-

PARAMETER VALUE QUALIFIERS (PVQ):
* = CONTROL LIMITS NOT APPLICABLE

SAMPLE TYPE CODES:
F = FIELD SAMPLE

SOIL CHEMISTRY DATA
FACILITY: MND15 AREA D
07/19/89 TO 08/03/89
LOCATION: 0102
NORTH COORDINATE: 47039.19
EAST COORDINATE: 47495.47
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
0.0 - .5	ALUMINUM, TOTAL	0001	F	07/20/89	MG/KG	*	3060.	0.	1.
	ARSENIC, TOTAL	0001	F	07/20/89	MG/KG		5.2	0.	1.
	BARIUM, TOTAL	0001	F	07/20/89	MG/KG	*	316.	0.	1.
	BERYLLIUM	0001	F	07/20/89	MG/KG	B	.89	0.	1.
	CALCIUM, TOTAL	0001	F	07/20/89	MG/KG		124000.	0.	1.
	CHROMIUM, TOTAL	0001	F	07/20/89	MG/KG	N	15.3	0.	1.
	COBALT, TOTAL	0001	F	07/20/89	MG/KG	B	7.9	0.	1.
	COPPER, TOTAL	0001	F	07/20/89	MG/KG		6.3	0.	1.
	IRON, TOTAL	0001	F	07/20/89	MG/KG		6730.	0.	1.
	LEAD, TOTAL	0001	F	07/20/89	MG/KG		16.3	0.	1.
	MAGNESIUM, TOTAL	0001	F	07/20/89	MG/KG		41600.	0.	1.
	NICKEL, TOTAL	0001	F	07/20/89	MG/KG	N	25.6	0.	1.
	PLUTONIUM-238	0001	F	07/20/89	PCI/G		2.	-	-
	POTASSIUM, TOTAL	0001	F	07/20/89	MG/KG	B	747.	0.	1.
	SODIUM, TOTAL	0001	F	07/20/89	MG/KG	*	1610.	0.	1.
	THORIUM-232	0001	F	07/20/89	PCI/G		.6	-	-
	VANADIUM, TOTAL	0001	F	07/20/89	MG/KG	E	20.3	0.	1.
	ZINC, TOTAL	0001	F	07/20/89	MG/KG	*	204.	0.	1.
	PLUTONIUM-238	0001	F	08/02/89	PCI/G		0.	-	-
	THORIUM-232	0001	F	08/02/89	PCI/G		.5	-	-
3. - 5.	ALUMINUM, TOTAL	0002	F	07/20/89	MG/KG	*	8690.	0.	1.
	ARSENIC, TOTAL	0002	F	07/20/89	MG/KG		8.4	0.	1.
	BARIUM, TOTAL	0002	F	07/20/89	MG/KG	*	446.	0.	1.
	BERYLLIUM	0002	F	07/20/89	MG/KG		1.2	0.	1.
	CALCIUM, TOTAL	0002	F	07/20/89	MG/KG		59600.	0.	1.
	CHROMIUM, TOTAL	0002	F	07/20/89	MG/KG	N	20.	0.	1.
	COBALT, TOTAL	0002	F	07/20/89	MG/KG		13.	0.	1.
	COPPER, TOTAL	0002	F	07/20/89	MG/KG		16.7	0.	1.
	IRON, TOTAL	0002	F	07/20/89	MG/KG		18500.	0.	1.
	LEAD, TOTAL	0002	F	07/20/89	MG/KG		6.2	0.	1.
	MAGNESIUM, TOTAL	0002	F	07/20/89	MG/KG		26200.	0.	1.
	NICKEL, TOTAL	0002	F	07/20/89	MG/KG	N	38.2	0.	1.
	PLUTONIUM-238	0002	F	07/20/89	PCI/G		9.	-	-
	POTASSIUM, TOTAL	0002	F	07/20/89	MG/KG	B	1130.	0.	1.
	SILVER, TOTAL	0002	F	07/20/89	MG/KG	N	4.3	0.	1.
	SODIUM, TOTAL	0002	F	07/20/89	MG/KG	*	2050.	0.	1.
	THORIUM-232	0002	F	07/20/89	PCI/G		1.3	-	-
	VANADIUM, TOTAL	0002	F	07/20/89	MG/KG	E	21.5	0.	1.
	ZINC, TOTAL	0002	F	07/20/89	MG/KG	*	260.	0.	1.
	PLUTONIUM-238	0002	F	08/02/89	PCI/G		7.	-	-
	THORIUM-232	0002	F	08/02/89	PCI/G		.7	-	-
8. - 10.	ALUMINUM, TOTAL	0003	F	07/20/89	MG/KG	*	5030.	0.	1.
	ARSENIC, TOTAL	0003	F	07/20/89	MG/KG		4.	0.	1.
	BARIUM, TOTAL	0003	F	07/20/89	MG/KG	*	318.	0.	1.
	BERYLLIUM	0003	F	07/20/89	MG/KG		.98	0.	1.
	CALCIUM, TOTAL	0003	F	07/20/89	MG/KG		178000.	0.	1.
	CHROMIUM, TOTAL	0003	F	07/20/89	MG/KG	N	10.9	0.	1.
	COBALT, TOTAL	0003	F	07/20/89	MG/KG		10.1	0.	1.
	COPPER, TOTAL	0003	F	07/20/89	MG/KG		4.9	0.	1.
	IRON, TOTAL	0003	F	07/20/89	MG/KG		12500.	0.	1.
	LEAD, TOTAL	0003	F	07/20/89	MG/KG		8.9	0.	1.
	MAGNESIUM, TOTAL	0003	F	07/20/89	MG/KG		25900.	0.	1.
	NICKEL, TOTAL	0003	F	07/20/89	MG/KG	N	25.5	0.	1.
	PLUTONIUM-238	0003	F	07/20/89	PCI/G		1.	-	-
	POTASSIUM, TOTAL	0003	F	07/20/89	MG/KG		970.	0.	1.
	SODIUM, TOTAL	0003	F	07/20/89	MG/KG	*	1660.	0.	1.
	THORIUM-232	0003	F	07/20/89	PCI/G		.3	-	-
	VANADIUM, TOTAL	0003	F	07/20/89	MG/KG	E	18.9	0.	1.

PARAMETER VALUE QUALIFIERS (PVQ):
* = CONTROL LIMITS NOT APPLICABLE
B = PRESENT IN BLANK
N = PRS BLW DET LMT(J) NOT SPIKED
E = DET BEYOND CALIBRATION RANGE

SAMPLE TYPE CODES:
F = FIELD SAMPLE

SOIL CHEMISTRY DATA
FACILITY: MND15 AREA D
07/19/89 TO 08/03/89
LOCATION: 0102
NORTH COORDINATE: 47039.19
EAST COORDINATE: 47495.47
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
8. - 10.	ZINC, TOTAL	0003	F	07/20/89	MG/KG	*	195.	0.	1.
	PLUTONIUM-238	0003	F	08/02/89	PCI/G		2.	-	-
	THORIUM-232	0003	F	08/02/89	PCI/G		.3	-	-
13. - 14.5	ALUMINUM, TOTAL	0004	F	07/20/89	MG/KG	*	8360.	0.	1.
	ARSENIC, TOTAL	0004	F	07/20/89	MG/KG		5.3	0.	1.
	BARIUM, TOTAL	0004	F	07/20/89	MG/KG	*	378.	0.	1.
	BERYLLIUM	0004	F	07/20/89	MG/KG		1.2	0.	1.
	CALCIUM, TOTAL	0004	F	07/20/89	MG/KG		117000.	0.	1.
	CHROMIUM, TOTAL	0004	F	07/20/89	MG/KG	N	19.9	0.	1.
	COBALT, TOTAL	0004	F	07/20/89	MG/KG		14.8	0.	1.
	COPPER, TOTAL	0004	F	07/20/89	MG/KG		15.4	0.	1.
	IRON, TOTAL	0004	F	07/20/89	MG/KG		27400.	0.	1.
	LEAD, TOTAL	0004	F	07/20/89	MG/KG		14.5	0.	1.
	MAGNESIUM, TOTAL	0004	F	07/20/89	MG/KG		14500.	0.	1.
	NICKEL, TOTAL	0004	F	07/20/89	MG/KG	N	38.5	0.	1.
	PLUTONIUM-238	0004	F	07/20/89	PCI/G		4.	-	-
	POTASSIUM, TOTAL	0004	F	07/20/89	MG/KG		1450.	0.	1.
	SODIUM, TOTAL	0004	F	07/20/89	MG/KG	*	1700.	0.	1.
	THORIUM-232	0004	F	07/20/89	PCI/G		.7	-	-
	VANADIUM, TOTAL	0004	F	07/20/89	MG/KG	E	19.8	0.	1.
	ZINC, TOTAL	0004	F	07/20/89	MG/KG	*	228.	0.	1.

PARAMETER VALUE QUALIFIERS (PVQ):
* = CONTROL LIMITS NOT APPLICABLE
N = PRS BLW DET LMT(J) NOT SPIKED
E = DET BEYOND CALIBRATION RANGE

SAMPLE TYPE CODES:
F = FIELD SAMPLE

SOIL CHEMISTRY DATA
FACILITY: MND15 AREA D
07/19/89 TO 08/03/89
LOCATION: 0103
NORTH COORDINATE: 47032.06
EAST COORDINATE: 47485.86
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
0.0 - .5	ALUMINUM, TOTAL	0001	F	07/20/89	MG/KG	*	9400.	0.	1.
	ARSENIC, TOTAL	0001	F	07/20/89	MG/KG		8.2	0.	1.
	BARIUM, TOTAL	0001	F	07/20/89	MG/KG	*	274.	0.	1.
	BERYLLIUM	0001	F	07/20/89	MG/KG		1.1	0.	1.
	CALCIUM, TOTAL	0001	F	07/20/89	MG/KG		88400.	0.	1.
	CHROMIUM, TOTAL	0001	F	07/20/89	MG/KG	N	21.5	0.	1.
	COBALT, TOTAL	0001	F	07/20/89	MG/KG		12.7	0.	1.
	COPPER, TOTAL	0001	F	07/20/89	MG/KG		12.5	0.	1.
	IRON, TOTAL	0001	F	07/20/89	MG/KG		18800.	0.	1.
	LEAD, TOTAL	0001	F	07/20/89	MG/KG		25.4	0.	1.
	MAGNESIUM, TOTAL	0001	F	07/20/89	MG/KG		14000.	0.	1.
	NICKEL, TOTAL	0001	F	07/20/89	MG/KG	N	32.2	0.	1.
	PLUTONIUM-238	0001	F	07/20/89	PCI/G		8.	-	-
	POTASSIUM, TOTAL	0001	F	07/20/89	MG/KG		1460.	0.	1.
	SODIUM, TOTAL	0001	F	07/20/89	MG/KG	*	1220.	0.	1.
	THORIUM-232	0001	F	07/20/89	PCI/G		.6	-	-
	VANADIUM, TOTAL	0001	F	07/20/89	MG/KG	E	20.5	0.	1.
	ZINC, TOTAL	0001	F	07/20/89	MG/KG	*	177.	0.	1.
	PLUTONIUM-238	0001	F	08/02/89	PCI/G		2.	-	-
	THORIUM-232	0001	F	08/02/89	PCI/G		.8	-	-
3. - 5.	ALUMINUM, TOTAL	0002	F	07/20/89	MG/KG	*	7960.	0.	1.
	ARSENIC, TOTAL	0002	F	07/20/89	MG/KG		4.6	0.	1.
	BARIUM, TOTAL	0002	F	07/20/89	MG/KG	*	400.	0.	1.
	BERYLLIUM	0002	F	07/20/89	MG/KG		1.	0.	1.
	CALCIUM, TOTAL	0002	F	07/20/89	MG/KG		42700.	0.	1.
	CHROMIUM, TOTAL	0002	F	07/20/89	MG/KG	N	17.	0.	1.
	COBALT, TOTAL	0002	F	07/20/89	MG/KG		9.7	0.	1.
	COPPER, TOTAL	0002	F	07/20/89	MG/KG		14.1	0.	1.
	IRON, TOTAL	0002	F	07/20/89	MG/KG		13300.	0.	1.
	LEAD, TOTAL	0002	F	07/20/89	MG/KG		14.7	0.	1.
	MAGNESIUM, TOTAL	0002	F	07/20/89	MG/KG		16900.	0.	1.
	NICKEL, TOTAL	0002	F	07/20/89	MG/KG	N	25.4	0.	1.
	PLUTONIUM-238	0002	F	07/20/89	PCI/G		3.	-	-
	POTASSIUM, TOTAL	0002	F	07/20/89	MG/KG		1670.	0.	1.
	SILVER, TOTAL	0002	F	07/20/89	MG/KG	N	3.6	0.	1.
	SODIUM, TOTAL	0002	F	07/20/89	MG/KG	*	1610.	0.	1.
	THORIUM-232	0002	F	07/20/89	PCI/G		.4	-	-
	VANADIUM, TOTAL	0002	F	07/20/89	MG/KG	E	20.3	0.	1.
	ZINC, TOTAL	0002	F	07/20/89	MG/KG	*	222.	0.	1.
	PLUTONIUM-238	0002	F	08/02/89	PCI/G		7.	-	-
	THORIUM-232	0002	F	08/02/89	PCI/G		.5	-	-
8. - 9.5	PLUTONIUM-238	0003	F	08/02/89	PCI/G		2.	-	-
	THORIUM-232	0003	F	08/02/89	PCI/G		.9	-	-
8. - 10.	ALUMINUM, TOTAL	0003	F	07/20/89	MG/KG	*	22400.	0.	1.
	ARSENIC, TOTAL	0003	F	07/20/89	MG/KG		9.9	0.	1.
	BARIUM, TOTAL	0003	F	07/20/89	MG/KG	*	388.	0.	1.
	BERYLLIUM	0003	F	07/20/89	MG/KG		1.8	0.	1.
	CALCIUM, TOTAL	0003	F	07/20/89	MG/KG		32800.	0.	1.
	CHROMIUM, TOTAL	0003	F	07/20/89	MG/KG	N	27.3	0.	1.
	COBALT, TOTAL	0003	F	07/20/89	MG/KG		20.1	0.	1.
	COPPER, TOTAL	0003	F	07/20/89	MG/KG		20.4	0.	1.
	IRON, TOTAL	0003	F	07/20/89	MG/KG		37800.	0.	1.
	LEAD, TOTAL	0003	F	07/20/89	MG/KG		25.7	0.	1.
	MAGNESIUM, TOTAL	0003	F	07/20/89	MG/KG		57200.	0.	1.
	NICKEL, TOTAL	0003	F	07/20/89	MG/KG	N	54.6	0.	1.
	PLUTONIUM-238	0003	F	07/20/89	PCI/G		0.	-	-
	POTASSIUM, TOTAL	0003	F	07/20/89	MG/KG		2390.	0.	1.
	SILVER, TOTAL	0003	F	07/20/89	MG/KG	N	4.3	0.	1.

PARAMETER VALUE QUALIFIERS (PVQ):
* = CONTROL LIMITS NOT APPLICABLE
N = PRS BLW DET LMT(J) NOT SPIKED
E = DET BEYOND CALIBRATION RANGE

SAMPLE TYPE CODES:
F = FIELD SAMPLE

SOIL CHEMISTRY DATA
FACILITY: MND15 AREA D
07/19/89 TO 08/03/89
LOCATION: 0103
NORTH COORDINATE: 47032.06
EAST COORDINATE: 47485.86
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
8. - 10.	SODIUM, TOTAL	0003	F	07/20/89	MG/KG	*	1830.	0.	1.
	THORIUM-232	0003	F	07/20/89	PCI/G		1.5	-	-
	VANADIUM, TOTAL	0003	F	07/20/89	MG/KG	E	26.4	0.	1.
	ZINC, TOTAL	0003	F	07/20/89	MG/KG	*	261.	0.	1.
13. - 14.5	ALUMINUM, TOTAL	0004	F	07/20/89	MG/KG	*	12000.	0.	1.
	BARIUM, TOTAL	0004	F	07/20/89	MG/KG	*	319.	0.	1.
	BERYLLIUM	0004	F	07/20/89	MG/KG		1.1	0.	1.
	CALCIUM, TOTAL	0004	F	07/20/89	MG/KG		15000.	0.	1.
	CHROMIUM, TOTAL	0004	F	07/20/89	MG/KG	N	16.	0.	1.
	COBALT, TOTAL	0004	F	07/20/89	MG/KG		11.9	0.	1.
	COPPER, TOTAL	0004	F	07/20/89	MG/KG		12.7	0.	1.
	IRON, TOTAL	0004	F	07/20/89	MG/KG		20300.	0.	1.
	LEAD, TOTAL	0004	F	07/20/89	MG/KG		4.4	0.	1.
	MAGNESIUM, TOTAL	0004	F	07/20/89	MG/KG		3330.	0.	1.
	NICKEL, TOTAL	0004	F	07/20/89	MG/KG	N	31.6	0.	1.
	PLUTONIUM-238	0004	F	07/20/89	PCI/G		6.	-	-
	POTASSIUM, TOTAL	0004	F	07/20/89	MG/KG		1220.	0.	1.
	SILVER, TOTAL	0004	F	07/20/89	MG/KG	N	2.9	0.	1.
	SODIUM, TOTAL	0004	F	07/20/89	MG/KG	*	1430.	0.	1.
	THORIUM-232	0004	F	07/20/89	PCI/G		.6	-	-
	VANADIUM, TOTAL	0004	F	07/20/89	MG/KG	E	16.	0.	1.
	ZINC, TOTAL	0004	F	07/20/89	MG/KG	*	200.	0.	1.
	BETA-BHC	0004	F	08/02/89	UG/KG		12.	10.	1.
	PLUTONIUM-238	0004	F	08/02/89	PCI/G		8.	-	-
	THORIUM-232	0004	F	08/02/89	PCI/G		.5	-	-

PARAMETER VALUE QUALIFIERS (PVQ):
* = CONTROL LIMITS NOT APPLICABLE
E = DET BEYOND CALIBRATION RANGE
N = PRS BLW DET LMT(J) NOT SPIKED

SAMPLE TYPE CODES:
F = FIELD SAMPLE

SOIL CHEMISTRY DATA
FACILITY: MND15 AREA D
07/19/89 TO 08/03/89
LOCATION: 0104
NORTH COORDINATE: 47040.35
EAST COORDINATE: 47467.05
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
0.0 - .5	ALUMINUM, TOTAL	0001	F	07/20/89	MG/KG	*	8010.	0.	1.
	ARSENIC, TOTAL	0001	F	07/20/89	MG/KG		8.6	0.	1.
	BARIUM, TOTAL	0001	F	07/20/89	MG/KG	*	310.	0.	1.
	BERYLLIUM	0001	F	07/20/89	MG/KG		.99	0.	1.
	CALCIUM, TOTAL	0001	F	07/20/89	MG/KG		26200.	0.	1.
	CHROMIUM, TOTAL	0001	F	07/20/89	MG/KG	N	16.6	0.	1.
	COBALT, TOTAL	0001	F	07/20/89	MG/KG		11.7	0.	1.
	COPPER, TOTAL	0001	F	07/20/89	MG/KG		13.8	0.	1.
	IRON, TOTAL	0001	F	07/20/89	MG/KG		15600.	0.	1.
	LEAD, TOTAL	0001	F	07/20/89	MG/KG		18.3	0.	1.
	MAGNESIUM, TOTAL	0001	F	07/20/89	MG/KG		11300.	0.	1.
	NICKEL, TOTAL	0001	F	07/20/89	MG/KG	N	29.2	0.	1.
	PLUTONIUM-238	0001	F	07/20/89	PCI/G		12.	-	-
	POTASSIUM, TOTAL	0001	F	07/20/89	MG/KG	B	808.	0.	1.
	SILVER, TOTAL	0001	F	07/20/89	MG/KG	N	3.6	0.	1.
	SODIUM, TOTAL	0001	F	07/20/89	MG/KG	*	1270.	0.	1.
	THORIUM-232	0001	F	07/20/89	PCI/G		.9	-	-
	VANADIUM, TOTAL	0001	F	07/20/89	MG/KG	E	20.4	0.	1.
	ZINC, TOTAL	0001	F	07/20/89	MG/KG	*	188.	0.	1.
	PLUTONIUM-238	0001	F	08/02/89	PCI/G		5.	-	-
	THORIUM-232	0001	F	08/02/89	PCI/G		.6	-	-
3. - 5.	ALUMINUM, TOTAL	0002	F	07/20/89	MG/KG	*	5620.	0.	1.
	ARSENIC, TOTAL	0002	F	07/20/89	MG/KG		11.7	0.	1.
	BARIUM, TOTAL	0002	F	07/20/89	MG/KG	*	329.	0.	1.
	BERYLLIUM	0002	F	07/20/89	MG/KG		1.	0.	1.
	CALCIUM, TOTAL	0002	F	07/20/89	MG/KG		155000.	0.	1.
	CHROMIUM, TOTAL	0002	F	07/20/89	MG/KG	N	15.1	0.	1.
	COBALT, TOTAL	0002	F	07/20/89	MG/KG	B	10.4	0.	1.
	COPPER, TOTAL	0002	F	07/20/89	MG/KG		5.9	0.	1.
	IRON, TOTAL	0002	F	07/20/89	MG/KG		12000.	0.	1.
	LEAD, TOTAL	0002	F	07/20/89	MG/KG		11.5	0.	1.
	MAGNESIUM, TOTAL	0002	F	07/20/89	MG/KG		33200.	0.	1.
	NICKEL, TOTAL	0002	F	07/20/89	MG/KG	N	27.9	0.	1.
	PLUTONIUM-238	0002	F	07/20/89	PCI/G		7.	-	-
	POTASSIUM, TOTAL	0002	F	07/20/89	MG/KG	B	973.	0.	1.
	SODIUM, TOTAL	0002	F	07/20/89	MG/KG	*	1550.	0.	1.
	THORIUM-232	0002	F	07/20/89	PCI/G		.5	-	-
	VANADIUM, TOTAL	0002	F	07/20/89	MG/KG	E	21.2	0.	1.
	ZINC, TOTAL	0002	F	07/20/89	MG/KG	*	212.	0.	1.
	ENDRIN KETONE	0002	F	08/02/89	UG/KG		20.	18.	1.
	PLUTONIUM-238	0002	F	08/02/89	PCI/G		0.	-	-
	THORIUM-232	0002	F	08/02/89	PCI/G		.7	-	-
8. - 9.5	PLUTONIUM-238	0003	F	08/02/89	PCI/G		1.	-	-
	THORIUM-232	0003	F	08/02/89	PCI/G		.3	-	-
8. - 10.	ALUMINUM, TOTAL	0003	F	07/20/89	MG/KG	*	6010.	0.	1.
	BARIUM, TOTAL	0003	F	07/20/89	MG/KG	*	332.	0.	1.
	BERYLLIUM	0003	F	07/20/89	MG/KG		.98	0.	1.
	CALCIUM, TOTAL	0003	F	07/20/89	MG/KG		194000.	0.	1.
	CHROMIUM, TOTAL	0003	F	07/20/89	MG/KG	N	7.3	0.	1.
	COBALT, TOTAL	0003	F	07/20/89	MG/KG		10.8	0.	1.
	COPPER, TOTAL	0003	F	07/20/89	MG/KG	B	2.9	0.	1.
	IRON, TOTAL	0003	F	07/20/89	MG/KG		13900.	0.	1.
	LEAD, TOTAL	0003	F	07/20/89	MG/KG		7.3	0.	1.
	MAGNESIUM, TOTAL	0003	F	07/20/89	MG/KG		19600.	0.	1.
	NICKEL, TOTAL	0003	F	07/20/89	MG/KG	N	29.9	0.	1.
	PLUTONIUM-238	0003	F	07/20/89	PCI/G		6.	-	-
	POTASSIUM, TOTAL	0003	F	07/20/89	MG/KG		1340.	0.	1.

PARAMETER VALUE QUALIFIERS (PVQ):
* = CONTROL LIMITS NOT APPLICABLE
N = PRS BLW DET LMT(J) NOT SPIKED
B = PRESENT IN BLANK
E = DET BEYOND CALIBRATION RANGE

SAMPLE TYPE CODES:
F = FIELD SAMPLE

SOIL CHEMISTRY DATA
FACILITY: MND15 AREA D
07/19/89 TO 08/03/89
LOCATION: 0104
NORTH COORDINATE: 47040.35
EAST COORDINATE: 47467.05
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
8. - 10.	SODIUM, TOTAL	0003	F	07/20/89	MG/KG	*	1660.	0.	1.
	THORIUM-232	0003	F	07/20/89	PCI/G		.8	-	-
	VANADIUM, TOTAL	0003	F	07/20/89	MG/KG	E	16.9	0.	1.
	ZINC, TOTAL	0003	F	07/20/89	MG/KG	*	244.	0.	1.
13. - 13.5	PLUTONIUM-238	0004	F	08/02/89	PCI/G		5.	-	-
	THORIUM-232	0004	F	08/02/89	PCI/G		.7	-	-
13. - 14.5	ALUMINUM, TOTAL	0004	F	07/20/89	MG/KG	*	12500.	0.	1.
	ARSENIC, TOTAL	0004	F	07/20/89	MG/KG		3.9	0.	1.
	BARIUM, TOTAL	0004	F	07/20/89	MG/KG	*	323.	0.	1.
	BERYLLIUM	0004	F	07/20/89	MG/KG		1.1	0.	1.
	CALCIUM, TOTAL	0004	F	07/20/89	MG/KG		63900.	0.	1.
	CHROMIUM, TOTAL	0004	F	07/20/89	MG/KG	N	18.3	0.	1.
	COBALT, TOTAL	0004	F	07/20/89	MG/KG		13.1	0.	1.
	COPPER, TOTAL	0004	F	07/20/89	MG/KG		12.1	0.	1.
	IRON, TOTAL	0004	F	07/20/89	MG/KG		20900.	0.	1.
	LEAD, TOTAL	0004	F	07/20/89	MG/KG		14.4	0.	1.
	MAGNESIUM, TOTAL	0004	F	07/20/89	MG/KG		5130.	0.	1.
	NICKEL, TOTAL	0004	F	07/20/89	MG/KG	N	32.	0.	1.
	PLUTONIUM-238	0004	F	07/20/89	PCI/G		10.	-	-
	POTASSIUM, TOTAL	0004	F	07/20/89	MG/KG		2000.	0.	1.
	SILVER, TOTAL	0004	F	07/20/89	MG/KG	N	2.	0.	1.
	SODIUM, TOTAL	0004	F	07/20/89	MG/KG	*	1560.	0.	1.
	THORIUM-232	0004	F	07/20/89	PCI/G		1.0	-	-
	VANADIUM, TOTAL	0004	F	07/20/89	MG/KG	E	19.5	0.	1.
	ZINC, TOTAL	0004	F	07/20/89	MG/KG	*	216.	0.	1.

PARAMETER VALUE QUALIFIERS (PVQ):
* = CONTROL LIMITS NOT APPLICABLE
E = DET BEYOND CALIBRATION RANGE
N = PRS BLW DET LMT(J) NOT SPIKED

SAMPLE TYPE CODES:
F = FIELD SAMPLE

SOIL CHEMISTRY DATA
FACILITY: MND15 AREA D
07/19/89 TO 08/03/89
LOCATION: 0105
NORTH COORDINATE: 47051.38
EAST COORDINATE: 47496.07
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
0.0 - 0.5	ALUMINUM, TOTAL	0001	F	07/20/89	MG/KG		6670.	-	1.00
	ARSENIC, TOTAL	0001	F	07/20/89	MG/KG		4.3	-	1.00
	BARIUM, TOTAL	0001	F	07/20/89	MG/KG		361.	-	1.00
	BERYLLIUM, TOTAL	0001	F	07/20/89	MG/KG		1.5	-	1.00
	CADMIUM, TOTAL	0001	F	07/20/89	MG/KG		5.5	-	1.00
	CALCIUM, TOTAL	0001	F	07/20/89	MG/KG		112000.	-	1.00
	CHROMIUM, TOTAL	0001	F	07/20/89	MG/KG	E	27.4	-	1.00
	COBALT, TOTAL	0001	F	07/20/89	MG/KG		11.3	-	1.00
	COPPER, TOTAL	0001	F	07/20/89	MG/KG		10.7	-	1.00
	IRON, TOTAL	0001	F	07/20/89	MG/KG		14700.	-	1.00
	LEAD, TOTAL	0001	F	07/20/89	MG/KG		9.3	-	1.00
	MAGNESIUM, TOTAL	0001	F	07/20/89	MG/KG		29500.	-	1.00
	MANGANESE, TOTAL	0001	F	07/20/89	MG/KG		424.	-	1.00
	MERCURY, TOTAL	0001	F	07/20/89	MG/KG		.79	-	1.00
	NICKEL, TOTAL	0001	F	07/20/89	MG/KG		29.8	-	1.00
	POTASSIUM, TOTAL	0001	F	07/20/89	MG/KG		1520.	-	1.00
	SELENIUM, TOTAL	0001	F	07/20/89	MG/KG		5.3	-	1.00
	SODIUM, TOTAL	0001	F	07/20/89	MG/KG		1500.	-	1.00
	THALLIUM, TOTAL	0001	F	07/20/89	MG/KG	B	.31	-	1.00
	VANADIUM, TOTAL	0001	F	07/20/89	MG/KG		25.1	-	1.00
	ZINC, TOTAL	0001	F	07/20/89	MG/KG		225.	-	1.00
0.0 - .5	PLUTONIUM-238	0001	F	07/21/89	PCI/G		11.	-	-
	THORIUM-232	0001	F	07/21/89	PCI/G		.7	-	-
	PLUTONIUM-238	0001	F	08/02/89	PCI/G		7.	-	-
	THORIUM-232	0001	F	08/02/89	PCI/G		.6	-	-
3.0 - 5.0	ALUMINUM, TOTAL	0002	F	07/21/89	MG/KG		7020.	-	1.00
	ARSENIC, TOTAL	0002	F	07/21/89	MG/KG		5.1	-	1.00
	BARIUM, TOTAL	0002	F	07/21/89	MG/KG		391.	-	1.00
	BERYLLIUM, TOTAL	0002	F	07/21/89	MG/KG		1.7	-	1.00
	CADMIUM, TOTAL	0002	F	07/21/89	MG/KG		3.3	-	1.00
	CALCIUM, TOTAL	0002	F	07/21/89	MG/KG		232000.	-	1.00
	CHROMIUM, TOTAL	0002	F	07/21/89	MG/KG	E	23.6	-	1.00
	COBALT, TOTAL	0002	F	07/21/89	MG/KG		10.8	-	1.00
	COPPER, TOTAL	0002	F	07/21/89	MG/KG	B	2.2	-	1.00
	IRON, TOTAL	0002	F	07/21/89	MG/KG		13100.	-	1.00
	LEAD, TOTAL	0002	F	07/21/89	MG/KG		10.6	-	1.00
	MAGNESIUM, TOTAL	0002	F	07/21/89	MG/KG		10600.	-	1.00
	MANGANESE, TOTAL	0002	F	07/21/89	MG/KG		325.	-	1.00
	NICKEL, TOTAL	0002	F	07/21/89	MG/KG		26.2	-	1.00
3. - 5.	PLUTONIUM-238	0002	F	07/21/89	PCI/G		3.	-	-
3.0 - 5.0	POTASSIUM, TOTAL	0002	F	07/21/89	MG/KG		1540.	-	1.00
	SODIUM, TOTAL	0002	F	07/21/89	MG/KG		1800.	-	1.00
	THALLIUM, TOTAL	0002	F	07/21/89	MG/KG	B	.22	-	1.00
3. - 5.	THORIUM-232	0002	F	07/21/89	PCI/G		.9	-	-
3.0 - 5.0	VANADIUM, TOTAL	0002	F	07/21/89	MG/KG		26.2	-	1.00
	ZINC, TOTAL	0002	F	07/21/89	MG/KG		233.	-	1.00
3. - 5.	PLUTONIUM-238	0002	F	08/02/89	PCI/G		3.	-	-
	THORIUM-232	0002	F	08/02/89	PCI/G		.7	-	-
8.0 - 9.5	ALUMINUM, TOTAL	0003	F	07/21/89	MG/KG		3430.	-	1.00
	ARSENIC, TOTAL	0003	F	07/21/89	MG/KG		4.	-	1.00
	BARIUM, TOTAL	0003	F	07/21/89	MG/KG		408.	-	1.00
	BERYLLIUM, TOTAL	0003	F	07/21/89	MG/KG		1.6	-	1.00
	CADMIUM, TOTAL	0003	F	07/21/89	MG/KG		4.3	-	1.00
	CALCIUM, TOTAL	0003	F	07/21/89	MG/KG		271000.	-	1.00

PARAMETER VALUE QUALIFIERS (PVQ):
E = DET BEYOND CALIBRATION RANGE
B = PRESENT IN BLANK

SAMPLE TYPE CODES:
F = FIELD SAMPLE

SOIL CHEMISTRY DATA
FACILITY: MND15 AREA D
07/19/89 TO 08/03/89
LOCATION: 0105
NORTH COORDINATE: 47051.38
EAST COORDINATE: 47496.07
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
8.0 - 9.5	CHROMIUM, TOTAL	0003	F	07/21/89	MG/KG	E	23.	-	1.00
	COBALT, TOTAL	0003	F	07/21/89	MG/KG	B	8.5	-	1.00
	IRON, TOTAL	0003	F	07/21/89	MG/KG		8460.	-	1.00
	LEAD, TOTAL	0003	F	07/21/89	MG/KG		10.5	-	1.00
	MAGNESIUM, TOTAL	0003	F	07/21/89	MG/KG		22200.	-	1.00
	MANGANESE, TOTAL	0003	F	07/21/89	MG/KG		405.	-	1.00
	NICKEL, TOTAL	0003	F	07/21/89	MG/KG		23.8	-	1.00
8. - 9.5	PLUTONIUM-238	0003	F	07/21/89	PCI/G		18.	-	-
8.0 - 9.5	POTASSIUM, TOTAL	0003	F	07/21/89	MG/KG	B	1060.	-	1.00
	SODIUM, TOTAL	0003	F	07/21/89	MG/KG		1960.	-	1.00
8. - 9.5	THORIUM-232	0003	F	07/21/89	PCI/G		.1	-	-
8.0 - 9.5	VANADIUM, TOTAL	0003	F	07/21/89	MG/KG		26.3	-	1.00
	ZINC, TOTAL	0003	F	07/21/89	MG/KG		230.	-	1.00
8. - 10.	PLUTONIUM-238	0003	F	08/02/89	PCI/G		9.	-	-
	THORIUM-232	0003	F	08/02/89	PCI/G		.6	-	-
13.0 - 14.0	ALUMINUM, TOTAL	0004	F	07/21/89	MG/KG		12700.	-	1.00
	ARSENIC, TOTAL	0004	F	07/21/89	MG/KG		3.8	-	1.00
	ARSENIC, TOTAL	C004	LD	07/21/89	MG/KG		4.91	-	1.00
	BARIUM, TOTAL	0004	F	07/21/89	MG/KG		564.	-	1.00
	BERYLLIUM, TOTAL	0004	F	07/21/89	MG/KG		1.7	-	1.00
	CADMIUM, TOTAL	0004	F	07/21/89	MG/KG		3.9	-	1.00
	CALCIUM, TOTAL	0004	F	07/21/89	MG/KG		59500.	-	1.00
	CHROMIUM, TOTAL	0004	F	07/21/89	MG/KG	E	29.8	-	1.00
	COBALT, TOTAL	0004	F	07/21/89	MG/KG		16.5	-	1.00
	COPPER, TOTAL	0004	F	07/21/89	MG/KG		16.8	-	1.00
	IRON, TOTAL	0004	F	07/21/89	MG/KG		24800.	-	1.00
	LEAD, TOTAL	0004	F	07/21/89	MG/KG		10.4	-	1.00
	LEAD, TOTAL	C004	LD	07/21/89	MG/KG		9.22	-	1.00
	MAGNESIUM, TOTAL	0004	F	07/21/89	MG/KG		8690.	-	1.00
	MANGANESE, TOTAL	0004	F	07/21/89	MG/KG		545.	-	1.00
	MERCURY, TOTAL	0004	F	07/21/89	MG/KG		.13	-	1.00
	NICKEL, TOTAL	0004	F	07/21/89	MG/KG		41.1	-	1.00
13. - 14.	PLUTONIUM-238	0004	F	07/21/89	PCI/G		3.	-	-
13.0 - 14.0	POTASSIUM, TOTAL	0004	F	07/21/89	MG/KG		2170.	-	1.00
	POTASSIUM, TOTAL	C004	LD	07/21/89	MG/KG		2252.19	-	1.00
	SILVER, TOTAL	0004	F	07/21/89	MG/KG		3.9	-	1.00
	SODIUM, TOTAL	0004	F	07/21/89	MG/KG		2480.	-	1.00
13. - 14.	THORIUM-232	0004	F	07/21/89	PCI/G		.7	-	-
13.0 - 14.0	VANADIUM, TOTAL	0004	F	07/21/89	MG/KG		24.3	-	1.00
	ZINC, TOTAL	0004	F	07/21/89	MG/KG		342.	-	1.00
13. - 14.	PLUTONIUM-238	0004	F	08/02/89	PCI/G		6.	-	-
	THORIUM-232	0004	F	08/02/89	PCI/G		.7	-	-

PARAMETER VALUE QUALIFIERS (PVQ):
E = DET BEYOND CALIBRATION RANGE
B = PRESENT IN BLANK
* = CONTROL LIMITS NOT APPLICABLE

SAMPLE TYPE CODES:
F = FIELD SAMPLE
LD = LAB DUPLICATE

SOIL CHEMISTRY DATA
FACILITY: MND15 AREA D
07/19/89 TO 08/03/89
LOCATION: 2102
NORTH COORDINATE: 99999999.99
EAST COORDINATE: 99999999.99
REPORT DATE: 01/16/92

DEPTH RANGE (FT)	PARAMETER NAME	SAMP ID	SAMP TYPE	LOG DATE	UNITS OF MEASURE	PVQ	PARAMETER VALUE	DETECTION LIMIT	DILUTION FACTOR
0.0 - .5	ALUMINUM, TOTAL	0001	F	07/20/89	MG/KG	*	2890.	0.	1.
	ARSENIC, TOTAL	0001	F	07/20/89	MG/KG		2.7	0.	1.
	BARIUM, TOTAL	0001	F	07/20/89	MG/KG	*	284.	0.	1.
	BERYLLIUM	0001	F	07/20/89	MG/KG		.88	0.	1.
	CALCIUM, TOTAL	0001	F	07/20/89	MG/KG		132000.	0.	1.
	CHROMIUM, TOTAL	0001	F	07/20/89	MG/KG	N	12.	0.	1.
	COBALT, TOTAL	0001	F	07/20/89	MG/KG		8.4	0.	1.
	COPPER, TOTAL	0001	F	07/20/89	MG/KG		7.9	0.	1.
	IRON, TOTAL	0001	F	07/20/89	MG/KG		7280.	0.	1.
	LEAD, TOTAL	0001	F	07/20/89	MG/KG		12.6	0.	1.
	MAGNESIUM, TOTAL	0001	F	07/20/89	MG/KG		51100.	0.	1.
	NICKEL, TOTAL	0001	F	07/20/89	MG/KG	N	21.1	0.	1.
	POTASSIUM, TOTAL	0001	F	07/20/89	MG/KG	B	641.	0.	1.
	SODIUM, TOTAL	0001	F	07/20/89	MG/KG	*	1440.	0.	1.
	THALLIUM, TOTAL	0001	F	07/20/89	MG/KG	B	.15	0.	1.
	VANADIUM, TOTAL	0001	F	07/20/89	MG/KG	E	19.6	0.	1.
	ZINC, TOTAL	0001	F	07/20/89	MG/KG	*	180.	0.	1.

PARAMETER VALUE QUALIFIERS (PVQ):
* = CONTROL LIMITS NOT APPLICABLE
N = PRS BLW DET LMT(J) NOT SPIKED
B = PRESENT IN BLANK
E = DET BEYOND CALIBRATION RANGE

SAMPLE TYPE CODES:
F = FIELD SAMPLE

DATA FILE NAME: SCI10001.DAT

C

Cardinal®

APPENDIX C

Additional Qualifiers as the Result of Validations

U - Indicates compound was analyzed for but not detected.

B - The reported value is less than the Contract Required Detection Limit (CRDL) but greater than the Instrument Detection Limit (IDL).

E - The reported value is estimated because of the presence of interference.

M - Duplicate injection precision not met.

N - Spiked sample recovery not within control limits.

R - Reject application of other qualifies may change at the result of validation.

S - The reported value was determined by the Method of Standard Additions.

W - Post-digestion spike for Furnace AA analysis is out of control limits (85-115%), while sample absorbance is less than 50% of spike absorbance.

G - Native analyte > 4 times spike added, therefore acceptance criteria do not apply.

X - Detection limit is higher than normal due to sample matrix interferences.

* - Duplicate analysis not within control limits.

+ - Correlation coefficient for the MSA is less than 0.995.

Entering "S", "W", or " + " is mutually exclusive. No combination of these qualifiers can appear in the same field for an analyte.

MND10-0049-0001	ALUMINUM	J	5180	5180
	ARSENIC	BJ	1.7	1.7B
	BARIUM	J	361	361
	BERYLLIUM	BR	0.96	0.96B
	CADMIUM	R	5.7	5.7
	CALCIUM	J	115000	115000
	CHROMIUM	NR	23.3	23.3N
	COBALT	BR	5.9	5.9B
	COPPER	NJ	10.4	10.4N
	IRON	J	7220	7220
	MAGNESIUM	J	39700	39700
	MANGANESE	NJ	214	214N
	NICKEL	R	20.6	20.6
	POTASSIUM	J	2080	2080
	SELENIUM	R		
	SODIUM	J	1670	1670
	VANADIUM	J	22.9	22.9
	METHYLENE CHLORIDE	BU	92	92B
	TETRACHLOROETHENE	BU	28	9JB
	BIS(2-ETHYLHEXYL)PHTHALATE	J	4000	4000
MND10-0049-002	ACETONE	BU	11	6JB
	METHYLENE CHLORIDE	BU	5	3JB
MND10-0050-0001	BETA-BHC	JU	50	50
	BIS(2-ETHYLHEXYL)PHTHALATE	J	4700	4700
	PYRENE	J	5000	5000
	BETA-BHC	DJU	99	99D
	METHYLENE CHLORIDE	BU	130	130B
	ENDOSULFAN I (ALPHA)	DJU	95	95D
	TETRACHLOROETHENE	BU	28	10JB
MND10-0050-0003	ACETONE	BU	52	48JB
	METHYLENE CHLORIDE	JB	61	61B
MND10-0051-0001	2-BUTANONE	BU	12	12B
	ENDRIN KETONE	J	39	39
	TETRACHLOROETHENE	BU	5	3JB
MND10-0051-0003	2-BUTANONE	BU	11	4JB
	ACETONE	BU	17	17B
	METHYLENE CHLORIDE	BU	20	20B
	TETRACHLOROETHENE	BU	6	2JB
MND10-0052-0001	2-BUTANONE	BU	11	2JB
	ACETONE	BU	11	4JB
	METHYLENE CHLORIDE	BU	19	19B
	TETRACHLOROETHENE	BU	5	2JB
MND10-0052-0003	2-BUTANONE	BU	11	3JB
	ACETONE	BU	16	16B
	METHYLENE CHLORIDE	BU	24	24B
	TETRACHLOROETHENE	BU	6	2JB
MND10-0053-0001	N-NITROSODIPHENYLAMINE	BU	710	140JB
MND10-0053-0003	2-BUTANONE	BU	11	5JB
	ACETONE	BU	15	15B
	METHYLENE CHLORIDE	BU	22	22B
	TETRACHLOROETHENE	BU	5	1JB
MND10-0054-0001	2-BUTANONE	BU	11	3JB
	METHYLENE CHLORIDE	BU	18	18B
	TETRACHLOROETHENE	BU	5	1JB
MND10-0054-0003	2-BUTANONE	BU	11	4JB
	METHYLENE CHLORIDE	BU	16	16B
	TETRACHLOROETHENE	BU	5	1JB
MND10-0055-0001	2-BUTANONE	BU	11	5JB
	METHYLENE CHLORIDE	BU	18	18B
	TETRACHLOROETHENE	BU	5	2JB
MND10-0055-0002	2-BUTANONE	BU	11	5JB
	ACETONE	J	23	23
	METHYLENE CHLORIDE	BU	17	17B
	TETRACHLOROETHENE	BU	5	4JB

MND10-0055-0003				REJECT VOC's
MND11-0063-0001	1,1,1-TRICHLOROETHANE	J	11	11
	ACETONE	BU	11	2JB
	METHYLENE CHLORIDE	JBU	14	14B
	N-NITROSODIPHENYLAMINE	BU	370	110JB
MND11-0064-0001	2-BUTANONE	BU	11	6JB
	ACETONE	BU	24	24B
	METHYLENE CHLORIDE	BU	20	20B
	N-NITROSODIPHENYLAMINE	BU	380	120JB
	TETRACHLOROETHENE	BU	8	4JB
MND11-0065-0001	2-BUTANONE	BU	11	8JB
	ACETONE	BU	18	18B
	METHYLENE CHLORIDE	BU	130	130B
	N-NITROSODIPHENYLAMINE	BU	740	160JB
MND11-0066-0001	2-BUTANONE	BU	11	4JB
	ACETONE	BU	15	15B
	METHYLENE CHLORIDE	BU	31	31B
	N-NITROSODIPHENYLAMINE	BU	760	130JB
MND11-0067-0001	2-BUTANONE	BU	11	4JB
	METHYLENE CHLORIDE	BU	30	30B
	N-NITROSODIPHENYLAMINE	BU	770	110JB
MND11-0068-0001	2-BUTANONE	BU	13	3JB
	ACETONE	BU	15	15B
	METHYLENE CHLORIDE	BU	16	16B
	N-NITROSODIPHENYLAMINE	BU	840	130JB
MND11-0069-0001	2-BUTANONE	BU	12	2JB
	ACETONE	BU	12	12JB
	METHYLENE CHLORIDE	BU	21	21B
	N-NITROSODIPHENYLAMINE	BU	830	140JB
MND11-0070-0001	2-BUTANONE	BU	12	4JB
	ACETONE	BU	16	16B
	METHYLENE CHLORIDE	BU	20	20B
	N-NITROSODIPHENYLAMINE	BU	820	260JB
MND11-0071-0001	2-BUTANONE	BU	12	4JB
	METHYLENE CHLORIDE	BU	30	30B
	TETRACHLOROETHENE	BU	6	3JB
	TOLUENE	JU	6	6
MND11-0072-0001	2-BUTANONE	BU	11	8JB
	METHYLENE CHLORIDE	BU	23	23B
	N-NITROSODIPHENYLAMINE	JU	79	79J
	TETRACHLOROETHENE	BU	6	4JB
MND11-0073-0001	2-BUTANONE	BU	13	9JB
	ACETONE	BU	28	28B
	BIS(2-ETHYLHEXYL)PHTHALATE	J	4800	4800
	METHYLENE CHLORIDE	BU	20	20B
	PYRENE	J	2800	2800
MND11-0074-0001	2-BUTANONE	BU	15	10JB
	4,4'-DDT	J	27	27
	ACETONE	BU	15	2JB
	METHYLENE CHLORIDE	BU	31	31B
	N-NITROSODIPHENYLAMINE	BU	1000	320JB
	TETRACHLOROETHENE	BU	8	6JB
MND11-0075-0001	2-BUTANONE	BU	12	3JB
	ACETONE	BU	15	15B
	BETA-BHC	J	13	13
	METHYLENE CHLORIDE	BU	17	17B
	N-NITROSODIPHENYLAMINE	BU	820	240JB
MND11-0076-0001	2-BUTANONE	BU	12	5JB
	ACETONE	BU	13	13B
	METHYLENE CHLORIDE	BU	20	20B
	N-NITROSODIPHENYLAMINE	BU	800	160JB

SAMPLE ID	ANALYTE	PVQ	PARAMETER VALUE	COMMENTS
MND08-013-0001	4-METHYL-2-PENTANONE	BU	6	1JB
	ACETONE	JB	160	160B
	METHYLENE CHLORIDE	BU	6	4JB
MND08-0014-0001	ACETONE	JBU	18	18B
	METHYLENE CHLORIDE	BU	6	6B
MND08-0014-0003	ACETONE	BU	11	5JB
	METHYLENE CHLORIDE	BU	6	3JB
MND09-0038-0001	ALUMINUM	J	3610	3610
	ARSENIC	NJ	4.7	4.7N
	BARIUM	NJ	333	333N
	BERYLLIUM	BR	0.79	0.79B
	CADMIUM	NR	6.4	6.4N
	CALCIUM	J	212000	212000
	CHROMIUM	R	6.5	6.5
	COBALT	BR	7.5	7.5B
	IRON	EJ	5870	5870E
	MAGNESIUM	J	49600	49600
	NICKEL	R	16.2	16.2
	POTASSIUM	BJ	737	737B
	SELENIUM	R		
	SODIUM	BJ	881	881B
	VANADIUM	*J	27.3	27.3*
MND09-0038-0002	ALUMINUM	J	4600	4600
	ARSENIC	NJ	3.7	3.7J
	BARIUM	NJ	291	291N
	BERYLLIUM	R	0.88	0.88
	CADMIUM	NR	7.6	7.6N
	CALCIUM	J	180000	180000
	CHROMIUM	R	8.9	8.9
	COBALT	R	9.5	9.5
	COPPER	BJ	2.6	2.6B
	IRON	EJ	11300	11300E
	MAGNESIUM	J	59700	59700
	MERCURY	J	0.15	0.15
	NICKEL	R	21.5	21.5
	POTASSIUM	J	1070	1070
	SELENIUM	R		
	SODIUM	J	1470	1470
	VANADIUM	*J	33.6	33.6*
MND09-0038-0003	ALUMINUM	J	1390	1390
	ARSENIC	NJ	2.2	2.2N
	BARIUM	NJ	687	687N
	BERYLLIUM	J	1.5	1.5
	CADMIUM	NR	5.7	5.7N
	CHROMIUM	J	26.3	26.3
	COBALT	J	22.1	22.1
	COPPER	J	18.2	18.2
	IRON	EJ	25100	25100E
	MAGNESIUM	J	18700	18700
	NICKEL	J	47.1	47.1
	POTASSIUM	J	3530	3530
	SILVER	NJ	2.7	2.7N
	SELENIUM	R		
	SODIUM	J	2990	2990
	VANADIUM	*J	22.9	22.9*

MND09-0038-0005	ALUMINUM	J	15900	15900
	ARSENIC	NJ	5.3	5.3N
	BARIUM	NJ	275	275N
	BERYLLIUM	J	1.1	1.1
	CADMIUM	NR	4.4	4.4N
	CHROMIUM	J	20.3	20.3
	COBALT	J	22.2	22.2
	COPPER	J	21.9	21.9
	MAGNESIUM	J	5010	5010
	NICKEL	J	46.1	46.1
	POTASSIUM	J	2290	2290
	SELENIUM	R		
	SILVER	NJ	2.4	2.4N
	SODIUM	J	929	929
	VANADIUM	*J	16	16*
MND09-0039-0001	ALUMINUM	J	4960	4960
	ARSENIC	NJ	2.8	2.8N
	BARIUM	NJ	250	250N
	BERYLLIUM	BR	0.81	0.81B
	CADMIUM	NR	6.8	6.8N
	CHROMIUM	J	12.8	12.8
	COBALT	R	8.9	8.9
	COPPER	J	5.4	5.4
	IRON	EJ	7540	7540E
	MAGNESIUM	J	55100	55100
	MERCURY	J	0.23	0.23
	NICKEL	R	19.6	19.6
	POTASSIUM	J	1070	1070
	SODIUM	J	1170	1170
	VANADIUM	*J	22.9	22.9*
MND09-0039-0002	ALUMINUM	J	16500	16500
	ARSENIC	NJ	5	5N
	BARIUM	NJ	662	662N
	BERYLLIUM	J	1.3	1.3
	CADMIUM	NR	5.4	5.4N
	CHROMIUM	J	26.2	26.2
	COBALT	J	24.5	24.5
	COPPER	J	24.3	24.3
	MAGNESIUM	J	8930	8930
	NICKEL	J	52.5	52.5
	POTASSIUM	J	2980	2980
	SELENIUM	R		
	SILVER	NJ	3.9	3.9N
	SODIUM	J	2650	2650
	THALLIUM	BJ	0.3	0.3B
	VANADIUM	*J	13.5	13.5*
MND09-0039-0003	ALUMINUM	J	13800	13800
	BARIUM	NJ	521	521N
	BERYLLIUM	J	1.2	1.2
	CADMIUM	NR	5.2	5.2N
	CHROMIUM	J	23.3	23.3
	COBALT	J	20.7	20.7
	COPPER	J	27.2	27.2
	IRON	EJ	31400	31400E
	MAGNESIUM	J	15600	15600
	NICKEL	J	46.6	46.6
	POTASSIUM	J	2770	2770
	SELENIUM	R		
	SODIUM	J	2170	2170
	VANADIUM	*J	16.4	16.4*

MND11-0077-0001	2-BUTANONE	BU	12	5JB
	4,4'-DDE	J	54	54
	METHYLENE CHLORIDE	BU	22	22B
	TETRACHLOROETHENE	BU	6	2JB
MND12-0080-0001	ACETONE	BU	11	5JB
	METHYLENE CHLORIDE	BU	6	3JB
MND12-0080-0002	ACETONE	BU	11	5JB
	METHYLENE CHLORIDE	BU	6	4JB
MND12-0080-0003	METHYLENE CHLORIDE	BU	5	5JB
MND12-0080-0004	METHYLENE CHLORIDE	BU	6	5JB
MND12-0081-0001	2-BUTANONE	BU	13	3JB
	ACETONE	BU	19	19B
	METHYLENE CHLORIDE	BU	38	38B
MND12-0081-0002	2-BUTANONE	BU	12	12JB
	ACETONE	BU	12	2JB
	METHYLENE CHLORIDE	BU	14	14B
	TETRACHLOROETHENE	BU	6	2JB
MND12-0081-0003	2-BUTANONE	BU	11	4JB
	ACETONE	BU	29	29B
	METHYLENE CHLORIDE	BU	27	27B
	TETRACHLOROETHENE	BU	6	2JB
MND12-0082-0001	ACETONE	BU	12	12JB
	METHYLENE CHLORIDE	BU	22	22B
MND12-0082-0002	2-BUTANONE	BU	11	11JB
	METHYLENE CHLORIDE	BU	16	16B
MND12-0083-0001	2-BUTANONE	BU	30	30B
	METHYLENE CHLORIDE	BU	16	16B
MND12-0083-0002	2-BUTANONE	BU	11	3JB
	ACETONE	BU	11	8JB
	METHYLENE CHLORIDE	BU	18	18B
MND12-0083-0003	2-BUTANONE	BU	12	4JB
	ACETONE	BU	20	20B
	METHYLENE CHLORIDE	BU	21	21B
MND12-0083-0004	ACETONE	BU	20	20B
	METHYLENE CHLORIDE	BU	16	16B

PARAMETER VALUE QUALIFIERS (PVQ):

J = PRESENT BELOW DETECTION LIMIT
B = PRESENT IN BLANK
U = UNDETECTED
N = PRESENT BELOW DETECTION LIMIT(J) NOT SPIKED
E = DETECTED BEYOND CALIBRATION RANGE
* = CONTROL LIMITS NOT APPLICABLE
R = REJECTED
D = DUPLICATE ANALYSIS OF A SAMPLE

NOTES:
1- Metals results are reported in mg/kg, other results are reported in ug/kg.
2- If an analyte was detected in the blank, the detection limit is raised. When the detection limit is raised, "J" values from the unvalidated laboratory data packages will become undetected values.