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TECHNICAL REPORT 5.1B SITE CHARACTERIZATION/GEOLOGICAL REPORT FOR ON-SITE DISPOSAL (OU4 & OU1 RI REFERENCE)

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REPORT

TECHNICAL REPORT 5.1B
SITE CHARACTERIZATION/GEOLOGICAL REPORT FOR ON-SITE DISPOSAL

FERNALD ENVIRONMENTAL MANAGEMENT PROJECT
FERNALD, OHIO

REMEDIAL INVESTIGATION and FEASIBILITY STUDY

June 1993

U.S. DEPARTMENT OF ENERGY
FERNALD FIELD OFFICE

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LIST OF ACRONYMS

DOE	U.S. Department of Energy
EPA	U.S. Environmental Protection Agency
FEMP	Fernald Environmental Management Project
RI/FS	remedial investigation/feasibility study
OU	operable unit
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
OSDC	On-Site Disposal Cells
ARAR	applicable or relevant and appropriate requirement
TBC	to be considered
FERMCO	Fernald Environmental Restoration Management Corporation
IT	IT Corporation
CFR	Code of Federal Regulations
HSL	Hazardous Substance List
PIC	Pressurized Ionization Chamber
MSL	mean sea level
USGS	U.S. Geological Survey
ODNR	Ohio Department of Natural Resources
WMCO	Westinghouse Materials Company of Ohio
SOWC	Southern Ohio Water Company
MMI	Modified Mercalli Intensity Scale
PGA	peak ground acceleration
BNL	Brookhaven National Laboratory
g	gravitational acceleration
ICP	Inductively Coupled Plasma
EWMF	Engineered Waste Management Facility
ASTM	American Society for Testing and Materials
ANSI/ANS	American National Standards institute/American Nuclear Society
ppb	parts per billion

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TECHNICAL REPORT 5.1B
SITE CHARACTERIZATION/GEOLOGICAL REPORT
FOR ON-SITE DISPOSAL

1.0 INTRODUCTION

Per the Consent Agreement between the U.S. Department of Energy (DOE) and the U.S. Environmental Protection Agency (EPA), the Fernald Environmental Management Project (FEMP) divided its Remedial Investigation/Feasibility Study (RI/FS) into five operable units (OU). While effective in implementing the RI/FS under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), the OU concept does not address the siting, design, or construction of a site-wide disposal facility. Therefore, the concept of On-Site Disposal Cells (OSDC), formerly known as the Engineered Waste Management Facility (EWMF), was developed to address the option of on-site disposal/storage of wastes at the FEMP. The proposed OSDC area is located within the FEMP property boundary, north and east of the former production area.

This Site Characterization/Geological Report has been prepared to support the evaluation of criteria for a detailed analysis of the OSDC as an on-site waste disposal/storage alternative for each of the OUs. The data collected under this program has been selected to support the evaluation of the on-site disposal alternative according to the methodology provided in "Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA" (EPA, 1988), including:

- The overall protection of human health and the environment
- Long-term effectiveness and permanence
- Short-term effectiveness
- Implementability
- Applicable or Relevant and Appropriate Requirements (ARARs) and To Be Considered (TBC).

To accomplish this objective, geotechnical, geochemical, and geologic/hydrogeologic data have been collected to support the siting of the OSDC including site suitability, design criteria, and potential risks.

In accordance with the meeting between Fernald Environmental Restoration Management Corporation (FERMCO) and IT Corporation (IT), on January 26, 1993, the OSDC evaluation will be presented in a series of reports corresponding to the topics outlined in the above guidance (EPA 1988). The following series of reports were requested in the "Statement of Work for Technical Support for the Evaluation of the CRU-1, On-Site Disposal Cell Reports" (February 3, 1993):

- "Technical Report 5.1A, Engineering Evaluation Report for On-Site Disposal" - Geotechnical Engineering Analysis for an On-Site Disposal Cell: This report will contain the engineering analysis prepared for the OSDC structure. This will include an analysis of the barrier and cap design, drainage system, erosion analysis, slope stability analysis and an estimated cost of construction for an on-site tumulus.

- "Technical Report 5.1B, Site Characterization/Geological Report for On-Site Disposal" - Site Characterization Report: This report will include the investigation and evaluation of the site geology, radiation measurements, well installation diagrams, boring logs, and analytical data.

- "Technical Report 5.1C, Material Source Survey for On-Site Disposal" - Material Source Survey: This report will discuss the availability and cost of materials in the local area required to construct the OSDC.

- "Technical Report 5.4, ARARs for On-Site Disposal Cell Concept" - ARARs Report: This report will identify and discuss the ARARs that will be applicable to the construction of an OSDC.

- "Technical Report 5.3A, Geological Report for Off-Site Disposal" - Survey of Local Geology in the Alternate Siting Areas: This report will cover the investigation of two alternative sites for the OSDC adjacent or near the FEMP situated on bedrock highs. The two sites to be evaluated are the Girl Scout Camp and another located west of the FEMP.

- "Technical Report 5.3B, Off-Property Ecological Study for the Disposal Cell Concept" - Ecological Characterization: This report will discuss the ecological characterization for a 1,000 foot perimeter around the OSDC siting area.

1.1 PURPOSE OF REPORT

The OSDC evaluation has been performed as a part of the overall FS support effort. This information is presented in the above reports. The purpose of this series of reports is to provide the following:

- Performance objectives to meet the requirements of:

  - 10 Code of Federal Regulations (CFR) 20 and 61.41 through 61.44
  - 40 CFR 264 and 270
  - 40 CFR 141.16
  - ARARs and TBCs

- Technical requirements for land disposal facilities, including site suitability and design criteria

- Results of the site characterization program and potential impacts on the siting of the OSDC.

The results of this investigation will be used to determine the technical feasibility of constructing the OSDC.

1.2 REPORT ORGANIZATION

Chapter 1.0 (Introduction) presented the purpose and organization of the report. Chapter 2.0 (OSDC Site Investigation) provides a discussion of the field program performed as a part of the OSDC siting study. The results of the site characterization including surface features, surface water hydrology, geology, hydrogeology, seismology, and geochemistry are given in Chapter 3.0 (OSDC Site Characterization). Chapter 4.0 (Summary and Conclusions) provides a summary of the site characterization findings and conclusions regarding the suitability for siting the OSDC with respect to the findings.

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2.0 OSDC SITE INVESTIGATION

A sampling program was performed in the OSDC siting area during the spring of 1992. The January, 1992 "Engineered Waste Management Facility Sampling and Analysis Plan" documents the data quality objectives, sampling locations, and sampling procedures performed as a part of the OSDC siting study. Environmental data at the FEMP has historically been collected as a part of the RI/FS. This database was reviewed in the early stages of the development of the Sampling and Analysis Plan (SAP). This review identified additional data requirements for evaluating the viability of siting the OSDC at the FEMP. Additional data requirements were identified to fully evaluate the geology, hydrogeology and geochemistry of the siting area as well as geotechnical (results presented in Technical Report 5.1A) and geochemical data to address the design requirements and potential risks of constructing the OSDC.

The SAP was developed as an addendum to the "Remedial Investigation and Feasibility Study, Feed and Materials Production Center, Work Plan". The procedures performed during the performance of the site characterization investigation followed the Work Plan requirements included in the following:

- Volume I - Sampling Plan
- Volume II - Health and Safety Plan
- Volume IV - Data Management Plan
- Volume V - Quality Assurance Project Plan

The sampling strategy was developed to support the risk assessment and design criteria for the OSDC and included:

- Drilling of soil borings to collect soil samples for geotechnical and chemical analysis in support of the design criteria, risk assessment, and geochemical program
- Installation of additional monitoring wells to better characterize the hydrogeology in the OSDC study area
- Geochemical analysis to determine how soils and waste leachate will interact
- Surface radiation measurements to characterize the concentration of gamma emitters in surface soils in the study area
- Collection of chemical data to support the risk assessment for long term and short term risks associated with constructing the OSDC

A discussion of the types of data collected and sampling methodology for Technical Report 5.1B is provided in the following sections.

2.1 GEOLOGICAL INVESTIGATION

This section describes the objectives and methodology of the geological investigation for the OSDC.

2.1.1 Objectives

The geological investigation supplements the limited RI/FS database currently available for the OSDC siting area and provides lithologic and stratigraphic information specific to the northern and eastern sections of the FEMP site. This investigation involved the collection and analysis of geologic data to achieve the following objectives:

- Provide soil samples to be used in the geochemical characterization of the siting area
- Provide soil samples to be used for the determination of radiological and chemical contaminants data.

2.1.2 Methodology

The review of existing data identified several locations lacking sufficient geologic information for subsurface evaluation in the OSDC siting area. The location of the 1000-series geotechnical borings, in conjunction with the information obtained from the installation of additional 1000- and 2000-series monitoring wells, filled critical stratigraphic and lithologic data gaps in the siting area. Figure 2-1 shows the location of the geotechnical borings, and existing and newly installed monitoring wells in the OSDC study area.

Soil borings and 1000-series monitoring well installations were performed using hollow stem augers, and 2000-series wells were installed using cable tool techniques. Sampling and logging of subsurface materials were performed by a field geologist during drilling activities. Soil samples were collected continuously using standard two-inch diameter split-spoon samplers as the borings were advanced. At those locations where two monitoring wells were to be installed, soil samples were collected from the 2000-series wells only. The soil samples were described and classified based on color (Munsell Soil Color Chart), texture (Unified Soil Classification System), water content (estimated), and depth from land surface. Boring logs are provided in Appendix A.

During drilling, each soil sample was screened for radiological components and volatile organics. Soil samples exceeding the field screening criteria (i.e. a sustained reading greater than 5 ppm total organics on the HNu for at least 10 seconds) were compared and the sample exhibiting the highest reading from each boring received full HSL analysis.

The soil samples were used to characterize the geology and hydrogeological properties of the glacial overburden, the regional aquifer and underlying bedrock, as well as provide samples for geotechnical, chemical, and radiological characterization studies.

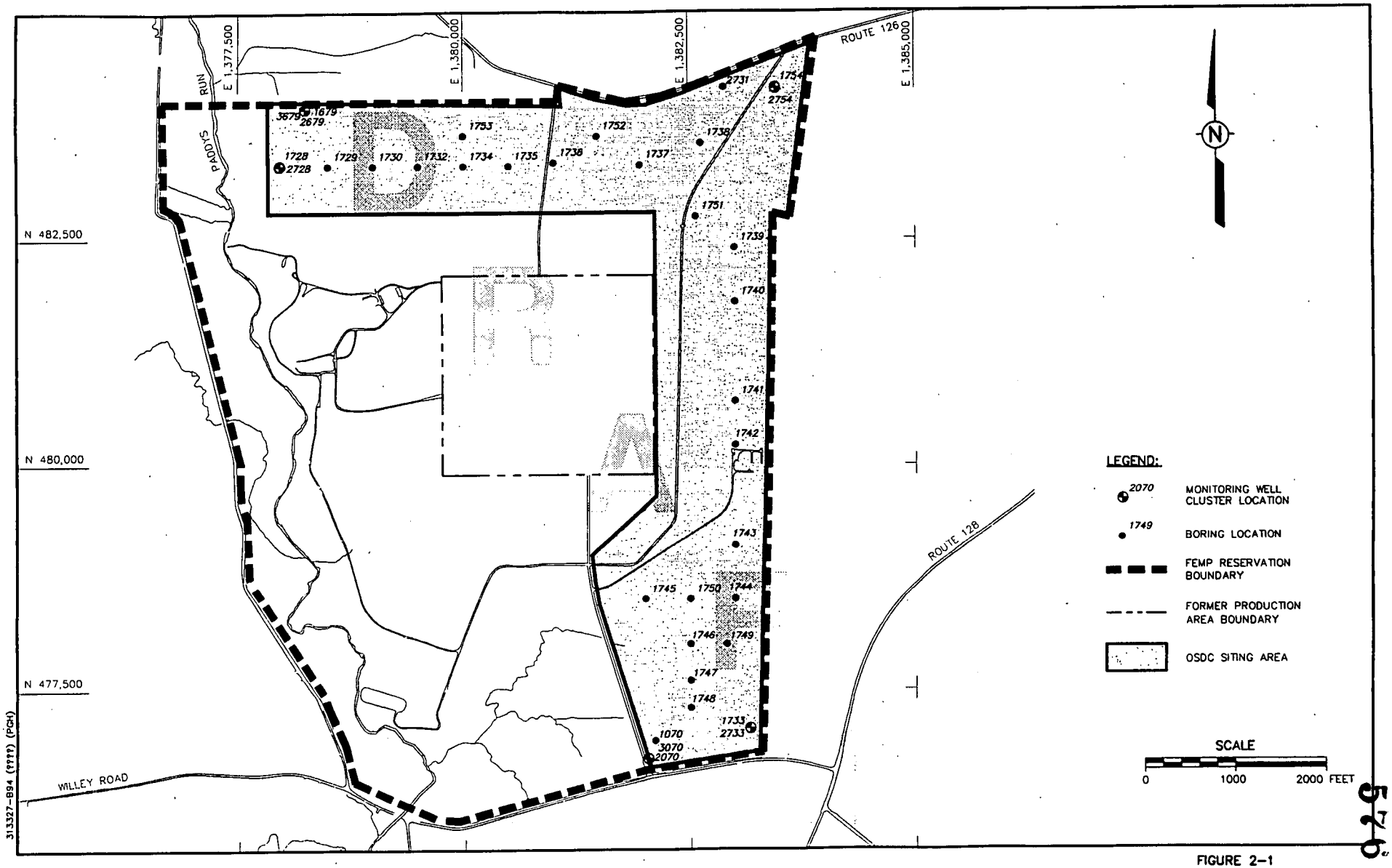

FIGURE 2-1
OSDC SUBSURFACE INVESTIGATION
DRILLING AND SAMPLING LOCATIONS

2.2 HYDROGEOLOGICAL INVESTIGATION

This section describes the objectives and methodology of the hydrogeological investigation for the OSDC.

2.2.1 Objectives

The hydrogeological investigation provides the stratigraphic and water level information required for the determination of groundwater gradients and flow direction in the OSDC siting area. In addition, slug tests were performed on selected 1000-series wells to provide estimates for the hydraulic conductivity of the glacial overburden. However, the slug test data were determined to be unusable because of insufficient volumes of water in the wells (the water columns did not span the full length of the well screens). The data collected in this investigation will be used in the groundwater fate and transport modeling effort and in the risk assessment.

The location of the additional 1000- and 2000-series monitoring wells filled critical data gaps and will provide a higher level of confidence in the evaluation of the fate and transport of radiological and chemical constituents from the OSDC area to the surrounding environment during OSDC operation and postclosure.

2.2.2 Methodology

Four 1000-series (1728, 1733, 1679 and 1754) and three 2000-series (2754, 2728, and 2733) monitoring wells were installed in this program (Figure 2-1). Monitoring wells (2679 and 3679) were installed in the OSDC area during the OU-5 RI/FS program. Table 2-1 provides a summary of information on the newly installed monitoring wells.

Monitoring wells were installed in each borehole in accordance with the procedures provided in the RI/FS Work Plan. The monitoring wells were constructed with four-inch inside diameter (ID), threaded, flush-joint, stainless steel pipe and stainless steel screen having a 0.01-inch slot size with a minimum of three square inches of open area per lineal foot. The 1000-series wells were screened in perched water above the main aquifer with the majority of these wells completed with a ten-foot length of screen (Monitoring Well 1733 was completed with a three-foot length of screen). The 2000-series wells were screened in the main aquifer with the majority of these wells each completed with a fifteen-foot length of screen (Monitoring Well 2679 was completed with a ten-foot length of screen). The fifteen-foot screens in the 2000-series wells were installed so that five feet of screen was placed above the water table and ten feet of screen was placed below the water table.

The 1000- and 2000-series monitoring wells were backfilled with sand pack to a height of two feet above the screen, followed by five feet of bentonite pellets above the sandpack and volclay grout from the bentonite seal to the surface. Monitoring well installation diagrams are provided in Appendix B.

TABLE 2-1
NEWLY INSTALLED MONITORING WELLS IN THE OSDC SITING AREA

Well ID	Coordinates		Surface Elevation (ft MSL)	Total Depth (ft MSL)	Screen Interval (ft BGS)	
	North	East			Top	Bottom
1728	483308	1377967	593.5	27	15	25
1733	477080	1383156	605	30	26	29
1679	483925	1378265	585.8	35	22	32
1754	484138	1383467	610	30	18	28
2754	484149	1383466	610	120	85	100
2728	483302	1377961	593.5	92	70	85
2733	477070	1383161	605	94	77	92
2679[a]	483923	1378278	585.9	77.5	60.5	70.5
3679[a]	483927	1378251	585.5	130	106	118

[a]Monitoring wells installed during the OU-5 RI/FS program.

During the installation of each monitoring well, a field geologist recorded all field measurements and well-construction information. Upon completion, each well was developed to verify it was clear of fines and sediments. Water levels were monitored monthly in both the new and existing wells. Hydraulic conductivity (slug) testing was performed on two 1000-series wells (1728 and 1733) in accordance with the procedures of RI/FS Work Plan. The remainder of the newly installed 1000-series wells lacked a sufficient water column for slug tests to be conducted.

2.3 GEOCHEMICAL INVESTIGATION

This section describes the objectives, methodology, and analytical parameters of the geochemical investigation for the OSDC.

2.3.1 Objectives

The objectives of the geochemical site investigation were to collect data of sufficient quality and quantity to support risk assessment pathway analyses. Pathway analyses must be conducted to demonstrate that the OSDC will properly isolate low-level radioactive waste and/or mixed waste from the environment and human receptors. Geochemical data were collected by executing the following tasks:

- Analyze subsurface soil samples for particle size, total organic carbon content, cation exchange capacity, and mineralogy.
- Characterize the composition of leachate produced from cement-treated waste.
- Measure contaminant adsorption ratios using leachate, perched groundwater, subsurface soil, and engineered barrier material.
- Determine the extent of chemical interaction between leachate and engineered and natural barriers.

In addition, surface soil samples were collected from geotechnical borings. The objectives of the surface soil sampling program are:

- To determine the need for site dust control measures to provide short-term protection during construction of the OSDC, and
- To provide sufficient data to characterize the source term for air modeling for nearby residents and workers during the construction and utilization of the OSDC.

2.3.2 Methodology and Analytical Parameters

Surface and subsurface soil samples were collected from locations specified for the OSDC geological/hydrogeological (Section 2.1 and 2.2 of this report) and geotechnical investigations (Technical Report 5.1A). Eight wells were installed at the five locations shown in Figure 2-1 for the geologic sampling program. At three locations where two monitoring wells (1000- and 2000-series)

were installed, soil samples were collected from the 2000-series wells only (Monitoring Wells 2728, 2731, and 2733); the 1000-series were installed without collecting soil samples. For the remaining two locations, soil samples were collected from 1000-series wells (Monitoring Wells 1070 and 1679), which were the only wells installed in these locations under this sampling program (the 2000-series wells either already existed or were to be installed under a separate monitoring well installation program).

Eighteen borings were drilled at the locations shown in Figure 2-1 for part of the geotechnical sampling program. Soil samples were obtained from each of these borings. The geotechnical results are presented in Technical Report 5.1A.

Soil samples at various depths were collected from each of five borings for the installation of monitoring wells and the 18 geotechnical borings. The first six inches of soil collected in each boring were composited from each of the 23 locations (five borings for monitoring wells and 18 geotechnical borings). These samples represent surface soils that could be disturbed during construction. Analytical results for these samples will be used as input data for air dispersion models to estimate potential airborne concentrations of contaminants.

Particle size, total organic carbon content, and cation exchange capacity are routinely analyzed in most commercial laboratories, and these properties were measured to help assess the adsorption potential of the soil for organic and metal constituents of concern. The mineralogy of subsurface soil samples was determined by polarized light microscopy on the bulk soil sample and x-ray diffraction analysis of the silt- and clay-sized fraction. Leachate was generated by contacting distilled water with cement-treated waste for a period of 90-days using a modified ANSI/ANS 16-1 procedure. The leachate was analyzed for all metal and radionuclide constituents of concern and general chemical parameters (e.g., pH, Cl., SO_4^{-2}, etc) to determine the composition of leachate that may migrate from the OSDC facility. Contaminant adsorption ratios were determined by laboratory batch tests at Brookhaven National Laboratory. Adsorption ratios were determined for contaminants that had a leachate concentration greater than the established background level for perched groundwater (Appendix T in DOE, 1992). The chemical interaction of the leachate with minerals in the soil was modeled to simulate dissolution and precipitation reactions that can modify the leachate composition, soil mineralogy, porosity, and permeability. The modified leachate and contaminant adsorption ratios were used in the fate and transport model to estimate contaminant levels at groundwater receptor locations. A summary of the site-specific geochemical data (including radionuclide and chemical analytical data) appears in Section 3.5, and these data are presented in detail in Appendix C.

All surface soil samples were submitted for full radiological and full Hazardous Substance List (HSL) analyses. The full radiological analysis includes:

- Gamma spectral analysis
- Total uranium
- Isotopic uranium: U-234, U-235/236, U-238
- Isotopic thorium: Th-228, Th-230, Th-232
- Isotopic plutonium: Pu-238, Pu-239/240
- Isotopic radium: Ra-226, Ra-228
- Sr-90
- Tc-99
- Cs-137
- Ru-106
- Np-237

The full HSL analysis includes:

- Inorganics
- Volatile organics
- Semi-volatile organics
- Pesticides/PCBs

The type and number of analyses are summarized in Table 2-2 (Appendix F presents the geochemical analytical procedures and tabulated results). Surface soil sample analyses were conducted per the RI/FS Work Plan, Volume 5, Sections 6.4.

2.4 SURFACE GAMMA SURVEY

The surface gamma survey (field measurements) was performed as a part of the assessment of risk associated with the investigation and construction of the OSDC. The results of this survey are presented in Appendix D.

2.4.1 Objectives

The objectives of the surface gamma survey include evaluating the degree of protection required for remediation workers with respect to occupational safety limits, and additional specific objectives to fulfill the data needs for risk assessment. These additional objectives are:

- To locate areas containing elevated levels of radionuclides to verify that radiological surface soil sample analytical results from the borings for the installation of monitoring wells and the borings for geotechnical samples are representative of the OSDC study area,

- To preliminarily identify how much topsoil in the OSDC study area must be treated as contaminated material during construction, and

- To provide information for determining the need for assessing short-term hazards to workers from external gamma radiation exposure during construction.

TABLE 2-2

RADIOLOGICAL/CHEMICAL LABORATORY ANALYSES

Medium/Location	Required Analyses	Number of Samples	Text Reference Section
Surface soil samples at geotechnical borings (0-6")	Full radiological[a] Full HSL[b]	18 18	Section 2.3.2
Surface soil samples at monitoring well locations (0-6")	Full radiological[a] Full HSL[b]	5 5	Section 2.3.2

(Total samples collected: Chemical 23 and Radiological 23)

[a] Full radiological analysis includes: gamma spectral analysis, isotopic uranium, isotopic thorium, isotopic plutonium, total uranium, Sr-90, Tc-99, Cs-137, Ru-106, Np-237, Ra-226, and Ra-228.

[b] Full HSL analysis includes: HSL inorganics, HSL volatiles, HSL semi-volatiles, and HSL pesticides/PCBs.

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2.4.2 Surface Gamma Survey Methodology

Locations for surface radiation measurements were established according to Section 1.2.1 of the "Remedial Investigation/Feasibility Study: Volume I: Sampling Plan" (DOE 1988). The RI/FS sampling plan required 100-foot intervals between sampling location. The grid was set up in two directions (north to south and east to west), following the state planar coordinate grid system.

The instruments selected for this program were photoionzation detectors. These detectors were used because the radionuclides of greatest concern at the OSDC study area were isotopes of uranium and thorium decay series and uranium and thorium of these forms include radionuclides that emit a variety of photon energies that are not attenuated greatly by air or vegetation, as would be the case with alpha or beta radiations.

Two types of detectors were utilized during the program:

- SPA-3/ESP-1 Large Volume [2"x 2" NaI(Tl)] Scintillation Detector, and
- Pressurized Ionization Chamber (PIC)

Instrument count rates (SPA-3/ESP-1 readings) due to gamma radiation were measured at a distance of one meter above the ground surface at the nodes of 100-foot grids. Count rates were converted to exposure rates using conversion factors (standardization factors) derived from comparisons of scintillation survey instrument readings to exposure rate measurements taken with the PIC at the same location.

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3.0 OSDC SITE CHARACTERIZATION

3.1 SURFACE FEATURES

The FEMP is located on the boundary between the southernmost extent of Pleistocene glaciation and the ancient unglaciated upland. The advance and retreat of continental glaciers not only shaped the topography, but determined the hydrogeologic setting for the FEMP region.

3.1.1 Physiographic Province

The FEMP lies in the Till Plains section of the Central Lowland physiographic province, characterized by structural and sedimentary basins and domes. Among these features, the Cincinnati Geoanticline ("Cincinnati Arch") is structurally significant in this region. The underlying bedrock in the region is shale and fossiliferous limestone of Middle and Late Ordovician age (Fenneman, 1916). It outcrops on steep valley walls in numerous waterfalls. In some areas, the bedrock is overlain by glacial deposits that range in thickness to as much as 400 feet.

The main physiographic features in the area are gently rolling uplands, steep hillsides along the major streams, and the Great Miami River Valley, which is a relatively broad, flat-bottomed valley flanked on either side by bluffs that rise to a maximum of 300 feet above the general level of the valley floor. The floor of the valley is in large part mildly undulating glacial overburden of Wisconsin age.

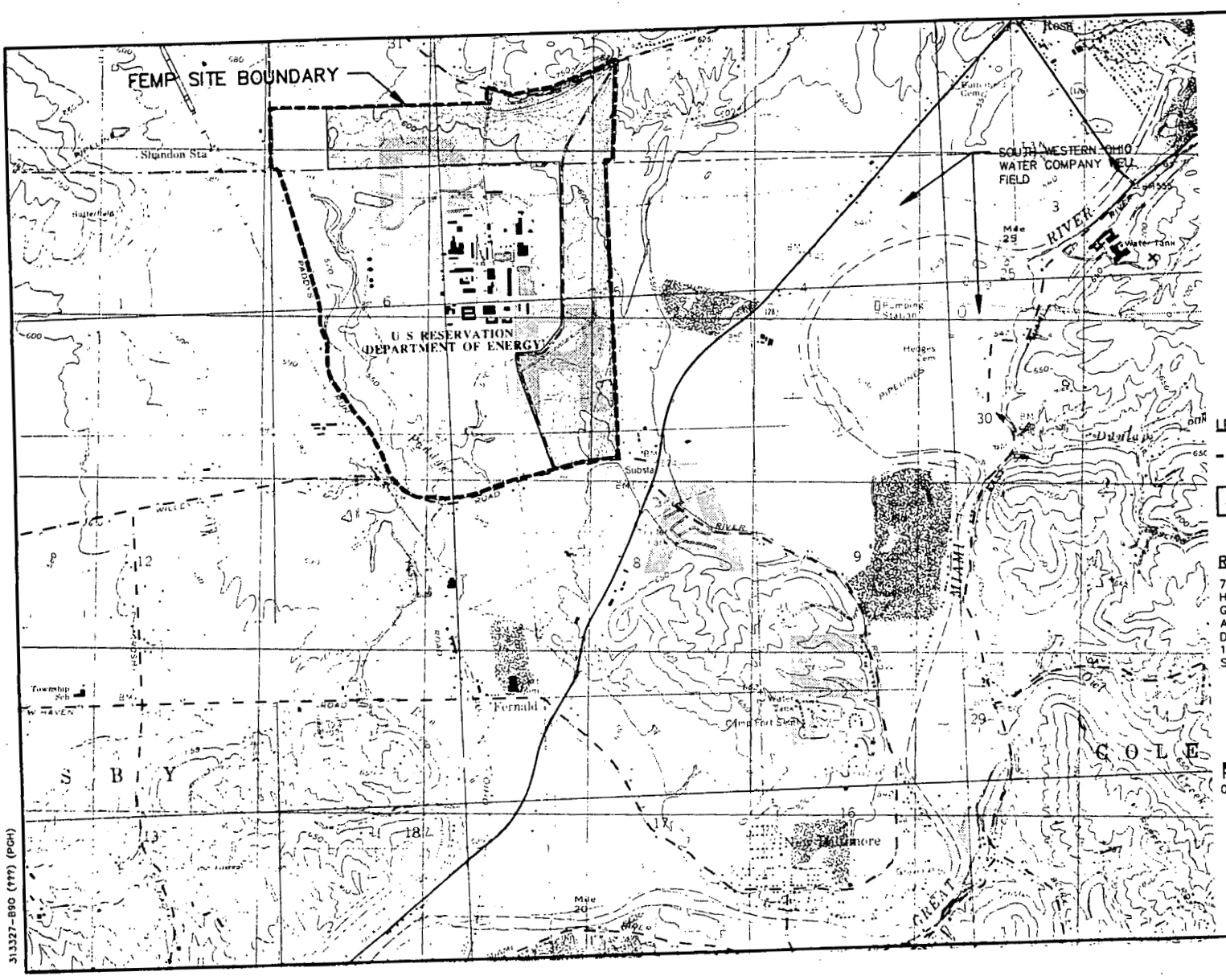
3.1.2 Topography

Maximum elevation along the northeastern boundary of the FEMP is a little more than 700 feet above mean sea level (ft MSL) in the region of a bedrock valley wall as shown in Figure 3-1. The former production area and waste storage area rest on a relatively level plain at an approximate elevation of 580 ft MSL. The plain slopes from 600 ft MSL at the eastern boundary of the FEMP to 570 ft MSL at the K-65 silos, and then drops off towards Paddys Run at an elevation of 550 ft MSL.

The OSDC siting area varies in elevation from 580 to 610 ft MSL along the northern half, and is relatively hilly, with several hills and the bedrock valley wall rising from 20 to 90 feet above the base elevations. The eastern half of the OSDC siting area is relatively flat, with elevations ranging between 580 and 600 ft MSL.

3.2 SURFACE WATER HYDROLOGY

The FEMP is located within the Great Miami River Basin drainage, but above the river's present day floodplain. The Great Miami River is the receiving stream for the FEMP effluent discharge and represents the main surface water feature in the vicinity of the FEMP (Figure 3-1). The river flows generally to the southwest and has a drainage area of approximately 3360 square miles at the Hamilton gage, which is located about 10 miles upstream from the FEMP discharge outfall. Only a small portion in the northeast corner of the FEMP drains directly to the Great Miami River. This zone lies



LEGEND:

FEMP RESERVATION BOUNDARY

OSDC SITING AREA

REFERENCE:

7.5 MINUTE USGS TOPOGRAPHICAL MAPS OF HARRISON, OHIO–IND., SHANDON, OHIO GREENHILLS, OHIO, CINCINNATI WEST, OHIO, ADDYSTON, OHIO–KY, AND HOOVEN, OHIO, DATED: 1955 (PR1981), 1965 (PR1981), 1965 (PR1981), 1961 (PR1981), 1982 AND 1981 SCALE: 1"=2000'

SCALE

0 2000 4000 FEET

FIGURE 3–1
FEMP SITE
TOPOGRAPHY MAP

313327-B90 (???) (PGH)

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within the OSDC siting area, at the juncture of the northern and eastern halves. A small (approximately one-half acre) area in the south portion of the eastern half of the OSDC siting area also drains directly to the Great Miami River.

The river exhibits meandering patterns that result in sharp directional changes over distances of less than 3000 feet (914 meters) (Figure 3-1). Directly east of the FEMP, the river passes through a 180-degree curve known as the "Big Bend." A 90-degree bend in the river also occurs near New Baltimore, approximately two miles downstream from the FEMP point of discharge.

Based on 55 years of records, the average discharge of the Great Miami River at Hamilton is 3305 cubic feet/second (ft^3/s) ($9.4 \times 10 \times 10^7$ cubic centimeters/second [cm^3/s]). Using drainage area scaling, the corresponding average flow at the FEMP point of discharge has been estimated to be 3460 ft^3/s (9.8×10^7 cm^3/s). The maximum discharge ever recorded for the Great Miami River at Hamilton occurred on March 26, 1913 and was estimated to be 352,000 ft^3/s (10×10^9 cm^3/s). The maximum discharge since the construction in 1922 of five retarding basins, located approximately seven miles upstream of Ross, was 108,000 ft^3/s (3.1×10^9 cm^3/s) and occurred on January 21, 1959. The ten-year-flood discharge has been calculated to be 81,455 ft^3/s (2.3×10^9 cm^3/s) for the site reach.

Natural surface drainage from the FEMP and within the OSDC siting area is primarily to Paddys Run. Paddys Run originates north of the site, drains southward along the west side of the FEMP, and eventually enters the Great Miami River approximately 1.5 miles south of the FEMP. This stream loses flow to the underlying aquifer along much of its course due to its highly permeable channel bottom which is carved into the Great Miami Aquifer. Paddys Run is an ungaged, intermittent stream that flows primarily between January and May, with an estimated discharge for this period ranging between 0.2 and 4.0 ft^3/s (5.7×10^3 to 11.3×10^4 cm^3/s). Peak flows have not been measured.

A principal drainage feature of the FEMP is a tributary to Paddys Run known as the Storm Sewer Outfall Ditch. This drainage course originates east of the former production area, flows southwest across the southern portion of the site, and enters Paddys Run near the southwest corner of the property. Much of the stream bottom of this drainage course, which also collects runoff from an area east of the former production area, is composed of sand and gravel. Vertical seepage rates through the stream bottom are similar to Paddys Run. This drainage course is generally dry throughout most of the year, with flows occurring during and immediately after precipitation.

The Storm Sewer Outfall Ditch historically conveyed surface water runoff from the former production area directly to Paddys Run when the capacity of the storm sewer lift station, which diverts low flow storm water in Manhole 175, was exceeded. Storm water retention basins were constructed in October 1986 and December 1989 at the head of the Storm Sewer Outfall Ditch. Storm water runoff from the former production area is now conveyed to these retention basins. After at least a 24-hour retention

period to allow for settling of suspended solids, the water is pumped out of the basins to the Great Miami River via the FEMP's main effluent line. The basins are designed to retain the runoff from a 10-year, 24-hour rainfall event; only in the event of an overflow would storm water from the former production area enter the outfall ditch.

3.3 GEOLOGY AND GROUNDWATER HYDROLOGY

The geologic and hydrogeologic setting of the OSDC siting area is consistent with that of a post-glacially deposited buried valley aquifer system. Due to its groundwater resource potential, the area around the FEMP had been extensively studied by the U.S. Geological Survey (USGS) and the Ohio Department of Natural Resources (ODNR). These studies have been combined with work performed during the RI and with the sampling and analysis results for the OSDC siting area to develop the geology and hydrogeology.

The geologic history, regional geology, and regional hydrogeology are summarized in the following sections. A discussion of the local geologic and hydrogeologic conditions specific to the OSDC siting area is given in a separate section following the regional summary.

3.3.1 Geologic History

The geology of the FEMP area has been previously described by Fenneman (1916), Durrell (1961), Spieker (1968), Watkins and Spieker (1971), and Brockman (1986) provide detailed geologic descriptions. Based on these studies, with modifications and extensions resulting from data collected during the RI studies, a comprehensive geologic history has been developed for the study area. This geologic history is summarized below in relation to those aspects of principal importance to the siting of the OSDC.

In Late Ordovician time (approximately 450 million years ago), sediments which would become predominantly flat-lying shale with thin, interbedded limestone were deposited in a shallow sea. This shale and interbedded limestone forms the relatively impermeable bedrock which now underlies the FEMP area and forms the highlands to the north.

The shale rock units found in the FEMP area formed from fine, land-derived deposits washed onto the shallow shelf during major storm events. The limestone rock units were formed from carbonate sediments precipitated in the clear, shallow waters of the shelf. The presence of interbedded shales and limestones represents fluctuations (cycles) between these two modes of deposition. As these cycles progressed, the depositional environment shifted from a lower energy, somewhat deeper water setting where shale deposition was predominant, to a shallower, higher energy setting where limestone deposition occurred. These cycles repeated over time and were controlled by the overall sea level, occurrence of tectonic subsidence or uplift, sedimentation rates, and other factors (ODNR 1991).

During the Kansan-Illinoian interglacial period (300,000 to 450,000 years ago), a large watercourse (larger than the present-day Great Miami River) cut a valley into this shale bedrock to a level of more than 200 feet below the present-day Great Miami River, forming the Deep Stage Drainage System. During continental glacial events, sea levels drop because of the large amount of water stored as ice on the continents. This drop in sea level allowed the rivers in the Deep Stage Drainage System to carve valleys roughly 200 feet deeper into the bedrock in the Cincinnati area than could happen under current sea level conditions.

As the Illinoian glacier advanced further into the Cincinnati area, the ancestral Ohio River flowing in the Deep Stage Valley was dammed by the glacier. The lake that formed behind the dam overflowed at the low divide in the vicinity of the present day Anderson's Ferry. As the divide eroded, the present course of the Ohio River was established. A further ice advance forced the ancestral Great Miami River out of the Deep Stage Valley and caused it to carve a new narrow deep stage valley from just north of New Baltimore to a location about one mile west of Cleves, where it returned to the original Deep Stage Valley. Because only water from the Great Miami River and its tributaries carved this valley, it is much smaller than the ancestral Ohio River Valley. This two-mile-wide valley was termed the New Haven Trough by Fenneman (1916).

During the Illinoian glacial retreat, about 250,000 years ago, the Deep Stage Valley including the New Haven Trough was filled with about 200 feet of glaciofluvial sediments. These sediments were deposited by water running from the margins of the glaciers and consisted mainly of well-sorted sand and gravel. This formed the Great Miami Aquifer. A blanket of poorly-sorted, clay-rich glacial overburden was deposited on top of these sediments during the Wisconsin ice advance, about 100,000 years ago.

When the Wisconsin ice sheet advanced to its southern limit, it deposited a terminal moraine, the Shelbyville End Moraine, south of the present-day FEMP site. The ice and terminal moraine again blocked the course of the ancestral Great Miami River and forced it to abandon its channel under the valley of present day Paddys Run and cut a new valley to the south, where the modern Great Miami River Valley is presently located. The terminal moraine also blocked the ancestral Dry Fork of the Whitewater River, creating a lake as the ice sheet retreated. The drainage disruption caused the Dry Fork of the Whitewater River to abandon its ancestral valley and cut its present valley to the west. When the end moraine was breached, the lake drained and created Paddys Run, which now occupies the ancestral Dry Fork Valley.

Postglacial erosion by the Great Miami River and its tributaries removed significant portions of the glacial overburden and left terrace remnants which stand topographically higher than surrounding bottom lands. Today, in the area of the FEMP, the Great Miami River flows south from Middletown to just north of New Baltimore in the former Deep Stage Valley. There is no surface stream

occupying the Deep Stage Valley between the Great Miami River east of the FEMP and the Whitewater River west of the FEMP.

The OSDC siting area lies on glacial overburden above the terrace remnants left after the establishment of the present day Great Miami River channel. This geologic history of bedrock erosion and subsequent filling in of the valley with glacial outwash and till gave rise to the present day deposits in the OSDC siting area.

3.3.2 Regional Geology

The geology of the FEMP and its surrounding areas can be divided into three primary stratigraphic units: the bedrock, the sands and gravels of the Great Miami Aquifer, and the unconsolidated glacial overburden deposits. All of these geologic units occur within the OSDC siting area to some degree, and are described in the following sections.

3.3.2.1 Bedrock

The bedrock in the FEMP region consists of nearly flat-lying sedimentary rock of Ordovician Age (approximately 450 to 500 million years old) (Fenneman 1916). The sedimentary bedrock consists primarily of interbedded shales and limestones of the Cincinnati Group of the Upper Ordovician System (Swinford 1990a).

The Cincinnati Group sedimentary rocks have been divided into seven formations. Figure 3-2 provides a stratigraphic column showing relative age (oldest formation at the bottom of Figure 3-2), members (subdivisions of the formations), lithologic description, and a range of thicknesses for the formations. Swinford (1990b) reports that the shale units are predominately light to dark gray, bluish gray, thin-bedded, silty, and are sparsely fossiliferous (containing fossils) relative to the limestone units. The limestone units are typically light to dark gray, bluish gray, fine to coarse grained, argillaceous (containing clay-size particles or clay minerals), with fossils common to abundant in most units. The limestone units usually exhibit planar to wavy bedding with ripple marks and graded bedding in the older units. Appendix E provides detailed descriptions and the sequence of the bedrock formations for the FEMP area.

According to research conducted in the vicinity of the FEMP (Scotford 1965), Cincinnatian Series shales exhibit a persistent vertical and lateral textural, mineralogical, and chemical uniformity. Scotford's research shows that the mean particle size distribution for the shales is 38 percent clay, 59 percent silt, and 3 percent sand. The mean mineral composition of the shales is 24 percent quartz, 6 percent calcite, 9 percent dolomite, 51.3 percent illite, 9.7 percent chlorite, with trace amounts of kaolinite, feldspar, and pyrite. The mean elemental weight percentages for the shales are 21.8 percent silicon, 7.8 percent aluminum, 8.6 percent calcium, 3.9 percent potassium, 2.4 percent magnesium, 3.0 percent iron, 0.4 percent titanium. The remaining percentage is oxygen and small, undetermined

SYSTEM	GROUP	FORMATIONS AND MEMBERS		MAP SYMBOL	LITHOLOGY	THICKNESS IN FEET	ROCK UNITS
ORDOVICIAN	CINCINNATI GROUP	WAYNESVILLE FORMATION	UNDIFFERENTIATED	O_{aw}		60+	INTERBEDDED SHALE AND LIMESTONE. SHALE MAKES UP 65 PERCENT OR MORE OF UNIT.
		ARNHEIM FORMATION (INFORMAL UNIT)					INTERBEDDED LIMESTONE AND SHALE. LIMESTONE (BEDS ARE IRREGULAR TO PLANAR) MAKES UP 50 PERCENT OR MORE OF UNIT.
		GRANT LAKE FORMATION: MOUNT AUBURN MEMBER		O_{glm}		15–20	LIMESTONE AND SHALE. LIMESTONE (IRREGULAR BEDS) MAKES UP 60 PERCENT OR MORE OF UNIT.
		GRANT LAKE FORMATION: CORRYVILLE MEMBER	UNDIFFERENTIATED	O_{glbc}		60–70 (75–90)	INTERBEDDED SHALE AND LIMESTONE. SHALE MAKES UP 60 PERCENT OR MORE OF UNIT.
		GRANT LAKE FORMATION: BELLVUE MEMBER					LIMESTONE, IRREGULAR BEDS.
		MIAMITOWN SHALE		O_m		15–35	INTERBEDDED SHALE AND LIMESTONE. SHALE MAKES UP 75 PERCENT OR MORE OF UNIT.
		FAIRVIEW FORMATION		O_f		40–90	INTERBEDDED LIMESTONE AND SHALE. LIMESTONE MAKES UP 50 PERCENT OR MORE OF UNIT.
		KOPE FORMATION		O_k		260–280	INTERBEDDED SHALE AND LIMESTONE. SHALE MAKES UP 75 PERCENT OR MORE OF UNIT.
		POINT PLEASANT TONGUE OF THE CLAYS FERRY FORMATION		O_p		30+	INTERBEDDED LIMESTONE AND SHALE. LIMESTONE MAKES UP 50 PERCENT OR MORE OF UNIT.

REFERENCE:

MODIFIED FROM THE STATE OF OHIO, DEPT. OF NATURAL RESOURCES, DIVISION OF GEOLOGICAL SURVEY, BEDROCK OF THE SHANDON QUADRANGLE (HAMILTON CO. PORTION), E.M. SWINFORD, 1990

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FIGURE 3–2 GENERALIZED STRATIGRAPHIC SECTION FOR THE FEMP AREA

amounts of sodium and other elements. Tables 1, 2, and 3 in Appendix E show chemical analyses of the Cincinnatian Series shales.

The eroded bedrock beneath the FEMP consists of predominantly flat-lying Ordovician shales with thin, interbedded layers of limestone. During Pleistocene interglacial periods prior to the Illinoian and Wisconsin glacial advances, the ancestral Ohio River eroded a valley, termed the New Haven Trough, in the bedrock. The New Haven Trough has a broad, relatively flat bottom and steep valley walls (Figure 3-3). Encompassing the FEMP are bedrock topographic highpoint areas ("bedrock highs") that slope up sharply from the valley floor.

In the vicinity of the FEMP, the New Haven Trough consists of a major buried valley and its tributaries. Figure 3-3 shows that the New Haven Trough is oriented northeast to southwest with a tributary (Shandon Tributary) joining from the northwest. The New Haven Trough is about 2 miles wide and 200 to 400 feet deep. The trough follows the general direction of the present day Great Miami River Channel, but is most often west or north of the river over much of its course (Watkins and Speiker, 1971).

South of the town of Fernald, Ohio a somewhat lesser valley (about 0.5 miles wide and 100 feet deep) was cut into bedrock splits from the main buried valley following the present course of the Great Miami River. The lesser valley rejoins the trunk of the main buried valley near the town of Cleves, Ohio.

During the retreat of the Illinoian ice sheets, the bedrock valley was filled with 200 feet of glaciofluvial sand and gravel, which today is the Great Miami Aquifer.

Watkins and Spieker (1971) performed extensive seismic refraction surveys to determine the thickness and extent of the sand and gravel deposits filling the bedrock valley. Test drilling was used in conjunction with the refraction surveys to verify the accuracy of the seismic determinations of the depth of the valley floor.

3.3.2.2 Great Miami Aquifer

The portion of the Great Miami Aquifer that underlies the FEMP consists primarily of glaciofluvial sand and gravel outwash deposited during the latest two Pleistocene glaciations. These deposits lie unconformably on the Ordovician shales and limestones, filling the bedrock valley to a depth of 200 feet in places. In the FEMP area, the thickness of the Great Miami Aquifer varies from 120 to 200 feet in the valley and tributary valley centers to only a few feet along the valley walls. Although the glaciofluvial deposits are heterogeneous, they are typically well-sorted sands and gravels with only minor amounts of silt and clay. Within the coarse-grained sediments of the Great Miami Aquifer lies an interbedded clay layer that underlies most of the FEMP. The clay interbed pinches out in the

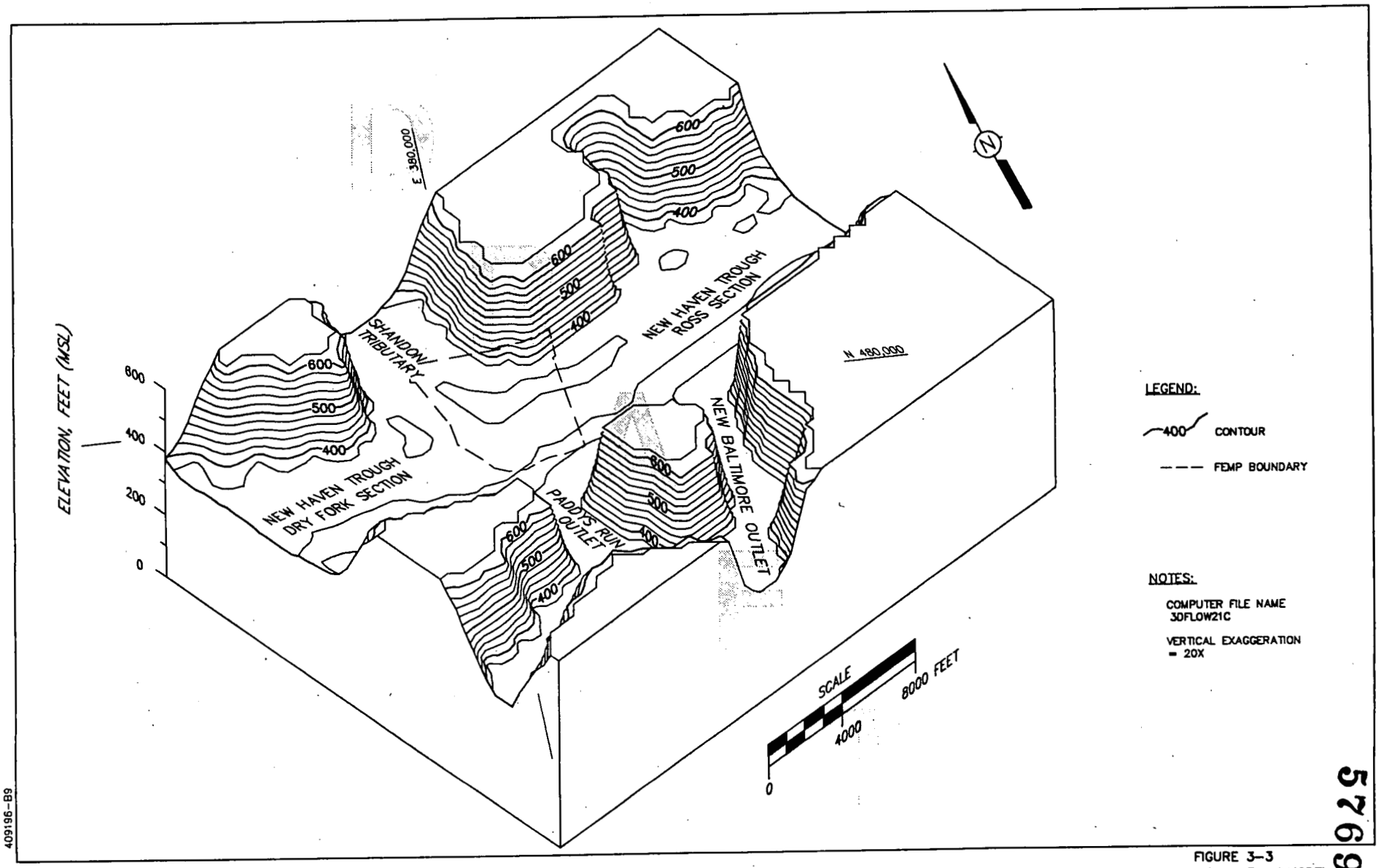

FIGURE 3-3
3-DIMENSIONAL FLOW MODEL
MODEL BEDROCK

eastern portion of the FEMP and is only present beneath the western portion of the OSDC siting area. The clay interbed lies about 100 to 125 feet below the surface and generally about 60 to 80 feet below the water table. It ranges from 5 to 15 feet in thickness and consists of a low permeability homogeneous clay which acts as an aquitard within the Great Miami Aquifer. Because of this interbed, the aquifer is divided into upper and lower halves.

The clay of the interbedded layer is uniform in texture and contains only a small amount of silt and sand. It was deposited in a lacustrine or low-energy fluvial environment and displays varving in some samples. The interbed pinches out to the south and east, extends an unknown distance to the west, and grades into other lacustrine, glaciofluvial, and glacial till deposits to the north in the Shandon Tributary.

3.3.2.3 Glacial Overburden

Glacial overburden covers the Great Miami Aquifer throughout most of the study area. It is of varying composition, including loess, lacustrine deposits, till, and glaciofluvial sediments. The overburden itself cannot be classified on a regional basis, as it is composed of varying amounts of the four materials, differing in structure and extent from location to location. For this reason, these materials are grouped into one unit for this discussion.

Within the FEMP, the glacial overburden ranges up to 5 and 50 feet in thickness, but most commonly averages between 20 and 30 feet. It extends to the north and west outside of the FEMP area, but ends within the FEMP area to the south and east where the Great Miami River has stripped off the glacial overburden as it carved its present channel. The types of materials included as glacial overburden are described as follows:

- Loess: Loess is an aeolian deposit consisting of homogenous, silt-sized particles. It blankets large areas within the study area and is derived from wind erosion of unconsolidated glacial and glaciofluvial sediments. The loess is typically a buff to light yellow or yellow-brown silt bed of an approximate thickness of 1.5 to 3 feet.

- Lacustrine Deposits: The lacustrine deposits present in the study area consist of well-sorted, stratified fine sands, silts, and clays, often with varving present. The clays may be interbedded with wave-sorted beach deposits along the margins of a former lake basin. Lacustrine deposits are found primarily along Paddys Run and are generally several feet in thickness.

- Till: Undifferentiated till makes up the bulk of the glacial overburden materials in the study area. The tills were deposited either subglacially or at the melting margins of the glaciers and consist of a heterogeneous mixture of clays, silts, and pebbles. Tills may be of several types, including moraine deposits, ablation tills, and subglacial till sheets. The tills in the FEMP area range in color from tan to brown to gray and are between 10 and 40 feet in thickness. They occur throughout most of the study area, but are not present in areas close to the Great Miami River, where they have been removed by erosion or were not deposited.

- Glaciofluvial Deposits: Glaciofluvial beds deposited by marginal or subglacial meltwater streams are interbedded within the till deposits. These beds consists of well-sorted sands and fine gravels. They are regionally discontinuous within the till and occur throughout the study area. They range in thickness from a few inches to over 10 feet. Locally, interconnection of these beds may allow migration of groundwater within the glacial overburden.

3.3.3 Regional Hydrogeology

The main groundwater pathway underneath the FEMP (including the OSDC siting area) is the Great Miami Aquifer. The aquifer lies within the bedrock valley previously described but has only minor interconnection with the valley walls. Overlying the Great Miami Aquifer is the Wisconsin Age glacial overburden, which provides a localized pathway into the aquifer in some areas. Both of these units are discussed in the following sections.

3.3.3.1 Great Miami Aquifer

The Great Miami Aquifer can be divided into areas with similar hydrologic and geologic properties that are distinct from other adjacent areas of the aquifer. These subdivisions have been designated as hydrogeologic environments (Spieker 1968). A hydrogeologic environment describes a portion of an aquifer possessing hydrologic and geologic properties that differ from the properties of the aquifer in adjacent areas. During these investigations, five major hydrogeologic environments were identified and mapped in the Great Miami River Valley. These environments include:

- Type I (Subtypes I-A-I and I-A-2): Sand and gravel aquifer; recharge by induced stream infiltration potentially available.
- Type II: Sand and gravel aquifer without the possibility of stream recharge.
- Type III: Sand and gravel aquifer overlain by clay; stream recharge generally not available.
- Type IV: Buried valleys filled with clay; large water supplies generally not available.
- Type V: Shale and limestone bedrock overlain by till; large water supplies generally not available.

Two characteristics of unconfined aquifers are used to characterize them. These characteristics are transmissivity and specific yield, which describe the ability of water to move through the aquifer material and the ability of the aquifer to produce water, respectively. The higher the transmissivity the greater the ability to transmit water. The specific yield is a measure of the quantity of water an aquifer will yield from storage when the hydraulic head declines, and is related to the porosity and the grain size. The smaller the grain size, the more water that will be retained in the aquifer and not available to a pumping well. Conversely, coarser sediment will retain less water and have a larger specific yield.

The Type I hydrogeologic environment (sand and gravel aquifer, recharge by induced stream infiltration potentially available) describes the Great Miami Aquifer along the flood plain of the Great Miami River to the south and east of the FEMP and the OSDC siting area, and also in the valley of Paddys Run west and south of the former production area and may occur in the extreme southwest portion of the OSDC siting area. The Type I-A-1 aquifer is 150 to 200 feet thick, and the Type I-A-2 aquifer is less than 150 feet thick; both are underlain by bedrock. The aquifer sediments crop out at the surface; thus, stream infiltration is possible in areas proximal to local streams. The lithology of the aquifer consists primarily of well-sorted sand with gravel, although scattered lenses of clay or fine-grained material are also present. In the main valley, these lenses are not of sufficient thickness or areal extent to act as semiconfining layers or to significantly affect groundwater movement. Aquifer transmissivity generally ranges from 40,000 to 67,000 square feet per day (ft^2/day) (3716 to 6224 square meters/day [m^2/day]), with a specific yield of about 0.2. Individual wells can yield as much as 3,000 gpm.

The Type II hydrogeologic environment (sand and gravel aquifer without the possibility of stream recharge) is characterized by having less than 150 feet of sand and gravel, with no areally extensive interstratified clay layers present. Recharge by stream infiltration is not available. The specific yield for the aquifer is about 0.2. Large groundwater supplies are not generally available from the Type II aquifer. Those portions of the Great Miami Aquifer that exhibit characteristics of a Type II environment are of limited areal extent, within the study area. They are generally located in close proximity to bedrock valley walls. This hydrogeologic environment occurs in the northern half of the OSDC siting area.

The Type III hydrogeologic environment (sand and gravel aquifer overlain by clay, stream recharge generally not available) is characterized by clayey glacial overburden overlying the Great Miami Aquifer. In the region directly beneath the FEMP, the aquifer is divided into upper and lower parts by a clay interbed approximately 10 to 20 feet thick occurring approximately 140 feet below land surface. This condition occurs in the westernmost portion of the OSDC siting area. Hence, the lower aquifer is classified as a semiconfined or leaky confined aquifer. Spieker and Norris (1962) have estimated a coefficient of storage of 0.001 for the lower sand and gravel aquifer. Spieker (1968a) estimated a transmissivity range of 4,700 to 40,000 ft^2/day (437 to 3716 m^2/day).

The Type IV hydrogeologic environment (buried valleys filled with clay, large water supplies generally not available) is typified by valleys filled largely with clay. No examples of this environment are found within the FEMP area or the OSDC siting area.

The Type V hydrogeologic environment (shale and limestone bedrock overlain by fill, large water supplies generally not available) includes all of the areas outside of the buried valley of the Great Miami Aquifer. These areas are bedrock uplands consisting of shale with interbedded limestone

overlain by 50 feet or less of clay-rich glacial overburden. Large quantities of groundwater are not generally transported through this material. Well yields vary widely, generally ranging from 0 to 10 gpm (0 to 631 cm^3/sec). However, sand and gravel lenses are erratically distributed throughout this glacial overburden and, in some cases, wells completed in these units may yield up to 50 gpm. This hydrogeologic environment occurs north of the OSDC siting area.

3.3.3.2 Glacial Overburden Groundwater System

In addition to the regional hydrogeologic environments in the Great Miami Aquifer, localized perched groundwater occurs in the glacial overburden. The perched groundwater system is not described by the USGS as a separate environment type, but is described as the uppermost, recharge-restricting layer of the Type III hydrogeologic environment.

The four glacial overburden materials present in the regional geologic setting have the following hydrogeologic characteristics:

- Loess: Blanket deposits of loess deposited during Pleistocene and post-Pleistocene time generally consist of silt with small amounts of clay. These deposits are moderately cohesive with a porosity of 40 to 50 percent. Hydraulic conductivity for loess is reported as 0.028 ft/day to 2.8 (1.0×10^{-5} to 1.0×10^{-3} cm/s) without secondary permeability. Near-surface deposits of loess have an enhanced secondary permeability due to fracturing, animal burrows, and root tubes, as indicated by site borings. These features can impart a secondary permeability that greatly exceeds the unenhanced permeability (Freeze and Cherry 1979).

- Lacustrine Deposits: Offshore silt and clay with interbedded near-shore beach sands were deposited in meltwater lakes that existed during Pleistocene time. Unfractured, fine-grained lacustrine deposits can form large aquitards as evidenced by the clay interbed within the Great Miami Aquifer, while near-surface deposits are generally fractured. The interbedded sand and gravel beach deposits can form aquifers, but these are limited in extent and yield.

- Till: Till consists of sediments that are deposited directly under, from within, or from the top of a glacier without the sorting action of water. At the site, no attempt has been made to differentiate the till types or to determine if individual till sheets exist. Till is a heterogenous mixture of silt, clay, sand, gravel, and boulder-sized materials. Although the coarser materials are present, the till in the study area is too fine grained to be a permeable hydrogeologic unit.

  At the Fernald site where shale and limestone compose the regional bedrock, glacial erosion has produced till composed mainly of silt and clay which, therefore, has low permeability. Water supply investigations which included the FEMP (Spieker, 1968a, 1968b) considered the glacial overburden as an aquitard which restricted surface recharge to the Great Miami Aquifer. Investigations in similar geologic settings (Hendry 1988; Cravens and Ruesduli 1987; Barari and Hedges 1985; Grisak et al. 1976; Hendry 1982) indicate that till deposits can be divided from a hydrogeologic standpoint into an oxidized near-surface weathered zone and a deeper, reduced unweathered zone. These studies indicate that infiltration occurs only in the weathered till, in which much

of the infiltrating water is lost to evapotranspiration. In addition to this loss, some water discharges to seeps or drainages. This latter type of loss is evident in the FEMP area along Paddys Run, where small seeps occur during periods of high rainfall.

- Glaciofluvial Deposits: Most of the large productive aquifers found in areas covered by continental glaciation are found in the glaciofluvial outwash deposits left by the meltwater of receding glaciers. These deposits, which consist of well-sorted sand and gravel, occur as extensive blanket valley fill deposits. At the FEMP, these deposits are confined by surface layers of till or glaciolacustrine silts and clays and may also have interbedded tills which act as aquitards.

In the OSDC siting area perched water was encountered in 5 borings in the northern portion of the siting area (Borings 1732, 1734, 1735, 1736, and 1737, Appendix A) and 1 boring in the eastern portion of the siting area (Boring 1740, Appendix A) (Figure 3-4). The perched water in the northern portion of the OSDC occurs between 12 and 21 feet below ground surface (BGS), while in the eastern portion (Boring 1740) it occurs at 24 feet BGS. In most of the borings where perched water was encountered it occurred in a yellowish-brown to gray sandy clay or clayey sand (Boring Logs, Appendix A). The occurrence of the perched water zones appear to be limited to areas of relatively coarse sediment/high porosity in the generally fine-grained sediments. Dense, fine-grained glacial till and glaciolacustrine deposits of silt and clay classify the overburden as an aquitard in most locations. However, small-scale fluvial and beach deposits (lacustrine shore deposits) of coarser sediments interbedded within the till form layers of relatively high hydraulic conductivity. Hydraulic conductivities in the perched zones at the site range from 8×10^{-3} to 0.85 ft/day (2.8×10^{-6} to 3.0×10^{-4} cm/s), based on falling head tests in 1000-series wells. The hydrogeologic characteristics of the overburden vary with the season and specific locations. In other portions of the FEMP, depth to perched groundwater in the glacial overburden ranges from 0 to 15 feet BGS. The southwest portion of the FEMP site is where perched water occurs at the surface, as evidenced by seeps. A perched water table can seasonally fluctuate by up to 10 feet at a single location, with the highest water levels occurring during the early spring and the lowest during the late fall. In the OSDC siting area the perched water elevation varies from 12 to 24 feet BGS. A limited number of water elevation measurements have been made in these (OSDC) perched-water wells and it is not known how much seasonal variation in elevation occurs.

The perched groundwaters in the glacial overburden at the FEMP occur under both confined and unconfined conditions. General groundwater movement in the perched system in the vicinity of the FEMP is toward Paddys Run and the Storm Sewer Outfall Ditch. However, because the shallow perched zones are not interconnected across the facility, the movement of fluids is likely to be discontinuous with different areas affected by different influences. The flow patterns within these zones vary seasonally due to variations in recharge. Shallow groundwater flow may also be influenced by the widespread presence of drain tiles installed by the previous owners of the property in support of agricultural activities (WMCO, various memos, 1987).

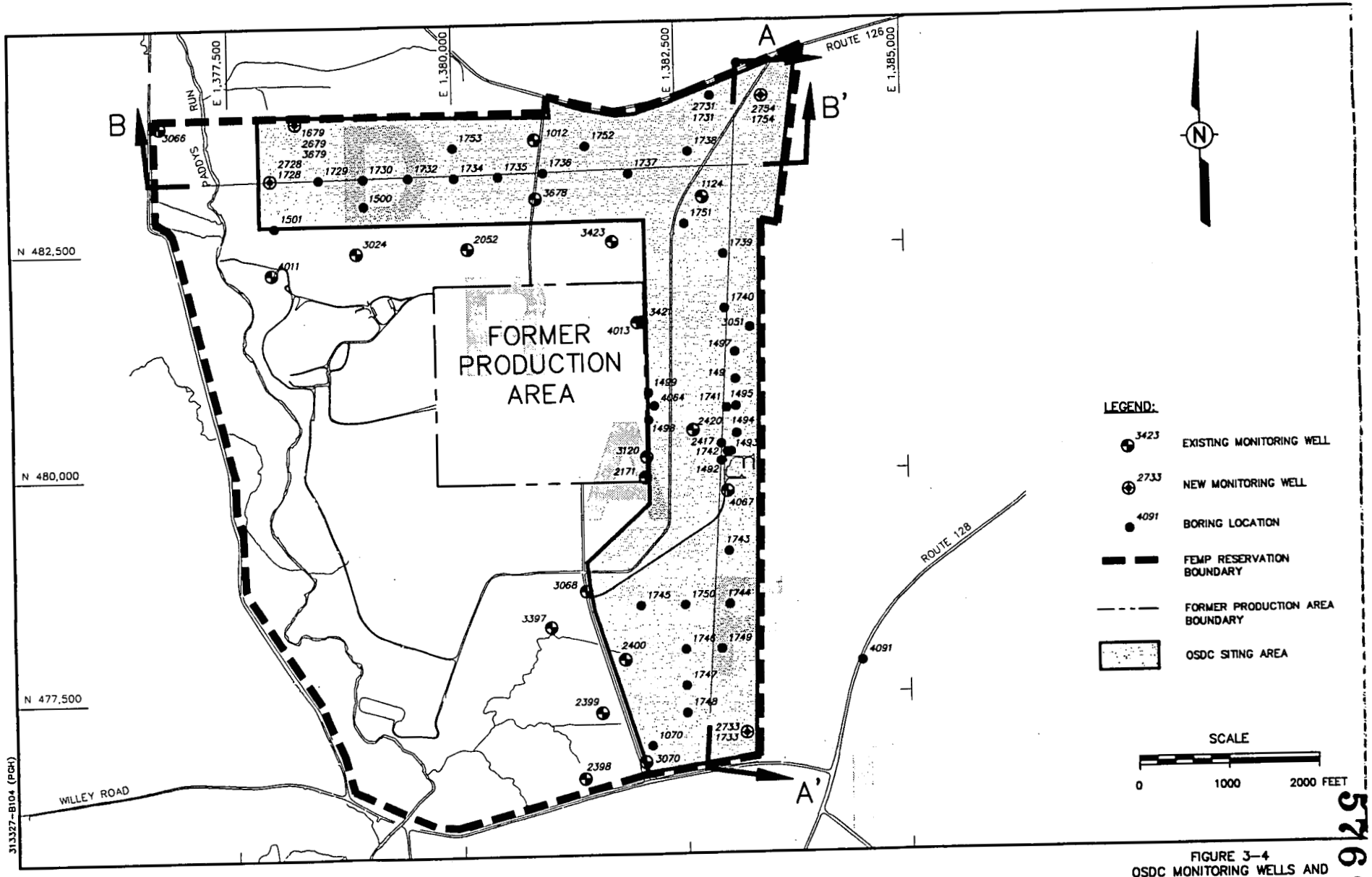

FIGURE 3-4
OSDC MONITORING WELLS AND BORINGS LOCATIONS

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3.3.4 Local Geology and Hydrogeology

The local geology and hydrogeology of the OSDC siting area is representative of conditions present through out the New Haven Trough. The Great Miami Aquifer lies within the bedrock valley and is capped by a series of glacial overburden sediments, which have been stripped off by stream erosion in the vicinity of Paddys Run. Throughout the majority of the OSDC siting area the overburden sediments are still present, and form a capping layer on top of the Great Miami Aquifer.

Within the OSDC Siting Area, the glacial overburden varies between 8 and 50 feet in thickness, with the majority of the OSDC siting area being covered by a 30- to 40-foot thick layer (Figure 3-5). Figure 3-5 shows that the thickness of the glacial overburden is generally greater in the northern portion of the OSDC siting area. The northern portion also has the greatest range in glacial overburden thickness. In the southern portion of the OSDC siting area south of Monitoring Well 3051, the glacial overburden ranges in thickness between 21 and 37 feet. The OSDC, if constructed, will be placed directly on top of the glacial overburden layer after excavating approximately 11 feet of overburden to allow placement of a liner system. Boring logs for geotechnical and monitoring well borings are given in Appendix A.

The review of the boring logs for the OSDC siting area revealed that the glacial overburden consists of clay and silty clay with some fine sand lenses and traces of gravel. This lithology is consistent with the lithology described in the RI/FS and presented in Section 3.3.2 (Regional Geology). Two cross sections showing the relationship between the overburden layers and the bedrock are provided in Figures 3-6 and 3-7. Cross section A-A′ is oriented north to south extending along the length of the eastern portion of the siting area (Figure 3-6). Figure 3-7 shows cross section B-B′ oriented west to east along the northern boundary of the siting area.

The portion of the Great Miami Aquifer which underlies the OSDC siting area varies in thickness depending on its proximity to the bedrock valley walls. In the eastern half of the OSDC siting area, the aquifer varies between 100 and 150 feet in thickness, with the majority of the areas underlain by 150 feet or more of aquifer material. The northern half of the OSDC siting area is adjacent to a bedrock valley wall, and is underlain by a thinning portion of the aquifer. The Great Miami Aquifer ranges from 0 to 100 feet in thickness in this region, thinning to 0 feet in thickness in the central and eastern portions of the northern half of the OSDC siting area. In these regions, the Great Miami Aquifer is absent along the valley walls and glacial overburden lies directly in contact with the bedrock. Approximately 10 percent of the OSDC siting area has this condition.

The review of the OSDC siting area boring logs also confirmed the presence of interbedded shale and limestone bedrock. Top of bedrock elevation contours for the OSDC siting area are shown in Figure 3-8. The bedrock as presented in this figure, slopes steeply (from elevation 450 to 600 ft MSL

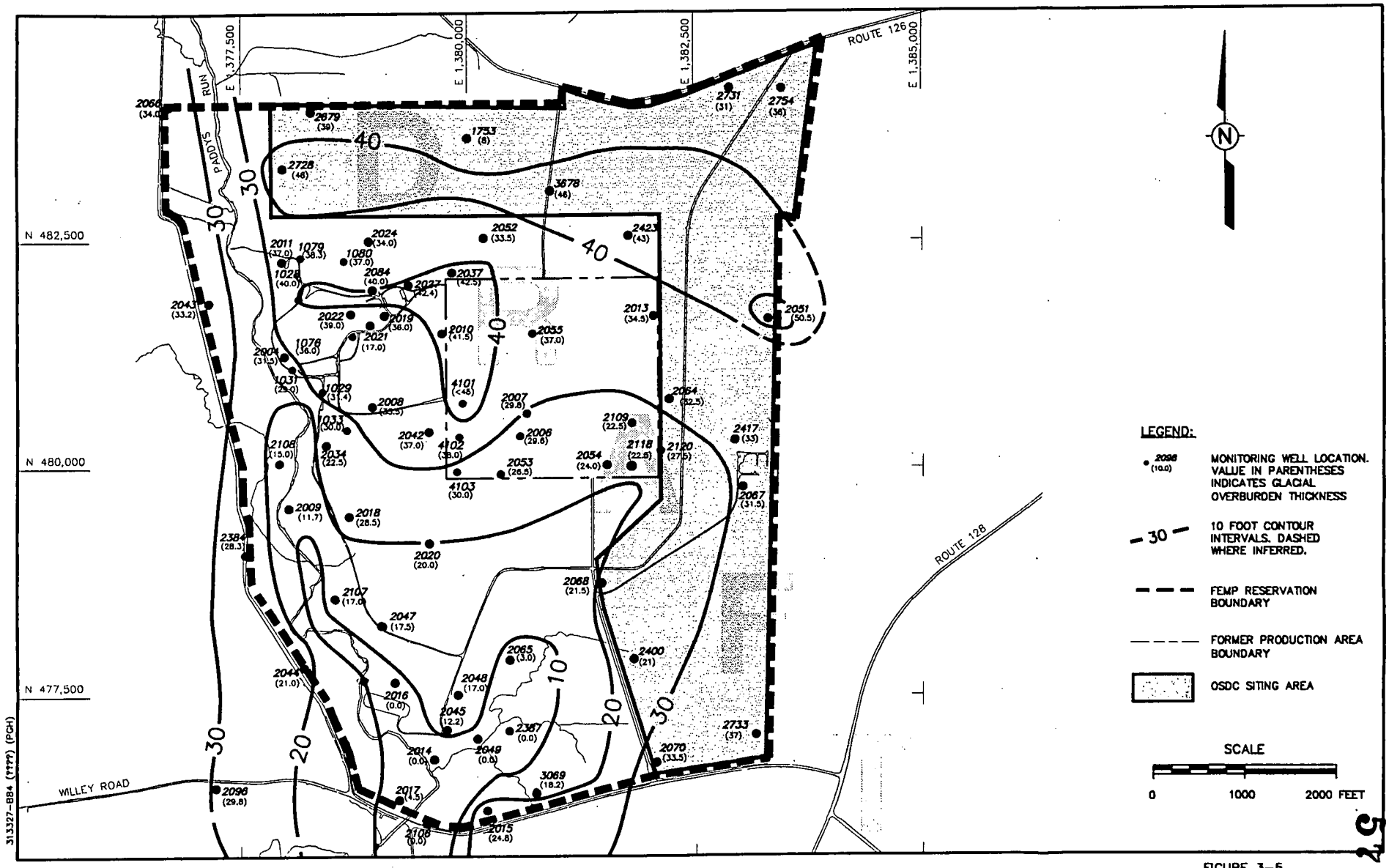

FIGURE 3-5
GLACIAL OVERBURDEN ISOPACH

313327-BB4 (????) (PGH)

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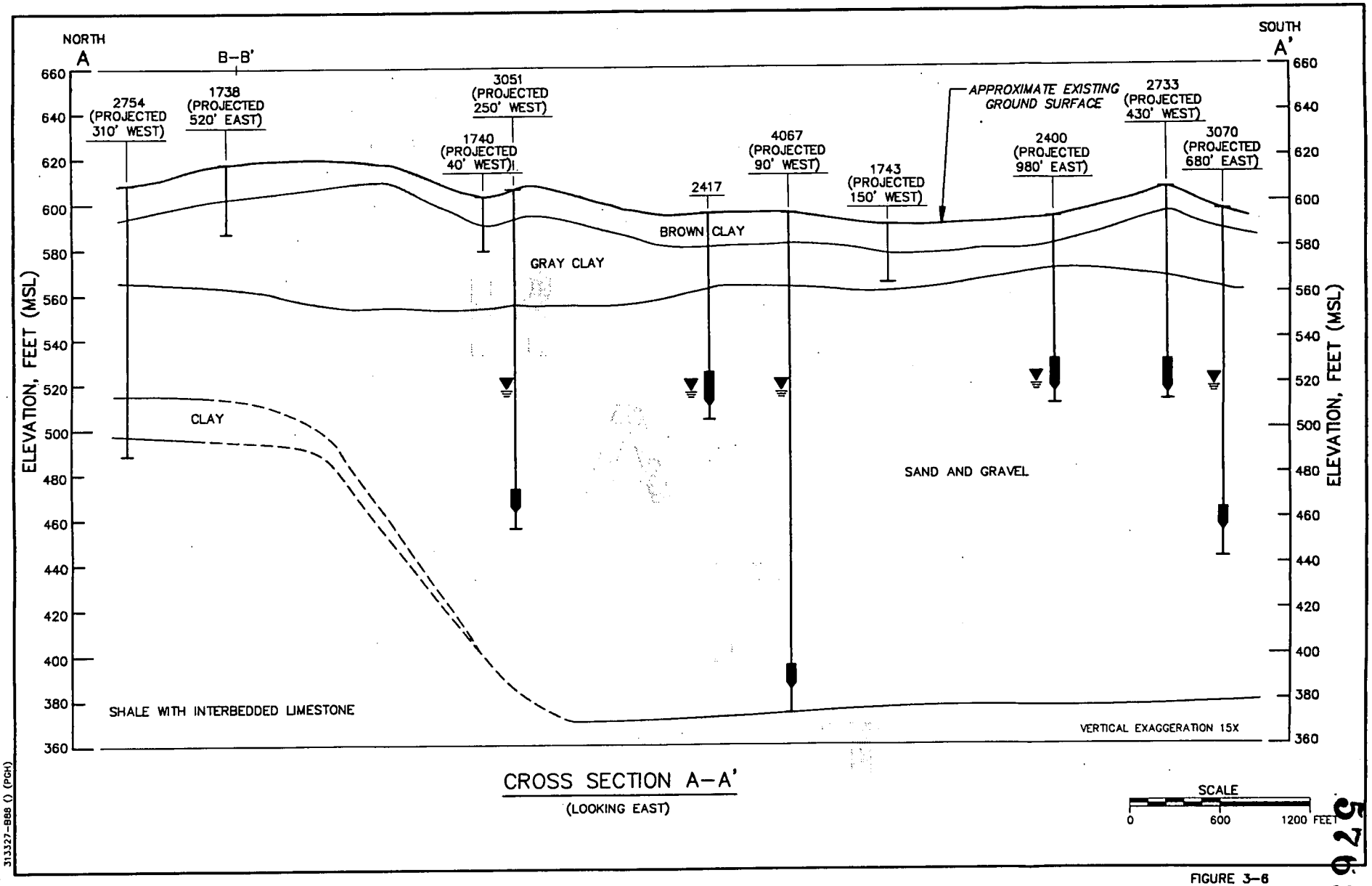

FIGURE 3-6
GEOLOGIC CROSS SECTION A–A'
OSDC SITING AREA

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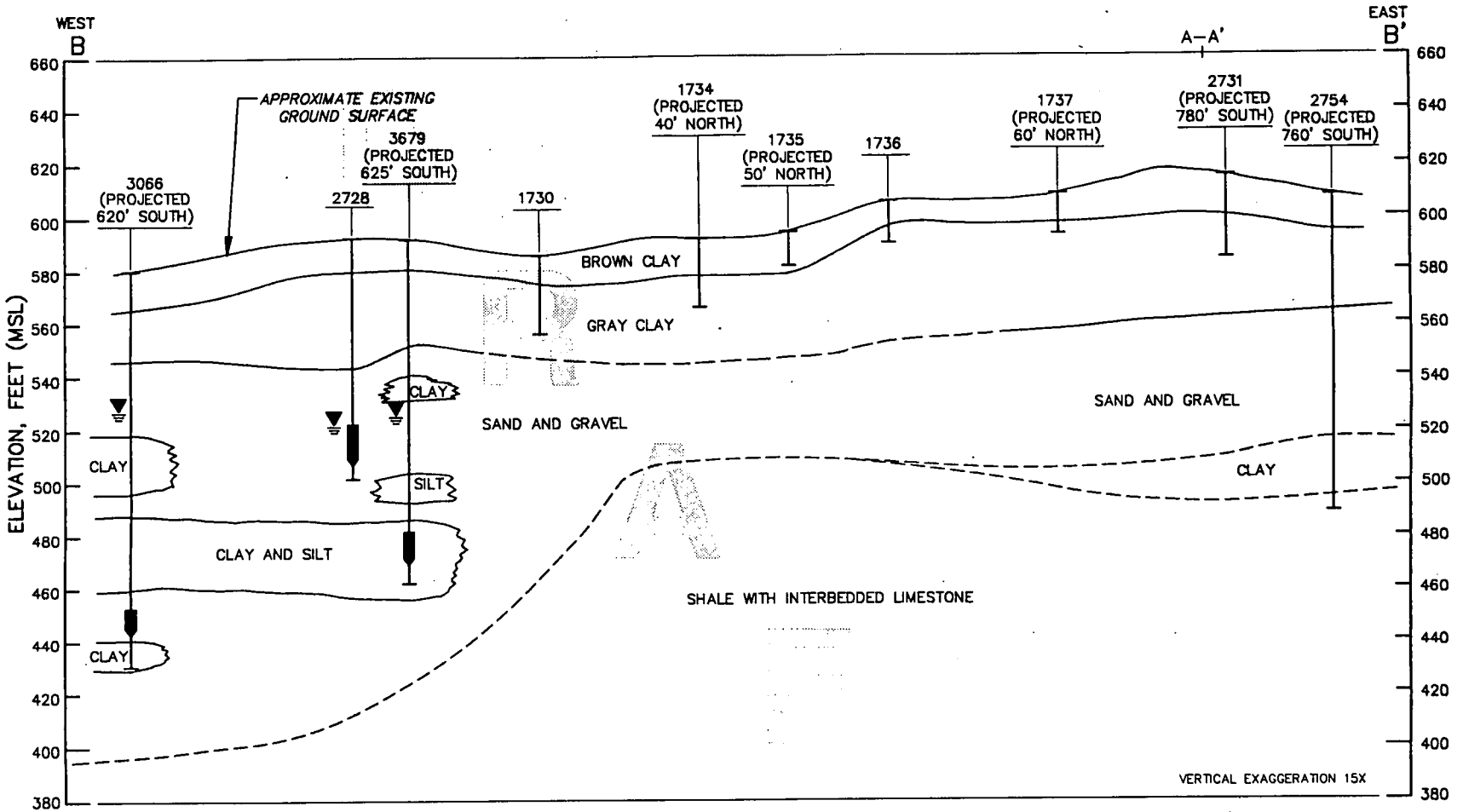

CROSS SECTION B–B'

(LOOKING NORTH)

SCALE

0 600 1200 FEET

313327-B89 () (PGH)

FIGURE 3–7

GEOLOGIC CROSS SECTION B–B'
OSDC SITING AREA

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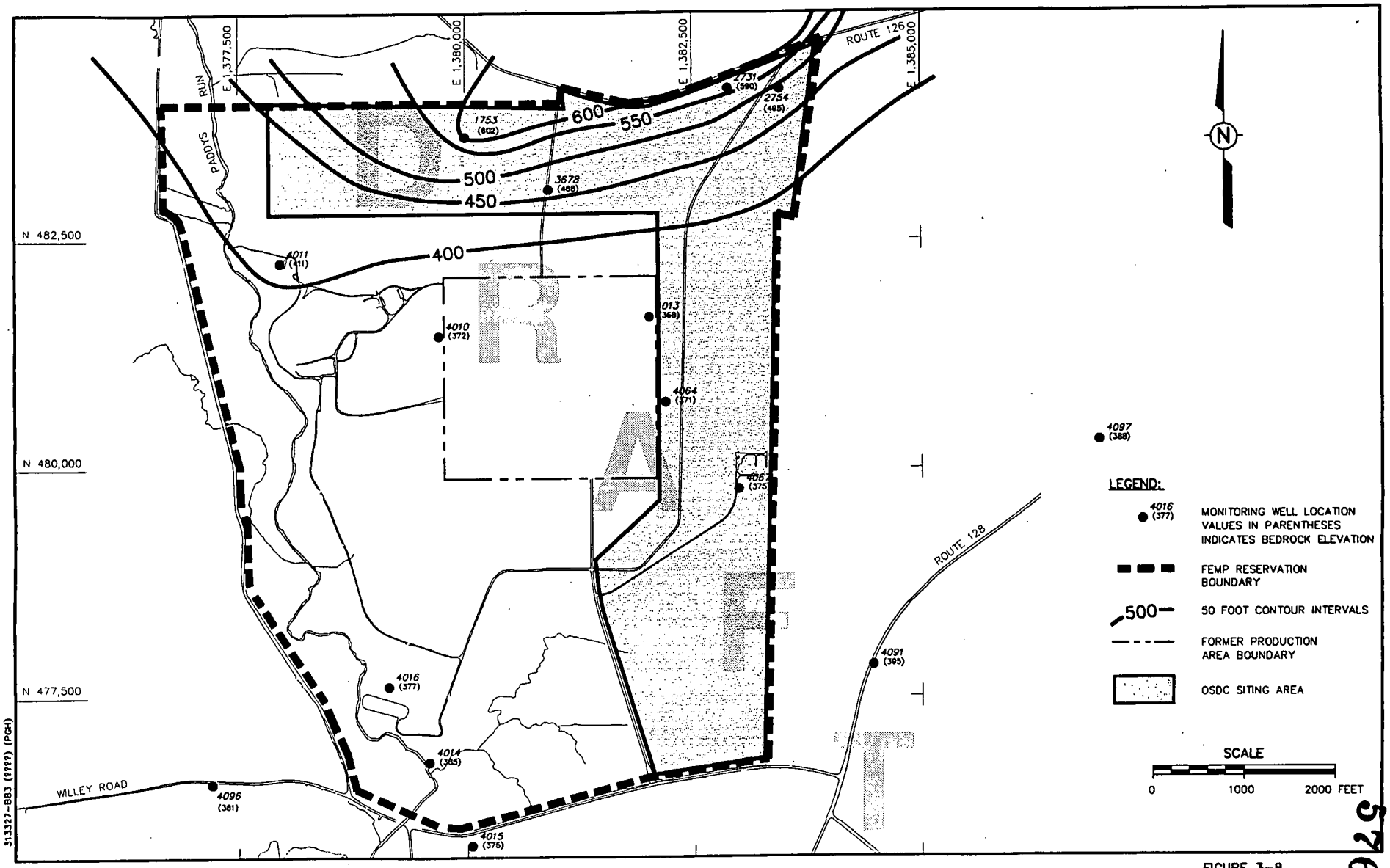

FIGURE 3-8
TOP OF BEDROCK ELEVATION IN OSDC SITING AREA

over a distance of approximately 1000 feet) upward to the north in the northern portion of the siting area. This representation is consistent with the position and configuration of the bedrock valley as previously described in Section 3.3.2.

The bedrock surface in the southern portion of the OSDC siting area is nearly flay-lying at an elevation of approximately 370 ft MSL. It occurs at a depth of approximately 225 feet below the ground surface in the southern portion of the OSDC siting area.

Groundwater flow within the OSDC siting area is primarily to the east, towards the two large capacity collection wells operated by the Southern Ohio Water Company (SOWC) (Figure 3-9). Groundwater varies between 513 and 520 feet in elevation (MSL), with the highest gradients occurring in the northwest portion of the OSDC siting area. Groundwater gradients vary between 0.15 percent in the northern half of the OSDC siting area to 0.05 percent in the eastern half. Assuming an average hydraulic conductivity value of 450 feet per day (ft/day) (137 meters/day [m/day]) for the Great Miami Aquifer, this translates to a groundwater velocity range to 0.2 to 0.7 ft/day (0.06 to 0.21 m/day) in the OSDC siting area. Groundwater contaminants such as uranium would be expected to travel more slowly than these numbers due to their retardation by the aquifer matrix in the form of adsorption.

3.4 SEISMOLOGY

This section presents a summary of the seismology in the area of the FEMP. A complete discussion is provided in Technical Report 5.1A, Engineering Evaluation Report for On-site Disposal.

The FEMP site is located on the eastern edge of the stable Central physiographic province. The central stable region represents the interior of the American tectonic plate, and this area has been relatively undisturbed since Precambrian time. Two distinct geologic features exist in the central stable region near the FEMP site:

- The Cincinnati Arch which extends northward from Tennessee to the western border of Ohio and Kentucky

- The Findlay Arch which extends northeastward in the northwest corner of Ohio and intersects the Bowling Green fault zone. Faulting in the areas of the FEMP site is limited. The Bowling Green fault lies approximately 120 miles to the north of the FEMP site and an unnamed fault zone extends from Kentucky to about midway between Cincinnati and Portsmouth, Ohio. Outside the state of Ohio, the active New Madrid fault zone lies approximately 300 miles away from the FEMP site.

The largest known earthquake to have occurred in Ohio occurred in the Anna, Ohio area on March 9, 1937 and has been listed as VII to VIII on the Modified Meracalli Intensity scale (MMI). The corresponding MMI at the FEMP site would have been IV to V. There have been four earthquakes in the Anna, Ohio area having MMIs of VII, and would probably have resulted in intensities of IV to V

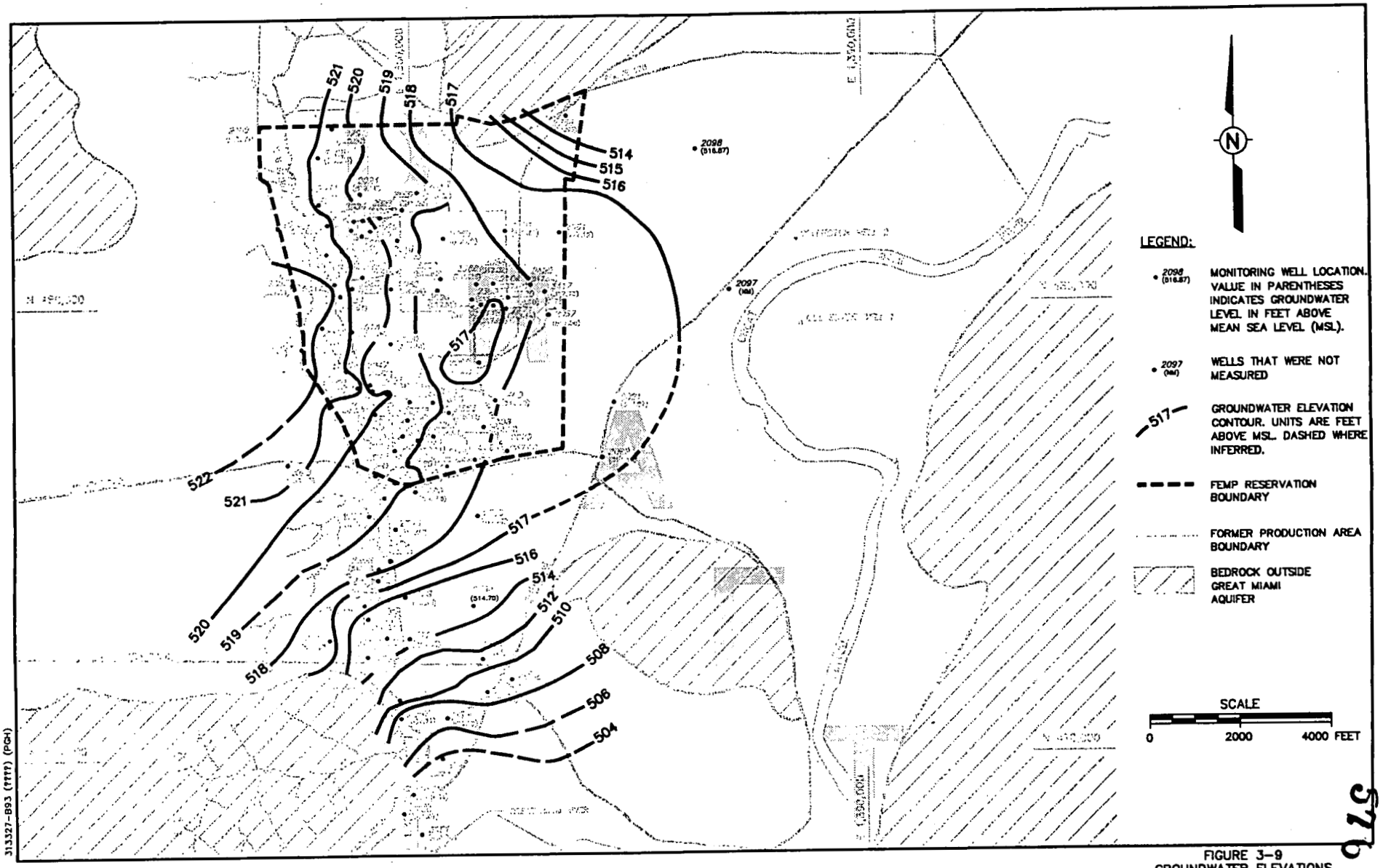

FIGURE 3-9
GROUNDWATER ELEVATIONS
2000 SERIES WELLS
JUNE 1992

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at Fernald. However, it appears that based on historical activity the New Madrid seismic zone can be a greater seismic threat to the FEMP site than the Anna, Ohio seismic zone. The MMI at the FEMP site for the 1811 to 1812 New Madrid series earthquake is VII based upon an isoseismal map of the December 16, 1811 earthquake (Agermissen, 1983).

For new facilities, there are usually two earthquake levels to be considered in design. The design or operating level earthquake corresponds to a 100-year return period for a 50-year design life facility. The maximum or most credible earthquake corresponds to a return period in the range of 500 years to 1000 years. When safety is a consideration for new facilities, the facility should be designed to approximately a 500-year return period earthquake level. For the FEMP site, the 100-year return period design basis earthquake corresponds to a peak ground acceleration (PGA) of 0.06 gravitation acceleration (g). Similarly, the 500-year to 1000-year most credible earthquake corresponds to a PGA of 0.10g to 0.12g. In addition to the above, all new or renovated moderately hazardous facilities at the FEMP Site are required by DOE Order 6430.1A (DOE, 1988) to be shut down safely in the event of a 1000-year return period PGA of 0.12g.

However, the revised DOE Order 6430.1A (DOE, 1989) references UCRL-15910 "Design and Evaluation Guidelines for Department of Energy Facilities Subjected to Natural Phenomena Hazards" as an acceptable approach for design evaluation of DOE facilities for the effects of natural phenomena hazards. For the FEMP, UCRL-15910 recommends maximum horizontal ground surface accelerations of 0.10g, 0.13g, and 0.20g for earthquake hazard annual exceedance probabilities of 2×10^{-3}, 1×10^{-3}, and 2×10^{-4}, respectively; that is, return periods of 500-year, 1000-year, and 5000-year, respectively.

3.5 GEOCHEMISTRY

Site-specific data collected as part of geochemical characterization of the OSDC siting area are total organic carbon content (20 samples), cation exchange capacity (20 samples), soil mineralogy (20 samples), leachate composition (3 samples), and contaminant adsorption ratios (determined for 4 metals and 3 radionuclides). These data are summarized here and a detailed tabulation of the analytical results appears in Appendix C.

Total organic carbon content is plotted against cation exchange capacity in Figure 3-10, where it can be seen that cation exchange capacity, as measured by exchangeable sodium ion, is independent of the total organic carbon content. However, many heavy metal cations do adsorb to organic material in soil, and they would be expected to correlate positively with the total organic carbon content of a soil. Therefore, the relationship exhibited in Figure 3-10 is strictly valid only for sodium ion.

Figure 3-11 summarizes the soil mineralogy based on 20 soils samples collected from the OSDC siting area. The individual analyses are given in Appendix C. The soils are dominantly lithic fragments of calcite and dolomite with quartz, potassium feldspar and clay minerals. An optical

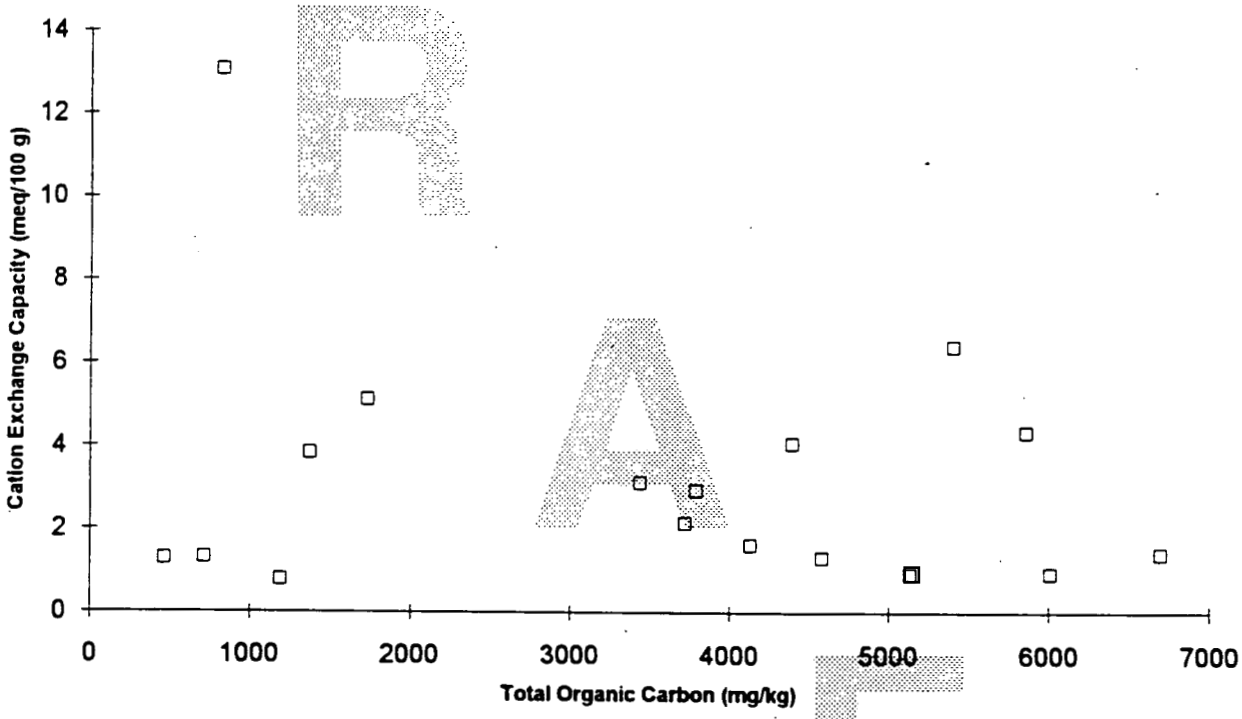

Figure 3-10
Plot of Cation Exchange Capacity Versus Total Organic Carbon

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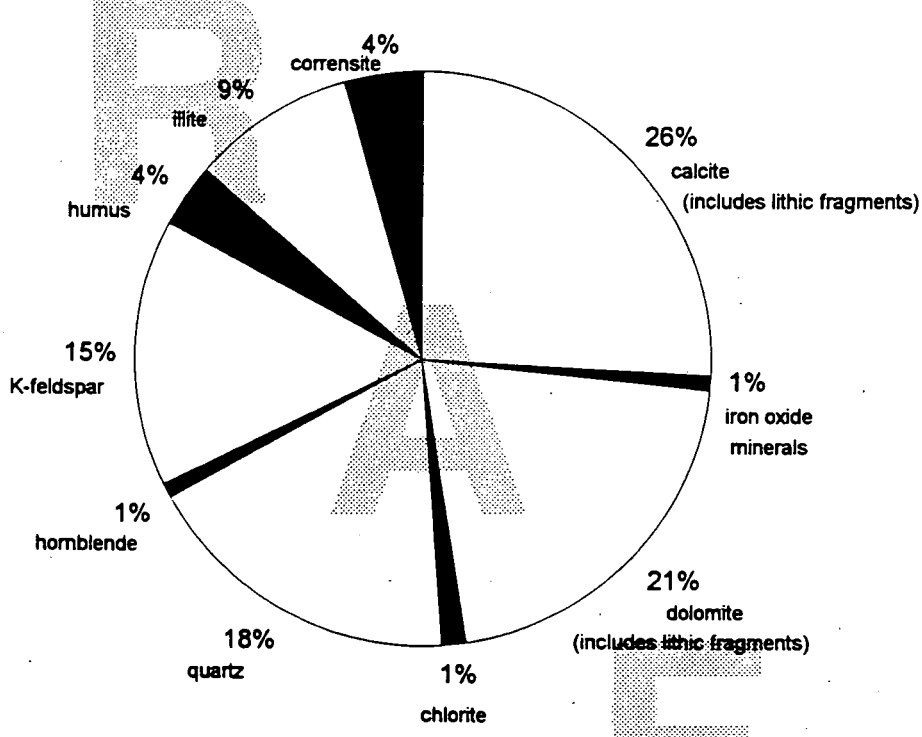

Figure 3-11
Soil Mineralogy of 20 Soils Samples from the OSDC Siting Area

estimate of organic content in the soil samples appears as humus. The 3.5 percent humus estimate for the average OSDC siting area soil is based on the area in a cross-section slice of the soil sample (referred to as modal percent) and is not directly comparable to the measurement of total organic carbon, as the former is a visual estimate and the latter a direct mass measurement obtained by converting organic carbon to carbon dioxide.

Clay minerals account for about 15 percent of the average soil, and are comprised of illite, corrensite, chlorite, and iron-oxide minerals. In general, the percent of clay minerals in the soil controls the cation exchange capacity of the soil (Figure 3-12). This is largely a result of the greater surface area available for exchange and adsorption reactions in clay-rich soils. The cation exchange capacity of OSDC siting area soils varies from about 1 to 14 milliequivalents per 100 grams. Note that the precision of cation exchange measurements is poor (i.e., relative percent difference for duplicate pairs in Figure 3-12 ranges from 67 to 122 percent), and is primarily the result of mineral and particle size heterogeneity in duplicate samples.

Composited waste from Operable Unit 1 was used to make cement/waste formulations for the modified ANSI/ANS 16-1 leach tests. Operable Unit 1 was selected for this characterization because it represents the largest volume of process-generated waste that may be placed in the OSDC. The cement/waste formulations are given in Appendix F, and they were chosen from a field of 20 formulations based on their relative compressive strengths and resistance to leaching of contaminants. A deionized water leachant was used in these tests to simulate rainwater falling on the treated waste. The use of actual rainwater is not critical to the results of these tests, as pH differences between rainwater and deionized water are overwhelmed by the ability of the cemented waste to buffer the leachant at high pH (i.e., above pH = 11).

Leachate compositions derived from the cement/waste formulations are given in Table 3-1. Constituents of concern that were detected in the leachate include barium, chromium, copper, lead, molybdenum, vanadium, technetium, radium, and uranium. Of these detected constituents barium, lead, molybdenum, vanadium, technetium, radium, and uranium have concentrations above the established background levels for perched groundwater in the glacial overburden (Table 3-2), and these constituents were evaluated for adsorption ratios by the batch method.

Results, findings, and applications of the batch adsorption tests will be presented under separate cover in the report to be entitled "Risk-Based Evaluation via Groundwater Pathways for an On-Site Disposal Cell. Preparation of this report and further batch adsorption tests on vitrified wastes have not yet been authorized by FERMCO.

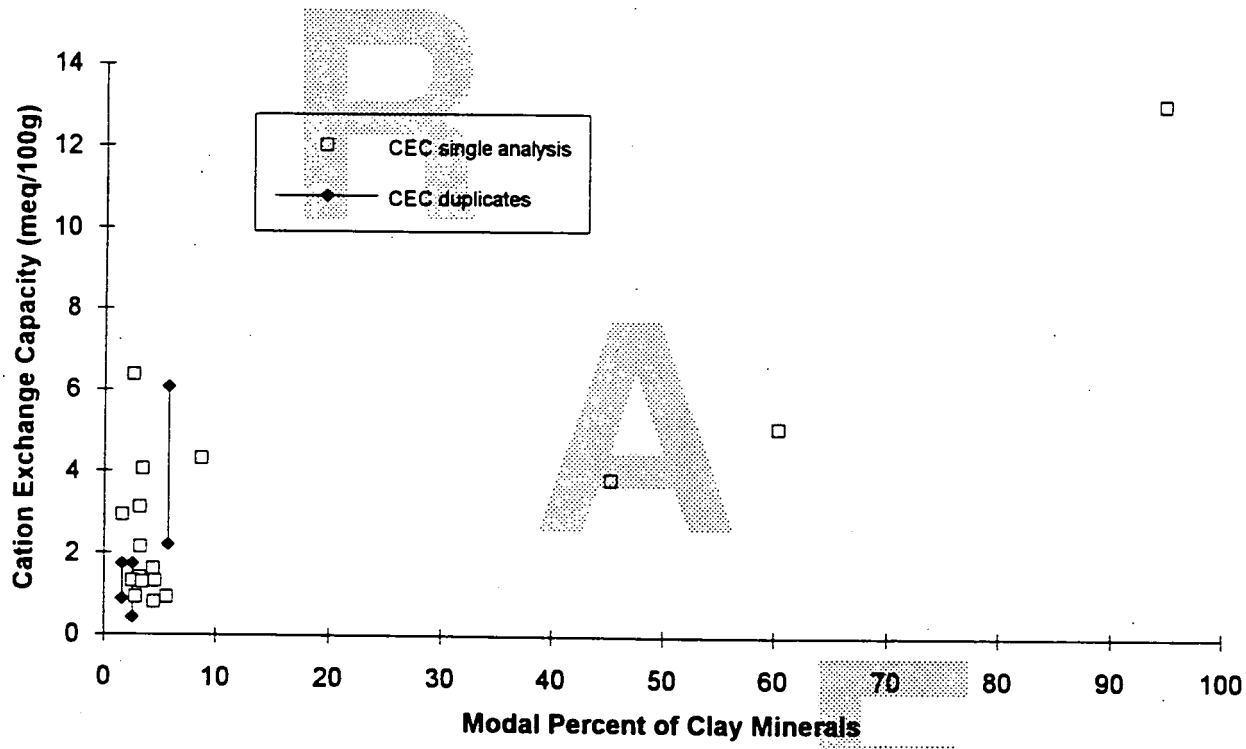

Figure 3-12
Plot of Cation Exchange Capacity Versus Modal Percent of Clay Minerals

TABLE 3-1
ANALYTICAL RESULTS FOR 90-DAY LEACHATE DERIVED FROM MODIFIED ANSI/ANS 16-1

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	SAMPLE ID		
Constituent (units)	1046-18	1046-30	1046-46
pH (std. units)	11.95	11.99	12.36
Eh (millivolts)	200	198	161
Ammonium (mg/L)	17.8	19.8	24.6
Carbonate (mg/L)	3.6	1	1.1
Chloride (mg/L)	92.6	79.3	69.5
Fluoride (mg/L)	0.2	0.15	0.2
Nitrate (mg/L)	336	273	282
Phosphate (mg/L)	1.23	0.93	1.8
Sulfate (mg/L)	5.2	<2	9.5
Total Organic Carbon (mg/L)	9.7	9.0	12.5
Citrate (mg/L)	<1	<1	<1
EDTA (mg/L)	<1	<1	<1
Oxalate (mg/L)	<1	<1	<1
Aluminum (mg/L)	6.44	7.23	0.244
Antimony (mg/L)	<0.03	<0.03	<0.03
Arsenic (mg/L)	<0.002	<0.002	<0.002
Barium (mg/L)	1.82	0.764	5.89
Beryllium (mg/L)	<0.002	<0.002	<0.002
Cadmium (mg/L)	<0.005	<0.005	<0.005
Calcium (mg/L)	174	93.4	674
Chromium (mg/L)	0.0105	0.029	<0.01
Cobalt (mg/L)	<0.01	<0.01	<0.01
Copper (mg/L)	0.0336	0.0314	0.0343
Iron (mg/L)	<0.02	<0.02	<0.02
Lead (mg/L)	0.0023	<0.002	0.0099
Magnesium (mg/L)	0.2	0.131	0.406

TABLE 3-1
(Continued)

	SAMPLE ID		
Manganese (mg/L)	<0.01	<0.01	<0.01
Mercury (mg/L)	<0.0002	<0.0002	<0.0002
Molybdenum (mg/L)	0.232	0.513	0.125
Nickel (mg/L)	<0.02	<0.02	<0.02
Potassium (mg/L)	239	242	275
Selenium (mg/L)	<0.002	<0.002	<0.002
Sodium (mg/L)	131	224	105
Silicon (mg/L)	1.6	3.64	0.287
Silver (mg/L)	<0.01	<0.01	<0.01
Vanadium (mg/L)	0.0207	0.0577	<0.01
Zinc (mg/L)	0.0058	<0.005	0.0071
Strontium-90 (pCi/L (mg/L))	<5 (<3.7E-11)	<5 (<3.7E-11)	<5 (<3.7E-11)
Technetium-99 (pCi/L (mg/L))	1555 (9.2E-6)	2100 (1.2E-5)	1329 (7.8E-6)
Ruthenium-106 (pCi/L (mg/L))	<150 (<4.5E-11)	<150 (<4.5E-11)	<150 (<4.5E-11)
Cesium-137 (pCi/L (mg/L))	<20 (<2.3E-11)	<20 (<2.3E-11)	<20 (<2.3E-11)
Radium-226 (pCi/L (mg/L))	34.6 (3.5E-8)	12.7 (1.3E-8)	86.8 (8.8E-8)
Radium-228 (pCi/L (mg/L))	16.5 (6.1E-11)	5.37 (2.0E-11)	91.5 (3.4E-10)
Thorium-228 (pCi/L (mg/L))	1.7 (2.1E-12)	1.02 (1.2E-12)	2.66 (3.3E-12)
Thorium-230 (pCi/L (mg/L))	2.11 (1.0E-7)	<1 (<4.9E-8)	<1 (<4.9E-8)
Thorium-232 (pCi/L (mg/L))	<1 (<9.1E-3)	<1 (<9.1E-3)	<1 (<9.1E-3)
Uranium-234 (pCi/L (mg/L))	2.67 (4.3E-7)	1.08 (1.7E-7)	9.13 (1.5E-6)
Uranium-235/236 (pCi/L)	<1	<1	<1
Uranium-238 (pCi/L (mg/L))	4.95 (1.5E-2)	3.06 (9.1E-3)	16.0 (4.8E-2)
Plutonium-238 (pCi/L (mg/L))	<1 (<5.8E-11)	<1 (<5.8E-11)	<1 (<5.8E-11)
Plutonium-239/240 (pCi/L)	<1	<1	<1

TABLE 3-2
BACKGROUND CONCENTRATIONS FOR CONSTITUENTS IN PERCHED GROUNDWATER

Constituent (units)	Concentration
pH (std. units)	7.4
Eh (millivolts)	150
Ammonium (mg/L)	0.36
Bicarbonate (mg/L)	450
Chloride (mg/L)	40
Fluoride (mg/L)	1.6
Nitrate (mg/L)	0.34
Phosphate (mg/L)	1.5
Sulfate (mg/L)	211
Total Organic Carbon (mg/L)	
Aluminum (mg/L)	0.18
Antimony (mg/L)	NA
Arsenic (mg/L)	<0.003
Barium (mg/L)	0.13
Beryllium (mg/L)	0.001
Cadmium (mg/L)	0.003
Calcium (mg/L)	130
Chromium (mg/L)	0.076
Cobalt (mg/L)	NA
Copper (mg/L)	0.046
Iron (mg/L)	1.8
Lead (mg/L)	0.005
Magnesium (mg/L)	57
Manganese (mg/L)	0.2
Mercury (mg/L)	<0.0002
Molybdenum (mg/L)	<0.02

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TABLE 3-2
(Continued)

Constituent (units)	Concentration
Nickel (mg/L)	0.1
Potassium (mg/L)	26
Selenium (mg/L)	<0.005
Sodium (mg/L)	60
Silicon (mg/L)	NA
Silver (mg/L)	<0.005
Vanadium (mg/L)	0.023
Zinc (mg/L)	0.039

Constituent (units)	Activity (Concentration)
Strontium-90 (pCi/L (mg/L))	0 (0)
Technetium-99 (pCi/L (mg/L))	0 (0)
Ruthenium-106 (pCi/L (mg/L))	0 (0)
Cesium-137 (pCi/L (mg/L))	0 (0)
Radium-226 (pCi/L (mg/L))	<1 (<1.0E-9)
Radium-228 (pCi/L (mg/L))	<3 (<1.1E-11)
Thorium-228 (pCi/L (mg/L))	<1 (<1.2E-12)
Thorium-230 (pCi/L (mg/L))	<1 (<4.9E-5)
Thorium-232 (pCi/L (mg/L))	<1 (<9.1E-3)
Uranium-234 (pCi/L (mg/L))	<1 (<1.6E-7)
Uranium-235/236 (pCi/L)	<1
Uranium-238 (pCi/L (mg/L))	<1 (<3.0E-3)
Plutonium-238 (pCi/L (mg/L))	0 (0)
Plutonium-239/240 (pCi/L)	0

4.0 SUMMARY AND CONCLUSIONS

This Site Characterization/Geological Report has been prepared to support the evaluation of criteria for a detailed analysis of the OSDC as an on-site waste disposal/storage alternative for each of the OUs.

To accomplish this objective, geologic/hydrogeologic geotechnical, and geochemical data were collected, in the spring of 1992, to support the siting of the OSDC, including site suitability, design criteria, and potential risks. The OSDC investigation has been performed as a part of the overall FS support effort. The results of this investigation will be used to determine the technical feasibility of constructing the OSDC.

4.1 SUMMARY OF THE OSDC FINDINGS

This Site Characterization/Geological Report presents information about surface features, surface water hydrology, geology, groundwater hydrology, seismology, and geochemistry. A summary of this information is provided in the following sections.

4.1.1 Surface Features

The FEMP is located on the boundary between the southernmost extent of Pleistocene glaciation and the ancient unglaciated upland. The advance and retreat of continental glaciers not only shaped the topography, but determined the hydrogeologic setting for the FEMP region.

The OSDC siting area varies in elevation from 580 to 610 feet MSL along the northern half, and is relatively hilly, with several hills and the bedrock valley wall rising from 20 to 90 feet above the base elevations. The eastern half of the OSDC siting area is relatively flat, with elevations ranging between 580 and 600 feet MSL without the hills and drainages present in the northern half.

4.1.2 Surface Water Hydrology

The FEMP is located within the Great Miami River Basin drainage, but above the river's present day floodplain. The Great Miami River is the receiving stream for the FEMP effluent discharge and represents the main surface water feature in the vicinity of the FEMP. The river flows generally to the southwest and has a drainage area of approximately 3360 square miles (8702 square kilometers) at the Hamilton gage, which is located about 10 miles upstream from the FEMP discharge outfall. Only a small portion in the northeast corner of the FEMP drains directly to the Great Miami River. This region lies within the OSDC siting area, at the juncture of the northern and eastern halves. A small (approximately one-half acre) area in the south portion of the eastern half of the OSDC siting area also drains directly to the Great Miami River.

Natural surface drainage from the FEMP and within the OSDC siting area is primarily to Paddys Run. Paddys Run originates north of the site, drains southward along the west side of the FEMP, and eventually enters the Great Miami River approximately 1.5 miles south of the FEMP. This stream loses flow to the underlying aquifer along much of its course due to its highly permeable channel bottom which is carved into the Great Miami Aquifer. Paddys Run is an ungaged, intermittent stream that flows primarily between January and May, with an estimated discharge for this period ranging between 0.2 and 4.0 ft^3/s (5.7×10^3 and 11.3×10^4 cm^3/s).

A principal drainage feature of the FEMP is a tributary to Paddys Run known as the Storm Sewer Outfall Ditch. This drainage course originates east of the former production area, flows southwest across the southern portion of the site, and enters Paddys Run near the southwest corner of the property. Much of the stream bottom of this drainage course, which also collects runoff from an area east of the former production area, is composed of sand and gravel. Vertical seepage rates through the stream bottom are similar to Paddys Run. This drainage course is generally dry throughout most of the year, with flows occurring during and immediately after precipitation.

4.1.3 Geology and Groundwater Hydrology

The geologic and hydrogeologic setting of the OSDC siting area is consistent with that of a post-glacially deposited buried valley aquifer system. The OSDC siting area lies on glacial overburden above the terrace remnants left after the establishment of the present day Great Miami River channel. This geologic history of bedrock erosion and subsequent filling in of the valley with glacial outwash and till gave rise to the present day deposits in the OSDC siting area.

The geology of the FEMP and its surrounding areas can be divided into three primary stratigraphic units: the bedrock, the sands and gravels of the Great Miami Aquifer, and the unconsolidated glacial overburden deposits. All of these geologic units occur within the OSDC siting area to some degree, and are described in the following paragraphs.

The bedrock in the FEMP region consists of nearly flat-lying sedimentary rock of Ordovician Age (approximately 450 to 500 million years old) (Fenneman 1916). The sedimentary bedrock consists primarily of interbedded shales and limestones of the Cincinnati Group of the Upper Ordovician System (Swinford 1990a). According to research conducted in the study area (Scotford 1965), Cincinnati Series shales exhibit a persistent vertical and lateral textural, mineralogical, and chemical uniformity.

The portion of the Great Miami Aquifer that underlies the FEMP consists primarily of glaciofluvial sand and gravel outwash deposited during the latest Pleistocene glaciations. These deposits lie unconformably on the Ordovician shales and limestones, filling the bedrock valley to a depth of 200 feet in places. Although the glaciofluvial deposits are heterogeneous, they are typically

well-sorted sands and gravels with only minor amounts of silt and clay. Within the coarse-grained sediments of the Great Miami Aquifer lies an interbedded clay layer that underlies most of the FEMP and parts of the surrounding areas. The clay interbed pinches out in the eastern portion of the FEMP and is only present beneath the western portion of the OSDC siting area. The clay interbed, which ranges in thickness from 5 to 15 feet, lies about 100 to 125 feet below the surface and generally about 60 to 80 feet below the water table.

Glacial overburden covers the Great Miami Aquifer throughout most the OSDC siting area. It is of varying composition, including loess, lacustrine deposits, till, and glaciofluvial sediments. Within the FEMP, the glacial overburden ranges up to 50 and 50 feet in thickness, but most commonly averages between 20 and 30 feet. It extends to the north and west outside of the FEMP area, but ends within the FEMP area to the south and east where the Great Miami River has stripped off the glacial overburden as it carved its present channel. Within the siting area, the glacial overburden varies between 8 and 50 feet in thickness, with the majority of the OSDC siting area being covered by a 30- to 40-foot-thick layer. The thickness of the glacial overburden is generally greater in the northern portion of the OSDC siting area. The northern portion also has the greatest range in glacial overburden thickness. In the southern portion of the OSDC siting area south of Monitoring Well 3051, the glacial overburden ranges between 21 and 37 feet thick. The OSDC, if constructed, will be placed directly on top of the glacial overburden layer after excavating approximately 11 feet of overburden to allow placement of a liner system.

The review of the boring logs for the OSDC siting area revealed that the glacial overburden consists of clay and silty clay with some fine sand lenses and traces of gravel.

The main groundwater pathway underneath the FEMP (including the OSDC siting area) is the Great Miami Aquifer. The aquifer lies within the bedrock valley but has only minor interconnection with the valley walls. Overlying the Great Miami Aquifer is the Wisconsian Age glacial overburden, which provides a localized pathway into the aquifer in some areas.

Groundwater flow within the OSDC siting area is primarily to the east, towards the two large capacity collection wells operated by the SOWC. Groundwater varies between 513 and 520 feet in elevation (MSL), with the highest gradients occurring in the northwest portion of the OSDC siting area. Groundwater gradients vary between 0.15 percent in the northern half of the OSDC siting area to 0.05 percent in the eastern half. Assuming an average hydraulic conductivity value of 450 feet per day (ft/day) (137 m/day) for the Great Miami Aquifer, this translates to a groundwater velocity range to 0.2 to 0.7 ft/day (0.06 to 0.21 m/day) in the OSDC siting area.

The portion of the Great Miami Aquifer which underlies the OSDC siting area varies in thickness depending on its proximity to the bedrock valley walls. In the eastern half of the OSDC siting area,

the aquifer varies between 100 and 150 feet in thickness, with the majority of the areas underlain by 150 feet or more of aquifer material. The northern half of the OSDC siting area is adjacent to a bedrock valley wall, and is underlain by a thinning portion of the aquifer. The Great Miami Aquifer ranges from 0 to 100 feet in thickness in this region, thinning to 0 feet in thickness in the central and eastern portions of the northern half of the OSDC siting area. In these regions, the Great Miami Aquifer is absent along the valley walls and glacial overburden lies directly in contact with the bedrock. Approximately 10 percent of the OSDC siting area has this condition.

In the OSDC siting area, perched water was encountered in 5 borings in the northern portion of the siting area and 1 boring in the eastern portion of the siting area. The perched water in the northern portion of the OSDC occurs between 12 and 21 feet BGS, while in the eastern portion it occurs at 24 feet BGS. In most of the borings where perched water was encountered, it occurred in a yellowish-brown to gray sandy clay or clayey sand. The occurrence of the perched water zones appears to be limited to areas of relatively coarse sediment/high porosity in the generally fine-grained sediments. Dense, fine-grained glacial till and glaciolacustrine deposits of silt and clay classify the overburden as an aquitard in most locations. However, small-scale fluvial and beach deposits (lacustrine shore deposits) interbedded within the till form layers of relatively high hydraulic conductivity. Hydraulic conductivities in the perched zones at the site range from 8×10^{-3} to 0.85 ft/day (2.8×10^{-6} to 3.0×10^{-4} cm/s), based on falling head tests in 1000-series wells. The hydrogeologic characteristics of the overburden vary with the season and specific locations. At the FEMP, depth to perched groundwater in the glacial overburden ranges from 0 to 25 feet BGS. The perched water occurs at the ground surface (seeps) in the southwest portion of the FEMP and is deepest in the northern portion of the OSDC Siting Area. A perched water table can seasonally fluctuate by up to 10 feet at a single location, with the highest water levels occurring during the early spring and the lowest during the late fall. In the OSDC siting area the perched water elevation ranges from 12 to 24 feet BGS. It is not known how much seasonal fluctuation of the perched water occurs in the OSDC siting area due to a limited number of groundwater elevation measurements. Therefore, it is recommended that additional groundwater/perched water elevation measurements during different seasons (especially spring, likely to be the wettest season) to determine the amount of seasonal fluctuation.

4.1.4 Seismology

A complete discussion of seismology in the FEMP area is provided in Technical Report 5.1A, Engineering Evaluation Report for On-Site Disposal.

The FEMP site is located on the eastern edge of the stable Central physiographic province. The central stable region represents the interior of the American tectonic plate and this area has been relatively undisturbed since Precambrian time.

The largest known earthquake to have occurred in Ohio occurred in the Anna, Ohio area on March 9, 1937 and has been listed as VII to VIII on the Modified Meracalli intensity scale (MMI). The corresponding MMI at the FEMP site would have been IV to V. There have been four earthquakes in the Anna, Ohio area having MMIs of VII, and would probably have resulted in intensities of IV to V at Fernald. However, it appears that based on historical activity the New Madrid seismic zone can be a greater seismic threat to the FEMP site than the Anna, Ohio seismic zone. The MMI at the FEMP site for the 1811 to 1812 New Madrid series earthquake is VII based upon an isoseismal map of the December 16, 1811 earthquake (Agermissen 1983).

For new facilities, there are usually two earthquake levels to be considered in design. The design or operating level earthquake corresponds to a 100-year return period for a 50-year design life facility. The maximum or most credible earthquake corresponds to a return period in the range of 500 years to 1000 years. When safety is a consideration for new facilities, the facility should be designed to approximately a 500-year return period earthquake level. For the FEMP site, the 100-year return period design basis earthquake corresponds to 0.06g PGA. Similarly, the 500-year to 1000-year most credible earthquake corresponds to a PGA of 0.10g to 0.12g. In addition to the above, all new or renovated moderately hazardous facilities at the FEMP site are required by DOE Order 6430.1A (DOE 1988) to be shut down safely in the event of a 1000-year return period PGA of 0.12g.

However, the revised DOE Order 6430.1A (DOE 1989) references UCRL-15910 "Design and Evaluation Guidelines for Department of Energy Facilities Subjected to Natural Phenomena Hazards" as an acceptable approach for design evaluation of DOE facilities for the effects of natural phenomena hazards. For the FEMP, UCRL-15910 recommends maximum horizontal ground surface accelerations of 0.10g, 0.13g, and 0.20g for earthquake hazard annual exceedance probabilities of 2×10^{-3}, 1×10^{-3}, and 2×10^{-4}, respectively; that is, return periods of 500-year, 1000-year, and 5000-year, respectively.

4.1.5 Geochemistry

Site-specific data collected as part of geochemical characterization of the OSDC siting area are total organic carbon content (20 samples), cation exchange capacity (20 samples), soil mineralogy (20 samples), leachate composition (3 samples), and contaminant adsorption ratios (determined for 4 metals and 3 radionuclides).

Total organic carbon content is plotted against cation exchange capacity, where it can be seen that cation exchange capacity, as measured by exchangeable sodium ion, is independent of the total organic carbon content.

The soils, based on soil mineralogy samples collected from the OSDC siting area, are dominantly lithic fragments of calcite and dolomite with quartz, potassium feldspar, and clay minerals. An optical estimate of organic content in the soil samples appears as humus. Clay minerals account for about

15 percent of the average soil and are comprised of illite, corrensite, chlorite, and iron-oxide minerals. In general, the percent of clay minerals in the soil controls the cation exchange capacity of the soil. This is largely a result of the greater surface area available for exchange and adsorption reactions in clay-rich soils. The cation exchange capacity of OSDC siting area soils varies from about 1 to 14 milliequivalents per 100 grams.

Composited waste from Operable Unit 1 was used to make cement/waste formulations for the modified ANSI/ANS 16-1 leach tests. The cement/waste formulations were chosen from a field of 20 formulations based on their relative compressive strengths and resistance to leaching of contaminants. A deionized water leachate was used in these tests to simulate rainwater falling on the treated waste. Constituents of concern that were detected in the leachate include barium, chromium, copper, lead, molybdenum, vanadium, technetium, radium, and uranium. Of these constituents, barium, lead, molybdenum, vanadium, technetium, radium, and uranium have concentrations above the established background levels for perched groundwater in the glacial overburden.

4.2 Conclusions

This section presents conclusions regarding the siting of the OSDC based on the data presented in this report relative to surface features, surface water hydrology, geology, hydrogeology, geochemistry, and seismology. Each of these is discussed below under the following items:

- Surface Features - The northern half of the OSDC siting area is relatively hilly, possibly limiting the area in which the facility could be constructed. The eastern half of the OSDC siting area is relatively flat which would allow ease of access during construction and utilization of the facility.

- Surface Water Hydrology - Surface water drainage in the OSDC siting area consists primarily of overland flow (nonchannelized flow). In addition, the OSDC siting area lies above the present day flood plain of the Great Miami River. Therefore, surface water would not appear to pose a major siting difficulty.

- Geology - Bedrock underlying the OSDC siting area occurs close to the ground surface (8 feet below ground surface) in portions of the northern half. This part of the siting area would require special consideration if bedrock that has a fractured or weathered surface is encountered during construction of the OSDC. However, an unfractured bedrock surface would provide a stable foundation on which to construct the waste disposal facility. Additional consideration would need to be given to the design if part of the OSDC were supported on bedrock and part on soil. If the facility is located elsewhere in the siting area, the bedrock would occur thirty to forty feet below the ground surface and the glacial overburden would provide the foundation for the structure. In this case, fragipan soil, a dense soil layer, could be encountered and would provide a relatively stable base for the disposal structure.

- Hydrogeology - The hydrogeologic features that could affect siting of the OSDC include the presence or absence of the Great Miami Aquifer, depth to the water table, and the presence of perched water in layers above the aquifer. The Great Miami Aquifer

underlying the northern half of the siting area ranges from 0 to 100 feet in thickness. Therefore, it is possible, if all other factors meet the siting criteria, that the OSDC could be constructed in the siting area where the aquifer is not present or is extremely thin. The depth to the water table is at a minimum of 55 feet below the ground surface (ranges 55 to 80 feet below ground surface) and therefore, would not be encountered during the facility construction. However, perched water was encountered primarily in the northern half of the siting area (also encountered in one boring in the eastern half of the siting area). The perched water occurred between 12 and 21 feet below ground surface in the northern half and at 24 feet in the southern half of the siting area. Depending on the depth required for construction of the disposal facility, perched water would require special consideration in the selection of the OSDC location.

- Geochemistry - The soil types found in the OSDC siting area contain approximately 15 percent clay minerals (illite, corrensite, chlorite, and iron-oxide minerals). In general, the percent of clay minerals in the soil controls the cation exchange capacity of the soil. This is largely the result of the greater surface area available for exchange and adsorption reactions in clay-rich soils.

- Seismology - The seismic aspects are dependent to a certain degree on the nature of the geologic materials. Ground motion from seismic waves tends to be magnified by unconsolidated sediments such as thick deposits of clay or sand and gravel. Structures constructed directly on bedrock tend to experience relatively less ground motion, and therefore experience less damage. However, it is likely that the OSDC will be supported partially on bedrock and partially on soil and, therefore, need consideration for potential seismic events.

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LIST OF REFERENCES

Agermissen, S.T., 1983, *An Introduction to the Seismicity of the United States*, Earthquake Engineering Research Institute Monograph.

Bowers, T.S., Von Damm, K.L., and Edmond, J.M., 1985, Chemical Evolution of Mid-Ocean Ridge Hot Springs, Geochemical et Cosmochimica Acta, v. 49, pp 2239-2252.

Brockman, C.S., 1986, "Glacial Geologic Mapping in Hamilton County, Ohio," Ohio Department of Natural Resources, Division of Geological Survey, Columbus, OH.

DOE, see U.S. Department of Energy.

Durrell, R.H., 1961, "The Pleistocene Geology of the Cincinnati Area," Field Trip 3 in *Geological Society of America Guidebook for Field Trips*, Cincinnati Meeting, Geological Society of America, New York, NY, pp. 47-57.

Fenneman, N.M., 1916, "The Geology of Cincinnati and Vicinity," Geological Survey of Ohio, Bulletin 19, Ohio Division of Geological Survey, Columbus, OH.

Freeze, R.A., and J.A. Cherry, 1979, Groundwater, Prentice-Hall, Inc., Englewood Cliffs, N.J.

INTERA, 1983, Geochemical Models Suitable for Performance Assessment of Nuclear Waste Storage: Comparison of PHREEQE and EQ3/EQ6, ONWI-473, INTERA Environmental Consultants, Houston, Texas.

Jackson, K.J., 1988, Verification and Validation Studies of the Addition of Pitzer's Equations to the EQ3/6 Brine Model, UCRL-53841, Lawrence Livermore National Laboratory, Livermore, California.

Kerrisk, J.F., 1981, Chemical Equilibrium Calculations for Aqueous Geothermal Brines, LA-8851-MS, Los Alamos National Laboratory, Los Alamos, New Mexico.

Kincaid, C.T. and Morey, J.R., 1984, Geohydrochemical Model for Solute Migration , Volume 2: Preliminary Evaluation of Selected Computer Codes, EPRI EA-3417, Electric Power Research Institute, Palo Alto, California.

Lerch, N.K., W.F. Hale, and D.D. Lemaster, 1980, Soil Survey of Butler County, Ohio, U.S. Department of Agriculture, Soil Conservation Service with Ohio Department of Natural Resources, Division of Lands and Soil and Ohio Agriculture Research and Development Center.

Lerch, N.K., W.F. Hale, and D.D. Lemaster, 1982, Soil Survey of Hamilton County, Ohio, U.S. Department of Agriculture, Soil Conservation Service with Ohio Department of Natural Resources, Division of Lands and Soil and Ohio Agriculture Research and Development Center.

Logan, T.J. and R.H. Miller, 1983, Background Levels of Heavy Metals in Ohio Farm Soils, Research Circular 275, Ohio State University, Columbus, OH.

Nordstrom, D.K., 1979, A Comparison of Computerized Chemical Models for Equilibrium Calculations on Aqueous Systems, ACS Symposium Series, v. 93, pp 857-892, American Chemical Society, Washington, D.C.

Ohio Department of Natural Resources, 1991, "Groundwater Pollution Potential of Butler County, Ohio," Report No. 11 Division of Water, Ground Water Resources Section, Columbus, OH.

Scotford, D.M., 1965, "Petrology of the Cincinnatian Series Shales and Environmental Implications," Geological Society of America Bulletin, V. 76, pp. 193-222.

Solebello, L. P., 1991, Mineralogy of Soil Core Sample, Feed Materials Production Center, Fernald, Ohio, technical report issued by McCrone Associates, Inc.

Spieker, A.M., 1968a, "Groundwater Hydrology and Geology of the Lower Great Miami River Valley, Ohio," U.S. Geological Survey, *Professional Paper 605-A*, U.S. Government Printing Office, Washington, D.C.

Spieker, A.M., 1968b, "Effect of Increased Pumping of the Groundwater in the Fairfield-New Baltimore Area, Ohio-A Prediction by Analog-Model Study," *Professional Paper 605-C*, U.S. Geological Survey, available from U.S. Government Printing Office, Washington, D.C.

Swinford, E.M., 1990a, "Bedrock Geology of the Shandon Quadrangle (Hamilton county Portion)," Open File Map BG-B5C6, Ohio Department of Natural Resources, Division of Geologic Survey.

Swinford, E.M., 1990b, in prep., "The Bedrock Geology and Mineral Resources of Hamilton County, Ohio," Ohio Geologic Survey Report of Investigations.

U.S. Department of Energy, 1988, "Remedial Investigation and Feasibility Study, Feed Materials Production Center, Fernald, Ohio, Work Plan Requirements," Revision 3, DOE Oak Ridge Operations Office, Oak Ridge, TN.

U.S. Department of Energy, 1989, Order 6430.1A, General Design Criteria, U.S. DOE, Washington, D.C.

U.S. Department of Energy, 1988, *General Design Criteria, DOE 6430.1A*, U.S. DOE, Washington, D.C.

U.S. Department of Energy, 1990, Groundwater Report, Fernald Environmental Management Project, Fernald, Ohio, draft of December, 1990.

U.S. Department of Energy, 1990, "Engineering Evaluation/Cost Analysis (EE/CA) K-65 Residue Removal Action at the Feed Materials Production Center", Fernald, Ohio, by Bechtel National, Inc.

U.S. Dept. of Energy, 1991, "Engineered Waste Management Facility Sampling And Analysis Plan, Fernald Environmental Management Project, Fernald, Ohio, Remedial Investigation/Feasibility Study", DOE Oak Ridge Operations Office, Oak Ridge, TN.

U.S. Dept. of Energy, 1992, "Site-Wide Characterization Report, Fernald Environmental Management Project, Fernald, Ohio, Remedial Investigation/Feasibility Study", Draft, Vol. 3 of 5, Part II, August 1992, DOE Fernald Field Office, Fernald, Ohio.

U.S Environmental Protection Agency, 1991, " Risk Assessment Guidance for Superfund: Volume 1, Human Health Evaluation Manual, Part C," EPA Office of Emergency and Remedial Response, Washington, DC.

U.S. Environmental Protection Agency, 1988, "Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA," Interim Final, EPA Office of Emergency and Remedial Response, Washington, D.C.

Watkins, J.S. and A.M. Speiker, 1971, "Seismic Reduction Survey of Pleistocene Drainage Channels in the Lower Great Miami River, Ohio," *Professional Paper 605-B*, U.S. Geological Survey, Columbus, OH.

Wolery, T.J., 1983, EQ3NR, A Computer Program for Geochemical Aqueous Speciation-Solubility Calculations: User's Guide and Documentation, UCRL-53414, Lawrence Livermore National Laboratory, Livermore, California.

Wolery, T.J. and S.A. Daveler, 1989, EQ6, A Computer Program for Reaction-Path Modeling of Aqueous Geochemical Systems: User's Guide and Documentation, Draft, Distribution Category UC-70, Lawrence Livermore National Laboratory, Livermore, California.

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APPENDIX A

BORING LOGS

PROJECT NO: 313327
DATE BEGAN: 1-4-92
DRILLER: C. COULTER, G. DYE
GROUND SURFACE ELEV.: 598.0'
DRILLING METHOD: CABLE TOOL
CONTRACTOR: PENN DRILLING

BORING NO: 1070
DATE FINISHED: 1-6-92
N: 476940.09'
GWL DATE/TIME: NA

PAGE 1 OF 2
PROJECT NAME: FERNALD
FIELD ENGINEER: J. LEAR
E: 1382104.72'
GWL DEPTH: NA
EQUIPMENT: CYCLONE 43
CHECKED BY: D. AMBROSE

ELEV (FT)	DEPTH (FT)	SAMPLE TYPE AND NO.	SPT BLOWS PER (0.5')	REC. (FT)	PROFILE	DESCRIPTION	USCS	OVA-HNU (PPM)	REMARKS
	0.00	S 602	5	0.5		Medium dense, (10Y 5/4), yellowish-brown SILT, some organics, some clay, moist	ml	NA	HNU - 0 ppm βγ - 40 cpm α - 0 cpm
		S 603	5	0.5		1.0'			
		S 604	12	0.17		Stiff, (10YR 6/4), brownish-yellow, clayey SILT, trace organics, moist	cl	1.75	
		S 605	5	0.5		2.0'			HNU - 0 ppm βγ - 40 cpm α - 0 cpm
		S 606	6	0.5		Medium dense, (10YR 6/4), brownish-yellow, clayey SILT, trace organics, moist			
595.0		S 606	9	0.25			ml	NA	
		S 606	12	0.5					HNU - 0 ppm βγ - 40 cpm α - 0 cpm
		S 606	18	0.25		4.0'			
		S 606	22	0		No recovery			
		S 606	25	0					HNU - 0 ppm βγ - 40 cpm α - 0 cpm
	-5.00	S 606	26	0			NA	NA	
		S 606	28	0		6.0'			
		S 606	13	0.5		Dense, (10YR 5/6), yellowish-brown, clayey SILT, trace gravel, moist			HNU - 0 ppm βγ - 40 cpm α - 0 cpm
		S 606	18	0.5		Dense, (10YR 5/6), yellowish-brown, SILT, some sand, trace clay, moist	ml	NA	
		S 606	27	0.5		7.5'			
590.0		S 608	22	0.5		Dense, (10YR 5/3), brown, poorly graded medium SAND, some silt, very moist 8.0'	sp	NA	HNU - 0 ppm βγ - 40 cpm α - 0 cpm
		S 610	20	0.5		Dense, (10YR 5/3), brown, sandy SILT, grading to sandy CLAY, wet to moist	ml/cl	NA	
		S 612	23	0		9.5'			
		S 613	27	0		No recovery 9.5'	NA	NA	
	-10.00	S 614	NA	1		(10YR 5/4), yellowish-brown, silty CLAY, trace gravel, low to medium plasticity, moist			HNU - 0 ppm βγ - 20-40 cpm α - 0 cpm
		S 615	NA	1.3		(10YR 5/1), gray, silty CLAY, trace gravel, low plasticity, slightly moist 11.8'	cl	NA	SHELBY COULD NOT BE FULLY PENETRATED HNU - 0 ppm βγ - 40 cpm α - 0 cpm
585.0		S 617	30	0		No recovery	NA	NA	
		S 618	21	0					HNU - 0 ppm βγ - 40 cpm α - 0 cpm
		S 619	19	0		14.5'			
	-15.00	S 620	10	0.5		Very stiff, (10YR 5/1), gray, silty CLAY, some gravel, low plasticity, moist 15.0'	cl	2.75	HNU - 0 ppm βγ - 40 cpm α - 0 cpm
		S 621	10	0		No recovery			
		S 622	16	0			NA	NA	
		S 623	18	0		16.5'			

PROJECT NO: 313327
DATE BEGAN: 1-4-92
DRILLER: C. COULTER, G. DYE
GROUND SURFACE ELEV.: 598.0'
DRILLING METHOD: CABLE TOOL
CONTRACTOR: PENN DRILLING

BORING NO: 1070
DATE FINISHED: 1-6-92
N: 476940.09'
GWL DATE/TIME: NA

PAGE 2 OF 2
PROJECT NAME: FERNALD
FIELD ENGINEER: J. LEAR
E: 1382104.72'
GWL DEPTH: NA
EQUIPMENT: CYCLONE 43
CHECKED BY: D. AMBROSE

ELEV (FT)	DEPTH (FT)	SAMPLE TYPE AND NO.	SPT BLOWS PER (0.5')	REC (FT)	DRILLING RATE	DESCRIPTION	USCS	PID (ppm)	REMARKS
		S 624	3	0.5		Stiff, (10YR 5/1), gray, silty CLAY, some gravel, low to medium plasticity, very moist	cl	1.0	HNU - 0 ppm βγ - 40 cpm α - 0 cpm
		S 624	5	0.42		17.5'			
		S 624	9	0		No recovery 18.0'	NA	NA	
580.0		S 626	3	0.5		Stiff, (10YR 5/1), gray, silty CLAY, some gravel, low plasticity, moist	cl	3.0	HNU - 0 ppm βγ - 40 cpm α - 0 cpm
		S 627	7	0		18.5'			
		S 628	13	0		No recovery 19.5'	NA	NA	
	-20.00	S 629	0			(10YR 5/1), gray, silty CLAY, some gravel, low plasticity, moist			HNU - 0 ppm βγ - 40 cpm α - 0 cpm
		S 629	0						
		S 629	NA	1.5					
		S 629	NA				cl	NA	
		S 629	NA						
		S 630	NA			22.5'			
		S 631	4	0.5		Stiff, (10YR 5/1), gray, silty CLAY, some gravel, low to medium plasticity, moist	cl	2.0	HNU - 0 ppm βγ - 40 cpm α - 0 cpm
		S 632	10	0		23.0'			
		S 633	12	0		No recovery 24.0'	NA	NA	
		S 634	6	0.5		Stiff, (10YR 5/1), gray, silty CLAY, some gravel, low to medium plasticity, moist 24.25'	cl	1.5	HNU - 0 ppm βγ - 50 cpm α - 0 cpm
		S 635	5	0		Medium dense, (10YR 5/1), gray, poorly graded, fine SAND, some gravel, slightly moist 24.5'	sp	NA	
	-25.00	S 636	6	0		No recovery			
		S 637	5	0					HNU - 0 ppm βγ - 50 cpm α - 0 cpm
		S 638	6	0					
		S 639	5	0			NA	NA	
		S 640	6	0					HNU - 0 ppm βγ - 40 cpm α - 0 cpm
570.0		S 641	9	0					
		S 642	13	0		28.5'			
		S 643	7	0.5		Very dense, (10YR 5/1), gray, gravelly CLAY, some sand, saturated	cl	NA	HNU - 0 ppm βγ - 50 cpm α - 0 cpm
		S 645	9	0.42					
	-30.00					BOTTOM OF BORING AT 29.5'			

NOTE:
ALL SAMPLE NUMBERS ARE INCREMENTED BY 100,000
ie. 602 IS 100602

PAGE 1 OF 2

PROJECT NO:	313327	BORING NO:	1679	PROJECT NAME:	FERNALD
DATE BEGAN:	1-23-92	DATE FINISHED:	1-27-92	FIELD ENGINEER:	J. LEAR
DRILLER:	C. COULTER, G. DYE	N:	483924.53'	E:	1378264.61'
GROUND SURFACE ELEV.:	NA	GWL DATE/TIME:	NA	GWL DEPTH:	NA
DRILLING METHOD:	CABLE TOOL			EQUIPMENT:	CYCLONE 43
CONTRACTOR:	PENN DRILLING			CHECKED BY:	D. AMBROSE

ELEV (FT)	DEPTH (FT)	SAMPLE TYPE AND NO.	SPT BLOWS PER (0.5')	REC (FT)	METHOD	DESCRIPTION	OXIDE	CONTAMINATION (PPM)	REMARKS
0.0	0.00	S 0400	3-7-8	0.58		Firm, (10YR 3/3), dark brown, silty CLAY, some organics, low plasticity, moist 1.5'		1.25	HNU - 0 ppm βγ - 40 cpm
		S 0400	7-8-10	1.0		Firm, (10YR 5/8), yellowish-brown, silty CLAY, some gravel, medium plasticity, very moist 4.5'	ol	1.25	HNU - 0 ppm βγ - 40 cpm
		S 0400	8-10-10	1.0				1.5	HNU - 0 ppm βγ - 40 cpm
-5.0	-5.00	S 0402	-	1.33		(10YR 5/8), yellowish-brown CLAY, SILT, SAND, GRAVEL mix 5.75'	gc		HNU - 0 ppm βγ - 40 cpm
		S ----	-	-		No recovery	NA	NA	HNU - 0 ppm βγ - 50 cpm
		S 0403	9-10-10	1.0		9.0'			HNU - 0 ppm βγ - 50 cpm
-10.0	-10.00	S 0407	12-13-21	0.67		Very Firm, (10YR 5/3) to (10YR 5/1), brown to gray, silty CLAY, trace gravel, low plasticity, moist 10.5'		3.5	HNU - 0 ppm βγ - 50 cpm
		S 0407	10-12-18	0.5		Hard, (10YR 5/1), gray, silty CLAY, trace gravel, low plasticity, slightly moist 12.0'	ol	4.0	HNU - 0 ppm βγ - 50 cpm
		S 0407	12-16-25	0.67		Very Firm, (10YR 5/1) to (10YR 5/3), gray to brown, silty CLAY, some gravel, moist 13.5'		3.5	HNU - 0 ppm βγ - 50 cpm
-15.0	-15.00	S 0407	12-15-19-21	0		No recovery 15.5'	NA	NA	HNU - NA βγ - NA
		S 0408	5-33-50/3-NR	.75		Firm, (10YR 5/1), gray, silty CLAY, some gravel, low to medium plasticity, moist to very moist 16.75'	ol	3.5 / 2.5	HNU - 0 ppm βγ - 50 cpm
				0		No recovery 17.5'	NA	NA	
		S 0412	9-10-11	0.17		Firm (10YR 5/1) to (2.5Y 5/2), gray to grayish brown, silty, gravelly CLAY, low to medium plasticity, moist to very moist 19.0'	ol	2.0	HNU - 0 ppm βγ - 40 cpm

PROJECT NO: 313327
DATE BEGAN: 1-23-92
DRILLER: C. COULTER, G. DYE
GROUND SURFACE ELEV.: NA
DRILLING METHOD: CABLE TOOL
CONTRACTOR: PENN DRILLING

BORING NO: 1679
DATE FINISHED: 1-27-92
N: 483924.53'
GWL DATE/TIME: NA

PAGE 2 OF 2
PROJECT NAME: FERNALD
FIELD ENGINEER: J. LEAR
E: 1378264.61'
GWL DEPTH: NA
EQUIPMENT: CYCLONE 43
CHECKED BY: D. AMBROSE

ELEV (FT)	DEPTH (FT)	SAMPLE TYPE AND NO.	SPT BLOWS PER (0.5')	REC (FT)	METHOD	DESCRIPTION	OVOC	(OVOC/BZ) 10:1	REMARKS
-20.0	-20.00	S 0413	4-7-10	0.75		Firm, (2.5Y 5/2), grayish-brown, silty CLAY, some gravel, low to medium plasticity, moist		1.5	HNU - 0 ppm βγ - 40 cpm
		S 0414	5-7-16	0.67		22.0'	cl	1.5	HNU - 0 ppm βγ - 50 cpm
		S 0414	5-12-16	0.66		Firm, (10YR 5/1), gray, silty CLAY, some gravel, low plasticity, slightly moist 22.5' Medium dense, sandy, clayey, well graded GRAVEL, slightly moist 23.5'	gc	NA	HNU - 0 ppm βγ - 40 cpm
-25.0	-25.00	S ----	8-12-20	0		No recovery			HNU - 0 ppm βγ - 40 cpm
		S ----	10-15-19	0			NA	NA	HNU - NA βγ - NA
		S ----	8-12-12	0		28.0'			HNU - NA βγ - NA
		S 0416	2-8-12	1.25		Medium Firm, (2.5Y 4/2), dark grayish-brown, silty CLAY, some sand, some gravel, medium plasticity, moist 29.5'		.75	HNU - 0 ppm βγ - 40 cpm
-30.0	-30.00	S 0417	**	2.58		Firm, (2.5Y 4/3), olive brown, silty CLAY, some gravel, trace sand, medium plasticity, moist 32.5'	cl	1.5	HNU - 0 ppm βγ - 40 cpm
		S 0417	5-6-10-15	.42 0		Medium stiff, (2.5Y 4/3), olive brown, sandy, silty CLAY, low to medium plasticity, moist to very moist 33.0' No recovery	NA	.75 NA	HNU - 0 ppm βγ - 40 cpm
-35.0	-35.00					BOTTOM OF BORING AT 34.5'			NOTE: ALL SAMPLE NUMBERS ARE INCREMENTED BY 100,000 ie. 400 IS 100400 *SHELBY ATTEMPTED, RECOVERY NOT AMPLE TO USE FOR SAMPLE **NO BLOW COUNTS ON SHELBY TUBE

PROJECT NO: 313327
DATE BEGAN: 2-6-92
DRILLER: J. BRAILE, R. PURCE
GROUND SURFACE ELEV.: NA
DRILLING METHOD: CABLE TOOL
CONTRACTOR: PENN DRILLING

BORING NO: 1728
DATE FINISHED: 2-4-92
N: 483308.25'
GWL DATE/TIME: NA

PAGE 1 OF 1
PROJECT NAME: FERNALD
FIELD ENGINEER: D. O'BRIEN
E: 1377966.74'
GWL DEPTH: NA
EQUIPMENT: NA
CHECKED BY: D. AMBROSE

ELEV (FT)	DEPTH (FT)	SAMPLE TYPE AND NO.	SPT BLOWS PER (0.5')	REC (FT)	PROFILE	DESCRIPTION	PID/OVA (PPM)	REMARKS
0.0	0.00					REFER TO BORING LOGS FROM WELL 2728 FOR 1728 DESCRIPTIONS		
-5.0	-5.00							
-10.0	-10.00							
-15.0	-15.00							

DRAFT

PROJECT NO: 313327
DATE BEGAN: 1-13-92
DRILLER: E. GARDNER, K. MYERS
GROUND SURFACE ELEV.: 591.0'
DRILLING METHOD: 4 1/4" ID HOLLOW STEM AUGER
CONTRACTOR: PENN DRILLING

BORING NO: 1729
DATE FINISHED: 1-13-92
N: 483300.00'
GWL DATE/TIME: NA

PAGE 1 OF 2
PROJECT NAME: FERNALD
FIELD ENGINEER: D. O'BRIEN
E: 1378500.00'
GWL DEPTH: NA
EQUIPMENT: BOMBADEER MOBILE DRILL
CHECKED BY: D. AMBROSE

ELEV (FT)	DEPTH (FT)	SAMPLE TYPE AND NO	SPT BLOWS PER (0.5')	REC (FT)	DRILLING PROFILE	DESCRIPTION	USCS	OVA (PPM)	REMARKS
	0.00		1	0.5		Soft, (10YR 5/4), yellowish-brown, silty CLAY, medium plasticity, moist 1.0'	cl	.25	TOP 0.5' SAMPLED BY HAND
590.0		S 1411	3	0.5				.25	HNU - 0 ppm βγ - 0 cpm
			3	0		No recovery 2.0'	NA	NA	
			6	0				NA	
		S 1412	11	0.5		Very firm, (2.5Y 6/3) light yellowish-brown, gravelly, sandy CLAY, no plasticity, moist 3.0'	cl	2.25	HNU - 0 ppm βγ - 0 cpm
			13	0.5				2.25	
		S 1413	15	0.5		Hard, (2.5Y 6/3) light yellowish-brown, clayey SAND, moist 4.0'	sc	NA	
			17	0.5				NA	
		S 1414	11	0.5		Loose, (10YR 5/6) yellowish-brown, gravelly, coarse SAND, moist 5.0'	sw	NA	HNU - 0 ppm βγ - 0 cpm
		S 1416	8	0.5				NA	
	-5.00		13	0		No recovery 6.0'	NA	NA	
			12	0				NA	
585.0		S 1417	5	0.5		Loose, (10YR 5/6) yellowish-brown, gravelley, coarse SAND, moist 7.5'	sw	NA	HNU - 0 ppm βγ - 0 cpm
			7	0.5				NA	
			9	0.5				NA	
		S 1418	12	0.5		Medium dense, (10YR 5/6) yellowish-brown, fine, clayey SAND, moist 8.5'	sc	NA	
		S 1419	SHELBY TUBE	2				NA	SHELBY PUSHED FROM 8'-10'
						No recovery 9.5'	NA	NA	
						Hard, (5Y 5/1) gray, gravelly CLAY, low plasticity, moist 10.0'		>4.5	
	-10.00	S 1422	13	0.5		Hard, (5Y 5/1) gray, gravelly CLAY with sand stringers, low plasticity, moist 11.0'	cl	>4.5	HNU - 0 ppm βγ - 0 cpm
580.0			15	0.5				>4.5	
			11	0		No recovery 12.0'	NA	NA	
			16	0				NA	
		S 1424	21	0.25		Very firm, (5Y 5/1) gray, gravelly CLAY, low plasticity, moist 12.5'	cl	3.5	HNU - 0 ppm βγ - 0 cpm
		S 1425	24	0.5		Hard, (5Y 5/1) gray, gravelly CLAY, low plasticity, moist 13.0'		>4.5	
		S 1427	34	0.5		Very firm, (5Y 5/1) gray, gravelly CLAY, low plasticity, moist 13.5'		2.5	
			24	0		No recovery 16.0'	NA	NA	
			2	0				NA	
			6	0				NA	
	-15.00		9	0				NA	
			9	0				NA	

PROJECT NO: 313327
DATE BEGAN: 1-13-92
DRILLER: E. GARDNER, K. MYERS
GROUND SURFACE ELEV.: 591.0'
DRILLING METHOD: 4 1/4" ID HOLLOW STEM AUGER
CONTRACTOR: PENN DRILLING

BORING NO: 1729
DATE FINISHED: 1-13-92
N: 483300.00'
GWL DATE/TIME: NA

PAGE 2 OF 2
PROJECT NAME: FERNALD
FIELD ENGINEER: D. O'BRIEN
E: 1378500.00'
GWL DEPTH: NA
EQUIPMENT: BOMBADEER MOBILE DRILL
CHECKED BY: D. AMBROSE

ELEV (FT)	DEPTH (FT)	SAMPLE TYPE AND NO.	SPT BLOWS PER (0.5')	REC (FT)	PROFILE	DESCRIPTION	USCS	HNU (DIRECT READING)	REMARKS
575.0		S 1429	2	0.5		Very Firm, (5Y 5/1) gray, gravelly CLAY, low plasticity, moist 16.5'	cl	3.25	HNU - 0 ppm βγ - 0 cpm
			8	0		No recovery		NA	
			9	0			NA	NA	
			11	0		18.0'		NA	
		S 1430	SHELBY TUBE	2.83		Firm, (5Y 5/1) gray, gravelly, sandy CLAY, high plasticity, moist 18.5'	cl	1.0	HNU - 0 ppm βγ - 0 cpm
	-20.00					No recovery	NA	NA	SHELBY PUSHED FROM 18'-21'
								NA	
								NA	
								NA	
570.0								NA	
			3	0				NA	
			7	0				NA	
			9	0				NA	
			11	0		23.0'		NA	
		S 1457	7	0.5		Soft, (5Y 5/1) gray, gravelly, sandy CLAY, high plasticity, moist 23.5'		<.25	HNU - 0 ppm βγ - 0 cpm
			14	0.5		Very Firm, (5Y 5/1) gray, gravelly, sandy CLAY, high plasticity, moist 24.0'		3.75	
		S 1422	7	0.5		Soft, (5Y 5/1) gray, gravelly CLAY, moist 24.5'		<.25	
			9	0.5		Very Firm, (5Y 5/1) gray, gravelly CLAY, moist		3.25	HNU - 0 ppm βγ - 0 cpm
	-25.00		20	0.5				3.25	
			23	0.5			cl	3.25	
565.0		S 1422	9	0.5				2.25	HNU - 0 ppm βγ - 0 cpm
			20	0.5		27.0'		2.75	
			25	0.5		Hard, (5Y 5/1) gray, gravelly CLAY, high plasticity, moist		>4.5	
			30	0.5				>4.5	
		S 1434	50	0.5		28.5'		>4.5	HNU - 0 ppm βγ - 0 cpm
		S 1435	50	0.5		Loose, gray, coarse, clayey SAND, moist		NA	
		S 1437	65	0.25			sc	NA	
								NA	
	30.00					BOTTOM OF BORING AT 30.0'			
560.0									

NOTE:
ALL SAMPLE NUMBERS ARE INCREMENTED BY 100,000 ie. 1411 IS 101411

PAGE 1 OF 2

PROJECT NO: 313327
DATE BEGAN: 1-9-92
DRILLER: J. STRAPZZON, K. MYERS
GROUND SURFACE ELEV.: 586.5'
DRILLING METHOD: AUGER
CONTRACTOR: PENN DRILLING

BORING NO: 1730
DATE FINISHED: 1-9-92
N: 483300.00'
GWL DATE/TIME: NA

PROJECT NAME: FERNALD
FIELD ENGINEER: G.E. MARSHALL
E: 1379000.00'
GWL DEPTH: NA
EQUIPMENT: MOBIL DRILLING RIG 80
CHECKED BY: D. AMBROSE

ELEV (FT)	DEPTH (FT)	SAMPLE TYPE AND NO.	SPT BLOWS PER (0.5')	REC (FT)	METHOD	DESCRIPTION	OVOC	(DRIHNUZOO 194)	REMARKS
	0.00	S 865	2	0.5		Very soft, (10 2/2) very dark brown, silty CLAY with rootlets, no plasticity, rootlets, moist 0.5'	cl	0.25	TRIP FIELD BLANK SAMPLE # 100866
			2	0		No recovery	NA	NA	HNU - 0 ppm
			4	0			NA	NA	βγ - 0 cpm ABOVE BACKGROUND
565.0			6	0		2.0'	NA	NA	
		S 867	5	0.5		Hard, (10YR 4/4), dark yellowish-brown, silty CLAY, with traces of sand (very fine), medium plasticity, moist	cl	2.25	HNU - 0 ppm
			7	0.5		3.0'	cl	2.25	βγ - 0 cpm ABOVE BACKGROUND
			7	0		No recovery	NA	NA	
			8	0		4.0'	NA	NA	
		S 868	15	0.5		Hard, (10YR 5/6), sandy, silty CLAY, (sand fine), yellowish-brown, no plasticity, dry 4.75'	cl	4.5	HNU - 0 ppm
		S 869	17	0.17			cl	3.75	βγ - 0 cpm ABOVE BACKGROUND
	-5.00		18	0		No recovery	NA	NA	
			12	0		6.0'	NA	NA	
		S 872	12	0.5		Hard, (10YR 7/4), very pale brown, silty CLAY, with some sand (very fine), no plasticity, dry 7.0'	cl	4.5	HNU - 0 ppm
0			13	0.5			cl	4.5	βγ - 0 cpm ABOVE BACKGROUND
			18	0.5		Hard, (10YR 6/8), brownish-yellow, sandy, silty CLAY, (sand fine to very fine), no plasticity, dry 7.5'	cl	4.5	
			9	0		No recovery 8.0'	NA	NA	
		S 873	SHELBY TUBE	1.7		Hard, (10YR 5/3), brown mottled, with (5YR 5/8), yellowish-red, silty CLAY, no plasticity, slightly moist 10.5'	cl	4.5	HNU - 0 ppm βγ - 0 cpm ABOVE BACKGROUND RIG DOWN - BROKEN NIPPLE ON PUMP COULD ONLY PUSH SHELBY 2.5' FROM 8.0'-10.5'
	-10.00	S 876	18	0.5		Hard, (10YR 5/4), yellowish-brown, silty CLAY, with some sand, trace gravel, no plasticity, slightly moist 11.0'	cl	4.0	HNU - 0 ppm βγ - 0 cpm ABOVE BACKGROUND
			18	0.5		Hard, (10YR 5/3), brown, silty CLAY, with some sand, trace gravel, no plasticity, slightly moist 11.5'	cl	4.5	
575.0		S 877	24	0.5			cl	4.5	END OF WEATHERING ZONE
			26	0.5		Very hard, (5YR 4/1), dark gray silty CLAY, with some coarse gravel, no plasticity, slightly moist 12.5'	cl	4.5	
		S 878	30	0.5		Very hard, (5Y 4/1), dark gray, silty, sandy CLAY, no plasticity, slightly moist, (limestone cobble was at the end of split spoon)	cl	4.5	HNU - 0 ppm βγ - 0 cpm ABOVE BACKGROUND
			34	0.17		13.5'	cl	4.5	
			32	0		No recovery	NA	NA	
			32	0		14.5'	NA	NA	
		S 879	22	0.5		Very hard, (5Y 4/1), dark gray, silty CLAY, with little sand and gravel, no plasticity, slightly moist	cl	4.5	HNU - 0 ppm βγ - 0 cpm ABOVE BACKGROUND ARCHIVE 1 500 ml # 100800 AND SEND 1 500 ml TO RSL LAB FOR TOTAL U/GAMMA SPEC SAMPLE # 100879
	-15.00		26	0.5			cl	4.5	
			28	0.5		16.0'	cl	4.5	

PROJECT NO: 313327
DATE BEGAN: 1-9-92
DRILLER: J. STRAPZZON K. MYERS
GROUND SURFACE ELEV.: 586.5'
DRILLING METHOD: AUGER
CONTRACTOR: PENN DRILLING

BORING NO: 1730
DATE FINISHED: 1-9-92
N: 483300.00'
GWL DATE/TIME: NA

PAGE 2 OF 2
PROJECT NAME: FERNALD
FIELD ENGINEER: G.E. MARSHALL
E: 1379000.00'
GWL DEPTH: NA
EQUIPMENT: MOBIL DRILLING RIG 80
CHECKED BY: D. AMBROSE

ELEV (FT)	DEPTH (FT)	SAMPLE TYPE AND NO	SPT BLOWS PER (0.5')	REC (FT)	PROFILE	DESCRIPTION	USCS	OVA (PPM)	REMARKS
570.0			32	0.5		Hard, (5Y 4/1), dark gray, silty CLAY, with little sand and gravel, no plasticity, slightly moist 16.5'	cl	3.75	
		S 881	22	0.5		Hard, (5Y 4/1), dark gray, silty CLAY, with traces of sand and gravel, no plasticity, slightly moist	cl	3.5	HNU - 0 ppm βγ - 0 cpm ABOVE BACKGROUND
		S 882	27	0.5		17.5'	cl	3.5	
		S 883	38	0.5		Very hard, (5Y 4/1), dark gray, silty CLAY, with traces of sand and gravel, no plasticity, slightly moist	cl	4.5	
		S 884	28	0.5		18.5'	cl	4.5	
		S 885	6	0.5		Very hard, (5Y 4/1), dark gray, silty CLAY, with little sand and gravel, no plasticity, slightly moist	cl	4.5	HNU - 0 ppm βγ - 0 cpm ABOVE BACKGROUND
		S 886	13	0.5		19.5'	cl	4.0	
			14	0.17		No recovery	cl	4.0	
	-20.00		21	0		20.5'	NA	NA	
			12	0.5		LIMESTONE cobbles 21.0'	cl	NA	HNU - 0 ppm βγ - 0 cpm ABOVE BACKGROUND
565.0		S 889	36	0.5		Hard, (5Y 4/1), dark gray, silty CLAY, with little sand and gravel, no plasticity, slightly moist 21.5'	cl	3.0	PUT COBBLES IN WASTE DRUM
			28	0		No recovery	NA	NA	
			28	0			NA	NA	
		S ---	23	0			NA	NA	
			22	0			NA	NA	
			20	0			NA	NA	
			28	0		24.5'	NA	NA	
	-25.00	S 890	24	0.5		Very soft, (5Y 4/1), dark gray, clayey SAND, (very fine sand), slightly moist	sc	<.25	HNU - 0 ppm βγ - 0 cpm ABOVE BACKGROUND
			34	0.5		25.5'	sc	<.25	
			44	0		No recovery	NA	NA	
			12	0		26.5'	NA	NA	
560.0		S 890	4	0.5		Very soft, (5Y 4/1), dark gray, clayey SAND, (sand very fine) 27.0'	sc	<.25	HNU - 0 ppm βγ - 0 cpm ABOVE BACKGROUND
			4	0.17		Hard, (5Y 4/1), dark gray, silty CLAY, with a little sand and gravel, low plasticity, moist 27.25'	cl	3.0	
			12	0		No recovery	NA	NA	
			18	0		28.5'	NA	NA	
		S 891	10	0.5		Very soft, (5Y 4/1), dark gray, silty CLAY, with a little sand and gravel, medium plasticity, very moist	cl	>.25	HNU - 0 ppm βγ - 0 cpm ABOVE BACKGROUND
			13	0		29.0'			
			15	0		No recovery	NA	NA	
	-30.00		18	0			NA	NA	
555.0						BOTTOM OF BORING AT 30.5' COMPOSITE DRUM SAMPLE 1 X 500 ml TO RSI LAB SAMPLE = 100893 1 X 500 ml TO WEMCO SAMPLE = 100894			NOTE: ALL SAMPLE NUMBERS ARE INCREMENTED BY 100,000 i.e. 602 IS 100602

PROJECT NO: 313327
DATE BEGAN: 1-8-92
DRILLER: E. GARDNER, D. JAMISON
GROUND SURFACE ELEV.: 592.0'
DRILLING METHOD: 4 1/4" ID HOLLOW STEM AUGER
CONTRACTOR: PENN DRILLING

BORING NO: 1732
DATE FINISHED: 1-9-92
N: 483300.00'
GWL DATE/TIME: NA

PAGE 1 OF 2
PROJECT NAME: FERNALD
FIELD ENGINEER: D. O'BRIEN
E: 1380500.00'
GWL DEPTH: NA
EQUIPMENT: BOMBADEER MOBILE DRILL
CHECKED BY: D. AMBROSE

ELEV (FT)	DEPTH (FT)	SAMPLE TYPE AND NO.	BPT BLOWS PER (0.5')	REC (FT)	PROFILE	DESCRIPTION	OVOC	(OZKIOMBZOO) PPM	REMARKS
	0.00		2	0.5		Firm, (10YR 4/2) dark grayish-brown CLAY, high plasticity, moist 0.5'		1.0	HAND AUGERED TOP 0.5' SAMPLE # 101386
		S 1387	4	0.5		Firm, (10YR 4/2), dark grayish-brown CLAY, high plasticity, moist	cl	.75	HNU - 0 ppm βγ - 0 cpm
			6	0.33		1.5'		1.0	
			7	0		No recovery 2.0'	NA	NA	
590.0		S 1388	2	0.5		Very firm, (10YR 5/4) yellowish-brown, silty CLAY, low plasticity, moist 2.5'	cl	3.25	HNU - 0 ppm βγ - 0 cpm
			4	0.5		Firm, (10YR 5/4) yellowish-brown, silty CLAY, low plasticity, moist 3.0'		2.75	
			6	0		No recovery	NA	NA	
			9	0		4.0'			
		S 1389	11	0.5		Hard, (2.5Y 6/3), light yellowish-brown, gravelly CLAY, no plasticity, dry	cl	>4.5	HNU - 0 ppm βγ - 0 cpm
	-5.00	S 1391	19	0.5					
		S 1393	18	0.5		5.5'			
			21	0		No recovery 6.0'	NA	NA	
		S 1395	60	0.5		Hard, (2.5Y 6/3), light yellowish-brown, gravelly CLAY, no plasticity, dry 6.5'	cl	>4.5	HNU - 0 ppm βγ - 0 cpm
			45	0		No recovery			
565.0			40	0			NA	NA	
			32	0		8.0'			
		S 1096	10	0.5		Hard, (2.5Y 7/4), pale yellow, gravelly CLAY, no plasticity, dry			HNY - 0 ppm βγ - 0 cpm
			11	0.5			cl	>4.5	
			13	0.33		9.5'			
			15	0		No recovery			
	-10.00		13	0					
			17	0			NA	NA	
			24	0					
			21	0		12.0'			
580.0		S 1396	11	0.5		Very firm, (2.5Y 7/4), pale yellow, gravelly CLAY, no plasticity, dry 12.5'	cl	3.75	HNU - 0 ppm βγ - 0 cpm
			31	0.5		Very firm, (2.5Y 7/4), pale yellow, gravelly CLAY, no plasticity, dry, bottom 2" sand and gravel, wet 13.0'			
			80	0		No recovery	NA	NA	
			36	0		14.0'			
		S 1397	17	0.5		Hard, (2.5Y 6/3), light yellowish-brown CLAY, no plasticity, dry			HNU - 0 ppm βγ - 0 cpm
			25	0.5			cl	>4.5	
	-15.00		50	0.33		15.5'			
			6	0		No recovery 16.0'	NA	NA	

PROJECT NO: 313327
DATE BEGAN: 1-8-92
DRILLER: E. GARDNER, D. JAMISON
GROUND SURFACE ELEV.: 592.0'
DRILLING METHOD: 4 1/4" ID HOLLOW STEM AUGER
CONTRACTOR: PENN DRILLING

BORING NO: 1732
DATE FINISHED: 1-9-92
N: 483300.00'
GWL DATE/TIME: NA

PAGE 2 OF 2
PROJECT NAME: FERNALD
FIELD ENGINEER: D. O'BRIEN
E: 1380500.00'
GWL DEPTH: NA
EQUIPMENT: BOMBADEER MOBILE DRILL
CHECKED BY: D. AMBROSE

ELEV (FT)	DEPTH (FT)	SAMPLE TYPE AND NO	SPT BLOWS PER (0.5')	REC (FT)	LITHOLOGY	DESCRIPTION	OVM	HNU (DIA+BKGD)	REMARKS
575.0		S 1398	31	0.5		Hard, (2.5Y 6/3), light yellowish-brown CLAY with fossils, dense, dry, consistency of shale			HNU - 0 ppm βγ - 0 cpm
			48	0.5			cl	>4.5	
			60	0.5		17.5'			
			--	0		No recovery 18.0'	NA	NA	REFUSAL
		S 1399	7	0.5		Soft, (2.5Y 7/3), pale yellow, sandy CLAY, very wet			HNU - 0 ppm βγ - 0 cpm
		S 1401	27	0.5					
		S 1403	37	0.5					
		S 1405	50	0.5			cl	<.25	
	-20.00	S 1407	24	0.5					HNU - 0 ppm βγ - 40 cpm
			60	0.5					
570.0						BOTTOM OF BORING AT 21.0'			HIT PERCHED WATER AT 21.0', STOPPED DRILLING
	-25.00								
565.0									
	-30.00								

NOTE:
ALL SAMPLE NUMBERS ARE INCREMENTED BY 100,000
ie. 1387 IS 101387

PROJECT NO: 313327
DATE BEGAN: 1-6-92
DRILLER: J. BRAILE, M. REBOLD
GROUND SURFACE ELEV.: NA
DRILLING METHOD: CABLE TOOL
CONTRACTOR: PENN DRILLING

BORING NO: 1733
DATE FINISHED: 1-8-92
N: 977080.44'
GWL DATE/TIME: NA

PAGE 1 OF 1
PROJECT NAME: FERNALD
FIELD ENGINEER: P. CASSEDAY
E: 1383156.49'
GWL DEPTH: NA
EQUIPMENT: NA
CHECKED BY: D. AMBROSE

ELEV (FT)	DEPTH (FT)	SAMPLE TYPE AND NO	SPT BLOWS PER (0.5')	REC (FT)	DRILL METHOD	DESCRIPTION	OVOC	(DRILLING)	REMARKS
0.0	0.00					REFER TO BORING LOGS FROM WELL 2733 FOR 1733 DESCRIPTIONS			
-5.0	-5.00								
-10.0	-10.00								
-15.0	-15.00								

DRAFT

PAGE 1 OF 2

PROJECT NO: 313327
DATE BEGAN: 1-8-92
DRILLER: J. STRAPZZON K. MYERS
GROUND SURFACE ELEV.: 590.0'
DRILLING METHOD: 4 1/4" ID HOLLOW STEM AUGER
CONTRACTOR: PENN DRILLING

BORING NO: 1734
DATE FINISHED: 1-8-92
N: 483300.00'
GWL DATE/TIME: NA

PROJECT NAME: FERNALD
FIELD ENGINEER: G. MARSHALL
E: 1380000.00'
GWL DEPTH: NA
EQUIPMENT: MOBILE DRILL RIG 80
CHECKED BY: D. AMBROSE

ELEV (FT)	DEPTH (FT)	SAMPLE TYPE AND NO	BPT BLOWS PER (0.5')	REC (FT)	METHOD	DESCRIPTION	USCS	OVA (PPM)	REMARKS
590.0	0.00	S 0841	2	0.5		Firm, (10YR 3/2) very dark grayish-brown, silty CLAY, low plasticity with rootlets, moist 0.5'	cl	1.75	TRIP FIELD BLANK 100842
		S 0842	4	0.5		Hard, (10YR 2/2) very dark brown, silty CLAY with rootlets, low plasticity, moist 1.0'		2.5	HNU - 0 ppm βγ - 0 cpm ABOVE BACKGROUND
			6	0		No recovery	NA	NA	
			7	0		2.0'			
		S 0843	4	0.5		Hard, (10YR 3/2) very dark grayish-brown, silty CLAY, low plasticity, slightly moist	cl	2.75	HNU - 0 ppm βγ - 0 cpm ABOVE BACKGROUND
			7	0.5		3.0'		2.75	
			6	0		No recovery	NA	NA	
			6	0		4.0'			
		S 0844	10	0.5		Hard, (10YR 4/4) dark yellowish-brown, silty CLAY, low plasticity, moist	cl	2.5	HNU - 0 ppm βγ - 0 cpm ABOVE BACKGROUND
		S 0845	9	0.5				2.75	
585.0	-5.00	S 0846	9	0.5		5.5'		2.25	
			6	0		No recovery 6.0'	NA	NA	
		S 0850	13	0.5		Firm, (10YR 4/3) dark brown, silty CLAY with some very fine sand, low plasticity, slightly moist	cl	1.5	HNU - 0 ppm βγ - 0 cpm ABOVE BACKGROUND
			9	0.5				1.25	
			9	0.5		7.5'		2.0	
			6	0		No recovery 8.0'	NA	NA	
		S 0851	SHELBY TUBE	1		Very hard (10YR 5/4) yellowish-brown, silty CLAY with gravel, no plasticity, slightly moist AUGER TO 10' TO BYPASS ROCK 10.0'		4.5	HNU - 0 ppm βγ - 0 cpm ABOVE BACKGROUND SAMPLE WAS ARCHIVED DUE TO LOW RECOVERY
580.0	-10.00	S 0852	SHELBY TUBE	1		Very hard, (10YR 4/4) dark yellowish-brown, silty CLAY with traces of gravel, low plasticity, slightly moist	cl	4.5	HNU - 0 ppm βγ - 0 cpm ABOVE BACKGROUND DUE TO RECOVERY-ARCHIVE SAMPLE
								4.5	
		S 0853	23	0.5		12.5'			HNU - 0 ppm βγ - 0 cpm ABOVE BACKGROUND END OF WEATHERING ZONE
			19	0.5		Very hard, (10YR 4/4) dark yellowish-brown mottled with gray, silty CLAY with some sand (fine) and traces of gravel, low plasticity, slightly moist 13.0'		4.5	
		S 0854	34	0.5				4.5	
			29	0.5		Very hard, (5Y 4/1) dark gray, silty CLAY with traces of sand and gravel, low plasticity, slightly moist 14.0'		4.5	TOTAL V. SAMPLE CHANGE SAMPLE NO. TO 100859 - RS
		S 0859	5	0.5		Hard, (5Y 4/1) dark gray, silty CLAY with traces of sand and gravel, low plasticity, slightly moist		3.5	HNU - 0 ppm βγ - 0 cpm ABOVE BACKGROUND
		S 0859	9	0.42		15.0'		2.25	
575.0	-15.00		12	0		No recovery	NA	NA	
			14	0		16.0'			

PROJECT NO: 313327
DATE BEGAN: 1-8-92
DRILLER: J. STRAPZZON, K. MYERS
GROUND SURFACE ELEV.: 590.0'
DRILLING METHOD: 4 1/4" ID HOLLOW STEM AUGER
CONTRACTOR: PENN DRILLING

BORING NO: 1734
DATE FINISHED: 1-8-92
N: 483300.00'
GWL DATE/TIME: NA

PAGE 2 OF 2
PROJECT NAME: FERNALD
FIELD ENGINEER: G. MARSHALL
E: 1380000.00'
GWL DEPTH: NA
EQUIPMENT: MOBILE DRILL RIG 80
CHECKED BY: D. AMBROSE

ELEV (FT)	DEPTH (FT)	SAMPLE TYPE AND NO	SPT BLOWS PER (0.5')	REC (FT)	DESCRIPTION	USCS	OVA (PPM)	REMARKS
		S 0854	23	0.5	Very hard, (5Y 4/1) dark gray, silty CLAY with traces of sand and gravel, low plasticity, slightly moist	cl	4.5	HNU - 0 ppm βγ - 0 cpm ABOVE BACKGROUND
			47	0.5			4.5	
			34	0.5			4.5	
		S 0854	29	0.5	18.0'		4.5	
		S 0855	39	0.5	Hard, (5Y 4/1) dark gray, silty CLAY with traces of sand and gravel, low plasticity, slightly moist 18.5'		3.5	HNU - 0 ppm βγ - 0 cpm ABOVE BACKGROUND
		S 0858	45	0.5	Very hard, (5Y 4/1) dark gray, silty CLAY with sand and gravel, no plasticity, slightly moist 19.0'		4.5	
			50	0	No recovery REFUSAL OF SPLIT SPOON	NA	NA	COBBLE STUCK AT THE END OF THE SPLIT SPOON TOTAL V SAMPLE NO. 100859 AT 14-16 FT.
			NA	0	20.0'			
570.0	-20.00	S 0860	17	0.5	Very soft, (5Y 4/1) dark gray, clayey SAND with traces of gravel, no plasticity, very moist 20.5'	sc	2.5	HNU - 0 ppm βγ - 40 cpm ABOVE BACKGROUND STRAP HOLE FOUND 6" WATER IN HOLE
		S 0861	11	0.5	Firm, (5Y 4/1) dark gray, silty CLAY with some sand and gravel, medium plasticity, very moist 21.0'	cl	1.5	
			10	0	No recovery	NA	NA	
			6	0	22.0'			
		S 0861	13	0.5	Hard, (5Y 4/1) dark gray, silty CLAY with some sand and gravel, medium plasticity, very moist 22.5'	cl	2.5	HNU - 0 ppm βγ - 0 cpm ABOVE BACKGROUND
			15	0.5	Firm, (5Y 4/1) dark gray, silty CLAY with some sand and gravel, medium plasticity, very moist		1.75	
			19	0.5			.75	HNU - 0 ppm βγ - 0 cpm ABOVE BACKGROUND
			16	0.5	24.0'		1.0	
		S 0861	5	0.5	Very soft, (5Y 4/1) dark gray, silty CLAY with some sand and gravel, medium plasticity, wet to very moist		.25	WATER AND SLUDGE WAS SENT TO LAB SAMPLE #100862 AUGER ROD HAD A WATER MARK 8' UP. WATER WAS RUNNING OUT OF SPOON STOP BORING BECAUSE OF PERCHED WATER. SENDING SOIL TO LAB SAMPLE #100862 + ROD SCREEN
			6	0.5	25.0'		.25	
565.0	-25.00		5	0	No recovery	NA	NA	
			7	0				
					BOTTOM OF BORING AT 26.0'			BORING WAS HALTED DUE TO HITTING PERCHED GROUNDWATER AT APPROX. 20.0 FT.
560.0	-30.00							NOTE: ALL SAMPLE NUMBERS ARE INCREMENTED BY 100,000 ie. 841 IS 100841

PROJECT NO: 313327
DATE BEGAN: 1-8-92
DRILLER: E. GARDNER, D. JAMISON
GROUND SURFACE ELEV.: 594.0'
DRILLING METHOD: 4 1/4" ID HOLLOW STEM AUGER
CONTRACTOR: PENN DRILLING

BORING NO: 1735
DATE FINISHED: 1-8-92
N: 483300.00'
GWL DATE/TIME: NA

PAGE 1 OF 1
PROJECT NAME: FERNALD
FIELD ENGINEER: D. O'BRIEN
E: 1380500.00'
GWL DEPTH: NA
EQUIPMENT: BOMBADEER MOBILE DRILL
CHECKED BY: D. AMBROSE

ELEV (FT)	DEPTH (FT)	SAMPLE TYPE AND NO	SPT BLOWS PER (0.5')	REC (FT)	DESCRIPTION	USCS	OVA (0.2/10000 PPM)	REMARKS
	0.00		2	0.5	Very Firm, (10YR 3/3) dark brown, silty CLAY, low plasticity, moist	cl	2.0	HAND AUGER 6" TRIP/FIELD BLANK SAMPLE # 101372
		S 1374	4	0.5	1.0'		2.5	HNU - 0 ppm βγ - 0 cpm
			7	0	No recovery	NA	NA	
			8	0	2.0'		NA	
			4	0.5	Very Firm, (10YR 3/3) dark brown, silty CLAY, low plasticity, moist	cl	2.25	HNU - 0 ppm βγ - 0 cpm
			8	0.5			3.5	
			10	0.33	3.5'		2.25	
			12	0	No recovery 4.0'	NA	NA	
590.0		S 1376	4	0.5	Hard, (10YR 3/3) dark brown, silty CLAY, low plasticity, moist 4.5'	cl	4.0	HNU - 0 ppm βγ - 0 cpm
	-5.00	S 1378	8	0.5	Very Firm, (10YR 3/3) dark brown silty CLAY, low plasticity, moist 5.0'		2.75	
			10	0	No recovery	NA	NA	
			11	0	6.0'			
		S 1380	6	0.5	Firm, (10YR 4/6) dark yellowish-brown mottled with gray, silty CLAY, low plasticity, moist 6.5'	cl	1.75	HNU - 0 ppm βγ - 0 cpm
			8	0.5	Very Firm, (10YR 4/6) dark yellowish-brown mottled with gray, silty CLAY, low plasticity, moist		2.0	
			9	0.5	7.5'		2.25	
			11	0	No recovery 8.0'	NA	NA	
585.0	-10.00	S 1381	SHELBY TUBE	2.75	Firm, (10YR 5/6) yellowish-brown, silty CLAY, low plasticity, very wet 11.0'	cl	1.25	HNU - 0 ppm βγ - 0 cpm SHELBY PUSHED FROM 8.0'-11.0'
		S 1384	3	0.5	Very soft, (10YR 5/4) yellowish-brown, clayey SAND, very wet	sc	NA	HNU - 0 ppm βγ - 0 cpm
			5	0.5				
			7	0.5				
			11	0.5				
580.0	-15.00				BOTTOM OF BORING AT 13.0'			HIT PERCHED WATER ZONE, ABANDONED HOLE

NOTE: ALL SAMPLE NUMBERS ARE INCREMENTED BY 100,000 ie. 1374 IS 101374

PAGE 1 OF 1

PROJECT NO: 313327 | BORING NO: 1736 | PROJECT NAME: FERNALD
DATE BEGAN: 1-5-92 | DATE FINISHED: 1-5-92 | FIELD ENGINEER: G. MARSHALL
DRILLER: J. STRAPZZON, K. MEYERS | N: 493334.00' | E: 1381000.00'
GROUND SURFACE ELEV.: 605.0' | GWL DATE/TIME: NA | GWL DEPTH: NA
DRILLING METHOD: 4 1/4" ID HOLLOW STEM AUGER | EQUIPMENT: MOBIL DRILL RIG 80
CONTRACTOR: PENN DRILLING | CHECKED BY: D. AMBROSE

ELEV (FT)	DEPTH (FT)	SAMPLE TYPE AND NO.	SPT BLOWS PER (0.5')	REC (FT)	METHOD	DESCRIPTION	OVOC	(OVA+GHB200) 10:1	REMARKS
605.0	0.00	S 0820	2	0.5		Firm, (10YR 3/2) very dark grayish-brown, silty CLAY, no plasticity, some rootlets, moist 0.5'		.75	TRIP/FIELD BLANK SAMPLE # 100821
		S 0822	2	0.5		Hard, (10YR 3/4) dark yellowish-brown, silty CLAY, low plasticity, moist 1.5'	cl	2.25	HNU - 0 ppm
			6	0.5		No recovery 3.0'		2.5	µR - 0 cpm ABOVE BACKGROUND
			8	0		Soft, (10YR 5/4) yellowish-brown, silty CLAY with some gravel and sand, low plasticity, slightly moist 3.5'			
		S 0822	7	0.5		No recovery 4.0'	NA	NA	HNU - 0 ppm
			7	0.5		Soft, (10YR 5/4) yellowish-brown, silty CLAY, low plasticity, slightly moist 4.5'			µR - 0 cpm ABOVE BACKGROUND
		S 0822	10	0.5		Hard, (10YR 5/4) yellowish-brown, silty CLAY, low plasticity, slightly moist 5.0'	cl	0.5	HNU - 0 ppm
			12	0		Firm, (10YR 5/4) yellowish-brown, sandy CLAY, low plasticity, slightly moist 5.5'	NA	NA	µR - 0 cpm ABOVE BACKGROUND
		S 0823	15	0.5		Very hard, (10YR 5/4) yellowish-brown, silty CLAY with traces of sand and gravel, low plasticity, slightly moist 6.0'		0.5	HNU - 0 ppm
		S 0824	15	0.5		Very soft, (10YR 4/4) dark yellowish-brown, clayey SAND, no plasticity (sand very fine), wet 6.25'		2.0	µR - 0 cpm ABOVE BACKGROUND
600.0	-5.00	S 0825	13	0.5		Very hard, (10YR 5/4) yellowish-brown, silty CLAY with traces of sand and gravel, low plasticity, slightly moist 7.0'	cl	1.0	
		S 0826	16	0.25		Hard, (10YR 5/4) yellowish-brown, sandy CLAY, with traces of gravel, no plasticity, moist 7.5'		>4.5	
		S 0831	17	0.5		Very hard, (10YR 5/4) yellowish-brown, silty CLAY with traces of sand and gravel, low plasticity, slightly moist 7.75'	ml	< 25	HNU - 0 ppm
		S 0832	23	0.5		Very hard, (SY 5/1) gray, silty CLAY with traces of gravel, no plasticity, dry 8.0'		>4.5	µR - 0 cpm ABOVE BACKGROUND
		S 0833	30	0.5		Very hard, (SY 5/1) gray, silty CLAY with some gravel, no plasticity, dry 10.0'		>4.5	
		S 0834	33	0.5		Very hard, (SY 5/1) gray, silty CLAY with some gravel, no plasticity, dry 10.5'		2.75	
		S 0835	SHELBY TUBE	0.5		Very hard, (SY 4/1) dark gray LIMESTONE cobbles 11.0'		>4.5	END OF WEATHERING ZONE
595.0	-10.00	S 0836	11	0.5		Medium dense, (SY 5/1) gray, clayey, gravelly SAND, wet 11.5'	cl		HNU - 0 ppm µR - 0 cpm ABOVE BACKGROUND HIT COBBLE AT END OF TUBE REMOVE SAMPLE FROM TUBE ARCHIVE IN 500ml JAR AUGER DOWN TO 10.0' TO BYPASS LIMESTONE COBBLE
			15	0.5		No recovery 12.0'		>4.5	HNU - 0 ppm µR - 0 cpm ABOVE BACKGROUND
		S 0837	21	0.5		Loose, (SY 5/1) gray, clayey, gravelly SAND, wet 12.5'	NA	NA	
			24	0		Medium dense, (SY 5/1) gray, clayey, gravelly SAND, wet 13.0'	NA	NA	
		S 0837	9	0.5		Hard, (SY 4/1) dark gray, silty CLAY with some gravel, no plasticity, slightly moist 13.5'		NA	HNU - 0 ppm
		S 0837	13	0.5		Very hard, (SY 4/1) dark gray, silty CLAY with some gravel, no plasticity, slightly moist 14.0'	go	NA	µR - 0 cpm
		S 0838	14	0.5		Medium dense, (SY 5/1) gray, clayey, gravelly SAND, wet 15.0'			ABOVE BACKGROUND
		S 0838	17	0.5		Hard, (SY 4/1) dark gray, silty CLAY with some gravel, no plasticity, slightly moist 15.5'	cl	3.5	
		S 0839	14	0.5		No recovery		4.5	
			16	0.5			NA	NA	
590.0	-15.00	S 0840	25	0.5			go	NA	HNU - 0 ppm µR - 0 cpm ABOVE BACKGROUND STOP BORING: PERCHED WATER ENCOUNTERED
			17	0			cl	3.5	
							NA	NA	

BOTTOM OF BORING AT 16.0'

PLUG HOLE USED 1 1/2 OF VOL CLAY AND 30 GALS OF WATER

NOTE: ALL SAMPLE NUMBERS ARE INCREMENTED BY 100,000 ie. 0820 IS 100820

PAGE 1 OF 1

PROJECT NO: 313327
DATE BEGAN: 1-6-92
DRILLER: E. GARDNER, D. JAMISON
GROUND SURFACE ELEV.: 606.5'
DRILLING METHOD: 4 1/4" ID HOLLOW STEM AUGER
CONTRACTOR: PENN DRILLING

BORING NO: 1737
DATE FINISHED: 1-6-92
N: 483306.00'
GWL DATE/TIME: NA

PROJECT NAME: FERNALD
FIELD ENGINEER: D. O'BRIEN
E: 1381957.00'
GWL DEPTH: NA
EQUIPMENT: BOMBADEER MOBILE DRILL
CHECKED BY: D. AMBROSE

ELEV (FT)	DEPTH (FT)	SAMPLE TYPE AND NO.	SPT BLOWS PER (0.5')	REC (FT)	PROFILE	DESCRIPTION	USCS	OVA (DIR-IGNITION) PPM	REMARKS
	0.00		6	0.5		Very stiff (10YR 3/6), dark yellowish-brown, silty CLAY, low plasticity, moist 0.5'	cl	2.5	6" HAND AUGER SAMPLE 101358 101359 TRIP BLANK HNU - 0 ppm βγ - 0 cpm
		S 1440	7	0.5		Very stiff (10YR 3/6), dark yellowish-brown, silty CLAY, low plasticity, moist 1.0'			
605.0			9	0		No recovery	NA	NA	
			11	0		2.0'			
		S 1445	3	0.5		Soft, (10YR 5/8), yellowish-brown, silty CLAY, low plasticity, moist 2.5'	cl	0.5	HNU - 0 ppm βγ - 0 cpm
			4	0.17		Soft, (10YR 5/8), yellowish-brown, sandy CLAY, low plasticity, moist 3.0'			
			6	0		No recovery	NA	NA	
			9	0		4.0'			
		S 1455	3	0.5		Firm, (10YR 5/8) yellowish-brown, silty CLAY, no plasticity, moist	cl	1.75	HNU - 0 ppm βγ - 0 cpm
		S 1455	4	0.5				0.75	
	-5.00	S 1455	6	0.5		5.5'		1.0	
			8	0		No recovery 6.0'	NA	NA	
		S 1500	2	0.5		Soft, (10YR 5/8), yellowish-brown, silty/sandy CLAY, low plasticity, very moist 6.5'	cl	.25	HNU - 0 ppm βγ - 0 cpm
700.0			7	0.5		Very soft, (10YR 5/8) yellowish-brown, silty/sandy CLAY, low plasticity, wet 7.0'		<.25	
			7	0.5		Soft, (10YR 5/8) yellowish-brown, silty/sandy CLAY, low plasticity, wet		.25	
			11	0.5		8.0'			
			7	0.5		Very soft, (10YR 5/8) yellowish-brown, silty/sandy CLAY, low plasticity, wet 8.5'	cl	<.25	HNU - 0 ppm βγ - 0 cpm
			7	0.5		Firm, (10YR 5/8) yellowish-brown, silty/sandy CLAY, low plasticity, wet 9.0'		1.75	
		S 1510	11	0.5		Bottom 3": very hard, (5Y 5/1) gray, gravelly CLAY, low plasticity, moist 9.5'		>4.0	
			22	0.8		Soft, (5Y 5/1) gray, gravelly CLAY, low plasticity, moist 10.0'		0.5	
	-10.00	S	SHELBY TUBE	1.33		Dense, (5Y 5/3) olive, fine grained SAND, wet 11.5'	sw	NA	FULL RAD OF CONTENTS OF SHELBY TUBE
595.0		1540		0		No recovery 13.0'	NA	NA	
			2	0.5		Very soft, (5Y 5/1) olive, fine grained SAND, wet	sw	NA	HNU - 0 ppm βγ - 0 cpm
			4	0.5		14.0'			
			7	0		No recovery	NA	NA	PERCHED WATER ZONE. ABANDONED HOLE
			9	0					
	-15.00					BOTTOM OF BORING AT 15.0'			NOTE: ALL SAMPLE NUMBERS ARE INCREMENTED BY 100,000 ie. 1440 IS 101440

PROJECT NO: 313327
DATE BEGAN: 1-2-92
DRILLER: J. STRAPZZON K. MYERS
GROUND SURFACE ELEV.: 616.5'
DRILLING METHOD: 4 1/4" ID HOLLOW STEM AUGER
CONTRACTOR: PENN DRILLING

BORING NO: 1738
DATE FINISHED: 1-4-92
N: 483539.00'
GWL DATE/TIME: NA

PAGE 1 OF 2
PROJECT NAME: FERNALD
FIELD ENGINEER: G. MARSHALL
E: 1382635.00'
GWL DEPTH: NA
EQUIPMENT: MOBILE DRILL RIG 80
CHECKED BY: D. AMBROSE

ELEV (FT)	DEPTH (FT)	SAMPLE TYPE AND NO	SPT BLOWS PER (0.5')	REC (FT)	PROFILE	DESCRIPTION	OVOC	[illegible]	REMARKS
	0.00	S 0782	3	0.5		Firm, (10YR 3/2) dark grayish-brown, silty CLAY, low plasticity with rootlets, moist 0.5'		1.5	*100783 TRIP BLANK
		S 0784	2	0.5		Firm, (10YR 3/4) dark yellowish-brown CLAY with traces of sand, low plasticity with traces of rootlets, moist 1.5'	cl	1.5	HNU - 0 ppm
615.0			4	0.5				2.0	βγ - 0 cpm ABOVE BACKGROUND
			5	0		No recovery 2.0'	NA	NA	
		S 0785	2	0.5		Firm, (10YR 5/6) yellowish-brown, sandy CLAY, low plasticity, slightly moist 2.5'	cl	1.75	HNU - 0 ppm
			8	0		No recovery			βγ - 0 cpm ABOVE BACKGROUND
			9	0			NA	NA	
			11	0		4.0'			
		S 0786	13	0.5		Very firm, (10YR 5/4) yellowish-brown, gravelly to sandy CLAY, no plasticity, slightly moist 4.5'		3.0	HNU - 0 ppm
	-5.00	S 0787	19	0.5		Hard, (10YR 5/4) yellowish-brown, gravelly to sand CLAY, no plasticity, slightly moist		4.5	βγ - 0 cpm ABOVE BACKGROUND
		S 0788	20	0.5		6.0'	cl	4.5	
		S 0789	26	0.5		Hard, (10YR 5/4) yellowish-brown, gravelly CLAY, mottled with gray, no plasticity, slightly moist 6.5'		4.5	
		S 0794	32	0.5		Very loose, (10YR 5/4) yellowish-brown SAND, fine to coarse, moist 6.75'		4.5	HNU - 0 ppm
		S 0795	27	0.5		Hard, (10YR 5/4) yellowish-brown, silty CLAY, no plasticity, moist 7.0'	sw	NA	βγ - 0 cpm ABOVE BACKGROUND
			31	0.5			cl	4.5	LIMESTONE COBBLE WAS AT THE END OF SPOON
			39	0		Hard, (10YR 5/4) yellowish-brown, gravelley CLAY with limestone cobbles, no plasticity, slightly moist 7.5'	NA	NA	
		S 0797	SHELBY TUBE	1		No recovery 8.0'	cl	4.5	
	-10.00					Hard, (10YR 5/4) yellowish-brown, gravelly CLAY, low plasticity, slightly moist with trace coarse gravel at the end of tube 10.5'	NA	NA	COULD ONLY PUSH SHELBY TUBE TO 10.5' HNU - 0 ppm βγ - 0 cpm ABOVE BACKGROUND ARCHIVE SAMPLE IN 1000 ml JAR
		S 0798	11	0.5		Hard, (10YR 5/4) yellowish-brown, gravelly CLAY, low plasticity, slightly moist with trace of coarse gravel 11.5'		4.5	HNU - 0 ppm βγ - 0 cpm ABOVE BACKGROUND
605.0			15	0.5				4.5	PUSHED 3" SPLIT SPOON W/18" OF RECOVERY
			18	0.5		Firm, (10YR 5/4) yellowish-brown, sandy CLAY (sand very fine), low plasticity, moist, lower 1" with gray clay 12.0'		1.5	
		S 0799	SHELBY TUBE	1.5		(10YR 5/1) gray CLAY, high plasticity, moist 14.0'	cl	NA	HNU - 0 ppm βγ - 0 cpm ABOVE BACKGROUND
						Firm, (10YR 5/4) yellowish-brown, sandy CLAY (sand very fine), low plasticity, moist 15.0'		NA	
	-15.00	S 0802	3	0.5		Very soft, (10YR 5/4) yellowish-brown, sandy CLAY (sand very fine), low plasticity, moist 15.5'		2.0	HNU - 0 ppm βγ - 0 cpm ABOVE BACKGROUND ARCHIVE 1-500 ml SAMPLE *100803
			5	0.5		Firm, (10YR 5/4) yellowish-brown, sandy CLAY (sand very fine), low plasticity, moist 16.0'		<.25	
								1.5	

PROJECT NO: 313327
DATE BEGAN: 1-2-92
DRILLER: J. STRAPZZON, K. MYERS
GROUND SURFACE ELEV.: 616.5'
DRILLING METHOD: 4 1/4" ID HOLLOW STEM AUGER
CONTRACTOR: PENN DRILLING

BORING NO: 1738
DATE FINISHED: 1-4-92
N: 483539.00'
GWL DATE/TIME: NA

PAGE 2 OF 2
PROJECT NAME: FERNALD
FIELD ENGINEER: G. MARSHALL
E: 1382635.00'
GWL DEPTH: NA
EQUIPMENT: MOBILE DRILL RIG 80
CHECKED BY: D. AMBROSE

ELEV (FT)	DEPTH (FT)	SAMPLE TYPE AND NO.	BPT BLOWS PER (0.5')	REC. (FT)	PROFILE	DESCRIPTION	USCS	HNU (DRIFT BACKGROUND 1ppm)	REMARKS
600.0			5	0.5		Firm, (5Y 4/1) dark gray CLAY with some sand and gravel, high plasticity, moist		1.0	16.0 FT. END OF WEATHERING ZONE
			9	0.5		17.0'		1.5	
		S 0803	5	0.5		Soft, (5Y 4/1) dark gray CLAY with some sand and gravel, high plasticity, moist	cl	.5	HNU - 0 ppm $\beta\gamma$ - 0 cpm ABOVE BACKGROUND ARCHIVE SAMPLE 1-500 ml
			7	0.33		18.0'		.5	
			6	0		No recovery		NA	
			9	0		19.0'	NA	NA	
		S 0803	7	0.5		Very soft, (5Y 4/1) dark gray CLAY with some sand and gravel, high plasticity, moist	cl	<.25	HNU - 0 ppm $\beta\gamma$ - 0 cpm ABOVE BACKGROUND ARCHIVE 1-500 ml SAMPLE #100803
			9	0.5		20.0'		.5	
	-20.00		9	0		No recovery		NA	
			10	0		21.0'	NA	NA	
595.0		S 0804	3	0.5		Very soft, (5Y 5/1) gray CLAY with some sand and gravel, high plasticity, moist	cl	.5	HNU - 0 ppm $\beta\gamma$ - 40 cpm ABOVE BACKGROUND
			3	0.5		22.0'		NA	
			9	0		No recovery		NA	
			13	0		23.0'	NA	NA	
		S 0806	SHELBY TUBE	2.33		Hard, (5Y 5/1) gray, gravelly CLAY with some sand, high plasticity, moist		3.25 3.25	HNU - 0 ppm $\beta\gamma$ - 0 cpm ABOVE BACKGROUND
	-25.00	S 0807	SHELBY TUBE	2.33		26.0'	cl	3.25 3.25 3.25 3.25	
590.0		S 0809	15	0.5		Very soft, (5Y 4/1) dark gray, clayey SAND (very fine sand), medium plasticity, moist		<.25	HNU - 0 ppm $\beta\gamma$ - 0 cpm ABOVE BACKGROUND
			10	0.5			ec	<.25	
			12	0.5		27.5'		<.25	
		S 0811	7	0.5		Very soft, (5Y 4/1) dark gray CLAY with some sand (very fine) and gravel, medium plasticity, moist		.5	HNU - 0 ppm $\beta\gamma$ - 0 cpm ABOVE BACKGROUND
			12	0.5		28.5'		.5	
		S 0812	11	0.5		Very soft (5Y 4/1) dark gray CLAY with some sand (very fine) and gravel, medium plasticity, moist	cl	<.25	
		S 0813	13	0.5				<.25	HNU - 0 ppm $\beta\gamma$ - 0 cpm ABOVE BACKGROUND
	30.00	S 0814	15	0.17				<.25	
						BOTTOM OF BORING AT 30.0'			NOTE: ALL SAMPLE NUMBERS ARE INCREMENTED BY 100,000 ie. 782 IS 100782
585.0									

PROJECT NO: 313327
DATE BEGAN: 1-2-92
DRILLER: E. GARDNER, D. JAMISON
GROUND SURFACE ELEV.: 617.0'
DRILLING METHOD: 4 1/4" ID HOLLOW STEM AUGER
CONTRACTOR: PENN DRILLING

BORING NO: 1739
DATE FINISHED: 1-4-92
N: 492400.00'
GWL DATE/TIME: NA

PAGE 1 OF 2
PROJECT NAME: FERNALD
FIELD ENGINEER: D. O'BRIEN
E: 1383000.00'
GWL DEPTH: NA
EQUIPMENT: BOMBADEER MOBILE DRILL
CHECKED BY: D. AMBROSE

ELEV (FT)	DEPTH (FT)	SAMPLE TYPE AND NO.	SPT BLOWS PER (0.5')	REC (FT)	PROFILE	DESCRIPTION	USCS	HNU (UNITS=PPM)	REMARKS
	0.00		2	0		No recovery		NA	TOP 0.5' SAMPLED BY HAND
			6	0			NA	NA	
			7	0		1.5'		NA	
615.0		S 1336	10	0.5		Very Firm, (10YR 5/4) yellowish-brown, silty CLAY with sand and gravel, low plasticity, moist 2.0'	cl	2.75	HNU - 0 ppm
			7	0		No recovery		NA	βγ - 0 cpm
			9	0		3.0'	NA	NA	
		S 1337	18	0.5		Very Firm, (10YR 5/4) yellowish-brown mottled w/gray, silty CLAY, some gravel, no plasticity, slightly moist	cl	2.5	
			25	0.5		4.0'		2.75	
			3	0		No recovery		NA	
			4	0				NA	ROCK WAS FOUND IN BOTTOM OF SPOON
	-5.00		7	0			NA	NA	
			9	0		6.0'		NA	
			6	0.5		Very Firm, (10YR 5/4) yellowish-brown, silty CLAY w/gravel, some plasticity, moist 6.5'		2.5	HNU = 0 ppm βγ - 0 cpm
610.0		S 1338	8	0.5		Firm, (5YR 3/1) very dark gray CLAY, medium plasticity, moist 7.8'		1.5	
			10	0.5		Very Firm, (5YR 3/1) very dark gray CLAY, medium plasticity, moist		2.5	
			13	0.5		Firm, (5YR 5/1) gray CLAY with gravel, low plasticity, moist		2.0	
		S 1339	8	0.5			cl	2.0	HNU = 0 ppm βγ - 0 cpm
		S 1340	10	0.5		9.0'		2.0	
		S 1341	11	0.5		Firm, (5Y 5/1) gray CLAY with gravel, low plasticity, moist 9.5'		2.5	
			13	0		No recovery		NA	
	-10.00			0				NA	AUGERED DOWN TO 12' AFTER CRUSHING SHELBY
				0				NA	
				0			NA	NA	
				0				NA	
605.0				0				NA	PUSHED SHELBY AT 12', CRUSHED THE TUBE AT 13'
				0		13.0'		NA	
		S 1342	17	0.5		Very Firm, (5Y 5/1) gray mottled w/yellowish brown, gravelly CLAY, 1/2" zone of sand, low plasticity, wet	cl	2.5	HNU = 0 ppm βγ - 0 cpm
			13	.17		14.0'		2.75	
			15	0		No recovery		NA	HNU = 0 ppm βγ - 0 cpm
			20	0		15.0'	NA	NA	
	-15.00	S 1343	4	0.5		Firm, (5Y 5/1) gray mottled w/ yellowish-brown, gravelly CLAY, low plasticity, wet 15.5'	cl	1.5	HNU = 0 ppm βγ - 0 cpm

PROJECT NO: 313327
DATE BEGAN: 1-2-92
DRILLER: E. GARDNER, D. JAMISON
GROUND SURFACE ELEV.: 617.0'
DRILLING METHOD: 4 1/4" ID HOLLOW STEM AUGER
CONTRACTOR: PENN DRILLING

BORING NO: 1739
DATE FINISHED: 1-4-92
N: 482400.00'
GWL DATE/TIME: NA

PAGE 2 OF 2
PROJECT NAME: FERNALD
FIELD ENGINEER: D. O'BRIEN
E: 1383000.00'
GWL DEPTH: NA
EQUIPMENT: BOMBADEER MOBILE DRILL
CHECKED BY: D. AMBROSE

ELEV (FT)	DEPTH (FT)	SAMPLE TYPE AND NO.	SPT BLOWS PER (0.5')	REC (FT)	PROFILE	DESCRIPTION	USCS	OVA (DIRECT READING)	REMARKS
			4	0.5		Very Firm, (5Y 5/1) gray mottled w/yellowish-brown, gravelly CLAY, low plasticity, wet		2.0	
			8	0.5				2.75	
			10	.33				3.25	
600.0		S 1345	17	0.5			cl	3.0	HNU = 0 ppm $\beta\gamma$ - 0 cpm
			18	0.5				3.25	
			20	.33		18.5'		3.75	
			28	0		No recovery 19.0'	NA	NA	
		S 1348	SHELBY TUBE	2.83		Very Firm, (5Y 5/1) gray, gravelly CLAY, low plasticity, very moist 22.0'	cl	2.25 NA NA NA NA NA	HNU = 0 ppm $\beta\gamma$ - 0 cpm SHELBY TUBE PUSHED FROM 19.0 FT. TO 22.0 FT.
	-20.00								
595.0		S 1351	7	0.5		Firm, (5Y 5/1) gray, gravelly CLAY, low plasticity, moist		1.25	
			11	0.5		23.0'		1.25	HNU = 0 ppm $\beta\gamma$ - 0 cpm
			12	0		No recovery		NA	
			14	0				NA	
			7	0				NA	ROCK IN BASE OF SPOON
			9	0				NA	
	-25.00		14	0				NA	
			24	0			NA	NA	
			4	0				NA	ROCK JAMMED IN SPOON
			11	0				NA	
590.0			12	0				NA	
			11	0		28.0'		NA	
		S 1356	18	0.5		Firm, (5Y 5/1) gray, gravelly CLAY, low plasticity, moist		1.25	HNU = 0 ppm $\beta\gamma$ - 0 cpm
			72	0.5			cl	1.5	
		S 1358	26	0.5		29.5'		1.25	
			30	0		No recovery	NA	NA	
	-30.00								
						BOTTOM OF BORING AT 30.0'			NOTE: ALL SAMPLE NUMBERS ARE INCREMENTED BY 100.000 ie. 1336 IS 101336

PROJECT NO:	313327	BORING NO:	1740	PAGE 1 OF 2	
DATE BEGAN:	12-21-91	DATE FINISHED:	12-21-91	PROJECT NAME:	FERNALD
DRILLER:	B. YOST, K. MYERS	N:	481800.00'	FIELD ENGINEER:	G. MARSHALL
GROUND SURFACE ELEV.:	603.0'	GWL DATE/TIME:	NA	E:	1378300.00'
DRILLING METHOD:	4 1/4" ID HOLLOW STEM AUGER			GWL DEPTH:	NA
CONTRACTOR:	PENN DRILLING			EQUIPMENT:	MOBIL DRILL RIG 80
				CHECKED BY:	D. AMBROSE

ELEV (FT)	DEPTH (FT)	SAMPLE TYPE AND NO	SPT BLOWS PER (0.5')	REC (FT)	PROFILE	DESCRIPTION	USCS	(OZA-1988ZOD 184)	REMARKS
	0.00	S 0753	2	0.5		Firm, (10YR 3/2), very dark, grayish-brown, silty CLAY, with rootlets, no plasticity, moist 0.5'	cl	.75	TRIP/FIELD BLANK SAMPLE # 100754 HNU - 0 ppm βγ - 0 cpm ABOVE BACKGROUND
		S 0755	3	0.5		Firm, (10YR 5/6), yellowish-brown, silty CLAY, no plasticity, dry 1.0'		1.75	
			4	0		No recovery		NA	
			9	0		2.0'	NA	NA	
		S 0756	8	0.5		Hard, (10YR 5/4), yellowish-brown, gravelly, silty CLAY, no plasticity, dry	cl	>4.5	HNU - 0 ppm βγ - 0 cpm ABOVE BACKGROUND
600.0			16	0.5		3.0'		>4.5	
			18	0		No recovery	NA	NA	
			18	0		4.0'		NA	
		S 0758	32	0.5		Hard, (10YR 5/4), yellowish-brown, gravelly, silty CLAY, with rock, (limestone), no plasticity, dry	cl	3.75	HNU - 0 ppm βγ - 0 cpm ABOVE BACKGROUND
			26	0.5				3.75	
	-5.00		20	0.42		5.5'		3.75	
			18	0		No recovery 6.0'	NA	NA	
		S 0757	13	0.5		Hard, (2.5Y 4/4), olive brown, gravelly CLAY, low plasticity, with traces of large pebbles, moist		3.5	HNU - 0 ppm βγ - 0 cpm ABOVE BACKGROUND
		S 0578	18	0.5				2.5	
		S 0759	20	0.5		7.5'		2.75	
		S 0760	21	0.5		Firm, (2.5Y 4/4), olive brown, gravelly CLAY, low plasticity, with traces of large pebbles, moist 8.0'		1.75	
595.0		S 0765	SHELBY TUBE	1.75		Firm, (2.5Y 4/3), olive brown, gravelly CLAY, low plasticity, moist, with large pebbles 11.0'		2.0	HNU - 0 ppm βγ - 0 cpm ABOVE BACKGROUND
	-10.00	S 0768	8	0.5		Hard, (2.5Y 5/4), light olive brown, gravelly CLAY, low plasticity, moist	cl	3.0	HNU - 0 ppm βγ - 0 cpm ABOVE BACKGROUND
			15	0.5		12.0'		2.5	
			18	0.5		Hard, (2.5Y 5/4), light olive brown, gravelly CLAY, low plasticity, moist, with limestone rock in the last 2" of the spoon 13.0'		2.75	
			23	.17		Hard, (2.5Y 5/4), light olive brown, gravelly CLAY, low plasticity, moist 13.25'		2.75	13.3' WEATHERING ZONE
590.0		S 0768	15	0.5		Firm to hard, (5Y 4/1), dark gray, gravelly CLAY with some sand, low plasticity, moist 13.5'		2.0	
		S 0769	20	0.5		Hard, (5Y 4/1), dark gray, gravelly CLAY with some sand, low plasticity, moist		2.25	HNU - 0 ppm βγ - 0 cpm ABOVE BACKGROUND
			23	0.5		15.0'		3.25	
			20	0.5		Firm, (5Y 4/1) dark gray CLAY with sand sand, high plasticity, moist 15.5'		2.0	
	-15.00	S 0770	25	0.5		Soft, (5Y 4/1) dark gray CLAY with sand sand, high plasticity, moist 16.0'		1.0	HNU - 0 ppm βγ - 0 cpm ABOVE BACKGROUND
			25	0.5				0.5	

PROJECT NO: 313327
DATE BEGAN: 12-21-91
DRILLER: B. YOST, K. MYERS
GROUND SURFACE ELEV.: 603.0'
DRILLING METHOD: 4 1/4" ID HOLLOW STEM AUGER
CONTRACTOR: PENN DRILLING

BORING NO: 1740
DATE FINISHED: 12-21-91
N: 481800.00'
GWL DATE/TIME: NA

PAGE 2 OF 2
PROJECT NAME: FERNALD
FIELD ENGINEER: G. MARSHALL
E: 1378300.00'
GWL DEPTH: NA
EQUIPMENT: MOBIL DRILL RIG 80
CHECKED BY: D. AMBROSE

ELEV (FT)	DEPTH (FT)	SAMPLE TYPE AND NO	SPT BLOWS PER (0.5')	REC (FT)	PROFILE	DESCRIPTION	USCS	OVA (PPM)	REMARKS
			23	0.5		Firm, (5Y 4/1), dark gray CLAY with some sand, high plasticity, moist		2.0	
			27	0.33		17.0'		1.25	
		S 0771	21	0.5		Firm, (5Y 4/1), dark gray CLAY with some sand, high plasticity, very moist		1.0	HNU - 0 ppm
585.0		S 0772	23	0.5		18.0'	cl	0.75	βγ - 0 cpm ABOVE BACKGROUND
		S 0773	32	0.5		Soft to Firm, (5Y 4/1), dark gray CLAY with some sand, high plasticity, very moist 18.5'		0.5	
		S 0774	37	0.5		Hard, (5Y 4/1), dark gray CLAY with some sand and gravel, low plasticity, moist 19.0'		3.0	
		S 0779	SHELBY TUBE	1.08		Hard, (5Y 4/1), dark gray, clayey SAND with large cobbles, wet 20.0'	sc	2.75	HNU - 0 ppm βγ - 40 cpm ABOVE BACKGROUND
	-20.00			0		No recovery 22.0'	NA	NA	PUSHED TUBE 36" WITH 13" OF RECOVERY ARCHIVED SAMPLE 100779
			9	0.5		Very soft, (5Y 4/1), dark gray, clayey SAND, wet 22.5'	sc	<.25	HNU - 0 ppm βγ - 0 cpm ABOVE BACKGROUND
580.0		S 0780	13	0.5		Firm, (5Y 4/1), dark gray CLAY with some sand and gravel, medium plasticity, very moist		1.5	
			21	0.5		23.5'	cl		
			26	0.33		Hard, (5Y 4/1), dark gray CLAY with some sand and gravel, medium plasticity, moist		4.0	
	-25.00					BOTTOM OF BORING AT 24.0'			HIT PERCHED WATER ZONE PLUGGED HOLE AT 24.0'
575.0									
	-30.00								

NOTE:
ALL SAMPLE NUMBERS ARE INCREMENTED BY 100,000 ie. 753 IS 100753

PAGE 1 OF 2

PROJECT NO: 313327
DATE BEGAN: 12-20-91
DRILLER: E. GARDNER, D. JAMISON
GROUND SURFACE ELEV.: 595.5'
DRILLING METHOD: 4 1/4" ID HOLLOW STEM AUGER
CONTRACTOR: PENN DRILLING

BORING NO: 1741
DATE FINISHED: 12-20-91
N: 480700.00'
GWL DATE/TIME: NA

PROJECT NAME: FERNALD
FIELD ENGINEER: D. O'BRIEN
E: 1383000.00'
GWL DEPTH: NA
EQUIPMENT: BOMBADEER MOBILE DRILL
CHECKED BY: D. AMBROSE

ELEV (FT)	DEPTH (FT)	SAMPLE TYPE AND NO.	BPT BLOWS PER (0.5')	REC (FT)	LITHOLOGY	DESCRIPTION	USCS	HNU (PPM)	REMARKS
	0.00		1	0.5		Stiff, (10YR 5/4), yellowish-brown, silty CLAY, low plasticity, moist	cl	1.25	TOP 0.5' SAMPLED BY HAND
595.0		S 1312	2	0.5			cl	1.25	HNU - 0 ppm
			4	0.5		1.5'	cl	2.0	βγ - 0 cpm
			7	0		No recovery 2.0'	NA	NA	
		S 1313	5	0.5		Hard, (10YR 6/8), brownish-yellow, silty CLAY, with organics, no plasticity, dry	cl	4.5	HNU - 0 ppm
			7	0.5		3.0'	cl	4.5	βγ - 0 cpm
			9	0		No recovery	NA	NA	
			14	0		4.0'	NA	NA	
		S 1314	4	0.5		Hard, (10YR 6/8), yellowish-brown, silty CLAY, with gravel, no plasticity, dry	cl	>4.5	HNU - 0 ppm
		S 1316	8	0.5			cl	>4.5	βγ - 0 cpm
	-5.00	S 1317	12	0.5		5.5'	cl	4.5	
590.0			14	0		No recovery 6.0'	NA	NA	
		S 1319	9	0.5		Hard, (10YR 5/4), yellowish-brown, silty CLAY with sand and gravel, low plasticity, moist	cl	>4.5	HNU - 0 ppm
			11	0.5		7.5'	cl	>4.5	βγ - 0 cpm
			13	0.5		Very stiff, (10YR 5/4), yellowish-brown, silty CLAY with sand and gravel, low plasticity, moist	cl	4.0	
			15	0.5		8.0'	cl	3.0	
			20	0.5		Backfill no recovery 8.5'	NA	NA	
			26	0		No recovery	NA	NA	
			25	0			NA	NA	
			28	0		10.0'	NA	NA	
	-10.00		14	0.5		Very stiff, (10YR 5/4), yellowish-brown, gravelly CLAY, no plasticity, slightly moist	cl	3.0	HNU - 0 ppm
585.0			16	0.5		11.0'	cl	3.0	βγ - 0 cpm
			14	0.5		Hard, (10YR 5/4), yellowish-brown, gravelly CLAY, no plasticity, slightly moist	cl	4.0	
			18	0.5		12.0'	cl	>4.5	
		S 1320	4	0.5		Hard, (10YR 5/4), yellowish-brown, gravelly CLAY, low plasticity, slightly moist 12.5'	cl	>4.5	HNU - 0 ppm
			7	0.5		Very stiff, (10YR 5/4), yellowish-brown, gravelly CLAY, low plasticity, slightly moist 13.0'	cl	3.75	βγ - 0 cpm
			8	0		No recovery	NA	NA	
			12	0		14.0'	NA	NA	
		S 1321	2	0.5		Stiff, (5Y 5/1), gray, gravelly CLAY, low plasticity, moist	cl	1.25	HNU - 0 ppm
			4	0.5			cl	1.25	βγ - 0 cpm
	-15.00		7	0.33		15.5'	cl	1.25	
580.0			8	0		No recovery 16.0'	NA	NA	

PROJECT NO: 313327
DATE BEGAN: 12-20-91
DRILLER: E. GARDNER, D. JAMISON
GROUND SURFACE ELEV.: 595.5'
DRILLING METHOD: 4 1/4" ID HOLLOW STEM AUGER
CONTRACTOR: PENN DRILLING

BORING NO: 1741
DATE FINISHED: 12-20-91
N: 480700.00'
GWL DATE/TIME: NA

PAGE 2 OF 2
PROJECT NAME: FERNALD
FIELD ENGINEER: D. O'BRIEN
E: 1383000.00'
GWL DEPTH: NA
EQUIPMENT: BOMBADEER MOBILE DRILL
CHECKED BY: D. AMBROSE

ELEV (FT)	DEPTH (FT)	SAMPLE TYPE AND NO.	SPT BLOWS PER (0.5')	REC (FT)	PROFILE	DESCRIPTION	USCS	OVA (DRHNU) PPM	REMARKS
			9	0.5		Stiff, (5Y 5/1), gray, gravelly CLAY, low plasticity, moist	cl	1.0	HNU - 0 ppm
			6	0.17		17.0'	cl	1.25	βγ - 0 cpm
			9	0		No recovery	NA	NA	
			14	0		18.0'	NA	NA	
		S 1323	4	0.5		Stiff, (5Y 5/1), gray, gravelly CLAY, low plasticity, moist 18.5'	cl	1.0	HNU - 0 ppm βγ - 0 cpm
			6	0		No recovery	NA	NA	
			6	0			NA	NA	
			12	0		20.0'	NA	NA	
575.0	-20.00	S 1325	SHELBY TUBE	2.7		Stiff, (5Y 5/1), gray, gravelly CLAY, low plasticity, moist 23.0'	cl	1.0	HNU - 0 ppm βγ - 40 cpm SHELBY TUBE PUSHED FROM 20.0-23.0'
		S 1328	5	0.5		Stiff, (5Y 5/1), gray, gravelly CLAY, low plasticity, wet	cl	1.5	HNU - 0 ppm βγ - 0 cpm
			7	0.5		24.0'	cl	1.5	
			11	0		No recovery 24.5'	NA	NA	
		S 1328	7	0.5		Stiff, (5Y 4/1), gray, gravelly CLAY, low plasticity, moist	cl	1.0	HNU - 0 ppm βγ - 0 cpm
	-25.00		12	0.5			cl	1.5	
570.0			15	0.5		26.0'	cl	1.5	
			6	0.5		Very stiff, (5Y 5/1), gray, gravelly CLAY, low plasticity, moist	cl	3.5	HNU - 0 ppm βγ - 0 cpm
			9	0.5		27.0'	cl	2.5	
			12	0		No recovery	NA	NA	
			12	0		28.0'	NA	NA	
		S 1329	12	0.5		Stiff, (5Y 5/1), gray, gravelly CLAY, low plasticity, moist	cl	1.5	HNU - 0 ppm βγ - 0 cpm
		S 1331	16	0.5		29.0'	cl	1.5	
			20	0		No recovery	NA	NA	
			28	0			NA	NA	
	30.00					BOTTOM OF BORING AT 30.0'			NOTE: ALL SAMPLE NUMBERS ARE INCREMENTED BY 100,000 ie. 1312 IS 101312

PAGE 1 OF 2

PROJECT NO: 313327
DATE BEGAN: 12-18-91
DRILLER: B. YOST, K. MYERS
GROUND SURFACE ELEV.: EST. 594.0'
DRILLING METHOD: HOLLOW STEM AUGER
CONTRACTOR: PENN DRILLING

BORING NO: 1742
DATE FINISHED: 12-20-91
N: 480213.00'
GWL DATE/TIME: NA

PROJECT NAME: FERNALD
FIELD ENGINEER: G. MARSHALL
E: 1383000.00'
GWL DEPTH: NA
EQUIPMENT: MOBILE DRILL 80
CHECKED BY: D. AMBROSE

ELEV (FT)	DEPTH (FT)	SAMPLE TYPE AND NO.	SPT BLOWS PER (0.5')	REC (FT)	PROFILE	DESCRIPTION	USCS	OVA (DIRECT READING) PPM	REMARKS
	0.00	S D715	3	0.5		Medium firm, (10YR 3/6), dark yellowish-brown, silty CLAY with rootlets, low plasticity, moist 0.5'	cl	1.0	HNU - 0 ppm βγ - 240 cpm
		S D717	4	0.5		Very stiff, (10YR 4/4), dark yellowish-brown, silty CLAY, medium plasticity, moist 1.0'		3.0	
			6	0		No recovery 1.5'	NA	NA	
		S D717	8	0.5		Hard, (10YR 5/8), yellowish-brown, silty CLAY with traces of gravel, no plasticity, dry 2.0'	cl	>4.5	HNU - 0 ppm βγ - 0 cpm
			14	0.5		Hard, (10YR 5/8), yellowish-brown, silty CLAY with traces of gravel, no plasticity, dry, traces of fossils 2.5'		4.0	
			14	0		No recovery	NA	NA	
			15	0				NA	HNU - 0 ppm βγ - 0 cpm
			16	0				NA	
590.0			19	0		4.5'		NA	
		S D718	13	0.5		Hard, (10YR 5/6), yellowish-brown, gravelly CLAY, low plasticity, slightly moist	cl	4.25	HNU - 0 ppm βγ - 0 cpm
	-5.00	S D719	13	0.5				3.25	
		S D720	13	0.5				3.25	
		S D721	20	0.5		6.5'		>4.25	
		S D722	19	0.5		Hard, (2.5Y 5/3), light olive brown, gravelly CLAY, low plasticity, moist		4.0	HNU - 0 ppm βγ - 0 cpm
		S D723	20	0.5		7.5'		4.0	
			19	0		No recovery 8.0'	NA	NA	
		S D727	SHELBY TUBE	0.5		Very firm, (2.5Y 4/3), olive brown, gravelly CLAY, low plasticity, moist	cl	3.5	HNU - 0 ppm βγ - 0 cpm
585.0				3.5		10.0'		3.5	NOT ENOUGH RECOVERY SAMPLE WAS ARCHIVED
	-10.00			0		No recovery 11.0'	NA	NA	
		S D728	0	0.5		Hard, (2.5Y 4/3), olive brown, gravelly CLAY, low plasticity, moist	cl	4.0	HNU - 0 ppm βγ - 0 cpm
		S D729	14	0.5				>4.25	
		S D730	24	0.5		12.5'		>4.5	HNU - 0 ppm βγ - 0 cpm
		S D731	27	0.5		Very firm, (2.5Y 4/3), olive brown, gravelly CLAY, low plasticity, moist 13.0'		3.5	
			5	0		No recovery	NA	NA	HNU - NA βγ - 0 cpm
			9	0				NA	
580.0			15	0		14.5'		NA	
	-15.00	S D732	13	0.5		Very firm, (5Y 5/1), gray, gravelly CLAY, medium plasticity, moist	cl	3.25	HNU - 0 ppm βγ - 0 cpm
			15	0.5				3.25	
			21	0.5		16.0'		2.75	

PROJECT NO: 313327
DATE BEGAN: 12-18-91
DRILLER: B. YOST, K. MYERS
GROUND SURFACE ELEV.: EST. 594.0'
DRILLING METHOD: HOLLOW STEM AUGER
CONTRACTOR: PENN DRILLING

BORING NO: 1742
DATE FINISHED: 12-20-91
N: 480213.00'
GWL DATE/TIME: NA

PAGE 2 OF 2
PROJECT NAME: FERNALD
FIELD ENGINEER: G. MARSHALL
E: 1383000.00'
GWL DEPTH: NA
EQUIPMENT: MOBILE DRILL 80
CHECKED BY: D. AMBROSE

ELEV (FT)	DEPTH (FT)	SAMPLE TYPE AND NO.	SPT BLOWS PER (0.5')	REC (FT)	PROFILE	DESCRIPTION	USCS	OVA (BZ/BH) PPM	REMARKS
		S 0731	22	0.5		Very firm, (5Y 4/1), dark gray, gravelly CLAY, medium plasticity, moist		2.75	HNU - 0 ppm βγ - 0 cpm
		S 0732	24	0.5				3.0	HNU - 0 ppm βγ - 0 cpm
		S 0733	24	0.5				2.75	
		S 0734	29	0.5				2.75	
575.0	-20.00	S 0739	SHELBY TUBE	2.0			cl	3.5	HNU - 0 ppm βγ - 0 cpm
		S 0742	9	0.5		21.5'		3.0	HNU - 0 ppm βγ - 0 cpm
			15	0.5		Very firm, (5Y 4/1), dark gray, gravelly CLAY, medium plasticity, moist, with wood in the last 2" of the spoon 22.0'		3.5	
			19	0		No recovery 22.5'	NA	NA	
		S 0742	50	0.5		Very firm, (5Y 4/1), dark gray, gravelly CLAY, medium plasticity, moist, large cobble in the end of the spoon, could only drive spoon 6" 23.0'	cl	2.75	HNU - 0 ppm βγ - 0 cpm
			26	0			NA	NA	
			21	0		No recovery 24.0'		NA	
570.0		S 0743	10	0.5		Soft, (5Y 4/1), dark gray, gravelly CLAY, medium plasticity, wet with limestone rock 24.5'	cl	<.25	HNU - 0 ppm βγ - 0 cpm
	-25.00		24	0.25		Hard, (5Y 5/1), gray LIMESTONE 25.0'	NA	NA	
			14	0		No recovery 25.5'		NA	
		S 0744	19	0.5		Frim, (5Y 4/1), dark gray gravelly CLAY, medium plasticity, wet with some rock (limestone) 26.0'		1.75	HNU - 0 ppm βγ - 0 cpm
			22	0.5		Firm, (5Y 4/1), dark gray, gravelly CLAY, low plasticity, slightly moist		4.5	
			28	0.33		27.0'		4.5	
		S 0745	60	0.5		Firm, (5Y 4/1), gray, gravelly CLAY, low plasticity, slightly moist 27.5'	cl	4.5	HNU - 0 ppm βγ - 0 cpm
		S 0746	100	0.5		Hard, (5Y 5/1), gray, gravelly CLAY, low plasticity, with rock (limestone), moist 28.0'		4.5	
		S 0747	50	0.5		Hard, (5Y 5/1), gray, sandy CLAY with gravel, no plasticity, dry		4.5	
		S 0748	42	0.5				4.5	
565.0	-30.00					BOTTOM OF BORING AT 29.0'			

NOTE:
ALL SAMPLE NUMBERS ARE INCREMENTED BY 100,000
ie. 715 IS 100715

PROJECT NO: 313327
DATE BEGAN: 12-18-91
DRILLER: E. GARDNER, D. JAMESON
GROUND SURFACE ELEV.: 589.45'
DRILLING METHOD: HOLLOW STEM AUGER
CONTRACTOR: PENN DRILLING

BORING NO: 1743
DATE FINISHED: 12-19-91
N: 479100.00'
GWL DATE/TIME: NA

PAGE 1 OF 2
PROJECT NAME: FERNALD
FIELD ENGINEER: D. O'BRIEN
E: 1383000.00'
GWL DEPTH: NA
EQUIPMENT: BOMBADEER MOBILE DRILL
CHECKED BY: D. AMBROSE

ELEV (FT)	DEPTH (FT)	SAMPLE TYPE AND NO.	SPT BLOWS PER (0.5')	REC (FT)	LITHOLOGY	DESCRIPTION	USCS	(OZAHNB700 ppm)	REMARKS
	0.00	S 1284	2	0.5		Firm, (10YR 5/4) yellowish-brown, silty CLAY, low plasticity, slightly moist 1.5'	cl	1.0	HNU - 0 ppm βγ - 0 cpm
			4	0.5				1.75	
			5	0.08				1.0	
			6	0		No recovery 2.0'	NA	NA	
			4	0.5		Firm, (10YR 5/4), yellowish brown, silty CLAY with gravel and traces of fossil, low plasticity, slightly moist 3.0'	cl	1.5	HNU - 0 ppm βγ - 0 cpm
			7	0.5		Hard, (10YR 5/4), yellowish brown, silty CLAY with gravel and fossil, traces, low plasticity, slightly moist 3.5'		>4.5	
			9	0.5				>4.5	
			14	0		No recovery 4.0'	NA	NA	
585.0		S 1288	6	0.5		Very firm, (10YR 5/4), yellowish brown, silty CLAY with sand and gravel, low plasticity, slightly moist 5.0'	cl	3.5	HNU - 0 ppm βγ - 0 cpm
		S 1288	8	0.5				3.75	
	-5.00		9	0.17		No recovery 6.0'	NA	NA	
		S 1258	14	0				NA	
		S 1289	SHELBY TUBE	2.0		Hard, (10YR 5/4), yellowish brown, silty CLAY with sand and gravel, low plasticity, slightly moist 9.0'		>4.5	HNU - 0 ppm βγ - 0 cpm
580.0		S 1292	7	0.5		Very firm, (10YR 5/4), yellowish brown, silty CLAY with gravel and coarse sand, low plasticity, moist 10.0'		3.5	HNU - 0 ppm βγ - 0 cpm
			10	0.5				3.75	
	-10.00		18	0.42		Hard, (10YR 5/4), yellowish brown, silty CLAY with gravel and coarse sand, low plasticity, moist 11.0'	cl	<4.5	
			20	0.33		Firm, (10YR 5/4), yellowish brown, silty CLAY with gravel and coarse sand, low plasticity, moist 11.5'		<4.5	
			16	0.5				1.0	HNU - 0 ppm βγ - 0 cpm
			21	0.5		Hard, (10YR 5/4), yellowish brown, silty CLAY with gravel and coarse sand, low plasticity, moist 12.0'		<4.5	
		S 1293	22	0.5		Hard, (5Y 5/3), olive, silty CLAY with large limestone pieces, gravel, low plasticity, slightly moist 12.5'		>4.5	
			26	0.5		Very firm, (5Y 5/3), olive, silty CLAY with large limestone pieces, gravel, low plasticity, slightly moist 14.0'		2.75	
		S 1294	5	0.5				2.75	HNU - 0 ppm βγ - 0 cpm
			9	0.5				2.75	
		S 1295	14	0.5		Very firm, (5Y 5/3), olive, silty, gravelly CLAY, low plasticity, slightly moist 15.5'		3.5	HNU - 0 ppm βγ - 0 cpm
	-15.00	S 1297	15	0.5				3.5	
		S 1289	18	0.5				3.0	
			21	0		No recovery 16.0'	NA	NA	

PROJECT NO: 313327
DATE BEGAN: 12-18-91
DRILLER: E. GARDNER, D. JAMESON
GROUND SURFACE ELEV.: 589.45'
DRILLING METHOD: HOLLOW STEM AUGER
CONTRACTOR: PENN DRILLING

BORING NO: 1743
DATE FINISHED: 12-19-91
N: 479100.00'
GWL DATE/TIME: NA

PAGE 2 OF 2
PROJECT NAME: FERNALD
FIELD ENGINEER: D. O'BRIEN
E: 1383000.00'
GWL DEPTH: NA
EQUIPMENT: BOMBADEER MOBILE DRILL
CHECKED BY: D. AMBROSE

ELEV (FT)	DEPTH (FT)	SAMPLE TYPE AND NO	SPT BLOWS PER (0.5')	REC (FT)	DRILLING	DESCRIPTION	SOIL	OVA (PPM)	REMARKS
			SHELBY TUBE	0.67		Very firm, (5Y 5/3), olive, silty CLAY with gravel and large limestone pieces, low plasticity, slightly moist 18.5'		3.75	HNU - 0 ppm βγ - 0 cpm
570.0	-20.00		SHELBY TUBE	2.83		Very firm, (5Y 5/3), olive, silty CLAY with large limestone pieces and gravel, low plasticity, slightly moist 22.0'	cl	3.5	HNU - 0 ppm βγ - 0 cpm
		S 1308	7	0.5		Firm, (5Y 5/3), olive, silty CLAY with gravel, low plasticity, moist		1.5	HNU - 0 ppm βγ - 0 cpm
		S 1308	14	0.33				1.5	
			17						
			20						
565.0	-25.00					BOTTOM OF BORING AT 24.0'			
560.0	-30.00								

NOTE:
ALL SAMPLE NUMBERS ARE INCREMENTED BY 100,000
ie. 1284 IS 101284

PAGE 1 OF 1

PROJECT NO:	313327	BORING NO:	1744	PROJECT NAME:	FERNALD
DATE BEGAN:	12-17-91	DATE FINISHED:	12-17-91	FIELD ENGINEER:	G. MARSHALL
DRILLER:	B. YOST, K. MYERS	N:	478500.00'	E:	1383000.00'
ROUND SURFACE ELEV.:	EST. 592.0'	GWL DATE/TIME:	NA	GWL DEPTH:	NA
ILLING METHOD:	HOLLOW STEM AUGER			EQUIPMENT:	MOBILE DRILL 80
NTRACTOR:	PENN DRILLING			CHECKED BY:	D. AMBROSE

ELEV (FT)	DEPTH (FT)	SAMPLE TYPE AND NO.	BPT BLOWS PER (0.5')	REC (FT)	LITHOLOGY	DESCRIPTION	USCS	OVA (PPM)	REMARKS
	0.00	S 0701	2	0.5		Firm, (10YR 3/6), dark yellowish-brown, silty CLAY with rootlets, low plasticity, moist 0.75'	cl	1.25	HNU - 0 ppm βγ - 0 cpm
			5	0.25		No recovery 1.5'	NA	1.25	
			5	0				NA	
590.0		S 0708	6	0.5		Hard, (10YR 5/8), yellowish-brown, silty CLAY, no plasticity, dry 2.25'	cl	2.75	HNU - 0 ppm βγ - 0 cpm
			9	0.33		No recovery 3.0'		2.75	
			12	0				NA	
		S 0709	8	0.5		Very firm, (10YR 6/8), brownish-yellow, silty CLAY, no plasticity, dry	cl	4.25	HNU - 0 ppm βγ - 0 cpm
			13	0.5		Hard, (10YR 6/8), brownish-yellow, silty CLAY, no plasticity, dry 4.0'		4.0	
			11	0		No recovery 4.5'	NA	NA	
	-5.00	S 0704	13	0.5		Hard, (10YR 5/4), yellowish-brown CLAY, no plasticity, dry	cl	>4.5	HNU - 0 ppm βγ - 0 cpm
		S 0705	18	0.5				>4.5	LIMESTONE ROCK WAS JAMMED IN THE END OF SPLIT SPOON
		S 0706	20	0.5		6.0'		>4.5	
			25	0		No recovery 6.5'	NA	NA	
585.0		S 0710	10	0.5		Hard, (2.5Y 5/3), light olive brown CLAY with traces of fine gravel, no plasticity, dry 7.3'	cl	4.0	HNU - 0 ppm βγ - 0 cpm
			16	0.33				>4.5	
			16	0		No recovery 8.0'	NA	NA	
		S 0711	SHELBY TUBE	12		Very firm, (2.5Y 5/3), light olive brown, mottled with (2.5Y 5/1), gray, gravelly CLAY with cobbles, low plasticity, moist 9.15'	cl	3.0	HNU - 0 ppm βγ - 0 cpm
	-10.00					No sample taken 11.0'	NA	NA	DROVE SHELBY TUBE 1.0' HIT ROCK; WILL TRY TO AUGER PAST IT, TUBE CRUSHED 6" ON THE END
		S 0712	SHELBY TUBE			Hard, (2.5Y 5/4), light olive brown, gravelly CLAY, low plasticity, moist 11.5'	cl	<4.5	HNU - 0 ppm βγ - 0 cpm
580.0		S 0713				Very soft, (2.5Y 4/3), olive brown, clayey GRAVEL with traces of cobbles, wet 12.0'	gc	<2.25	HIT PERCHED WATER, PLUG BORING
		S 0714	24	0.5		Medium dense, (2.5Y 4/3), olive brown, clayey GRAVEL, increase in the amount of fines, wet 13.0'		NA	HNU - 0 ppm βγ - 0 cpm
			32	0.5				NA	
			20	0.25		Hard, (5Y 5/1), gray CLAY, no plasticity, dry	cl	>4.5	HNU - NA ppm βγ - 0 cpm
						BOTTOM OF BORING AT 13.5'			
	-15.00								NOTE: ALL SAMPLE NUMBERS ARE INCREMENTED BY 100,000 ie. 701 IS 100701

PROJECT NO: 313327
DATE BEGAN: 12-16-91
DRILLER: E. GARDNER, D. JAMESON
GROUND SURFACE ELEV.: 586.00'
DRILLING METHOD: HOLLOW STEM AUGER
CONTRACTOR: PENN DRILLING

BORING NO: 1745
DATE FINISHED: 12-17-91
N: 478500.00'
GWL DATE/TIME: NA

PAGE 1 OF 2
PROJECT NAME: FERNALD
FIELD ENGINEER: D. O'BRIEN
E: 1382000.00'
GWL DEPTH: NA
EQUIPMENT: MOBILE DRILL 80
CHECKED BY: D. AMBROSE

ELEV (FT)	DEPTH (FT)	SAMPLE TYPE AND NO.	SPT BLOWS PER (0.5')	REC (FT)	LITHOLOGY	DESCRIPTION	USCS	KOZAHONZIO 181	REMARKS
	0.00	S 1253	5	0.5		Firm, (10YR 5/4), yellowish-brown, silty CLAY, low plasticity, moist	cl	1.0	HNU - 0 ppm βγ - 0 cpm
			5	0.42		1.0'		1.0	
585.0			7	0		No recovery	NA	NA	
			8	0		2.0'		NA	
			5	0.5		Very firm, (10YR 5/4), yellowish-brown, silty CLAY, low plasticity, moist	cl	2.75	HNU - 0 ppm βγ - 0 cpm
			11	0.5		3.0'		2.75	
			14	0.08		Hard, (10YR 5/4), yellowish-brown, silty CLAY, low plasticity, moist 3.5'		4.5	
			17	0		No recovery	NA	NA	
			8	0		4.5'		NA	HNU - 0 ppm βγ - 0 cpm
		S 1254	16	0.33		Firm, (10YR 5/4), yellowish-brown, silty CLAY with sand and gravel, low plasticity, moist 5.0'	cl	2.0	
	-5.00	S 1258	18	0.5		Hard, (10YR 5/4), yellowish-brown, silty CLAY with sand and gravel, moist		>4.5	
		S 1258	20	0.5		6.0'		4.5	
580.0		S 1260	SHELBY TUBE	2.5		Firm, (10YR 5/4), yellowish-brown, silty CLAY with some sand, low plasticity, moist	cl	1.75	HNU - 0 ppm βγ - 0 cpm
		S 1263	11	0.5				1.75	HNU - 0 ppm βγ - 0 cpm
			47	0.5				1.5	
	-10.00		9	0.5		10.5'		2.75	
			14	0		No recovery 11.0'	NA	NA	
575.0			15	0.5		Firm, (10YR 5/4), yellowish-brown, silty CLAY with some sand, low plasticity, moist 11.5'		1.5	HNU - 0 ppm βγ - 0 cpm
			21	0.5		Very firm, (10YR 5/4), yellowish-brown, silty CLAY with some sand, low plasticity, moist 12.0'	cl	3.0	
		S 1264	20	0.42		Firm, (5Y 5/3), olive, silty CLAY with some sand, low plasticity, moist 12.5'		1.75	HNU - 0 ppm βγ - 0 cpm
			13	0		No recovery	NA		
		S 1265	3	0					
			7	0		14.0'			
			9	0.5		Very firm, (5Y 5/3), olive, silty CLAY with sand and gravel, low plasticity, moist	cl	2.5	HNU - 0 ppm βγ - 0 cpm
			17	0.08		15.0'		2.75	
	-15.00		5	0		No recovery	NA		HNU - 0 ppm βγ - 0 cpm
			11	0		16.0'			
570.0		S 1268	14	0.5		Very firm, (5Y 5/3), olive, silty CLAY with sand and gravel, low plasticity, moist 16.5'		2.75	
		S 1268	17	0.5		Hard, (5Y 5/3), olive, silty CLAY with sand and gravel, low plasticity, moist 17.0'		4.25	

PROJECT NO: 313327
DATE BEGAN: 12-16-91
DRILLER: E. GARDNER, D. JAMESON
GROUND SURFACE ELEV.: 586.00'
DRILLING METHOD: HOLLOW STEM AUGER
CONTRACTOR: PENN DRILLING

BORING NO: 1745
DATE FINISHED: 12-17-91
N: 478500.00'
GWL DATE/TIME: NA

PAGE 2 OF 2
PROJECT NAME: FERNALD
FIELD ENGINEER: D. O'BRIEN
E: 1382000.00'
GWL DEPTH: NA
EQUIPMENT: MOBILE DRILL 80
CHECKED BY: D. AMBROSE

ELEV (FT)	DEPTH (FT)	SAMPLE TYPE AND NO	SPT BLOWS PER (0.5')	REC (FT)	DRILLING RATE	DESCRIPTION	USCS	OVA (PPM)	REMARKS
		S 1270	SHELBY TUBE	2.33		Very firm, (5Y 5/3), olive, silty CLAY with sand and gravel, low plasticity, moist 20.0'	CI	2.5	HNU - 0 ppm βγ - 0 cpm
	-20.00								
565.0			6	0		No recovery	NA	NA	
			14	0					
			14	0					
			19	0					
			9	0					
			18	0					
			21	0					
			24	0					
			9	0					
			14	0		25.0'			
	-25.00	S 1273	9	0.5		Very firm, (5Y 5/3), olive, silty CLAY with sand and gravel, low plasticity, moist 25.5'	CI	2.0	HNU - 0 ppm βγ - 0 cpm
560.0		S 1275	18	0.5		Hard, (5Y 5/3), olive, silty CLAY with sand and gravel, low plasticity, moist 26.0'		4.5	
		S 1277	21	0.5		Very firm, (5Y 5/3), olive, silty CLAY with sand and gravel, low plasticity, moist		2.5	
		S 1279	24	0.5				3.0	
						BOTTOM OF BORING AT 27.0'			
	-30.00								
555.0									

NOTE:
ALL SAMPLE NUMBERS ARE INCREMENTED BY 100,000
ie. 1253 IS 101253

PROJECT NO:	313327	BORING NO:	1746	PAGE 1 OF 1	
DATE BEGAN:	12-16-91	DATE FINISHED:	12-16-91	PROJECT NAME:	FERNALD
DRILLER:	B. YOST, K. MYERS	N:	478000.00'	FIELD ENGINEER:	G. MARSHALL
GROUND SURFACE ELEV.:	EST. 593.0'	GWL DATE/TIME:	NA	E:	1382500.00'
DRILLING METHOD:	HOLLOW STEM AUGER			GWL DEPTH:	NA
CONTRACTOR:	PENN DRILLING			EQUIPMENT:	MOBILE DRILL 80
				CHECKED BY:	D. AMBROSE

ELEV (FT)	DEPTH (FT)	SAMPLE TYPE AND NO	BPT BLOWS PER (0.5')	REC (FT)	PROFILE	DESCRIPTION	USCS	OVA (PPM)	REMARKS
	0.00	S 0687	5	0.5		Firm, (10YR 3/6), yellowish-brown, silty CLAY with rootlets, no plasticity, dry 0.5'	cl	1.5	HNU - 0 ppm βγ - 0 cpm
			7	0		No recovery	NA	NA	
			7	0		1.5'		NA	
		S 0689	13	0.5		Hard, (10YR 4/6), dark yellowish-brown, silty CLAY, trace of gravel, no plasticity, dry 2.0'	cl	>4.5	HNU - 0 ppm βγ - 0 cpm
			12	0		No recovery	NA	NA	
			16	0		3.0'		NA	
590.0		S 0689	16	0.5		Hard, (10YR 6/4), light yellowish-brown, silty CLAY with gravel, no plasticity, dry	cl	>4.5	HNU - 0 ppm βγ - 0 cpm
			28	0.5		4.15'		>4.5	
			27	0.25		Hard, (10YR 4/4), dark yellowish-brown, silty CLAY with some gravel, no plasticity, dry		>4.5	
		S 0690	12	0.5				>4.5	HNU - 0 ppm βγ - 0 cpm
	-5.00	S 0691	13	0.5				>4.5	
		S 0692	14	0.42		6.0'		>4.5	
			13	0		No recovery 6.5'	NA	NA	
		S 0698	18	0.5		Hard, (10YR 5/6), yellowish-brown, gravelly CLAY, no plasticity, dry 7.0'	cl	>4.5	HNU - 0 ppm βγ - 0 cpm
		S 0697	19	0.5		Medium firm, (10YR 5/4), yellowish-brown, very fine, clayey SAND, no plasticity, moist 8.0'	sc	1.0	
		S 0697	16	0.33				1.0	HNU - 0 ppm βγ - 0 cpm
585.0		S 0697	20	0.5		Very soft, (10YR 5/4), yellowish-brown mottled with (10YR 5/1), gray, very fine, clayey SAND, no plasticity, wet 8.5'		0.25	HIT PERCHED WATER AT 8.0'
			22	0.33		Very soft, (10YR 5/4), yellowish-brown, very fine, clayey SAND, no plasticity, moist 9.0'		0.25	
		S 0698	17	0		No recovery 9.5'	NA	NA	
	-10.00	S 0699	SHELBY TUBE	1.58		Very firm, (2.5Y 4/3), olive brown, gravelly CLAY, low plasticity, wet 9.75'	cl sc	2.75 0.25	HNU - 0 ppm βγ - 0 cpm
						Very soft, (2.5Y 4/3), olive brown, clayey GRAVEL, no plasticity, wet 10.5'	cl	2.25	
						Very firm, (2.5Y 4/3), olive brown, gravelly CLAY, low plasticity, moist 10.75'			
						No recovery	NA		
580.0						BOTTOM OF BORING AT 12.5'			
	-15.00								NOTE: ALL SAMPLE NUMBERS ARE INCREMENTED BY 100,000 ie. 687 IS 100687

PROJECT NO: 313327
DATE BEGAN: 12-10-91
DRILLER: E. GARDNER, D. JAMISON
GROUND SURFACE ELEV.: NA
DRILLING METHOD: HOLLOW STEM AUGER
CONTRACTOR: PENN DRILLING

BORING NO: 1747
DATE FINISHED: 12-11-91
N: 477600.00'
GWL DATE/TIME: NA

PAGE 1 OF 2
PROJECT NAME: FERNALD
FIELD ENGINEER: P. CASSEDAY
E: 1382500.00'
GWL DEPTH: NA
EQUIPMENT: NA
CHECKED BY: D. AMBROSE

ELEV (FT)	DEPTH (FT)	SAMPLE TYPE AND NO.	SPT BLOWS PER (0.5')	REC (FT)	PROFILE	DESCRIPTION	STATUS	OVA (PPM)	REMARKS
0.0	0.00	S 1226	2	0.5		Med Firm, (10YR 4/6), dark yellowish-brown, silty CLAY, abundant roots and organic material, slightly moist 0.5'		0.5	HNU - 0 ppm, βγ - 20 cpm, α - 0 cpm
			3	0.5		Very Firm, (10YR 4/6), dark yellowish-brown, silty CLAY, less organic material, low plasticity, slightly moist 1.0'	cl	3.5	HNU - 0 ppm, βγ - 20 cpm, α - 0 cpm
			5	0.25		Hard, (10YR 4/6), dark yellowish brown, silty CLAY, less organic material, low plasticity, slightly moist 1.5'		>4.0	HNU - 0 ppm, βγ - 20 cpm, α - 0 cpm
		S 1225	12	0		No recovery 2.0'	NA	NA	
		S 1227	15	0.5		Dense, (2.5Y 6/6), olive yellow, clayey SILT with minor sand, low plasticity, trace gravel, dry 3.0'		NA	HNU - 0 ppm, βγ - 20 cpm, α - 0 cpm
			21	0.5		Dense, (2.5Y 6/6), olive yellow, clayey SILT with minor sand and some gravel, dry 5.5'		NA	HNU - 0 ppm, βγ - 20 cpm, α - 0 cpm
			28	0.5				NA	HNU - 0 ppm, βγ - 20 cpm, α - 0 cpm
			20	0				NA	HNU - 0 ppm, βγ - 20 cpm, α - 0 cpm
			20	0.17			ml	NA	HNU - 0 ppm, βγ - 20 cpm, α - 0 cpm
			20	0.5				NA	HNU - 0 ppm, βγ - 20 cpm, α - 0 cpm
-5.0	-5.00		20	0.5				NA	HNU - 0 ppm, βγ - 20 cpm, α - 0 cpm
		S 1228	24	0.17		Firm, (10YR 5/4), yellowish brown, silty CLAY with trace of sand, plastic, moist 6.0'		1.5	HNU - 0 ppm, βγ - 20 cpm, α - 0 cpm
			22	0.5		Medium Firm, (10YR 5/4), yellowish brown, silty CLAY trace sand, some intermittent gravel, slightly plastic, moist 7.5'		0.75	HNU - 0 ppm, βγ - 20 cpm, α - 0 cpm
			22	0.5				0.75	HNU - 0 ppm, βγ - 20 cpm, α - 0 cpm
			26	0.5			cl	0.75	HNU - 0 ppm, βγ - 20 cpm, α - 0 cpm
			14	0.5		Medium Firm, (10YR 5/4), yellowish brown, silty CLAY, trace sand, some intermittent gravel, slightly plastic, some larger chunks of gravel, moist 8.5'		0.75	HNU - 0 ppm, βγ - 20 cpm, α - 0 cpm
			16	0				1.5	HNU - 0 ppm, βγ - 20 cpm, α - 0 cpm
			21	0.5		Very Firm, (10YR 5/4), yellowish brown, silty CLAY, trace sand, some intermittent gravel, slightly plastic, some larger chunks of gravel, moist 9.0'		3.5	HNU - 0 ppm, βγ - 20 cpm, α - 0 cpm
		S 1229	NA	1.0		Medium Firm, (10YR 4/4), dark yellowish brown, clayey SILT, some small gravel, slightly moist 11.0'	ml	NA	HNU - 0 ppm, βγ - 20 cpm, α - 0 cpm
-10.0	-10.00		NA	1.0				NA	
			NA	0.33		Firm, (10YR 5/6), yellowish brown, silty CLAY with some gravel, and plastic, moist 12.0'		1.25	
		S 1230	SHELBY TUBE	2.5		Medium Firm, (10YR 5/6), yellowish brown, silty CLAY with some gravel, plastic, moist 14.5'	cl	1.0	HNU - 0 ppm, βγ - 20 cpm, α - 0 cpm
						Firm, (5Y 5/1), gray CLAY with some large gravel, plastic, moist 15.0'		1.5	HNU - 0 ppm, βγ - 20 cpm, α - 0 cpm
-15.0	-15.00	S 1248	15	0		No recovery 15.5'	NA	NA	HNU - 0 ppm, βγ - 20 cpm, α - 0 cpm
		S 1233	6	0.5		Firm, (5Y 5/1), gray CLAY with minor silt and some gravel, plastic, moist	cl	1.75	HNU - 0 ppm, βγ - 20 cpm, α - 0 cpm
		S 1247	6	0		No recovery	NA	NA	

PROJECT NO: 313327
DATE BEGAN: 12-10-91
DRILLER: E. GARDNER, D. JAMISON
GROUND SURFACE ELEV.: NA
DRILLING METHOD: HOLLOW STEM AUGER
CONTRACTOR: PENN DRILLING

BORING NO: 1747
DATE FINISHED: 12-11-91
N: 477600.00'
GWL DATE/TIME: NA

PAGE 2 OF 2
PROJECT NAME: FERNALD
FIELD ENGINEER: P. CASSIDAY
E: 1382500.00'
GWL DEPTH: NA
EQUIPMENT: NA
CHECKED BY: D. AMBROSE

ELEV (FT)	DEPTH (FT)	SAMPLE TYPE AND NO.	SPT BLOWS PER (0.5')	REC (FT)	PHOTO	DESCRIPTION	USCS	OVA (DRILLING) (PPM)	REMARKS
			11	0			NA	NA	
			21	0				NA	
		S 1234	34	0.5		Very firm, (5Y 5/1), gray CLAY, some silt and gravel, plastic, moist 17.0'		2.5	HNU - 0 ppm βγ - 20 cpm α - 0 cpm
		S 1238	30	0.5		18.0'		3.0	HNU - 0 ppm βγ - 20 cpm α - 0 cpm
		S 1238	27	0.5		Very firm, (5Y 5/1), gray CLAY, grading into a clayey silt with gravel, moist	cl	3.0	HNU - 0 ppm βγ - 20 cpm α - 0 cpm
		S 1240	21	0.5		Very firm, (5Y 5/1), gray CLAY, grading into a clayey silt with gravel, moist		3.0	HNU - 0 ppm βγ - 20 cpm α - 0 cpm
		S	SHELBY TUBE			19.0'			HNU - 0 ppm βγ - 20 cpm α - 0 cpm
20.0	-20.00	1242		2.5		Very firm, (5Y 5/1), gray, sandy SILT, some gravel, very wet	ml	3.0	
						BOTTOM OF BORING AT 21.5'			
25.0	-25.00								
30.0	-30.00								

NOTE:
ALL SAMPLE NUMBERS ARE INCREMENTED BY 100,000
ie. 1226 IS 101226

PROJECT NO: 313327
DATE BEGAN: 12-9-91
DRILLER: B. YOST, K. MEYERS
GROUND SURFACE ELEV.: NA
DRILLING METHOD: AUGER
CONTRACTOR: PENN DRILLING

BORING NO: 1748
DATE FINISHED: 12-12-91
N: 477300.00'
GWL DATE/TIME: NA

PAGE 1 OF 2
PROJECT NAME: FERNALD
FIELD ENGINEER: G. MARSHALL
E: 1382500.00'
GWL DEPTH: NA
EQUIPMENT: MOBILE DRILLING RIG 80
CHECKED BY: D. AMBROSE

ELEV (FT)	DEPTH (FT)	SAMPLE TYPE AND NO.	SPT BLOWS PER (0.5')	REC (FT)	PROFILE	DESCRIPTION	OVOC	(BZ+HNU+BZ) 1	REMARKS
0.0	0.00	S 0651	3	0.5		Firm, (10YR 3/6), dark yellowish-brown, silty CLAY, silt, rootlets, no plasticity, dry 0.5'	cl	1.5	TRIP/FIELD BLANK NO. 10052
			5	0.5		Medium firm, (10YR 3/6), dark yellowish-brown, silty CLAY, no plasticity, dry		1.0	HNU - 0 ppm
								1.75	βγ - 0 cpm
			3	0			NA	NA	ABOVE BACKGROUND
		S 0653	6	0.5		Firm, (10YR 5/8), yellowish-brown silty CLAY, no plasticity, dry 1.0'	cl	>4	HNU - 0 ppm
									βγ - 0 cpm
			12	0		No recovery 1.5'	NA	NA	ABOVE BACKGROUND
			15	0		Hard, (10YR 5/8), yellowish-brown, silty CLAY, no plasticity, dry 2.0' No recovery 3.0'			
		S 0653	12	0.5		Hard, (10YR 5/8), yellowish-brown, silty CLAY, no plasticity, dry			HNU - 0 ppm
		S 0653	22	0.5		4.0'			βγ - 0 cpm ABOVE BACKGROUND
			21	0.8		Hard, (10YR 5/6), yellowish-brown, silty CLAY with traces of gravel, no plasticity, dry	cl	>4	HNU - 0 ppm
		S 0653	21	0.5		5.0'			βγ - 0 cpm ABOVE BACKGROUND
-5.0	-5.00		18	0		No recovery			
			12	0		6.0'	NA	NA	
		S 0654	11	0.5		Very firm, (10YR 5/3), brown, CLAY with sand and gravel, high plasticity, moist		3.5	HNU - 0 ppm
		S 0654	15	0.5		Firm, (10YR 5/3), brown, CLAY with sand and gravel, high plasticity, moist		1.75	βγ - 0 cpm ABOVE BACKGROUND
			11	0.5		Very firm, (10YR 5/3), brown, CLAY with sand and gravel, high plasticity, moist		2.75	HNU - 0 ppm
		S 0654	11	0.5				1.0	βγ - 0 cpm ABOVE BACKGROUND
			13	0.5		Firm, (10YR 5/3), brown, CLAY with sand and gravel, high plasticity, moist		2.0	
			11	0.5		Very firm, (10YR 5/3), brown, CLAY with sand and gravel, high plasticity, moist		4.0	
		S 0655	SHELBY TUBE	4.5		Hard, (10YR 5/3), brown, CLAY with sand and gravel, high plasticity, moist	cl	1.5	HNU - 0 ppm βγ - 0 cpm ABOVE BACKGROUND
-10.0	-10.00					Firm, (10YR 5/1), gray CLAY with sand and gravel, no plasticity, dry 12.0'		>4.0	HNU - 0 ppm βγ - 0 cpm ABOVE BACKGROUND
		S 0656	9	0.5		Hard, (5YR 5/8), yellowish-red, silty CLAY with some sand and gravel, low plasticity, moist		3.0	HNU - 0 ppm βγ - 0 cpm
			10	0.5		13.0'		2.5	ABOVE BACKGROUND
			16	0.5		Very hard, (10YR 5/1), gray mottled with (5YR 5/8), yellowish-red CLAY with sand and gravel, low plasticity, moist		>4.5	HNU - 0 ppm βγ - 0 cpm
			20	0		13.5' No recovery 14.0'	NA	NA	ABOVE BACKGROUND
		S 0664	4	0.5		Firm, (5YR 4/4), reddish-brown, silty CLAY with sand and gravel, low plasticity, moist	cl	1.25	HNU - 0 ppm βγ - 0 cpm
			9	0.5		15.0'	cl	2.5	ABOVE BACKGROUND
-15.0	-15.00		13	0		No recovery 15.5'	NA	NA	
		S 0665	9	0.5		Firm, (10YR 5/1), gray, gravelly CLAY with sand, low plasticity, moist	cl	1.5	HNU - 0 ppm βγ - 0 cpm
			12	0.5		Very firm, (10YR 5/1), gray, gravelly CLAY with sand, low plasticity, moist	cl	2.75	ABOVE BACKGROUND
			16	0.17		17.0'	cl	2.75	

PROJECT NO: 313327
DATE BEGAN: 12-9-91
DRILLER: B. YOST, K. MEYERS
GROUND SURFACE ELEV.: NA
DRILLING METHOD: AUGER
CONTRACTOR: PENN DRILLING

BORING NO: 1749
DATE FINISHED: 12-12-91
N: 477300.00'
GWL DATE/TIME: NA

PAGE 2 OF 2
PROJECT NAME: FERNALD
FIELD ENGINEER: G. MARSHALL
E: 1382500.00'
GWL DEPTH: NA
EQUIPMENT: MOBILE DRILLING RIG 80
CHECKED BY: D. AMBROSE

ELEV (FT)	DEPTH (FT)	SAMPLE TYPE AND NO.	SPT BLOWS PER (0.5')	REC (FT)	DESCRIPTION	USCS	OVA (PPM)	REMARKS
		S 0664	11	0.5	Very Firm, (5Y 5/1), gray, gravelly CLAY with sand, low plasticity, moist		2.75	HNU - 0 ppm
			20	0.5			2.50	βγ - 0 cpm ABOVE BACKGROUND
			23	0.5	18.5'		2.50	SAMPLE INTERVAL USED FOR DISTURBED GEOTECH
		S 0665	SHELBY TUBE	1.83	Very Firm, (5Y 5/1), gray, gravelly CLAY with sand, low plasticity, moist		3.0	HNU - 0 ppm βγ - 0 cpm ABOVE BACKGROUND
-20.0	-20.00	S	TUBE	1.33		cl	2.5	HNU - 0 ppm βγ - 0 cpm ABOVE BACKGROUND
					21.5'			
					No recovery 22.0'	NA	NA	DRILLED AN EXTRA 6" TO TRY TO GET PAST COBBLE
		S 0665	SHELBY TUBE	2.0	Very Firm, (5Y 5/1), gray, gravelly CLAY with sand, low plasticity, moist	cl	3.0	HNU - 0 ppm βγ - 0 cpm ABOVE BACKGROUND TUBE CRUSHED. LOW RECOVERY. ARCHIVE SAMPLE
-25.0	-25.00							
		S 0666	7	0.5	Firm, (5Y 5/1), gray, gravelly CLAY with sand, low plasticity, moist			
		S 0667	11	0.5		cl	>4.5	
		S 0668	14	0.5	26.5'			
			18		No recovery 27.0'	NA	NA	
		S 0672	SHELBY TUBE	1.33	Firm, (5Y 5/2), olive gray, gravelly CLAY with sand (Fine), low plasticity, moist	cl	>4.5	
-30.0	-30.00							
		S 0675	5	0.5	Very Firm, (5Y 5/1), gray, gravelly CLAY, with medium sand, low plasticity, moist		3.0	HNU - 0 ppm βγ - 0 cpm ABOVE BACKGROUND
		S 0676	17	0.5			2.5	
		S 0677	22	0.5			2.75	
		S 0678	27	0.5			2.75	
					BOTTOM OF BORING AT 32.0'			
	-35.00							

PROJECT NO: 313327
DATE BEGAN: 3-10-92
DRILLER: J. BARILE, C. COULTER
GROUND SURFACE ELEV.: NA
DRILLING METHOD: HOLLOW STEM AUGER
CONTRACTOR: PENN DRILLING

BORING NO: 1749
DATE FINISHED: 3-11-92
N: 478000.00'
GWL DATE/TIME: NA

PAGE 1 OF 2
PROJECT NAME: FERNALD
FIELD ENGINEER: D. O'BRIEN
E: 1382900.00'
GWL DEPTH: NA
EQUIPMENT: MOBILE DRILL 80
CHECKED BY: D. AMBROSE

ELEV (FT)	DEPTH (FT)	SAMPLE TYPE AND NO.	SPT BLOWS PER (0.5')	REC (FT)	PROFILE	DESCRIPTION	USCS	OVA (DOWNHOLE) (PPM)	REMARKS
0.0	0.00	S 1501	2	0.5		Firm, (10YR 5/4), yellowish-brown, silty CLAY, no plasticity, slightly moist		1.0	HNU - 0 ppm, βγ - 50 cpm
			3	0.5		1.0'	cl	1.25	HNU - 0 ppm, βγ - 60 cpm
			4	0.25		Very firm, (10YR 5/4), yellowish-brown, silty CLAY, no plasticity, slightly moist 1.5'		2.5	HNU - 0 ppm, βγ - 60 cpm
			6	0		No recovery 2.0'	NA	NA	
		S 1502	5	0.5		Firm, (10YR 5/4), yellowish-brown silty CLAY, no plasticity, slightly moist		2.0	HNU - 0 ppm, βγ - 40 cpm
		S 1504	7	0.5		3.0'	cl	2.0	HNU - 0 ppm, βγ - 40 cpm
		S 1508	9	0.5		Very firm, (10YR 5/4), yellowish-brown, silty CLAY, no plasticity, slightly moist 3.5'		3.0	HNU - 0 ppm, βγ - 60 cpm
			11	0		No recovery 4.0'	NA	NA	
		S 1508	6	0.5		Very firm, (2.5Y 6/3), light yellowish-brown, silty CLAY with gravel, no plasticity, dry		2.0	HNU - 0 ppm, βγ - 50 cpm
			9	0.5			cl	2.25	HNU - 0 ppm, βγ - 50 cpm
-5.0	-5.00		13	0.5		5.5'		2.25	HNU - 0 ppm, βγ - 40 cpm
			17	0.5		Hard, (2.5Y 6/3), light yellowish-brown, silty CLAY with gravel, no plasticity, dry		4.0	HNU - 0 ppm, βγ - 40 cpm
		S 1508	6	0.5		6.5'		4.0	HNU - 0 ppm, βγ - 40 cpm
			11	0		No recovery		NA	
			14	0			NA	NA	
			18	0		8.0'		NA	
		S 1509	SHELBY TUBE	1.5		Very firm, (2.5Y 6/3), light yellowish-brown, silty CLAY with gravel, low plasticity, slightly moist 11.0'		3.5	HNU - 0 ppm, βγ - 60 cpm
-10.0	-10.00	S 1510	14	0.5		Very firm, (5Y 5/1), gray CLAY with gravel, low plasticity, dry	cl	2.0	HNU - 0 ppm, βγ - 60 cpm
			18	0.5		12.0'		3.25	HNU - 0 ppm, βγ - 40 cpm
			27	0.5		Hard, (5Y 5/1), gray CLAY with gravel, no plasticity, dry 12.5'		>4.0	HNU - 0 ppm, βγ - 40 cpm
			36	0.5		Very firm, (5Y 5/1), gray CLAY with gravel, no plasticity, dry 13.0'		2.75	HNU - 0 ppm, βγ - 40 cpm
		S 1511	6	0.5		Firm, (5Y 5/1), gray CLAY with gravel, no plasticity, dry 13.5'		2.0	HNU - 0 ppm, βγ - 60 cpm
		S 1513	7	0.5		Very firm, (5Y 5/1), gray CLAY with gravel, no plasticity, dry		2.25	HNU - 0 ppm, βγ - 60 cpm
		S 1513	14	0.25		14.5'		2.25	HNU - 0 ppm, βγ - 60 cpm
			22	0		No recovery 15.0'	NA	NA	
-15.0	-15.00	S 1517	4	0.5		Very firm, (5Y 5/1), gray CLAY with pockets of poorly graded, coarse sand, low plasticity, wet		2.0	HNU - 0 ppm, βγ - 60 cpm
			9	0.25		16.0'	cl	2.0	HNU - 0 ppm, βγ - 50 cpm
			11	0		No recovery		NA	
			20	0		17.0'	NA	NA	

PROJECT NO: 313327
DATE BEGAN: 3-10-92
DRILLER: J. BARILE, C. COULTER
GROUND SURFACE ELEV.: NA
DRILLING METHOD: HOLLOW STEM AUGER
CONTRACTOR: PENN DRILLING

BORING NO: 1749
DATE FINISHED: 3-11-92
N: 478000.00'
GWL DATE/TIME: NA

PAGE 2 OF 2
PROJECT NAME: FERNALD
FIELD ENGINEER: D. O'BRIEN
E: 1382900.00'
GWL DEPTH: NA
EQUIPMENT: MOBILE DRILL 80
CHECKED BY: D. AMBROSE

ELEV (FT)	DEPTH (FT)	SAMPLE TYPE AND NO.	SPT BLOWS PER (0.5')	REC (FT)	PROFILE	DESCRIPTION	USCS	<0.2 MIGHT BE	REMARKS
		S 1518	7	0.5		Very firm, (5Y 5/1), gray CLAY, some gravel, low plasticity, wet		2.0	HNU - 0 ppm, βγ - 50 cpm
			14	0.5				2.0	HNU - 0 ppm, βγ - 50 cpm
			15	0.5		18.5'		2.0	HNU - 0 ppm, βγ - 60 cpm
			18	0.5		Medium firm, (5Y 5/1), gray CLAY, some gravel, low plasticity, wet 19.0'		0.75	HNU - 0 ppm, βγ - 60 cpm
-20.0	-20.00	S 1521	SHELBY TUBE	2.58		Firm, (5Y 5/1), gray CLAY, some gravel, low plasticity, wet 22.0'	CI	1.75	HNU - 0 ppm, βγ - 60 cpm
		S 1524	8	0.5		Medium firm, (5Y 5/1), gray CLAY, low plasticity, slightly moist 22.5'		0.5	HNU - 0 ppm, βγ - 40 cpm
			12	0.17		Firm, (5Y 5/1), gray CLAY, low plasticity, slightly moist 23.0'		1.0	HNU - 0 ppm, βγ - 40 cpm
			13	0		No recovery	NA	NA	
			15	0		24.0'		NA	
		S 1524	6	0.5		Firm, (5Y 5/1), gray CLAY, some gravel, high plasticity, slightly moist		1.25	HNU - 0 ppm, βγ - 40 cpm
			8	0.5		25.0'		1.0	HNU - 0 ppm, βγ - 40 cpm
-25.0	-25.00		11	0.5		Medium firm, (5Y 5/1), gray CLAY, some gravel, high plasticity, slightly moist		0.5	HNU - 0 ppm, βγ - 40 cpm
			14	0.5			CI	0.5	HNU - 0 ppm, βγ - 40 cpm
		S 1524	4	0.5				0.75	HNU - 0 ppm, βγ - 40 cpm
			5	0.5		27.0'		0.75	HNU - 0 ppm, βγ - 40 cpm
			7	0.33		Soft, (5Y 5/1), gray CLAY, high plasticity, moist 27.5'		<0.5	HNU - 0 ppm, βγ - 50 cpm
			9	0		No recovery 28.0'	NA	NA	
		S 1526	11	0.5		Soft, (5Y 5/1), gray CLAY, medium plasticity, moist 28.5'		<0.5	HNU - 0 ppm, βγ - 40 cpm
		S 1528	14	0.5		Medium firm, (5Y 5/1), gray CLAY, medium plasticity, moist	CI	.75	HNU - 0 ppm, βγ - 40 cpm
		S 1530	27	0.5		29.5'		0.75	HNU - 0 ppm, βγ - 40 cpm
30.0	30.00		31	0		No recovery	NA	NA	

BOTTOM OF BORING AT 30.0'

NOTE:
ALL SAMPLE NUMBERS ARE INCREMENTED BY 100,000 ie. 1501 IS 101501

PROJECT NO: 313327
DATE BEGAN: 3-12-92
DRILLER: J. BARILE, C. COULTER
GROUND SURFACE ELEV.: NA
DRILLING METHOD: HOLLOW STEM AUGER
CONTRACTOR: PENN DRILLING

BORING NO: 1750
DATE FINISHED: 3-13-92
N: 478500.00'
GWL DATE/TIME: NA

PAGE 1 OF 2
PROJECT NAME: FERNALD
FIELD ENGINEER: D. O'BRIEN
E: 1382500.00'
GWL DEPTH: NA
EQUIPMENT: MOBILE DRILL 80
CHECKED BY: D. AMBROSE

ELEV (FT)	DEPTH (FT)	SAMPLE TYPE AND NO	SPT BLOWS PER (0.5')	REC (FT)	LITHOLOGY	DESCRIPTION	OVAC	DOSIMETER (MR/HR)	REMARKS
0.0	0.00	S 1534	2	0.5		Medium firm, (10YR 5/4), yellowish-brown, silty CLAY, low plasticity, slightly moist 0.5'		0.75	HNU - 0 ppm; βγ - 40 cpm
			4	0.5		Firm, (10YR 5/4), yellowish-brown, silty CLAY, low plasticity, slightly moist	cl	1.0	HNU - 0 ppm; βγ - 40 cpm
			6	0.33		1.5'		1.75	HNU - 0 ppm; βγ - 40 cpm
			8	0		No recovery 2.0'	NA	NA	HNU - NA ppm; βγ - NA cpm
		S 1535	3	0.25		Medium firm, (10YR 5/10), yellowish-brown, silty CLAY, low plasticity, slightly moist		0.5	HNU - 0 ppm; βγ - 50 cpm
		S 1537	7	0.5			cl	0.5	HNU - 0 ppm; βγ - 50 cpm
		S 1539	9	0.5		3.5'		0.5	HNU - 0 ppm; βγ - 50 cpm
			12	0		No recovery 4.0'	NA	NA	HNU - NA ppm; βγ - NA cpm
		S 1541	8	0.5		Soft, (2.5Y 5/4), light olive-brown, silty CLAY, some gravel, medium plasticity, moist 4.5'		<.5	HNU - 0 ppm; βγ - 40 cpm
-5.0	-5.00		12	0.5		Very firm, (2.5Y 5/4), light olive-brown, silty CLAY, some gravel, medium plasticity, moist		2.25	HNU - 0 ppm; βγ - 40 cpm
			15	0.5				3.0	HNU - 0 ppm; βγ - 40 cpm
			18	0.5				3.0	HNU - 0 ppm; βγ - 40 cpm
		S 1541	3	0.5				2.0	HNU - 0 ppm; βγ - 50 cpm
			6	0.5				2.0	HNU - 0 ppm; βγ - 50 cpm
			10	0.5				2.5	HNU - 0 ppm; βγ - 50 cpm
			10	0.17			cl	2.5	HNU - 0 ppm; βγ - 50 cpm
		S 1543	SHELBY TUBE	2.08		11.0'		3.5	HNU - 0 ppm; βγ - 50 cpm; HNU - NA ppm; βγ - NA cpm; HNU - NA ppm; βγ - NA cpm; HNU - NA ppm; βγ - NA cpm
-10.0	-10.00		8	0		No recovery		NA	HNU - 0 ppm; βγ - 0 cpm
			11	0			NA	NA	HNU - NA ppm; βγ - NA cpm
			15	0				NA	HNU - NA ppm; βγ - NA cpm
			19	0		13.0'		NA	HNU - NA ppm; βγ - NA cpm
		S 1545	6	0.5		Medium firm, (2.5Y 5/4), light olive-brown, silty CLAY with gravel, medium plasticity, moist 13.5'		0.75	HNU - 0 ppm; βγ - 50 cpm
			6	0.5		Very firm, (2.5Y 5/4), light olive-brown, silty CLAY with gravel, medium plasticity, moist 14.0'		2.25	HNU - 0 ppm; βγ - 50 cpm
		S 1547	11	0.5		Firm, (5Y 5/1), gray CLAY with gravel, low plasticity, slightly moist 14.5'		1.5	HNU - 0 ppm; βγ - 50 cpm
			20	0.33		Medium firm, (5Y 5/1), gray CLAY with gravel, low plasticity, slightly moist 15.0'	cl	0.75	HNU - 0 ppm; βγ - 50 cpm
-15.0	-15.00	S 1549	6	0.5		Very firm, (2.5Y 5/4), light olive-brown, silty CLAY, low plasticity, moist 15.5'		2.25	HNU - 0 ppm; βγ - 60 cpm
		S 1549	7	0.5		Very firm, (5Y 5/1), gray CLAY with gravel, low plasticity, moist 16.0'		2.5	HNU - 0 ppm; βγ - 60 cpm
			9	0		No recovery	NA	NA	HNU - NA ppm; βγ - NA cpm
			14	0		17.0'		NA	HNU - NA ppm; βγ - NA cpm

PROJECT NO: 313327
DATE BEGAN: 3-12-92
DRILLER: J. BARILE, C. COULTER
GROUND SURFACE ELEV.: NA
DRILLING METHOD: HOLLOW STEM AUGER
CONTRACTOR: PENN DRILLING

BORING NO: 1750
DATE FINISHED: 3-13-92
N: 478500.00'
GWL DATE/TIME: NA

PAGE 2 OF 2
PROJECT NAME: FERNALD
FIELD ENGINEER: D. O'BRIEN
E: 1382500.00'
GWL DEPTH: NA
EQUIPMENT: MOBILE DRILL 80
CHECKED BY: D. AMBROSE

ELEV (FT)	DEPTH (FT)	SAMPLE TYPE AND NO.	SPT BLOWS PER (0.5')	REC (FT)	PROFILE	DESCRIPTION	USCS	<0.2 μm (0.2 μm)	REMARKS
		S 1550	6	0.5		Very Firm, (5Y 5/1), gray CLAY with gravel, low plasticity, wet	cl	2.5	HNU - 0 ppm; βγ - 50 cpm
			10	0.25		18.0'		2.5	HNU - 0 ppm; βγ - 50 cpm
			13	0		No recovery	NA	NA	HNU - NA ppm; βγ - NA cpm
			15	0		19.0'		NA	HNU - NA ppm; βγ - NA cpm
-20.0	-20.00	S 1551	SHELBY TUBE	1.42		Hard, (5Y 5/1), gray CLAY with gravel, low plasticity, moist	cl	>4.0	HNU - 0 ppm; βγ - 50 cpm; HNU - 0 ppm; βγ - 50 cpm; HNU - 0 ppm; βγ - 50 cpm; HNU - NA ppm; βγ - NA cpm; HNU - NA ppm; βγ - NA cpm; HNU - NA ppm; βγ - NA cpm
		S 1552	10	0.5		Hard, (5Y 5/1), gray, gravelly CLAY, no plasticity, moist		>4.0	HNU - 0 ppm; βγ - 60 cpm
		S 1554	12	0.5		23.0'		>4.0	HNU - 0 ppm; βγ - 60 cpm
		S 1556	14	0.5		Very Firm, (5Y 5/1), gray, gravelly CLAY, no plasticity, moist 23.5'		3.5	HNU - 0 ppm; βγ - 60 cpm
		S 1558	18	0.5		Hard, (5Y 5/1), gray, gravelly CLAY, no plasticity, moist 24.0'		>4.0	HNU - 0 ppm; βγ - 60 cpm
		S 1560	10	0.5		Firm, (5Y 5/1) gray, gravelly CLAY, no plasticity		1.75	HNU - 0 ppm; βγ - 40 cpm
			11	0.33		25.0'		1.5	HNU - 0 ppm; βγ - 40 cpm
-25.0	-25.00		14	0		No recovery	NA	NA	HNU - NA ppm; βγ - NA cpm
			13	0		26.0'		NA	HNU - NA ppm; βγ - NA cpm
		S 1560	4	0.5		Firm, (5Y 5/1), gray, gravelly CLAY, low plasticity, wet	cl	1.25	HNU - 0 ppm; βγ - 40 cpm
			4	0.5		27.0'		1.25	HNU - 0 ppm; βγ - 40 cpm
			6	0		No recovery	NA	NA	HNU - NA ppm; βγ - NA cpm
			7	0		28.0'		NA	HNU - NA ppm; βγ - NA cpm
		S 1562	6	0.5		Very Firm, (5Y 5/1), gray, gravelly CLAY, low plasticity, wet	cl	2.0	HNU - 0 ppm; βγ - 60 cpm
		S 1564	8	0.5				2.0	HNU - 0 ppm; βγ - 60 cpm
		S 1566	9	0.5				2.0	HNU - 0 ppm; βγ - 60 cpm
		S 1568	11	0.5				2.5	HNU - 0 ppm; βγ - 60 cpm
-30.0	-30.00					BOTTOM OF BORING AT 30.0'			

NOTE:
ALL SAMPLE NUMBERS ARE INCREMENTED BY 100,000 ie. 1534 IS 101534

PROJECT NO: 313327
DATE BEGAN: 3-24-92
DRILLER: J. BARILE, C. COULTER
GROUND SURFACE ELEV.: NA
DRILLING METHOD: HOLLOW STEM AUGER
CONTRACTOR: PENN DRILLING

BORING NO: 1751
DATE FINISHED: 3-26-92
N: 492740.00'
GWL DATE/TIME: NA

PAGE 1 OF 2
PROJECT NAME: FERNALD
FIELD ENGINEER: D. O'BRIEN
E: 1382575.00'
GWL DEPTH: NA
EQUIPMENT: MOBILE DRILL 80
CHECKED BY: D. AMBROSE

ELEV (FT)	DEPTH (FT)	SAMPLE TYPE AND NO.	SPT BLOWS PER (0.5')	REC (FT)	PROFILE	DESCRIPTION	USCS	OVA (ppm)	REMARKS
0.0	0.00	S 1603	2	0.5		Very firm, (10YR 5/8), brownish-yellow, silty CLAY, low plasticity, slightly moist 1.0'	CL	2.25	HNU - 0 ppm µR - 50 cpm
			3	0.5				3.0	
			4	0		No recovery 2.0'	NA	NA	
			9	0				NA	
		S 1609	4	0.5		Very firm, (10YR 6/4), light yellowish-brown, silty CLAY, low plasticity, slightly moist 3.0'	CL	2.25	HNU - 0 ppm µR - 60 cpm
		S 1611	6	0.5				2.5	
			9	0		No recovery 4.0'	NA	NA	
			12	0				NA	
		S 1613	14	0.5		Very firm, (2.5Y 6/6), olive yellow, silty CLAY with gravel, low plasticity, slightly moist 4.5'	CL	2.0	HNU - 0 ppm µR - 60 cpm
			19	0.5		Firm, (2.5Y 6/6), olive yellow, silty CLAY with gravel, low plasticity, slightly moist 5.0'		1.75	
-5.0	-5.00		21	0.5		Very firm, (2.5Y 6/6), olive yellow, silty CLAY with gravel, low plasticity, slightly moist		2.5	
			21	0.5				2.75	
		S 1613	12	0.5		6.5'		3.75	HNU - 0 ppm µR - 40 cpm
			17	0.5		Hard, (2.5Y 6/6), olive yellow, silty CLAY with gravel, low plasticity, slightly moist 7.0'		4.0	
			19	0.5		Very firm, (2.5Y 6/6), olive yellow, silty CLAY with gravel, low plasticity, slightly moist	CL	3.75	
			21	0.5		8.0'		3.75	
		6 1615	SHELBY TUBE	2.33		Hard, (2.5Y 6/6), olive yellow, silty CLAY with gravel, low plasticity, slightly moist 11.0'		>4.0	HNU - 0 ppm µR - 50 cpm
-10.0	-10.00								
			7	0		No recovery	NA	NA	
			14	0				NA	
			21	0				NA	
			23	0				NA	
			4	0				NA	
			5	0				NA	
			6	0				NA	
			10	0		15.0'		NA	
-15.0	-15.00	S 1618	4	0.5		Firm, (5Y 6/6), olive yellow, silty CLAY with gravel, medium plasticity, moist 15.5'	CL	1.75	HNU - 0 ppm µR - 40 cpm
		S 1619	6	0.5		Firm, (5Y 5/1), gray CLAY with gravel, low plasticity, moist		1.5	
			9	0.17		16.5'		1.75	
			14	0		No recovery		NA	

PROJECT NO: 313327
DATE BEGAN: 3-24-92
DRILLER: J. BARILE, C. COULTER
GROUND SURFACE ELEV.: NA
DRILLING METHOD: HOLLOW STEM AUGER
CONTRACTOR: PENN DRILLING

BORING NO: 1751
DATE FINISHED: 3-26-92
N: 482740.00'
GWL DATE/TIME: NA

PAGE 2 OF 2
PROJECT NAME: FERNALD
FIELD ENGINEER: D. O'BRIEN
E: 1382575.00'
GWL DEPTH: NA
EQUIPMENT: MOBILE DRILL 80
CHECKED BY: D. AMBROSE

ELEV (FT)	DEPTH (FT)	SAMPLE TYPE AND NO	SPT BLOWS PER (0.5')	REC (FT)	PROFILE	DESCRIPTION	USCS	HNU (OZNHOHOZOD TBI)	REMARKS
			5	0				NA	
			8	0			NA	NA	
			14	0				NA	
			11	0		19.0'		NA	
-20.0	-20.00	S 1620	SHELBY TUBE	1.67		Firm, (5Y 5/1), gray, gravelly CLAY, low plasticity, moist 22.0'		1.0	HNU - 0 ppm βγ - 60 cpm
		S 1623	7	0.5		Medium firm, (5Y 5/1), gray, gravelly CLAY, low plasticity, slightly moist 22.5'	cl	0.75	HNU - 0 ppm βγ - 50 cpm
		S 1625	9	0.5		Firm, (5Y 5/1), gray, gravelly CLAY, low plasticity, slightly moist		1.5	
		S 1627	10	0.5				1.0	
		S 1629	12	0.5				1.25	
		S 1631	4	0.5				1.5	HNU - 0 ppm βγ - 60 cpm
-25.0	-25.00		4	0.5				1.5	
			7	0.33		25.5'		2.0	
			9	0		No recovery 26.0'	NA	NA	
		S 1631	8	0.33		Firm, (5Y 5/1), gray, gravelly CLAY, low plasticity, moist 26.5'	cl	1.5	HNU - 0 ppm βγ - 60 cpm
			NA	0		No recovery		NA	
			NA	0			NA	NA	
			NA	0				NA	
-30.0	-30.00					BOTTOM OF BORING AT 28.0'			

NOTE:
ALL SAMPLE NUMBERS ARE INCREMENTED BY 100,000 ie. 1603 IS 101603

PROJECT NO: 313327
DATE BEGAN: 3-16-92
DRILLER: J. BARILE, C. COULTER
GROUND SURFACE ELEV.: NA
DRILLING METHOD: HOLLOW STEM AUGER
CONTRACTOR: PENN DRILLING

BORING NO: 1752
DATE FINISHED: 3-17-92
N: 483620.00'
GWL DATE/TIME: NA

PAGE 1 OF 2
PROJECT NAME: FERNALD
FIELD ENGINEER: D. O'BRIEN
E: 1381480.00'
GWL DEPTH: NA
EQUIPMENT: MOBILE DRILL 80
CHECKED BY: D. AMBROSE

ELEV (FT)	DEPTH (FT)	SAMPLE TYPE AND NO.	SPT BLOWS PER (0.5')	REC (FT)	PROFILE	DESCRIPTION	USCS	OVA (PPM)	REMARKS
0.0	0.00	S 1570	2	0.5		Very Firm, (2.5Y 5/4), light olive-brown, silty CLAY, low plasticity, slightly moist 0.5'	cl	2.5	HNU - 0 ppm; βY - 50 cpm
			6	0.5		Firm, (2.5Y 5/4), light olive-brown, silty CLAY, low plasticity, slightly moist 1.0'		1.5	HNU - 0 ppm; βY - 50 cpm
			9	0		No recovery 2.0'	NA	NA	HNU - NA ppm; βY - NA cpm
			12	0				NA	HNU - NA ppm; βY - NA cpm
		S 1571	12	0.5		Hard, (2.5Y 5/4), light olive-brown, silty CLAY with large limestone fragments, no plasticity, slightly moist 2.5'	cl	4.0	HNU - 0 ppm; βY - 40 cpm
			24	0		No recovery 4.0'	NA	NA	HNU - NA ppm; βY - NA cpm
			50/2	0				NA	HNU - NA ppm; βY - NA cpm
			NA	0				NA	HNU - NA ppm; βY - NA cpm
		S 1572	11	0.5		Firm, (2.5 5/4), light olive-brown, silty CLAY with gravel, low plasticity, slightly moist 4.5'	cl	1.75	HNU - 0 ppm; βY - 60 cpm
-5.0	-5.00	S 1574	14	0.5		Very Firm, (2.5 5/4), light olive-brown, silty CLAY with gravel, low plasticity, slightly moist 5.0'		2.0	HNU - 0 ppm; βY - 60 cpm
		S 1576	18	0.5		Firm, (2.5 5/4), light olive-brown, silty CLAY with gravel, low plasticity, slightly moist 5.5'		1.75	HNU - 0 ppm; βY - 60 cpm
			24	0		No recovery 6.0'	NA	NA	HNU - NA ppm; βY - NA cpm
		S 1578	14	0.5		Hard, (2.5Y 6/4), light yellowish-brown, silty CLAY with gravel, no plasticity, slightly moist 6.5'	cl	>4.0	HNU - 0 ppm; βY - 60 cpm
			21	0		No recovery 8.0'	NA	NA	HNU - NA ppm; βY - NA cpm
			25	0				NA	HNU - NA ppm; βY - NA cpm
			37	0				NA	HNU - NA ppm; βY - NA cpm
-10.0	-10.00	S 1578	SHELBY TUBE	0.58		Hard, (2.5Y 6/4), light yellowish-brown, silty CLAY with limestone fragments, no plasticity, dry 11.0'	cl	>4.0	HNU - 0 ppm; βY - 40 cpm; HNU - 0 ppm; βY - 40 cpm; HNU - 0 ppm; βY - 40 cpm; HNU - NA ppm; βY - NA cpm; HNU - NA ppm; βY - NA cpm; HNU - NA ppm; βY - NA cpm
		S 1578	21	0.5		Very Firm, (2.5 6/4), light yellowish-brown, silty CLAY with limestone fragments, no plasticity, dry 11.5'		3.5	HNU - 0 ppm; βY - 50 cpm
			14	0		No recovery 13.0'	NA	NA	HNU - NA ppm; βY - NA cpm
			10	0				NA	HNU - NA ppm; βY - NA cpm
			11	0				NA	HNU - NA ppm; βY - NA cpm
		S 1578	13	0.5		Hard, (2.5Y 6/4), light yellowish-brown, silty CLAY with limestone fragments, no plasticity, dry 14.0'	cl	>4.0	HNU - 0 ppm; βY - 50 cpm
			13	0.17				>4.0	HNU - 0 ppm; βY - 50 cpm
			15	0		No recovery 15.0'	NA	NA	HNU - NA ppm; βY - NA cpm
			21	0				NA	HNU - NA ppm; βY - NA cpm
-15.0	-15.00	S 1578	4	0.5		Very Firm, (2.5Y 6/4), light yellowish-brown, silty CLAY with limestone fragments, no plasticity, dry 15.5'	cl	2.5	HNU - 0 ppm; βY - 40 cpm
			14	0.5		Hard, (2.5Y 6/4), light yellowish-brown, silty CLAY with limestone fragments, no plasticity, dry		4.0	HNU - 0 ppm; βY - 40 cpm

PROJECT NO: 313327
DATE BEGAN: 3-16-92
DRILLER: J. BARILE, C. COULTER
GROUND SURFACE ELEV.: NA
DRILLING METHOD: HOLLOW STEM AUGER
CONTRACTOR: PENN DRILLING

BORING NO: 1752
DATE FINISHED: 3-17-92
N: 483620.00'
GWL DATE/TIME: NA

PAGE 2 OF 2
PROJECT NAME: FERNALD
FIELD ENGINEER: D. O'BRIEN
E: 1381480.00'
GWL DEPTH: NA
EQUIPMENT: MOBILE DRILL 80
CHECKED BY: D. AMBROSE

ELEV (FT)	DEPTH (FT)	SAMPLE TYPE AND NO	SPT BLOWS PER (0.5')	REC (FT)	DRILLING METHOD	DESCRIPTION	USCS	OVA (0-2-1-0-0-2-0-0 PPM)	REMARKS
			16	0.5		Hard, (2.5Y 6/4) light yellowish-brown, silty CLAY with limestone fragments, no plasticity, dry^		4.0	HNU - 0 ppm; βγ - 40 cpm
			23	0.17		17.0'		4.0	HNU - 0 ppm; βγ - 40 cpm
		S 1580	10	0.5		Very firm, (2.5Y 5/4), light olive brown, silty CLAY with gravel, no plasticity, slightly moist	cl	3.5	HNU - 0 ppm; βγ - 40 cpm
			14	0.33		18.0'		3.5	HNU - 0 ppm; βγ - 40 cpm
			15	0		No recovery	NA	NA	HNU - NA ppm; βγ - NA cpm
			22	0		19.0'		NA	HNU - NA ppm; βγ - NA cpm
-20.0	-20.00	S 1780	SHELBY TUBE	1.58		Very firm, (2.5Y 5/4), light olive brown, silty CLAY with gravel, low plasticity, slightly moist	cl	3.25	HNU - 0 ppm; βγ - 60 cpm; HNU - 0 ppm; βγ - 60 cpm; HNU - 0 ppm; βγ - 60 cpm; HNU - 0 ppm; βγ - 60 cpm; HNU - NA ppm; βγ - NA cpm; HNU - NA ppm; βγ - NA cpm
		S 1581	50/4	0.5		Very firm, (2.5Y 5/4), light yellowish-brown, silty CLAY with gravel, no plasticity, slightly moist		3.0	HNU - 0 ppm; βγ - 50 cpm
			NA	0		22.5' No recovery	NA	NA	HNU - NA ppm; βγ - NA cpm
			NA	0				NA	HNU - NA ppm; βγ - NA cpm
			NA	0		24.0'		NA	HNU - NA ppm; βγ - NA cpm
						Hole discrepancy, topped to 25.5 feet due to rig slipping and switching drillers (see FADL for more details)			HNU - NA ppm; βγ - NA cpm; HNU - NA ppm; βγ - NA cpm; HNU - NA ppm
-25.0	-25.00					25.25'			
		S 1583	10	0.25		Very firm, (2.5Y 6/4), light yellowish-brown, silty CLAY with gravel, low plasticity, wet		2.5	βγ - NA cpm
		S 1584	5	0.5		26.0'		2.5	HNU - 4 ppm; βγ - 50 cpm
			11	0.5		Soft, (2.5Y 6/4), light yellowish-brown, silty CLAY with gravel, low plasticity, wet		0.5	HNU - 0 ppm; βγ - 50 cpm
			26	0.5				0.5	HNU - 0 ppm; βγ - 50 cpm
			18	0.5		27.5'		0.5	HNU - 0 ppm; βγ - 50 cpm
		S 1585	32	0.5		Firm, (2.5Y 5/6), light olive brown, laminated CLAY, low plasticity, moist	cl	2.0 >4.0	HNU - 4.5 ppm; βγ - 50 cpm
		S 1586	22	0.5		Shale gravel, (5Y 5/2), olive gray, moist	gw	2.0	HNU - 4 ppm; βγ - 50 ppm
		S 1588	24	0.5		Firm, (2.5Y 5/6), olive brown, laminated CLAY, low plasticity, moist	cl	0.25	HNU - 3 ppm; βγ - 50 cpm
		S 1590	25	0.5		28.0'		0.25	HNU - 3 ppm; βγ - 50 cpm
30.0	30.00	S 1592	50/3	0.5		Soft, (2.5Y 6/4), light yellowish-brown, silty CLAY, low plasticity, wet		0.25	HNU - 2 ppm; βγ - 50 cpm

BOTTOM OF BORING AT 30.0'

NOTE:
ALL SAMPLE NUMBERS ARE INCREMENTED BY 100,000 ie. 1570 IS 101570

PROJECT NO: 313327
DATE BEGAN: 3-23-92
DRILLER: J. BARILE, C. COULTER
GROUND SURFACE ELEV.: NA
DRILLING METHOD: HOLLOW STEM AUGER TO 15.0', CORE TO 20.5'
CONTRACTOR: PENN DRILLING

BORING NO: 1753
DATE FINISHED: 3-23-92
N: 483630.00'
GWL DATE/TIME: NA

PAGE 1 OF 2
PROJECT NAME: FERNALD
FIELD ENGINEER: D. O'BRIEN
E: 1380000.00'
GWL DEPTH: NA
EQUIPMENT: MOBILE DRILL 80
CHECKED BY: D. AMBROSE

ELEV (FT)	DEPTH (FT)	SAMPLE TYPE AND NO.	SPT BLOWS PER (0.5')	REC (FT)	PROFILE	DESCRIPTION	USCS	OVA (DIR-BHZ00 TBI)	REMARKS
0.0	0.00	S 1545	2	0.5		Firm, (10YR 4/4) dark yellowish-brown, silty CLAY, low plasticity, moist 0.5'		1.5	HNU - 0 ppm βγ - 40 cpm
			4	0.5		Very firm, (10YR 4/4) dark yellowish-brown, silty CLAY, low plasticity, moist 1.5'	cl	2.25	
			6	0.17				2.25	
			9	0		No recovery 2.0'	NA	NA	
		S 1598	6	0.5		Very firm, (2.5Y 5/4) light olive brown, silty CLAY, some gravel, no plasticity, slightly moist		2.75	HNU - 0 ppm βγ - 50 cpm
		S 1598	9	0.5			cl	3.25	
		S 1600	16	0.5		3.5'		3.5	
			18	0		No recovery 4.0'	NA	NA	
		S 1602	21	0.5		Very firm, (2.5Y 6/4) light yellowish brown, silty CLAY, some gravel, no plasticity, dry		3.0	HNU - 20 ppm βγ - 50 cpm
			37	0.5		5.0'		3.0	
-5.0	-5.00		25	0.5		Hard, (2.5Y 6/4) light yellowish-brown, silty CLAY, some gravel, no plasticity, dry		>4.0	
			31	0.5		6.0'		>4.0	
		S 1602	24	0.5		Firm, (2.5Y 6/4) light yellowish-brown, silty CLAY, no plasticity, dry 6.5'	cl	1.75	HNU - 0 ppm βγ - 60 cpm
			37	0.5		Very firm, (2.5Y 6/4) light yellowish-brown, silty CLAY, no plasticity, dry 7.0'		2.0	
			50/2	0.5		Hard, (2.5Y 6/4) light yellowish-brown, silty CLAY, no plasticity, dry 8.0'		>4.0	
			RE-FUSAL	0.5				>4.0	
		S 1604	SHELBY TUBE	0.5		Hard, (2.5Y 6/4), light yellowish-brown, weathered SHALE, no plasticity, dry 10.0'		>4.0	HNU - 0 ppm βγ - 60 cpm
-10.0	-10.00	S 1605	20	0.5		Hard, (2.5Y 6/2) light brownish-gray, weathered, interbedded SHALE and LIMESTONE, dry 10.5'		>4.0	HNU - 0 ppm βγ - 40 cpm
			50/4	0		No recovery 12.0'	NA		
		S 1606	22	0.5		(2.5Y N61) gray, weathered SHALE, dry 12.5'			HNU - 0 ppm βγ - 60 cpm
			50/4	0		No recovery 15.0'		NA	AUGERED THROUGH ROCK TO 15.0' HIT BEDROCK, GOING TO CORE 5.0'
-15.0	-15.00					Soft, (2.5Y N61), gray SHALE, weathered, very thinly bedded			HNU - 0 ppm βγ - 500 ppm

PROJECT NO: 313327
DATE BEGAN: 3-23-92
DRILLER: J. BARILE, C. COULTER
GROUND SURFACE ELEV.: NA
DRILLING METHOD: HOLLOW STEM AUGER TO 15.0', CORE TO 20.5'
CONTRACTOR: PENN DRILLING

BORING NO: 1753
DATE FINISHED: 3-23-92
N: 483630.00'
GWL DATE/TIME: NA

PAGE 2 OF 2
PROJECT NAME: FERNALD
FIELD ENGINEER: D. O'BRIEN
E: 1380000.00'
GWL DEPTH: NA
EQUIPMENT: MOBILE DRILL 80
CHECKED BY: D. AMBROSE

ELEV (FT)	DEPTH (FT)	SAMPLE TYPE AND NO.	SPT BLOWS PER (0.5')	REC (FT)	LITHOLOGY	DESCRIPTION	OVOC	(DRILLING RATE)	REMARKS
15.0	15.00					Soft, (2.5Y N6/1), gray SHALE, weathered, very thinly bedded			HNU - 0 ppm pY - 500 ppm
-20.0	-20.00					20.0' Very hard, (2.5Y N6/1) gray crystalline LIMESTONE with fossils			
						BOTTOM OF BORING AT 20.5'			
-25.0	-25.00								
-30.0	-30.00								

PROJECT NO: 313327
DATE BEGAN: 4-23-92
DRILLER: C. COULTER, J. BARILE
GROUND SURFACE ELEV.: NA
DRILLING METHOD: CABLE TOOL
CONTRACTOR: PENN DRILLING

BORING NO: 1754
DATE FINISHED: 4-27-92
N: 484138.24'
GWL DATE/TIME: NA

PAGE 1 OF 1
PROJECT NAME: FERNALD
FIELD ENGINEER: D. O'BRIEN
E: 1383467.45'
GWL DEPTH: NA
EQUIPMENT: 43 CYCLONE
CHECKED BY: D. AMBROSE

ELEV (FT)	DEPTH (FT)	SAMPLE TYPE AND NO.	SPT BLOWS PER (0.5')	REC (FT)	PROFILE	DESCRIPTION	OVOC	HNU	REMARKS
0.0	0.00					SEE BORING 2754 FOR VISUAL CLASSIFICATION			
-5.0	-5.00								
		S 1684	SHELBY TUBE	1.08		8.0' Very firm, (10YR 5/4), yellowish-brown, gravelly CLAY, no plasticity, slightly moist	cl	3.0	HNU - 0 ppm βγ - 60 cpm
-10.0	-10.00								
-15.0	-15.00								

DRAFT

PROJECT NO: 313327
DATE BEGAN: 4-23-92
DRILLER: C. COULTER, J. BARILE
GROUND SURFACE ELEV.: NA
DRILLING METHOD: CABLE TOOL
CONTRACTOR: PENN DRILLING

BORING NO: 1754
DATE FINISHED: 4-27-92
N: 484138.24'
GWL DATE/TIME: NA

PAGE 2 OF 2
PROJECT NAME: FERNALD
FIELD ENGINEER: D. O'BRIEN
E: 1383467.45'
GWL DEPTH: NA
EQUIPMENT: 43 CYCLONE
CHECKED BY: D. AMBROSE

ELEV (FT)	DEPTH (FT)	SAMPLE TYPE AND NO.	SPT BLOWS PER (0.5')	REC (FT)	PROFILE	DESCRIPTION	DOCUMENT NO.	REMARKS
						SEE BORING 2754 FOR VISUAL CLASSIFICATION		
-20.0	-20.00							
-25.0	-25.00							
-30.0	-30.00					BOTTOM OF BORING AT 30.0'		

NOTE:
ALL SAMPLE NUMBERS ARE INCREMENTED BY 100,000
ie. 602 IS 100602

DRAFT

PROJECT NO: 313327
DATE BEGAN: 1-22-92
DRILLER: C. COULTER, G. DYE
GROUND SURFACE ELEV.: NA
DRILLING METHOD: CABLE TOOL
CONTRACTOR: PENN DRILLING

BORING NO: 2679
DATE FINISHED: 1-22-92
N: 483923.14'
GWL DATE/TIME: NA

PAGE 1 OF 5
PROJECT NAME: FERNALD
FIELD ENGINEER: J. LEAR
E: 1378278.45'
GWL DEPTH: NA
EQUIPMENT: CYCLONE 43
CHECKED BY: D. AMBROSE

ELEV (FT)	DEPTH (FT)	SAMPLE TYPE AND NO	SPT BLOWS PER (0.5')	REC (FT)	DRILLING METHOD	DESCRIPTION	USCS	(OZA-40H-0200 NO.)	REMARKS
0.0	0.00	S 38266	14	1.17		Medium dense, (10YR 3/3), dark brown, clayey SILT, some organics, moist 1.5'	ml	NA	HNU - 0 ppm βγ - 50 cpm α - 0 cpm
		S 38267	14	1.25		Firm, (10YR 5/6), yellowish brown, silty CLAY, trace gravel, low plasticity, moist 3.0'	cl	1.75	HNU - 0 ppm βγ - 50 cpm α - 0 ppm
		S 38268	33	1.25		Firm, (10YR 5/6), yellowish brown, silty CLAY, trace gravel, medium plasticity, moist 4.5'		1.75	HNU - 0 ppm βγ - 50 cpm α - 0 cpm
-5.0	-5.00	S 38269	26	1.17		Very Firm, (10YR 5/3), brown, clayey SILT, some gravel, low plasticity, moist	ml	NA	HNU - 0 ppm βγ - 50 cpm α - 0 ppm
		S 38270	26	1.17		7.5'		NA	HNU - 0 ppm βγ - 50 cpm α - 0 cpm
		S 38271	94	0		No recovery 9.0'	NA	NA	HNU - NA βγ - NA α - NA
-10.0	-10.00	S 38272	54	1.33		Hard, (10YR 5/3 to 10YR 5/2), brown to grayish brown, silty CLAY, some gravel, some mottling, low plasticity, slightly moist		>4.5	HNU - 0 ppm βγ - 50 cpm α - 0 cpm
		S 38273	67	1.0		Very Firm, (10YR 5/1), gray, silty CLAY, some gravel, some mottling, low plasticity, moist 12.0'	cl	2.0	HNU - 0 ppm βγ - 50 cpm α - 0 ppm
		S 38274	46	0		No recovery 13.5'	NA	NA	HNU - NA βγ - NA α - NA
		S 38275	46	1.25		Firm, (10YR 5/1), gray, silty CLAY trace gravel, low plasticity, moist		1.0	HNU - 0 ppm βγ - 40 cpm α - 0 ppm
	-15.00	S 38276	19	1.33		Firm, (5Y 5/2), olive gray, silty CLAY, trace gravel, low plasticity, moist	cl	1.75	HNU - 0 ppm βγ - 40 cpm α - 0 cpm

PROJECT NO: 313327
DATE BEGAN: 1-22-92
DRILLER: C. COULTER, G. DYE
GROUND SURFACE ELEV.: NA
DRILLING METHOD: CABLE TOOL
CONTRACTOR: PENN DRILLING

BORING NO: 2679
DATE FINISHED: 1-22-92
N: 483923.14'
GWL DATE/TIME: NA

PAGE 2 OF 5
PROJECT NAME: FERNALD
FIELD ENGINEER: J. LEAR
E: 1378278.45'
GWL DEPTH: NA
EQUIPMENT: CYCLONE 43
CHECKED BY: D. AMBROSE

ELEV (FT)	DEPTH (FT)	SAMPLE TYPE AND NO.	SPT BLOWS PER (0.5')	REC (FT)	DESCRIPTION	USCS	(OZM-8000200 VOA)	REMARKS
		S 38277	50/2	0.08	Firm, (5Y 5/2), olive gray, silty CLAY, some gravel, low to medium plasticity, moist 18.0'	cl	1.25	HNU - 0 ppm βγ - 50 cpm α - 0 ppm
		S 38278	58	0	No recovery 19.5'	NA	NA	HNU - NA βγ - NA α - NA
20.0	-20.00	S 38279	51	0.83	Firm, (5Y 5/2 to 10YR 5/1), olive gray to gray, silty CLAY, trace gravel, low to medium plasticity, moist 21.0'		1.5	HNU - 0 ppm βγ - 40 cpm α - 0 ppm
		S 38280	63	1.0	Very firm, (2.5Y 5/2), olive gray, silty CLAY, some gravel, moist		2.5	HNU - 0 ppm βγ - 50 cpm α - 0 cpm
		S 38281	55	1.08	24.0'		2.5	HNU - 0 ppm βγ - 50 cpm α - 0 cpm
25.0	-25.00	S 38282	17-42-50/4	1.17	Hard, (5Y 4/1), dark gray, silty CLAY, some gravel, low plasticity, moist 25.5'	cl	4.25	HNU - 0 ppm βγ - 40 cpm α - 0 cpm
		S 38283	50/8	0.17	Hard, (5Y 4/1), dark gray, silty CLAY, large gravel in recovery, low plasticity, moist 27.0'		4.25	HNU - 0 ppm βγ - 50 cpm α - 0 cpm
		S 38284	20	0.83	Very firm, (10YR 5/1 to 2.5Y 5/2), gray to dark gray, silty CLAY, laminar gravel (poorly graded, medium) 1.5", some sand, moist 28.5'		2.25	HNU - 0 ppm βγ - 50 cpm α - 0 cpm
		S 38285	12	0	No recovery	NA	NA	HNU - NA βγ - NA α - NA
30.0	-30.00	S 38286	12	0	31.5'		NA	HNU - NA βγ - NA α - NA
		S 38287	13	0.67	Firm, (5Y 4/2), olive gray, silty CLAY, trace gravel, low plasticity, moist	cl	1.75	HNU - 0 ppm βγ - 50 cpm α - 0 cpm

PROJECT NO: 313327
DATE BEGAN: 1-22-92
DRILLER: C. COULTER, G. DYE
GROUND SURFACE ELEV.: NA
DRILLING METHOD: CABLE TOOL
CONTRACTOR: PENN DRILLING

BORING NO: 2679
DATE FINISHED: 1-22-92
N: 483923.14'
GWL DATE/TIME: NA

PAGE 3 OF 5
PROJECT NAME: FERNALD
FIELD ENGINEER: J. LEAR
E: 1378278.45'
GWL DEPTH: NA
EQUIPMENT: CYCLONE 43
CHECKED BY: D. AMBROSE

ELEV (FT)	DEPTH (FT)	SAMPLE TYPE AND NO.	SPT BLOWS PER (0.5')	REC (FT)	PROFILE	DESCRIPTION	USCS	<DETECTION LIMIT	REMARKS
		S 38288	15	0.83		Soft, (5Y 4/2), olive gray, sandy, silty CLAY, trace gravel, low plasticity, moist		0.6	HNU - 0 ppm βγ - 50 cpm α - 0 cpm
-35.0	-35.00	S 38289	7	0.67		Soft, (5Y 4/2), olive gray, sandy, silty CLAY, trace gravel, low plasticity, moist	cl	0.6	HNU - 0 ppm βγ - 50 cpm α - 0 cpm
		S 38290	20	1.0		36.75'		0.75	HNU - 0 ppm βγ - 50 cpm α - 0 cpm
						Medium dense, (5Y 4/2), olive gray, clayey, silty, poorly graded fine SAND, moist	sp/sm	NA	
		S 38291	22	0.92		38.25'		NA	HNU - 0 ppm βγ - 50 cpm α - 0 cpm
						Medium dense, (5Y 5/2), olive gray, poorly graded, fine SAND, some clay, some silt, moist			
-40.0	-40.00						sp		
						45.0'			
-45.0	-45.00	S 38292	12	1.0		Medium dense, (2.5Y 4/3), olive, poorly graded SAND, trace gravel, moist		NA	HNU - 0 ppm βγ - 50 cpm α - 0 cpm

PROJECT NO: 313327
DATE BEGAN: 1-22-92
DRILLER: C. COULTER, G. DYE
GROUND SURFACE ELEV.: NA
DRILLING METHOD: CABLE TOOL
CONTRACTOR: PENN DRILLING

BORING NO: 2679
DATE FINISHED: 1-22-92
N: 483923.14'
GWL DATE/TIME: NA

PAGE 4 OF 5
PROJECT NAME: FERNALD
FIELD ENGINEER: J. LEAR
E: 1378278.45'
GWL DEPTH: NA
EQUIPMENT: CYCLONE 43
CHECKED BY: D. AMBROSE

ELEV (FT)	DEPTH (FT)	SAMPLE TYPE AND NO.	SPT BLOWS PER (0.5')	REC (FT)	STRATUM	DESCRIPTION	USCS	(DIR+BHZ0) 1B4	REMARKS
						Medium dense, (2.5Y 4/3), olive, poorly graded SAND, trace gravel, moist	sp		
						50.0'			
50.0	-50.00	S 38293	12	1.33		Medium dense, (2.5Y 5/2), grayish brown, clayey SILT to silty CLAY, low to medium to high plasticity, moist to saturated		NA 1.0	HNU - 0 ppm β^{γ} - 50 cpm α - 0 cpm
						55.0'			
55.0	-55.00	S 38294	36	1.33		Firm, (10YR 5/1), gray, clayey to silty CLAY, low to high plasticity, sand at 56.25', moist	ml/cl	NA 1.75	HNU - 0 ppm β^{γ} - 50 cpm α - 0 cpm
						60.0'			
60.0	-60.00	S 38295	22-44-50/4	1.08		Very dense, (2.5Y 4/1), dark gray, SILT, some sand, moist	ml	NA	HNU - 0 ppm β^{γ} - 50 cpm α - 0 cpm
						60.75'			
						Very dense, (10YR 6/1), gray, poorly graded, fine SAND, some silt, slightly moist	sp		

PROJECT NO: 313327
DATE BEGAN: 1-22-92
DRILLER: C. COULTER, G. DYE
GROUND SURFACE ELEV.: NA
DRILLING METHOD: CABLE TOOL
CONTRACTOR: PENN DRILLING

BORING NO: 2679
DATE FINISHED: 1-22-92
N: 483923.14'
GWL DATE/TIME: NA

PAGE 5 OF 5
PROJECT NAME: FERNALD
FIELD ENGINEER: J. LEAR
E: 1378278.45'
GWL DEPTH: NA
EQUIPMENT: CYCLONE 43
CHECKED BY: D. AMBROSE

ELEV (FT)	DEPTH (FT)	SAMPLE TYPE AND NO.	BPT BLOWS PER (0.5')	REC (FT)	METHOD	DESCRIPTION	OVOC	OVOC BZ	REMARKS
-65.0	-65.00	S 38296	48	1.08		Very dense, (2.5Y 4/2), dark grayish brown, poorly graded SAND, trace gravel, very moist		NA	HNU - 0 ppm βγ - 50 cpm α - 0 cpm
						65.0'			
-70.0	-70.00	S 38297	61	1.17		Very dense, (5Y 4/2), olive gray, poorly graded SAND, some gravel, trace silt, saturated		NA	HNU - 0 ppm βγ - 50 cpm α - 0 cpm
						70.0'			
-75.0	-75.00	S 38298	37	1.17		Dense, (5Y 4/2), olive gray, poorly graded fine SAND, some silt, wet	●P	NA	HNU - 0 ppm βγ - 50 cpm α - 0 cpm
						75.0'			
-80.0	-80.00	S 38299	36	1.25		Dense, (5Y 5/2), olive gray, poorly graded SAND, some silt, trace gravel, wet		NA	HNU - 0 ppm βγ - 50 cpm α - 0 cpm
						BOTTOM OF BORING AT 81.5'			

NOTE:
ALL SAMPLE NUMBERS ARE INCREMENTED BY 100,000
ie. 38266 IS 138266

PROJECT NO: 313327
DATE BEGAN: 1-15-92
DRILLER: J. BARILE, R. PIERCE
GROUND SURFACE ELEV.: 593.50'
DRILLING METHOD: CABLE TOOL
CONTRACTOR: PENN DRILLING

BORING NO: 2728
DATE FINISHED: 1-30-92
N: 483301.63'
GWL DATE/TIME: NA

PAGE 1 OF 6
PROJECT NAME: FERNALD
FIELD ENGINEER: P. CASSEDAY
E: 1377960.59'
GWL DEPTH: NA
EQUIPMENT: CYCLONE 48
CHECKED BY: D. AMBROSE

ELEV (FT)	DEPTH (FT)	SAMPLE TYPE AND NO	SPT BLOWS PER (0.5')	REC (FT)	DRILLING METHOD	DESCRIPTION	USCS	OVA (OZAROHOOD 181)	REMARKS
	0.00	S 0365	2	0.5		Very soft, (10YR 4/2), dark grayish brown, silty CLAY, minor sand, some organic material (roots), low plasticity, slightly moist 0.5'	cl	0.5	HNU - 0 ppm; βY - 0 cpm
		S 0366	6	0.5				2.5	HNU - 0 ppm; βY - 0 cpm
			9	0		Very firm, (10YR 5/6), yellowish-brown CLAY, slightly plastic, little silt, no sand, slightly moist 1.0'	NA	NA	HNU - 0 ppm; βY - 0 cpm
			10	0		No recovery 2.0'		NA	HNU - 0 ppm; βY - 0 cpm
		S 0368	5	0.5		Very firm, (10YR 5/6), yellowish-brown CLAY, slightly plastic, little silt, no sand, slightly moist 3.0'	cl	2.75	HNU - 0 ppm; βY - 0 cpm
		S 0367	7	0.25				2.5	HNU - 0 ppm; βY - 0 cpm
			11	0		No recovery 4.0'	NA	NA	HNU - 0 ppm; βY - 0 cpm
590.0			13	0				NA	HNU - 0 ppm; βY - 0 cpm
		S 0367	17	0.5		Medium firm, (2.5Y 6/6), olive yellow, silty CLAY with some gravel, plastic, slightly moist, 5.0'	cl	1.5	HNU - 0 ppm; βY - 0 cpm
		S 0367	19	0.5				1.5	HNU - 0 ppm; βY - 0 cpm; GRAVEL MORE EXTENSIVELY INTERSPERSED THAN 4.5'
	-5.00	S 0368	31	0.5		Hard, (2.5Y 6/6), olive yellow CLAY interspersed gravel, slightly plastic, slightly moist 6.0'		>4.0	HNU - 0 ppm; βY - 0 cpm
		S 0368	41	0.17				>4.0	HNU - 0 ppm; βY - 0 cpm; PLASTICITY INCREASING
		S 0369	50/5	0.5		Hard, (2.5Y 6/4), light yellowish-brown CLAY with gravel, some dark mottling, little silt or sand, plastic, slightly moist 6.5'		>4.0	HNU - 0 ppm; βY - 0 cpm
			NA	NR		No recovery 8.0'	NA	NA	HNU - 0 ppm; βY - 0 cpm
			NA	NR				NA	HNU - 0 ppm; βY - 0 cpm
			NA	NR				NA	HNU - 0 ppm; βY - 0 cpm
585.0		S 0370	10	0.5		Medium firm, (2.5Y 5/3), light olive brown, silty CLAY with numerous chert fragments, little sand, low plasticity, slightly moist 9.0'	cl	0.75	HNU - 0 ppm; βY - 0 cpm
		S 0370	15	0.5				>4.0	HNU - 0 ppm; βY - 0 cpm
		S 0376	32	0.5		Hard, (2.5Y 5/3), light olive brown, silty CLAY with numerous chert and limestone, little sand, low plasticity, slightly moist 9.5'		>4.0	HNU - 0 ppm; βY - 0 cpm
			50	0		No recovery 10.0'	NA	NA	HNU - 0 ppm; βY - 0 cpm
	-10.00	S 0377	SHELBY TUBE	0.5		(2.5Y 5/4), light olive brown, silty CLAY with (5Y 5/2), olive gray mottling, interspersed gravel, low plasticity, slightly moist 11.0'	cl	NA	SOME GRAVEL QUITE LARGE
				0.5				NA	
				0		No recovery 12.0'	NA	NA	HNU - 0 ppm; βY - 0 cpm
		S 0377		0				NA	
		S 0377	21	0.5		Hard, (5Y 5/2), olive gray, silty CLAY with numerous rock fragments, little sand, brown mottling, low plasticity, moist 13.5'	cl	>4.0	HNU - 0 ppm; βY - 0 cpm
			31	0.5				>4.0	HNU - 0 ppm; βY - 0 cpm
			33	0.5				>4.0	HNU - 0 ppm; βY - 0 cpm
580.0			39	0		No recovery 14.0'	NA	NA	HNU - 0 ppm; βY - 0 cpm
		S 0378	10	0.5		Very firm, (5Y 5/1), gray CLAY with numerous gravel, plastic with little to no silt or sand, slightly moist 14.5'	cl	3.0	HNU - 0 ppm; βY - 0 cpm
			25	0		No recovery 16.0'	NA	NA	HNU - 0 ppm; βY - 0 cpm
	-15.00		30	0				NA	HNU - 0 ppm; βY - 0 cpm
		S 0379	35	0				NA	HNU - 0 ppm; βY - 0 cpm

PAGE 2 OF 6

PROJECT NO: 313327 | BORING NO: 2728 | PROJECT NAME: FERNALD
DATE BEGAN: 1-15-92 | DATE FINISHED: 1-30-92 | FIELD ENGINEER: P. CASSEDAY
DRILLER: J. BARILE R. PIERCE | N: 483301.63' | E: 1377960.59'
GROUND SURFACE ELEV.: 593.50' | GWL DATE/TIME: NA | GWL DEPTH: NA
DRILLING METHOD: CABLE TOOL | EQUIPMENT: CYCLONE 48
CONTRACTOR: PENN DRILLING | CHECKED BY: D. AMBROSE

ELEV (FT)	DEPTH (FT)	SAMPLE TYPE AND NO	SPT BLOWS PER (0.5')	REC (FT)	LITHOLOGY	DESCRIPTION	USCS	HORIZONTAL VOC (PPM)	REMARKS
		S 0379	13	0.5		Very Firm, (5Y 5/1), gray CLAY with numerous gravel, some large plastic, moist 16.5'	cl	3.5	HNU - 0 ppm; βγ - 0 cpm
			20	0		No recovery		NA	HNU - 0 ppm; βγ - 0 cpm
			25	0			NA	NA	HNU - 0 ppm; βγ - 0 cpm
			50/4	0		18.0'		NA	HNU - 0 ppm; βγ - 0 cpm
575.0		S 0379	4	0.5		Firm, medium dense, (5Y 5/1), gray CLAY with numerous interspersed gravel, plastic, little silt and sand, moist		2.0	HNU - 0 ppm; βγ - 0 cpm
		S 00379	6	0.5				1.5	HNU - 0 ppm; βγ - 0 cpm
		S 0379	11	0.5			cl	1.5	HNU - 0 ppm; βγ - 0 cpm
		S 0379	13	0.17		20.0'		1.5	HNU - 0 ppm; βγ - 0 cpm
	-20.00	S 0380	4	0.33		Firm, medium dense, (5Y 5/1), gray CLAY with gravel, little silt, no sand, high plasticity, slightly moist 20.5'		2.0	HNU - 0 ppm; βγ - 0 cpm
			6	0		No recovery		NA	HNU - 0 ppm; βγ - 0 cpm
			18	0			NA	NA	HNU - 0 ppm; βγ - 0 cpm
			15	0		22.0'		NA	HNU - 0 ppm; βγ - 0 cpm
		S 0381 S 0382	SHELBY TUBE	2.25		Medium Firm, (5Y 5/1), gray CLAY with gravel, some silt, no sand, high plasticity, moist		NA	HNU - 0 ppm; βγ - 0 cpm
570.0						Medium Firm, (5Y 5/1), gray CLAY and gravel mix, some silt, no sand, plastic, moist 25.0'	cl		
	-25.00	S 0383							
		S 0384	8	0.5		Very Firm, (2.5Y 4/2), dark grayish brown CLAY, mixed with gravel, some silt, no sand, plastic, slightly moist		3.0	HNU - 0 ppm; βγ - 0 cpm
			14	0.5				3.5	HNU - 0 ppm; βγ - 0 cpm
			16	0.25		26.5'		>4.0	HNU - 0 ppm; βγ - 0 cpm
			20	0		No recovery 27.0'	NA	NA	HNU - 0 ppm; βγ - 0 cpm
		S 0384	7	0.5		Very Firm, (2.5Y 4/2), dark grayish brown CLAY with intermixed gravel, little silt, no sand, plastic, moist	cl	3.0	HNU - 0 ppm; βγ - 0 cpm
			19	0.5		28.0'		3.5	HNU - 0 ppm; βγ - 0 cpm
		S 0385	29	0		No recovery		NA	HNU - 0 ppm; βγ - 0 cpm
565.0			40	0		29.0'	NA	NA	HNU - 0 ppm; βγ - 0 cpm
		S 0385	14	0.5		Dense, very firm, (2.5Y 4/2), dark grayish-brown CLAY with interspersed gravel, some silt, no sand, plastic, moist 29.5'	cl	3.0	HNU - 0 ppm; βγ - 0 cpm
			25	0		No recovery		NA	HNU - 0 ppm; βγ - 0 ppm
	-30.00		38	0			NA	NA	HNU - NA; βγ - NA
			20	0		31.0'		NA	HNU - NA; βγ - NA
		S 0386	7	0.5		Firm, (2.5Y 4/2), dark grayish-brown CLAY with silt, sand and gravel, intermixed, high plasticity, moist	cl	2.5	HNU - 0 ppm; βγ - 0 cpm
			27	0.5		32.0'		2.5	HNU - 0 ppm; βγ - 0 cpm

PROJECT NO: 313327
DATE BEGAN: 1-15-92
DRILLER: J. BARILE, R. PIERCE
GROUND SURFACE ELEV.: 593.50'
DRILLING METHOD: CABLE TOOL
CONTRACTOR: PENN DRILLING

BORING NO: 2728
DATE FINISHED: 1-30-92
N: 483301.63'
GWL DATE/TIME: NA

PAGE 3 OF 5
PROJECT NAME: FERNALD
FIELD ENGINEER: P. CASSEDAY
E: 1377960.59'
GWL DEPTH: NA
EQUIPMENT: CYCLONE 48
CHECKED BY: D. AMBROSE

ELEV (FT)	DEPTH (FT)	SAMPLE TYPE AND NO.	SPT BLOWS PER (0.5')	REC (FT)	PROFILE	DESCRIPTION	OXXXO	HORIZONTAL PID	REMARKS
			40	0		No recovery			HNU - NA βγ - NA
			50/2	0					
560.0									HNU - NA βγ - NA
	35.00	S 0338	11	0.5			NA	NA	HNU - NA βγ - NA α - NA
						40.0'			
	40.00	S 0387	23	1.5		Medium dense, (10YR 3/6), dark yellowish-brown, clayey SILT, no sand, some small well sorted gravel, moist	ml	NA	HNU - 0 ppm βγ - 0 cpm α - NA
550.0									
						45.0'			
	45.00	S 0388	19	1.5		Firm, (2.5Y 4/2), dark grayish-brown CLAY with gravel, some silt, moist, overlying a medium dense, (7.5YR 4/6), strong brown, clayey SILT with interspersed sand and gravel, moist	cl ml	0.5	HNU - 0 ppm βγ - 0 cpm α - NA

PROJECT NO: 313327
DATE BEGAN: 1-15-92
DRILLER: J. BARILE, R. PIERCE
GROUND SURFACE ELEV.: 593.50'
DRILLING METHOD: CABLE TOOL
CONTRACTOR: PENN DRILLING

BORING NO: 2728
DATE FINISHED: 1-30-92
N: 483301.63'
GWL DATE/TIME: NA

PAGE 4 OF 6
PROJECT NAME: FERNALD
FIELD ENGINEER: P. CASSEDAY
E: 1377960.59'
GWL DEPTH: NA
EQUIPMENT: CYCLONE 48
CHECKED BY: D. AMBROSE

ELEV (FT)	DEPTH (FT)	SAMPLE TYPE AND NO	BPT BLOWS PER (0.5')	REC (FT)	METHOD	DESCRIPTION	USCS	HORIZONTAL VOL	REMARKS
545.0							cl ml		
	-50.00	S 0389	16	1.5		Medium dense, (10YR 5/6), yellowish brown SAND, some silt and poorly sorted gravel, moist 50.0'		NA	HNU - 0 ppm βγ - 0 cpm α - NA
540.0									
	-55.00	S 0390	74	1.5		Very dense, (10YR 6/6), brownish-yellow SAND with gravel, poorly sorted with appreciable silt, moist 55.0'	sw	NA	HNU - 0 ppm βγ - 0 cpm α - NA
535.0									
	-60.00	S 0391	15-30-50/2	1.17		Very dense, (10YR 5/4), yellowish-brown, silty GRAVEL, moist, overlain by a very dense, poorly sorted (10YR 6/6), brownish-yellow, gravelly sand, moist	gm sp	NA	HNU - 0 ppm βγ - 0 cpm α - NA
530.0									

PROJECT NO: 313327
DATE BEGAN: 1-15-92
DRILLER: J. BARILE, R. PIERCE
GROUND SURFACE ELEV.: 593.50'
DRILLING METHOD: CABLE TOOL
CONTRACTOR: PENN DRILLING

BORING NO: 2728
DATE FINISHED: 1-30-92
N: 483301.63'
GWL DATE/TIME: NA

PAGE 5 OF 6
PROJECT NAME: FERNALD
FIELD ENGINEER: P. CASSEDAY
E: 1377960.59'
GWL DEPTH: NA
EQUIPMENT: CYCLONE 48
CHECKED BY: D. AMBROSE

ELEV (FT)	DEPTH (FT)	SAMPLE TYPE AND NO.	SPT BLOWS PER (0.5')	REC (FT)	PROFILE	DESCRIPTION	USCS	OVA (PPM)	REMARKS
						65.0'	sp		
	-65.00	S 0392	50/4	0.5		Very dense, (2.5Y 5/6), light olive brown, sandy GRAVEL, poorly sorted, some silt and little to no clay, slightly moist		NA	HNU - 0 ppm βγ - 0 cpm α - NA
525.0									
	-70.00	S 0393	50/6	0.5		Very dense, (2.5Y 4/4), olive brown, sandy GRAVEL, poorly sorted with little to no silt or clay, slightly moist		NA	HNU - 0 ppm βγ - 0 cpm α - NA
520.0						75.0'	gw		
	-75.00	S 0394	80	0.67		Very dense, (2.5Y 5/3), light olive brown, sandy, GRAVEL, poorly sorted with little to no silt or clay, wet		NA	HNU - 0 ppm βγ - 0 cpm α - NA
	-80.00					80.0'			

PROJECT NO:	313327	BORING NO:	2728	PAGE 6 OF 6	
DATE BEGAN:	1-15-92	DATE FINISHED:	1-30-92	PROJECT NAME:	FERNALD
DRILLER:	J. BARILE, R. PIERCE	N:	483301.63'	FIELD ENGINEER:	P. CASSEDAY
GROUND SURFACE ELEV.:	593.50'	GWL DATE/TIME:	NA	E:	1377960.59'
DRILLING METHOD:	CABLE TOOL			GWL DEPTH:	NA
CONTRACTOR:	PENN DRILLING			EQUIPMENT:	CYCLONE 48
				CHECKED BY:	D. AMBROSE

ELEV (FT)	DEPTH (FT)	SAMPLE TYPE AND NO.	SPT BLOWS PER (0.5')	REC (FT)	ETI-FORM	DESCRIPTION	USCS	HNU (PPM)	REMARKS
	80.00	S 0395	34	1.0		Dense, (2.5Y 5/2), grayish-brown GRAVEL with sand, poorly sorted with little to no clay or silt, wet		NA	HNU - 0 ppm βγ - 0 cpm α - NA
510.0							GW		
	85.00	S 0396	79	1.0		Very dense, (5Y 5/1), gray, clayey, sandy GRAVEL, poorly sorted, some silt, wet		NA	HNU - 0 ppm βγ - 0 cpm α - NA PETROLEUM ODOR FROM CLAYS WITHIN SAMPLE
505.0							GC		
	90.00	S 0397	30	1.5		Medium dense, (5Y 5/1), gray, sandy, poorly sorted GRAVEL with a lens of clay, wet		NA	HNU - 0 ppm βγ - 0 cpm α - NA PETROLEUM ODOR IN CLAY LENS
500.0						BOTTOM OF BORING AT 92.0'			
	95.00								NOTE: ALL SAMPLE NUMBERS ARE INCREMENTED BY 100,000 i.e. 365 IS 100365

PROJECT NO: 313327
DATE BEGAN: 1-8-92
DRILLER: C. COULTER, G. OYE
GROUND SURFACE ELEV.: NA
DRILLING METHOD: CABLE TOOL
CONTRACTOR: PENN DRILLING

BORING NO: 2731
DATE FINISHED: 1-13-92
N: 484155.00'
GWL DATE/TIME: NA

PAGE 1 OF 2
PROJECT NAME: FERNALD
FIELD ENGINEER: J. LEAR
E: 1382895.00'
GWL DEPTH: NA
EQUIPMENT: CYCLONE 48
CHECKED BY: D. AMBROSE

ELEV (FT)	DEPTH (FT)	SAMPLE TYPE AND NO.	SPT BLOWS PER (0.5')	REC (FT)	METHOD	DESCRIPTION	USCS	OVA (DETECTION LIMIT 1.0)	REMARKS
0.0	0.00	S 0550	18	0.83		Very firm, (10YR3/3), dark brown, silty CLAY, trace organics, low plasticity, moist		3.25	HNU - 0 ppm βγ - 50 cpm α - 0 cpm
		S 0550	22	1.0		3.0'		3.25	HNU - 0 ppm βγ - 50 cpm α - 0 cpm
		S 0550	39	1.33		Very firm, dark yellowish-brown, (10YR3/6), silty CLAY, trace gravel, moist	cl	3.0	HNU - 0 ppm βγ - 50 cpm α - 0 cpm
-5.0	-5.00	S 0551	16	1.08		Medium dense, gray, (10YR5/1), poorly graded, angular gravel, wet 6.25'		3.0	HNU - 0 ppm βγ - 50 cpm α - 0 cpm
		S 0552	15	0.5		Very firm, yellowish-brown, (10YR 5/6), silty CLAY, low plasticity, moist 6.5'	gp	NA 2.5	HNU - 0 ppm βγ - 50 cpm α - 0 cpm
				0.5		Very firm, dark yellowish-brown, (10YR5/6), silty CLAY, low plastic, moist 7.0'	cl	2.5	
				0.33		Firm, yellowish-brown, (10YR5/8), silty CLAY, med to high plasticity, very moist 7.5'		1.0	
				0		No recovery 8.0'		NA	HNU - 0 ppm βγ - 50 cpm α - 0 cpm
-10.0	-10.00	S 0559	SHELBY TUBE	2.5		Firm, yellowish-brown, (10YR5/6), silty CLAY, some gravel, low plasticity, moist 10.5'	cl	1.5	HNU - 0 ppm βγ - 50 cpm α - 0 cpm
			NA	0		No recovery 11.0'	NA	NA	
		S 0562	16	1.33		Medium dense, yellowish-brown, (10YR5/6), clayey SILT, some sand, moist to wet 12.0'	ml	NA	HNU - 0 ppm βγ - 50 cpm α - 0 cpm
						Laminar poorly graded SAND wedge, yellowish-brown, (10YR5/6) 12.25'	sp		
		S 0563	17-100.5	1.5		Medium dense, yellowish-brown, (10YR5/6), clayey SILT, trace gravel, moist to wet 12.75'	ml	NA	HNU - 0 ppm βγ - 50 cpm α - 0 cpm
						Dense, brown to yellowish-brown, (10YR5/6), clayey SILT, trace gravel, slightly moist to moist 13.25'		NA	
						SANDSTONE cobble sampled through at 13.25' 13.5'	cl	1.75	
-15.0	-15.00	S 0564	40	0.58		Very firm, gray, (10YR5/1), silty CLAY, low plasticity, moist 14.0'	ml	NA	HNU - 0 ppm βγ - 50 cpm α - 0 cpm
						Dense, gray, (10YR5/1), SILT, some clay, saturated 15.5'			
		S 0565	20	0.5		Firm, gray, (10YR5/1), gray, silty CLAY, trace gravel, moist 16.5'	cl	2.0	HNU - 0 ppm βγ - 50 cpm α - 0 cpm
				0		No recovery 17.5'	NA	NA	
		S 0571	20	0.75		Firm, gray, (10YR5/1), CLAY, some silt, medium plasticity, very moist 19.0'	cl	1.0	HNU - 0 ppm βγ - 50 cpm α - 0 cpm

PROJECT NO: 313327
DATE BEGAN: 1-8-92
DRILLER: C. COULTER, G. DYE
GROUND SURFACE ELEV.: NA
DRILLING METHOD: CABLE TOOL
CONTRACTOR: PENN DRILLING

BORING NO: 2731
DATE FINISHED: 1-13-92
N: 484155.00'
GWL DATE/TIME: NA

PAGE 2 OF 2
PROJECT NAME: FERNALD
FIELD ENGINEER: J. LEAR
E: 1382895.00'
GWL DEPTH: NA
EQUIPMENT: CYCLONE 48
CHECKED BY: D. AMBROSE

ELEV (FT)	DEPTH (FT)	SAMPLE TYPE AND NO.	SPT BLOWS PER (0.5')	REC (FT)	PROFILE	DESCRIPTION	USCS	OVA (DILUTION FACTOR)	REMARKS
-20.0	-20.00	S 0572	16	0.67		Soft, gray to grayish-brown, (10YR5/1) to (10YR5/2), clayey SILT to silty CLAY, medium to / high plasticity, very moist 20.5'	ml/ cl	0.5	HNU - 0 ppm βγ - 50 cpm α - 0 cpm
		S 0573	17-19- 50/5	0.42		Firm, dark grayish-brown, (2.5Y4/2), silty CLAY, some gravel, low plasticity, moist	cl	1.5	HNU - 0 ppm βγ - 50 cpm α - 0 cpm
		S 0574	100/5- 21-22	0.5					HNU - 0 ppm βγ - 50 cpm α - 0 cpm
		S 0574	SHELBY TUBE	0		24.5'	NA	NA	
-25.0	-25.00	S 0574	35-65- 50/3	0.33		Very firm, gray to dark grayish-brown, (10YR5/1) to (2.5Y4/2), silty CLAY, some gravel, moist low plasticity 26.0'		2.5	HNU - 0 ppm βγ - 50 cpm α - 0 cpm
		S 0574	50- 50/0	0.33		Hard, olive to gray, (5Y4/3) to (10YR5/1), silty CLAY, some gravel, low plasticity, moist 29.0'	cl	4.0	HNU - 0 ppm βγ - 50 cpm α - 0 cpm
		S 0574	23-35- 50/3	0.25				4.25	HNU - 0 ppm βγ - 50 cpm α - 0 cpm
		S 0574	100/0	0		No recovery			
-30.0	-30.00						NA	NA	HNU - 0 ppm βγ - 50 cpm α - 0 cpm
		S 0576	100/5	0.5					
-35.0	-35.00					BOTTOM OF BORING AT 32.0'			

NOTE: ALL SAMPLE NUMBERS ARE INCREMENTED BY 100,000 ie. 550 IS 100550

PROJECT NO: 313327
DATE BEGAN: 12-11-91
DRILLER: J. BARILE, J. STRAPPAZON
GROUND SURFACE ELEV.: NA
DRILLING METHOD: CABLE TOOL
CONTRACTOR: PENN DRILLING

BORING NO: 2733
DATE FINISHED: 1-6-92
N: 477070.67'
GWL DATE/TIME: NA

PAGE 1 OF 6
PROJECT NAME: FERNALD
FIELD ENGINEER: J. WHEAT
E: 1383161.03'
GWL DEPTH: NA
EQUIPMENT: 43 CYCLONE
CHECKED BY: D. AMBROSE

ELEV (FT)	DEPTH (FT)	SAMPLE TYPE AND NO.	SPT BLOWS PER (0.5')	REC (FT)	PROFILE	DESCRIPTION	USCS	OVM (PPM)	REMARKS
0.0	0.00	S 0301	3	0.5		Firm, yellowish-brown, (10YR 5/4), silty CLAY, low plasticity, moist		1.5	
			12	0.5				1.5	
			17	0.33		1.5'	cl	1.5	
		S 0302	17	0.5		Hard, (10YR 7/6), yellow, silty CLAY, dry		1.5	
			25	0.33		2.5'		>4.5	
			34	0		No recovery 3.0'	NA	NA	
		S 0303	26	0.5		Very dense, (10YR 8/6), yellow, clayey SILT, trace sand and gravel, dry		NA	
			36	0.5		4.0'	ml	NA	
			42	0.5		No recovery 4.5'	NA	NA	
-5.0	-5.00	S 0304	55	0.5		Hard, (10YR 8/3), very pale brown, silty CLAY, some sand and gravel, dry		>4.5	
			54	0.5				>4.5	
			40	0.5		6.0'	cl	>4.5	
		S 0304	42	0.5		Hard, (10YR 8/6) yellow, silty CLAY, dry		>4.5	
			50/.2	0.17		7.0'		>4.5	
			NA	0		No recovery 7.5'	NA	NA	
		S 0304	10	0.5		Hard, (10YR 8/8), yellow, silty CLAY with some sand and gravel, moist		>4.5	
			23	0.17		8.5'	cl	>4.5	
			32	0		No recovery 9.0'	NA	NA	
		S 0305	5	0.5		Very Firm, (10YR 6/6), brownish-yellow, silty CLAY with sand and gravel, moist		4.0	
-10.0	-10.00		12	0.5				4.0	
			20	0.08		10.5'		4.0	
		S 0306	3	0.5		Medium Firm, (10YR 6/6), brownish-yellow CLAY with some sand and gravel, moist		1.0	
			9	0.5			cl	1.0	
			18	0.08		12.0'		1.0	
		S 0307	3	0.5		Very Firm, (10YR 5/1), gray CLAY with some sand and gravel, moist		3.0	HNU - 0 ppm
		S 0309	7	0.5				3.0	BY - 0 cpm
		S 0310	13	0.5		13.5'		3.5	
			21	0		No recovery 14.0'	NA	NA	
-15.0	-15.00	S 0313	SHELBY TUBE			Firm, (10YR 5/1), gray CLAY with some sand and gravel, moist		1.25	SHELBY TUBE PUSHED FROM 14.0' TO 17.0'
							cl	1.5	
								NA	
								NA	

PROJECT NO: 313327
DATE BEGAN: 12-11-91
DRILLER: J. BARILE, J. STRAPPAZON
GROUND SURFACE ELEV.: NA
DRILLING METHOD: CABLE TOOL
CONTRACTOR: PENN DRILLING

BORING NO: 2733
DATE FINISHED: 1-6-92
N: 477070.67'
GWL DATE/TIME: NA

PAGE 2 OF 6
PROJECT NAME: FERNALD
FIELD ENGINEER: J. WHEAT
E: 1383161.03'
GWL DEPTH: NA
EQUIPMENT: 43 CYCLONE
CHECKED BY: D. AMBROSE

ELEV (FT)	DEPTH (FT)	SAMPLE TYPE AND NO	BPT BLOWS PER (0.5')	REC (FT)	DESCRIPTION	USCS	OVA (DR-10 BHZ00 184)	REMARKS
							NA	
					17.0'		NA	
		S 0316	3	0.5	Very Firm, (10YR 5/1), gray CLAY some sand and gravel, moist		2.5	
			13	0.5			2.5	
		S 0316	15	0.33	18.5'		2.0	HNU - 0 ppm βγ - 0 cpm
		S 0320	4	0.5	Hard, (2.5Y N51), gray CLAY with intermittent gravel, some silt, low plasticity, dry		>4.0	
			8	0.5			>4.0	HNU - 0 ppm βγ - 0 cpm
			12	.16	20.0'	cl	>4.0	
-20.0	-20.00	S	SHELBY TUBE	2.5	Medium dense, (2.5Y N51), gray CLAY with some silt, high plasticity, wet		2.0	SHELBY TUBE PUSHED FROM 20.0' TO 23.0' SAMPLE ALMOST FLOWS
							NA	
					Very Firm, (2.5Y N51), gray CLAY with some silt and sand, low plasticity, moist			HNU - 0 ppm βγ - 0 cpm
		0321			23.0'			GRAVEL LACKING
		S 0324	3	0.5	Firm, (2.5Y N51), gray CLAY with gravel and silt, wet		0.3	
		S 0326	7	0.5			0.25	
		S 0328	9	0.5	24.5'	cl	0.25	
		S 0330	14	0.5	Medium firm, (2.5Y N51), gray CLAY with minor pebbles, and some silt slightly plastic, slightly moist		1.0	
-25.0	-25.00	S 0332	5	0.5	25.0'		0.25	HNU - 0 ppm βγ - 40 cpm
			5	0	Very soft, (2.5Y N51), gray CLAY with some pebbles, minor silt, wet		NA	
			7	0	25.5' No recovery	NA	NA	
					26.5'			
			5	0.5	Very Firm, (2.5Y N51), gray CLAY with some silt and gravel, low plasticity, slightly moist		2.5	HNU - 0 ppm βγ - 0 cpm
			7	0.5	27.5'	cl	3.0	HNU - 0 ppm βγ - 0 cpm
			15	0.5	Very Firm, (2.5Y N51), gray CLAY with some gravel, sand and silt, low plasticity, slightly moist		2.5	HNU - 0 ppm βγ - 0 cpm
		S 0333	7	0.5	28.0'			
					Medium dense, (2.5Y N51), gray clayey SILT with some gravel, wet	ml	NA	HNU - 0 ppm βγ - 0 cpm
			11	0	28.5'		NA	HNU - 0 ppm βγ - 0 cpm
			14	0	No recovery	NA	NA	
			7	0	30.0'		NA	
-30.0	-30.00	S 0334	7	0.5	Medium dense, (2.5Y N51), GRAVEL with intermixed silt and sand, wet 30.5'	gm	NA	HNU - 0 ppm βγ - 0 cpm SAMPLE FLOWS
		S 0335	13	0.5	Medium dense, (2.5Y N51), gray clayey SILT with large gravel content		NA	HNU - 0 ppm βγ - 0 cpm
			19	0.5	31.5'	ml	NA	HNU - 0 ppm βγ - 0 cpm
		S 0336	18	0.5	Medium firm, (2.5Y N51), CLAY with silt, plastic, very moist 32.0'	cl	1.5	HNU - 0 ppm βγ - 0 cpm

PROJECT NO: 313327
DATE BEGAN: 12-11-91
DRILLER: J. BARILE, J. STRAPPAZON
GROUND SURFACE ELEV.: NA
DRILLING METHOD: CABLE TOOL
CONTRACTOR: PENN DRILLING

BORING NO: 2733
DATE FINISHED: 1-6-92
N: 477070.67'
GWL DATE/TIME: NA

PAGE 3 OF 6
PROJECT NAME: FERNALD
FIELD ENGINEER: J. WHEAT
E: 1383161.03'
GWL DEPTH: NA
EQUIPMENT: 43 CYCLONE
CHECKED BY: D. AMBROSE

ELEV (FT)	DEPTH (FT)	SAMPLE TYPE AND NO	SPT BLOWS PER (0.5')	REC (FT)	PROFILE	DESCRIPTION	USCS	(DIRECT READING)	REMARKS
		S 0337	9	0.5		Medium dense, (2.5Y N51), gray GRAVEL and CLAY mix, very wet 32.5'	gc	NA	HNU - 0 ppm SAMPLE FLOWS βγ - 0 cpm
		S 0338	11	0.5		Medium stiff, (2.5Y N51), gray CLAY with minor silt, high plasticity, moist 33.0'	cl	1.0	HNU - 0 ppm βγ - 0 cpm
		S 0339	11	0.5		Medium firm, (2.5Y N51), gray CLAY with minor silt, high plasticity, moist 34.0'	cl	1.0	HNU - 0 ppm βγ - 0 cpm
			14	0.5				0.5	HNU - 0 ppm βγ - 0 cpm
			10	0		No recovery	NA	NA	HNU - NA βγ - NA
			12	0				NA	HNU - NA βγ - NA
-35.0	-35.00		13	0		35.5'		NA	HNU - NA βγ - NA
		S 0340	26	0.5		Firm, (2.5Y N51), gray CLAY with minor silt and some gravel and sand, wet 36.0'	cl	2.0	HNU - 0 ppm βγ - 0 cpm
		S 0342	22	0.5		Firm, (2.5Y N51), gray CLAY, intermixed with (10YR 5/4), brown CLAY, some silt and sand, grading to dense(10YR 5/4), yellowish-brown, gravelly sand, wet 36.5'	cl/sm	1.5	HNU - 0 ppm βγ - 0 cpm
		S 0344	31	0			NA	NA	HNU - NA βγ - NA
						No recovery 40.0'	NA		
-40.0	-40.00	S 0345	17	0.67		Medium dense, (10YR 5/4), yellowish-brown, gravelly SAND, minor silt and clay, wet 45.0'	sw	NA	HNU - 0 ppm βγ - 0 cpm
-45.0	-45.00	S 0346	50/.3	1.5		Very dense, (10YR 5/3), brown SAND and GRAVEL, little to no silt or clay, wet	sw/gw	NA	HNU - 0 ppm βγ - 0 cpm

PROJECT NO: 313327
DATE BEGAN: 12-11-91
DRILLER: J. BARILE, J. STRAPPAZON
GROUND SURFACE ELEV.: NA
DRILLING METHOD: CABLE TOOL
CONTRACTOR: PENN DRILLING

BORING NO: 2733
DATE FINISHED: 1-6-92
N: 477070.67'
GWL DATE/TIME: NA

PAGE 4 OF 6
PROJECT NAME: FERNALD
FIELD ENGINEER: J. WHEAT
E: 1383161.03'
GWL DEPTH: NA
EQUIPMENT: 43 CYCLONE
CHECKED BY: D. AMBROSE

ELEV (FT)	DEPTH (FT)	SAMPLE TYPE AND NO.	SPT BLOWS PER (0.5')	REC (FT)	GRAPHIC LOG	DESCRIPTION	USCS	OVA (0ZR10B0Z00 1.0)	REMARKS
						50.0'			
-50.0	-50.00	S 0347	86	1.6		Very dense, (10YR 4/3), dark brown, intermix of SAND and GRAVEL, no grading, poorly sorted, dry	SW	NA	HNU - 0 ppm $\beta\gamma$ - 0 cpm
						55.0'			
-55.0	-55.00	S 0349	19-38-50/.3	0.75		Very dense, (10YR 4/3), dark brown, SAND with some very coarse, poorly sorted gravel, dry	SW	NA	HNU - 0 ppm $\beta\gamma$ - 0 cpm
						60.0'			
-60.0	-60.00	S 0350	34	1.6		Dense, (10YR 5/3), brown SAND and coarse, poorly sorted, GRAVEL, slightly moist	SW/GW	NA	HNU - 0 ppm $\beta\gamma$ - 0 cpm

PROJECT NO:	313327	BORING NO:	2733	PAGE 5 OF 6	
DATE BEGAN:	12-11-91	DATE FINISHED:	1-6-92	PROJECT NAME:	FERNALD
DRILLER:	J. BARILE, J. STRAPPAZON	N:	477070.67'	FIELD ENGINEER:	J. WHEAT
GROUND SURFACE ELEV.:	NA	GWL DATE/TIME:	NA	E:	1383161.03'
DRILLING METHOD:	CABLE TOOL			GWL DEPTH:	NA
CONTRACTOR:	PENN DRILLING			EQUIPMENT:	43 CYCLONE
				CHECKED BY:	D. AMBROSE

ELEV (FT)	DEPTH (FT)	SAMPLE TYPE AND NO.	SPT BLOWS PER (0.5')	REC (FT)	PROFILE	DESCRIPTION	USCS	OVA (DIR/BKG/200)	REMARKS
-65.0	-65.00	S 0351	18-50/.4	0.83		Very dense, (10YR 5/3), brown SAND with coarse, poorly sorted GRAVEL, dry	sw	NA	HNU - 0 ppm βY - 0 cpm
-70.0	-70.00	S 0352	14-19-50/.4	1		Very dense, (10YR 5/3), brown SAND, with lenses of coarse GRAVEL, little to no silt or clay, slightly moist	sp	NA	HNU - 0 ppm βY - 0 cpm
-75.0	-75.00	S 0353	20-50/.2	.66		Very dense, (10YR 4/3), very dark brown, poorly sorted SAND with pebbles, little silt or clay, slightly moist	sw	NA	HNU - 0 ppm βY - 0 cpm
	-80.00					80.0'			

DRAFT

PAGE 6 OF 6

PROJECT NO: 313327
DATE BEGAN: 12-11-91
DRILLER: J. BARILE, J. STRAPPAZON
GROUND SURFACE ELEV.: NA
DRILLING METHOD: CABLE TOOL
CONTRACTOR: PENN DRILLING

BORING NO: 2733
DATE FINISHED: 1-6-92
N: 477070.67'
GWL DATE/TIME: NA

PROJECT NAME: FERNALD
FIELD ENGINEER: J. WHEAT
E: 1383161.03'
GWL DEPTH: NA
EQUIPMENT: 43 CYCLONE
CHECKED BY: D. AMBROSE

ELEV (FT)	DEPTH (FT)	SAMPLE TYPE AND NO	SPT BLOWS PER (0.5')	REC (FT)	PROFILE	DESCRIPTION	USCS	OVA (DRILLING ZONE)	REMARKS
-80.0	80.00	S 0354	57	1.08		Very dense, (10YR 5/3), brown, coarse, poorly sorted SAND and GRAVEL, little to no silt or clay, wet	SP	NA	HNU - 0 ppm βγ - 0 cpm
-85.0	85.00	S 0355	50/.4	0.33		Very dense, (10YR 5/3), brown, poorly sorted, angular, coarse GRAVEL with some sand and silt, little to no clay, wet	GW	NA	HNU - 0 ppm βγ - 0 cpm
-90.0	90.00	S 0356	21- 50/.3	0.75		Very dense, (10YR 5/3), grayish-brown, poorly sorted GRAVEL with sand, minor silt, little to no clay, wet	GW	NA	HNU - 0 ppm βγ - 0 cpm
-95.0	95.00					BOTTOM OF BORING AT 94.0'			

NOTE:
ALL SAMPLE NUMBERS ARE INCREMENTED BY 100,000
ie. 0301 IS 100301

PROJECT NO: 313327
DATE BEGAN: 3-26-92
DRILLER: J. BARILE, C. COULTER
GROUND SURFACE ELEV.: NA
DRILLING METHOD: CABLE TOOL
CONTRACTOR: PENN DRILLING

BORING NO: 2754
DATE FINISHED: 4-22-92
N: 484149.05'
GWL DATE/TIME: NA

PAGE 1 OF 8
PROJECT NAME: FERNALD
FIELD ENGINEER: D. O'BRIEN
E: 1383465.72'
GWL DEPTH: NA
EQUIPMENT: 43 CYCLONE
CHECKED BY: D. AMBROSE

ELEV (FT)	DEPTH (FT)	SAMPLE TYPE AND NO	BPT BLOWS PER (0.5')	REC (FT)	DRILLING METHOD	DESCRIPTION	USCS	(OVA/HNU/ZOD) PPM	REMARKS
0.0	0.00	S 1632	2	0.33		Loose, (10YR 6/6), brownish-yellow poorly sorted SAND, some silt, organics, dry 0.5'	sp	NA	HNU - 0 ppm βγ - 60 cpm
			3	0		No recovery	NA	NA	
			3	0				NA	
			2	0		2.0'		NA	
		S 1633	2	0.5		Soft, (10YR 4/3), brown, silty CLAY with sand, no plasticity, dry 2.5'	cl	0.5	HNU - 0 ppm βγ - 40 cpm
		S 1635	5	0.5		Very firm, (10YR 5/4) yellowish-brown, silty CLAY, little sand, low plasticity, slightly moist		2.5	
		S 1637	6	0.5		3.5'		2.5	
			9	0		No recovery 4.0'	NA	NA	
		S 1639	11	0.5		Very firm, (2.5YR 6/6), olive yellow CLAY with gravel, no plasticity, slightly moist	cl	3.5	HNU - 0 ppm βγ - 40 cpm
		S 0787	14	0.5				4.0	
-5.0	-5.00		21	0.5		5.5'		3.25	
			22	0		No recovery 6.0'	NA	NA	
		S 1640	2	0.5		Soft, (2.5Y 6/6), olive yellow, silty CLAY with gravel, low plasticity, slightly moist 6.5'	cl	0.5	HNU - 0 ppm βγ - 60 cpm
			5	0.5		Medium firm, (2.5Y 6/6), olive yellow, silty CLAY with gravel, low plasticity, slightly moist 7.0'		0.75	
			5	0.33		Firm, (2.5Y 6/6), olive yellow, silty CLAY with gravel, low plasticity, slightly moist 7.5'		1.5	
			13	0		No recovery 8.0'	NA	NA	
		S 1641	SHELBY TUBE	1.42		Very firm, (2.5Y 6/6), olive yellow CLAY, with gravel, low plasticity, slightly moist 10.5'	cl	2.5	HNU - 0 ppm βγ - 50 cpm
						Dense, (2.5Y 6/6), olive yellow GRAVEL, low plasticity, slightly moist 11.0'		2.5	
-10.0	-10.00	S 1642	8	0.5		Very firm, (10YR 6/3), pale brown, silty CLAY, low plasticity, slightly moist	cl	2.0	HNU - 0 ppm βγ - 40 cpm
			9	0.5				2.0	
			15	0.5				2.0	
			29	0.5				2.5	
			6	0.5		13.5'		3.25	HNU - 0 ppm βγ - 60 cpm
			12	0.5		Hard, (10YR 6/3), pale brown, silty CLAY, low plasticity, slightly moist 14.0'		4.0	
		S 1643	10	0.5		Firm, (10YR 5/1), gray, silty CLAY, low plasticity, slightly moist		1.5	
			13	0.5		15.0'		1.5	
-15.0	-15.00	S 1645	3	0.5		Firm, (10YR 5/1), gray CLAY, medium plasticity, slightly moist 15.5'		1.75	HNU - 0 ppm βγ - 40 cpm
		S 1647	4	0.5		Very firm, (10YR 5/1), gray CLAY, medium plasticity, slightly moist 16.0'		2.0	

PROJECT NO: 313327
DATE BEGAN: 3-26-92
DRILLER: J. BARILE, C. COULTER
GROUND SURFACE ELEV.: NA
DRILLING METHOD: CABLE TOOL
CONTRACTOR: PENN DRILLING

BORING NO: 2754
DATE FINISHED: 4-22-92
N: 484149.05'
GWL DATE/TIME: NA

PAGE 2 OF 8
PROJECT NAME: FERNALD
FIELD ENGINEER: D. O'BRIEN
E: 1383465.72'
GWL DEPTH: NA
EQUIPMENT: 43 CYCLONE
CHECKED BY: D. AMBROSE

ELEV (FT)	DEPTH (FT)	SAMPLE TYPE AND NO.	SPT BLOWS PER (0.5')	REC (FT)	PROFILE	DESCRIPTION	USCS	OVA (DIR/BHZ/OZ)	REMARKS
			6	0		No recovery	NA	NA	
			8	0		17.0'		NA	
		S 1649	4	0.5		Very Firm, (10YR 5/1), gray CLAY, low plasticity, slightly moist 17.5'		2.5	HNU - 0 ppm
			7	0.5		Firm, (10YR 5/1), gray CLAY, low plasticity, slightly moist 18.0'		1.0	μY - 60 cpm
		S 1650	8	0.5		Firm, (10YR 5/3), brown, silty CLAY, low plasticity, slightly moist		1.5	
			11	0.5		19.0'		1.25	
-20.0	-20.00	S 1651	SHELBY TUBE	2.08		Very Firm, (10YR 5/3), gray, gravelly CLAY, no plasticity, slightly moist 21.5'	cl	3.75	HNU - 0 ppm μY - 40 cpm
						Very Firm, (10YR 5/1) gray, gravelly CLAY, no plasticity, slightly moist 22.0'		3.75	
		S 1654	4	0.5		Firm, (2.5Y N41), dark gray, gravelly, silty CLAY, no plasticity, slightly moist		2.0	HNU - 0 ppm μY - 60 cpm
			8	0.5				2.0	
			11	0.5				2.75	
			15	0.42				2.5	
			12	0.33		24.5'		1.25	HNU - 0 ppm μY - 40 cpm
			10	0		No recovery		NA	
-25.0	-25.00		13	0			NA	NA	
			12	0		26.0'		NA	
		S 1655	8	0.5		Firm, (2.5Y N41), dark gray, gravelly, silty CLAY, no plasticity, slightly moist 26.5'	cl	1.75	HNU - 0 ppm μY - 50 cpm
			4	0		No recovery		NA	
			4	0			NA	NA	
			9	0		28.0'		NA	
		S 1656	7	0.5		Very dense, (5Y 5/1), gray, silty, well graded SAND, slightly moist		NA	HNU - 0 ppm μY - 40 cpm
		S 1658	11	0.5		29.0'	sw	NA	
			50	0		No recovery		NA	
			50/3	0		30.0'	NA	NA	
-30.0	-30.00	S 1660	18	0.5		Medium dense, (5Y 5/1), gray, well graded SAND, slightly moist		NA	HNU - 0 ppm μY - 50 cpm
			17	0.5		31.0'	sw	NA	
			13	0.5		Firm, (5Y 5/1), gray, clayey SILT, high plasticity, slightly moist		1.0	
			15	0.5		32.0'	ml	1.25	

PROJECT NO: 313327
DATE BEGAN: 3-26-92
DRILLER: J. BARILE, C. COULTER
GROUND SURFACE ELEV.: NA
DRILLING METHOD: CABLE TOOL
CONTRACTOR: PENN DRILLING

BORING NO: 2754
DATE FINISHED: 4-22-92
N: 484149.05'
GWL DATE/TIME: NA

PAGE 3 OF 8
PROJECT NAME: FERNALD
FIELD ENGINEER: D. O'BRIEN
E: 1383465.72'
GWL DEPTH: NA
EQUIPMENT: 43 CYCLONE
CHECKED BY: D. AMBROSE

ELEV (FT)	DEPTH (FT)	SAMPLE TYPE AND NO.	SPT BLOWS PER (0.5')	REC. (FT)	METHOD	DESCRIPTION	USCS	OVA (0ZE4BB2OO) PPM	REMARKS
		S 1661	7	0.5		Firm, (5Y 5/1), gray, silty CLAY, some gravel, medium plasticity, moist		1.0	HNU - 0 ppm
			7	0.5		33.0'	cl	1.0	βγ - 50 cpm
			10	0.5		Firm, (5Y 5/1), gray, silty CLAY with gravel, medium plasticity, moist		1.25	
			16	0.5		34.0'		0.75	
		S 1662	3	0.5		Medium Firm, (5Y 5/1), gray, clayey SILT with gravel, medium plasticity, moist	ml	0.75	HNU - 0 ppm
			8	0.17		35.0'		0.5	βγ - 40 cpm
-35.0	-35.00		7	0		No recovery		NA	
			15	0.5		36.0'	NA	NA	
		S 1663	13	0.5		Dense, (5Y 5/1), gray, poorly graded, clayey SAND, moist 36.5'	sc	NA	HNU - 0 ppm
			21	0		No recovery		NA	βγ - 60 cpm
			15	0			NA	NA	
			28	0		38.0'		NA	
		S 1664	8	0.33		Dense, (5Y 5/1), gray, gravelly, clayey SAND, moist 38.5'	sc	NA	HNU - 0 ppm
			19	0		No recovery		NA	βγ - 40 cpm
			35	0			NA	NA	
			36	0		40.0'		NA	
-40.0	-40.00	S 1665	4	0.5		Firm, (5Y 5/1), gray, gravelly CLAY, no plasticity, moist	cl	1.5	HNU - 0 ppm
			7	0.5		41.0'		2.0	βγ - 50 cpm
			17	0		No recovery		NA	
			27	0		42.0'	NA	NA	
		S 1666	8	0.5		Very Firm, (10YR 3/3), dark brown, clayey SILT with gravel and organics, no plasticity, slightly moist		2.25	HNU - 0 ppm
			10	0.5			ml	2.0	βγ - 60 cpm
			23	0.5		43.5'		2.25	
			23	0.5		Dense, (5Y 5/1), gray, poorly graded SAND, dry		NA	
		S 1667	5	0.5			sp	NA	HNU - 0 ppm
			17	0.33		45.0'		NA	βγ - 60 cpm
-45.0	-45.00	S 1665	21	0		No recovery		NA	
			25	0				NA	
						Begin sampling every 5 feet			

PROJECT NO: 313327
DATE BEGAN: 3-26-92
DRILLER: J. BARILE, C. COULTER
GROUND SURFACE ELEV.: NA
DRILLING METHOD: CABLE TOOL
CONTRACTOR: PENN DRILLING

BORING NO: 2754
DATE FINISHED: 4-22-92
N: 484149.05'
GWL DATE/TIME: NA

PAGE 4 OF 8
PROJECT NAME: FERNALD
FIELD ENGINEER: D. O'BRIEN
E: 1383465.72'
GWL DEPTH: NA
EQUIPMENT: 43 CYCLONE
CHECKED BY: D. AMBROSE

ELEV (FT)	DEPTH (FT)	SAMPLE TYPE AND NO.	SPT BLOWS PER (0.5')	REC (FT)	METHOD	DESCRIPTION	OVOC	(DZ/HNU/BZ/OD)	REMARKS
						50.0'			
-50.0	-50.00	S 1668	70	0.5		Very dense, (5Y 5/1), gray, silty, clayey SAND, dry	am/ ac	NA	HNU - 0 ppm pY - 60 cpm
-55.0	-55.00	S 1669	53	0.83			am	NA	HNU - 0 ppm pY - 60 cpm
						60.0'			
-60.0	-60.00	S 1670	19	0.83		Medium dense, (10Y 4/6), dark, yellowish-brown, poorly sorted, Fine SAND, dry	am	NA	HNU - 0 ppm pY - 60 cpm

DRAFT

PROJECT NO: 313327
DATE BEGAN: 3-26-92
DRILLER: J. BARILE, C. COULTER
GROUND SURFACE ELEV.: NA
DRILLING METHOD: CABLE TOOL
CONTRACTOR: PENN DRILLING

BORING NO: 2754
DATE FINISHED: 4-22-92
N: 484149.05'
GWL DATE/TIME: NA

PAGE 6 OF 8
PROJECT NAME: FERNALD
FIELD ENGINEER: D. O'BRIEN
E: 1383465.72'
GWL DEPTH: NA
EQUIPMENT: 43 CYCLONE
CHECKED BY: D. AMBROSE

ELEV (FT)	DEPTH (FT)	SAMPLE TYPE AND NO.	BPT BLOWS PER (0.5')	REC (FT)	PROFILE	DESCRIPTION	OXOXO	HORIZONTAL (PPM)	REMARKS
-80.0	80.00	S 1674	17- 50/3	0.58		Very dense, (10YR 4/6), dark, yellowish-brown, poorly graded, coarse, gravelly SAND, slightly moist		NA	HNU - 0 ppm μY - 40 cpm
						85.0'			
-85.0	85.00	S 1675	50/3	0.25		Very dense, (10YR 4/6), dark, yellowish-brown, poorly graded, coarse, gravelly SAND, slightly moist, bottom 1" (5Y 5/1), gray, clayey SAND with gravel, moist		NA	HNU - 0 ppm μY - 60 cpm
							oo		
						90.0'			
-90.0	90.00	S 1676	13- 50/3	0.67		Hard, (5Y 4/3), olive, silty, gravelly CLAY, no plasticity, slightly moist		>4.5	HNU - 0 ppm μY - 40 cpm
							cl		
-95.0	95.00	S 1677	30- 50/3	0.33				>4.5	HNU - 0 ppm μY - 60 cpm

PROJECT NO: 313327
DATE BEGAN: 3-26-92
DRILLER: J. BARILE, C. COULTER
GROUND SURFACE ELEV.: NA
DRILLING METHOD: CABLE TOOL
CONTRACTOR: PENN DRILLING

BORING NO: 2754
DATE FINISHED: 4-22-92
N: 484149.05'
GWL DATE/TIME: NA

PAGE 6 OF 8
PROJECT NAME: FERNALD
FIELD ENGINEER: D. O'BRIEN
E: 1383465.72'
GWL DEPTH: NA
EQUIPMENT: 43 CYCLONE
CHECKED BY: D. AMBROSE

ELEV (FT)	DEPTH (FT)	SAMPLE TYPE AND NO	SPT BLOWS PER (0.5')	REC (FT)	LITHOLOGY	DESCRIPTION	USCS	HORIZONSPACE (PPM)	REMARKS
-80.0	80.00	S 1674	17- 50/3	0.58		Very dense, (10YR 4/6), dark, yellowish-brown, poorly graded, coarse, gravelly SAND, slightly moist		NA	HNU - 0 ppm βγ - 40 cpm
-85.0	85.00	S 1675	50/3	0.25		Very dense, (10YR 4/6), dark, yellowish-brown, poorly graded, coarse, gravelly SAND, slightly moist, bottom 1" (5Y5/1), gray, clayey SAND with gravel, moist	sc	NA	HNU - 0 ppm βγ - 60 cpm
-90.0	90.00	S 1676	13- 50/3	0.67		Hard, (5Y 4/3), olive, silty, gravelly CLAY, no plasticity, slightly moist	cl	>4.5	HNU - 0 ppm βγ - 40 cpm
-95.0	95.00	S 1677	30- 50/3	0.33				>4.5	HNU - 0 ppm βγ - 60 cpm

PROJECT NO: 313327
DATE BEGAN: 3-26-92
DRILLER: J. BARILE C. COULTER
GROUND SURFACE ELEV.: NA
DRILLING METHOD: CABLE TOOL
CONTRACTOR: PENN DRILLING

BORING NO: 2754
DATE FINISHED: 4-22-92
N: 484149.05'
GWL DATE/TIME: NA

PAGE 2 OF 8
PROJECT NAME: FERNALD
FIELD ENGINEER: D. O'BRIEN
E: 1383465.72'
GWL DEPTH: NA
EQUIPMENT: 43 CYCLONE
CHECKED BY: D. AMBROSE

ELEV (FT)	DEPTH (FT)	SAMPLE TYPE AND NO.	BPT BLOWS PER (0.5')	REC (FT)	PROFILE	DESCRIPTION	OXIDIZE	ORGANIC VAPOR (PPM)	REMARKS
		S 1677	30-50/3	0.33					
-100.0	-100.00	S 1678	37-49-50/2	1		100.0' Hard, (5Y 4/3), olive, silty, gravelly CLAY, slightly moist, mottled with gray, no plasticity, slightly moist	cl	>4.5	HNU - 0 ppm βγ - 60 cpm
-105.0	-105.00	S 1679	62	0.25		105.0' Very firm, (5Y 4/3), olive, silty CLAY with gravel, no plasticity, slightly moist		2.25	HNU - 0 ppm βγ - 60 cpm
-110.0	-110.00	S 1680	31-37-50/2	0.17		110.0' Firm, (5Y 4/3), olive, mottled with gray, gravelly CLAY, low plasticity, slightly moist		1.0	HNU - 0 ppm βγ - 40 cpm

PROJECT NO: 313327
DATE BEGAN: 3-26-92
DRILLER: J. BARILE, C. COULTER
GROUND SURFACE ELEV.: NA
DRILLING METHOD: CABLE TOOL
CONTRACTOR: PENN DRILLING

BORING NO: 2754
DATE FINISHED: 4-22-92
N: 484149.05'
GWL DATE/TIME: NA

PAGE 8 OF 8
PROJECT NAME: FERNALD
FIELD ENGINEER: D. O'BRIEN
E: 1383465.72'
GWL DEPTH: NA
EQUIPMENT: 43 CYCLONE
CHECKED BY: D. AMBROSE

ELEV (FT)	DEPTH (FT)	SAMPLE TYPE AND NO	SPT BLOWS PER (0.5')	REC (FT)	STRATA	DESCRIPTION	USCS	OZAMHOZOO	REMARKS
-115.0	-115.00					115.0'			
		S 1681	38- 50/1	0.67		Hard, (5Y 4/3), olive, weathered SHALE, dry	eh	>4.0	HNU - 0 ppm βγ - 50 cpm
-120.0	-120.00					BOTTOM OF BORING AT 120.0'			NOTE: ALL SAMPLE NUMBERS ARE INCREMENTED BY 100,000 i.e. 1632 IS 101632
-125.0	-125.00								

PROJECT NO: 313327
DATE BEGAN: 1-30-92
DRILLER: C. COULTER
GROUND SURFACE ELEV.: NA
DRILLING METHOD: CABLE TOOL
CONTRACTOR: PENN DRILLING

BORING NO: 2679
DATE FINISHED: 2-5-92
N: 176762.23'
GWL DATE/TIME: NA

PAGE 1 OF 5
PROJECT NAME: FERNALD
FIELD ENGINEER: J. LEAR
E: 1392026.06'
GWL DEPTH: NA
EQUIPMENT: CYCLONE 43
CHECKED BY: D. AMBROSE

ELEV (FT)	DEPTH (FT)	SAMPLE TYPE AND NO.	BPT BLOWS PER (0.5')	REC (FT)	PID (PPM)	DESCRIPTION	GROUP	UNIFIED SOIL CLASS.	REMARKS
0.0	0.00					Sample description can be cross referenced from boring numbers 1679 and 2679 up to 85.0'			
5.0	-5.00								
10.0	-10.00								
15.0	-15.00								
20.0	-20.00								
25.0	-25.00								
30.0	-30.00								
	-35.00								
40.0	-40.00								
45.0	-45.00								
50.0	-50.00								
55.0	-55.00								
60.0	-60.00								
65.0	-65.00								
70.0	-70.00								
75.0	-75.00								
	-80.00								

DRAFT

PROJECT NO: 313327
DATE BEGAN: 1-30-92
DRILLER: C. COULTER
GROUND SURFACE ELEV.: NA
DRILLING METHOD: CABLE TOOL
CONTRACTOR: PENN DRILLING

BORING NO: 3679
DATE FINISHED: 2-5-92
N: 47[illegible]2.23'
GWL DATE/TIME: NA

PAGE 2 OF 5
PROJECT NAME: FERNALD
FIELD ENGINEER: J. LEAR
E: 1382026.06'
GWL DEPTH: NA
EQUIPMENT: CYCLONE 43
CHECKED BY: D. AMBROSE

ELEV (FT)	DEPTH (FT)	SAMPLE TYPE AND NO.	SPT BLOWS PER (0.5')	REC (FT)	METHOD	DESCRIPTION	USCS	(02A-4HD2100 NA)	REMARKS
89.0	89.00					Sample description can be cross referenced from boring numbers 1679 and 2679 up to 85.0'			
						85.0'			
85.0	85.00	S 38400	13	1.33		Firm, (10YR 5/1 to 2.5 Y4/2), gray to dark grayish-brown, laminated, SILT and CLAY, high plasticity, wet	ml/cl	.5-1.5	HNU - 0 ppm βγ - 50 cpm
						90.0'			
90.0	90.00	S 38401	27-50-8	1.5		Very dense, (2.5Y 5/2), grayish-brown, laminated, SILT, some clay, well sorted sand and gravel at 90.5, wet to very moist	ml	NA	HNU - 0 ppm βγ - 60 cpm
						95.0'			
	95.00	S 38402	21	1.0		Firm, (2.5Y 4/2), dark grayish-brown, clayey SILT, low plasticity, wet to very moist 95.5'		1.0-1.5	HNU - 0 ppm βγ - 50 cpm
						Medium dense, (2.5Y 5/2), grayish-brown, well graded SAND, some gravel wet	sw	NA	

PROJECT NO: 313327
DATE BEGAN: 1-30-92
DRILLER: C. COULTER
GROUND SURFACE ELEV.: NA
DRILLING METHOD: CABLE TOOL
CONTRACTOR: PENN DRILLING

BORING NO: 3679
DATE FINISHED: 2-5-92
N: 476762.23'
GWL DATE/TIME: NA

PAGE 3 OF 5
PROJECT NAME: FERNALD
FIELD ENGINEER: J. LEAR
E: 1382026.06'
GWL DEPTH: NA
EQUIPMENT: CYCLONE 43
CHECKED BY: D. AMBROSE

ELEV (FT)	DEPTH (FT)	SAMPLE TYPE AND NO.	SPT BLOWS PER (0.5')	REC (FT)	PROFILE	DESCRIPTION	USCS	OVA (DIR-IBNB120) PPM	REMARKS
							sw		
100.0	-100.00	S 38403	53	0.83		Very dense, (2.5Y 4/2), well graded, gravelly SAND, wet 100.75'		NA	HNU - 0 ppm βγ - 50 cpm
						Very firm, (2.5Y 4/2), silty CLAY, laminated sand and gravel at low plasticity, moist to wet 100.80'		2.5	
							cl		
105.0	-105.00	S 38404	74	0.67		Very dense, (5Y 3/2), dark olive gray, clayey SILT, some well graded gravel, moist to wet 105.0'		NA	HNU - 0 ppm βγ - 30 cpm
							ml		
110.0	-110.00	S 38405	27	0.75		Medium dense, (10Y 4/1), dark gray SILT, trace clay, moist to wet 110.0'		NA	HNU - 0 ppm βγ - 40 cpm

PROJECT NO: 313327
DATE BEGAN: 1-30-92
DRILLER: C. COULTER
GROUND SURFACE ELEV.: NA
DRILLING METHOD: CABLE TOOL
CONTRACTOR: PENN DRILLING

BORING NO: 3679
DATE FINISHED: 2-5-92
N: 476762.23'
GWL DATE/TIME: NA

PAGE 4 OF 5
PROJECT NAME: FERNALD
FIELD ENGINEER: J. LEAR
E: 1382026.06'
GWL DEPTH: NA
EQUIPMENT: CYCLONE 43
CHECKED BY: D. AMBROSE

ELEV (FT)	DEPTH (FT)	SAMPLE TYPE AND NO	SPT BLOWS PER (0.5')	REC (FT)	PROFILE	DESCRIPTION	USCS	OVA (PPM)	REMARKS
							ml		
115.0	-115.00	S 38406	28	1.08		Medium dense, (5Y 4/1), dark gray SILT, trace clay, wet 115.0'		NA	HNU - 0 ppm βγ - 30 cpm
120.0	-120.00	S 38407	33	1.5		Very firm, (5Y 4/1), dark gray, silty CLAY, grading to dense, dark gray, clayey silt, medium plasticity, very moist to wet 121.5'	cl/ml	1.0	HNU - 0 ppm βγ - 40 cpm HNU - 0 ppm βγ - 40 cpm
		S 38408	23	1.5		Medium dense, (5Y 4/1), dark gray, clayey SILT to SILT, some clay, wet		NA	
125.0	-125.00						ml	NA	

PROJECT NO: 313327
DATE BEGAN: 1-30-92
DRILLER: C. COULTER
GROUND SURFACE ELEV.: NA
DRILLING METHOD: CABLE TOOL
CONTRACTOR: PENN DRILLING

BORING NO: 3679
DATE FINISHED: 2-5-92
N: 476762.23'
GWL DATE/TIME: NA

PAGE 5 OF 5
PROJECT NAME: FERNALD
FIELD ENGINEER: J. LEAR
E: 1382026.06'
GWL DEPTH: NA
EQUIPMENT: CYCLONE 43
CHECKED BY: D. AMBROSE

ELEV (FT)	DEPTH (FT)	SAMPLE TYPE AND NO.	SPT BLOWS PER (0.5')	REC. (FT)	METHOD	DESCRIPTION	OVOC	HNU READING (PPM)	REMARKS
		6 / 38407	25	1.25			ml	NA	HNU - 0 ppm βγ - 40 cpm
130.0	-130.00					BOTTOM OF BORING AT 129.5'			
135.0	-135.00								
140.0	-140.00								

NOTE:
ALL SAMPLE NUMBERS ARE INCREMENTED BY 100,000
ie. 38400 IS 138400

DRAFT

PROJECT NO: 313327
DATE BEGAN: 2-10-88
DRILLER: D. NEWMAR
GROUND SURFACE ELEV.: NA
DRILLING METHOD: CABLE TOOL
CONTRACTOR: PENN DRILLING

BORING NO: B370
DATE FINISHED: 2-20-88
N: 483926.78'
GWL DATE/TIME: NA

PAGE 1 OF 10
PROJECT NAME: FERNALD
FIELD ENGINEER: T. SULLIVAN
E: 1378250.50'
GWL DEPTH: NA
EQUIPMENT: ERIE 24-W DRILL RIG
CHECKED BY: D. AMBROSE

ELEV (FT)	DEPTH (FT)	SAMPLE TYPE AND NO	SPT BLOWS PER (0.5')	REC (FT)	DESCRIPTION	USCS	OVA (DRILLING ZONE)	REMARKS
0.0	0.00	S 8035	5	1.08	Firm, (10YR 3/6), dark yellowish-brown SILT and CLAY, abundant organic material, roots, dry 0.4' Firm, (10YR 3/6), yellowish-brown CLAY and SILT, some organic material, dry		1.75	HNU - 0 ppm βγ - 60 cpm α - 0 cpm
		S 0836	8	1.0			1.5	HNU - 0 ppm βγ - 60 cpm α - 0 ppm
		S 8037	8	0.17	Very soft, (10YR 3/4), dark yellowish-brown SILT and CLAY, wet Soft, (10YR 3/4), dark yellowish-brown SILT CLAY, wet 4.7'	cl	Unk.	HNU - 0 ppm βγ - 60 cpm α - 0 cpm
5.0	-5.00	S 8038	8	0.67	Firm, (10YR 4/4), dark yellowish-brown CLAY with some silt, sand and gravel, moist 6.0'		0.5 0.75	HNU - 0 ppm βγ - 100 cpm α - 0 ppm
		S 8039	13	1.5	Very loose, (10YR 3/4), dark yellowish-brown SAND, some silt clay and gravel, wet 6.5' Firm, (10YR 4/4), dark yellowish-brown, gravelly CLAY, some sand and silt, moist 7.5'	sm	NA 1.25	HNU - 0 ppm βγ - 80 cpm α - 0 cpm
		S 8040	16	1.08	Very soft, (10YR 4/4), dark yellowish-brown, silty CLAY, some gravel, trace sand, moist 8.0' Very firm, (10YR 4/4), dark yellowish-brown CLAY with some sand and gravel, moist		<.25 3.5	HNU - 0 ppm βγ - 80 cpm α - 0 ppm
10.0	-10.00	S 8041	38	1.08	Very firm, (10YR 4/4), dark yellowish-brown CLAY, with some gravel, moist		4.25	HNU - 0 ppm βγ - 80 cpm α - 0 cpm
		S 8042	49	1.33	Very hard, (10YR 3/3), dark yellowish-brown CLAY some gravel and pebbles, dry 11.0' Very hard, (10YR 4/1), gray CLAY, some gravel, dry 12.0'		>5	HNU - 0 ppm βγ - 60 cpm α - 0 ppm
		S 8043	20	1.17	Very firm, (5Y 4/1), dark gray CLAY with some fine gravel, wood fragments present, dry 13.5'	cl	3.5	HNU - 0 ppm βγ - 80 cpm α - 2 cpm
	-15.00	S 8044	23	1.17	Very firm, (10YR 4/1), dark gray CLAY with some gravel, trace silt, dry (gravelly clay at 14.7'-15.0') 15.0'		3.25	HNU - 0 ppm βγ - 80 cpm α - 0 ppm
		S 8045	16	0.83	Very hard, (10YR 4/1), dark gray CLAY with trace gravel and silt, dry		4.25	HNU - 0 ppm βγ - 80 cpm α - 0 cpm

PROJECT NO: 313327
DATE BEGAN: 2-10-88
DRILLER: D. NEWMAR
GROUND SURFACE ELEV.: NA
DRILLING METHOD: CABLE TOOL
CONTRACTOR: PENN DRILLING

BORING NO: B370
DATE FINISHED: 2-20-88
N: 483926.78'
GWL DATE/TIME: NA

PAGE 2 OF 10
PROJECT NAME: FERNALD
FIELD ENGINEER: T. SULLIVAN
E: 1378250.50'
GWL DEPTH: NA
EQUIPMENT: ERIE 24-W DRILL RIG
CHECKED BY: D. AMBROSE

ELEV (FT)	DEPTH (FT)	SAMPLE TYPE AND NO.	SPT BLOWS PER (0.5')	REC (FT)	DESCRIPTION	USCS	OVA (PPM)	REMARKS
		S 8046	22	1.5	Very Firm, (10YR 4/1), dark gray CLAY some gravel and silt, dry	cl	2.25	HNU - 0 ppm βγ - 80 cpm α - 0 ppm
		S 8047	24	1.17	Very Firm, (10YR 5/1), gray CLAY some silt, trace gravel, dry 18.5' Very Firm, (10YR 5/1), gray CLAY and SILT, some gravel, dry 19.5'	cl/ml	2.5 3.5	HNU - 0 ppm βγ - 60 cpm α - 0 ppm
-20.0	-20.00	S 8048	SHELBY TUBE	NA	Very Firm, (10YR 4/1), dark gray CLAY some gravel, dry 21.0'		>5	HNU - 0 ppm βγ - 60 cpm α - 0 ppm
		S 8049	20	.58	Firm, (5Y 4/1), gray-green, gravelly CLAY, trace silt, dry 22.5'		2.0	HNU - 0 ppm βγ - 80 cpm α - 0 cpm
		S 8050	22	1.17	Firm, (5Y 4/1), dark gray, gravelly CLAY, trace silt, dry 22.9' Very Firm, (5Y 4/1), dark gray CLAY, some gravel and pebbles, dry		2.0 2.5	HNU - 0 ppm βγ - 100 cpm α - UNKNOWN ALPHA METER NOT FUNCTIONING
-25.0	-25.00	S 8051	20	0.58	25.5'		3.5	HNU - 0 ppm βγ - 60 cpm α - 0 cpm
		S 8052	23	1.08	Hard, (5Y 4/1), dark gray CLAY some gravel and pebbles, dry	cl	4.25	HNU - 0 ppm βγ - 80 cpm α - UNKNOWN
		S 8053	32	1.5	28.5'		4.25	HNU - 0 ppm βγ - 80 cpm α - UNKNOWN
		S 8054	23	1.17	Very Firm, (5Y 4/1), dark gray CLAY, some gravel trace silt, dry 30.0'		3.5	HNU - 0 ppm βγ - 140 cpm α - UNKNOWN
	-30.00	S 8055	27	0.42	Very Firm, (5Y 4/1), dark gray CLAY, some gravel and pebbles, trace silt, dry 31.5'		3.25	HNU - 0 ppm βγ - 80 cpm α - UNKNOWN

PROJECT NO: 313327
DATE BEGAN: 2-10-88
DRILLER: D. NEWMAR
GROUND SURFACE ELEV.: NA
DRILLING METHOD: CABLE TOOL
CONTRACTOR: PENN DRILLING

BORING NO: B370
DATE FINISHED: 2-20-88
N: 483926.78'
GWL DATE/TIME: NA

PAGE 3 OF 10
PROJECT NAME: FERNALD
FIELD ENGINEER: T. SULLIVAN
E: 1378250.50'
GWL DEPTH: NA
EQUIPMENT: ERIE 24-W DRILL RIG
CHECKED BY: D. AMBROSE

ELEV (FT)	DEPTH (FT)	SAMPLE TYPE AND NO.	SPT BLOWS PER (0.5')	REC (FT)	DRILLING DETAILS	DESCRIPTION	USCS	<0.2 RADIOACTIVITY	REMARKS
		S 8056	20	1.08		Very firm, (5Y 4/1), dark gray CLAY, some gravel some silt, dry	cl	3.5	HNU - 0 ppm βγ - 60 cpm α - UNKNOWN
		S 8057	36	1.17		33.5' Dense, (10YR 4/1), dark gray gravelly SAND, some silt, dry		2.5 NA	HNU - 0 ppm βγ - 80 cpm α - UNKNOWN
35.0	-35.00	S 8058	59	0.58		Very dense, (10YR 5/1), gray, gravelly SAND, some silt, dry		NA	HNU - 0 ppm βγ - 110 cpm α - UNKNOWN
40.0	-40.00	S 8059	63	1.25		40.0' Very dense, (10YR 5/1), gray, gravelly SAND, some pebbles, some silt, dry	sw	NA	HNU - 0 ppm βγ - 60 cpm α - UNKNOWN
	-45.00	S 8060	61	1.0				NA	HNU - 0 ppm βγ - 80 cpm α - UNKNOWN

PROJECT NO: 313327
DATE BEGAN: 2-10-88
DRILLER: D. NEWMAR
GROUND SURFACE ELEV.: NA
DRILLING METHOD: CABLE TOOL
CONTRACTOR: PENN DRILLING

BORING NO: B370
DATE FINISHED: 2-20-88
N: 483926.78'
GWL DATE/TIME: NA

PAGE 4 OF 10
PROJECT NAME: FERNALD
FIELD ENGINEER: T. SULLIVAN
E: 1378250.50'
GWL DEPTH: NA
EQUIPMENT: ERIE 24-W DRILL RIG
CHECKED BY: D. AMBROSE

ELEV (FT)	DEPTH (FT)	SAMPLE TYPE AND NO.	SPT BLOWS PER (0.5')	REC (FT)	LITHOLOGY	DESCRIPTION	OVOC	HORIZONTAL VOC	REMARKS
						48.0'			
						Dense, dark gray, (10YR 4/1), medium SAND, trace gravel, some silt, dry			
50.0	-50.00	S 8061	34	0.92		Dense, (10YR 4/1), dark gray, medium SAND, trace gravel, some silt, dry		NA	HNU - 0 ppm βγ - 100 cpm α - UNKNOWN
						55.0'			
55.0	-55.00	S 8062	72	1.17		Very dense, (10YR 4/1), dark gray, Fine SAND, some silt, trace gravel, dry		NA	HNU - 0 ppm βγ - 60 cpm α - UNKNOWN
							cm		
						60.0'			
60.0	-60.00	S 8063	43	1.08		Dense, (10YR 4/1), dark gray, Fine SAND, some silt, dry		NA	HNU - 0 ppm βγ - 80 cpm α - UNKNOWN

PROJECT NO: 313327
DATE BEGAN: 2-10-88
DRILLER: D. NEWMAN
GROUND SURFACE ELEV.: NA
DRILLING METHOD: CABLE TOOL
CONTRACTOR: PENN DRILLING

BORING NO: B370
DATE FINISHED: 2-20-88
N: 483926.78'
GWL DATE/TIME: NA

PAGE 5 OF 10
PROJECT NAME: FERNALD
FIELD ENGINEER: T. SULLIVAN
E: 1378250.50'
GWL DEPTH: NA
EQUIPMENT: ERIE 24-H DRILL RIG
CHECKED BY: D. AMBROSE

ELEV (FT)	DEPTH (FT)	SAMPLE TYPE AND NO.	BPT BLOWS PER (0.5')	REC (FT)	METHOD	DESCRIPTION	USCS	CONTAMINATION	REMARKS
						Very dense, (10YR 4/1), dark gray, fine SAND, some silt, dry 65.2'	sm		
65.0	-65.00	S B064	98	1.25		Very dense, (10YR 4/1), dark gray SAND and GRAVEL, some pebbles, some silt, trace clay, dry		NA	HNU - 0 ppm βγ - 60 cpm α - UNKNOWN
							gm		
70.0	-70.00	S B065	60	1.17				NA	HNU - 0 ppm βγ - 60 cpm α - UNKNOWN
						73.0' Medium dense, (10YR 4/1), dark gray, fine to medium SAND, some silt, trace gravel, wet			
75.0	-75.00	S B066	29	0.92		Medium dense, (10YR 4/1), dark gray, fine to medium SAND, some silt, trace gravel, wet	sm	NA	HNU - 0 ppm βγ, α - NO METERS
						Medium dense, (10YR 4/1), dark gray, medium SAND, some silt, wet 80.3'			
80.0	-80.00	S B067	20	0.83		Medium dense, (10YR 4/1), dark gray, sandy GRAVEL, some pebbles, some silt, wet 80.6'	gp	NA	HNU - 0 ppm βγ, α - NO METERS
						Medium dense, (10YR 3/1), very dark gray, coarse SAND, some gravel, some silt, wet			
							gp		
	-85.00								

PROJECT NO: 313327
DATE BEGAN: 2-10-88
DRILLER: D. NEWMAR
GROUND SURFACE ELEV.: NA
DRILLING METHOD: CABLE TOOL
CONTRACTOR: PENN DRILLING

BORING NO: B370
DATE FINISHED: 2-20-88
N: 483926.78'
GWL DATE/TIME: NA

PAGE 6 OF 10
PROJECT NAME: FERNALD
FIELD ENGINEER: T. SULLIVAN
E: 1378250.50'
GWL DEPTH: NA
EQUIPMENT: ERIE 24-W DRILL RIG
CHECKED BY: D. AMBROSE

ELEV (FT)	DEPTH (FT)	SAMPLE TYPE AND NO.	BPT BLOWS PER (0.5')	REC (FT)	PROFILE	DESCRIPTION	USCS	HNU (PPM)	REMARKS
85.0	85.00	S B068	36	1.08		Dense, (10YR 4/1), dark gray, medium to coarse SAND, some gravel, some silt, trace clay, wet 88.0'	sp	NA	HNU - 0 ppm βγ, α - NO METERS
						Medium dense, (10YR 4/1), dark gray, fine GRAVEL and coarse sand, some silt wet 90.3'	gm		
90.0	-90.00	S B069	17	1.08		Medium dense, (10YR 3/1), very dark gray, fine SAND, some silt, wet 90.6'	sm	NA	HNU - 0 ppm βγ, α - NO METERS COBBLE SMASHED IN SPOON
						Medium dense, (10YR 4/1), dark gray, gravelly SAND, fine to coarse sand, some silt, some pebbles, trace clay, wet 94.0'	sw		
95.0	-95.00	S B070	58	1.5		Very dense, (10YR 4/1), dark gray, fine to coarse SAND, some gravel, some silt, wet 96.0'	sm	NA	HNU - 0 ppm βγ - 60 cpm α - 0 cpm
						Very dense, (10YR 5/1), gray GRAVEL, some sand, some pebbles, some silt, trace clay, wet 99.0'	gm		

PROJECT NO: 313327
DATE BEGAN: 2-10-88
DRILLER: D. NEWMAR
GROUND SURFACE ELEV.: NA
DRILLING METHOD: CABLE TOOL
CONTRACTOR: PENN DRILLING

BORING NO: 8370
DATE FINISHED: 2-20-88
N: 483926.78'
GWL DATE/TIME: NA

PAGE 7 OF 10
PROJECT NAME: FERNALD
FIELD ENGINEER: T. SULLIVAN
E: 1378250.50'
GWL DEPTH: NA
EQUIPMENT: ERIE 24-W DRILL RIG
CHECKED BY: D. AMBROSE

ELEV (FT)	DEPTH (FT)	SAMPLE TYPE AND NO	SPT BLOWS PER (0.5')	REC (FT)	DRILLING RATE	DESCRIPTION	OVOC	<DLR HNU BZ	REMARKS
100.0	-100.00	S 8071	14	0.92		Medium dense, (10YR 4/1), dark gray, coarse SAND, some gravel, some silt, wet		NA	HNU - 0 ppm βγ - 80 cpm α - 0 cpm
105.0	-105.00	S 8072	26	1.08		Medium dense, (10YR 3/1), very dark gray, coarse SAND, some fine gravel, some silt, wet 105.0'		NA	HNU - 0 ppm βγ - 60 cpm α - 2 cpm
110.0	-110.00	S 8073	24	1.0		Medium dense, (10YR 4/1), dark gray, fine SAND, some silt, trace fine gravel, wet (1" fine gravel lens at 111.0). 110.3'	em	NA	HNU - 0 ppm βγ - 60 cpm α - 2 cpm
	-115.00								

PROJECT NO: 313327
DATE BEGAN: 2-10-88
DRILLER: D. NEWMAR
GROUND SURFACE ELEV.: NA
DRILLING METHOD: CABLE TOOL
CONTRACTOR: PENN DRILLING

BORING NO: B370
DATE FINISHED: 2-20-88
N: 483926.78'
GWL DATE/TIME: NA

PAGE 8 OF 10
PROJECT NAME: FERNALD
FIELD ENGINEER: T. SULLIVAN
E: 1378250.50'
GWL DEPTH: NA
EQUIPMENT: ERIE 24-W DRILL RIG
CHECKED BY: D. AMBROSE

ELEV (FT)	DEPTH (FT)	SAMPLE TYPE AND NO.	SPT BLOWS PER (0.5')	REC (FT)	PROFILE	DESCRIPTION	USCS	RADIOGRAPHIC	REMARKS
115.0	115.00	S 8074	64	1.5		Very dense, (10YR 4/1), dark gray, Fine to coarse SAND, some Fine gravel, some pebbles, some silt, trace clay, wet	sm	NA	HNU - 0 ppm βγ - 60 cpm α - 4 cpm
						120.0'			
120.0	120.00	S 8075	9	1.42		Loose, (10YR 4/1), dark gray, fine to medium SAND, some silt, trace coarse sand, trace silt, wet 120.5'			
						Loose, (10YR 4/1), dark gray SAND and GRAVEL, fine to coarse sand, Fine gravel with some pebbles, some silt, wet	gm	NA	HNU - 0 ppm βγ - 60 cpm α - 2 cpm
						124.0'			
						Very dense, (10YR 4/1), dark gray, Fine to medium SAND, some silt, trace clay, wet	sm		
125.0	125.00	S 8076	80	1.5		125.3'			
						Very dense, (10YR 3/1), very dark gray, sandy GRAVEL, Fine to coarse sand, Fine gravel with some pebbles, some silt, wet	gp	NA	HNU - 0 ppm βγ - 60 cpm α - 0 cpm
						128.0'			
						Very dense, (10YR 3/1), very dark gray, medium SAND, some silt, wet	sm		
	130.00								

PROJECT NO: 313327
DATE BEGAN: 2-10-88
DRILLER: D. NEWMAR
GROUND SURFACE ELEV.: NA
DRILLING METHOD: CABLE TOOL
CONTRACTOR: PENN DRILLING

BORING NO: B370
DATE FINISHED: 2-20-88
N: 483926.78'
GWL DATE/TIME: NA

PAGE 9 OF 10
PROJECT NAME: FERNALD
FIELD ENGINEER: T. SULLIVAN
E: 1378250.50'
GWL DEPTH: NA
EQUIPMENT: ERIE 24-W DRILL RIG
CHECKED BY: D. AMBROSE

ELEV (FT)	DEPTH (FT)	SAMPLE TYPE AND NO.	SPT BLOWS PER (0.5')	REC (FT)	PROFILE	DESCRIPTION	OXOXC	(DIR)(BH)(B200) 1B-1	REMARKS
130.0	130.00	S B077	76	0.92		131.2'	em	NA	HNU - 0 ppm βγ - 60 cpm α - 2 cpm
						Very dense, (10YR 4/1), dark gray, gravelly SAND, fine to coarse sand, some pebbles, some silt, wet 134.0'	sw		
						Dense, (10YR 5/1), gray, gravelly SAND, fine to coarse sand, some clay, some silt, some pebbles, wet 135.3'	gc		
135.0	135.00	S B078	33	1.3		Dense, (10YR 3/1), very dark gray, fine to coarse SAND, some silt, trace gravel, wet		NA	HNU - 0 ppm βγ - 60 cpm α - 2 cpm
							em		
140.0	140.00	S B079	31	1.5		Dense, (10YR 4/1), dark gray, fine to coarse SAND, some silt, trace fine gravel, wet 143.0'		NA	HNU - 0 ppm βγ - 60 cpm α - 2 cpm
						Very dense, (10YR 4/1), dark gray, sandy GRAVEL, fine gravel to pebbles, medium to coarse sand, trace silt, wet			
	145.00								

PROJECT NO: 313327
DATE BEGAN: 2-10-88
DRILLER: D. NEWMAR
GROUND SURFACE ELEV.: NA
DRILLING METHOD: CABLE TOOL
CONTRACTOR: PENN DRILLING

BORING NO: B370
DATE FINISHED: 2-20-88
N: 483926.78'
GWL DATE/TIME: NA

PAGE 10 OF 10
PROJECT NAME: FERNALD
FIELD ENGINEER: T. SULLIVAN
E: 1378250.50'
GWL DEPTH: NA
EQUIPMENT: ERIE 24-W DRILL RIG
CHECKED BY: D. AMBROSE

ELEV (FT)	DEPTH (FT)	SAMPLE TYPE AND NO.	SPT BLOWS PER (0.5')	REC (FT)	PROFILE	DESCRIPTION	OVOC	(DIRHNUZOO 101)	REMARKS
146.0	146.00	S 8080	97	0.67		Very dense, (10YR 4/1), dark gray, sandy GRAVEL, fine gravel to pebbles, medium to coarse sand, trace silt, wet		NA	HNU - 0 ppm βγ - 60 cpm α - 2 cpm
							SP		
						149.0'			
						Dense, (10YR 4/1), dark gray, coarse SAND, some gravel and pebbles, trace silt, wet			
150.0	150.00	S 8081	36	0.58			SW	NA	HNU - 0 ppm βγ - 60 cpm α - 2 cpm
						BOTTOM OF BORING AT 151.5'			
155.0	155.00								
	160.00								

NOTE:
ALL SAMPLE NUMBERS ARE INCREMENTED BY 100,000
ie. 8035 IS 108035

DRAFT

APPENDIX B

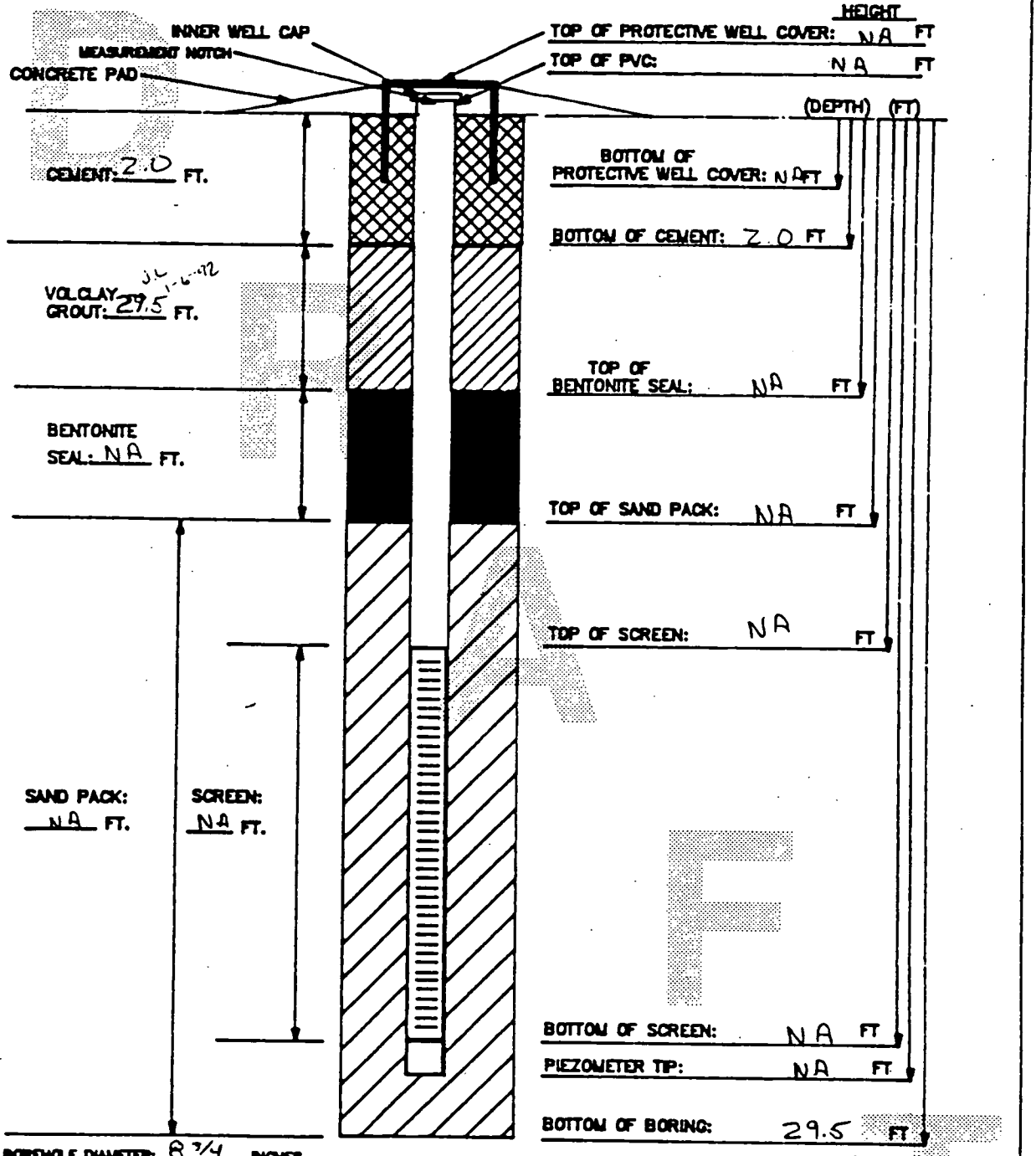
MONITORING WELL INSTALLATION DIAGRAMS

FERNALD RI/FS

INSTALLATION DIAGRAM

~~MONITORING WELL~~ NO. 1-6-92 Plugged boring 1070

INSTALLATION DATE: 1-6-92



MATERIALS USED:

SAND TYPE AND QUANTITY: NA

BENTONITE PELLETS (5-GALLON BUCKETS): NA

BAGS OF VOLCLAY GROUT: 5-50 lb bags

AMOUNT OF CEMENT: 1 94 lb bag

AMOUNT OF WATER USED: 100 gals

OTHER: NA

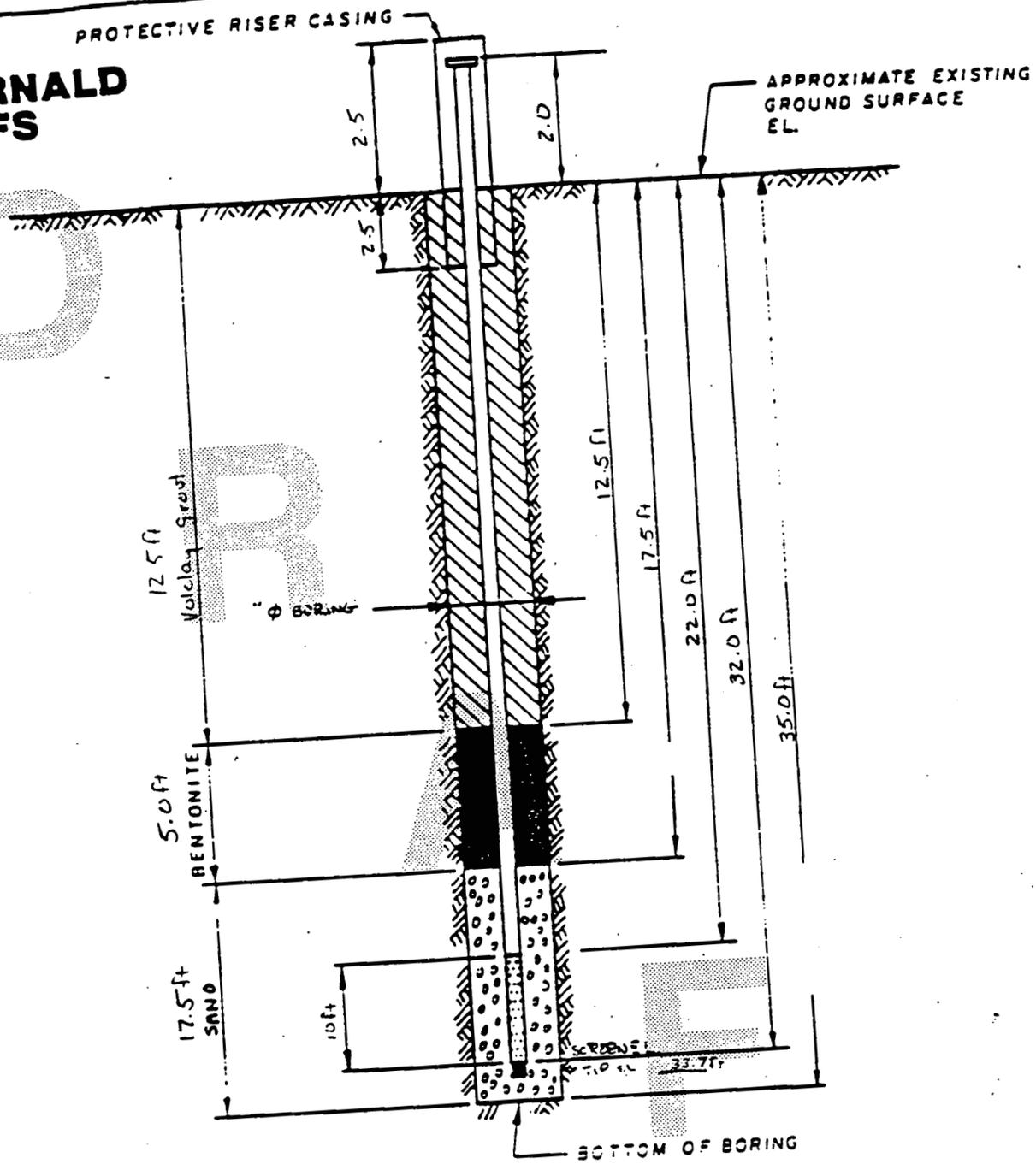
NOTES: NA

1) RISER PIPE IS 2-INCH SCHEDULE 40 PVC PIPE, FLUSH-THREADED JOINTS.
2) SCREEN IS 2-INCH I.D. SCHEDULE 40 PVC PIPE WITH 0.020-INCH SLOTS.
3) LOWER END OF SCREEN IS CAPPED WITH AN END CAP OR THREADED SUMP.
4) WATER DEPTH/DATE: NA
5) TOP OF PVC IS SECURED WITH EXPANDABLE RUBBER PLUG AND PADLOCK.
6) PARENTHESES INDICATE DEPTH BELOW GROUND LEVEL.

TASK: 602.3.22 GEOLOGIST/ENGINEER: J. Lear

6/7

FERNALD RI/FS



NOTES:

1. RISER PIPE IS 4.0 IN I.D 316 stainless steel ~~SCHEDULE~~ PIPE, THREADED, FLUSH-JOINTED.
2. SCREEN IS 4.0 IN I.D SS PIPE CONTINUOUS SLOT SCREEN (0.010 IN SLOT SIZE).
3. LOWER END OF SCREEN IS CAPPED.
4. ELEVATION OF WATER LEVEL No water encountered
5. WATER LEVEL READING ON NA (Dry well)

6 bags of 10x20 sand

7 buckets (5 gal) bentonite

6 bags Volclay grout

200 gal. H2O used while Drilling

INSTALLATION DETAILS
MONITORING WELL
1679
PREPARED FOR
Fernald RI/FS

DRAWING NUMBER	
CHECKED BY	
APPROVED BY	
DRAWN BY	J. Lear 1-28-92

REVIEWED BY QA

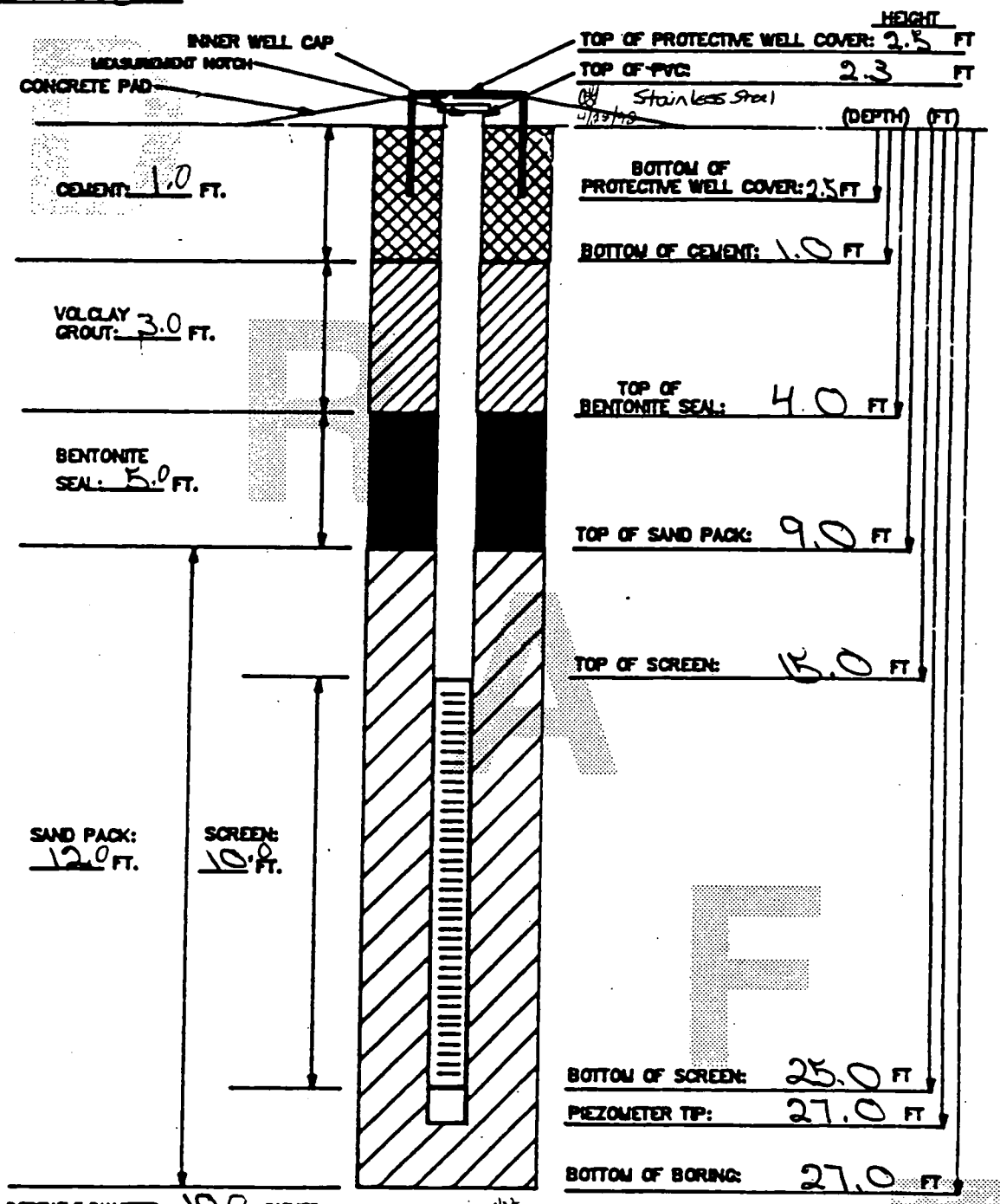
DATE 3/10/92

2 of 3
5769

FERNALD RI/FS

INSTALLATION DIAGRAM
MONITORING WELL NO. 1728

INSTALLATION DATE: 2/6/92



BOREHOLE DIAMETER: 10.0 INCHES

MATERIALS USED:
SAND TYPE AND QUANTITY: 10 bag
BENTONITE PELLETS (5-GALLON BUCKETS): 6
BAGS OF VOLCLAY GROUT: 1 bag
AMOUNT OF CEMENT: 6 bag
AMOUNT OF WATER USED: 150 gal
OTHER: NA

NOTES:
1) RISER PIPE IS 6-INCH-SCHEDULE-40 PVC PIPE, FLUSH-THREADED JOINTS.
2) SCREEN IS 6-INCH-I.D.-SCHEDULE-40 PVC PIPE WITH 0.020-INCH SLOTS.
3) LOWER END OF SCREEN IS CAPPED WITH AN END CAP OR THREADED SUMP.
4) WATER DEPTH/DATE: 20.3 ft/2-6-92
5) TOP OF PVC IS SECURED WITH EXPANDABLE RUBBER PLUG AND PADLOCK.
6) PARENTHESES INDICATE DEPTH BELOW GROUND LEVEL.

TASK: 3.22

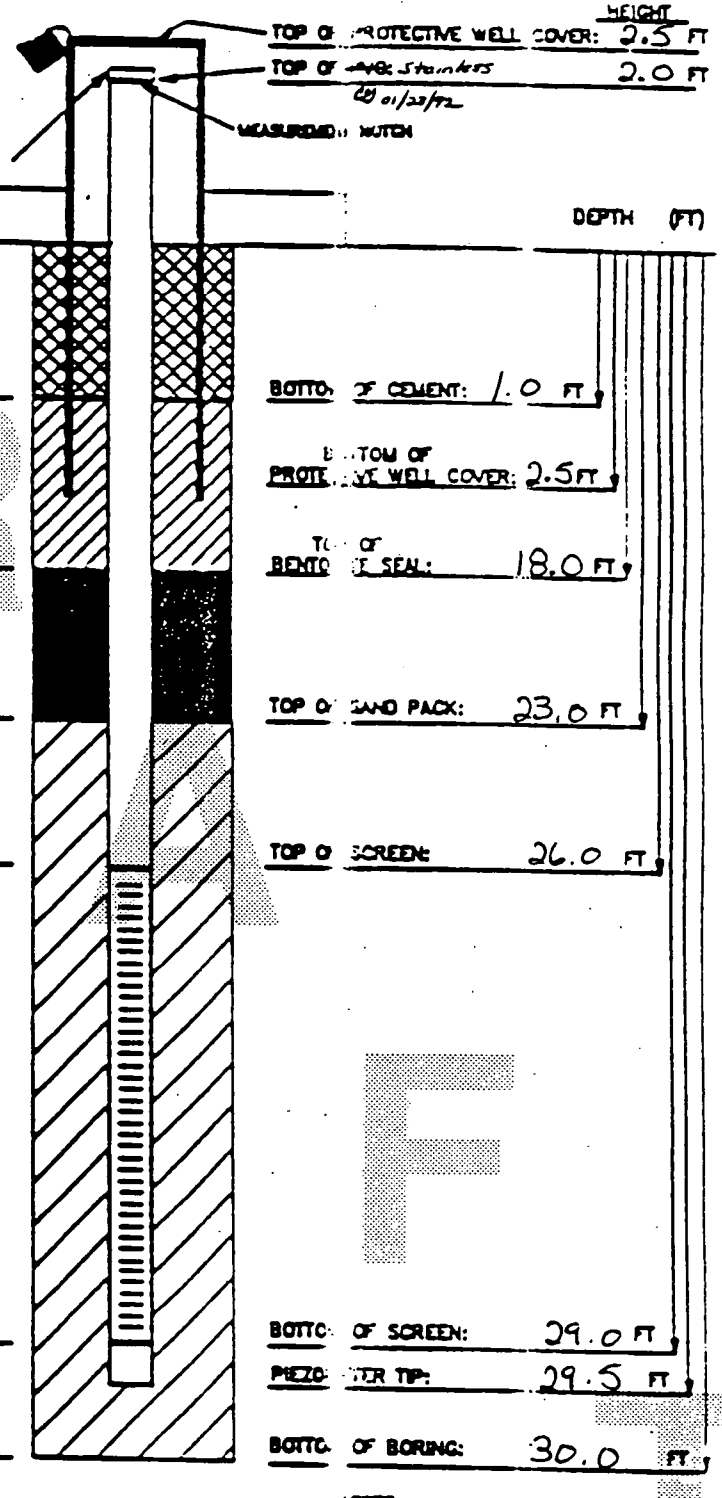
GEOLOGIST/ENGINEER: D. O'Brien

5/4/92

FERNALD RI/FS

INSTALLATION DIAGRAM
MONITORING WELL NO.
1733

INSTALLATION DATE: 1-8-92



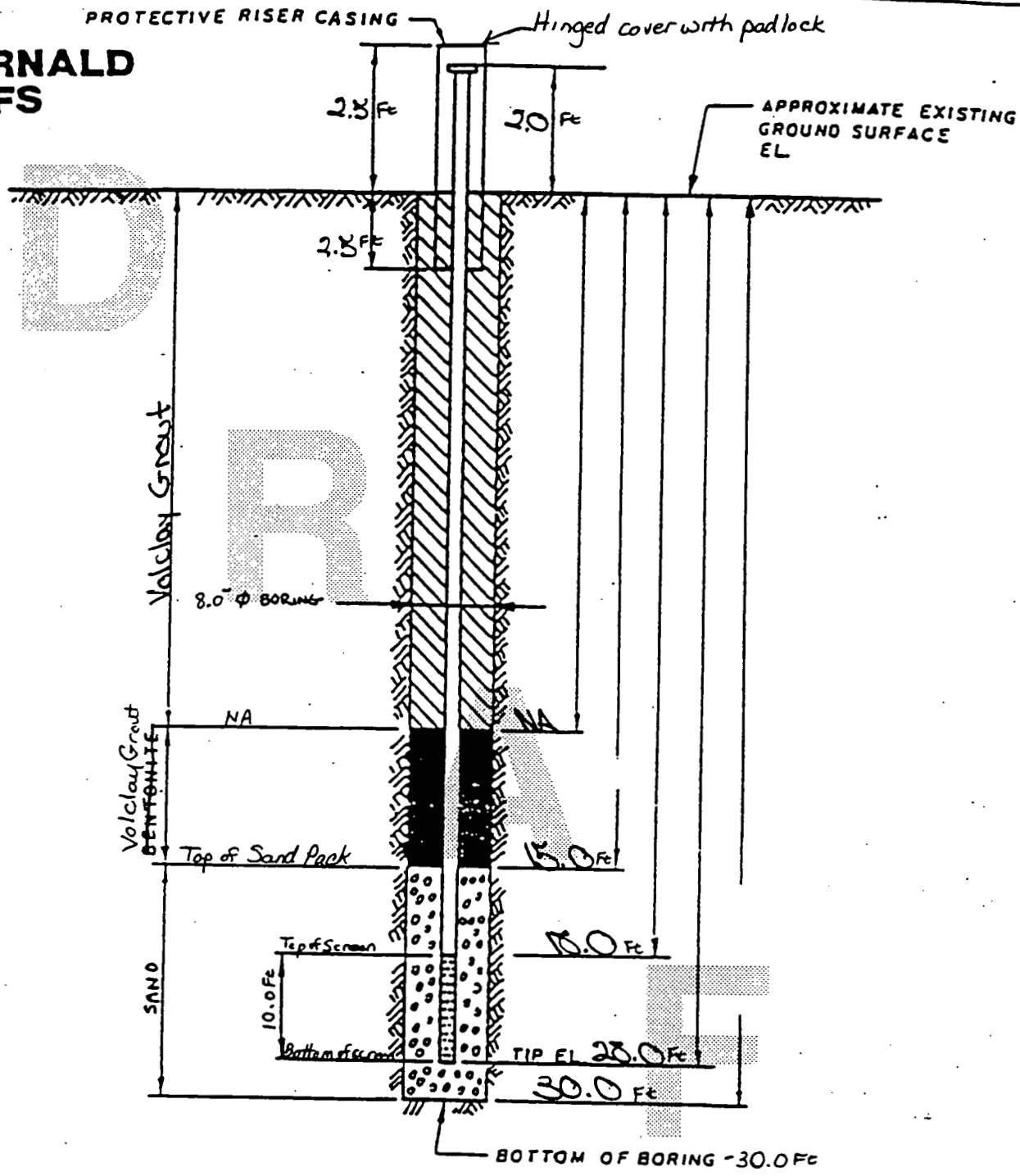
MATERIALS USED:
SAND TYPE AND QUANTITY: 7 sks of 10/20 sand
BENTONITE PELLETS (5-GALLON BUCKETS): 9
BAGS OF VOLCLAY GROUT: 6 sks of grout
AMOUNT OF CEMENT: N/A
AMOUNT OF WATER USED: 100 gal
OTHER:

NOTES:
4 in 316 stainless 01/23/92
RISER PIPE IS 6-INCH SCHEDULE 40
RISER PIPE, FLUSH-THREADED JOINTS.
SCREEN IS 2-INCH I.D. SCHEDULE 40 316 Stainless
PVC PIPE WITH 0.010 slots
LOWER END OF SCREEN IS CAPPED WITH AN END CAP OR THREADED SUMP.
WATER DEPTH/DATE.

TASK: FEMP RI/FS EWMFG GEOLOGIST/ENGINEER: R.P. CASSEDAY

DATE 2/10/92

FERNALD
RI/FS



DRAWING NUMBER

APPROVED BY

4/27/92

NOTES:

1. RISER PIPE IS 4 IN I.D. SCHEDULE 316 SS PIPE, THREADED, FLUSH-JOINTED.
2. SCREEN IS 4 IN I.D 316 SS PIPE CONTINUOUS SLOT SCREEN (0.010 IN. SLOT SIZE)
3. LOWER END OF SCREEN IS CAPPED. [with welded silt trap]
4. ELEVATION OF WATER LEVEL ~~NA~~ - Dry
5. WATER LEVEL READING ON ~~NA~~ - 4/27/92 ~~5/5~~ 4/27/92

INSTALLATION DETAILS
MONITORING WELL 1734

PREPARED FOR EG&G

Geologist: D. O'Brien

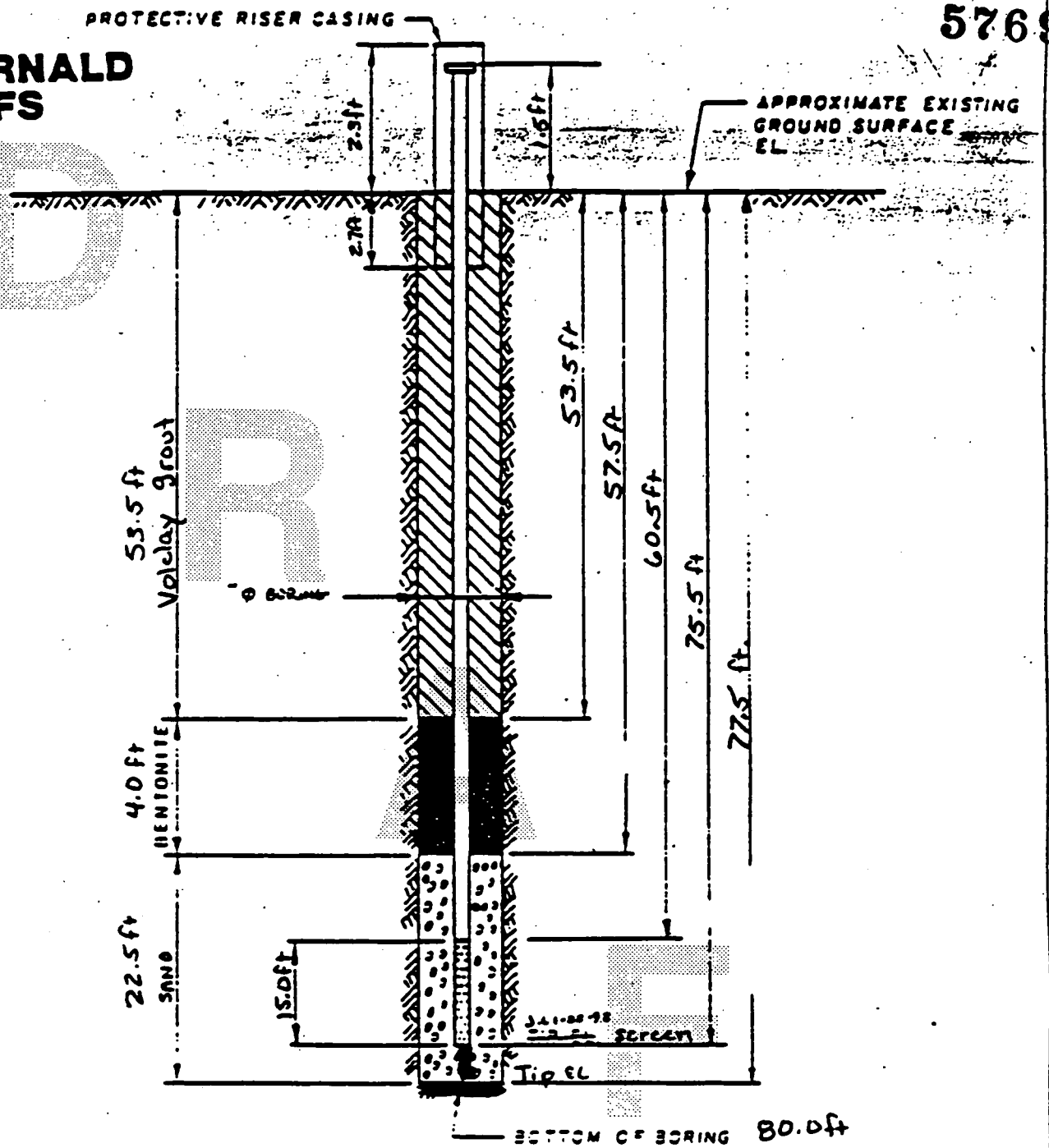
Material used during drilling

3 ~~15~~ bags Volclay grout
~~050~~ 120 ~~1000~~ gal water
~~5/5/92~~ ~~3 buckets bentonite~~
8 ~~11~~ bags of sand

3 Drums generated on this well - soil

5769

FERNALD RI/FS



NOTES:

1. RISER PIPE IS 4.0 IN I.D. ~~CONCRETE~~ 316 stainless steel PIPE, THREADED, FLUSH-JOINTED.
2. SCREEN IS 4.0 IN I.D. SS PIPE CONTINUOUS SLOT SCREEN (0.010 IN SLOT SIZE).
3. LOWER END OF SCREEN IS CAPPED.
4. ELEVATION OF WATER LEVEL 66.80
5. WATER LEVEL READING ON 1-22-92, 1500

500 gals H_2O use in drilling
6 bags 10x20 sand used (50 lbs)
3.5 buckets bentonite pellets used, (5 gal)
8 bags Volclay grout used (50 lbs)

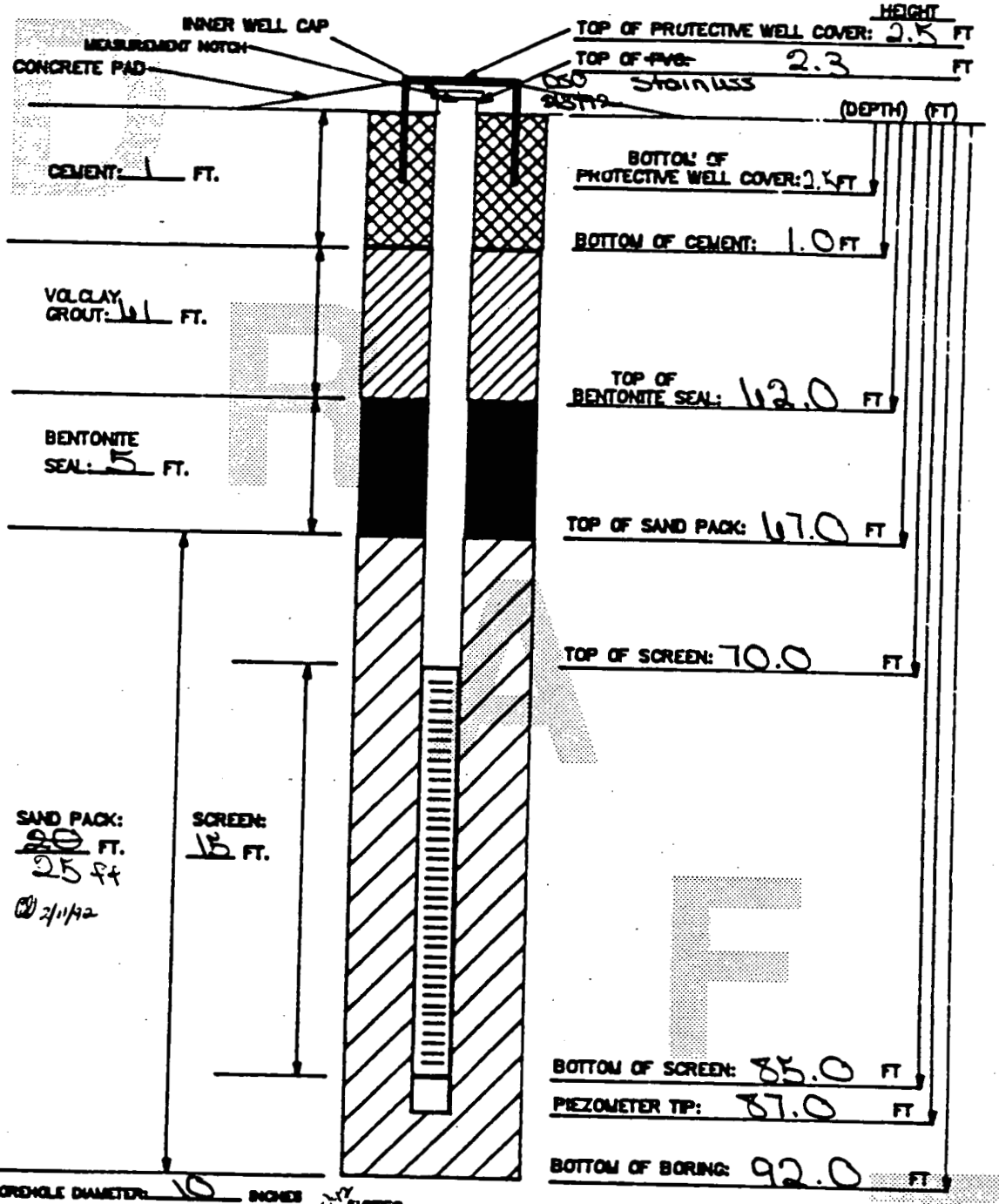
INSTALLATION DETAILS
MONITORING WELL
2679
PREPARED FOR
Fernald RI/FS

DRAWING NUMBER
CHECKED BY
APPROVED BY
J. Lear 1-22-92
DH. B1

FERNALD RI/FS

INSTALLATION DIAGRAM
MONITORING WELL NO. 2728

INSTALLATION DATE: 1/30/92



MATERIALS USED:
SAND TYPE AND QUANTITY: 17 bag
BENTONITE PELLETS (5-GALLON BUCKETS): 6
BAGS OF VOLCLAY GROUT: 15 bag
AMOUNT OF CEMENT:
AMOUNT OF WATER USED: 600 gallons
OTHER: NA

NOTES:
1) RISER PIPE IS 4-INCH 316 Stainless wall Steel ~~2-INCH-SCHEDULE-40~~ PVC PIPE, FLUSH-THREADED JOINTS.
2) SCREEN IS 4-INCH 316 SS ~~2-INCH-LG-SCHEDULE-40~~ PVC PIPE WITH 0.010 in ~~0.020-INCH~~ SLOTS.
3) LOWER END OF SCREEN IS CAPPED WITH AN END CAP OR THREADED SUMP.
4) WATER DEPTH/DATE: 73.8 ft
5) TOP OF PVC IS SECURED WITH EXPANDABLE RUBBER PLUG AND PADLOCK.
6) PARENTHESES INDICATE DEPTH BELOW GROUND LEVEL.

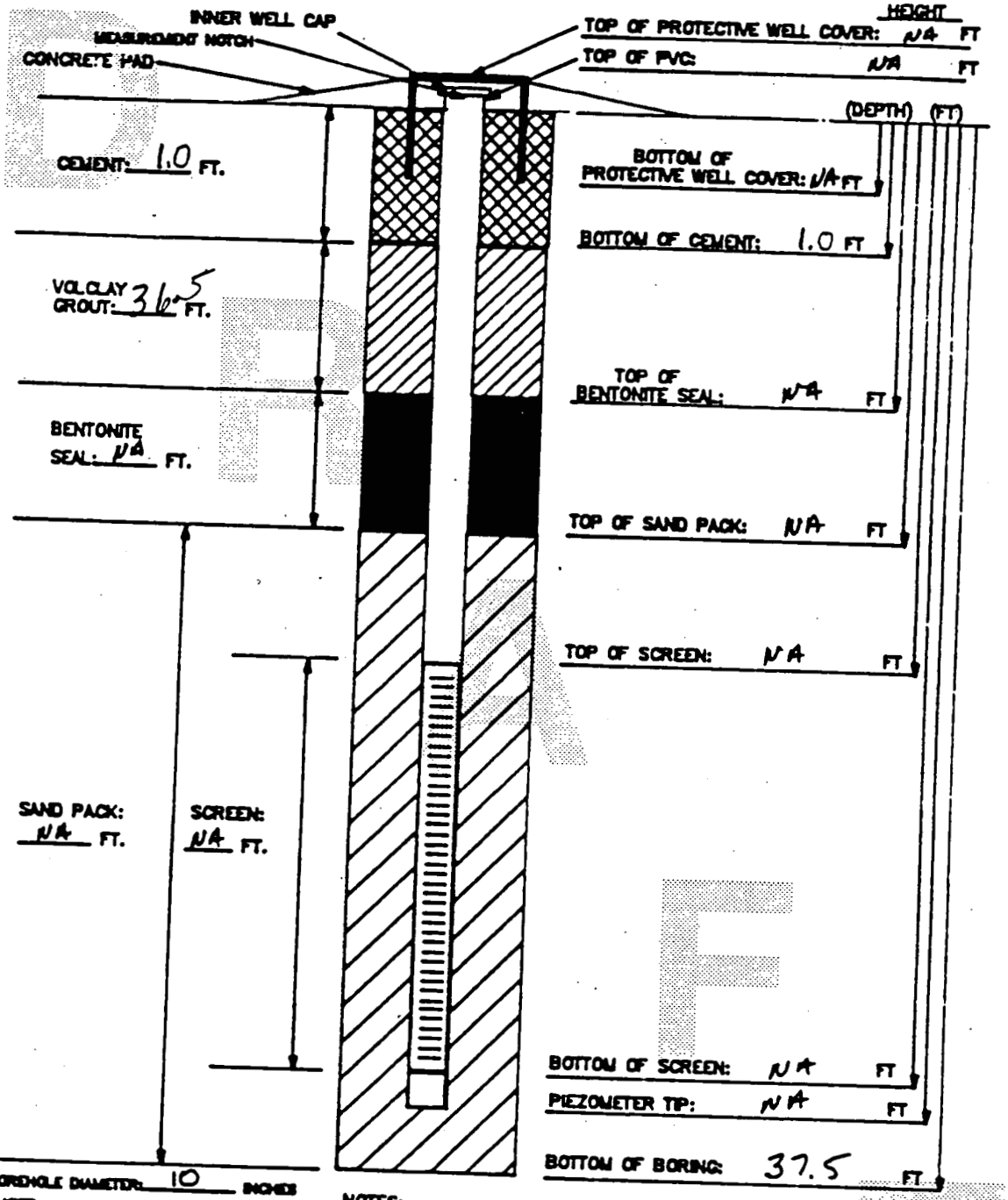
TASK: 3.22 GEOLOGIST/ENGINEER: D. O'Brien

REVIEWED BY QA LC DATE 2/26/92

FERNALD RI/FS

INSTALLATION DIAGRAM
MONITORING WELL NO. 2731

INSTALLATION DATE: 1-8-92



BOREHOLE DIAMETER: 10 INCHES

MATERIALS USED:
SAND TYPE AND QUANTITY: NA
BENTONITE PELLETS (5-GALLON BUCKETS): NA
BAGS OF VOLCLAY GROUT: 2
AMOUNT OF CEMENT: 1/2 bag
AMOUNT OF WATER USED: 50 gals.
OTHER: NA

NOTES:
1) RISER PIPE IS 2-INCH SCHEDULE 40 PVC PIPE, FLUSH-THREADED JOINTS.
2) SCREEN IS 2-INCH I.D. SCHEDULE 40 PVC PIPE WITH 0.020-INCH SLOTS.
3) LOWER END OF SCREEN IS CAPPED WITH AN END CAP OR THREADED SUMP.
4) WATER DEPTH/DATE:
5) TOP OF PVC IS SECURED WITH EXPANDABLE RUBBER PLUG AND PADLOCK.
6) PARENTHESES INDICATE DEPTH BELOW GROUND LEVEL.

TASK: 3.22

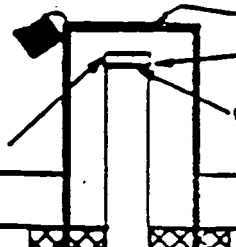
GEOLOGIST/ENGINEER: JE Marshall

.5769

FERNALD RI/FS

INSTALLATION DIAGRAM
MONITORING WELL NO.
2733

INSTALLATION DATE: ~~12-2-91~~ 1-6-92 (CW 01/30/92)



	HEIGHT
TOP OF PROTECTIVE WELL COVER:	2.5 FT
TOP OF PVC: Stainless Steel (CW 01/30/92)	2.0 FT

DEPTH (FT)

CEMENT: 1.0 FT.

VOLCLAY GROUT: 68.0 FT.

BENTONITE SEAL: 5.0 FT.

SAND PACK: 20.0 FT.

SCREEN: 15.0 FT.

BOTTOM OF CEMENT:	1.0 FT
BOTTOM OF PROTECTIVE WELL COVER:	2.5 FT
TOP OF BENTONITE SEAL:	69.0 FT
TOP OF SAND PACK:	74.0 FT
TOP OF SCREEN:	77.0 FT
BOTTOM OF SCREEN:	92.0 FT
PIEZOMETER TIP:	94.0 FT
BOTTOM OF BORING:	94.0 FT

BOREHOLE DIAMETER: 10.0 INCHES

MATERIALS USED:
SAND TYPE AND QUANTITY: 17 sks of #2/20 sand
BENTONITE PELLETS (5-GALLON BUCKETS): 5
BAGS OF VOLCLAY GROUT: 14 sks
AMOUNT OF CEMENT: NA
AMOUNT OF WATER USED: 500 gal.
OTHER:

NOTES:
RISER PIPE IS ~~2-INCH SCHEDULE 40~~ 4 in 316 Stainless Steel (CW 01/30/92)
PVC PIPE, FLUSH-THREADED JOINTS.
SCREEN IS ~~2-INCH 10 SCHEDULE 40~~ 4 in TO 316 Stainless Steel
PVC PIPE WITH 0.020-INCH SLOTS. (CW 01/30/92)
LOWER END OF SCREEN IS CAPPED WITH AN END CAP OR THREADED PLUG.
WATER DEPTH/DATE: 85.06 Below Surface

603.03.22
TASK: FEMP RI/FS EWMF GEOLOGIST/ENGINEER: R. P. GASSEDAY

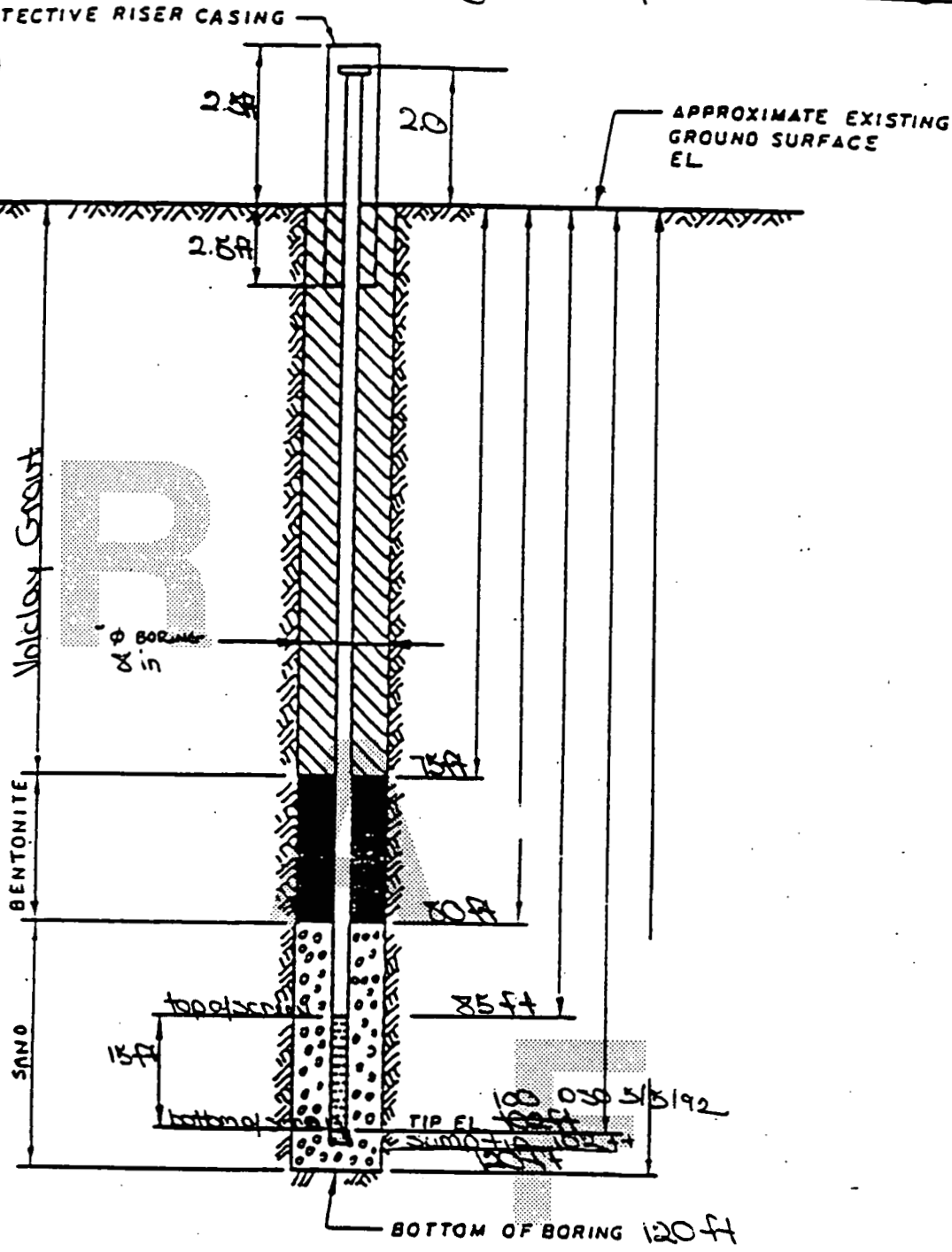
REVIEWED BY QA: [illegible] DATE: 3/10/92

21 of 22

Hinge cover w/padlock

5769

FERNALD RI/FS



NOTES:

1. RISER PIPE IS 4 IN I.D. SCHEDULE PIPE, THREADED, FLUSH-JOINTED.
2. SCREEN IS 4 IN I.D. SS PIPE CONTINUOUS SLOT SCREEN (0.010 IN. SLOT SIZE)
3. LOWER END OF SCREEN IS CAPPED.
4. ELEVATION OF WATER LEVEL NA DRY
5. WATER LEVEL READING ON 4/22/92

INSTALLATION DETAILS
MONITORING WELL 2754

PREPARED FOR EWMF

Materials used during drilling
11 bags sand
3 buckets bentonite
15 bags volclay
1000 gal. water

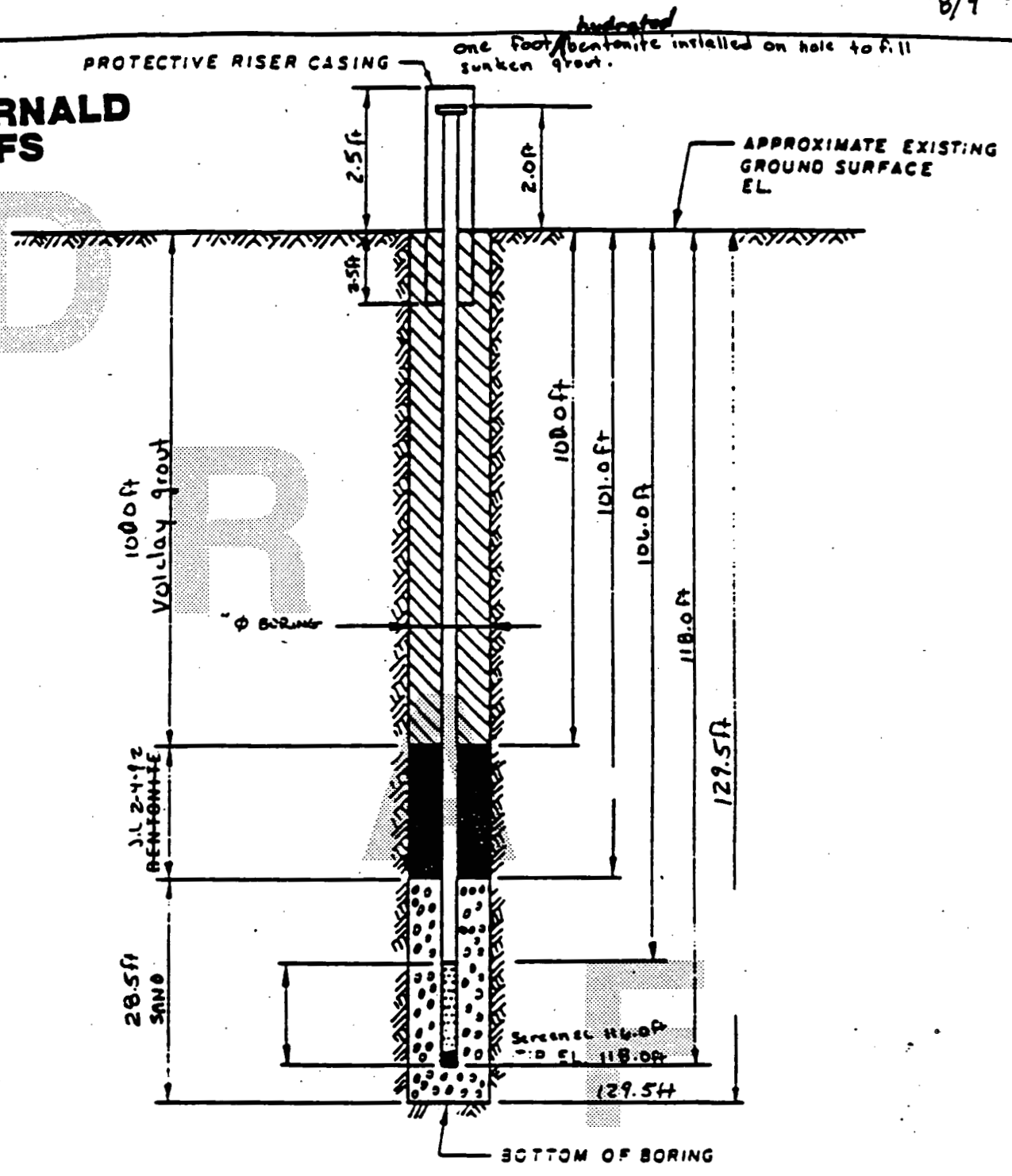
Geologist: D. O'Brien

16 Drums generated on this boring from sampling

DRAWING NUMBER	
CHECKED BY	
APPROVED BY	
DSO 4/22/92	

000164

FERNALD RI/FS



NOTES:

1. RISER PIPE IS 4.0IN I.D. ~~SCHEDULE~~ 316 Stainless Steel LL 2-3-92 PIPE, THREADED, FLUSH-JOINTED.
2. SCREEN IS 4.0IN I.D SS PIPE CONTINUOUS SLOT SCREEN (0.010 IN SLOT SIZE).
3. LOWER END OF SCREEN IS CAPPED.
4. ELEVATION OF WATER LEVEL 66.95ft
5. WATER LEVEL READING ON 2-5-92

900 gals H_2O used

8 bags 10x20 sand

20 bags volclay grout used

No bentonite plug installed

2 buckets bentonite used on top of hole

INSTALLATION DETAILS
MONITORING WELL
3679
PREPARED FOR
Fernald RI/FS

DRAWING NUMBER

CHECKED BY

APPROVED BY

J. Lear 2-4-92

Dn. B.

DRAFT

APPENDIX C

GEOCHEMICAL DATA

DRAFT

GEOCHEMICAL ANALYTICAL DATA

SAMPLE NUMBER	BORING	DEPTH	ANALYTE	CONC	VALIDATION QUALIFIER	UNIT	STATE PLANNER COORDINATES	
100317	2733	NA	1,1,1-Trichloroethane	5	U	UG/KG	477070.67	1383161.03
100317	2733	NA	1,1,2,2-Tetrachloroethane	5	U	UG/KG	477070.67	1383161.03
100317	2733	NA	1,1,2-Trichloroethane	5	U	UG/KG	477070.67	1383161.03
100317	2733	NA	1,1-Dichloroethane	5	U	UG/KG	477070.67	1383161.03
100317	2733	NA	1,1-Dichloroethene	5	U	UG/KG	477070.67	1383161.03
100317	2733	NA	1,2-Dichloroethane	5	U	UG/KG	477070.67	1383161.03
100317	2733	NA	1,2-Dichloroethylene	5	U	UG/KG	477070.67	1383161.03
100317	2733	NA	1,2-Dichloropropane	5	U	UG/KG	477070.67	1383161.03
100317	2733	NA	2-Butanone	10	J	UG/KG	477070.67	1383161.03
100317	2733	NA	2-Hexanone	10	U	UG/KG	477070.67	1383161.03
100317	2733	NA	4-Methyl-2-pentanone	10	U	UG/KG	477070.67	1383161.03
100317	2733	NA	Acetone	10	BJ	UG/KG	477070.67	1383161.03
100317	2733	NA	Benzene	5	U	UG/KG	477070.67	1383161.03
100317	2733	NA	Bromodichloromethane	5	U	UG/KG	477070.67	1383161.03
100317	2733	NA	Bromoform	5	U	UG/KG	477070.67	1383161.03
100317	2733	NA	Bromomethane	10	U	UG/KG	477070.67	1383161.03
100317	2733	NA	Carbon disulfide	5	U	UG/KG	477070.67	1383161.03
100317	2733	NA	Carbon Tetrachloride	5	U	UG/KG	477070.67	1383161.03
100317	2733	NA	Chlorobenzene	5	U	UG/KG	477070.67	1383161.03
100317	2733	NA	Chloroethane	10	U	UG/KG	477070.67	1383161.03
100317	2733	NA	Chloroform	1	J	UG/KG	477070.67	1383161.03
100317	2733	NA	Chloromethane	10	U	UG/KG	477070.67	1383161.03
100317	2733	NA	cis-1,3-Dichloropropene	5	U	UG/KG	477070.67	1383161.03
100317	2733	NA	Dibromochloromethane	5	U	UG/KG	477070.67	1383161.03
100317	2733	NA	Ethylbenzene	5	U	UG/KG	477070.67	1383161.03
100317	2733	NA	Methylene chloride	5	BJ	UG/KG	477070.67	1383161.03
100317	2733	NA	Styrene	5	U	UG/KG	477070.67	1383161.03
100317	2733	NA	Tetrachlorethene	5	U	UG/KG	477070.67	1383161.03
100317	2733	NA	Toluene	5	U	UG/KG	477070.67	1383161.03
100317	2733	NA	Total xylenes	5	U	UG/KG	477070.67	1383161.03
100317	2733	NA	trans-1,3-Dichloropropene	5	U	UG/KG	477070.67	1383161.03
100317	2733	NA	Trichloroethene	5	U	UG/KG	477070.67	1383161.03
100317	2733	NA	Vinyl Acetate	10	U	UG/KG	477070.67	1383161.03
100317	2733	NA	Vinyl chloride	10	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	1,1,1-Trichloroethane	6	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	1,1,2,2-Tetrachloroethane	6	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	1,1,2-Trichloroethane	6	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	1,1-Dichloroethane	6	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	1,1-Dichloroethene	6	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	1,2,4-Trichlorobenzene	400	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	1,2-Dichlorobenzene	400	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	1,2-Dichloroethane	6	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	1,2-Dichloroethylene	6	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	1,2-Dichloropropane	6	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	1,3-Dichlorobenzene	400	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	1,4-Dichlorobenzene	400	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	2,4,5-Trichlorophenol	2000	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	2,4,6-Trichlorophenol	400	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	2,4-Dichlorophenol	400	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	2,4-Dimethylphenol	400	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	2,4-Dinitrophenol	2000	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	2,4-Dinitrotoluene	400	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	2,6-Dinitrotoluene	400	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	2-Butanone	12	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	2-Chloronaphthalene	400	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	2-Chlorophenol	400	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	2-Hexanone	12	U	UG/KG	477070.67	1383161.03

PT/2-93/WP/409196:NEWEWMPA.TAb(table from database)

SAMPLE NUMBER	BORING	DEPTH	ANALYTE	CONC	VALIDATION QUALIFIER	UNIT	STATE PLANNER COORDINATES	
100318	2733	0-.5	2-Methylnaphthalene	400	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	2-Methylphenol	400	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	2-Nitroaniline	2000	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	2-Nitrophenol	400	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	3,3'-Dichlorobenzidine	810	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	3-Nitroaniline	2000	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	4,4'-DDD	20	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	4,4'-DDE	20	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	4,4'-DDT	20	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	4,6-Dinitro-2-methylphenol	2000	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	4-Bromophenyl phenyl ether	400	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	4-Chloro-3-methylphenol	400	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	4-Chloroaniline	400	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	4-Chlorophenylphenyl ether	400	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	4-Methyl-2-pentanone	12	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	4-Methylphenol	400	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	4-Nitroaniline	2000	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	4-Nitrophenol	2000	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	Acenaphthene	400	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	Acenaphthylene	400	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	Acetone	12	BJ	UG/KG	477070.67	1383161.03
100318	2733	0-.5	Aldrin	10	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	alpha-BHC	10	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	alpha-Chlordane	100	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	Aluminum	5310		MG/KG	477070.67	1383161.03
100318	2733	0-.5	Anthracene	400	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	Antimony	10.6	BN	MG/KG	477070.67	1383161.03
100318	2733	0-.5	Aroclor-1016	100	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	Aroclor-1221	100	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	Aroclor-1232	100	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	Aroclor-1242	100	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	Aroclor-1248	100	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	Aroclor-1254	200	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	Aroclor-1260	200	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	Arsenic	2.8	N	MG/KG	477070.67	1383161.03
100318	2733	0-.5	Barium	54.8		MG/KG	477070.67	1383161.03
100318	2733	0-.5	Benzene	6	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	Benzo(a)anthracene	400	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	Benzo(a)pyrene	400	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	Benzo(b)fluoranthene	400	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	Benzo(g,h,i)perylene	400	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	Benzo(k)fluoranthene	400	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	Benzoic acid	2000	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	Benzyl alcohol	400	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	Beryllium	.47	U	MG/KG	477070.67	1383161.03
100318	2733	0-.5	beta-BHC	10	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	bis(2-Chloroethoxy)methane	400	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	bis(2-Chloroethyl)ether	400	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	bis(2-Chloroisopropyl) ether	400	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	bis(2-Ethylhexyl) phthalate	400	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	Bromodichloromethane	6	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	Bromoform	6	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	Bromomethane	12	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	Butyl benzyl phthalate	400	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	Cadmium	2.8		MG/KG	477070.67	1383161.03
100318	2733	0-.5	Calcium	35100	*	MG/KG	477070.67	1383161.03
100318	2733	0-.5	Carbon disulfide	6	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	Carbon Tetrachloride	6	U	UG/KG	477070.67	1383161.03

PT/2-93/WP/409196:NEWEWMPA.TAb(table from database)

SAMPLE NUMBER	BORING	DEPTH	ANALYTE	CONC	VALIDATION QUALIFIER	UNIT	STATE PLANNER COORDINATES	
100318	2733	0-.5	Chlorobenzene	6	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	Chloroethane	12	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	Chloroform	6	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	Chloromethane	12	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	Chromium	17.7		MG/KG	477070.67	1383161.03
100318	2733	0-.5	Chrysene	400	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	cis-1,3-Dichloropropene	6	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	Cobalt	8.5	B	MG/KG	477070.67	1383161.03
100318	2733	0-.5	Copper	15.2		MG/KG	477070.67	1383161.03
100318	2733	0-.5	Cyanide	.38	B	MG/KG	477070.67	1383161.03
100318	2733	0-.5	delta-BHC	10	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	Di-n-butyl phthalate	400	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	Di-n-octyl phthalate	400	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	Dibenzo(a,h)anthracene	400	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	Dibenzofuran	400	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	Dibromochloromethane	6	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	Dieldrin	20	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	Diethyl phthalate	400	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	Dimethyl phthalate	400	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	Endosulfan II	20	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	Endosulfan sulfate	20	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	Endosulfan-I	10	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	Endrin	20	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	Endrin ketone	20	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	Ethylbenzene	6	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	Fluoranthene	400	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	Fluorene	400	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	gamma-BHC (Lindane)	10	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	gamma-Chlordane	100	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	Heptachlor	10	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	Heptachlor epoxide	10	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	Hexachlorobenzene	400	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	Hexachlorobutadiene	400	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	Hexachlorocyclopentadiene	400	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	Hexachloroethane	400	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	Indeno(1,2,3-cd)pyrene	400	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	Iron	9350		MG/KG	477070.67	1383161.03
100318	2733	0-.5	Isophorone	400	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	Lead	20.8		MG/KG	477070.67	1383161.03
100318	2733	0-.5	Magnesium	14500		MG/KG	477070.67	1383161.03
100318	2733	0-.5	Manganese	519	*	MG/KG	477070.67	1383161.03
100318	2733	0-.5	Mercury	.12	U	MG/KG	477070.67	1383161.03
100318	2733	0-.5	Methoxychlor	100	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	Methylene chloride	6	BJ	UG/KG	477070.67	1383161.03
100318	2733	0-.5	Molybdenum	7.9		MG/KG	477070.67	1383161.03
100318	2733	0-.5	N-Nitroso-di-n-propylamine	400	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	N-Nitrosodiphenylamine	400	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	Naphthalene	400	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	Nickel	14.4		MG/KG	477070.67	1383161.03
100318	2733	0-.5	Nitrobenzene	400	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	Pentachlorophenol	2000	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	Phenanthrene	400	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	Phenol	400	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	Potassium	1280		MG/KG	477070.67	1383161.03
100318	2733	0-.5	Pyrene	59	J	UG/KG	477070.67	1383161.03
100318	2733	0-.5	Selenium	.71	UW	MG/KG	477070.67	1383161.03
100318	2733	0-.5	Silicon	922	N*	MG/KG	477070.67	1383161.03
100318	2733	0-.5	Silver	8.7	N	MG/KG	477070.67	1383161.03

PT/2-93/WP/409196:NEWEWMPA.TAb(table from database)

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SAMPLE NUMBER	BORING	DEPTH	ANALYTE	CONC	VALIDATION QUALIFIER	UNIT	STATE PLANNER COORDINATES	
100318	2733	0-.5	Sodium	95.8	B	MG/KG	477070.67	1383161.03
100318	2733	0-.5	Styrene	6	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	Tetrachlorethene	6	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	Thallium	.47	UWN	MG/KG	477070.67	1383161.03
100318	2733	0-.5	Toluene	3	J	UG/KG	477070.67	1383161.03
100318	2733	0-.5	Total xylenes	6	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	Toxaphene	200	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	trans-1,3-Dichloropropene	6	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	Trichloroethene	6	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	Vanadium	19.9		MG/KG	477070.67	1383161.03
100318	2733	0-.5	Vinyl Acetate	12	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	Vinyl chloride	12	U	UG/KG	477070.67	1383161.03
100318	2733	0-.5	Zinc	96.8	E	MG/KG	477070.67	1383161.03
100318	2733	0-.5	4,4'-DDD	41	U	DL UG/KG	477070.67	1383161.03
100318	2733	0-.5	4,4'-DDE	41	U	DL UG/KG	477070.67	1383161.03
100318	2733	0-.5	4,4'-DDT	41	U	DL UG/KG	477070.67	1383161.03
100318	2733	0-.5	Aldrin	20	U	DL UG/KG	477070.67	1383161.03
100318	2733	0-.5	alpha-BHC	20	U	DL UG/KG	477070.67	1383161.03
100318	2733	0-.5	alpha-Chlordane	200	U	DL UG/KG	477070.67	1383161.03
100318	2733	0-.5	Aroclor-1016	200	U	DL UG/KG	477070.67	1383161.03
100318	2733	0-.5	Aroclor-1221	200	U	DL UG/KG	477070.67	1383161.03
100318	2733	0-.5	Aroclor-1232	200	U	DL UG/KG	477070.67	1383161.03
100318	2733	0-.5	Aroclor-1242	200	U	DL UG/KG	477070.67	1383161.03
100318	2733	0-.5	Aroclor-1248	200	U	DL UG/KG	477070.67	1383161.03
100318	2733	0-.5	Aroclor-1254	410	U	DL UG/KG	477070.67	1383161.03
100318	2733	0-.5	Aroclor-1260	410	U	DL UG/KG	477070.67	1383161.03
100318	2733	0-.5	beta-BHC	20	U	DL UG/KG	477070.67	1383161.03
100318	2733	0-.5	delta-BHC	20	U	DL UG/KG	477070.67	1383161.03
100318	2733	0-.5	Dieldrin	41	U	DL UG/KG	477070.67	1383161.03
100318	2733	0-.5	Endosulfan II	41	U	DL UG/KG	477070.67	1383161.03
100318	2733	0-.5	Endosulfan sulfate	41	U	DL UG/KG	477070.67	1383161.03
100318	2733	0-.5	Endosulfan-I	20	U	DL UG/KG	477070.67	1383161.03
100318	2733	0-.5	Endrin	41	U	DL UG/KG	477070.67	1383161.03
100318	2733	0-.5	Endrin ketone	41	U	DL UG/KG	477070.67	1383161.03
100318	2733	0-.5	gamma-BHC (Lindane)	20	U	DL UG/KG	477070.67	1383161.03
100318	2733	0-.5	gamma-Chlordane	200	U	DL UG/KG	477070.67	1383161.03
100318	2733	0-.5	Heptachlor	20	U	DL UG/KG	477070.67	1383161.03
100318	2733	0-.5	Heptachlor epoxide	20	U	DL UG/KG	477070.67	1383161.03
100318	2733	0-.5	Methoxychlor	200	U	DL UG/KG	477070.67	1383161.03
100318	2733	0-.5	Toxaphene	410	U	DL UG/KG	477070.67	1383161.03
100371	2728	0.0 - 0.5	1,1,1-Trichloroethane	6	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	1,1,2,2-Tetrachloroethane	6	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	1,1,2-Trichloroethane	6	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	1,1-Dichloroethane	6	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	1,1-Dichloroethene	6	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	1,2,4-Trichlorobenzene	430	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	1,2-Dichlorobenzene	430	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	1,2-Dichloroethane	6	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	1,2-Dichloroethylene	6	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	1,2-Dichloropropane	6	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	1,3-Dichlorobenzene	430	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	1,4-Dichlorobenzene	430	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	2,4,5-Trichlorophenol	2100	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	2,4,6-Trichlorophenol	430	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	2,4-Dichlorophenol	430	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	2,4-Dimethylphenol	430	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	2,4-Dinitrophenol	2100	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	2,4-Dinitrotoluene	430	U	UG/KG	483301.63	1377960.59

PT/2-93/WP/409196:NBWBWMFA.TAb(table from database)

SAMPLE NUMBER	BORING	DEPTH	ANALYTE	CONC	VALIDATION QUALIFIER	UNIT	STATE PLANNER COORDINATES	
100371	2728	0.0 - 0.5	2,6-Dinitrotoluene	430	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	2-Butanone	13	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	2-Chloronaphthalene	430	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	2-Chlorophenol	430	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	2-Hexanone	13	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	2-Methylnaphthalene	430	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	2-Methylphenol	430	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	2-Nitroaniline	2100	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	2-Nitrophenol	430	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	3,3'-Dichlorobenzidine	850	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	3-Nitroaniline	2100	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	4,4'-DDD	21	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	4,4'-DDE	21	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	4,4'-DDT	21	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	4,6-Dinitro-2-methylphenol	2100	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	4-Bromophenyl phenyl ether	430	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	4-Chloro-3-methylphenol	430	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	4-Chloroaniline	430	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	4-Chlorophenylphenyl ether	430	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	4-Methyl-2-pentanone	13	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	4-Methylphenol	430	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	4-Nitroaniline	2100	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	4-Nitrophenol	2100	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Acenaphthene	430	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Acenaphthylene	430	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Acetone	13	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Aldrin	11	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	alpha-BHC	11	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	alpha-Chlordane	110	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Aluminum	8140		MG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Anthracene	430	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Antimony	7.7	UN	MG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Aroclor-1016	110	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Aroclor-1221	110	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Aroclor-1232	110	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Aroclor-1242	110	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Aroclor-1248	110	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Aroclor-1254	210	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Aroclor-1260	210	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Arsenic	3.9	SN	MG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Barium	77.9		MG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Benzene	6	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Benzo(a)anthracene	430	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Benzo(a)pyrene	430	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Benzo(b)fluoranthene	430	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Benzo(g,h,i)perylene	430	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Benzo(k)fluoranthene	430	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Benzoic acid	2100	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Benzyl alcohol	430	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Beryllium	.51	U	MG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	beta-BHC	11	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	bis(2-Chloroethoxy)methane	430	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	bis(2-Chloroethyl)ether	430	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	bis(2-Chloroisopropyl) ether	430	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	bis(2-Ethylhexyl) phthalate	430	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Boron	14.3		MG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Bromodichloromethane	6	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Bromoform	6	U	UG/KG	483301.63	1377960.59

PT/2-93/WP/409196:NBWBWMFA.TAb(table from database)

SAMPLE NUMBER	BORING	DEPTH	ANALYTE	CONC	VALIDATION QUALIFIER	UNIT	STATE PLANNER COORDINATES	
100371	2728	0.0 - 0.5	Bromomethane	13	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Butyl benzyl phthalate	430	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Cadmium	.51	U	MG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Calcium	4690	*	MG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Carbazole	430	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Carbon disulfide	6	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Carbon Tetrachloride	6	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Chlorobenzene	6	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Chloroethane	13	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Chloroform	6	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Chloromethane	13	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Chromium	10		MG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Chrysene	430	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	cis-1,3-Dichloropropene	6	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Cobalt	12	B	MG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Copper	6.8		MG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Cyanide	.15	B	MG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	delta-BHC	11	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Di-n-butyl phthalate	430	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Di-n-octyl phthalate	430	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Dibenzo(a,h)anthracene	430	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Dibenzofuran	430	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Dibromochloromethane	6	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Dieldrin	21	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Diethyl phthalate	430	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Dimethyl phthalate	430	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Endosulfan II	21	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Endosulfan sulfate	21	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Endosulfan-I	11	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Endrin	21	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Endrin ketone	21	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Ethylbenzene	6	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Fluoranthene	430	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Fluorene	430	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	gamma-BHC (Lindane)	11	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	gamma-Chlordane	110	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Heptachlor	11	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Heptachlor epoxide	11	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Hexachlorobenzene	430	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Hexachlorobutadiene	430	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Hexachlorocyclopentadiene	430	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Hexachloroethane	430	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Indeno(1,2,3-cd)pyrene	430	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Iron	12700		MG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Isophorone	430	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Lead	18.4	N	MG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Magnesium	2240		MG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Manganese	1320		MG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Mercury	.13	U	MG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Methoxychlor	110	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Methylene chloride	12	B	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Molybdenum	2.6	U	MG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	N-Nitroso-di-n-propylamine	430	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	N-Nitrosodiphenylamine	430	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Naphthalene	430	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Nickel	9.4	B	MG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Nitrobenzene	430	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Pentachlorophenol	2100	U	UG/KG	483301.63	1377960.59

PT/2-93/WP/409196:NEWEWMFA.TAb(table from database)

SAMPLE NUMBER	BORING	DEPTH	ANALYTE	CONC	VALIDATION QUALIFIER	UNIT	STATE PLANNER COORDINATES	
100371	2728	0.0 - 0.5	Phenanthrene	430	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Phenol	430	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Potassium	787	B	MG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Pyrene	430	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Selenium	.76	UN	MG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Silicon	936	*	MG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Silver	2.6	UN	MG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Sodium	37.8	B	MG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Styrene	6	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Tetrachlorethene	6	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Thallium	.67	BN	MG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Toluene	6	BJ	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Total xylenes	6	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Toxaphene	210	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	trans-1,3-Dichloropropene	6	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Trichloroethene	6	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Vanadium	18.1		MG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Vinyl Acetate	13	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Vinyl chloride	13	U	UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Zinc	38.4		MG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	4,4'-DDD	64	U	DL UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	4,4'-DDE	64	U	DL UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	4,4'-DDT	64	U	DL UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Aldrin	32	U	DL UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	alpha-BHC	32	U	DL UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	alpha-Chlordane	320	U	DL UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Aroclor-1016	320	U	DL UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Aroclor-1221	320	U	DL UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Aroclor-1232	320	U	DL UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Aroclor-1242	320	U	DL UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Aroclor-1248	320	U	DL UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Aroclor-1254	640	U	DL UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Aroclor-1260	640	U	DL UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	beta-BHC	32	U	DL UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	delta-BHC	32	U	DL UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Dieldrin	64	U	DL UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Endosulfan II	64	U	DL UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Endosulfan sulfate	64	U	DL UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Endosulfan-I	32	U	DL UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Endrin	64	U	DL UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Endrin ketone	64	U	DL UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	gamma-BHC (Lindane)	32	U	DL UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	gamma-Chlordane	320	U	DL UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Heptachlor	32	U	DL UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Heptachlor epoxide	32	U	DL UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Methoxychlor	320	U	DL UG/KG	483301.63	1377960.59
100371	2728	0.0 - 0.5	Toxaphene	640	U	DL UG/KG	483301.63	1377960.59
100422	1679	0.0 - 0.5	1,1,1-Trichloroethane	6	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	1,1,2,2-Tetrachloroethane	6	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	1,1,2-Trichloroethane	6	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	1,1-Dichloroethane	6	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	1,1-Dichloroethene	6	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	1,2,4-Trichlorobenzene	430	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	1,2-Dichlorobenzene	430	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	1,2-Dichloroethane	6	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	1,2-Dichloroethylene	6	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	1,2-Dichloropropane	6	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	1,3-Dichlorobenzene	430	U	UG/KG	483924.53	1378264.61

PT/2-93/WP/409196:NEWEWMPA.TAb(table from database)

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SAMPLE NUMBER	BORING	DEPTH	ANALYTE	CONC	VALIDATION QUALIFIER	UNIT	STATE PLANNER COORDINATES	
100422	1679	0.0 - 0.5	1,4-Dichlorobenzene	430	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	2,4,5-Trichlorophenol	2100	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	2,4,6-Trichlorophenol	430	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	2,4-Dichlorophenol	430	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	2,4-Dimethylphenol	430	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	2,4-Dinitrophenol	2100	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	2,4-Dinitrotoluene	430	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	2,6-Dinitrotoluene	430	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	2-Butanone	13	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	2-Chloronaphthalene	430	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	2-Chlorophenol	430	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	2-Hexanone	13	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	2-Methylnaphthalene	430	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	2-Methylphenol	430	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	2-Nitroaniline	2100	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	2-Nitrophenol	430	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	3,3'-Dichlorobenzidine	860	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	3-Nitroaniline	2100	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	4,4'-DDD	21	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	4,4'-DDE	21	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	4,4'-DDT	21	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	4,6-Dinitro-2-methylphenol	2100	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	4-Bromophenyl phenyl ether	430	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	4-Chloro-3-methylphenol	430	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	4-Chloroaniline	430	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	4-Chlorophenylphenyl ether	430	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	4-Methyl-2-pentanone	13	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	4-Methylphenol	430	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	4-Nitroaniline	2100	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	4-Nitrophenol	2100	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	Acenaphthene	430	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	Acenaphthylene	430	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	Acetone	13	BJ	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	Aldrin	10	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	alpha-BHC	10	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	alpha-Chlordane	100	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	Aluminum	11900		MG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	Anthracene	430	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	Antimony	7.5	UN	MG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	Aroclor-1016	100	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	Aroclor-1221	100	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	Aroclor-1232	100	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	Aroclor-1242	100	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	Aroclor-1248	100	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	Aroclor-1254	210	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	Aroclor-1260	210	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	Arsenic	4.3	N	MG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	Barium	131		MG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	Benzene	6	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	Benzo(a)anthracene	430	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	Benzo(a)pyrene	430	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	Benzo(b)fluoranthene	430	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	Benzo(g,h,i)perylene	430	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	Benzo(k)fluoranthene	430	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	Benzoic acid	2100	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	Benzyl alcohol	430	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	Beryllium	.74	B	MG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	beta-BHC	10	U	UG/KG	483924.53	1378264.61

PT/2-93/WP/409196:NBWBWMPA.TAb(table from database)

SAMPLE NUMBER	BORING	DEPTH	ANALYTE	CONC	VALIDATION QUALIFIER	UNIT	STATE PLANNER COORDINATES	
100422	1679	0.0 - 0.5	bis(2-Chloroethoxy)methane	430	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	bis(2-Chloroethyl)ether	430	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	bis(2-Chloroisopropyl) ether	430	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	bis(2-Ethylhexyl) phthalate	430	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	Bromodichloromethane	6	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	Bromoform	6	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	Bromomethane	13	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	Butyl benzyl phthalate	430	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	Cadmium	1.7		MG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	Calcium	4800	*	MG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	Carbon disulfide	6	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	Carbon Tetrachloride	6	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	Chlorobenzene	6	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	Chloroethane	13	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	Chloroform	6	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	Chloromethane	13	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	Chromium	17.2		MG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	Chrysene	430	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	cis-1,3-Dichloropropene	6	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	Cobalt	12.7		MG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	Copper	14.7		MG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	Cyanide	.13	U	MG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	delta-BHC	10	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	Di-n-butyl phthalate	430	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	Di-n-octyl phthalate	430	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	Dibenzo(a,h)anthracene	430	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	Dibenzofuran	430	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	Dibromochloromethane	6	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	Dieldrin	21	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	Diethyl phthalate	430	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	Dimethyl phthalate	430	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	Endosulfan II	21	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	Endosulfan sulfate	21	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	Endosulfan-I	10	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	Endrin	21	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	Endrin ketone	21	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	Ethylbenzene	6	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	Fluoranthene	430	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	Fluorene	430	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	gamma-BHC (Lindane)	10	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	gamma-Chlordane	100	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	Heptachlor	10	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	Heptachlor epoxide	10	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	Hexachlorobenzene	430	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	Hexachlorobutadiene	430	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	Hexachlorocyclopentadiene	430	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	Hexachloroethane	430	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	Indeno(1,2,3-cd)pyrene	18700		MG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	Iron	430	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	Isophorone	12.7		MG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	Lead	2780		MG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	Magnesium	797	*	MG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	Manganese	.13	U	MG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	Mercury	100	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	Methoxychlor	13	B	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	Methylene chloride	11.7		MG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	Molybdenum	430	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	N-Nitroso-di-n-propylamine					

PT/2-93/WP/409196:NEWEWMPA.TAb(table from database)

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SAMPLE NUMBER	BORING	DEPTH	ANALYTE	CONC	VALIDATION QUALIFIER	UNIT	STATE PLANNER COORDINATES	
100422	1679	0.0 - 0.5	N-Nitrosodiphenylamine	430	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	Naphthalene	430	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	Nickel	21.1		MG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	Nitrobenzene	430	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	Pentachlorophenol	2100	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	Phenanthrene	430	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	Phenol	430	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	Potassium	824	B	MG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	Pyrene	430	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	Selenium	.77	U	MG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	Silicon	723	N*	MG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	Silver	2.5	UN	MG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	Sodium	58	B	MG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	Styrene	6	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	Tetrachlorethene	6	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	Thallium	.52	UN	MG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	Toluene	6	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	Total xylenes	6	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	Toxaphene	210	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	trans-1,3-Dichloropropene	6	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	Trichloroethene	6	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	Vanadium	24.2		MG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	Vinyl Acetate	13	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	Vinyl chloride	13	U	UG/KG	483924.53	1378264.61
100422	1679	0.0 - 0.5	Zinc	47.4	E	MG/KG	483924.53	1378264.61
100554	2731	6.5 - 7.0	Cation Exchange Capacity	3.83		MEQ/10	484155	1382895
100554	2731	6.5 - 7.0	Total Organic Carbon	1373		MG/KG	484155	1382895
100565	2731	15.5 - 16.0	Cation Exchange Capacity	5.11		MEQ/10	484155	1382895
100565	2731	15.5 - 16.0	Total Organic Carbon	1735		MG/KG	484155	1382895
100577	2731	0.0 - 0.5	1,1,1-Trichloroethane	6	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	1,1,2,2-Tetrachloroethane	6	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	1,1,2-Trichloroethane	6	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	1,1-Dichloroethane	6	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	1,1-Dichloroethene	6	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	1,2,4-Trichlorobenzene	420	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	1,2-Dichlorobenzene	420	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	1,2-Dichloroethane	6	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	1,2-Dichloroethylene	6	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	1,2-Dichloropropane	6	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	1,3-Dichlorobenzene	420	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	1,4-Dichlorobenzene	420	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	2,4,5-Trichlorophenol	2000	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	2,4,6-Trichlorophenol	420	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	2,4-Dichlorophenol	420	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	2,4-Dimethylphenol	420	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	2,4-Dinitrophenol	2000	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	2,4-Dinitrotoluene	420	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	2,6-Dinitrotoluene	420	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	2-Butanone	13	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	2-Chloronaphthalene	420	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	2-Chlorophenol	420	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	2-Hexanone	13	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	2-Methylnaphthalene	420	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	2-Methylphenol	420	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	2-Nitroaniline	2000	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	2-Nitrophenol	420	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	3,3'-Dichlorobenzidine	840	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	3-Nitroaniline	2000	U	UG/KG	484155	1382895

PT/2-93/WP/409196:NEWEWMFA.TAb(table from database)

SAMPLE NUMBER	BORING	DEPTH	ANALYTE	CONC	VALIDATION QUALIFIER	UNIT	STATE PLANNER COORDINATES	
100577	2731	0.0 - 0.5	4,4'-DDD	21	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	4,4'-DDE	21	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	4,4'-DDT	21	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	4,6-Dinitro-2-methylphenol	2000	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	4-Bromophenyl phenyl ether	420	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	4-Chloro-3-methylphenol	420	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	4-Chloroaniline	420	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	4-Chlorophenylphenyl ether	420	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	4-Methyl-2-pentanone	13	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	4-Methylphenol	420	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	4-Nitroaniline	2000	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	4-Nitrophenol	2000	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	Acenaphthene	420	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	Acenaphthylene	420	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	Acetone	13	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	Aldrin	10	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	alpha-BHC	10	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	alpha-Chlordane	100	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	Aluminum	10400		MG/KG	484155	1382895
100577	2731	0.0 - 0.5	Anthracene	420	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	Antimony	7.7	UN	MG/KG	484155	1382895
100577	2731	0.0 - 0.5	Aroclor-1016	100	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	Aroclor-1221	100	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	Aroclor-1232	100	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	Aroclor-1242	100	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	Aroclor-1248	100	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	Aroclor-1254	210	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	Aroclor-1260	210	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	Arsenic	6.1	SN	MG/KG	484155	1382895
100577	2731	0.0 - 0.5	Barium	92.7		MG/KG	484155	1382895
100577	2731	0.0 - 0.5	Benzene	6	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	Benzo(a)anthracene	420	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	Benzo(a)pyrene	420	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	Benzo(b)fluoranthene	420	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	Benzo(g,h,i)perylene	420	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	Benzo(k)fluoranthene	420	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	Benzoic acid	2000	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	Benzyl alcohol	420	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	Beryllium	.8	B	MG/KG	484155	1382895
100577	2731	0.0 - 0.5	beta-BHC	10	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	bis(2-Chloroethoxy)methane	420	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	bis(2-Chloroethyl)ether	420	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	bis(2-Chloroisopropyl) ether	420	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	bis(2-Ethylhexyl) phthalate	420	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	Bromodichloromethane	6	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	Bromoform	6	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	Bromomethane	13	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	Butyl benzyl phthalate	420	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	Cadmium	.51	U	MG/KG	484155	1382895
100577	2731	0.0 - 0.5	Calcium	5950		MG/KG	484155	1382895
100577	2731	0.0 - 0.5	Carbon disulfide	6	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	Carbon Tetrachloride	6	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	Chlorobenzene	6	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	Chloroethane	13	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	Chloroform	6	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	Chloromethane	13	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	Chromium	17.6		MG/KG	484155	1382895
100577	2731	0.0 - 0.5	Chrysene	420	U	UG/KG	484155	1382895

PT/2-93/WP/409196:NEWEWMPA.TAb(table from database)

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SAMPLE NUMBER	BORING	DEPTH	ANALYTE	CONC	VALIDATION QUALIFIER	UNIT	STATE PLANNER COORDINATES	
100577	2731	0.0 - 0.5	cis-1,3-Dichloropropene	6	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	Cobalt	15.1		MG/KG	484155	1382895
100577	2731	0.0 - 0.5	Copper	27.7		MG/KG	484155	1382895
100577	2731	0.0 - 0.5	Cyanide	.27	B	MG/KG	484155	1382895
100577	2731	0.0 - 0.5	delta-BHC	10	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	Di-n-butyl phthalate	420	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	Di-n-octyl phthalate	420	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	Dibenzo(a,h)anthracene	420	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	Dibenzofuran	420	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	Dibromochloromethane	6	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	Dieldrin	21	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	Diethyl phthalate	420	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	Dimethyl phthalate	420	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	Endosulfan II	21	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	Endosulfan sulfate	21	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	Endosulfan-I	10	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	Endrin	21	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	Endrin ketone	21	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	Ethylbenzene	6	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	Fluoranthene	46	J	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	Fluorene	420	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	gamma-BHC (Lindane)	10	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	gamma-Chlordane	100	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	Heptachlor	10	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	Heptachlor epoxide	10	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	Hexachlorobenzene	420	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	Hexachlorobutadiene	420	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	Hexachlorocyclopentadiene	420	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	Hexachloroethane	420	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	Indeno(1,2,3-cd)pyrene	420	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	Iron	21000		MG/KG	484155	1382895
100577	2731	0.0 - 0.5	Isophorone	420	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	Lead	19.2		MG/KG	484155	1382895
100577	2731	0.0 - 0.5	Magnesium	2820		MG/KG	484155	1382895
100577	2731	0.0 - 0.5	Manganese	1170		MG/KG	484155	1382895
100577	2731	0.0 - 0.5	Mercury	.13	UN	MG/KG	484155	1382895
100577	2731	0.0 - 0.5	Methoxychlor	100	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	Methylene chloride	9	B	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	Molybdenum	11.3		MG/KG	484155	1382895
100577	2731	0.0 - 0.5	N-Nitroso-di-n-propylamine	420	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	N-Nitrosodiphenylamine	420	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	Naphthalene	420	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	Nickel	43.6		MG/KG	484155	1382895
100577	2731	0.0 - 0.5	Nitrobenzene	420	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	Pentachlorophenol	2000	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	Phenanthrene	420	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	Phenol	420	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	Potassium	1910		MG/KG	484155	1382895
100577	2731	0.0 - 0.5	Pyrene	47	J	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	Selenium	.51	UN	MG/KG	484155	1382895
100577	2731	0.0 - 0.5	Silicon	547	*	MG/KG	484155	1382895
100577	2731	0.0 - 0.5	Silver	2.6	U	MG/KG	484155	1382895
100577	2731	0.0 - 0.5	Sodium	54.1	B	MG/KG	484155	1382895
100577	2731	0.0 - 0.5	Styrene	6	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	Tetrachlorethene	6	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	Thallium	.51	U	MG/KG	484155	1382895
100577	2731	0.0 - 0.5	Toluene	6	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	Total xylenes	6	U	UG/KG	484155	1382895

PT/2-93/WP/409196:NEWEWMPA.TAb(table from database)

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SAMPLE NUMBER	BORING	DEPTH	ANALYTE	CONC	VALIDATION QUALIFIER	UNIT	STATE PLANNER COORDINATES	
100577	2731	0.0 - 0.5	Toxaphene	210	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	trans-1,3-Dichloropropene	6	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	Trichloroethene	6	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	Vanadium	24.4		MG/KG	484155	1382895
100577	2731	0.0 - 0.5	Vinyl Acetate	13	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	Vinyl chloride	13	U	UG/KG	484155	1382895
100577	2731	0.0 - 0.5	Zinc	56.2		MG/KG	484155	1382895
100600	1070	0.0 - 0.5	1,1,1-Trichloroethane	6	U	UG/KG	47694 0.09	1382104.78
100600	1070	0.0 - 0.5	1,1,2,2-Tetrachloroethane	6	U	UG/KG	47694 0.09	1382104.78
100600	1070	0.0 - 0.5	1,1,2-Trichloroethane	6	U	UG/KG	47694 0.09	1382104.78
100600	1070	0.0 - 0.5	1,1-Dichloroethane	6	U	UG/KG	47694 0.09	1382104.78
100600	1070	0.0 - 0.5	1,1-Dichloroethene	6	U	UG/KG	47694 0.09	1382104.78
100600	1070	0.0 - 0.5	1,2,4-Trichlorobenzene	420	U	UG/KG	47694 0.09	1382104.78
100600	1070	0.0 - 0.5	1,2-Dichlorobenzene	420	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	1,2-Dichloroethane	6	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	1,2-Dichloroethylene	6	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	1,2-Dichloropropane	6	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	1,3-Dichlorobenzene	420	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	1,4-Dichlorobenzene	420	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	2,4,5-Trichlorophenol	2000	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	2,4,6-Trichlorophenol	420	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	2,4-Dichlorophenol	420	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	2,4-Dimethylphenol	420	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	2,4-Dinitrophenol	2000	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	2,4-Dinitrotoluene	420	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	2,6-Dinitrotoluene	420	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	2-Butanone	2	J	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	2-Chloronaphthalene	420	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	2-Chlorophenol	420	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	2-Hexanone	13	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	2-Methylnaphthalene	420	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	2-Methylphenol	420	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	2-Nitroaniline	2000	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	2-Nitrophenol	420	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	3,3'-Dichlorobenzidine	840	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	3-Nitroaniline	2000	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	4,4'-DDD	20	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	4,4'-DDE	20	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	4,4'-DDT	20	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	4,6-Dinitro-2-methylphenol	2000	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	4-Bromophenyl phenyl ether	420	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	4-Chloro-3-methylphenol	420	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	4-Chloroaniline	420	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	4-Chlorophenylphenyl ether	420	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	4-Methyl-2-pentanone	13	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	4-Methylphenol	420	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	4-Nitroaniline	2000	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	4-Nitrophenol	2000	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	Acenaphthene	420	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	Acenaphthylene	420	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	Acetone	13	BJ	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	Aldrin	10	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	alpha-BHC	10	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	alpha-Chlordane	100	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	Aluminum	5620		MG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	Anthracene	420	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	Antimony	7.6	UN	MG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	Aroclor-1016	100	U	UG/KG	476940.09	1382104.78

PT/2-93/WP/409196:NEWEWMPA.TAb(table from database)

SAMPLE NUMBER	BORING	DEPTH	ANALYTE	CONC	VALIDATION QUALIFIER	UNIT	STATE PLANNER COORDINATES	
100600	1070	0.0 - 0.5	Aroclor-1221	100	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	Aroclor-1232	100	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	Aroclor-1242	100	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	Aroclor-1248	100	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	Aroclor-1254	200	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	Aroclor-1260	200	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	Arsenic	3.1	SN	MG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	Barium	40.9	B	MG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	Benzene	6	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	Benzo(a)anthracene	420	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	Benzo(a)pyrene	420	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	Benzo(b)fluoranthene	420	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	Benzo(g,h,i)perylene	420	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	Benzo(k)fluoranthene	420	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	Benzoic acid	2000	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	Benzyl alcohol	420	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	Beryllium	.51	U	MG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	beta-BHC	10	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	bis(2-Chloroethoxy)methane	420	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	bis(2-Chloroethyl)ether	420	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	bis(2-Chloroisopropyl) ether	420	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	bis(2-Ethylhexyl) phthalate	420	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	Bromodichloromethane	6	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	Bromoform	6	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	Bromomethane	13	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	Butyl benzyl phthalate	420	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	Cadmium	.51	U	MG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	Calcium	1010	B	MG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	Carbon disulfide	6	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	Carbon Tetrachloride	6	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	Chlorobenzene	6	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	Chloroethane	13	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	Chloroform	6	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	Chloromethane	13	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	Chromium	8.5		MG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	Chrysene	420	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	cis-1,3-Dichloropropene	6	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	Cobalt	8.3	B	MG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	Copper	8.6		MG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	Cyanide	.23	B	MG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	delta-BHC	10	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	Di-n-butyl phthalate	420	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	Di-n-octyl phthalate	420	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	Dibenzo(a,h)anthracene	420	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	Dibenzofuran	420	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	Dibromochloromethane	6	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	Dieldrin	20	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	Diethyl phthalate	420	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	Dimethyl phthalate	420	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	Endosulfan II	20	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	Endosulfan sulfate	20	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	Endosulfan-I	10	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	Endrin	20	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	Endrin ketone	20	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	Ethylbenzene	6	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	Fluoranthene	420	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	Fluorene	420	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	gamma-BHC (Lindane)	10	U	UG/KG	476940.09	1382104.78

PT/2-93/WP/409196:NBWEWMFA.TAb(table from database)

SAMPLE NUMBER	BORING	DEPTH	ANALYTE	CONC	VALIDATION QUALIFIER	UNIT	STATE PLANNER COORDINATES	
100600	1070	0.0 - 0.5	gamma-Chlordane	100	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	Heptachlor	10	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	Heptachlor epoxide	10	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	Hexachlorobenzene	420	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	Hexachlorobutadiene	420	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	Hexachlorocyclopentadiene	420	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	Hexachloroethane	420	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	Indeno(1,2,3-cd)pyrene	420	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	Iron	9160		MG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	Isophorone	420	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	Lead	13.7		MG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	Magnesium	1110	B	MG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	Manganese	391		MG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	Mercury	.13	UN	MG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	Methoxychlor	100	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	Methylene chloride	16	B	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	Molybdenum	6.5		MG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	N-Nitroso-di-n-propylamine	420	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	N-Nitrosodiphenylamine	420	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	Naphthalene	420	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	Nickel	12.2		MG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	Nitrobenzene	420	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	Pentachlorophenol	2000	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	Phenanthrene	420	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	Phenol	420	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	Potassium	412	B	MG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	Pyrene	420	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	Selenium	.5	UN	MG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	Silicon	586	*	MG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	Silver	2.5	U	MG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	Sodium	27.6	B	MG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	Styrene	6	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	Tetrachlorethene	6	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	Thallium	.5	U	MG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	Toluene	6	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	Total xylenes	6	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	Toxaphene	200	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	trans-1,3-Dichloropropene	6	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	Trichloroethene	6	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	Vanadium	15.4		MG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	Vinyl Acetate	13	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	Vinyl chloride	13	U	UG/KG	476940.09	1382104.78
100600	1070	0.0 - 0.5	zinc	31.1		MG/KG	476940.09	1382104.78
100651	1748	0.0 - 0.5 FT.	1,1,1-Trichloroethane	6	U	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	1,1,2,2-Tetrachloroethane	6	U	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	1,1,2-Trichloroethane	6	U	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	1,1-Dichloroethane	6	U	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	1,1-Dichloroethene	6	U	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	1,2,4-Trichlorobenzene	420	U	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	1,2-Dichlorobenzene	420	U	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	1,2-Dichloroethane	6	U	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	1,2-Dichloroethylene	6	U	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	1,2-Dichloropropane	6	U	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	1,3-Dichlorobenzene	420	U	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	1,4-Dichlorobenzene	420	U	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	2,4,5-Trichlorophenol	2000	U	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	2,4,6-Trichlorophenol	420	U	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	2,4-Dichlorophenol	420	U	UG/KG	477300	1382500

PT/2-93/WP/409196:NBWBWMFA.TAb(table from database)

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SAMPLE NUMBER	BORING	DEPTH	ANALYTE	CONC	VALIDATION QUALIFIER	UNIT	STATE PLANNER COORDINATES	
100651	1748	0.0 - 0.5 FT.	2,4-Dimethylphenol	420	U	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	2,4-Dinitrophenol	2000	U	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	2,4-Dinitrotoluene	420	U	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	2,6-Dinitrotoluene	420	U	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	2-Butanone	12	U	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	2-Chloronaphthalene	420	U	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	2-Chlorophenol	420	U	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	2-Hexanone	12	U	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	2-Methylnaphthalene	420	U	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	2-Methylphenol	420	U	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	2-Nitroaniline	2000	U	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	2-Nitrophenol	420	U	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	3,3'-Dichlorobenzidine	830	U	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	3-Nitroaniline	2000	U	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	4,4'-DDD	20	U	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	4,4'-DDE	20	U	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	4,4'-DDT	20	U	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	4,6-Dinitro-2-methylphenol	2000	U	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	4-Bromophenyl phenyl ether	420	U	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	4-Chloro-3-methylphenol	420	U	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	4-Chloroaniline	420	U	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	4-Chlorophenylphenyl ether	420	U	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	4-Methyl-2-pentanone	12	U	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	4-Methylphenol	420	U	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	4-Nitroaniline	2000	U	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	4-Nitrophenol	2000	U	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Acenaphthene	420	U	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Acenaphthylene	420	U	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Acetone	12.5	BJ	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Aldrin	10	U	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	alpha-BHC	10	U	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	alpha-Chlordane	100	U	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Aluminum	5580		MG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Anthracene	420	U	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Antimony	7.4	UN	MG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Aroclor-1016	100	U	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Aroclor-1221	100	U	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Aroclor-1232	100	U	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Aroclor-1242	100	U	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Aroclor-1248	100	U	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Aroclor-1254	200	U	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Aroclor-1260	200	U	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Arsenic	3.3	S	MG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Barium	42.7	B	MG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Benzene	6	U	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Benzo(a)anthracene	420	U	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Benzo(a)pyrene	420	U	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Benzo(b)fluoranthene	420	U	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Benzo(g,h,i)perylene	420	U	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Benzo(k)fluoranthene	420	U	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Benzoic acid	2000	U	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Benzyl alcohol	420	U	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Beryllium	.49	U	MG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	beta-BHC	10	U	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	bis(2-Chloroethoxy)methane	420	U	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	bis(2-Chloroethyl)ether	420	U	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	bis(2-Chloroisopropyl) ether	420	U	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	bis(2-Ethylhexyl) phthalate	420	U	UG/KG	477300	1382500

PT/2-93/WP/409196:NEWEWMFA.TAb(table from database)

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SAMPLE NUMBER	BORING	DEPTH	ANALYTE	CONC	VALIDATION QUALIFIER	UNIT	STATE PLANNER COORDINATES	
100651	1748	0.0 - 0.5 FT.	Bromodichloromethane	6	U	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Bromoform	6	U	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Bromomethane	12	U	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Butyl benzyl phthalate	420	U	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Cadmium	.49	U	MG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Calcium	1130	BE	MG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Carbon disulfide	6	U	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Carbon Tetrachloride	6	U	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Chlorobenzene	6	U	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Chloroethane	12	U	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Chloroform	6	U	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Chloromethane	12	U	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Chromium	8.2		MG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Chrysene	420	U	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	cis-1,3-Dichloropropene	6	U	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Cobalt	8.9	B	MG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Copper	8.4		MG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Cyanide	.91	*	MG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	delta-BHC	10	U	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Di-n-butyl phthalate	420	U	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Di-n-octyl phthalate	420	U	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Dibenzo(a,h)anthracene	420	U	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Dibenzofuran	420	U	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Dibromochloromethane	6	U	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Dieldrin	20	U	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Diethyl phthalate	420	U	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Dimethyl phthalate	420	U	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Endosulfan II	20	U	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Endosulfan sulfate	20	U	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Endosulfan-I	10	U	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Endrin	20	U	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Endrin ketone	20	U	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Ethylbenzene	6	U	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Fluoranthene	420	U	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Fluorene	420	U	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	gamma-BHC (Lindane)	10	U	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	gamma-Chlordane	100	U	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Heptachlor	10	U	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Heptachlor epoxide	10	U	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Hexachlorobenzene	420	U	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Hexachlorobutadiene	420	U	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Hexachlorocyclopentadiene	420	U	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Hexachloroethane	420	U	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Indeno(1,2,3-cd)pyrene	420	U	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Iron	9970		MG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Isophorone	420	U	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Lead	14.4		MG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Magnesium	1090	B	MG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Manganese	397		MG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Mercury	.13	UN	MG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Methoxychlor	100	U	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Methylene chloride	12	B	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Molybdenum	7.2		MG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	N-Nitroso-di-n-propylamine	420	U	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	N-Nitrosodiphenylamine	420	U	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Naphthalene	420	U	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Nickel	10.9		MG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Nitrobenzene	420	U	UG/KG	477300	1382500

PT/2-93/WP/409196:NEWEWMFA.TAb(table from database)

SAMPLE NUMBER	BORING	DEPTH	ANALYTE	CONC	VALIDATION QUALIFIER		UNIT	STATE PLANNER COORDINATES	
100651	1748	0.0 - 0.5 FT.	Pentachlorophenol	2000	U		UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Phenanthrene	420	U		UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Phenol	420	U		UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Potassium	469	B		MG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Pyrene	420	U		UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Selenium	.5	U		MG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Silicon	552	*		MG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Silver	2.5	U		MG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Sodium	41.7	B		MG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Styrene	6	U		UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Tetrachlorethene	6	U		UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Thallium	.5	U		MG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Toluene	6	U		UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Total xylenes	6	U		UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Toxaphene	200	U		UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	trans-1,3-Dichloropropene	6	U		UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Trichloroethene	6	U		UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Vanadium	15.5			MG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Vinyl Acetate	12	U		UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Vinyl chloride	12	U		UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Zinc	31.1			MG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	4,4'-DDD	61	U	DL	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	4,4'-DDE	61	U	DL	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	4,4'-DDT	61	U	DL	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Aldrin	31	U	DL	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	alpha-BHC	31	U	DL	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	alpha-Chlordane	310	U	DL	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Aroclor-1016	310	U	DL	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Aroclor-1221	310	U	DL	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Aroclor-1232	310	U	DL	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Aroclor-1242	310	U	DL	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Aroclor-1248	310	U	DL	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Aroclor-1254	610	U	DL	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Aroclor-1260	610	U	DL	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	beta-BHC	31	U	DL	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	delta-BHC	31	U	DL	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Dieldrin	61	U	DL	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Endosulfan II	61	U	DL	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Endosulfan sulfate	61	U	DL	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Endosulfan-I	31	U	DL	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Endrin	61	U	DL	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Endrin ketone	61	U	DL	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	gamma-BHC (Lindane)	31	U	DL	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	gamma-Chlordane	310	U	DL	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Heptachlor	31	U	DL	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Heptachlor epoxide	31	U	DL	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Methoxychlor	310	U	DL	UG/KG	477300	1382500
100651	1748	0.0 - 0.5 FT.	Toxaphene	610	U	DL	UG/KG	477300	1382500
100652	1748	NA	1,1,1-Trichloroethane	5	U		UG/KG	477300	1382500
100652	1748	NA	1,1,2,2-Tetrachloroethane	5	U		UG/KG	477300	1382500
100652	1748	NA	1,1,2-Trichloroethane	5	U		UG/KG	477300	1382500
100652	1748	NA	1,1-Dichloroethane	5	U		UG/KG	477300	1382500
100652	1748	NA	1,1-Dichloroethene	5	U		UG/KG	477300	1382500
100652	1748	NA	1,2-Dichloroethane	5	U		UG/KG	477300	1382500
100652	1748	NA	1,2-Dichloroethylene	5	U		UG/KG	477300	1382500
100652	1748	NA	1,2-Dichloropropane	5	U		UG/KG	477300	1382500
100652	1748	NA	2-Butanone	10	U		UG/KG	477300	1382500
100652	1748	NA	2-Hexanone	10	U		UG/KG	477300	1382500

PT/2-93/WP/409196:NEWEWMPA.TAb(table from database)

SAMPLE NUMBER	BORING	DEPTH	ANALYTE	CONC	VALIDATION QUALIFIER	UNIT	STATE PLANNER COORDINATES	
100652	1748	NA	4-Methyl-2-pentanone	10	U	UG/KG	477300	1382500
100652	1748	NA	Acetone	10	B	UG/KG	477300	1382500
100652	1748	NA	Benzene	5	U	UG/KG	477300	1382500
100652	1748	NA	Bromodichloromethane	6		UG/KG	477300	1382500
100652	1748	NA	Bromoform	5	U	UG/KG	477300	1382500
100652	1748	NA	Bromomethane	10	U	UG/KG	477300	1382500
100652	1748	NA	Carbon disulfide	5	U	UG/KG	477300	1382500
100652	1748	NA	Carbon Tetrachloride	5	U	UG/KG	477300	1382500
100652	1748	NA	Chlorobenzene	5	U	UG/KG	477300	1382500
100652	1748	NA	Chloroethane	10	U	UG/KG	477300	1382500
100652	1748	NA	Chloroform	10		UG/KG	477300	1382500
100652	1748	NA	Chloromethane	10	U	UG/KG	477300	1382500
100652	1748	NA	cis-1,3-Dichloropropene	5	U	UG/KG	477300	1382500
100652	1748	NA	Dibromochloromethane	1	J	UG/KG	477300	1382500
100652	1748	NA	Ethylbenzene	5	U	UG/KG	477300	1382500
100652	1748	NA	Methylene chloride	14	B	UG/KG	477300	1382500
100652	1748	NA	Styrene	5	U	UG/KG	477300	1382500
100652	1748	NA	Tetrachlorethene	5	U	UG/KG	477300	1382500
100652	1748	NA	Toluene	1	J	UG/KG	477300	1382500
100652	1748	NA	Total xylenes	5	U	UG/KG	477300	1382500
100652	1748	NA	trans-1,3-Dichloropropene	5	U	UG/KG	477300	1382500
100652	1748	NA	Trichloroethene	5	U	UG/KG	477300	1382500
100652	1748	NA	Vinyl Acetate	10	U	UG/KG	477300	1382500
100652	1748	NA	Vinyl chloride	10	U	UG/KG	477300	1382500
100678	1748	31.5 - 32 FT.	Cation Exchange Capacity	.92		MEQ/10	477300	1382500
100678	1748	31.5 - 32 FT.	Total Organic Carbon	5135		MG/KG	477300	1382500
100687	1746	0.0 - 0.5	1,1,1-Trichloroethane	6	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	1,1,2,2-Tetrachloroethane	6	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	1,1,2-Trichloroethane	6	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	1,1-Dichloroethane	6	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	1,1-Dichloroethene	6	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	1,2,4-Trichlorobenzene	410	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	1,2-Dichlorobenzene	410	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	1,2-Dichloroethane	6	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	1,2-Dichloroethylene	6	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	1,2-Dichloropropane	6	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	1,3-Dichlorobenzene	410	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	1,4-Dichlorobenzene	410	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	2,4,5-Trichlorophenol	2000	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	2,4,6-Trichlorophenol	410	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	2,4-Dichlorophenol	410	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	2,4-Dimethylphenol	410	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	2,4-Dinitrophenol	2000	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	2,4-Dinitrotoluene	410	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	2,6-Dinitrotoluene	410	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	2-Butanone	12	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	2-Chloronaphthalene	410	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	2-Chlorophenol	410	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	2-Hexanone	12	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	2-Methylnaphthalene	410	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	2-Methylphenol	410	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	2-Nitroaniline	2000	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	2-Nitrophenol	410	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	3,3'-Dichlorobenzidine	820	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	3-Nitroaniline	2000	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	4,4'-DDD	20	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	4,4'-DDE	20	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	4,4'-DDT	20	U	UG/KG	478000	1382500

PT/2-93/WP/409196:NEWEWMFA.TAb(table from database)

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SAMPLE NUMBER	BORING	DEPTH	ANALYTE	CONC	VALIDATION QUALIFIER	UNIT	STATE PLANNER COORDINATES	
100687	1746	0.00.0 - 0.5	4,6-Dinitro-2-methylphenol	2000	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	4-Bromophenyl phenyl ether	410	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	4-Chloro-3-methylphenol	410	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	4-Chloroaniline	410	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	4-Chlorophenylphenyl ether	410	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	4-Methyl-2-pentanone	12	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	4-Methylphenol	410	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	4-Nitroaniline	2000	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	4-Nitrophenol	2000	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	Acenaphthene	410	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	Acenaphthylene	410	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	Acetone	6	BJ	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	Aldrin	10	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	alpha-BHC	10	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	alpha-Chlordane	100	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	Aluminum	7320		MG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	Anthracene	410	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	Antimony	7.3	UN	MG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	Aroclor-1016	100	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	Aroclor-1221	100	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	Aroclor-1232	100	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	Aroclor-1242	100	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	Aroclor-1248	100	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	Aroclor-1254	200	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	Aroclor-1260	200	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	Arsenic	4.7	S	MG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	Barium	61.2		MG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	Benzene	6	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	Benzo(a)anthracene	410	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	Benzo(a)pyrene	410	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	Benzo(b)fluoranthene	410	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	Benzo(g,h,i)perylene	410	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	Benzo(k)fluoranthene	410	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	Benzoic acid	2000	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	Benzyl alcohol	410	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	Beryllium	.49	U	MG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	beta-BHC	10	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	bis(2-Chloroethoxy)methane	410	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	bis(2-Chloroethyl)ether	410	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	bis(2-Chloroisopropyl) ether	410	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	bis(2-Ethylhexyl) phthalate	410	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	Bromodichloromethane	6	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	Bromoform	6	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	Bromomethane	12	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	Butyl benzyl phthalate	410	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	Cadmium	.49	U	MG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	Calcium	778	BE	MG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	Carbon disulfide	6	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	Carbon Tetrachloride	6	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	Chlorobenzene	6	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	Chloroethane	12	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	Chloroform	6	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	Chloromethane	12	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	Chromium	11.2		MG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	Chrysene	410	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	cis-1,3-Dichloropropene	6	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	Cobalt	9.7	B	MG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	Copper	8.9		MG/KG	478000	1382500

PT/2-93/WP/409196:NEWEWMPA.TAb(table from database)

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SAMPLE NUMBER	BORING	DEPTH	ANALYTE	CONC	VALIDATION QUALIFIER	UNIT	STATE PLANNER COORDINATES	
100687	1746	0.00.0 - 0.5	Cyanide	.32	B*	MG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	delta-BHC	10	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	Di-n-butyl phthalate	410	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	Di-n-octyl phthalate	410	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	Dibenzo(a,h)anthracene	410	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	Dibenzofuran	410	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	Dibromochloromethane	6	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	Dieldrin	20	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	Diethyl phthalate	410	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	Dimethyl phthalate	410	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	Endosulfan II	20	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	Endosulfan sulfate	20	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	Endosulfan-I	10	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	Endrin	20	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	Endrin ketone	20	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	Ethylbenzene	6	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	Fluoranthene	410	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	Fluorene	410	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	gamma-BHC (Lindane)	10	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	gamma-Chlordane	100	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	Heptachlor	10	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	Heptachlor epoxide	10	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	Hexachlorobenzene	410	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	Hexachlorobutadiene	410	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	Hexachlorocyclopentadiene	410	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	Hexachloroethane	410	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	Indeno(1,2,3-cd)pyrene	410	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	Iron	14700		MG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	Isophorone	410	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	Lead	17.8		MG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	Magnesium	1170	B	MG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	Manganese	472	N	MG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	Mercury	.12	UN	MG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	Methoxychlor	100	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	Methylene chloride	25	B	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	Molybdenum	8.5		MG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	N-Nitroso-di-n-propylamine	410	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	N-Nitrosodiphenylamine	410	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	Naphthalene	410	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	Nickel	13.2		MG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	Nitrobenzene	410	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	Pentachlorophenol	2000	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	pH	4.99		STANDA	478000	1382500
100687	1746	0.00.0 - 0.5	Phenanthrene	410	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	Phenol	410	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	Potassium	337	B	MG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	Pyrene	410	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	Selenium	.48	U	MG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	Silicon	450	*	MG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	Silver	2.4	U	MG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	Sodium	35	B	MG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	Styrene	6	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	Tetrachlorethene	6	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	Thallium	.48	U	MG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	Toluene	6	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	Total xylenes	6	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	Toxaphene	200	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	trans-1,3-Dichloropropene	6	U	UG/KG	478000	1382500

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SAMPLE NUMBER	BORING	DEPTH	ANALYTE	CONC	VALIDATION QUALIFIER	UNIT	STATE PLANNER COORDINATES	
100687	1746	0.00.0 - 0.5	Trichloroethene	6	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	Vanadium	23.8		MG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	Vinyl Acetate	12	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	Vinyl chloride	12	U	UG/KG	478000	1382500
100687	1746	0.00.0 - 0.5	Zinc	31.3		MG/KG	478000	1382500
100688	1746	NA	1,1,1-Trichloroethane	5	U	UG/KG	478000	1382500
100688	1746	NA	1,1,2,2-Tetrachloroethane	5	U	UG/KG	478000	1382500
100688	1746	NA	1,1,2-Trichloroethane	5	U	UG/KG	478000	1382500
100688	1746	NA	1,1-Dichloroethane	5	U	UG/KG	478000	1382500
100688	1746	NA	1,1-Dichloroethene	5	U	UG/KG	478000	1382500
100688	1746	NA	1,2-Dichloroethane	5	U	UG/KG	478000	1382500
100688	1746	NA	1,2-Dichloroethylene	5	U	UG/KG	478000	1382500
100688	1746	NA	1,2-Dichloropropane	5	U	UG/KG	478000	1382500
100688	1746	NA	2-Butanone	1	BJ	UG/KG	478000	1382500
100688	1746	NA	2-Hexanone	10	U	UG/KG	478000	1382500
100688	1746	NA	4-Methyl-2-pentanone	10	U	UG/KG	478000	1382500
100688	1746	NA	Acetone	7	BJ	UG/KG	478000	1382500
100688	1746	NA	Benzene	5	U	UG/KG	478000	1382500
100688	1746	NA	Bromodichloromethane	7		UG/KG	478000	1382500
100688	1746	NA	Bromoform	5	U	UG/KG	478000	1382500
100688	1746	NA	Bromomethane	10	U	UG/KG	478000	1382500
100688	1746	NA	Carbon disulfide	5	U	UG/KG	478000	1382500
100688	1746	NA	Carbon Tetrachloride	5	U	UG/KG	478000	1382500
100688	1746	NA	Chlorobenzene	5	U	UG/KG	478000	1382500
100688	1746	NA	Chloroethane	10	U	UG/KG	478000	1382500
100688	1746	NA	Chloroform	14		UG/KG	478000	1382500
100688	1746	NA	Chloromethane	10	U	UG/KG	478000	1382500
100688	1746	NA	cis-1,3-Dichloropropene	5	U	UG/KG	478000	1382500
100688	1746	NA	Dibromochloromethane	2	J	UG/KG	478000	1382500
100688	1746	NA	Ethylbenzene	5	U	UG/KG	478000	1382500
100688	1746	NA	Methylene chloride	18	B	UG/KG	478000	1382500
100688	1746	NA	Styrene	5	U	UG/KG	478000	1382500
100688	1746	NA	Tetrachloroethene	5	U	UG/KG	478000	1382500
100688	1746	NA	Toluene	5	U	UG/KG	478000	1382500
100688	1746	NA	Total xylenes	5	U	UG/KG	478000	1382500
100688	1746	NA	trans-1,3-Dichloropropene	5	U	UG/KG	478000	1382500
100688	1746	NA	Trichloroethene	5	U	UG/KG	478000	1382500
100688	1746	NA	Vinyl Acetate	10	U	UG/KG	478000	1382500
100688	1746	NA	Vinyl chloride	10	U	UG/KG	478000	1382500
100691	1746	0.0 - 5.5	Cation Exchange Capacity	1.62		MEQ/10	478000	1382500
100691	1746	5.0 - 5.5	Total Organic Carbon	4132		MG/KG	478000	1382500
100701	1744	0.0 - 0.5	1,1,1-Trichloroethane	6	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	1,1,2,2-Tetrachloroethane	6	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	1,1,2-Trichloroethane	6	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	1,1-Dichloroethane	6	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	1,1-Dichloroethene	6	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	1,2,4-Trichlorobenzene	430	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	1,2-Dichlorobenzene	430	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	1,2-Dichloroethane	6	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	1,2-Dichloroethylene	6	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	1,2-Dichloropropane	6	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	1,3-Dichlorobenzene	430	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	1,4-Dichlorobenzene	430	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	2,4,5-Trichlorophenol	2100	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	2,4,6-Trichlorophenol	430	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	2,4-Dichlorophenol	430	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	2,4-Dimethylphenol	430	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	2,4-Dinitrophenol	2100	U	UG/KG	478500	1383000

PT/2-93/WP/409196:NEWEWMPA.TAb(table from database)

SAMPLE NUMBER	BORING	DEPTH	ANALYTE	CONC	VALIDATION QUALIFIER	UNIT	STATE PLANNER COORDINATES	
100701	1744	0.0 - 0.5	2,4-Dinitrotoluene	430	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	2,6-Dinitrotoluene	430	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	2-Butanone	13	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	2-Chloronaphthalene	430	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	2-Chlorophenol	430	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	2-Hexanone	13	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	2-Methylnaphthalene	430	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	2-Methylphenol	430	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	2-Nitroaniline	2100	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	2-Nitrophenol	430	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	3,3'-Dichlorobenzidine	850	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	3-Nitroaniline	2100	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	4,4'-DDD	21	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	4,4'-DDE	21	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	4,4'-DDT	21	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	4,6-Dinitro-2-methylphenol	2100	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	4-Bromophenyl phenyl ether	430	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	4-Chloro-3-methylphenol	430	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	4-Chloroaniline	430	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	4-Chlorophenylphenyl ether	430	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	4-Methyl-2-pentanone	13	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	4-Methylphenol	430	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	4-Nitroaniline	2100	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	4-Nitrophenol	2100	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	Acenaphthene	430	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	Acenaphthylene	430	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	Acetone	13	BJ	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	Aldrin	10	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	alpha-BHC	10	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	alpha-Chlordane	100	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	Aluminum	5550		MG/KG	478500	1383000
100701	1744	0.0 - 0.5	Anthracene	430	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	Antimony	7.7	UN	MG/KG	478500	1383000
100701	1744	0.0 - 0.5	Aroclor-1016	100	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	Aroclor-1221	100	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	Aroclor-1232	100	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	Aroclor-1242	100	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	Aroclor-1248	100	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	Aroclor-1254	210	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	Aroclor-1260	210	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	Arsenic	5.9	S	MG/KG	478500	1383000
100701	1744	0.0 - 0.5	Barium	127		MG/KG	478500	1383000
100701	1744	0.0 - 0.5	Benzene	6	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	Benzo(a)anthracene	430	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	Benzo(a)pyrene	430	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	Benzo(b)fluoranthene	430	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	Benzo(g,h,i)perylene	430	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	Benzo(k)fluoranthene	430	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	Benzoic acid	55	J	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	Benzyl alcohol	430	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	Beryllium	.72	B	MG/KG	478500	1383000
100701	1744	0.0 - 0.5	beta-BHC	10	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	bis(2-Chloroethoxy)methane	430	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	bis(2-Chloroethyl)ether	430	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	bis(2-Chloroisopropyl) ether	430	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	bis(2-Ethylhexyl) phthalate	62	J	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	Bromodichloromethane	6	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	Bromoform	6	U	UG/KG	478500	1383000

SAMPLE NUMBER	BORING	DEPTH	ANALYTE	CONC	VALIDATION QUALIFIER	UNIT	STATE PLANNER COORDINATES	
100701	1744	0.0 - 0.5	Bromomethane	13	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	Butyl benzyl phthalate	430	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	Cadmium	.51	U	MG/KG	478500	1383000
100701	1744	0.0 - 0.5	Calcium	1730	E	MG/KG	478500	1383000
100701	1744	0.0 - 0.5	Carbon disulfide	6	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	Carbon Tetrachloride	6	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	Chlorobenzene	6	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	Chloroethane	13	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	Chloroform	6	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	Chloromethane	13	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	Chromium	9.6		MG/KG	478500	1383000
100701	1744	0.0 - 0.5	Chrysene	430	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	cis-1,3-Dichloropropene	6	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	Cobalt	12.1	B	MG/KG	478500	1383000
100701	1744	0.0 - 0.5	Copper	9.6		MG/KG	478500	1383000
100701	1744	0.0 - 0.5	Cyanide	.19	B*	MG/KG	478500	1383000
100701	1744	0.0 - 0.5	delta-BHC	10	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	Di-n-butyl phthalate	430	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	Di-n-octyl phthalate	430	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	Dibenzo(a,h)anthracene	430	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	Dibenzofuran	430	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	Dibromochloromethane	6	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	Dieldrin	21	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	Diethyl phthalate	430	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	Dimethyl phthalate	430	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	Endosulfan II	21	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	Endosulfan sulfate	21	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	Endosulfan-I	10	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	Endrin	21	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	Endrin ketone	21	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	Ethylbenzene	6	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	Fluoranthene	430	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	Fluorene	430	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	gamma-BHC (Lindane)	10	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	gamma-Chlordane	100	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	Heptachlor	10	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	Heptachlor epoxide	10	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	Hexachlorobenzene	430	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	Hexachlorobutadiene	430	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	Hexachlorocyclopentadiene	430	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	Hexachloroethane	430	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	Indeno(1,2,3-cd)pyrene	430	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	Iron	14700		MG/KG	478500	1383000
100701	1744	0.0 - 0.5	Isophorone	430	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	Lead	18		MG/KG	478500	1383000
100701	1744	0.0 - 0.5	Magnesium	1200	B	MG/KG	478500	1383000
100701	1744	0.0 - 0.5	Manganese	1450	N	MG/KG	478500	1383000
100701	1744	0.0 - 0.5	Mercury	.12	UN	MG/KG	478500	1383000
100701	1744	0.0 - 0.5	Methoxychlor	100	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	Methylene chloride	6	BJ	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	Molybdenum	7.5		MG/KG	478500	1383000
100701	1744	0.0 - 0.5	N-Nitroso-di-n-propylamine	430	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	N-Nitrosodiphenylamine	430	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	Naphthalene	430	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	Nickel	14.4		MG/KG	478500	1383000
100701	1744	0.0 - 0.5	Nitrobenzene	430	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	Pentachlorophenol	2100	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	Phenanthrene	430	U	UG/KG	478500	1383000

PT/2-93/WP/409196:NEWBWMPA.TAb(table from database)

SAMPLE NUMBER	BORING	DEPTH	ANALYTE	CONC	VALIDATION QUALIFIER	UNIT	STATE PLANNER COORDINATES	
100701	1744	0.0 - 0.5	Phenol	430	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	Potassium	296	B	MG/KG	478500	1383000
100701	1744	0.0 - 0.5	Pyrene	430	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	Selenium	.51	U	MG/KG	478500	1383000
100701	1744	0.0 - 0.5	Silicon	718	*	MG/KG	478500	1383000
100701	1744	0.0 - 0.5	Silver	2.6	U	MG/KG	478500	1383000
100701	1744	0.0 - 0.5	Sodium	40.1	B	MG/KG	478500	1383000
100701	1744	0.0 - 0.5	Styrene	6	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	Tetrachlorethene	6	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	Thallium	.51	U	MG/KG	478500	1383000
100701	1744	0.0 - 0.5	Toluene	6	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	Total xylenes	6	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	Toxaphene	210	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	trans-1,3-Dichloropropene	6	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	Trichloroethene	6	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	Vanadium	23.7		MG/KG	478500	1383000
100701	1744	0.0 - 0.5	Vinyl Acetate	13	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	Vinyl chloride	13	U	UG/KG	478500	1383000
100701	1744	0.0 - 0.5	Zinc	24.5		MG/KG	478500	1383000
100702	1744	NA	1,1,1-Trichloroethane	5	U	UG/KG	478500	1383000
100702	1744	NA	1,1,2,2-Tetrachloroethane	5	U	UG/KG	478500	1383000
100702	1744	NA	1,1,2-Trichloroethane	5	U	UG/KG	478500	1383000
100702	1744	NA	1,1-Dichloroethane	5	U	UG/KG	478500	1383000
100702	1744	NA	1,1-Dichloroethene	5	U	UG/KG	478500	1383000
100702	1744	NA	1,2-Dichloroethane	5	U	UG/KG	478500	1383000
100702	1744	NA	1,2-Dichloroethylene	5	U	UG/KG	478500	1383000
100702	1744	NA	1,2-Dichloropropane	5	U	UG/KG	478500	1383000
100702	1744	NA	2-Butanone	10	U	UG/KG	478500	1383000
100702	1744	NA	2-Hexanone	10	U	UG/KG	478500	1383000
100702	1744	NA	4-Methyl-2-pentanone	10	U	UG/KG	478500	1383000
100702	1744	NA	Acetone	5	BJ	UG/KG	478500	1383000
100702	1744	NA	Benzene	5	U	UG/KG	478500	1383000
100702	1744	NA	Bromodichloromethane	5	U	UG/KG	478500	1383000
100702	1744	NA	Bromoform	5	U	UG/KG	478500	1383000
100702	1744	NA	Bromomethane	10	U	UG/KG	478500	1383000
100702	1744	NA	Carbon disulfide	5	U	UG/KG	478500	1383000
100702	1744	NA	Carbon Tetrachloride	5	U	UG/KG	478500	1383000
100702	1744	NA	Chlorobenzene	5	U	UG/KG	478500	1383000
100702	1744	NA	Chloroethane	10	U	UG/KG	478500	1383000
100702	1744	NA	Chloroform	5	U	UG/KG	478500	1383000
100702	1744	NA	Chloromethane	10	U	UG/KG	478500	1383000
100702	1744	NA	cis-1,3-Dichloropropene	5	U	UG/KG	478500	1383000
100702	1744	NA	Dibromochloromethane	5	U	UG/KG	478500	1383000
100702	1744	NA	Ethylbenzene	5	U	UG/KG	478500	1383000
100702	1744	NA	Methylene chloride	1	BJ	UG/KG	478500	1383000
100702	1744	NA	Styrene	5	U	UG/KG	478500	1383000
100702	1744	NA	Tetrachlorethene	5	U	UG/KG	478500	1383000
100702	1744	NA	Toluene	5	U	UG/KG	478500	1383000
100702	1744	NA	Total xylenes	5	U	UG/KG	478500	1383000
100702	1744	NA	trans-1,3-Dichloropropene	5	U	UG/KG	478500	1383000
100702	1744	NA	Trichloroethene	5	U	UG/KG	478500	1383000
100702	1744	NA	Vinyl Acetate	10	U	UG/KG	478500	1383000
100702	1744	NA	Vinyl chloride	10	U	UG/KG	478500	1383000
100705	1744	5.0 - 5.5	Cation Exchange Capacity	.8		MEQ/10	478500	1383000
100705	1744	5.0 - 5.5	Total Organic Carbon	1188		MG/KG	478500	1383000
100715	1742	0.0-0.5	1,1,1-Trichloroethane	6	U	UG/KG	478500	1383000
100715	1742	0.0-0.5	1,1,2,2-Tetrachloroethane	6	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	1,1,2-Trichloroethane	6	U	UG/KG	480213	1383000
							480213	1383000

PT/2-93/WP/409196:NEWEWMPA.TAb(table from database)

SAMPLE NUMBER	BORING	DEPTH	ANALYTE	CONC	VALIDATION QUALIFIER	UNIT	STATE PLANNER COORDINATES	
100715	1742	0.0-0.5	1,1-Dichloroethane	6	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	1,1-Dichloroethene	6	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	1,2,4-Trichlorobenzene	420	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	1,2-Dichlorobenzene	420	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	1,2-Dichloroethane	6	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	1,2-Dichloroethylene	6	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	1,2-Dichloropropane	6	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	1,3-Dichlorobenzene	420	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	1,4-Dichlorobenzene	420	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	2,4,5-Trichlorophenol	2000	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	2,4,6-Trichlorophenol	420	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	2,4-Dichlorophenol	420	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	2,4-Dimethylphenol	420	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	2,4-Dinitrophenol	2000	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	2,4-Dinitrotoluene	420	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	2,6-Dinitrotoluene	420	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	2-Butanone	12	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	2-Chloronaphthalene	420	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	2-Chlorophenol	420	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	2-Hexanone	12	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	2-Methylnaphthalene	420	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	2-Methylphenol	420	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	2-Nitroaniline	2000	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	2-Nitrophenol	420	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	3,3'-Dichlorobenzidine	830	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	3-Nitroaniline	2000	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	4,4'-DDD	20	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	4,4'-DDE	20	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	4,4'-DDT	20	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	4,6-Dinitro-2-methylphenol	2000	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	4-Bromophenyl phenyl ether	420	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	4-Chloro-3-methylphenol	420	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	4-Chloroaniline	420	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	4-Chlorophenylphenyl ether	420	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	4-Methyl-2-pentanone	12	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	4-Methylphenol	420	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	4-Nitroaniline	2000	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	4-Nitrophenol	2000	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	Acenaphthene	420	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	Acenaphthylene	420	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	Acetone	12	BJ	UG/KG	480213	1383000
100715	1742	0.0-0.5	Aldrin	10	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	alpha-BHC	10	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	alpha-Chlordane	100	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	Aluminum	6280		MG/KG	480213	1383000
100715	1742	0.0-0.5	Anthracene	420	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	Antimony	7.5	UN	MG/KG	480213	1383000
100715	1742	0.0-0.5	Aroclor-1016	100	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	Aroclor-1221	100	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	Aroclor-1232	100	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	Aroclor-1242	100	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	Aroclor-1248	100	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	Aroclor-1254	200	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	Aroclor-1260	200	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	Arsenic	4.2		MG/KG	480213	1383000
100715	1742	0.0-0.5	Barium	76.9		MG/KG	480213	1383000
100715	1742	0.0-0.5	Benzene	6	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	Benzo(a)anthracene	420	U	UG/KG	480213	1383000

PT/2-93/WP/409196:NBWBWMFA.TAb(table from database)

SAMPLE NUMBER	BORING	DEPTH	ANALYTE	CONC	VALIDATION QUALIFIER	UNIT	STATE PLANNER COORDINATES	
100715	1742	0.0-0.5	Benzo(a)pyrene	420	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	Benzo(b)fluoranthene	420	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	Benzo(g,h,i)perylene	420	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	Benzo(k)fluoranthene	420	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	Benzoic acid	89	J	UG/KG	480213	1383000
100715	1742	0.0-0.5	Benzyl alcohol	420	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	Beryllium	.58	B	MG/KG	480213	1383000
100715	1742	0.0-0.5	beta-BHC	10	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	bis(2-Chloroethoxy)methane	420	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	bis(2-Chloroethyl)ether	420	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	bis(2-Chloroisopropyl) ether	420	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	bis(2-Ethylhexyl) phthalate	420	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	Bromodichloromethane	6	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	Bromoform	6	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	Bromomethane	12	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	Butyl benzyl phthalate	420	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	Cadmium	.5	U	MG/KG	480213	1383000
100715	1742	0.0-0.5	Calcium	2290	E	MG/KG	480213	1383000
100715	1742	0.0-0.5	Carbon disulfide	6	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	Carbon Tetrachloride	6	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	Chlorobenzene	6	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	Chloroethane	12	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	Chloroform	6	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	Chloromethane	12	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	Chromium	11.4		MG/KG	480213	1383000
100715	1742	0.0-0.5	Chrysene	420	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	cis-1,3-Dichloropropene	6	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	Cobalt	14.3		MG/KG	480213	1383000
100715	1742	0.0-0.5	Copper	11.4		MG/KG	480213	1383000
100715	1742	0.0-0.5	Cyanide	.65	B*	MG/KG	480213	1383000
100715	1742	0.0-0.5	delta-BHC	10	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	Di-n-butyl phthalate	420	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	Di-n-octyl phthalate	420	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	Dibenzo(a,h)anthracene	420	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	Dibenzofuran	420	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	Dibromochloromethane	6	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	Dieldrin	20	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	Diethyl phthalate	420	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	Dimethyl phthalate	420	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	Endosulfan II	20	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	Endosulfan sulfate	20	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	Endosulfan-I	10	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	Endrin	20	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	Endrin ketone	20	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	Ethylbenzene	6	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	Fluoranthene	420	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	Fluorene	420	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	gamma-BHC (Lindane)	10	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	gamma-Chlordane	100	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	Heptachlor	10	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	Heptachlor epoxide	10	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	Hexachlorobenzene	420	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	Hexachlorobutadiene	420	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	Hexachlorocyclopentadiene	420	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	Hexachloroethane	420	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	Indeno(1,2,3-cd)pyrene	420	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	Iron	12700		MG/KG	480213	1383000
100715	1742	0.0-0.5	Isophorone	420	U	UG/KG	480213	1383000

PT/2-93/WP/409196:NEWEWMFA.TAb(table from database)

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SAMPLE NUMBER	BORING	DEPTH	ANALYTE	CONC	VALIDATION QUALIFIER	UNIT	STATE PLANNER COORDINATES	
100715	1742	0.0-0.5	Lead	23.5		MG/KG	480213	1383000
100715	1742	0.0-0.5	Magnesium	1390		MG/KG	480213	1383000
100715	1742	0.0-0.5	Manganese	712	N	MG/KG	480213	1383000
100715	1742	0.0-0.5	Mercury	.12	UN	MG/KG	480213	1383000
100715	1742	0.0-0.5	Methoxychlor	100	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	Methylene chloride	15	B	UG/KG	480213	1383000
100715	1742	0.0-0.5	Molybdenum	8.5		MG/KG	480213	1383000
100715	1742	0.0-0.5	N-Nitroso-di-n-propylamine	420	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	N-Nitrosodiphenylamine	420	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	Naphthalene	420	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	Nickel	13.2		MG/KG	480213	1383000
100715	1742	0.0-0.5	Nitrobenzene	420	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	Pentachlorophenol	2000	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	Phenanthrene	420	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	Phenol	420	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	Potassium	792	B	MG/KG	480213	1383000
100715	1742	0.0-0.5	Pyrene	420	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	Selenium	.5	U	MG/KG	480213	1383000
100715	1742	0.0-0.5	Silicon	1100	*	MG/KG	480213	1383000
100715	1742	0.0-0.5	Silver	2.5	U	MG/KG	480213	1383000
100715	1742	0.0-0.5	Sodium	27.7	B	MG/KG	480213	1383000
100715	1742	0.0-0.5	Styrene	6	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	Tetrachlorethene	6	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	Thallium	.5	U	MG/KG	480213	1383000
100715	1742	0.0-0.5	Toluene	1	J	UG/KG	480213	1383000
100715	1742	0.0-0.5	Total xylenes	6	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	Toxaphene	200	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	trans-1,3-Dichloropropene	6	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	Trichloroethene	6	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	Vanadium	21.3		MG/KG	480213	1383000
100715	1742	0.0-0.5	Vinyl Acetate	12	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	Vinyl chloride	12	U	UG/KG	480213	1383000
100715	1742	0.0-0.5	Zinc	63.1		MG/KG	480213	1383000
100716	1742	TRIP	1,1,1-Trichloroethane	5	U	UG/KG	480213	1383000
100716	1742	TRIP	1,1,2,2-Tetrachloroethane	5	U	UG/KG	480213	1383000
100716	1742	TRIP	1,1,2-Trichloroethane	5	U	UG/KG	480213	1383000
100716	1742	TRIP	1,1-Dichloroethane	5	U	UG/KG	480213	1383000
100716	1742	TRIP	1,1-Dichloroethene	5	U	UG/KG	480213	1383000
100716	1742	TRIP	1,2-Dichloroethane	5	U	UG/KG	480213	1383000
100716	1742	TRIP	1,2-Dichloroethylene	5	U	UG/KG	480213	1383000
100716	1742	TRIP	1,2-Dichloropropane	5	U	UG/KG	480213	1383000
100716	1742	TRIP	2-Butanone	10	U	UG/KG	480213	1383000
100716	1742	TRIP	2-Hexanone	10	U	UG/KG	480213	1383000
100716	1742	TRIP	4-Methyl-2-pentanone	10	U	UG/KG	480213	1383000
100716	1742	TRIP	Acetone	5	BJ	UG/KG	480213	1383000
100716	1742	TRIP	Benzene	5	U	UG/KG	480213	1383000
100716	1742	TRIP	Bromodichloromethane	4	J	UG/KG	480213	1383000
100716	1742	TRIP	Bromoform	5	U	UG/KG	480213	1383000
100716	1742	TRIP	Bromomethane	10	U	UG/KG	480213	1383000
100716	1742	TRIP	Carbon disulfide	5	U	UG/KG	480213	1383000
100716	1742	TRIP	Carbon Tetrachloride	5	U	UG/KG	480213	1383000
100716	1742	TRIP	Chlorobenzene	5	U	UG/KG	480213	1383000
100716	1742	TRIP	Chloroethane	10	U	UG/KG	480213	1383000
100716	1742	TRIP	Chloroform	13		UG/KG	480213	1383000
100716	1742	TRIP	Chloromethane	10	U	UG/KG	480213	1383000
100716	1742	TRIP	cis-1,3-Dichloropropene	5	U	UG/KG	480213	1383000
100716	1742	TRIP	Dibromochloromethane	5	U	UG/KG	480213	1383000
100716	1742	TRIP	Ethylbenzene	5	U	UG/KG	480213	1383000

PT/2-93/WP/409196:NEWEWMFA.TAb(table from database)

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SAMPLE NUMBER	BORING	DEPTH	ANALYTE	CONC	VALIDATION QUALIFIER	UNIT	STATE PLANNER COORDINATES	
100716	1742	TRIP	Methylene chloride	3	BJ	UG/KG	480213	1383000
100716	1742	TRIP	Styrene	5	U	UG/KG	480213	1383000
100716	1742	TRIP	Tetrachlorethene	5	U	UG/KG	480213	1383000
100716	1742	TRIP	Toluene	5	U	UG/KG	480213	1383000
100716	1742	TRIP	Total xylenes	5	U	UG/KG	480213	1383000
100716	1742	TRIP	trans-1,3-Dichloropropene	5	U	UG/KG	480213	1383000
100716	1742	TRIP	Trichloroethene	5	U	UG/KG	480213	1383000
100716	1742	TRIP	Vinyl Acetate	10	U	UG/KG	480213	1383000
100716	1742	TRIP	Vinyl chloride	10	U	UG/KG	480213	1383000
100718	1742	4.5-5.0	Cation Exchange Capacity	4.32		MEQ/10	480213	1383000
100718	1742	4.5-5.0	Total Organic Carbon	5865		MG/KG	480213	1383000
100733	1742	17.0-17.5	Cation Exchange Capacity	6.08		MEQ/10	480213	1383000
100733	1742	17.0-17.5	Total Organic Carbon	1140		MG/KG	480213	1383000
100753	1740	0.0 - 0.5'	1,1,1-Trichloroethane	6	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	1,1,2,2-Tetrachloroethane	6	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	1,1,2-Trichloroethane	6	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	1,1-Dichloroethane	6	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	1,1-Dichloroethene	6	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	1,2,4-Trichlorobenzene	420	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	1,2-Dichlorobenzene	420	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	1,2-Dichloroethane	6	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	1,2-Dichloroethylene	6	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	1,2-Dichloropropane	6	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	1,3-Dichlorobenzene	420	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	1,4-Dichlorobenzene	420	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	2,4,5-Trichlorophenol	2000	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	2,4,6-Trichlorophenol	420	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	2,4-Dichlorophenol	420	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	2,4-Dimethylphenol	420	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	2,4-Dinitrophenol	2000	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	2,4-Dinitrotoluene	420	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	2,6-Dinitrotoluene	420	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	2-Butanone	12	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	2-Chloronaphthalene	420	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	2-Chlorophenol	420	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	2-Hexanone	12	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	2-Methylnaphthalene	420	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	2-Methylphenol	420	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	2-Nitroaniline	2000	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	2-Nitrophenol	420	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	3,3'-Dichlorobenzidine	840	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	3-Nitroaniline	2000	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	4,4'-DDD	20	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	4,4'-DDE	20	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	4,4'-DDT	20	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	4,6-Dinitro-2-methylphenol	2000	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	4-Bromophenyl phenyl ether	420	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	4-Chloro-3-methylphenol	420	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	4-Chloroaniline	420	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	4-Chlorophenylphenyl ether	420	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	4-Methyl-2-pentanone	12	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	4-Methylphenol	420	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	4-Nitroaniline	2000	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	4-Nitrophenol	2000	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	Acenaphthene	420	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	Acenaphthylene	420	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	Acetone	12	J	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	Aldrin	10	U	UG/KG	481800	1383000

PT/2-93/WP/409196:NEWEWMPA.TAb(table from database)

SAMPLE NUMBER	BORING	DEPTH	ANALYTE	CONC	VALIDATION QUALIFIER	UNIT	STATE PLANNER COORDINATES	
100753	1740	0.0 - 0.5'	alpha-BHC	10	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	alpha-Chlordane	100	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	Aluminum	7090		MG/KG	481800	1383000
100753	1740	0.0 - 0.5'	Anthracene	420	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	Antimony	7.2	UN	MG/KG	481800	1383000
100753	1740	0.0 - 0.5'	Aroclor-1016	100	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	Aroclor-1221	100	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	Aroclor-1232	100	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	Aroclor-1242	100	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	Aroclor-1248	100	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	Aroclor-1254	200	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	Aroclor-1260	200	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	Arsenic	3.3		MG/KG	481800	1383000
100753	1740	0.0 - 0.5'	Barium	70.1		MG/KG	481800	1383000
100753	1740	0.0 - 0.5'	Benzene	6	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	Benzo(a)anthracene	420	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	Benzo(a)pyrene	420	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	Benzo(b)fluoranthene	420	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	Benzo(g,h,i)perylene	420	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	Benzo(k)fluoranthene	420	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	Benzoic acid	71	J	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	Benzyl alcohol	420	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	Beryllium	.48	B	MG/KG	481800	1383000
100753	1740	0.0 - 0.5'	beta-BHC	10	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	bis(2-Chloroethoxy)methane	420	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	bis(2-Chloroethyl)ether	420	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	bis(2-Chloroisopropyl) ether	420	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	bis(2-Ethylhexyl) phthalate	420	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	Bromodichloromethane	6	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	Bromoform	6	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	Bromomethane	12	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	Butyl benzyl phthalate	420	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	Cadmium	.48	U	MG/KG	481800	1383000
100753	1740	0.0 - 0.5'	Calcium	1420	E	MG/KG	481800	1383000
100753	1740	0.0 - 0.5'	Carbon disulfide	6	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	Carbon Tetrachloride	6	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	Chlorobenzene	6	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	Chloroethane	12	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	Chloroform	6	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	Chloromethane	12	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	Chromium	9.8		MG/KG	481800	1383000
100753	1740	0.0 - 0.5'	Chrysene	420	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	cis-1,3-Dichloropropene	6	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	Cobalt	9.6	B	MG/KG	481800	1383000
100753	1740	0.0 - 0.5'	Copper	7.6		MG/KG	481800	1383000
100753	1740	0.0 - 0.5'	Cyanide	.22	B*	MG/KG	481800	1383000
100753	1740	0.0 - 0.5'	delta-BHC	10	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	Di-n-butyl phthalate	420	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	Di-n-octyl phthalate	420	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	Dibenzo(a,h)anthracene	420	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	Dibenzofuran	420	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	Dibromochloromethane	6	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	Dieldrin	20	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	Diethyl phthalate	420	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	Dimethyl phthalate	420	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	Endosulfan II	20	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	Endosulfan sulfate	20	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	Endosulfan-I	10	U	UG/KG	481800	1383000

PT/2-93/WP/409196:NBWBWMFA.TAb(table from database)

SAMPLE NUMBER	BORING	DEPTH	ANALYTE	CONC	VALIDATION QUALIFIER	UNIT	STATE PLANNER COORDINATES	
100753	1740	0.0 - 0.5'	Endrin	20	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	Endrin ketone	20	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	Ethylbenzene	6	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	Fluoranthene	420	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	Fluorene	420	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	gamma-BHC (Lindane)	10	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	gamma-Chlordane	100	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	Heptachlor	10	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	Heptachlor epoxide	10	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	Hexachlorobenzene	420	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	Hexachlorobutadiene	420	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	Hexachlorocyclopentadiene	420	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	Hexachloroethane	420	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	Indeno(1,2,3-cd)pyrene	420	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	Iron	14300		MG/KG	481800	1383000
100753	1740	0.0 - 0.5'	Isophorone	420	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	Lead	15		MG/KG	481800	1383000
100753	1740	0.0 - 0.5'	Magnesium	1200		MG/KG	481800	1383000
100753	1740	0.0 - 0.5'	Manganese	902	N	MG/KG	481800	1383000
100753	1740	0.0 - 0.5'	Mercury	.12	UN	MG/KG	481800	1383000
100753	1740	0.0 - 0.5'	Methoxychlor	100	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	Methylene chloride	24	B	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	Molybdenum	7.9		MG/KG	481800	1383000
100753	1740	0.0 - 0.5'	N-Nitroso-di-n-propylamine	420	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	N-Nitrosodiphenylamine	420	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	Naphthalene	420	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	Nickel	11		MG/KG	481800	1383000
100753	1740	0.0 - 0.5'	Nitrobenzene	420	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	Pentachlorophenol	2000	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	Phenanthrene	420	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	Phenol	420	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	Potassium	449	B	MG/KG	481800	1383000
100753	1740	0.0 - 0.5'	Pyrene	420	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	Selenium	.49	UW	MG/KG	481800	1383000
100753	1740	0.0 - 0.5'	Silicon	1060	*	MG/KG	481800	1383000
100753	1740	0.0 - 0.5'	Silver	2.4	U	MG/KG	481800	1383000
100753	1740	0.0 - 0.5'	Sodium	30.8	B	MG/KG	481800	1383000
100753	1740	0.0 - 0.5'	Styrene	6	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	Tetrachlorethene	6	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	Thallium	.49	U	MG/KG	481800	1383000
100753	1740	0.0 - 0.5'	Toluene	6	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	Total xylenes	6	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	Toxaphene	200	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	trans-1,3-Dichloropropene	6	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	Trichloroethene	6	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	Vanadium	22.8		MG/KG	481800	1383000
100753	1740	0.0 - 0.5'	Vinyl Acetate	12	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	Vinyl chloride	12	U	UG/KG	481800	1383000
100753	1740	0.0 - 0.5'	Zinc	25.6		MG/KG	481800	1383000
100754	1740	NA	1,1,1-Trichloroethane	5	U	UG/KG	481800	1383000
100754	1740	NA	1,1,2,2-Tetrachloroethane	5	U	UG/KG	481800	1383000
100754	1740	NA	1,1,2-Trichloroethane	5	U	UG/KG	481800	1383000
100754	1740	NA	1,1-Dichloroethane	5	U	UG/KG	481800	1383000
100754	1740	NA	1,1-Dichloroethene	5	U	UG/KG	481800	1383000
100754	1740	NA	1,2-Dichloroethane	5	U	UG/KG	481800	1383000
100754	1740	NA	1,2-Dichloroethylene	5	U	UG/KG	481800	1383000
100754	1740	NA	1,2-Dichloropropane	5	U	UG/KG	481800	1383000
100754	1740	NA	2-Butanone	10	U	UG/KG	481800	1383000

PT/2-93/WP/409196:NBWBWMFA.TAb(table from database)

SAMPLE NUMBER	BORING	DEPTH	ANALYTE	CONC	VALIDATION QUALIFIER	UNIT	STATE PLANNER COORDINATES	
100754	1740	NA	2-Hexanone	10	U	UG/KG	481800	1383000
100754	1740	NA	4-Methyl-2-pentanone	10	U	UG/KG	481800	1383000
100754	1740	NA	Acetone	2	J	UG/KG	481800	1383000
100754	1740	NA	Benzene	5	U	UG/KG	481800	1383000
100754	1740	NA	Bromodichloromethane	3	J	UG/KG	481800	1383000
100754	1740	NA	Bromoform	5	U	UG/KG	481800	1383000
100754	1740	NA	Bromomethane	10	U	UG/KG	481800	1383000
100754	1740	NA	Carbon disulfide	5	U	UG/KG	481800	1383000
100754	1740	NA	Carbon Tetrachloride	5	U	UG/KG	481800	1383000
100754	1740	NA	Chlorobenzene	5	U	UG/KG	481800	1383000
100754	1740	NA	Chloroethane	10	U	UG/KG	481800	1383000
100754	1740	NA	Chloroform	8		UG/KG	481800	1383000
100754	1740	NA	Chloromethane	10	U	UG/KG	481800	1383000
100754	1740	NA	cis-1,3-Dichloropropene	5	U	UG/KG	481800	1383000
100754	1740	NA	Dibromochloromethane	5	U	UG/KG	481800	1383000
100754	1740	NA	Ethylbenzene	5	U	UG/KG	481800	1383000
100754	1740	NA	Methylene chloride	5	U	UG/KG	481800	1383000
100754	1740	NA	Styrene	5	U	UG/KG	481800	1383000
100754	1740	NA	Tetrachlorethene	5	U	UG/KG	481800	1383000
100754	1740	NA	Toluene	5	U	UG/KG	481800	1383000
100754	1740	NA	Total xylenes	5	U	UG/KG	481800	1383000
100754	1740	NA	trans-1,3-Dichloropropene	5	U	UG/KG	481800	1383000
100754	1740	NA	Trichloroethene	5	U	UG/KG	481800	1383000
100754	1740	NA	Vinyl Acetate	10	U	UG/KG	481800	1383000
100754	1740	NA	Vinyl chloride	10	U	UG/KG	481800	1383000
100759	1740	7.0 - 7.5	Cation Exchange Capacity	2.14		MEQ/10	481800	1383000
100759	1740	7.0 - 7.5	Total Organic Carbon	3724		MG/KG	481800	1383000
100772	1740	17.5 - 18.0	Cation Exchange Capacity	1.73		MEQ/10	481800	1383000
100772	1740	17.5 - 18.0	Total Organic Carbon	7121		MG/KG	481800	1383000
100782	1738	0.0-0.5	1,1,1-Trichloroethane	6	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	1,1,2,2-Tetrachloroethane	6	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	1,1,2-Trichloroethane	6	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	1,1-Dichloroethane	6	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	1,1-Dichloroethene	6	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	1,2,4-Trichlorobenzene	420	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	1,2-Dichlorobenzene	420	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	1,2-Dichloroethane	6	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	1,2-Dichloroethylene	6	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	1,2-Dichloropropane	6	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	1,3-Dichlorobenzene	420	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	1,4-Dichlorobenzene	420	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	2,4,5-Trichlorophenol	2000	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	2,4,6-Trichlorophenol	420	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	2,4-Dichlorophenol	420	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	2,4-Dimethylphenol	420	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	2,4-Dinitrophenol	2000	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	2,4-Dinitrotoluene	420	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	2,6-Dinitrotoluene	420	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	2-Butanone	12	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	2-Chloronaphthalene	420	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	2-Chlorophenol	6	J	UG/KG	483539	1382635
100782	1738	0.0-0.5	2-Hexanone	12	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	2-Methylnaphthalene	420	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	2-Methylphenol	420	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	2-Nitroaniline	2000	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	2-Nitrophenol	420	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	3,3'-Dichlorobenzidine	840	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	3-Nitroaniline	2000	U	UG/KG	483539	1382635

PT/2-93/WP/409196:NBWBWMPA.TAb(table from database)

SAMPLE NUMBER	BORING	DEPTH	ANALYTE	CONC	VALIDATION QUALIFIER	UNIT	STATE PLANNER COORDINATES	
100782	1738	0.0-0.5	4,4'-DDD	20	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	4,4'-DDE	20	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	4,4'-DDT	20	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	4,6-Dinitro-2-methylphenol	2000	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	4-Bromophenyl phenyl ether	420	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	4-Chloro-3-methylphenol	420	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	4-Chloroaniline	420	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	4-Chlorophenylphenyl ether	420	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	4-Methyl-2-pentanone	12	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	4-Methylphenol	420	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	4-Nitroaniline	2000	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	4-Nitrophenol	2000	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	Acenaphthene	420	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	Acenaphthylene	420	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	Acetone	12	BJ	UG/KG	483539	1382635
100782	1738	0.0-0.5	Aldrin	10	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	alpha-BHC	10	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	alpha-Chlordane	100	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	Aluminum	5850		MG/KG	483539	1382635
100782	1738	0.0-0.5	Anthracene	420	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	Antimony	7.3	UN	MG/KG	483539	1382635
100782	1738	0.0-0.5	Aroclor-1016	100	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	Aroclor-1221	100	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	Aroclor-1232	100	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	Aroclor-1242	100	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	Aroclor-1248	100	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	Aroclor-1254	200	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	Aroclor-1260	200	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	Arsenic	3.7	N	MG/KG	483539	1382635
100782	1738	0.0-0.5	Barium	52.6		MG/KG	483539	1382635
100782	1738	0.0-0.5	Benzene	6	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	Benzo(a)anthracene	420	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	Benzo(a)pyrene	420	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	Benzo(b)fluoranthene	420	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	Benzo(g,h,i)perylene	420	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	Benzo(k)fluoranthene	420	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	Benzoic acid	5	J	UG/KG	483539	1382635
100782	1738	0.0-0.5	Benzyl alcohol	420	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	Beryllium	.49	U	MG/KG	483539	1382635
100782	1738	0.0-0.5	beta-BHC	10	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	bis(2-Chloroethoxy)methane	420	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	bis(2-Chloroethyl)ether	420	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	bis(2-Chloroisopropyl) ether	420	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	bis(2-Ethylhexyl) phthalate	9	J	UG/KG	483539	1382635
100782	1738	0.0-0.5	Bromodichloromethane	6	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	Bromoform	6	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	Bromomethane	12	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	Butyl benzyl phthalate	420	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	Cadmium	.49	U	MG/KG	483539	1382635
100782	1738	0.0-0.5	Calcium	1960		MG/KG	483539	1382635
100782	1738	0.0-0.5	Carbon disulfide	6	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	Carbon Tetrachloride	6	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	Chlorobenzene	6	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	Chloroethane	12	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	Chloroform	6	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	Chloromethane	12	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	Chromium	9.8		MG/KG	483539	1382635
100782	1738	0.0-0.5	Chrysene	420	U	UG/KG	483539	1382635

PT/2-93/WP/409196:NEWEWMPA.TAb(table from database)

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SAMPLE NUMBER	BORING	DEPTH	ANALYTE	CONC	VALIDATION QUALIFIER	UNIT	STATE PLANNER COORDINATES	
100782	1738	0.0-0.5	cis-1,3-Dichloropropene	6	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	Cobalt	9.7	B	MG/KG	483539	1382635
100782	1738	0.0-0.5	Copper	7.9		MG/KG	483539	1382635
100782	1738	0.0-0.5	Cyanide	.14	B	MG/KG	483539	1382635
100782	1738	0.0-0.5	delta-BHC	10	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	Di-n-butyl phthalate	8	J	UG/KG	483539	1382635
100782	1738	0.0-0.5	Di-n-octyl phthalate	420	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	Dibenzo(a,h)anthracene	420	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	Dibenzofuran	420	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	Dibromochloromethane	6	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	Dieldrin	20	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	Diethyl phthalate	420	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	Dimethyl phthalate	420	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	Endosulfan II	20	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	Endosulfan sulfate	20	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	Endosulfan-I	10	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	Endrin	20	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	Endrin ketone	20	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	Ethylbenzene	6	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	Fluoranthene	6	J	UG/KG	483539	1382635
100782	1738	0.0-0.5	Fluorene	420	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	gamma-BHC (Lindane)	10	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	gamma-Chlordane	100	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	Heptachlor	10	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	Heptachlor epoxide	10	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	Hexachlorobenzene	420	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	Hexachlorobutadiene	420	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	Hexachlorocyclopentadiene	420	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	Hexachloroethane	420	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	Indeno(1,2,3-cd)pyrene	420	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	Iron	12600		MG/KG	483539	1382635
100782	1738	0.0-0.5	Isophorone	420	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	Lead	13.9		MG/KG	483539	1382635
100782	1738	0.0-0.5	Magnesium	1500		MG/KG	483539	1382635
100782	1738	0.0-0.5	Manganese	591		MG/KG	483539	1382635
100782	1738	0.0-0.5	Mercury	.12	UN	MG/KG	483539	1382635
100782	1738	0.0-0.5	Methoxychlor	100	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	Methylene chloride	79	B	UG/KG	483539	1382635
100782	1738	0.0-0.5	Molybdenum	6.6		MG/KG	483539	1382635
100782	1738	0.0-0.5	N-Nitroso-di-n-propylamine	3	J	UG/KG	483539	1382635
100782	1738	0.0-0.5	N-Nitrosodiphenylamine	420	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	Naphthalene	420	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	Nickel	11.5		MG/KG	483539	1382635
100782	1738	0.0-0.5	Nitrobenzene	420	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	Pentachlorophenol	2000	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	Phenanthrene	420	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	Phenol	420	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	Potassium	447	B	MG/KG	483539	1382635
100782	1738	0.0-0.5	Pyrene	7	J	UG/KG	483539	1382635
100782	1738	0.0-0.5	Selenium	.5	UWN	MG/KG	483539	1382635
100782	1738	0.0-0.5	Silicon	420	*	MG/KG	483539	1382635
100782	1738	0.0-0.5	Silver	2.4	U	MG/KG	483539	1382635
100782	1738	0.0-0.5	Sodium	39.5	B	MG/KG	483539	1382635
100782	1738	0.0-0.5	Styrene	6	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	Tetrachlorethene	6	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	Thallium	.5	UW	MG/KG	483539	1382635
100782	1738	0.0-0.5	Toluene	6	U	UG/KG	483539	1382635
100782	1738	0.0-0.5	Total xylenes	6	U	UG/KG	483539	1382635

PT/2-93/WP/409196:NEWEWMFA.TAb(table from database)

SAMPLE NUMBER	BORING	DEPTH	ANALYTE	CONC	VALIDATION QUALIFIER		UNIT	STATE PLANNER COORDINATES	
100782	1738	0.0-0.5	Toxaphene	200	U		UG/KG	483539	1382635
100782	1738	0.0-0.5	trans-1,3-Dichloropropene	6	U		UG/KG	483539	1382635
100782	1738	0.0-0.5	Trichloroethene	6	U		UG/KG	483539	1382635
100782	1738	0.0-0.5	Vanadium	19.6			MG/KG	483539	1382635
100782	1738	0.0-0.5	Vinyl Acetate	12	U		UG/KG	483539	1382635
100782	1738	0.0-0.5	Vinyl chloride	12	U		UG/KG	483539	1382635
100782	1738	0.0-0.5	Zinc	23.2			MG/KG	483539	1382635
100782	1738	0.0-0.5	4,4'-DDD	61	U	DL	UG/KG	483539	1382635
100782	1738	0.0-0.5	4,4'-DDE	61	U	DL	UG/KG	483539	1382635
100782	1738	0.0-0.5	4,4'-DDT	61	U	DL	UG/KG	483539	1382635
100782	1738	0.0-0.5	Aldrin	31	U	DL	UG/KG	483539	1382635
100782	1738	0.0-0.5	alpha-BHC	31	U	DL	UG/KG	483539	1382635
100782	1738	0.0-0.5	alpha-Chlordane	310	U	DL	UG/KG	483539	1382635
100782	1738	0.0-0.5	Aroclor-1016	310	U	DL	UG/KG	483539	1382635
100782	1738	0.0-0.5	Aroclor-1221	310	U	DL	UG/KG	483539	1382635
100782	1738	0.0-0.5	Aroclor-1232	310	U	DL	UG/KG	483539	1382635
100782	1738	0.0-0.5	Aroclor-1242	310	U	DL	UG/KG	483539	1382635
100782	1738	0.0-0.5	Aroclor-1248	310	U	DL	UG/KG	483539	1382635
100782	1738	0.0-0.5	Aroclor-1254	610	U	DL	UG/KG	483539	1382635
100782	1738	0.0-0.5	Aroclor-1260	610	U	DL	UG/KG	483539	1382635
100782	1738	0.0-0.5	beta-BHC	31	U	DL	UG/KG	483539	1382635
100782	1738	0.0-0.5	delta-BHC	31	U	DL	UG/KG	483539	1382635
100782	1738	0.0-0.5	Dieldrin	61	U	DL	UG/KG	483539	1382635
100782	1738	0.0-0.5	Endosulfan II	61	U	DL	UG/KG	483539	1382635
100782	1738	0.0-0.5	Endosulfan sulfate	61	U	DL	UG/KG	483539	1382635
100782	1738	0.0-0.5	Endosulfan-I	31	U	DL	UG/KG	483539	1382635
100782	1738	0.0-0.5	Endrin	61	U	DL	UG/KG	483539	1382635
100782	1738	0.0-0.5	Endrin ketone	61	U	DL	UG/KG	483539	1382635
100782	1738	0.0-0.5	gamma-BHC (Lindane)	31	U	DL	UG/KG	483539	1382635
100782	1738	0.0-0.5	gamma-Chlordane	310	U	DL	UG/KG	483539	1382635
100782	1738	0.0-0.5	Heptachlor	31	U	DL	UG/KG	483539	1382635
100782	1738	0.0-0.5	Heptachlor epoxide	31	U	DL	UG/KG	483539	1382635
100782	1738	0.0-0.5	Methoxychlor	310	U	DL	UG/KG	483539	1382635
100782	1738	0.0-0.5	Toxaphene	610	U	DL	UG/KG	483539	1382635
100783	1738	NA	1,1,1-Trichloroethane	5	U		UG/KG	483539	1382635
100783	1738	NA	1,1,2,2-Tetrachloroethane	5	U		UG/KG	483539	1382635
100783	1738	NA	1,1,2-Trichloroethane	5	U		UG/KG	483539	1382635
100783	1738	NA	1,1-Dichloroethane	5	U		UG/KG	483539	1382635
100783	1738	NA	1,1-Dichloroethene	5	U		UG/KG	483539	1382635
100783	1738	NA	1,2-Dichloroethane	5	U		UG/KG	483539	1382635
100783	1738	NA	1,2-Dichloroethylene	5	U		UG/KG	483539	1382635
100783	1738	NA	1,2-Dichloropropane	5	U		UG/KG	483539	1382635
100783	1738	NA	2-Butanone	10	U		UG/KG	483539	1382635
100783	1738	NA	2-Hexanone	10	U		UG/KG	483539	1382635
100783	1738	NA	4-Methyl-2-pentanone	10	U		UG/KG	483539	1382635
100783	1738	NA	Acetone	10	BJ		UG/KG	483539	1382635
100783	1738	NA	Benzene	5	U		UG/KG	483539	1382635
100783	1738	NA	Bromodichloromethane	5	U		UG/KG	483539	1382635
100783	1738	NA	Bromoform	5	U		UG/KG	483539	1382635
100783	1738	NA	Bromomethane	10	U		UG/KG	483539	1382635
100783	1738	NA	Carbon disulfide	5	U		UG/KG	483539	1382635
100783	1738	NA	Carbon Tetrachloride	5	U		UG/KG	483539	1382635
100783	1738	NA	Chlorobenzene	5	U		UG/KG	483539	1382635
100783	1738	NA	Chloroethane	10	U		UG/KG	483539	1382635
100783	1738	NA	Chloroform	3	J		UG/KG	483539	1382635
100783	1738	NA	Chloromethane	10	U		UG/KG	483539	1382635
100783	1738	NA	cis-1,3-Dichloropropene	5	U		UG/KG	483539	1382635
100783	1738	NA	Dibromochloromethane	5	U		UG/KG	483539	1382635

SAMPLE NUMBER	BORING	DEPTH	ANALYTE	CONC	VALIDATION QUALIFIER	UNIT	STATE PLANNER COORDINATES	
100783	1738	NA	Ethylbenzene	5	U	UG/KG	483539	1382635
100783	1738	NA	Methylene chloride	12	B	UG/KG	483539	1382635
100783	1738	NA	Styrene	5	U	UG/KG	483539	1382635
100783	1738	NA	Tetrachlorethene	5	U	UG/KG	483539	1382635
100783	1738	NA	Toluene	5	U	UG/KG	483539	1382635
100783	1738	NA	Total xylenes	5	U	UG/KG	483539	1382635
100783	1738	NA	trans-1,3-Dichloropropene	5	U	UG/KG	483539	1382635
100783	1738	NA	Trichloroethene	5	U	UG/KG	483539	1382635
100783	1738	NA	Vinyl Acetate	10	U	UG/KG	483539	1382635
100783	1738	NA	Vinyl chloride	10	U	UG/KG	483539	1382635
100788	1738	5.0-5.5	Cation Exchange Capacity	3.12		MEQ/10	483539	1382635
100788	1738	5.0-5.5	Total Organic Carbon	3444		MG/KG	483539	1382635
100814	1738	29.5-30.0	Cation Exchange Capacity	1.4		MEQ/10	483539	1382635
100814	1738	29.5-30.0	Total Organic Carbon	6699		MG/KG	483539	1382635
100820	1736	0.0-0.5	1,1,1-Trichloroethane	6	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	1,1,2,2-Tetrachloroethane	6	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	1,1,2-Trichloroethane	6	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	1,1-Dichloroethane	6	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	1,1-Dichloroethene	6	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	1,2,4-Trichlorobenzene	390	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	1,2-Dichlorobenzene	390	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	1,2-Dichloroethane	6	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	1,2-Dichloroethylene	6	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	1,2-Dichloropropane	6	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	1,3-Dichlorobenzene	390	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	1,4-Dichlorobenzene	390	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	2,4,5-Trichlorophenol	1900	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	2,4,6-Trichlorophenol	390	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	2,4-Dichlorophenol	390	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	2,4-Dimethylphenol	390	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	2,4-Dinitrophenol	1900	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	2,4-Dinitrotoluene	390	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	2,6-Dinitrotoluene	390	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	2-Butanone	12.3	J	UG/KG	483334	1381000
100820	1736	0.0-0.5	2-Chloronaphthalene	390	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	2-Chlorophenol	390	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	2-Hexanone	12	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	2-Methylnaphthalene	390	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	2-Methylphenol	390	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	2-Nitroaniline	1900	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	2-Nitrophenol	390	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	3,3'-Dichlorobenzidine	770	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	3-Nitroaniline	1900	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	4,4'-DDD	20	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	4,4'-DDE	20	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	4,4'-DDT	20	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	4,6-Dinitro-2-methylphenol	1900	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	4-Bromophenyl phenyl ether	390	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	4-Chloro-3-methylphenol	390	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	4-Chloroaniline	390	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	4-Chlorophenylphenyl ether	390	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	4-Methyl-2-pentanone	12	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	4-Methylphenol	390	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	4-Nitroaniline	1900	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	4-Nitrophenol	1900	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	Acenaphthene	390	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	Acenaphthylene	390	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	Acetone	12	BJ	UG/KG	483334	1381000

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SAMPLE NUMBER	BORING	DEPTH	ANALYTE	CONC	VALIDATION QUALIFIER	UNIT	STATE PLANNER COORDINATES	
100820	1736	0.0-0.5	Aldrin	10	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	alpha-BHC	10	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	alpha-Chlordane	100	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	Aluminum	6580		MG/KG	483334	1381000
100820	1736	0.0-0.5	Anthracene	390	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	Antimony	7.5	UN	MG/KG	483334	1381000
100820	1736	0.0-0.5	Aroclor-1016	100	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	Aroclor-1221	100	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	Aroclor-1232	100	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	Aroclor-1242	100	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	Aroclor-1248	100	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	Aroclor-1254	200	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	Aroclor-1260	200	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	Arsenic	3.9	+N	MG/KG	483334	1381000
100820	1736	0.0-0.5	Barium	61.7		MG/KG	483334	1381000
100820	1736	0.0-0.5	Benzene	6	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	Benzo(a)anthracene	390	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	Benzo(a)pyrene	390	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	Benzo(b)fluoranthene	390	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	Benzo(g,h,i)perylene	390	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	Benzo(k)fluoranthene	390	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	Benzoic acid	1900	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	Benzyl alcohol	390	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	Beryllium	.5	U	MG/KG	483334	1381000
100820	1736	0.0-0.5	beta-BHC	10	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	bis(2-Chloroethoxy)methane	390	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	bis(2-Chloroethyl)ether	390	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	bis(2-Chloroisopropyl) ether	390	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	bis(2-Ethylhexyl) phthalate	390	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	Bromodichloromethane	6	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	Bromoform	6	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	Bromomethane	12	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	Butyl benzyl phthalate	390	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	Cadmium	.5	U	MG/KG	483334	1381000
100820	1736	0.0-0.5	Calcium	1540		MG/KG	483334	1381000
100820	1736	0.0-0.5	Carbon disulfide	6	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	Carbon Tetrachloride	6	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	Chlorobenzene	6	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	Chloroethane	12	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	Chloroform	6	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	Chloromethane	12	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	Chromium	10.4		MG/KG	483334	1381000
100820	1736	0.0-0.5	Chrysene	390	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	cis-1,3-Dichloropropene	6	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	Cobalt	10.5	B	MG/KG	483334	1381000
100820	1736	0.0-0.5	Copper	10.8		MG/KG	483334	1381000
100820	1736	0.0-0.5	Cyanide	.23	B	MG/KG	483334	1381000
100820	1736	0.0-0.5	delta-BHC	10	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	Di-n-butyl phthalate	390	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	Di-n-octyl phthalate	390	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	Dibenzo(a,h)anthracene	390	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	Dibenzofuran	390	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	Dibromochloromethane	6	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	Dieldrin	20	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	Diethyl phthalate	390	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	Dimethyl phthalate	390	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	Endosulfan II	20	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	Endosulfan sulfate	20	U	UG/KG	483334	1381000

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SAMPLE NUMBER	BORING	DEPTH	ANALYTE	CONC	VALIDATION QUALIFIER	UNIT	STATE PLANNER COORDINATES	
100820	1736	0.0-0.5	Endosulfan-I	10	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	Endrin	20	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	Endrin ketone	20	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	Ethylbenzene	6	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	Fluoranthene	390	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	Fluorene	390	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	gamma-BHC (Lindane)	10	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	gamma-Chlordane	100	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	Heptachlor	10	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	Heptachlor epoxide	10	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	Hexachlorobenzene	390	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	Hexachlorobutadiene	390	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	Hexachlorocyclopentadiene	390	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	Hexachloroethane	390	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	Indeno(1,2,3-cd)pyrene	390	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	Iron	11600		MG/KG	483334	1381000
100820	1736	0.0-0.5	Isophorone	390	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	Lead	14.6		MG/KG	483334	1381000
100820	1736	0.0-0.5	Magnesium	1270		MG/KG	483334	1381000
100820	1736	0.0-0.5	Manganese	648		MG/KG	483334	1381000
100820	1736	0.0-0.5	Mercury	.12	UN	MG/KG	483334	1381000
100820	1736	0.0-0.5	Methoxychlor	100	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	Methylene chloride	16	B	UG/KG	483334	1381000
100820	1736	0.0-0.5	Molybdenum	7.2		MG/KG	483334	1381000
100820	1736	0.0-0.5	N-Nitroso-di-n-propylamine	390	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	N-Nitrosodiphenylamine	390	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	Naphthalene	390	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	Nickel	15.7		MG/KG	483334	1381000
100820	1736	0.0-0.5	Nitrobenzene	390	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	Pentachlorophenol	1900	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	Phenanthrene	390	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	Phenol	390	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	Potassium	580	B	MG/KG	483334	1381000
100820	1736	0.0-0.5	Pyrene	100	J	UG/KG	483334	1381000
100820	1736	0.0-0.5	Selenium	.5	UN	MG/KG	483334	1381000
100820	1736	0.0-0.5	Silicon	686	*	MG/KG	483334	1381000
100820	1736	0.0-0.5	Silver	2.5	U	MG/KG	483334	1381000
100820	1736	0.0-0.5	Sodium	30.8	B	MG/KG	483334	1381000
100820	1736	0.0-0.5	Styrene	6	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	Tetrachlorethene	6	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	Thallium	.5	U	MG/KG	483334	1381000
100820	1736	0.0-0.5	Toluene	1	J	UG/KG	483334	1381000
100820	1736	0.0-0.5	Total xylenes	6	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	Toxaphene	200	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	trans-1,3-Dichloropropene	6	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	Trichloroethene	6	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	Vanadium	18.6		MG/KG	483334	1381000
100820	1736	0.0-0.5	Vinyl Acetate	12	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	Vinyl chloride	12	U	UG/KG	483334	1381000
100820	1736	0.0-0.5	Zinc	30.7		MG/KG	483334	1381000
100821	1736	FIELD/TRIP	1,1,1-Trichloroethane	5	U	UG/KG	483334	1381000
100821	1736	FIELD/TRIP	1,1,2,2-Tetrachloroethane	5	U	UG/KG	483334	1381000
100821	1736	FIELD/TRIP	1,1,2-Trichloroethane	5	U	UG/KG	483334	1381000
100821	1736	FIELD/TRIP	1,1-Dichloroethane	5	U	UG/KG	483334	1381000
100821	1736	FIELD/TRIP	1,1-Dichloroethene	5	U	UG/KG	483334	1381000
100821	1736	FIELD/TRIP	1,2-Dichloroethane	5	U	UG/KG	483334	1381000
100821	1736	FIELD/TRIP	1,2-Dichloroethylene	5	U	UG/KG	483334	1381000
100821	1736	FIELD/TRIP	1,2-Dichloropropane	5	U	UG/KG	483334	1381000

PT/2-93/WP/409196:NEWEWMPA.TAb(table from database)

SAMPLE NUMBER	BORING	DEPTH	ANALYTE	CONC	VALIDATION QUALIFIER	UNIT	STATE PLANNER COORDINATES	
100821	1736	FIELD/TRIP	2-Butanone	2	J	UG/KG	483334	1381000
100821	1736	FIELD/TRIP	2-Hexanone	10	U	UG/KG	483334	1381000
100821	1736	FIELD/TRIP	4-Methyl-2-pentanone	10	U	UG/KG	483334	1381000
100821	1736	FIELD/TRIP	Acetone	10	B	UG/KG	483334	1381000
100821	1736	FIELD/TRIP	Benzene	5	U	UG/KG	483334	1381000
100821	1736	FIELD/TRIP	Bromodichloromethane	5	U	UG/KG	483334	1381000
100821	1736	FIELD/TRIP	Bromoform	5	U	UG/KG	483334	1381000
100821	1736	FIELD/TRIP	Bromomethane	10	U	UG/KG	483334	1381000
100821	1736	FIELD/TRIP	Carbon disulfide	5	U	UG/KG	483334	1381000
100821	1736	FIELD/TRIP	Carbon Tetrachloride	5	U	UG/KG	483334	1381000
100821	1736	FIELD/TRIP	Chlorobenzene	5	U	UG/KG	483334	1381000
100821	1736	FIELD/TRIP	Chloroethane	10	U	UG/KG	483334	1381000
100821	1736	FIELD/TRIP	Chloroform	3	J	UG/KG	483334	1381000
100821	1736	FIELD/TRIP	Chloromethane	10	U	UG/KG	483334	1381000
100821	1736	FIELD/TRIP	cis-1,3-Dichloropropene	5	U	UG/KG	483334	1381000
100821	1736	FIELD/TRIP	Dibromochloromethane	5	U	UG/KG	483334	1381000
100821	1736	FIELD/TRIP	Ethylbenzene	5	U	UG/KG	483334	1381000
100821	1736	FIELD/TRIP	Methylene chloride	9	B	UG/KG	483334	1381000
100821	1736	FIELD/TRIP	Styrene	5	U	UG/KG	483334	1381000
100821	1736	FIELD/TRIP	Tetrachlorethene	5	U	UG/KG	483334	1381000
100821	1736	FIELD/TRIP	Toluene	5	U	UG/KG	483334	1381000
100821	1736	FIELD/TRIP	Total xylenes	5	U	UG/KG	483334	1381000
100821	1736	FIELD/TRIP	trans-1,3-Dichloropropene	5	U	UG/KG	483334	1381000
100821	1736	FIELD/TRIP	Trichloroethene	5	U	UG/KG	483334	1381000
100821	1736	FIELD/TRIP	Vinyl Acetate	10	U	UG/KG	483334	1381000
100821	1736	FIELD/TRIP	Vinyl chloride	10	U	UG/KG	483334	1381000
100841	1734	0.0-0.5	1,1,1-Trichloroethane	6	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	1,1,2,2-Tetrachloroethane	6	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	1,1,2-Trichloroethane	6	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	1,1-Dichloroethane	6	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	1,1-Dichloroethene	6	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	1,2,4-Trichlorobenzene	430	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	1,2-Dichlorobenzene	430	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	1,2-Dichloroethane	6	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	1,2-Dichloroethylene	6	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	1,2-Dichloropropane	6	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	1,3-Dichlorobenzene	430	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	1,4-Dichlorobenzene	430	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	2,4,5-Trichlorophenol	2100	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	2,4,6-Trichlorophenol	430	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	2,4-Dichlorophenol	430	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	2,4-Dimethylphenol	430	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	2,4-Dinitrophenol	2100	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	2,4-Dinitrotoluene	430	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	2,6-Dinitrotoluene	430	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	2-Butanone	13	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	2-Chloronaphthalene	430	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	2-Chlorophenol	430	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	2-Hexanone	13	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	2-Methylnaphthalene	430	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	2-Methylphenol	430	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	2-Nitroaniline	2100	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	2-Nitrophenol	430	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	3,3'-Dichlorobenzidine	860	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	3-Nitroaniline	2100	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	4,4'-DDD	20	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	4,4'-DDE	20	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	4,4'-DDT	20	U	UG/KG	483300	1380000

PT/2-93/WP/409196:NEWEWMPA.TAb(table from database)

SAMPLE NUMBER	BORING	DEPTH	ANALYTE	CONC	VALIDATION QUALIFIER	UNIT	STATE PLANNER COORDINATES	
100841	1734	0.0-0.5	4,6-Dinitro-2-methylphenol	2100	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	4-Bromophenyl phenyl ether	430	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	4-Chloro-3-methylphenol	430	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	4-Chloroaniline	430	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	4-Chlorophenylphenyl ether	430	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	4-Methyl-2-pentanone	2	BJ	UG/KG	483300	1380000
100841	1734	0.0-0.5	4-Methylphenol	430	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	4-Nitroaniline	2100	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	4-Nitrophenol	2100	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	Acenaphthene	430	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	Acenaphthylene	430	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	Acetone	5	BJ	UG/KG	483300	1380000
100841	1734	0.0-0.5	Aldrin	10	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	alpha-BHC	10	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	alpha-Chlordane	100	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	Aluminum	9800		MG/KG	483300	1380000
100841	1734	0.0-0.5	Anthracene	430	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	Antimony	7.6	UN	MG/KG	483300	1380000
100841	1734	0.0-0.5	Aroclor-1016	100	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	Aroclor-1221	100	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	Aroclor-1232	100	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	Aroclor-1242	100	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	Aroclor-1248	100	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	Aroclor-1254	200	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	Aroclor-1260	200	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	Arsenic	5.8	SN	MG/KG	483300	1380000
100841	1734	0.0-0.5	Barium	107		MG/KG	483300	1380000
100841	1734	0.0-0.5	Benzene	6	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	Benzo(a)anthracene	430	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	Benzo(a)pyrene	430	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	Benzo(b)fluoranthene	430	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	Benzo(g,h,i)perylene	430	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	Benzo(k)fluoranthene	430	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	Benzoic acid	2100	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	Benzyl alcohol	430	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	Beryllium	.75	B	MG/KG	483300	1380000
100841	1734	0.0-0.5	beta-BHC	10	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	bis(2-Chloroethoxy)methane	430	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	bis(2-Chloroethyl)ether	430	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	bis(2-Chloroisopropyl) ether	430	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	bis(2-Ethylhexyl) phthalate	430	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	Bromodichloromethane	6	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	Bromoform	6	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	Bromomethane	13	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	Butyl benzyl phthalate	430	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	Cadmium	.51	B	MG/KG	483300	1380000
100841	1734	0.0-0.5	Calcium	2010		MG/KG	483300	1380000
100841	1734	0.0-0.5	Carbon disulfide	6	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	Carbon Tetrachloride	6	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	Chlorobenzene	6	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	Chloroethane	13	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	Chloroform	6	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	Chloromethane	13	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	Chromium	15.3		MG/KG	483300	1380000
100841	1734	0.0-0.5	Chrysene	430	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	cis-1,3-Dichloropropene	6	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	Cobalt	17.9		MG/KG	483300	1380000
100841	1734	0.0-0.5	Copper	12.8		MG/KG	483300	1380000

PT/2-93/WP/409196:NEWEWMFA.TAb(table from database)

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SAMPLE NUMBER	BORING	DEPTH	ANALYTE	CONC	VALIDATION QUALIFIER	UNIT	STATE PLANNER COORDINATES	
100841	1734	0.0-0.5	Cyanide	.13	U	MG/KG	483300	1380000
100841	1734	0.0-0.5	delta-BHC	10	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	Di-n-butyl phthalate	430	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	Di-n-octyl phthalate	430	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	Dibenzo(a,h)anthracene	430	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	Dibenzofuran	430	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	Dibromochloromethane	6	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	Dieldrin	20	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	Diethyl phthalate	430	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	Dimethyl phthalate	430	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	Endosulfan II	20	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	Endosulfan sulfate	20	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	Endosulfan-I	10	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	Endrin	20	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	Endrin ketone	20	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	Ethylbenzene	6	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	Fluoranthene	430	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	Fluorene	430	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	gamma-BHC (Lindane)	10	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	gamma-Chlordane	100	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	Heptachlor	10	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	Heptachlor epoxide	10	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	Hexachlorobenzene	430	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	Hexachlorobutadiene	430	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	Hexachlorocyclopentadiene	430	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	Hexachloroethane	430	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	Indeno(1,2,3-cd)pyrene	430	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	Iron	17300		MG/KG	483300	1380000
100841	1734	0.0-0.5	Isophorone	430	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	Lead	17.3		MG/KG	483300	1380000
100841	1734	0.0-0.5	Magnesium	1790		MG/KG	483300	1380000
100841	1734	0.0-0.5	Manganese	1470		MG/KG	483300	1380000
100841	1734	0.0-0.5	Mercury	.13	UN	MG/KG	483300	1380000
100841	1734	0.0-0.5	Methoxychlor	100	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	Methylene chloride	9	B	UG/KG	483300	1380000
100841	1734	0.0-0.5	Molybdenum	10.8		MG/KG	483300	1380000
100841	1734	0.0-0.5	N-Nitroso-di-n-propylamine	430	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	N-Nitrosodiphenylamine	430	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	Naphthalene	430	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	Nickel	19.5		MG/KG	483300	1380000
100841	1734	0.0-0.5	Nitrobenzene	430	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	Pentachlorophenol	2100	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	Phenanthrene	430	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	Phenol	430	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	Potassium	826	B	MG/KG	483300	1380000
100841	1734	0.0-0.5	Pyrene	430	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	Selenium	.5	UN	MG/KG	483300	1380000
100841	1734	0.0-0.5	Silicon	902	*	MG/KG	483300	1380000
100841	1734	0.0-0.5	Silver	2.5	U	MG/KG	483300	1380000
100841	1734	0.0-0.5	Sodium	32.9	B	MG/KG	483300	1380000
100841	1734	0.0-0.5	Styrene	6	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	Tetrachlorethene	6	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	Thallium	.5	U	MG/KG	483300	1380000
100841	1734	0.0-0.5	Toluene	2	J	UG/KG	483300	1380000
100841	1734	0.0-0.5	Total xylenes	6	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	Toxaphene	200	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	trans-1,3-Dichloropropene	6	U	UG/KG	483300	1380000
100841	1734	0.0-0.5	Trichloroethene	6	U	UG/KG	483300	1380000

PT/2-93/WP/409196:NEWEWMFA.TAb(table from database)

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SAMPLE NUMBER	BORING	DEPTH	ANALYTE	CONC	VALIDATION QUALIFIER		UNIT	STATE PLANNER COORDINATES	
100841	1734	0.0-0.5	Vanadium	26.2			MG/KG	483300	1380000
100841	1734	0.0-0.5	Vinyl Acetate	13	U		UG/KG	483300	1380000
100841	1734	0.0-0.5	Vinyl chloride	13	U		UG/KG	483300	1380000
100841	1734	0.0-0.5	Zinc	40.8			MG/KG	483300	1380000
100841	1734	0.0-0.5	1,1,1-Trichloroethane	6	U	R	UG/KG	483300	1380000
100841	1734	0.0-0.5	1,1,2,2-Tetrachloroethane	6	U	R	UG/KG	483300	1380000
100841	1734	0.0-0.5	1,1,2-Trichloroethane	6	U	R	UG/KG	483300	1380000
100841	1734	0.0-0.5	1,1-Dichloroethane	6	U	R	UG/KG	483300	1380000
100841	1734	0.0-0.5	1,1-Dichloroethene	6	U	R	UG/KG	483300	1380000
100841	1734	0.0-0.5	1,2-Dichloroethane	6	U	R	UG/KG	483300	1380000
100841	1734	0.0-0.5	1,2-Dichloroethylene	6	U	R	UG/KG	483300	1380000
100841	1734	0.0-0.5	1,2-Dichloropropane	6	U	R	UG/KG	483300	1380000
100841	1734	0.0-0.5	2-Butanone	29		R	UG/KG	483300	1380000
100841	1734	0.0-0.5	2-Hexanone	13	BJ	R	UG/KG	483300	1380000
100841	1734	0.0-0.5	4-Methyl-2-pentanone	27		R	UG/KG	483300	1380000
100841	1734	0.0-0.5	Acetone	58	B	R	UG/KG	483300	1380000
100841	1734	0.0-0.5	Benzene	6	U	R	UG/KG	483300	1380000
100841	1734	0.0-0.5	Bromodichloromethane	6	U	R	UG/KG	483300	1380000
100841	1734	0.0-0.5	Bromoform	6	U	R	UG/KG	483300	1380000
100841	1734	0.0-0.5	Bromomethane	13	U	R	UG/KG	483300	1380000
100841	1734	0.0-0.5	Carbon disulfide	6	U	R	UG/KG	483300	1380000
100841	1734	0.0-0.5	Carbon Tetrachloride	6	U	R	UG/KG	483300	1380000
100841	1734	0.0-0.5	Chlorobenzene	6	U	R	UG/KG	483300	1380000
100841	1734	0.0-0.5	Chloroethane	13	U	R	UG/KG	483300	1380000
100841	1734	0.0-0.5	Chloroform	6	U	R	UG/KG	483300	1380000
100841	1734	0.0-0.5	Chloromethane	13	U	R	UG/KG	483300	1380000
100841	1734	0.0-0.5	cis-1,3-Dichloropropene	6	U	R	UG/KG	483300	1380000
100841	1734	0.0-0.5	Dibromochloromethane	6	U	R	UG/KG	483300	1380000
100841	1734	0.0-0.5	Ethylbenzene	6	U	R	UG/KG	483300	1380000
100841	1734	0.0-0.5	Methylene chloride	30	B	R	UG/KG	483300	1380000
100841	1734	0.0-0.5	Styrene	6	U	R	UG/KG	483300	1380000
100841	1734	0.0-0.5	Tetrachlorethene	6	U	R	UG/KG	483300	1380000
100841	1734	0.0-0.5	Toluene	3	J	R	UG/KG	483300	1380000
100841	1734	0.0-0.5	Total xylenes	6	U	R	UG/KG	483300	1380000
100841	1734	0.0-0.5	trans-1,3-Dichloropropene	6	U	R	UG/KG	483300	1380000
100841	1734	0.0-0.5	Trichloroethene	6	U	R	UG/KG	483300	1380000
100841	1734	0.0-0.5	Vinyl Acetate	13	U	R	UG/KG	483300	1380000
100841	1734	0.0-0.5	Vinyl chloride	13	U	R	UG/KG	483300	1380000
100842	1734	TRIP/FIELD	1,1,1-Trichloroethane	5	U		UG/KG	483300	1380000
100842	1734	TRIP/FIELD	1,1,2,2-Tetrachloroethane	5	U		UG/KG	483300	1380000
100842	1734	TRIP/FIELD	1,1,2-Trichloroethane	5	U		UG/KG	483300	1380000
100842	1734	TRIP/FIELD	1,1-Dichloroethane	5	U		UG/KG	483300	1380000
100842	1734	TRIP/FIELD	1,1-Dichloroethene	5	U		UG/KG	483300	1380000
100842	1734	TRIP/FIELD	1,2-Dichloroethane	5	U		UG/KG	483300	1380000
100842	1734	TRIP/FIELD	1,2-Dichloroethylene	5	U		UG/KG	483300	1380000
100842	1734	TRIP/FIELD	1,2-Dichloropropane	5	U		UG/KG	483300	1380000
100842	1734	TRIP/FIELD	2-Butanone	10	U		UG/KG	483300	1380000
100842	1734	TRIP/FIELD	2-Hexanone	10	U		UG/KG	483300	1380000
100842	1734	TRIP/FIELD	4-Methyl-2-pentanone	10	U		UG/KG	483300	1380000
100842	1734	TRIP/FIELD	Acetone	10	U		UG/KG	483300	1380000
100842	1734	TRIP/FIELD	Benzene	5	U		UG/KG	483300	1380000
100842	1734	TRIP/FIELD	Bromodichloromethane	5	U		UG/KG	483300	1380000
100842	1734	TRIP/FIELD	Bromoform	5	U		UG/KG	483300	1380000
100842	1734	TRIP/FIELD	Bromomethane	10	U		UG/KG	483300	1380000
100842	1734	TRIP/FIELD	Carbon disulfide	5	U		UG/KG	483300	1380000
100842	1734	TRIP/FIELD	Carbon Tetrachloride	5	U		UG/KG	483300	1380000
100842	1734	TRIP/FIELD	Chlorobenzene	5	U		UG/KG	483300	1380000
100842	1734	TRIP/FIELD	Chloroethane	10	U		UG/KG	483300	1380000

PT/2-93/WP/409196:NEWEWMPA.TAb(table from database)

000209

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SAMPLE NUMBER	BORING	DEPTH	ANALYTE	CONC	VALIDATION QUALIFIER	UNIT	STATE PLANNER COORDINATES	
100842	1734	TRIP/FIELD	Chloroform	5	J	UG/KG	483300	1380000
100842	1734	TRIP/FIELD	Chloromethane	10	U	UG/KG	483300	1380000
100842	1734	TRIP/FIELD	cis-1,3-Dichloropropene	5	U	UG/KG	483300	1380000
100842	1734	TRIP/FIELD	Dibromochloromethane	5	U	UG/KG	483300	1380000
100842	1734	TRIP/FIELD	Ethylbenzene	5	U	UG/KG	483300	1380000
100842	1734	TRIP/FIELD	Methylene chloride	5	BJ	UG/KG	483300	1380000
100842	1734	TRIP/FIELD	Styrene	5	U	UG/KG	483300	1380000
100842	1734	TRIP/FIELD	Tetrachlorethene	5	U	UG/KG	483300	1380000
100842	1734	TRIP/FIELD	Toluene	5	U	UG/KG	483300	1380000
100842	1734	TRIP/FIELD	Total xylenes	5	U	UG/KG	483300	1380000
100842	1734	TRIP/FIELD	trans-1,3-Dichloropropene	5	U	UG/KG	483300	1380000
100842	1734	TRIP/FIELD	Trichloroethene	5	U	UG/KG	483300	1380000
100842	1734	TRIP/FIELD	Vinyl Acetate	10	U	UG/KG	483300	1380000
100842	1734	TRIP/FIELD	Vinyl chloride	10	U	UG/KG	483300	1380000
100845	1734	4.5-5.0	Cation Exchange Capacity	2.93		MEQ/10	483300	1380000
100845	1734	4.5-5.0	Total Organic Carbon	3791		MG/KG	483300	1380000
100865	1730	0.0-0.5	1,1,1-Trichloroethane	6	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	1,1,2,2-Tetrachloroethane	6	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	1,1,2-Trichloroethane	6	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	1,1-Dichloroethane	6	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	1,1-Dichloroethene	6	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	1,2,4-Trichlorobenzene	420	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	1,2-Dichlorobenzene	420	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	1,2-Dichloroethane	6	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	1,2-Dichloroethylene	6	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	1,2-Dichloropropane	6	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	1,3-Dichlorobenzene	420	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	1,4-Dichlorobenzene	420	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	2,4,5-Trichlorophenol	2100	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	2,4,6-Trichlorophenol	420	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	2,4-Dichlorophenol	420	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	2,4-Dimethylphenol	420	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	2,4-Dinitrophenol	2100	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	2,4-Dinitrotoluene	420	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	2,6-Dinitrotoluene	420	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	2-Butanone	13	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	2-Chloronaphthalene	420	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	2-Chlorophenol	420	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	2-Hexanone	13	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	2-Methylnaphthalene	420	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	2-Methylphenol	420	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	2-Nitroaniline	2100	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	2-Nitrophenol	420	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	3,3'-Dichlorobenzidine	850	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	3-Nitroaniline	2100	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	4,4'-DDD	21	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	4,4'-DDE	21	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	4,4'-DDT	21	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	4,6-Dinitro-2-methylphenol	2100	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	4-Bromophenyl phenyl ether	420	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	4-Chloro-3-methylphenol	420	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	4-Chloroaniline	420	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	4-Chlorophenylphenyl ether	420	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	4-Methyl-2-pentanone	13	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	4-Methylphenol	420	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	4-Nitroaniline	2100	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	4-Nitrophenol	2100	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	Acenaphthene	420	U	UG/KG	483300	1379000

PT/2-93/WP/409196:NBWBWMPA.TAb(table from database)

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SAMPLE NUMBER	BORING	DEPTH	ANALYTE	CONC	VALIDATION QUALIFIER	UNIT	STATE PLANNER COORDINATES	
100865	1730	0.0-0.5	Acenaphthylene	420	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	Acetone	6	BJ	UG/KG	483300	1379000
100865	1730	0.0-0.5	Aldrin	11	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	alpha-BHC	11	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	alpha-Chlordane	110	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	Aluminum	8480		MG/KG	483300	1379000
100865	1730	0.0-0.5	Anthracene	420	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	Antimony	7.7	UN	MG/KG	483300	1379000
100865	1730	0.0-0.5	Aroclor-1016	110	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	Aroclor-1221	110	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	Aroclor-1232	110	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	Aroclor-1242	110	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	Aroclor-1248	110	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	Aroclor-1254	210	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	Aroclor-1260	210	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	Arsenic	3.2	+N	MG/KG	483300	1379000
100865	1730	0.0-0.5	Barium	94.7		MG/KG	483300	1379000
100865	1730	0.0-0.5	Benzene	6	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	Benzo(a)anthracene	420	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	Benzo(a)pyrene	420	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	Benzo(b)fluoranthene	420	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	Benzo(g,h,i)perylene	420	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	Benzo(k)fluoranthene	420	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	Benzoic acid	2100	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	Benzyl alcohol	420	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	Beryllium	.64	B	MG/KG	483300	1379000
100865	1730	0.0-0.5	beta-BHC	11	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	bis(2-Chloroethoxy)methane	420	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	bis(2-Chloroethyl)ether	420	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	bis(2-Chloroisopropyl) ether	420	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	bis(2-Ethylhexyl) phthalate	6	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	Bromodichloromethane	6	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	Bromoform	13	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	Bromomethane	420	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	Butyl benzyl phthalate	.51	U	MG/KG	483300	1379000
100865	1730	0.0-0.5	Cadmium	3430		MG/KG	483300	1379000
100865	1730	0.0-0.5	Calcium	6	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	Carbon disulfide	6	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	Carbon Tetrachloride	6	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	Chlorobenzene	13	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	Chloroethane	6	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	Chloroform	13	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	Chloromethane	13.6		MG/KG	483300	1379000
100865	1730	0.0-0.5	Chromium	420	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	Chrysene	6	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	cis-1,3-Dichloropropene	8.6	B	MG/KG	483300	1379000
100865	1730	0.0-0.5	Cobalt	14.9		MG/KG	483300	1379000
100865	1730	0.0-0.5	Copper	1.7		MG/KG	483300	1379000
100865	1730	0.0-0.5	Cyanide	11	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	delta-BHC	420	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	Di-n-butyl phthalate	420	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	Di-n-octyl phthalate	420	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	Dibenzo(a,h)anthracene	420	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	Dibenzofuran	6	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	Dibromochloromethane	21	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	Dieldrin	420	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	Diethyl phthalate	420	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	Dimethyl phthalate	420	U	UG/KG	483300	1379000

PT/2-93/WP/409196:NEWEWMPA.TAb(table from database)

000211

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SAMPLE NUMBER	BORING	DEPTH	ANALYTE	CONC	VALIDATION QUALIFIER	UNIT	STATE PLANNER COORDINATES	
100865	1730	0.0-0.5	Endosulfan II	21	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	Endosulfan sulfate	21	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	Endosulfan-I	11	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	Endrin	21	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	Endrin ketone	21	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	Ethylbenzene	6	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	Fluoranthene	420	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	Fluorene	420	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	gamma-BHC (Lindane)	11	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	gamma-Chlordane	110	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	Heptachlor	11	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	Heptachlor epoxide	11	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	Hexachlorobenzene	420	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	Hexachlorobutadiene	420	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	Hexachlorocyclopentadiene	420	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	Hexachloroethane	420	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	Indeno(1,2,3-cd)pyrene	420	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	Iron	13700		MG/KG	483300	1379000
100865	1730	0.0-0.5	Isophorone	420	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	Lead	17.3		MG/KG	483300	1379000
100865	1730	0.0-0.5	Magnesium	2000		MG/KG	483300	1379000
100865	1730	0.0-0.5	Manganese	531		MG/KG	483300	1379000
100865	1730	0.0-0.5	Mercury	.13	UN	MG/KG	483300	1379000
100865	1730	0.0-0.5	Methoxychlor	110	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	Methylene chloride	21	B	UG/KG	483300	1379000
100865	1730	0.0-0.5	Molybdenum	8.8		MG/KG	483300	1379000
100865	1730	0.0-0.5	N-Nitroso-di-n-propylamine	420	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	N-Nitrosodiphenylamine	420	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	Naphthalene	420	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	Nickel	17.9		MG/KG	483300	1379000
100865	1730	0.0-0.5	Nitrobenzene	420	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	Pentachlorophenol	2100	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	Phenanthrene	420	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	Phenol	420	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	Potassium	1010	B	MG/KG	483300	1379000
100865	1730	0.0-0.5	Pyrene	420	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	Selenium	.52	UN	MG/KG	483300	1379000
100865	1730	0.0-0.5	Silicon	623	*	MG/KG	483300	1379000
100865	1730	0.0-0.5	Silver	2.6	U	MG/KG	483300	1379000
100865	1730	0.0-0.5	Sodium	34.6	B	MG/KG	483300	1379000
100865	1730	0.0-0.5	Styrene	6	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	Tetrachloroethene	6	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	Thallium	.56	B	MG/KG	483300	1379000
100865	1730	0.0-0.5	Toluene	2	J	UG/KG	483300	1379000
100865	1730	0.0-0.5	Total xylenes	6	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	Toxaphene	210	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	trans-1,3-Dichloropropene	6	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	Trichloroethene	6	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	Vanadium	20.1		MG/KG	483300	1379000
100865	1730	0.0-0.5	Vinyl Acetate	13	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	Vinyl chloride	13	U	UG/KG	483300	1379000
100865	1730	0.0-0.5	Zinc	54.2		MG/KG	483300	1379000
100866	1730	TRIP/ FIELD	1,1,1-Trichloroethane	5	U	UG/KG	483300	1379000
100866	1730	TRIP/ FIELD	1,1,2,2-Tetrachloroethane	5	U	UG/KG	483300	1379000
100866	1730	TRIP/ FIELD	1,1,2-Trichloroethane	5	U	UG/KG	483300	1379000
100866	1730	TRIP/ FIELD	1,1-Dichloroethane	5	U	UG/KG	483300	1379000
100866	1730	TRIP/ FIELD	1,1-Dichloroethene	5	U	UG/KG	483300	1379000
100866	1730	TRIP/ FIELD	1,2-Dichloroethane	5	U	UG/KG	483300	1379000

PT/2-93/WP/409196:NEWEWMPA.TAb(table from database)

SAMPLE NUMBER	BORING	DEPTH	ANALYTE	CONC	VALIDATION QUALIFIER	UNIT	STATE PLANNER COORDINATES	
100866	1730	TRIP/ FIELD	1,2-Dichloroethylene	5	U	UG/KG	483300	1379000
100866	1730	TRIP/ FIELD	1,2-Dichloropropane	5	U	UG/KG	483300	1379000
100866	1730	TRIP/ FIELD	2-Butanone	10	U	UG/KG	483300	1379000
100866	1730	TRIP/ FIELD	2-Hexanone	10	U	UG/KG	483300	1379000
100866	1730	TRIP/ FIELD	4-Methyl-2-pentanone	10	U	UG/KG	483300	1379000
100866	1730	TRIP/ FIELD	Acetone	10	BJ	UG/KG	483300	1379000
100866	1730	TRIP/ FIELD	Benzene	5	U	UG/KG	483300	1379000
100866	1730	TRIP/ FIELD	Bromodichloromethane	5	U	UG/KG	483300	1379000
100866	1730	TRIP/ FIELD	Bromoform	5	U	UG/KG	483300	1379000
100866	1730	TRIP/ FIELD	Bromomethane	10	U	UG/KG	483300	1379000
100866	1730	TRIP/ FIELD	Carbon disulfide	5	U	UG/KG	483300	1379000
100866	1730	TRIP/ FIELD	Carbon Tetrachloride	5	U	UG/KG	483300	1379000
100866	1730	TRIP/ FIELD	Chlorobenzene	5	U	UG/KG	483300	1379000
100866	1730	TRIP/ FIELD	Chloroethane	10	U	UG/KG	483300	1379000
100866	1730	TRIP/ FIELD	Chloroform	5	J	UG/KG	483300	1379000
100866	1730	TRIP/ FIELD	Chloromethane	10	U	UG/KG	483300	1379000
100866	1730	TRIP/ FIELD	cis-1,3-Dichloropropene	5	U	UG/KG	483300	1379000
100866	1730	TRIP/ FIELD	Dibromochloromethane	5	U	UG/KG	483300	1379000
100866	1730	TRIP/ FIELD	Ethylbenzene	5	U	UG/KG	483300	1379000
100866	1730	TRIP/ FIELD	Methylene chloride	5	BJ	UG/KG	483300	1379000
100866	1730	TRIP/ FIELD	Styrene	5	U	UG/KG	483300	1379000
100866	1730	TRIP/ FIELD	Tetrachlorethene	5	U	UG/KG	483300	1379000
100866	1730	TRIP/ FIELD	Toluene	5	U	UG/KG	483300	1379000
100866	1730	TRIP/ FIELD	Total xylenes	5	U	UG/KG	483300	1379000
100866	1730	TRIP/ FIELD	trans-1,3-Dichloropropene	5	U	UG/KG	483300	1379000
100866	1730	TRIP/ FIELD	Trichloroethene	5	U	UG/KG	483300	1379000
100866	1730	TRIP/ FIELD	Vinyl Acetate	10	U	UG/KG	483300	1379000
100866	1730	TRIP/ FIELD	Vinyl chloride	10	U	UG/KG	483300	1379000
100881	1730	16.5-17.0	Cation Exchange Capacity	4.05		MEQ/10	483300	1379000
100881	1730	16.5-17.0	Total Organic Carbon	4399		MG/KG	483300	1379000
101236	1747	17.5'-18.0'	Cation Exchange Capacity	6.37		MEQ/10	477600	1382500
101236	1747	17.5'-18.0'	Total Organic Carbon	5404		MG/KG	477600	1382500
101244	1747	0.0'-0.5'	1,1,1-Trichloroethane	6	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	1,1,2,2-Tetrachloroethane	6	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	1,1,2-Trichloroethane	6	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	1,1-Dichloroethane	6	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	1,1-Dichloroethene	6	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	1,2,4-Trichlorobenzene	410	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	1,2-Dichlorobenzene	410	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	1,2-Dichloroethane	6	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	1,2-Dichloroethylene	6	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	1,2-Dichloropropane	6	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	1,3-Dichlorobenzene	410	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	1,4-Dichlorobenzene	410	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	2,4,5-Trichlorophenol	2000	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	2,4,6-Trichlorophenol	410	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	2,4-Dichlorophenol	410	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	2,4-Dimethylphenol	410	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	2,4-Dinitrophenol	2000	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	2,4-Dinitrotoluene	410	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	2,6-Dinitrotoluene	410	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	2-Butanone	12	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	2-Chloronaphthalene	410	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	2-Chlorophenol	410	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	2-Hexanone	12	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	2-Methylnaphthalene	410	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	2-Methylphenol	410	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	2-Nitroaniline	2000	U	UG/KG	477600	1382500

PT/2-93/WP/409196:NEWEWMPA.TAb(table from database)

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SAMPLE NUMBER	BORING	DEPTH	ANALYTE	CONC	VALIDATION QUALIFIER	UNIT	STATE PLANNER COORDINATES	
101244	1747	0.0'-0.5'	2-Nitrophenol	410	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	3,3'-Dichlorobenzidine	810	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	3-Nitroaniline	2000	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	4,4'-DDD	20	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	4,4'-DDE	20	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	4,4'-DDT	20	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	4,6-Dinitro-2-methylphenol	2000	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	4-Bromophenyl phenyl ether	410	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	4-Chloro-3-methylphenol	410	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	4-Chloroaniline	410	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	4-Chlorophenylphenyl ether	410	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	4-Methyl-2-pentanone	12	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	4-Methylphenol	410	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	4-Nitroaniline	2000	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	4-Nitrophenol	2000	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	Acenaphthene	410	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	Acenaphthylene	410	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	Acetone	12	J	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	Aldrin	10	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	alpha-BHC	10	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	alpha-Chlordane	100	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	Aluminum	7440		MG/KG	477600	1382500
101244	1747	0.0'-0.5'	Anthracene	410	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	Antimony	7.4	UN	MG/KG	477600	1382500
101244	1747	0.0'-0.5'	Aroclor-1016	100	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	Aroclor-1221	100	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	Aroclor-1232	100	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	Aroclor-1242	100	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	Aroclor-1248	100	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	Aroclor-1254	200	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	Aroclor-1260	200	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	Arsenic	3.6	B	MG/KG	477600	1382500
101244	1747	0.0'-0.5'	Barium	46.2	B	MG/KG	477600	1382500
101244	1747	0.0'-0.5'	Benzene	6	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	Benzo(a)anthracene	410	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	Benzo(a)pyrene	410	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	Benzo(b)fluoranthene	410	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	Benzo(g,h,i)perylene	410	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	Benzo(k)fluoranthene	410	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	Benzoic acid	2000	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	Benzyl alcohol	410	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	Beryllium	.49	U	MG/KG	477600	1382500
101244	1747	0.0'-0.5'	beta-BHC	10	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	bis(2-Chloroethoxy)methane	410	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	bis(2-Chloroethyl)ether	410	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	bis(2-Chloroisopropyl) ether	410	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	bis(2-Ethylhexyl) phthalate	410	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	Bromodichloromethane	6	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	Bromoform	6	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	Bromomethane	12	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	Butyl benzyl phthalate	410	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	Cadmium	.49	U	MG/KG	477600	1382500
101244	1747	0.0'-0.5'	Calcium	1260	E	MG/KG	477600	1382500
101244	1747	0.0'-0.5'	Carbon disulfide	6	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	Carbon Tetrachloride	6	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	Chlorobenzene	6	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	Chloroethane	12	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	Chloroform	6	U	UG/KG	477600	1382500

PT/2-93/WP/409196:NEWEWMPA.TAb(table from database)

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SAMPLE NUMBER	BORING	DEPTH	ANALYTE	CONC	VALIDATION QUALIFIER	UNIT	STATE PLANNER COORDINATES	
101244	1747	0.0'-0.5'	Chloromethane	12	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	Chromium	10.1		MG/KG	477600	1382500
101244	1747	0.0'-0.5'	Chrysene	410	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	cis-1,3-Dichloropropene	6	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	Cobalt	10.8	B	MG/KG	477600	1382500
101244	1747	0.0'-0.5'	Copper	9.6		MG/KG	477600	1382500
101244	1747	0.0'-0.5'	Cyanide	.35	B*	MG/KG	477600	1382500
101244	1747	0.0'-0.5'	delta-BHC	10	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	Di-n-butyl phthalate	410	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	Di-n-octyl phthalate	410	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	Dibenzo(a,h)anthracene	410	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	Dibenzofuran	410	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	Dibromochloromethane	6	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	Dieldrin	20	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	Diethyl phthalate	410	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	Dimethyl phthalate	410	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	Endosulfan II	20	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	Endosulfan sulfate	20	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	Endosulfan-I	10	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	Endrin	20	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	Endrin ketone	20	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	Ethylbenzene	6	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	Fluoranthene	410	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	Fluorene	410	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	gamma-BHC (Lindane)	10	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	gamma-Chlordane	100	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	Heptachlor	10	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	Heptachlor epoxide	10	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	Hexachlorobenzene	410	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	Hexachlorobutadiene	410	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	Hexachlorocyclopentadiene	410	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	Hexachloroethane	410	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	Indeno(1,2,3-cd)pyrene	410	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	Iron	12300		MG/KG	477600	1382500
101244	1747	0.0'-0.5'	Isophorone	410	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	Lead	14.6		MG/KG	477600	1382500
101244	1747	0.0'-0.5'	Magnesium	1460		MG/KG	477600	1382500
101244	1747	0.0'-0.5'	Manganese	530	N	MG/KG	477600	1382500
101244	1747	0.0'-0.5'	Mercury	.12	UN	MG/KG	477600	1382500
101244	1747	0.0'-0.5'	Methoxychlor	100	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	Methylene chloride	17	B	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	Molybdenum	8.2		MG/KG	477600	1382500
101244	1747	0.0'-0.5'	N-Nitroso-di-n-propylamine	410	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	N-Nitrosodiphenylamine	410	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	Naphthalene	410	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	Nickel	13		MG/KG	477600	1382500
101244	1747	0.0'-0.5'	Nitrobenzene	410	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	Pentachlorophenol	2000	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	pH	5.63		STANDA	477600	1382500
101244	1747	0.0'-0.5'	Phenanthrene	410	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	Phenol	410	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	Potassium	613	B	MG/KG	477600	1382500
101244	1747	0.0'-0.5'	Pyrene	410	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	Selenium	.48	U	MG/KG	477600	1382500
101244	1747	0.0'-0.5'	Silicon	490	*	MG/KG	477600	1382500
101244	1747	0.0'-0.5'	Silver	2.5	U	MG/KG	477600	1382500
101244	1747	0.0'-0.5'	Sodium	41.7	B	MG/KG	477600	1382500
101244	1747	0.0'-0.5'	Styrene	6	U	UG/KG	477600	1382500

PT/2-93/WP/409196:NEWEWMPA.TAb(table from database)

SAMPLE NUMBER	BORING	DEPTH	ANALYTE	CONC	VALIDATION QUALIFIER	UNIT	STATE PLANNER COORDINATES	
101244	1747	0.0'-0.5'	Tetrachlorethene	6	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	Thallium	.86	B	MG/KG	477600	1382500
101244	1747	0.0'-0.5'	Toluene	6	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	Total xylenes	6	BJ	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	Toxaphene	200	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	trans-1,3-Dichloropropene	6	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	Trichloroethene	6	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	Vanadium	18.1		MG/KG	477600	1382500
101244	1747	0.0'-0.5'	Vinyl Acetate	12	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	Vinyl chloride	12	U	UG/KG	477600	1382500
101244	1747	0.0'-0.5'	Zinc	34.1		MG/KG	477600	1382500
101251	1745	6 IN	1,1,1-Trichloroethane	6	U	UG/KG	477600	1382500
101251	1745	6 IN	1,1,2,2-Tetrachloroethane	6	U	UG/KG	477600	1382500
101251	1745	6 IN	1,1,2-Trichloroethane	6	U	UG/KG	477600	1382500
101251	1745	6 IN	1,1-Dichloroethane	6	U	UG/KG	477600	1382500
101251	1745	6 IN	1,1-Dichloroethene	6	U	UG/KG	477600	1382500
101251	1745	6 IN	1,2,4-Trichlorobenzene	400	U	UG/KG	477600	1382500
101251	1745	6 IN	1,2-Dichlorobenzene	400	U	UG/KG	477600	1382500
101251	1745	6 IN	1,2-Dichloroethane	6	U	UG/KG	477600	1382500
101251	1745	6 IN	1,2-Dichloroethylene	6	U	UG/KG	477600	1382500
101251	1745	6 IN	1,2-Dichloropropane	6	U	UG/KG	477600	1382500
101251	1745	6 IN	1,3-Dichlorobenzene	400	U	UG/KG	477600	1382500
101251	1745	6 IN	1,4-Dichlorobenzene	400	U	UG/KG	477600	1382500
101251	1745	6 IN	2,4,5-Trichlorophenol	2000	U	UG/KG	477600	1382500
101251	1745	6 IN	2,4,6-Trichlorophenol	400	U	UG/KG	477600	1382500
101251	1745	6 IN	2,4-Dichlorophenol	400	U	UG/KG	477600	1382500
101251	1745	6 IN	2,4-Dimethylphenol	400	U	UG/KG	477600	1382500
101251	1745	6 IN	2,4-Dinitrophenol	2000	U	UG/KG	477600	1382500
101251	1745	6 IN	2,4-Dinitrotoluene	400	U	UG/KG	477600	1382500
101251	1745	6 IN	2,6-Dinitrotoluene	400	U	UG/KG	477600	1382500
101251	1745	6 IN	2-Butanone	12	U	UG/KG	477600	1382500
101251	1745	6 IN	2-Chloronaphthalene	400	U	UG/KG	477600	1382500
101251	1745	6 IN	2-Chlorophenol	400	U	UG/KG	477600	1382500
101251	1745	6 IN	2-Hexanone	12	U	UG/KG	477600	1382500
101251	1745	6 IN	2-Methylnaphthalene	400	U	UG/KG	477600	1382500
101251	1745	6 IN	2-Methylphenol	400	U	UG/KG	477600	1382500
101251	1745	6 IN	2-Nitroaniline	2000	U	UG/KG	477600	1382500
101251	1745	6 IN	2-Nitrophenol	400	U	UG/KG	477600	1382500
101251	1745	6 IN	3,3'-Dichlorobenzidine	810	U	UG/KG	477600	1382500
101251	1745	6 IN	3-Nitroaniline	2000	U	UG/KG	477600	1382500
101251	1745	6 IN	4,4'-DDD	20	U	UG/KG	477600	1382500
101251	1745	6 IN	4,4'-DDE	20	U	UG/KG	477600	1382500
101251	1745	6 IN	4,4'-DDT	20	U	UG/KG	477600	1382500
101251	1745	6 IN	4,6-Dinitro-2-methylphenol	2000	U	UG/KG	477600	1382500
101251	1745	6 IN	4-Bromophenyl phenyl ether	400	U	UG/KG	477600	1382500
101251	1745	6 IN	4-Chloro-3-methylphenol	400	U	UG/KG	477600	1382500
101251	1745	6 IN	4-Chloroaniline	400	U	UG/KG	477600	1382500
101251	1745	6 IN	4-Chlorophenylphenyl ether	400	U	UG/KG	477600	1382500
101251	1745	6 IN	4-Methyl-2-pentanone	12	U	UG/KG	477600	1382500
101251	1745	6 IN	4-Methylphenol	400	U	UG/KG	477600	1382500
101251	1745	6 IN	4-Nitroaniline	2000	U	UG/KG	477600	1382500
101251	1745	6 IN	4-Nitrophenol	2000	U	UG/KG	477600	1382500
101251	1745	6 IN	Acenaphthene	400	U	UG/KG	477600	1382500
101251	1745	6 IN	Acenaphthylene	400	U	UG/KG	477600	1382500
101251	1745	6 IN	Acetone	12	BJ	UG/KG	477600	1382500
101251	1745	6 IN	Aldrin	9.8	U	UG/KG	477600	1382500
101251	1745	6 IN	alpha-BHC	9.8	U	UG/KG	477600	1382500
101251	1745	6 IN	alpha-Chlordane	98	U	UG/KG	477600	1382500

PT/2-93/WP/409196:NBWBWMFA.TAb(table from database)

000216

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SAMPLE NUMBER	BORING	DEPTH	ANALYTE	CONC	VALIDATION QUALIFIER	UNIT	STATE PLANNER COORDINATES	
101251	1745	6 IN	Aluminum	6690		MG/KG	477600	1382500
101251	1745	6 IN	Anthracene	400	U	UG/KG	477600	1382500
101251	1745	6 IN	Antimony	7.2	UN	MG/KG	477600	1382500
101251	1745	6 IN	Aroclor-1016	98	U	UG/KG	477600	1382500
101251	1745	6 IN	Aroclor-1221	98	U	UG/KG	477600	1382500
101251	1745	6 IN	Aroclor-1232	98	U	UG/KG	477600	1382500
101251	1745	6 IN	Aroclor-1242	98	U	UG/KG	477600	1382500
101251	1745	6 IN	Aroclor-1248	98	U	UG/KG	477600	1382500
101251	1745	6 IN	Aroclor-1254	200	U	UG/KG	477600	1382500
101251	1745	6 IN	Aroclor-1260	200	U	UG/KG	477600	1382500
101251	1745	6 IN	Arsenic	6.7	S	MG/KG	477600	1382500
101251	1745	6 IN	Barium	76.5		MG/KG	477600	1382500
101251	1745	6 IN	Benzene	6	U	UG/KG	477600	1382500
101251	1745	6 IN	Benzo(a)anthracene	400	U	UG/KG	477600	1382500
101251	1745	6 IN	Benzo(a)pyrene	400	U	UG/KG	477600	1382500
101251	1745	6 IN	Benzo(b)fluoranthene	400	U	UG/KG	477600	1382500
101251	1745	6 IN	Benzo(g,h,i)perylene	400	U	UG/KG	477600	1382500
101251	1745	6 IN	Benzo(k)fluoranthene	400	U	UG/KG	477600	1382500
101251	1745	6 IN	Benzoic acid	2000	U	UG/KG	477600	1382500
101251	1745	6 IN	Benzyl alcohol	400	U	UG/KG	477600	1382500
101251	1745	6 IN	Beryllium	.54	B	MG/KG	477600	1382500
101251	1745	6 IN	beta-BHC	9.8	U	UG/KG	477600	1382500
101251	1745	6 IN	bis(2-Chloroethoxy)methane	400	U	UG/KG	477600	1382500
101251	1745	6 IN	bis(2-Chloroethyl)ether	400	U	UG/KG	477600	1382500
101251	1745	6 IN	bis(2-Chloroisopropyl) ether	400	U	UG/KG	477600	1382500
101251	1745	6 IN	bis(2-Ethylhexyl) phthalate	400	U	UG/KG	477600	1382500
101251	1745	6 IN	Bromodichloromethane	6	U	UG/KG	477600	1382500
101251	1745	6 IN	Bromoform	6	U	UG/KG	477600	1382500
101251	1745	6 IN	Bromomethane	12	U	UG/KG	477600	1382500
101251	1745	6 IN	Butyl benzyl phthalate	400	U	UG/KG	477600	1382500
101251	1745	6 IN	Cadmium	.48	U	MG/KG	477600	1382500
101251	1745	6 IN	Calcium	1240	E	MG/KG	477600	1382500
101251	1745	6 IN	Carbon disulfide	6	U	UG/KG	477600	1382500
101251	1745	6 IN	Carbon Tetrachloride	6	U	UG/KG	477600	1382500
101251	1745	6 IN	Chlorobenzene	6	U	UG/KG	477600	1382500
101251	1745	6 IN	Chloroethane	12	U	UG/KG	477600	1382500
101251	1745	6 IN	Chloroform	6	U	UG/KG	477600	1382500
101251	1745	6 IN	Chloromethane	12	U	UG/KG	477600	1382500
101251	1745	6 IN	Chromium	10.7		MG/KG	477600	1382500
101251	1745	6 IN	Chrysene	400	U	UG/KG	477600	1382500
101251	1745	6 IN	cis-1,3-Dichloropropene	6	U	UG/KG	477600	1382500
101251	1745	6 IN	Cobalt	11.3	B	MG/KG	477600	1382500
101251	1745	6 IN	Copper	8.1		MG/KG	477600	1382500
101251	1745	6 IN	Cyanide	.28	B*	MG/KG	477600	1382500
101251	1745	6 IN	delta-BHC	9.8	U	UG/KG	477600	1382500
101251	1745	6 IN	Di-n-butyl phthalate	400	U	UG/KG	477600	1382500
101251	1745	6 IN	Di-n-octyl phthalate	400	U	UG/KG	477600	1382500
101251	1745	6 IN	Dibenzo(a,h)anthracene	400	U	UG/KG	477600	1382500
101251	1745	6 IN	Dibenzofuran	400	U	UG/KG	477600	1382500
101251	1745	6 IN	Dibromochloromethane	6	U	UG/KG	477600	1382500
101251	1745	6 IN	Dieldrin	20	U	UG/KG	477600	1382500
101251	1745	6 IN	Diethyl phthalate	400	U	UG/KG	477600	1382500
101251	1745	6 IN	Dimethyl phthalate	400	U	UG/KG	477600	1382500
101251	1745	6 IN	Endosulfan II	20	U	UG/KG	477600	1382500
101251	1745	6 IN	Endosulfan sulfate	20	U	UG/KG	477600	1382500
101251	1745	6 IN	Endosulfan-I	9.8	U	UG/KG	477600	1382500
101251	1745	6 IN	Endrin	20	U	UG/KG	477600	1382500
101251	1745	6 IN	Endrin ketone	20	U	UG/KG	477600	1382500

PT/2-93/WP/409196:NEWBWMPA.TAb(table from database)

SAMPLE NUMBER	BORING	DEPTH	ANALYTE	CONC	VALIDATION QUALIFIER	UNIT	STATE PLANNER COORDINATES	
101251	1745	6 IN	Ethylbenzene	6	U	UG/KG	477600	1382500
101251	1745	6 IN	Fluoranthene	400	U	UG/KG	477600	1382500
101251	1745	6 IN	Fluorene	400	U	UG/KG	477600	1382500
101251	1745	6 IN	gamma-BHC (Lindane)	9.8	U	UG/KG	477600	1382500
101251	1745	6 IN	gamma-Chlordane	98	U	UG/KG	477600	1382500
101251	1745	6 IN	Heptachlor	9.8	U	UG/KG	477600	1382500
101251	1745	6 IN	Heptachlor epoxide	9.8	U	UG/KG	477600	1382500
101251	1745	6 IN	Hexachlorobenzene	400	U	UG/KG	477600	1382500
101251	1745	6 IN	Hexachlorobutadiene	400	U	UG/KG	477600	1382500
101251	1745	6 IN	Hexachlorocyclopentadiene	400	U	UG/KG	477600	1382500
101251	1745	6 IN	Hexachloroethane	400	U	UG/KG	477600	1382500
101251	1745	6 IN	Indeno(1,2,3-cd)pyrene	400	U	UG/KG	477600	1382500
101251	1745	6 IN	Iron	13400		MG/KG	477600	1382500
101251	1745	6 IN	Isophorone	400	U	UG/KG	477600	1382500
101251	1745	6 IN	Lead	61.5		MG/KG	477600	1382500
101251	1745	6 IN	Magnesium	1140	B	MG/KG	477600	1382500
101251	1745	6 IN	Manganese	979	N	MG/KG	477600	1382500
101251	1745	6 IN	Mercury	.12	UN	MG/KG	477600	1382500
101251	1745	6 IN	Methoxychlor	98	U	UG/KG	477600	1382500
101251	1745	6 IN	Methylene chloride	6	BJ	UG/KG	477600	1382500
101251	1745	6 IN	Molybdenum	8.1		MG/KG	477600	1382500
101251	1745	6 IN	N-Nitroso-di-n-propylamine	400	U	UG/KG	477600	1382500
101251	1745	6 IN	N-Nitrosodiphenylamine	400	U	UG/KG	477600	1382500
101251	1745	6 IN	Naphthalene	400	U	UG/KG	477600	1382500
101251	1745	6 IN	Nickel	12.1		MG/KG	477600	1382500
101251	1745	6 IN	Nitrobenzene	400	U	UG/KG	477600	1382500
101251	1745	6 IN	Pentachlorophenol	2000	U	UG/KG	477600	1382500
101251	1745	6 IN	pH	5.79		STANDA	477600	1382500
101251	1745	6 IN	Phenanthrene	400	U	UG/KG	477600	1382500
101251	1745	6 IN	Phenol	400	U	UG/KG	477600	1382500
101251	1745	6 IN	Potassium	268	B	MG/KG	477600	1382500
101251	1745	6 IN	Pyrene	400	U	UG/KG	477600	1382500
101251	1745	6 IN	Selenium	.49	U	MG/KG	477600	1382500
101251	1745	6 IN	Silicon	517	*	MG/KG	477600	1382500
101251	1745	6 IN	Silver	2.4	U	MG/KG	477600	1382500
101251	1745	6 IN	Sodium	50.7	B	MG/KG	477600	1382500
101251	1745	6 IN	Styrene	6	U	UG/KG	477600	1382500
101251	1745	6 IN	Tetrachlorethene	6	U	UG/KG	477600	1382500
101251	1745	6 IN	Thallium	.49	U	MG/KG	477600	1382500
101251	1745	6 IN	Toluene	6	U	UG/KG	477600	1382500
101251	1745	6 IN	Total xylenes	6	U	UG/KG	477600	1382500
101251	1745	6 IN	Toxaphene	200	U	UG/KG	477600	1382500
101251	1745	6 IN	trans-1,3-Dichloropropene	6	U	UG/KG	477600	1382500
101251	1745	6 IN	Trichloroethene	6	U	UG/KG	477600	1382500
101251	1745	6 IN	Vanadium	22.4		MG/KG	477600	1382500
101251	1745	6 IN	Vinyl Acetate	12	U	UG/KG	477600	1382500
101251	1745	6 IN	Vinyl chloride	12	U	UG/KG	477600	1382500
101251	1745	6 IN	Zinc	27.6		MG/KG	477600	1382500
101279	1745	26.5-27	Cation Exchange Capacity	.42		MEQ/10	478500	1382000
101279	1745	26.5-27	Total Organic Carbon	1641		MG/KG	478500	1382000
101282	1743	6 IN	1,1,1-Trichloroethane	6	U	UG/KG	479100	1383000
101282	1743	6 IN	1,1,2,2-Tetrachloroethane	6	U	UG/KG	479100	1383000
101282	1743	6 IN	1,1,2-Trichloroethane	6	U	UG/KG	479100	1383000
101282	1743	6 IN	1,1-Dichloroethane	6	U	UG/KG	479100	1383000
101282	1743	6 IN	1,1-Dichloroethene	6	U	UG/KG	479100	1383000
101282	1743	6 IN	1,2,4-Trichlorobenzene	400	U	UG/KG	479100	1383000
101282	1743	6 IN	1,2-Dichlorobenzene	400	U	UG/KG	479100	1383000
101282	1743	6 IN	1,2-Dichloroethane	6	U	UG/KG	479100	1383000

PT/2-93/WP/409196:NEWEWMFA.TAb(table from database)

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SAMPLE NUMBER	BORING	DEPTH	ANALYTE	CONC	VALIDATION QUALIFIER	UNIT	STATE PLANNER COORDINATES	
101282	1743	6 IN	1,2-Dichloroethylene	6	U	UG/KG	479100	1383000
101282	1743	6 IN	1,2-Dichloropropane	6	U	UG/KG	479100	1383000
101282	1743	6 IN	1,3-Dichlorobenzene	400	U	UG/KG	479100	1383000
101282	1743	6 IN	1,4-Dichlorobenzene	400	U	UG/KG	479100	1383000
101282	1743	6 IN	2,4,5-Trichlorophenol	1900	U	UG/KG	479100	1383000
101282	1743	6 IN	2,4,6-Trichlorophenol	400	U	UG/KG	479100	1383000
101282	1743	6 IN	2,4-Dichlorophenol	400	U	UG/KG	479100	1383000
101282	1743	6 IN	2,4-Dimethylphenol	400	U	UG/KG	479100	1383000
101282	1743	6 IN	2,4-Dinitrophenol	1900	U	UG/KG	479100	1383000
101282	1743	6 IN	2,4-Dinitrotoluene	400	U	UG/KG	479100	1383000
101282	1743	6 IN	2,6-Dinitrotoluene	400	U	UG/KG	479100	1383000
101282	1743	6 IN	2-Butanone	6	J	UG/KG	479100	1383000
101282	1743	6 IN	2-Chloronaphthalene	400	U	UG/KG	479100	1383000
101282	1743	6 IN	2-Chlorophenol	400	U	UG/KG	479100	1383000
101282	1743	6 IN	2-Hexanone	12	U	UG/KG	479100	1383000
101282	1743	6 IN	2-Methylnaphthalene	400	U	UG/KG	479100	1383000
101282	1743	6 IN	2-Methylphenol	400	U	UG/KG	479100	1383000
101282	1743	6 IN	2-Nitroaniline	1900	U	UG/KG	479100	1383000
101282	1743	6 IN	2-Nitrophenol	400	U	UG/KG	479100	1383000
101282	1743	6 IN	3,3'-Dichlorobenzidine	800	U	UG/KG	479100	1383000
101282	1743	6 IN	3-Nitroaniline	1900	U	UG/KG	479100	1383000
101282	1743	6 IN	4,4'-DDD	20	U	UG/KG	479100	1383000
101282	1743	6 IN	4,4'-DDE	20	U	UG/KG	479100	1383000
101282	1743	6 IN	4,4'-DDT	20	U	UG/KG	479100	1383000
101282	1743	6 IN	4,6-Dinitro-2-methylphenol	1900	U	UG/KG	479100	1383000
101282	1743	6 IN	4-Bromophenyl phenyl ether	400	U	UG/KG	479100	1383000
101282	1743	6 IN	4-Chloro-3-methylphenol	400	U	UG/KG	479100	1383000
101282	1743	6 IN	4-Chloroaniline	400	U	UG/KG	479100	1383000
101282	1743	6 IN	4-Chlorophenylphenyl ether	400	U	UG/KG	479100	1383000
101282	1743	6 IN	4-Methyl-2-pentanone	12	U	UG/KG	479100	1383000
101282	1743	6 IN	4-Methylphenol	400	U	UG/KG	479100	1383000
101282	1743	6 IN	4-Nitroaniline	1900	U	UG/KG	479100	1383000
101282	1743	6 IN	4-Nitrophenol	1900	U	UG/KG	479100	1383000
101282	1743	6 IN	Acenaphthene	400	U	UG/KG	479100	1383000
101282	1743	6 IN	Acenaphthylene	400	U	UG/KG	479100	1383000
101282	1743	6 IN	Acetone	12	BJ	UG/KG	479100	1383000
101282	1743	6 IN	Aldrin	10	U	UG/KG	479100	1383000
101282	1743	6 IN	alpha-BHC	10	U	UG/KG	479100	1383000
101282	1743	6 IN	alpha-Chlordane	100	U	UG/KG	479100	1383000
101282	1743	6 IN	Aluminum	6990		MG/KG	479100	1383000
101282	1743	6 IN	Anthracene	400	U	UG/KG	479100	1383000
101282	1743	6 IN	Antimony	14.5	N	MG/KG	479100	1383000
101282	1743	6 IN	Aroclor-1016	100	U	UG/KG	479100	1383000
101282	1743	6 IN	Aroclor-1221	100	U	UG/KG	479100	1383000
101282	1743	6 IN	Aroclor-1232	100	U	UG/KG	479100	1383000
101282	1743	6 IN	Aroclor-1242	100	U	UG/KG	479100	1383000
101282	1743	6 IN	Aroclor-1248	100	U	UG/KG	479100	1383000
101282	1743	6 IN	Aroclor-1254	200	U	UG/KG	479100	1383000
101282	1743	6 IN	Aroclor-1260	200	U	UG/KG	479100	1383000
101282	1743	6 IN	Arsenic	4.1	S	MG/KG	479100	1383000
101282	1743	6 IN	Barium	63.3		MG/KG	479100	1383000
101282	1743	6 IN	Benzene	6	U	UG/KG	479100	1383000
101282	1743	6 IN	Benzo(a)anthracene	400	U	UG/KG	479100	1383000
101282	1743	6 IN	Benzo(a)pyrene	400	U	UG/KG	479100	1383000
101282	1743	6 IN	Benzo(b)fluoranthene	400	U	UG/KG	479100	1383000
101282	1743	6 IN	Benzo(g,h,i)perylene	400	U	UG/KG	479100	1383000
101282	1743	6 IN	Benzo(k)fluoranthene	400	U	UG/KG	479100	1383000
101282	1743	6 IN	Benzoic acid	1900	U	UG/KG	479100	1383000

PT/2-93/WP/409196:NBWBWMPA.TAb(table from database)

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SAMPLE NUMBER	BORING	DEPTH	ANALYTE	CONC	VALIDATION QUALIFIER	UNIT	STATE PLANNER COORDINATES	
101282	1743	6 IN	Benzyl alcohol	400	U	UG/KG	479100	1383000
101282	1743	6 IN	Beryllium	.82	B	MG/KG	479100	1383000
101282	1743	6 IN	beta-BHC	10	U	UG/KG	479100	1383000
101282	1743	6 IN	bis(2-Chloroethoxy)methane	400	U	UG/KG	479100	1383000
101282	1743	6 IN	bis(2-Chloroethyl)ether	400	U	UG/KG	479100	1383000
101282	1743	6 IN	bis(2-Chloroisopropyl) ether	400	U	UG/KG	479100	1383000
101282	1743	6 IN	bis(2-Ethylhexyl) phthalate	400	U	UG/KG	479100	1383000
101282	1743	6 IN	Bromodichloromethane	6	U	UG/KG	479100	1383000
101282	1743	6 IN	Bromoform	6	U	UG/KG	479100	1383000
101282	1743	6 IN	Bromomethane	12	U	UG/KG	479100	1383000
101282	1743	6 IN	Butyl benzyl phthalate	400	U	UG/KG	479100	1383000
101282	1743	6 IN	Cadmium	1.9		MG/KG	479100	1383000
101282	1743	6 IN	Calcium	64900	E	MG/KG	479100	1383000
101282	1743	6 IN	Carbon disulfide	6	U	UG/KG	479100	1383000
101282	1743	6 IN	Carbon Tetrachloride	6	U	UG/KG	479100	1383000
101282	1743	6 IN	Chlorobenzene	6	U	UG/KG	479100	1383000
101282	1743	6 IN	Chloroethane	12	U	UG/KG	479100	1383000
101282	1743	6 IN	Chloroform	6	U	UG/KG	479100	1383000
101282	1743	6 IN	Chloromethane	12	U	UG/KG	479100	1383000
101282	1743	6 IN	Chromium	23.3		MG/KG	479100	1383000
101282	1743	6 IN	Chrysene	400	U	UG/KG	479100	1383000
101282	1743	6 IN	cis-1,3-Dichloropropene	6	U	UG/KG	479100	1383000
101282	1743	6 IN	Cobalt	11.4	B	MG/KG	479100	1383000
101282	1743	6 IN	Copper	17.5		MG/KG	479100	1383000
101282	1743	6 IN	Cyanide	.36	B*	MG/KG	479100	1383000
101282	1743	6 IN	delta-BHC	10	U	UG/KG	479100	1383000
101282	1743	6 IN	Di-n-butyl phthalate	400	U	UG/KG	479100	1383000
101282	1743	6 IN	Di-n-octyl phthalate	400	U	UG/KG	479100	1383000
101282	1743	6 IN	Dibenzo(a,h)anthracene	400	U	UG/KG	479100	1383000
101282	1743	6 IN	Dibenzofuran	400	U	UG/KG	479100	1383000
101282	1743	6 IN	Dibromochloromethane	6	U	UG/KG	479100	1383000
101282	1743	6 IN	Dieldrin	20	U	UG/KG	479100	1383000
101282	1743	6 IN	Diethyl phthalate	400	U	UG/KG	479100	1383000
101282	1743	6 IN	Dimethyl phthalate	400	U	UG/KG	479100	1383000
101282	1743	6 IN	Endosulfan II	20	U	UG/KG	479100	1383000
101282	1743	6 IN	Endosulfan sulfate	20	U	UG/KG	479100	1383000
101282	1743	6 IN	Endosulfan-I	10	U	UG/KG	479100	1383000
101282	1743	6 IN	Endrin	20	U	UG/KG	479100	1383000
101282	1743	6 IN	Endrin ketone	20	U	UG/KG	479100	1383000
101282	1743	6 IN	Ethylbenzene	6	U	UG/KG	479100	1383000
101282	1743	6 IN	Fluoranthene	400	U	UG/KG	479100	1383000
101282	1743	6 IN	Fluorene	400	U	UG/KG	479100	1383000
101282	1743	6 IN	gamma-BHC (Lindane)	10	U	UG/KG	479100	1383000
101282	1743	6 IN	gamma-Chlordane	100	U	UG/KG	479100	1383000
101282	1743	6 IN	Heptachlor	10	U	UG/KG	479100	1383000
101282	1743	6 IN	Heptachlor epoxide	10	U	UG/KG	479100	1383000
101282	1743	6 IN	Hexachlorobenzene	400	U	UG/KG	479100	1383000
101282	1743	6 IN	Hexachlorobutadiene	400	U	UG/KG	479100	1383000
101282	1743	6 IN	Hexachlorocyclopentadiene	400	U	UG/KG	479100	1383000
101282	1743	6 IN	Hexachloroethane	400	U	UG/KG	479100	1383000
101282	1743	6 IN	Indeno(1,2,3-cd)pyrene	400	U	UG/KG	479100	1383000
101282	1743	6 IN	Iron	16300		MG/KG	479100	1383000
101282	1743	6 IN	Isophorone	400	U	UG/KG	479100	1383000
101282	1743	6 IN	Lead	9.9		MG/KG	479100	1383000
101282	1743	6 IN	Magnesium	13800		MG/KG	479100	1383000
101282	1743	6 IN	Manganese	525	N	MG/KG	479100	1383000
101282	1743	6 IN	Mercury	.12	UN	MG/KG	479100	1383000
101282	1743	6 IN	Methoxychlor	100	U	UG/KG	479100	1383000

PT/2-93/WP/409196:NEWEWMPA.TAb(table from database)

000220

5769

SAMPLE NUMBER	BORING	DEPTH	ANALYTE	CONC	VALIDATION QUALIFIER		UNIT	STATE PLANNER COORDINATES	
101282	1743	6 IN	Methylene chloride	6	BJ		UG/KG	479100	1383000
101282	1743	6 IN	Molybdenum	10.6			MG/KG	479100	1383000
101282	1743	6 IN	N-Nitroso-di-n-propylamine	400	U		UG/KG	479100	1383000
101282	1743	6 IN	N-Nitrosodiphenylamine	400	U		UG/KG	479100	1383000
101282	1743	6 IN	Naphthalene	400	U		UG/KG	479100	1383000
101282	1743	6 IN	Nickel	22.9			MG/KG	479100	1383000
101282	1743	6 IN	Nitrobenzene	400	U		UG/KG	479100	1383000
101282	1743	6 IN	Pentachlorophenol	1900	U		UG/KG	479100	1383000
101282	1743	6 IN	Phenanthrene	400	U		UG/KG	479100	1383000
101282	1743	6 IN	Phenol	400	U		UG/KG	479100	1383000
101282	1743	6 IN	Potassium	642	B		MG/KG	479100	1383000
101282	1743	6 IN	Pyrene	400	U		UG/KG	479100	1383000
101282	1743	6 IN	Selenium	.48	U		MG/KG	479100	1383000
101282	1743	6 IN	Silicon	845	*		MG/KG	479100	1383000
101282	1743	6 IN	Silver	12.2			MG/KG	479100	1383000
101282	1743	6 IN	Sodium	129	B		MG/KG	479100	1383000
101282	1743	6 IN	Styrene	6	U		UG/KG	479100	1383000
101282	1743	6 IN	Tetrachlorethene	6	U		UG/KG	479100	1383000
101282	1743	6 IN	Thallium	.48	U		MG/KG	479100	1383000
101282	1743	6 IN	Toluene	2	J		UG/KG	479100	1383000
101282	1743	6 IN	Total xylenes	6	U		UG/KG	479100	1383000
101282	1743	6 IN	Toxaphene	100	U		UG/KG	479100	1383000
101282	1743	6 IN	trans-1,3-Dichloropropene	6	U		UG/KG	479100	1383000
101282	1743	6 IN	Trichloroethene	6	U		UG/KG	479100	1383000
101282	1743	6 IN	Vanadium	25.8			MG/KG	479100	1383000
101282	1743	6 IN	Vinyl Acetate	12	U		UG/KG	479100	1383000
101282	1743	6 IN	Vinyl chloride	12	U		UG/KG	479100	1383000
101282	1743	6 IN	Zinc	40.2			MG/KG	479100	1383000
101282	1743	6 IN	1,1,1-Trichloroethane	6	U	R	UG/KG	479100	1383000
101282	1743	6 IN	1,1,2,2-Tetrachloroethane	6	U	R	UG/KG	479100	1383000
101282	1743	6 IN	1,1,2-Trichloroethane	6	U	R	UG/KG	479100	1383000
101282	1743	6 IN	1,1-Dichloroethane	6	U	R	UG/KG	479100	1383000
101282	1743	6 IN	1,1-Dichloroethene	6	U	R	UG/KG	479100	1383000
101282	1743	6 IN	1,2-Dichloroethane	6	U	R	UG/KG	479100	1383000
101282	1743	6 IN	1,2-Dichloroethylene	6	U	R	UG/KG	479100	1383000
101282	1743	6 IN	1,2-Dichloropropane	6	U	R	UG/KG	479100	1383000
101282	1743	6 IN	2-Butanone	12	U	R	UG/KG	479100	1383000
101282	1743	6 IN	2-Hexanone	12	U	R	UG/KG	479100	1383000
101282	1743	6 IN	4-Methyl-2-pentanone	12	U	R	UG/KG	479100	1383000
101282	1743	6 IN	Acetone	2	BJ	R	UG/KG	479100	1383000
101282	1743	6 IN	Benzene	6	U	R	UG/KG	479100	1383000
101282	1743	6 IN	Bromodichloromethane	6	U	R	UG/KG	479100	1383000
101282	1743	6 IN	Bromoform	6	U	R	UG/KG	479100	1383000
101282	1743	6 IN	Bromomethane	12	U	R	UG/KG	479100	1383000
101282	1743	6 IN	Carbon disulfide	6	U	R	UG/KG	479100	1383000
101282	1743	6 IN	Carbon Tetrachloride	6	U	R	UG/KG	479100	1383000
101282	1743	6 IN	Chlorobenzene	6	U	R	UG/KG	479100	1383000
101282	1743	6 IN	Chloroethane	12	U	R	UG/KG	479100	1383000
101282	1743	6 IN	Chloroform	6	U	R	UG/KG	479100	1383000
101282	1743	6 IN	Chloromethane	12	U	R	UG/KG	479100	1383000
101282	1743	6 IN	cis-1,3-Dichloropropene	6	U	R	UG/KG	479100	1383000
101282	1743	6 IN	Dibromochloromethane	6	U	R	UG/KG	479100	1383000
101282	1743	6 IN	Ethylbenzene	6	U	R	UG/KG	479100	1383000
101282	1743	6 IN	Methylene chloride	12	B	R	UG/KG	479100	1383000
101282	1743	6 IN	Styrene	6	U	R	UG/KG	479100	1383000
101282	1743	6 IN	Tetrachlorethene	6	U	R	UG/KG	479100	1383000
101282	1743	6 IN	Toluene	2	J	R	UG/KG	479100	1383000
101282	1743	6 IN	Total xylenes	6	U	R	UG/KG	479100	1383000

PT/2-93/WP/409196:NEWEWMPA.TAb(table from database)

SAMPLE NUMBER	BORING	DEPTH	ANALYTE	CONC	VALIDATION QUALIFIER		UNIT	STATE PLANNER COORDINATES	
101282	1743	6 IN	trans-1,3-Dichloropropene	6	U	R	UG/KG	479100	1383000
101282	1743	6 IN	Trichloroethene	6	U	R	UG/KG	479100	1383000
101282	1743	6 IN	Vinyl Acetate	12	U	R	UG/KG	479100	1383000
101282	1743	6 IN	Vinyl chloride	12	U	R	UG/KG	479100	1383000
101287	1743	4.5-5.0	Cation Exchange Capacity	1.31			MEQ/10	479100	1383000
101287	1743	4.5-5.0	Total Organic Carbon	713			MG/KG	479100	1383000
101297	1743	14.5-15.0	Cation Exchange Capacity	1.28			MEQ/10	479100	1383000
101297	1743	14.5-15.0	Total Organic Carbon	464			MG/KG	479100	1383000
101310	1741	0-6 IN.	1,1,1-Trichloroethane	6	U		UG/KG	480700	1383000
101310	1741	0-6 IN.	1,1,2,2-Tetrachloroethane	6	U		UG/KG	480700	1383000
101310	1741	0-6 IN.	1,1,2-Trichloroethane	6	U		UG/KG	480700	1383000
101310	1741	0-6 IN.	1,1-Dichloroethane	6	U		UG/KG	480700	1383000
101310	1741	0-6 IN.	1,1-Dichloroethene	6	U		UG/KG	480700	1383000
101310	1741	0-6 IN.	1,2,4-Trichlorobenzene	410	U		UG/KG	480700	1383000
101310	1741	0-6 IN.	1,2-Dichlorobenzene	410	U		UG/KG	480700	1383000
101310	1741	0-6 IN.	1,2-Dichloroethane	6	U		UG/KG	480700	1383000
101310	1741	0-6 IN.	1,2-Dichloroethylene	6	U		UG/KG	480700	1383000
101310	1741	0-6 IN.	1,2-Dichloropropane	6	U		UG/KG	480700	1383000
101310	1741	0-6 IN.	1,3-Dichlorobenzene	410	U		UG/KG	480700	1383000
101310	1741	0-6 IN.	1,4-Dichlorobenzene	410	U		UG/KG	480700	1383000
101310	1741	0-6 IN.	2,4,5-Trichlorophenol	2000	U		UG/KG	480700	1383000
101310	1741	0-6 IN.	2,4,6-Trichlorophenol	410	U		UG/KG	480700	1383000
101310	1741	0-6 IN.	2,4-Dichlorophenol	410	U		UG/KG	480700	1383000
101310	1741	0-6 IN.	2,4-Dimethylphenol	410	U		UG/KG	480700	1383000
101310	1741	0-6 IN.	2,4-Dinitrophenol	2000	U		UG/KG	480700	1383000
101310	1741	0-6 IN.	2,4-Dinitrotoluene	410	U		UG/KG	480700	1383000
101310	1741	0-6 IN.	2,6-Dinitrotoluene	410	U		UG/KG	480700	1383000
101310	1741	0-6 IN.	2-Butanone	12	U		UG/KG	480700	1383000
101310	1741	0-6 IN.	2-Chloronaphthalene	410	U		UG/KG	480700	1383000
101310	1741	0-6 IN.	2-Chlorophenol	410	U		UG/KG	480700	1383000
101310	1741	0-6 IN.	2-Hexanone	12	U		UG/KG	480700	1383000
101310	1741	0-6 IN.	2-Methylnaphthalene	410	U		UG/KG	480700	1383000
101310	1741	0-6 IN.	2-Methylphenol	410	U		UG/KG	480700	1383000
101310	1741	0-6 IN.	2-Nitroaniline	2000	U		UG/KG	480700	1383000
101310	1741	0-6 IN.	2-Nitrophenol	410	U		UG/KG	480700	1383000
101310	1741	0-6 IN.	3,3'-Dichlorobenzidine	810	U		UG/KG	480700	1383000
101310	1741	0-6 IN.	3-Nitroaniline	2000	U		UG/KG	480700	1383000
101310	1741	0-6 IN.	4,4'-DDD	20	U		UG/KG	480700	1383000
101310	1741	0-6 IN.	4,4'-DDE	20	U		UG/KG	480700	1383000
101310	1741	0-6 IN.	4,4'-DDT	20	U		UG/KG	480700	1383000
101310	1741	0-6 IN.	4,6-Dinitro-2-methylphenol	2000	U		UG/KG	480700	1383000
101310	1741	0-6 IN.	4-Bromophenyl phenyl ether	410	U		UG/KG	480700	1383000
101310	1741	0-6 IN.	4-Chloro-3-methylphenol	410	U		UG/KG	480700	1383000
101310	1741	0-6 IN.	4-Chloroaniline	410	U		UG/KG	480700	1383000
101310	1741	0-6 IN.	4-Chlorophenylphenyl ether	410	U		UG/KG	480700	1383000
101310	1741	0-6 IN.	4-Methyl-2-pentanone	12	U		UG/KG	480700	1383000
101310	1741	0-6 IN.	4-Methylphenol	410	U		UG/KG	480700	1383000
101310	1741	0-6 IN.	4-Nitroaniline	2000	U		UG/KG	480700	1383000
101310	1741	0-6 IN.	4-Nitrophenol	2000	U		UG/KG	480700	1383000
101310	1741	0-6 IN.	Acenaphthene	410	U		UG/KG	480700	1383000
101310	1741	0-6 IN.	Acenaphthylene	410	U		UG/KG	480700	1383000
101310	1741	0-6 IN.	Acetone	12	J		UG/KG	480700	1383000
101310	1741	0-6 IN.	Aldrin	9.9	U		UG/KG	480700	1383000
101310	1741	0-6 IN.	alpha-BHC	9.9	U		UG/KG	480700	1383000
101310	1741	0-6 IN.	alpha-Chlordane	99	U		UG/KG	480700	1383000
101310	1741	0-6 IN.	Aluminum	7380			MG/KG	480700	1383000
101310	1741	0-6 IN.	Anthracene	410	U		UG/KG	480700	1383000
101310	1741	0-6 IN.	Antimony	7.5	UN		MG/KG	480700	1383000

PT/2-93/WP/409196:NBWBWMFA.TAb(table from database)

000222

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SAMPLE NUMBER	BORING	DEPTH	ANALYTE	CONC	VALIDATION QUALIFIER	UNIT	STATE PLANNER COORDINATES	
101310	1741	0-6 IN.	Aroclor-1016	99	U	UG/KG	480700	1383000
101310	1741	0-6 IN.	Aroclor-1221	99	U	UG/KG	480700	1383000
101310	1741	0-6 IN.	Aroclor-1232	99	U	UG/KG	480700	1383000
101310	1741	0-6 IN.	Aroclor-1242	99	U	UG/KG	480700	1383000
101310	1741	0-6 IN.	Aroclor-1248	99	U	UG/KG	480700	1383000
101310	1741	0-6 IN.	Aroclor-1254	200	U	UG/KG	480700	1383000
101310	1741	0-6 IN.	Aroclor-1260	200	U	UG/KG	480700	1383000
101310	1741	0-6 IN.	Arsenic	3.9		MG/KG	480700	1383000
101310	1741	0-6 IN.	Barium	70.2		MG/KG	480700	1383000
101310	1741	0-6 IN.	Benzene	6	U	UG/KG	480700	1383000
101310	1741	0-6 IN.	Benzo(a)anthracene	410	U	UG/KG	480700	1383000
101310	1741	0-6 IN.	Benzo(a)pyrene	410	U	UG/KG	480700	1383000
101310	1741	0-6 IN.	Benzo(b)fluoranthene	410	U	UG/KG	480700	1383000
101310	1741	0-6 IN.	Benzo(g,h,i)perylene	410	U	UG/KG	480700	1383000
101310	1741	0-6 IN.	Benzo(k)fluoranthene	410	U	UG/KG	480700	1383000
101310	1741	0-6 IN.	Benzoic acid	59	J	UG/KG	480700	1383000
101310	1741	0-6 IN.	Benzyl alcohol	410	U	UG/KG	480700	1383000
101310	1741	0-6 IN.	Beryllium	.55	B	MG/KG	480700	1383000
101310	1741	0-6 IN.	beta-BHC	9.9	U	UG/KG	480700	1383000
101310	1741	0-6 IN.	bis(2-Chloroethoxy)methane	410	U	UG/KG	480700	1383000
101310	1741	0-6 IN.	bis(2-Chloroethyl)ether	410	U	UG/KG	480700	1383000
101310	1741	0-6 IN.	bis(2-Chloroisopropyl) ether	410	U	UG/KG	480700	1383000
101310	1741	0-6 IN.	bis(2-Ethylhexyl) phthalate	410	U	UG/KG	480700	1383000
101310	1741	0-6 IN.	Bromodichloromethane	6	U	UG/KG	480700	1383000
101310	1741	0-6 IN.	Bromoform	6	U	UG/KG	480700	1383000
101310	1741	0-6 IN.	Bromomethane	12	U	UG/KG	480700	1383000
101310	1741	0-6 IN.	Butyl benzyl phthalate	410	U	UG/KG	480700	1383000
101310	1741	0-6 IN.	Cadmium	.5	U	MG/KG	480700	1383000
101310	1741	0-6 IN.	Calcium	1710	E	MG/KG	480700	1383000
101310	1741	0-6 IN.	Carbon disulfide	6	U	UG/KG	480700	1383000
101310	1741	0-6 IN.	Carbon Tetrachloride	6	U	UG/KG	480700	1383000
101310	1741	0-6 IN.	Chlorobenzene	6	U	UG/KG	480700	1383000
101310	1741	0-6 IN.	Chloroethane	12	U	UG/KG	480700	1383000
101310	1741	0-6 IN.	Chloroform	6	U	UG/KG	480700	1383000
101310	1741	0-6 IN.	Chloromethane	12	U	UG/KG	480700	1383000
101310	1741	0-6 IN.	Chromium	10.5		MG/KG	480700	1383000
101310	1741	0-6 IN.	Chrysene	410	U	UG/KG	480700	1383000
101310	1741	0-6 IN.	cis-1,3-Dichloropropene	6	U	UG/KG	480700	1383000
101310	1741	0-6 IN.	Cobalt	5.7	B	MG/KG	480700	1383000
101310	1741	0-6 IN.	Copper	9.4		MG/KG	480700	1383000
101310	1741	0-6 IN.	Cyanide	.27	B*	MG/KG	480700	1383000
101310	1741	0-6 IN.	delta-BHC	9.9	U	UG/KG	480700	1383000
101310	1741	0-6 IN.	Di-n-butyl phthalate	410	U	UG/KG	480700	1383000
101310	1741	0-6 IN.	Di-n-octyl phthalate	410	U	UG/KG	480700	1383000
101310	1741	0-6 IN.	Dibenzo(a,h)anthracene	410	U	UG/KG	480700	1383000
101310	1741	0-6 IN.	Dibenzofuran	410	U	UG/KG	480700	1383000
101310	1741	0-6 IN.	Dibromochloromethane	6	U	UG/KG	480700	1383000
101310	1741	0-6 IN.	Dieldrin	20	U	UG/KG	480700	1383000
101310	1741	0-6 IN.	Diethyl phthalate	410	U	UG/KG	480700	1383000
101310	1741	0-6 IN.	Dimethyl phthalate	410	U	UG/KG	480700	1383000
101310	1741	0-6 IN.	Endosulfan II	20	U	UG/KG	480700	1383000
101310	1741	0-6 IN.	Endosulfan sulfate	20	U	UG/KG	480700	1383000
101310	1741	0-6 IN.	Endosulfan-I	9.9	U	UG/KG	480700	1383000
101310	1741	0-6 IN.	Endrin	20	U	UG/KG	480700	1383000
101310	1741	0-6 IN.	Endrin ketone	20	U	UG/KG	480700	1383000
101310	1741	0-6 IN.	Ethylbenzene	6	U	UG/KG	480700	1383000
101310	1741	0-6 IN.	Fluoranthene	410	U	UG/KG	480700	1383000
101310	1741	0-6 IN.	Fluorene	410	U	UG/KG	480700	1383000

PT/2-93/WP/409196:NEWBWMFA.TAb(table from database)

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SAMPLE NUMBER	BORING	DEPTH	ANALYTE	CONC	VALIDATION QUALIFIER	UNIT	STATE PLANNER COORDINATES	
101310	1741	0-6 IN.	gamma-BHC (Lindane)	9.9	U	UG/KG	480700	1383000
101310	1741	0-6 IN.	gamma-Chlordane	99	U	UG/KG	480700	1383000
101310	1741	0-6 IN.	Heptachlor	9.9	U	UG/KG	480700	1383000
101310	1741	0-6 IN.	Heptachlor epoxide	9.9	U	UG/KG	480700	1383000
101310	1741	0-6 IN.	Hexachlorobenzene	410	U	UG/KG	480700	1383000
101310	1741	0-6 IN.	Hexachlorobutadiene	410	U	UG/KG	480700	1383000
101310	1741	0-6 IN.	Hexachlorocyclopentadiene	410	U	UG/KG	480700	1383000
101310	1741	0-6 IN.	Hexachloroethane	410	U	UG/KG	480700	1383000
101310	1741	0-6 IN.	Indeno(1,2,3-cd)pyrene	410	U	UG/KG	480700	1383000
101310	1741	0-6 IN.	Iron	14500		MG/KG	480700	1383000
101310	1741	0-6 IN.	Isophorone	410	U	UG/KG	480700	1383000
101310	1741	0-6 IN.	Lead	18.3		MG/KG	480700	1383000
101310	1741	0-6 IN.	Magnesium	1400		MG/KG	480700	1383000
101310	1741	0-6 IN.	Manganese	369	N	MG/KG	480700	1383000
101310	1741	0-6 IN.	Mercury	.12	UN	MG/KG	480700	1383000
101310	1741	0-6 IN.	Methoxychlor	99	U	UG/KG	480700	1383000
101310	1741	0-6 IN.	Methylene chloride	29	B	UG/KG	480700	1383000
101310	1741	0-6 IN.	Molybdenum	7.9		MG/KG	480700	1383000
101310	1741	0-6 IN.	N-Nitroso-di-n-propylamine	410	U	UG/KG	480700	1383000
101310	1741	0-6 IN.	N-Nitrosodiphenylamine	410	U	UG/KG	480700	1383000
101310	1741	0-6 IN.	Naphthalene	410	U	UG/KG	480700	1383000
101310	1741	0-6 IN.	Nickel	10.9		MG/KG	480700	1383000
101310	1741	0-6 IN.	Nitrobenzene	410	U	UG/KG	480700	1383000
101310	1741	0-6 IN.	Pentachlorophenol	2000	U	UG/KG	480700	1383000
101310	1741	0-6 IN.	Phenanthrene	410	U	UG/KG	480700	1383000
101310	1741	0-6 IN.	Phenol	410	U	UG/KG	480700	1383000
101310	1741	0-6 IN.	Potassium	481	B	MG/KG	480700	1383000
101310	1741	0-6 IN.	Pyrene	410	U	UG/KG	480700	1383000
101310	1741	0-6 IN.	Selenium	.5	UN	MG/KG	480700	1383000
101310	1741	0-6 IN.	Silicon	1490	*	MG/KG	480700	1383000
101310	1741	0-6 IN.	Silver	2.5	U	MG/KG	480700	1383000
101310	1741	0-6 IN.	Sodium	30	B	MG/KG	480700	1383000
101310	1741	0-6 IN.	Styrene	6	U	UG/KG	480700	1383000
101310	1741	0-6 IN.	Tetrachlorethene	6	U	UG/KG	480700	1383000
101310	1741	0-6 IN.	Thallium	.5	U	MG/KG	480700	1383000
101310	1741	0-6 IN.	Toluene	6	U	UG/KG	480700	1383000
101310	1741	0-6 IN.	Total xylenes	6	U	UG/KG	480700	1383000
101310	1741	0-6 IN.	Toxaphene	200	U	UG/KG	480700	1383000
101310	1741	0-6 IN.	trans-1,3-Dichloropropene	6	U	UG/KG	480700	1383000
101310	1741	0-6 IN.	Trichloroethene	6	U	UG/KG	480700	1383000
101310	1741	0-6 IN.	Vanadium	25		MG/KG	480700	1383000
101310	1741	0-6 IN.	Vinyl Acetate	12	U	UG/KG	480700	1383000
101310	1741	0-6 IN.	Vinyl chloride	12	U	UG/KG	480700	1383000
101310	1741	0-6 IN.	Zinc	33.8		MG/KG	480700	1383000
101331	1741	28.5-29.0	Cation Exchange Capacity	1.31		MEQ/10	480700	1383000
101331	1741	28.5-29.0	Total Organic Carbon	4584		MG/KG	480700	1383000
101334	1739	0-6 IN.	1,1,1-Trichloroethane	6	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	1,1,2,2-Tetrachloroethane	6	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	1,1,2-Trichloroethane	6	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	1,1-Dichloroethane	6	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	1,1-Dichloroethene	6	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	1,2,4-Trichlorobenzene	410	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	1,2-Dichlorobenzene	410	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	1,2-Dichloroethane	6	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	1,2-Dichloroethylene	6	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	1,2-Dichloropropane	6	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	1,3-Dichlorobenzene	410	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	1,4-Dichlorobenzene	410	U	UG/KG	482400	1383000

PT/2-93/WP/409196:NBWBWMFA.TAb(table from database)

SAMPLE NUMBER	BORING	DEPTH	ANALYTE	CONC	VALIDATION QUALIFIER	UNIT	STATE PLANNER COORDINATES	
101334	1739	0-6 IN.	2,4,5-Trichlorophenol	2000	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	2,4,6-Trichlorophenol	410	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	2,4-Dichlorophenol	410	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	2,4-Dimethylphenol	410	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	2,4-Dinitrophenol	2000	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	2,4-Dinitrotoluene	410	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	2,6-Dinitrotoluene	410	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	2-Butanone	12	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	2-Chloronaphthalene	410	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	2-Chlorophenol	47	J	UG/KG	482400	1383000
101334	1739	0-6 IN.	2-Hexanone	12	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	2-Methylnaphthalene	410	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	2-Methylphenol	410	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	2-Nitroaniline	2000	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	2-Nitrophenol	410	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	3,3'-Dichlorobenzidine	820	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	3-Nitroaniline	2000	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	4,4'-DDD	20	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	4,4'-DDE	20	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	4,4'-DDT	20	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	4,6-Dinitro-2-methylphenol	2000	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	4-Bromophenyl phenyl ether	410	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	4-Chloro-3-methylphenol	410	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	4-Chloroaniline	410	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	4-Chlorophenylphenyl ether	410	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	4-Methyl-2-pentanone	12	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	4-Methylphenol	410	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	4-Nitroaniline	2000	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	4-Nitrophenol	2000	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	Acenaphthene	410	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	Acenaphthylene	410	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	Acetone	12	BJ	UG/KG	482400	1383000
101334	1739	0-6 IN.	Aldrin	10	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	alpha-BHC	10	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	alpha-Chlordane	100	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	Aluminum	7280		MG/KG	482400	1383000
101334	1739	0-6 IN.	Anthracene	410	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	Antimony	7.4	UN	MG/KG	482400	1383000
101334	1739	0-6 IN.	Aroclor-1016	100	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	Aroclor-1221	100	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	Aroclor-1232	100	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	Aroclor-1242	100	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	Aroclor-1248	100	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	Aroclor-1254	200	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	Aroclor-1260	200	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	Arsenic	5.9	SN	MG/KG	482400	1383000
101334	1739	0-6 IN.	Barium	72.8		MG/KG	482400	1383000
101334	1739	0-6 IN.	Benzene	6	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	Benzo(a)anthracene	410	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	Benzo(a)pyrene	410	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	Benzo(b)fluoranthene	410	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	Benzo(g,h,i)perylene	410	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	Benzo(k)fluoranthene	410	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	Benzoic acid	2000	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	Benzyl alcohol	410	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	Beryllium	.53	B	MG/KG	482400	1383000
101334	1739	0-6 IN.	beta-BHC	10	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	bis(2-Chloroethoxy)methane	410	U	UG/KG	482400	1383000

PT/2-93/WP/409196:NBWBWMFA.TAb(table from database)

SAMPLE NUMBER	BORING	DEPTH	ANALYTE	CONC	VALIDATION QUALIFIER	UNIT	STATE PLANNER COORDINATES	
101334	1739	0-6 IN.	bis(2-Chloroethyl)ether	410	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	bis(2-Chloroisopropyl) ether	410	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	bis(2-Ethylhexyl) phthalate	410	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	Bromodichloromethane	6	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	Bromoform	6	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	Bromomethane	12	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	Butyl benzyl phthalate	410	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	Cadmium	.49	U	MG/KG	482400	1383000
101334	1739	0-6 IN.	Calcium	3590		MG/KG	482400	1383000
101334	1739	0-6 IN.	Carbon disulfide	6	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	Carbon Tetrachloride	6	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	Chlorobenzene	6	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	Chloroethane	12	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	Chloroform	6	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	Chloromethane	12	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	Chromium	11.9		MG/KG	482400	1383000
101334	1739	0-6 IN.	Chrysene	410	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	cis-1,3-Dichloropropene	6	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	Cobalt	8.3	B	MG/KG	482400	1383000
101334	1739	0-6 IN.	Copper	12.5		MG/KG	482400	1383000
101334	1739	0-6 IN.	Cyanide	.2	B	MG/KG	482400	1383000
101334	1739	0-6 IN.	delta-BHC	10	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	Di-n-butyl phthalate	410	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	Di-n-octyl phthalate	410	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	Dibenzo(a,h)anthracene	410	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	Dibenzofuran	410	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	Dibromochloromethane	6	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	Dieldrin	20	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	Diethyl phthalate	410	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	Dimethyl phthalate	410	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	Endosulfan II	20	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	Endosulfan sulfate	20	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	Endosulfan-I	10	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	Endrin	20	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	Endrin ketone	20	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	Ethylbenzene	6	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	Fluoranthene	410	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	Fluorene	410	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	gamma-BHC (Lindane)	10	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	gamma-Chlordane	100	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	Heptachlor	10	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	Heptachlor epoxide	10	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	Hexachlorobenzene	410	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	Hexachlorobutadiene	410	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	Hexachlorocyclopentadiene	410	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	Hexachloroethane	410	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	Indeno(1,2,3-cd)pyrene	410	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	Iron	14100		MG/KG	482400	1383000
101334	1739	0-6 IN.	Isophorone	410	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	Lead	13.3		MG/KG	482400	1383000
101334	1739	0-6 IN.	Magnesium	1850		MG/KG	482400	1383000
101334	1739	0-6 IN.	Manganese	506		MG/KG	482400	1383000
101334	1739	0-6 IN.	Mercury	.12	UN	MG/KG	482400	1383000
101334	1739	0-6 IN.	Methoxychlor	100	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	Methylene chloride	11	B	UG/KG	482400	1383000
101334	1739	0-6 IN.	Molybdenum	8.3		MG/KG	482400	1383000
101334	1739	0-6 IN.	N-Nitroso-di-n-propylamine	410	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	N-Nitrosodiphenylamine	410	U	UG/KG	482400	1383000

PT/2-93/WP/409196:NEWEWMFA.TAb(table from database)

SAMPLE NUMBER	BORING	DEPTH	ANALYTE	CONC	VALIDATION QUALIFIER	UNIT	STATE PLANNER COORDINATES	
101334	1739	0-6 IN.	Naphthalene	410	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	Nickel	12.1		MG/KG	482400	1383000
101334	1739	0-6 IN.	Nitrobenzene	410	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	Pentachlorophenol	2000	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	Phenanthrene	410	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	Phenol	55	J	UG/KG	482400	1383000
101334	1739	0-6 IN.	Potassium	817	B	MG/KG	482400	1383000
101334	1739	0-6 IN.	Pyrene	410	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	Selenium	.5	UWN	MG/KG	482400	1383000
101334	1739	0-6 IN.	Silicon	1580	*	MG/KG	482400	1383000
101334	1739	0-6 IN.	Silver	2.5	U	MG/KG	482400	1383000
101334	1739	0-6 IN.	Sodium	25.2	B	MG/KG	482400	1383000
101334	1739	0-6 IN.	Styrene	6	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	Tetrachlorethene	6	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	Thallium	.75	B	MG/KG	482400	1383000
101334	1739	0-6 IN.	Toluene	6	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	Total xylenes	6	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	Toxaphene	200	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	trans-1,3-Dichloropropene	6	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	Trichloroethene	6	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	Vanadium	21.4		MG/KG	482400	1383000
101334	1739	0-6 IN.	Vinyl Acetate	12	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	Vinyl chloride	12	U	UG/KG	482400	1383000
101334	1739	0-6 IN.	Zinc	42.1		MG/KG	482400	1383000
101335	1739	NA	1,1,1-Trichloroethane	5	U	UG/KG	482400	1383000
101335	1739	NA	1,1,2,2-Tetrachloroethane	5	U	UG/KG	482400	1383000
101335	1739	NA	1,1,2-Trichloroethane	5	U	UG/KG	482400	1383000
101335	1739	NA	1,1-Dichloroethane	5	U	UG/KG	482400	1383000
101335	1739	NA	1,1-Dichloroethene	5	U	UG/KG	482400	1383000
101335	1739	NA	1,2-Dichloroethane	5	U	UG/KG	482400	1383000
101335	1739	NA	1,2-Dichloroethylene	5	U	UG/KG	482400	1383000
101335	1739	NA	1,2-Dichloropropane	5	U	UG/KG	482400	1383000
101335	1739	NA	2-Butanone	2	BJ	UG/KG	482400	1383000
101335	1739	NA	2-Hexanone	10	U	UG/KG	482400	1383000
101335	1739	NA	4-Methyl-2-pentanone	10	U	UG/KG	482400	1383000
101335	1739	NA	Acetone	18	B	UG/KG	482400	1383000
101335	1739	NA	Benzene	5	U	UG/KG	482400	1383000
101335	1739	NA	Bromodichloromethane	5	U	UG/KG	482400	1383000
101335	1739	NA	Bromoform	5	U	UG/KG	482400	1383000
101335	1739	NA	Bromomethane	10	U	UG/KG	482400	1383000
101335	1739	NA	Carbon disulfide	1	J	UG/KG	482400	1383000
101335	1739	NA	Carbon Tetrachloride	5	U	UG/KG	482400	1383000
101335	1739	NA	Chlorobenzene	5	U	UG/KG	482400	1383000
101335	1739	NA	Chloroethane	10	U	UG/KG	482400	1383000
101335	1739	NA	Chloroform	5	U	UG/KG	482400	1383000
101335	1739	NA	Chloromethane	10	U	UG/KG	482400	1383000
101335	1739	NA	cis-1,3-Dichloropropene	5	U	UG/KG	482400	1383000
101335	1739	NA	Dibromochloromethane	5	U	UG/KG	482400	1383000
101335	1739	NA	Ethylbenzene	5	U	UG/KG	482400	1383000
101335	1739	NA	Methylene chloride	8	B	UG/KG	482400	1383000
101335	1739	NA	Styrene	5	U	UG/KG	482400	1383000
101335	1739	NA	Tetrachlorethene	5	U	UG/KG	482400	1383000
101335	1739	NA	Toluene	1	J	UG/KG	482400	1383000
101335	1739	NA	Total xylenes	5	U	UG/KG	482400	1383000
101335	1739	NA	trans-1,3-Dichloropropene	5	U	UG/KG	482400	1383000
101335	1739	NA	Trichloroethene	5	U	UG/KG	482400	1383000
101335	1739	NA	Vinyl Acetate	10	U	UG/KG	482400	1383000
101335	1739	NA	Vinyl chloride	10	U	UG/KG	482400	1383000

PT/2-93/WP/409196:NEWHWMFA.TAb(table from database)

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SAMPLE NUMBER	BORING	DEPTH	ANALYTE	CONC	VALIDATION QUALIFIER	UNIT	STATE PLANNER COORDINATES	
101358	1737	0-6"	1,1,1-Trichloroethane	7	U	UG/KG	483306	1381957
101358	1737	0-6"	1,1,2,2-Tetrachloroethane	7	U	UG/KG	483306	1381957
101358	1737	0-6"	1,1,2-Trichloroethane	7	U	UG/KG	483306	1381957
101358	1737	0-6"	1,1-Dichloroethane	7	U	UG/KG	483306	1381957
101358	1737	0-6"	1,1-Dichloroethene	7	U	UG/KG	483306	1381957
101358	1737	0-6"	1,2,4-Trichlorobenzene	430	U	UG/KG	483306	1381957
101358	1737	0-6"	1,2-Dichlorobenzene	430	U	UG/KG	483306	1381957
101358	1737	0-6"	1,2-Dichloroethane	7	U	UG/KG	483306	1381957
101358	1737	0-6"	1,2-Dichloroethylene	7	U	UG/KG	483306	1381957
101358	1737	0-6"	1,2-Dichloropropane	7	U	UG/KG	483306	1381957
101358	1737	0-6"	1,3-Dichlorobenzene	430	U	UG/KG	483306	1381957
101358	1737	0-6"	1,4-Dichlorobenzene	430	U	UG/KG	483306	1381957
101358	1737	0-6"	2,4,5-Trichlorophenol	2100	U	UG/KG	483306	1381957
101358	1737	0-6"	2,4,6-Trichlorophenol	430	U	UG/KG	483306	1381957
101358	1737	0-6"	2,4-Dichlorophenol	430	U	UG/KG	483306	1381957
101358	1737	0-6"	2,4-Dimethylphenol	430	U	UG/KG	483306	1381957
101358	1737	0-6"	2,4-Dinitrophenol	2100	U	UG/KG	483306	1381957
101358	1737	0-6"	2,4-Dinitrotoluene	430	U	UG/KG	483306	1381957
101358	1737	0-6"	2,6-Dinitrotoluene	430	U	UG/KG	483306	1381957
101358	1737	0-6"	2-Butanone	13	U	UG/KG	483306	1381957
101358	1737	0-6"	2-Chloronaphthalene	430	U	UG/KG	483306	1381957
101358	1737	0-6"	2-Chlorophenol	430	U	UG/KG	483306	1381957
101358	1737	0-6"	2-Hexanone	13	U	UG/KG	483306	1381957
101358	1737	0-6"	2-Methylnaphthalene	430	U	UG/KG	483306	1381957
101358	1737	0-6"	2-Methylphenol	430	U	UG/KG	483306	1381957
101358	1737	0-6	2-Nitroaniline	2100	U	UG/KG	483306	1381957
101358	1737	0-6"	2-Nitrophenol	430	U	UG/KG	483306	1381957
101358	1737	0-6"	3,3'-Dichlorobenzidine	870	U	UG/KG	483306	1381957
101358	1737	0-6"	3-Nitroaniline	2100	U	UG/KG	483306	1381957
101358	1737	0-6"	4,4'-DDD	21	U	UG/KG	483306	1381957
101358	1737	0-6"	4,4'-DDE	21	U	UG/KG	483306	1381957
101358	1737	0-6"	4,4'-DDT	21	U	UG/KG	483306	1381957
101358	1737	0-6"	4,6-Dinitro-2-methylphenol	2100	U	UG/KG	483306	1381957
101358	1737	0-6"	4-Bromophenyl phenyl ether	430	U	UG/KG	483306	1381957
101358	1737	0-6"	4-Chloro-3-methylphenol	430	U	UG/KG	483306	1381957
101358	1737	0-6"	4-Chloroaniline	430	U	UG/KG	483306	1381957
101358	1737	0-6"	4-Chlorophenylphenyl ether	430	U	UG/KG	483306	1381957
101358	1737	0-6"	4-Methyl-2-pentanone	13	U	UG/KG	483306	1381957
101358	1737	0-6"	4-Methylphenol	430	U	UG/KG	483306	1381957
101358	1737	0-6"	4-Nitroaniline	2100	U	UG/KG	483306	1381957
101358	1737	0-6"	4-Nitrophenol	2100	U	UG/KG	483306	1381957
101358	1737	0-6"	Acenaphthene	430	U	UG/KG	483306	1381957
101358	1737	0-6"	Acenaphthylene	430	U	UG/KG	483306	1381957
101358	1737	0-6"	Acetone	13	BJ	UG/KG	483306	1381957
101358	1737	0-6"	Aldrin	11	U	UG/KG	483306	1381957
101358	1737	0-6"	alpha-BHC	11	U	UG/KG	483306	1381957
101358	1737	0-6"	alpha-Chlordane	110	U	UG/KG	483306	1381957
101358	1737	0-6"	Aluminum	12700		MG/KG	483306	1381957
101358	1737	0-6"	Anthracene	430	U	UG/KG	483306	1381957
101358	1737	0-6"	Antimony	7.8	UN	MG/KG	483306	1381957
101358	1737	0-6"	Aroclor-1016	110	U	UG/KG	483306	1381957
101358	1737	0-6"	Aroclor-1221	110	U	UG/KG	483306	1381957
101358	1737	0-6"	Aroclor-1232	110	U	UG/KG	483306	1381957
101358	1737	0-6"	Aroclor-1242	110	U	UG/KG	483306	1381957
101358	1737	0-6"	Aroclor-1248	110	U	UG/KG	483306	1381957
101358	1737	0-6"	Aroclor-1254	210	U	UG/KG	483306	1381957
101358	1737	0-6"	Aroclor-1260	210	U	UG/KG	483306	1381957
101358	1737	0-6"	Arsenic	3	+N	MG/KG	483306	1381957

PT/2-93/WP/409196:NBWBWMPA.TAb(table from database)

SAMPLE NUMBER	BORING	DEPTH	ANALYTE	CONC	VALIDATION QUALIFIER	UNIT	STATE PLANNER COORDINATES	
101358	1737	0-6"	Barium	114		MG/KG	483306	1381957
101358	1737	0-6"	Benzene	7	U	UG/KG	483306	1381957
101358	1737	0-6"	Benzo(a)anthracene	430	U	UG/KG	483306	1381957
101358	1737	0-6"	Benzo(a)pyrene	430	U	UG/KG	483306	1381957
101358	1737	0-6"	Benzo(b)fluoranthene	430	U	UG/KG	483306	1381957
101358	1737	0-6"	Benzo(g,h,i)perylene	430	U	UG/KG	483306	1381957
101358	1737	0-6"	Benzo(k)fluoranthene	430	U	UG/KG	483306	1381957
101358	1737	0-6"	Benzoic acid	2100	U	UG/KG	483306	1381957
101358	1737	0-6"	Benzyl alcohol	430	U	UG/KG	483306	1381957
101358	1737	0-6"	Beryllium	.84	B	MG/KG	483306	1381957
101358	1737	0-6"	beta-BHC	11	U	UG/KG	483306	1381957
101358	1737	0-6"	bis(2-Chloroethoxy)methane	430	U	UG/KG	483306	1381957
101358	1737	0-6"	bis(2-Chloroethyl)ether	430	U	UG/KG	483306	1381957
101358	1737	0-6"	bis(2-Chloroisopropyl) ether	430	U	UG/KG	483306	1381957
101358	1737	0-6"	bis(2-Ethylhexyl) phthalate	430	U	UG/KG	483306	1381957
101358	1737	0-6"	Bromodichloromethane	7	U	UG/KG	483306	1381957
101358	1737	0-6"	Bromoform	7	U	UG/KG	483306	1381957
101358	1737	0-6"	Bromomethane	13	U	UG/KG	483306	1381957
101358	1737	0-6"	Butyl benzyl phthalate	430	U	UG/KG	483306	1381957
101358	1737	0-6"	Cadmium	.53	B	MG/KG	483306	1381957
101358	1737	0-6"	Calcium	3570		MG/KG	483306	1381957
101358	1737	0-6"	Carbon disulfide	7	U	UG/KG	483306	1381957
101358	1737	0-6"	Carbon Tetrachloride	7	U	UG/KG	483306	1381957
101358	1737	0-6"	Chlorobenzene	7	U	UG/KG	483306	1381957
101358	1737	0-6"	Chloroethane	13	U	UG/KG	483306	1381957
101358	1737	0-6"	Chloroform	7	U	UG/KG	483306	1381957
101358	1737	0-6"	Chloromethane	13	U	UG/KG	483306	1381957
101358	1737	0-6"	Chromium	17.8		MG/KG	483306	1381957
101358	1737	0-6"	Chrysene	430	U	UG/KG	483306	1381957
101358	1737	0-6"	cis-1,3-Dichloropropene	7	U	UG/KG	483306	1381957
101358	1737	0-6"	Cobalt	13.2		MG/KG	483306	1381957
101358	1737	0-6"	Copper	19.2		MG/KG	483306	1381957
101358	1737	0-6"	Cyanide	.28	B	MG/KG	483306	1381957
101358	1737	0-6"	delta-BHC	11	U	UG/KG	483306	1381957
101358	1737	0-6"	Di-n-butyl phthalate	430	U	UG/KG	483306	1381957
101358	1737	0-6"	Di-n-octyl phthalate	430	U	UG/KG	483306	1381957
101358	1737	0-6"	Dibenzo(a,h)anthracene	430	U	UG/KG	483306	1381957
101358	1737	0-6"	Dibenzofuran	430	U	UG/KG	483306	1381957
101358	1737	0-6"	Dibromochloromethane	7	U	UG/KG	483306	1381957
101358	1737	0-6"	Dieldrin	21	U	UG/KG	483306	1381957
101358	1737	0-6"	Diethyl phthalate	430	U	UG/KG	483306	1381957
101358	1737	0-6"	Dimethyl phthalate	430	U	UG/KG	483306	1381957
101358	1737	0-6"	Endosulfan II	21	U	UG/KG	483306	1381957
101358	1737	0-6"	Endosulfan sulfate	21	U	UG/KG	483306	1381957
101358	1737	0-6"	Endosulfan-I	11	U	UG/KG	483306	1381957
101358	1737	0-6"	Endrin	21	U	UG/KG	483306	1381957
101358	1737	0-6"	Endrin ketone	21	U	UG/KG	483306	1381957
101358	1737	0-6"	Ethylbenzene	7	U	UG/KG	483306	1381957
101358	1737	0-6"	Fluoranthene	430	U	UG/KG	483306	1381957
101358	1737	0-6"	Fluorene	430	U	UG/KG	483306	1381957
101358	1737	0-6"	gamma-BHC (Lindane)	11	U	UG/KG	483306	1381957
101358	1737	0-6"	gamma-Chlordane	110	U	UG/KG	483306	1381957
101358	1737	0-6"	Heptachlor	11	U	UG/KG	483306	1381957
101358	1737	0-6"	Heptachlor epoxide	11	U	UG/KG	483306	1381957
101358	1737	0-6"	Hexachlorobenzene	430	U	UG/KG	483306	1381957
101358	1737	0-6"	Hexachlorobutadiene	430	U	UG/KG	483306	1381957
101358	1737	0-6"	Hexachlorocyclopentadiene	430	U	UG/KG	483306	1381957
101358	1737	0-6"	Hexachloroethane	430	U	UG/KG	483306	1381957

PT/2-93/WP/409196:NEWHWMFA.TAb(table from database)

SAMPLE NUMBER	BORING	DEPTH	ANALYTE	CONC	VALIDATION QUALIFIER		UNIT	STATE PLANNER COORDINATES	
101358	1737	0-6"	Indeno(1,2,3-cd)pyrene	430	U		UG/KG	483306	1381957
101358	1737	0-6"	Iron	19500			MG/KG	483306	1381957
101358	1737	0-6"	Isophorone	430	U		UG/KG	483306	1381957
101358	1737	0-6"	Lead	16.2			MG/KG	483306	1381957
101358	1737	0-6"	Magnesium	2560			MG/KG	483306	1381957
101358	1737	0-6"	Manganese	1110			MG/KG	483306	1381957
101358	1737	0-6"	Mercury	.13	UN		MG/KG	483306	1381957
101358	1737	0-6"	Methoxychlor	110	U		UG/KG	483306	1381957
101358	1737	0-6"	Methylene chloride	18	B		UG/KG	483306	1381957
101358	1737	0-6"	Molybdenum	12.4			MG/KG	483306	1381957
101358	1737	0-6"	N-Nitroso-di-n-propylamine	430	U		UG/KG	483306	1381957
101358	1737	0-6"	N-Nitrosodiphenylamine	430	U		UG/KG	483306	1381957
101358	1737	0-6"	Naphthalene	430	U		UG/KG	483306	1381957
101358	1737	0-6"	Nickel	23.6			MG/KG	483306	1381957
101358	1737	0-6"	Nitrobenzene	430	U		UG/KG	483306	1381957
101358	1737	0-6"	Pentachlorophenol	2100	U		UG/KG	483306	1381957
101358	1737	0-6"	Phenanthrene	430	U		UG/KG	483306	1381957
101358	1737	0-6"	Phenol	430	U		UG/KG	483306	1381957
101358	1737	0-6"	Potassium	1620			MG/KG	483306	1381957
101358	1737	0-6"	Pyrene	430	U		UG/KG	483306	1381957
101358	1737	0-6"	Selenium	.52	UN		MG/KG	483306	1381957
101358	1737	0-6"	Silicon	669	*		MG/KG	483306	1381957
101358	1737	0-6"	Silver	2.6	U		MG/KG	483306	1381957
101358	1737	0-6"	Sodium	38.5	B		MG/KG	483306	1381957
101358	1737	0-6"	Styrene	7	U		UG/KG	483306	1381957
101358	1737	0-6"	Tetrachlorethene	7	U		UG/KG	483306	1381957
101358	1737	0-6"	Thallium	.52	U		MG/KG	483306	1381957
101358	1737	0-6"	Toluene	7	U		UG/KG	483306	1381957
101358	1737	0-6"	Total xylenes	7	U		UG/KG	483306	1381957
101358	1737	0-6"	Toxaphene	210	U		UG/KG	483306	1381957
101358	1737	0-6"	trans-1,3-Dichloropropene	7	U		UG/KG	483306	1381957
101358	1737	0-6"	Trichloroethene	7	U		UG/KG	483306	1381957
101358	1737	0-6"	Vanadium	26.4			MG/KG	483306	1381957
101358	1737	0-6"	Vinyl Acetate	13	U		UG/KG	483306	1381957
101358	1737	0-6"	Vinyl chloride	13	U		UG/KG	483306	1381957
101358	1737	0-6"	Zinc	57.4			MG/KG	483306	1381957
101358	1737	0-6"	1,1,1-Trichloroethane	7	U	R	UG/KG	483306	1381957
101358	1737	0-6"	1,1,2,2-Tetrachloroethane	7	U	R	UG/KG	483306	1381957
101358	1737	0-6"	1,1,2-Trichloroethane	7	U	R	UG/KG	483306	1381957
101358	1737	0-6"	1,1-Dichloroethane	7	U	R	UG/KG	483306	1381957
101358	1737	0-6"	1,1-Dichloroethene	7	U	R	UG/KG	483306	1381957
101358	1737	0-6"	1,2-Dichloroethane	7	U	R	UG/KG	483306	1381957
101358	1737	0-6"	1,2-Dichloroethylene	7	U	R	UG/KG	483306	1381957
101358	1737	0-6"	1,2-Dichloropropane	7	U	R	UG/KG	483306	1381957
101358	1737	0-6"	2-Butanone	13	U	R	UG/KG	483306	1381957
101358	1737	0-6"	2-Hexanone	13	U	R	UG/KG	483306	1381957
101358	1737	0-6"	4-Methyl-2-pentanone	13	U	R	UG/KG	483306	1381957
101358	1737	0-6"	Acetone	2	BJ	R	UG/KG	483306	1381957
101358	1737	0-6"	Benzene	7	U	R	UG/KG	483306	1381957
101358	1737	0-6"	Bromodichloromethane	7	U	R	UG/KG	483306	1381957
101358	1737	0-6"	Bromoform	7	U	R	UG/KG	483306	1381957
101358	1737	0-6"	Bromomethane	13	U	R	UG/KG	483306	1381957
101358	1737	0-6"	Carbon disulfide	7	U	R	UG/KG	483306	1381957
101358	1737	0-6"	Carbon Tetrachloride	7	U	R	UG/KG	483306	1381957
101358	1737	0-6"	Chlorobenzene	7	U	R	UG/KG	483306	1381957
101358	1737	0-6"	Chloroethane	13	U	R	UG/KG	483306	1381957
101358	1737	0-6"	Chloroform	7	U	R	UG/KG	483306	1381957
101358	1737	0-6"	Chloromethane	13	U	R	UG/KG	483306	1381957

PT/2-93/WP/409196:NEWEWMFA.TAb(table from database)

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SAMPLE NUMBER	BORING	DEPTH	ANALYTE	CONC	VALIDATION QUALIFIER		UNIT	STATE PLANNER COORDINATES	
101358	1737	0-6"	cis-1,3-Dichloropropene	7	U	R	UG/KG	483306	1381957
101358	1737	0-6"	Dibromochloromethane	7	U	R	UG/KG	483306	1381957
101358	1737	0-6"	Ethylbenzene	7	U	R	UG/KG	483306	1381957
101358	1737	0-6"	Methylene chloride	16	B	R	UG/KG	483306	1381957
101358	1737	0-6"	Styrene	7	U	R	UG/KG	483306	1381957
101358	1737	0-6"	Tetrachlorethene	7	U	R	UG/KG	483306	1381957
101358	1737	0-6"	Toluene	7	U	R	UG/KG	483306	1381957
101358	1737	0-6"	Total xylenes	7	U	R	UG/KG	483306	1381957
101358	1737	0-6"	trans-1,3-Dichloropropene	7	U	R	UG/KG	483306	1381957
101358	1737	0-6"	Trichloroethene	7	U	R	UG/KG	483306	1381957
101358	1737	0-6"	Vinyl Acetate	13	U	R	UG/KG	483306	1381957
101358	1737	0-6"	Vinyl chloride	13	U	R	UG/KG	483306	1381957
101364	1737	4.5-5.0	Cation Exchange Capacity	.93			MEQ/10	483306	1381957
101364	1737	4.5-5.0	Total Organic Carbon	6011			MG/KG	483306	1381957
101372	1735	0-6"	1,1,1-Trichloroethane	7	U		UG/KG		
101372	1735	0-6"	1,1,2,2-Tetrachloroethane	7	U		UG/KG		
101372	1735	0-6"	1,1,2-Trichloroethane	7	U		UG/KG		
101372	1735	0-6"	1,1-Dichloroethane	7	U		UG/KG		
101372	1735	0-6"	1,1-Dichloroethene	7	U		UG/KG		
101372	1735	0-6"	1,2,4-Trichlorobenzene	450	U		UG/KG		
101372	1735	0-6"	1,2-Dichlorobenzene	450	U		UG/KG		
101372	1735	0-6"	1,2-Dichloroethane	7	U		UG/KG		
101372	1735	0-6"	1,2-Dichloroethylene	7	U		UG/KG		
101372	1735	0-6"	1,2-Dichloropropane	7	U		UG/KG		
101372	1735	0-6"	1,3-Dichlorobenzene	450	U		UG/KG		
101372	1735	0-6"	1,4-Dichlorobenzene	450	U		UG/KG		
101372	1735	0-6"	2,4,5-Trichlorophenol	2200	U		UG/KG		
101372	1735	0-6"	2,4,6-Trichlorophenol	450	U		UG/KG		
101372	1735	0-6"	2,4-Dichlorophenol	450	U		UG/KG		
101372	1735	0-6"	2,4-Dimethylphenol	450	U		UG/KG		
101372	1735	0-6"	2,4-Dinitrophenol	2200	U		UG/KG		
101372	1735	0-6"	2,4-Dinitrotoluene	450	U		UG/KG		
101372	1735	0-6"	2,6-Dinitrotoluene	450	U		UG/KG		
101372	1735	0-6"	2-Butanone	14	U		UG/KG		
101372	1735	0-6"	2-Chloronaphthalene	450	U		UG/KG		
101372	1735	0-6"	2-Chlorophenol	450	U		UG/KG		
101372	1735	0-6"	2-Hexanone	14	BJ		UG/KG		
101372	1735	0-6"	2-Methylnaphthalene	450	U		UG/KG		
101372	1735	0-6"	2-Methylphenol	450	U		UG/KG		
101372	1735	0-6"	2-Nitroaniline	2200	U		UG/KG		
101372	1735	0-6"	2-Nitrophenol	450	U		UG/KG		
101372	1735	0-6"	3,3'-Dichlorobenzidine	900	U		UG/KG		
101372	1735	0-6"	3-Nitroaniline	2200	U		UG/KG		
101372	1735	0-6"	4,4'-DDD	22	U		UG/KG		
101372	1735	0-6"	4,4'-DDE	22	U		UG/KG		
101372	1735	0-6"	4,4'-DDT	22	U		UG/KG		
101372	1735	0-6"	4,6-Dinitro-2-methylphenol	2200	U		UG/KG		
101372	1735	0-6"	4-Bromophenyl phenyl ether	450	U		UG/KG		
101372	1735	0-6"	4-Chloro-3-methylphenol	450	U		UG/KG		
101372	1735	0-6"	4-Chloroaniline	450	U		UG/KG		
101372	1735	0-6"	4-Chlorophenylphenyl ether	450	U		UG/KG		
101372	1735	0-6"	4-Methyl-2-pentanone	14			UG/KG		
101372	1735	0-6"	4-Methylphenol	450	U		UG/KG		
101372	1735	0-6"	4-Nitroaniline	2200	U		UG/KG		
101372	1735	0-6"	4-Nitrophenol	2200	U		UG/KG		
101372	1735	0-6"	Acenaphthene	450	U		UG/KG		
101372	1735	0-6"	Acenaphthylene	450	U		UG/KG		
101372	1735	0-6"	Acetone	14	BJ		UG/KG		

PT/2-93/WP/409196:NEWEWMFA.TAb(table from database)

SAMPLE NUMBER	BORING	DEPTH	ANALYTE	CONC	VALIDATION QUALIFIER	UNIT	STATE PLANNER COORDINATES
101372	1735	0-6"	Aldrin	11	U	UG/KG	
101372	1735	0-6"	alpha-BHC	11	U	UG/KG	
101372	1735	0-6"	alpha-Chlordane	110	U	UG/KG	
101372	1735	0-6"	Aluminum	12300		MG/KG	
101372	1735	0-6"	Anthracene	450	U	UG/KG	
101372	1735	0-6"	Antimony	8.2	UN	MG/KG	
101372	1735	0-6"	Aroclor-1016	110	U	UG/KG	
101372	1735	0-6"	Aroclor-1221	110	U	UG/KG	
101372	1735	0-6"	Aroclor-1232	110	U	UG/KG	
101372	1735	0-6"	Aroclor-1242	110	U	UG/KG	
101372	1735	0-6"	Aroclor-1248	110	U	UG/KG	
101372	1735	0-6"	Aroclor-1254	220	U	UG/KG	
101372	1735	0-6"	Aroclor-1260	220	U	UG/KG	
101372	1735	0-6"	Arsenic	4	SN	MG/KG	
101372	1735	0-6"	Barium	97.4		MG/KG	
101372	1735	0-6"	Benzene	7	U	UG/KG	
101372	1735	0-6"	Benzo(a)anthracene	450	U	UG/KG	
101372	1735	0-6"	Benzo(a)pyrene	450	U	UG/KG	
101372	1735	0-6"	Benzo(b)fluoranthene	450	U	UG/KG	
101372	1735	0-6"	Benzo(g,h,i)perylene	450	U	UG/KG	
101372	1735	0-6"	Benzo(k)fluoranthene	450	U	UG/KG	
101372	1735	0-6"	Benzoic acid	2200	U	UG/KG	
101372	1735	0-6"	Benzyl alcohol	450	U	UG/KG	
101372	1735	0-6"	Beryllium	.86	B	MG/KG	
101372	1735	0-6"	beta-BHC	11	U	UG/KG	
101372	1735	0-6"	bis(2-Chloroethoxy)methane	450	U	UG/KG	
101372	1735	0-6"	bis(2-Chloroethyl)ether	450	U	UG/KG	
101372	1735	0-6"	bis(2-Chloroisopropyl) ether	450	U	UG/KG	
101372	1735	0-6"	bis(2-Ethylhexyl) phthalate	450	U	UG/KG	
101372	1735	0-6"	Bromodichloromethane	7	U	UG/KG	
101372	1735	0-6"	Bromoform	7	U	UG/KG	
101372	1735	0-6"	Bromomethane	14	U	UG/KG	
101372	1735	0-6"	Butyl benzyl phthalate	450	U	UG/KG	
101372	1735	0-6"	Cadmium	.54	U	MG/KG	
101372	1735	0-6"	Calcium	4520		MG/KG	
101372	1735	0-6"	Carbon disulfide	7	U	UG/KG	
101372	1735	0-6"	Carbon Tetrachloride	7	U	UG/KG	
101372	1735	0-6"	Chlorobenzene	7	U	UG/KG	
101372	1735	0-6"	Chloroethane	14	U	UG/KG	
101372	1735	0-6"	Chloroform	7	U	UG/KG	
101372	1735	0-6"	Chloromethane	14	U	UG/KG	
101372	1735	0-6"	Chromium	19.4		MG/KG	
101372	1735	0-6"	Chrysene	450	U	UG/KG	
101372	1735	0-6"	cis-1,3-Dichloropropene	7	U	UG/KG	
101372	1735	0-6"	Cobalt	15.7		MG/KG	
101372	1735	0-6"	Copper	18.7		MG/KG	
101372	1735	0-6"	Cyanide	.18	B	MG/KG	
101372	1735	0-6"	delta-BHC	11	U	UG/KG	
101372	1735	0-6"	Di-n-butyl phthalate	450	U	UG/KG	
101372	1735	0-6"	Di-n-octyl phthalate	450	U	UG/KG	
101372	1735	0-6"	Dibenzo(a,h)anthracene	450	U	UG/KG	
101372	1735	0-6"	Dibenzofuran	450	U	UG/KG	
101372	1735	0-6"	Dibromochloromethane	7	U	UG/KG	
101372	1735	0-6"	Dieldrin	22	U	UG/KG	
101372	1735	0-6"	Diethyl phthalate	450	U	UG/KG	
101372	1735	0-6"	Dimethyl phthalate	450	U	UG/KG	
101372	1735	0-6"	Endosulfan II	22	U	UG/KG	
101372	1735	0-6"	Endosulfan sulfate	22	U	UG/KG	

PT/2-93/WP/409196:NEWEWMFA.TAb(table from database)

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SAMPLE NUMBER	BORING	DEPTH	ANALYTE	CONC	VALIDATION QUALIFIER	UNIT	STATE PLANNER COORDINATES
101372	1735	0-6"	Endosulfan-I	11	U	UG/KG	
101372	1735	0-6"	Endrin	22	U	UG/KG	
101372	1735	0-6"	Endrin ketone	22	U	UG/KG	
101372	1735	0-6"	Ethylbenzene	7	U	UG/KG	
101372	1735	0-6"	Fluoranthene	450	U	UG/KG	
101372	1735	0-6"	Fluorene	450	U	UG/KG	
101372	1735	0-6"	gamma-BHC (Lindane)	11	U	UG/KG	
101372	1735	0-6"	gamma-Chlordane	110	U	UG/KG	
101372	1735	0-6"	Heptachlor	11	U	UG/KG	
101372	1735	0-6"	Heptachlor epoxide	11	U	UG/KG	
101372	1735	0-6"	Hexachlorobenzene	450	U	UG/KG	
101372	1735	0-6"	Hexachlorobutadiene	450	U	UG/KG	
101372	1735	0-6"	Hexachlorocyclopentadiene	450	U	UG/KG	
101372	1735	0-6"	Hexachloroethane	450	U	UG/KG	
101372	1735	0-6"	Indeno(1,2,3-cd)pyrene	450	U	UG/KG	
101372	1735	0-6"	Iron	22200		MG/KG	
101372	1735	0-6"	Isophorone	450	U	UG/KG	
101372	1735	0-6"	Lead	20.1		MG/KG	
101372	1735	0-6"	Magnesium	3300		MG/KG	
101372	1735	0-6"	Manganese	1140		MG/KG	
101372	1735	0-6"	Mercury	.14	UN	MG/KG	
101372	1735	0-6"	Methoxychlor	110	U	UG/KG	
101372	1735	0-6"	Methylene chloride	23	B	UG/KG	
101372	1735	0-6"	Molybdenum	13.3		MG/KG	
101372	1735	0-6"	N-Nitroso-di-n-propylamine	450	U	UG/KG	
101372	1735	0-6"	N-Nitrosodiphenylamine	450	U	UG/KG	
101372	1735	0-6"	Naphthalene	450	U	UG/KG	
101372	1735	0-6"	Nickel	25.8		MG/KG	
101372	1735	0-6"	Nitrobenzene	450	U	UG/KG	
101372	1735	0-6"	Pentachlorophenol	2200	U	UG/KG	
101372	1735	0-6"	Phenanthrene	450	U	UG/KG	
101372	1735	0-6"	Phenol	450	U	UG/KG	
101372	1735	0-6"	Potassium	1760		MG/KG	
101372	1735	0-6"	Pyrene	450	U	UG/KG	
101372	1735	0-6"	Selenium	.54	UN	MG/KG	
101372	1735	0-6"	Silicon	1100	*	MG/KG	
101372	1735	0-6"	Silver	2.7	U	MG/KG	
101372	1735	0-6"	Sodium	49.1	B	MG/KG	
101372	1735	0-6"	Styrene	7	U	UG/KG	
101372	1735	0-6"	Tetrachlorethene	7	U	UG/KG	
101372	1735	0-6"	Thallium	.54	U	MG/KG	
101372	1735	0-6"	Toluene	4	J	UG/KG	
101372	1735	0-6"	Total xylenes	7	U	UG/KG	
101372	1735	0-6"	Toxaphene	220	U	UG/KG	
101372	1735	0-6"	trans-1,3-Dichloropropene	7	U	UG/KG	
101372	1735	0-6"	Trichloroethene	7	U	UG/KG	
101372	1735	0-6"	Vanadium	28.8		MG/KG	
101372	1735	0-6"	Vinyl Acetate	14	U	UG/KG	
101372	1735	0-6"	Vinyl chloride	14	U	UG/KG	
101385	1732	0-6"	Zinc	61.8		MG/KG	
101385	1732	0-6"	1,1,1-Trichloroethane	6	U	UG/KG	
101385	1732	0-6"	1,1,2,2-Tetrachloroethane	6	U	UG/KG	
101385	1732	0-6"	1,1,2-Trichloroethane	6	U	UG/KG	
101385	1732	0-6"	1,1-Dichloroethane	6	U	UG/KG	
101385	1732	0-6"	1,1-Dichloroethene	6	U	UG/KG	
101385	1732	0-6"	1,2,4-Trichlorobenzene	410	U	UG/KG	
101385	1732	0-6"	1,2-Dichlorobenzene	410	U	UG/KG	
101385	1732	0-6"	1,2-Dichloroethane	6	U	UG/KG	

PT/2-93/WP/409196:NBWBWMPA.TAb(table from database)

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SAMPLE NUMBER	BORING	DEPTH	ANALYTE	CONC	VALIDATION QUALIFIER	UNIT	STATE PLANNER COORDINATES
101385	1732	0-6"	1,2-Dichloroethylene	6	U	UG/KG	
101385	1732	0-6"	1,2-Dichloropropane	6	U	UG/KG	
101385	1732	0-6"	1,3-Dichlorobenzene	410	U	UG/KG	
101385	1732	0-6"	1,4-Dichlorobenzene	410	U	UG/KG	
101385	1732	0-6"	2,4,5-Trichlorophenol	2000	U	UG/KG	
101385	1732	0-6"	2,4,6-Trichlorophenol	410	U	UG/KG	
101385	1732	0-6"	2,4-Dichlorophenol	410	U	UG/KG	
101385	1732	0-6"	2,4-Dimethylphenol	410	U	UG/KG	
101385	1732	0-6"	2,4-Dinitrophenol	2000	U	UG/KG	
101385	1732	0-6"	2,4-Dinitrotoluene	410	U	UG/KG	
101385	1732	0-6"	2,6-Dinitrotoluene	410	U	UG/KG	
101385	1732	0-6"	2-Butanone	12	U	UG/KG	
101385	1732	0-6"	2-Chloronaphthalene	410	U	UG/KG	
101385	1732	0-6"	2-Chlorophenol	410	U	UG/KG	
101385	1732	0-6"	2-Hexanone	12	U	UG/KG	
101385	1732	0-6"	2-Methylnaphthalene	410	U	UG/KG	
101385	1732	0-6"	2-Methylphenol	410	U	UG/KG	
101385	1732	0-6"	2-Nitroaniline	2000	U	UG/KG	
101385	1732	0-6"	2-Nitrophenol	410	U	UG/KG	
101385	1732	0-6"	3,3'-Dichlorobenzidine	820	U	UG/KG	
101385	1732	0-6"	3-Nitroaniline	2000	U	UG/KG	
101385	1732	0-6"	4,4'-DDD	20	U	UG/KG	
101385	1732	0-6"	4,4'-DDE	20	U	UG/KG	
101385	1732	0-6"	4,4'-DDT	20	U	UG/KG	
101385	1732	0-6"	4,6-Dinitro-2-methylphenol	2000	U	UG/KG	
101385	1732	0-6"	4-Bromophenyl phenyl ether	410	U	UG/KG	
101385	1732	0-6"	4-Chloro-3-methylphenol	410	U	UG/KG	
101385	1732	0-6"	4-Chloroaniline	410	U	UG/KG	
101385	1732	0-6"	4-Chlorophenylphenyl ether	410	U	UG/KG	
101385	1732	0-6"	4-Methyl-2-pentanone	12	U	UG/KG	
101385	1732	0-6"	4-Methylphenol	410	U	UG/KG	
101385	1732	0-6"	4-Nitroaniline	2000	U	UG/KG	
101385	1732	0-6"	4-Nitrophenol	2000	U	UG/KG	
101385	1732	0-6"	Acenaphthene	410	U	UG/KG	
101385	1732	0-6"	Acenaphthylene	410	U	UG/KG	
101385	1732	0-6"	Acetone	12	BJ	UG/KG	
101385	1732	0-6"	Aldrin	10	U	UG/KG	
101385	1732	0-6"	alpha-BHC	10	U	UG/KG	
101385	1732	0-6"	alpha-Chlordane	100	U	UG/KG	
101385	1732	0-6"	Aluminum	8100		MG/KG	
101385	1732	0-6"	Anthracene	410	U	UG/KG	
101385	1732	0-6"	Antimony	7.4	UN	MG/KG	
101385	1732	0-6"	Aroclor-1016	100	U	UG/KG	
101385	1732	0-6"	Aroclor-1221	100	U	UG/KG	
101385	1732	0-6"	Aroclor-1232	100	U	UG/KG	
101385	1732	0-6"	Aroclor-1242	100	U	UG/KG	
101385	1732	0-6"	Aroclor-1248	100	U	UG/KG	
101385	1732	0-6"	Aroclor-1254	200	U	UG/KG	
101385	1732	0-6"	Aroclor-1260	200	U	UG/KG	
101385	1732	0-6"	Arsenic	3.9	N	MG/KG	
101385	1732	0-6"	Barium	77.7		MG/KG	
101385	1732	0-6"	Benzene	6	U	UG/KG	
101385	1732	0-6"	Benzo(a)anthracene	410	U	UG/KG	
101385	1732	0-6"	Benzo(a)pyrene	410	U	UG/KG	
101385	1732	0-6"	Benzo(b)fluoranthene	410	U	UG/KG	
101385	1732	0-6"	Benzo(g,h,i)perylene	410	U	UG/KG	
101385	1732	0-6"	Benzo(k)fluoranthene	410	U	UG/KG	
101385	1732	0-6"	Benzoic acid	2000	U	UG/KG	

PT/2-93/WP/409196:NBWEWMPA.TAb(table from database)

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SAMPLE NUMBER	BORING	DEPTH	ANALYTE	CONC	VALIDATION QUALIFIER	UNIT	STATE PLANNER COORDINATES
101385	1732	0-6"	Benzyl alcohol	410	U	UG/KG	
101385	1732	0-6"	Beryllium	.61	B	MG/KG	
101385	1732	0-6"	beta-BHC	10	U	UG/KG	
101385	1732	0-6"	bis(2-Chloroethoxy)methane	410	U	UG/KG	
101385	1732	0-6"	bis(2-Chloroethyl)ether	410	U	UG/KG	
101385	1732	0-6"	bis(2-Chloroisopropyl) ether	410	U	UG/KG	
101385	1732	0-6"	bis(2-Ethylhexyl) phthalate	410	U	UG/KG	
101385	1732	0-6"	Bromodichloromethane	6	U	UG/KG	
101385	1732	0-6"	Bromoform	6	U	UG/KG	
101385	1732	0-6"	Bromomethane	12	U	UG/KG	
101385	1732	0-6"	Butyl benzyl phthalate	410	U	UG/KG	
101385	1732	0-6"	Cadmium	.49	U	MG/KG	
101385	1732	0-6"	Calcium	1720		MG/KG	
101385	1732	0-6"	Carbon disulfide	6	U	UG/KG	
101385	1732	0-6"	Carbon Tetrachloride	6	U	UG/KG	
101385	1732	0-6"	Chlorobenzene	6	U	UG/KG	
101385	1732	0-6"	Chloroethane	12	U	UG/KG	
101385	1732	0-6"	Chloroform	6	U	UG/KG	
101385	1732	0-6"	Chloromethane	12	U	UG/KG	
101385	1732	0-6"	Chromium	12.9		MG/KG	
101385	1732	0-6"	Chrysene	410	U	UG/KG	
101385	1732	0-6"	cis-1,3-Dichloropropene	6	U	UG/KG	
101385	1732	0-6"	Cobalt	12.5		MG/KG	
101385	1732	0-6"	Copper	11.2		MG/KG	
101385	1732	0-6"	Cyanide	.18	B	MG/KG	
101385	1732	0-6"	delta-BHC	10	U	UG/KG	
101385	1732	0-6"	Di-n-butyl phthalate	410	U	UG/KG	
101385	1732	0-6"	Di-n-octyl phthalate	410	U	UG/KG	
101385	1732	0-6"	Dibenzo(a,h)anthracene	410	U	UG/KG	
101385	1732	0-6"	Dibenzofuran	410	U	UG/KG	
101385	1732	0-6"	Dibromochloromethane	6	U	UG/KG	
101385	1732	0-6"	Dieldrin	20	U	UG/KG	
101385	1732	0-6"	Diethyl phthalate	410	U	UG/KG	
101385	1732	0-6"	Dimethyl phthalate	410	U	UG/KG	
101385	1732	0-6"	Endosulfan II	20	U	UG/KG	
101385	1732	0-6"	Endosulfan sulfate	20	U	UG/KG	
101385	1732	0-6"	Endosulfan-I	10	U	UG/KG	
101385	1732	0-6"	Endrin	20	U	UG/KG	
101385	1732	0-6"	Endrin ketone	20	U	UG/KG	
101385	1732	0-6"	Ethylbenzene	6	U	UG/KG	
101385	1732	0-6"	Fluoranthene	410	U	UG/KG	
101385	1732	0-6"	Fluorene	410	U	UG/KG	
101385	1732	0-6"	gamma-BHC (Lindane)	10	U	UG/KG	
101385	1732	0-6"	gamma-Chlordane	100	U	UG/KG	
101385	1732	0-6"	Heptachlor	10	U	UG/KG	
101385	1732	0-6"	Heptachlor epoxide	10	U	UG/KG	
101385	1732	0-6"	Hexachlorobenzene	410	U	UG/KG	
101385	1732	0-6"	Hexachlorobutadiene	410	U	UG/KG	
101385	1732	0-6"	Hexachlorocyclopentadiene	410	U	UG/KG	
101385	1732	0-6"	Hexachloroethane	410	U	UG/KG	
101385	1732	0-6"	Indeno(1,2,3-cd)pyrene	410	U	UG/KG	
101385	1732	0-6"	Iron	14500		MG/KG	
101385	1732	0-6"	Isophorone	410	U	UG/KG	
101385	1732	0-6"	Lead	20.9		MG/KG	
101385	1732	0-6"	Magnesium	1580		MG/KG	
101385	1732	0-6"	Manganese	1010		MG/KG	
101385	1732	0-6"	Mercury	.12	UN	MG/KG	
101385	1732	0-6"	Methoxychlor	100	U	UG/KG	

PT/2-93/WP/409196:NEWEWMFA.TAb(table from database)

SAMPLE NUMBER	BORING	DEPTH	ANALYTE	CONC	VALIDATION QUALIFIER	UNIT	STATE PLANNER COORDINATES	
101385	1732	0-6"	Methylene chloride	7	B	UG/KG		
101385	1732	0-6"	Molybdenum	8.9		MG/KG		
101385	1732	0-6"	N-Nitroso-di-n-propylamine	410	U	UG/KG		
101385	1732	0-6"	N-Nitrosodiphenylamine	410	U	UG/KG		
101385	1732	0-6"	Naphthalene	410	U	UG/KG		
101385	1732	0-6"	Nickel	14.4		MG/KG		
101385	1732	0-6"	Nitrobenzene	410	U	UG/KG		
101385	1732	0-6"	Pentachlorophenol	2000	U	UG/KG		
101385	1732	0-6"	Phenanthrene	410	U	UG/KG		
101385	1732	0-6"	Phenol	410	U	UG/KG		
101385	1732	0-6"	Potassium	783	B	MG/KG		
101385	1732	0-6"	Pyrene	410	U	UG/KG		
101385	1732	0-6"	Selenium	.49	UN	MG/KG		
101385	1732	0-6"	Silicon	790	*	MG/KG		
101385	1732	0-6"	Silver	2.5	U	MG/KG		
101385	1732	0-6"	Sodium	33.7	B	MG/KG		
101385	1732	0-6"	Styrene	6	U	UG/KG		
101385	1732	0-6"	Tetrachlorethene	6	U	UG/KG		
101385	1732	0-6"	Thallium	.52	B	MG/KG		
101385	1732	0-6"	Toluene	6	U	UG/KG		
101385	1732	0-6"	Total xylenes	6	U	UG/KG		
101385	1732	0-6"	Toxaphene	200	U	UG/KG		
101385	1732	0-6"	trans-1,3-Dichloropropene	6	U	UG/KG		
101385	1732	0-6"	Trichloroethene	6	U	UG/KG		
101385	1732	0-6"	Vanadium	21.6		MG/KG		
101385	1732	0-6"	Vinyl Acetate	12	U	UG/KG		
101385	1732	0-6"	Vinyl chloride	12	U	UG/KG		
101385	1732	0-6"	Zinc	37.1		MG/KG		
101409	1729	0-6"	1,1,1-Trichloroethane	7	U	UG/KG	483300	1378500
101409	1729	0-6"	1,1,2,2-Tetrachloroethane	7	U	UG/KG	483300	1378500
101409	1729	0-6"	1,1,2-Trichloroethane	7	U	UG/KG	483300	1378500
101409	1729	0-6"	1,1-Dichloroethane	7	U	UG/KG	483300	1378500
101409	1729	0-6"	1,1-Dichloroethene	7	U	UG/KG	483300	1378500
101409	1729	0-6"	1,2,4-Trichlorobenzene	450	U	UG/KG	483300	1378500
101409	1729	0-6"	1,2-Dichlorobenzene	450	U	UG/KG	483300	1378500
101409	1729	0-6"	1,2-Dichloroethane	7	U	UG/KG	483300	1378500
101409	1729	0-6"	1,2-Dichloroethylene	7	U	UG/KG	483300	1378500
101409	1729	0-6"	1,2-Dichloropropane	7	U	UG/KG	483300	1378500
101409	1729	0-6"	1,3-Dichlorobenzene	450	U	UG/KG	483300	1378500
101409	1729	0-6"	1,4-Dichlorobenzene	450	U	UG/KG	483300	1378500
101409	1729	0-6"	2,4,5-Trichlorophenol	2200	U	UG/KG	483300	1378500
101409	1729	0-6"	2,4,6-Trichlorophenol	450	U	UG/KG	483300	1378500
101409	1729	0-6"	2,4-Dichlorophenol	450	U	UG/KG	483300	1378500
101409	1729	0-6"	2,4-Dimethylphenol	450	U	UG/KG	483300	1378500
101409	1729	0-6"	2,4-Dinitrophenol	2200	U	UG/KG	483300	1378500
101409	1729	0-6"	2,4-Dinitrotoluene	450	U	UG/KG	483300	1378500
101409	1729	0-6"	2,6-Dinitrotoluene	450	U	UG/KG	483300	1378500
101409	1729	0-6"	2-Butanone	13	U	UG/KG	483300	1378500
101409	1729	0-6"	2-Chloronaphthalene	450	U	UG/KG	483300	1378500
101409	1729	0-6"	2-Chlorophenol	450	U	UG/KG	483300	1378500
101409	1729	0-6"	2-Hexanone	13	BJ	UG/KG	483300	1378500
101409	1729	0-6"	2-Methylnaphthalene	450	U	UG/KG	483300	1378500
101409	1729	0-6"	2-Methylphenol	450	U	UG/KG	483300	1378500
101409	1729	0-6"	2-Nitroaniline	2200	U	UG/KG	483300	1378500
101409	1729	0-6"	2-Nitrophenol	450	U	UG/KG	483300	1378500
101409	1729	0-6"	3,3'-Dichlorobenzidine	890	U	UG/KG	483300	1378500
101409	1729	0-6"	3-Nitroaniline	2200	U	UG/KG	483300	1378500
101409	1729	0-6"	4,4'-DDD	21	U	UG/KG	483300	1378500

PT/2-93/WP/409196:NEWEWMFA.TAb(table from database)

SAMPLE NUMBER	BORING	DEPTH	ANALYTE	CONC	VALIDATION QUALIFIER	UNIT	STATE PLANNER COORDINATES	
101409	1729	0-6"	4,4'-DDE	21	U	UG/KG	483300	1378500
101409	1729	0-6"	4,4'-DDT	21	U	UG/KG	483300	1378500
101409	1729	0-6"	4,6-Dinitro-2-methylphenol	2200	U	UG/KG	483300	1378500
101409	1729	0-6"	4-Bromophenyl phenyl ether	450	U	UG/KG	483300	1378500
101409	1729	0-6"	4-Chloro-3-methylphenol	450	U	UG/KG	483300	1378500
101409	1729	0-6"	4-Chloroaniline	450	U	UG/KG	483300	1378500
101409	1729	0-6"	4-Chlorophenylphenyl ether	450	U	UG/KG	483300	1378500
101409	1729	0-6"	4-Methyl-2-pentanone	13	U	UG/KG	483300	1378500
101409	1729	0-6"	4-Methylphenol	450	U	UG/KG	483300	1378500
101409	1729	0-6"	4-Nitroaniline	2200	U	UG/KG	483300	1378500
101409	1729	0-6"	4-Nitrophenol	2200	U	UG/KG	483300	1378500
101409	1729	0-6"	Acenaphthene	450	U	UG/KG	483300	1378500
101409	1729	0-6"	Acenaphthylene	450	U	UG/KG	483300	1378500
101409	1729	0-6"	Acetone	13	BJ	UG/KG	483300	1378500
101409	1729	0-6"	Aldrin	11	U	UG/KG	483300	1378500
101409	1729	0-6"	alpha-BHC	11	U	UG/KG	483300	1378500
101409	1729	0-6"	alpha-Chlordane	110	U	UG/KG	483300	1378500
101409	1729	0-6"	Aluminum	6400		MG/KG	483300	1378500
101409	1729	0-6"	Anthracene	450	U	UG/KG	483300	1378500
101409	1729	0-6"	Antimony	7.9	UN	MG/KG	483300	1378500
101409	1729	0-6"	Aroclor-1016	110	U	UG/KG	483300	1378500
101409	1729	0-6"	Aroclor-1221	110	U	UG/KG	483300	1378500
101409	1729	0-6"	Aroclor-1232	110	U	UG/KG	483300	1378500
101409	1729	0-6"	Aroclor-1242	110	U	UG/KG	483300	1378500
101409	1729	0-6"	Aroclor-1248	110	U	UG/KG	483300	1378500
101409	1729	0-6"	Aroclor-1254	210	U	UG/KG	483300	1378500
101409	1729	0-6"	Aroclor-1260	210	U	UG/KG	483300	1378500
101409	1729	0-6"	Arsenic	3.1	SN	MG/KG	483300	1378500
101409	1729	0-6"	Barium	60.5		MG/KG	483300	1378500
101409	1729	0-6"	Benzene	7	U	UG/KG	483300	1378500
101409	1729	0-6"	Benzo(a)anthracene	450	U	UG/KG	483300	1378500
101409	1729	0-6"	Benzo(a)pyrene	450	U	UG/KG	483300	1378500
101409	1729	0-6"	Benzo(b)fluoranthene	450	U	UG/KG	483300	1378500
101409	1729	0-6"	Benzo(g,h,i)perylene	450	U	UG/KG	483300	1378500
101409	1729	0-6"	Benzo(k)fluoranthene	450	U	UG/KG	483300	1378500
101409	1729	0-6"	Benzoic acid	2200	U	UG/KG	483300	1378500
101409	1729	0-6"	Benzyl alcohol	450	U	UG/KG	483300	1378500
101409	1729	0-6"	Beryllium	.53	U	MG/KG	483300	1378500
101409	1729	0-6"	beta-BHC	11	U	UG/KG	483300	1378500
101409	1729	0-6"	bis(2-Chloroethoxy)methane	450	U	UG/KG	483300	1378500
101409	1729	0-6"	bis(2-Chloroethyl)ether	450	U	UG/KG	483300	1378500
101409	1729	0-6"	bis(2-Chloroisopropyl) ether	450	U	UG/KG	483300	1378500
101409	1729	0-6"	bis(2-Ethylhexyl) phthalate	450	U	UG/KG	483300	1378500
101409	1729	0-6"	Bromodichloromethane	7	U	UG/KG	483300	1378500
101409	1729	0-6"	Bromoform	7	U	UG/KG	483300	1378500
101409	1729	0-6"	Bromomethane	13	U	UG/KG	483300	1378500
101409	1729	0-6"	Butyl benzyl phthalate	450	U	UG/KG	483300	1378500
101409	1729	0-6"	Cadmium	.53	U	MG/KG	483300	1378500
101409	1729	0-6"	Calcium	1130	B	MG/KG	483300	1378500
101409	1729	0-6"	Carbon disulfide	7	U	UG/KG	483300	1378500
101409	1729	0-6"	Carbon Tetrachloride	7	U	UG/KG	483300	1378500
101409	1729	0-6"	Chlorobenzene	7	U	UG/KG	483300	1378500
101409	1729	0-6"	Chloroethane	13	U	UG/KG	483300	1378500
101409	1729	0-6"	Chloroform	7	U	UG/KG	483300	1378500
101409	1729	0-6"	Chloromethane	13	U	UG/KG	483300	1378500
101409	1729	0-6"	Chromium	9.3		MG/KG	483300	1378500
101409	1729	0-6"	Chrysene	450	U	UG/KG	483300	1378500
101409	1729	0-6"	cis-1,3-Dichloropropene	7	U	UG/KG	483300	1378500

PT/2-93/WP/409196:NBWBWMFA.TAb(table from database)

000237

5769

SAMPLE NUMBER	BORING	DEPTH	ANALYTE	CONC	VALIDATION QUALIFIER	UNIT	STATE PLANNER COORDINATES	
101409	1729	0-6"	Cobalt	9.4	B	MG/KG	483300	1378500
101409	1729	0-6"	Copper	9.2		MG/KG	483300	1378500
101409	1729	0-6"	Cyanide	.24	B	MG/KG	483300	1378500
101409	1729	0-6"	delta-BHC	11	U	UG/KG	483300	1378500
101409	1729	0-6"	Di-n-butyl phthalate	82	J	UG/KG	483300	1378500
101409	1729	0-6"	Di-n-octyl phthalate	450	U	UG/KG	483300	1378500
101409	1729	0-6"	Dibenzo(a,h)anthracene	450	U	UG/KG	483300	1378500
101409	1729	0-6"	Dibenzofuran	450	U	UG/KG	483300	1378500
101409	1729	0-6"	Dibromochloromethane	7	U	UG/KG	483300	1378500
101409	1729	0-6"	Dieldrin	21	U	UG/KG	483300	1378500
101409	1729	0-6"	Diethyl phthalate	450	U	UG/KG	483300	1378500
101409	1729	0-6"	Dimethyl phthalate	450	U	UG/KG	483300	1378500
101409	1729	0-6"	Endosulfan II	21	U	UG/KG	483300	1378500
101409	1729	0-6"	Endosulfan sulfate	21	U	UG/KG	483300	1378500
101409	1729	0-6"	Endosulfan-I	11	U	UG/KG	483300	1378500
101409	1729	0-6"	Endrin	21	U	UG/KG	483300	1378500
101409	1729	0-6"	Endrin ketone	21	U	UG/KG	483300	1378500
101409	1729	0-6"	Ethylbenzene	7	U	UG/KG	483300	1378500
101409	1729	0-6"	Fluoranthene	450	U	UG/KG	483300	1378500
101409	1729	0-6"	Fluorene	450	U	UG/KG	483300	1378500
101409	1729	0-6"	gamma-BHC (Lindane)	11	U	UG/KG	483300	1378500
101409	1729	0-6"	gamma-Chlordane	110	U	UG/KG	483300	1378500
101409	1729	0-6"	Heptachlor	11	U	UG/KG	483300	1378500
101409	1729	0-6"	Heptachlor epoxide	11	U	UG/KG	483300	1378500
101409	1729	0-6"	Hexachlorobenzene	450	U	UG/KG	483300	1378500
101409	1729	0-6"	Hexachlorobutadiene	450	U	UG/KG	483300	1378500
101409	1729	0-6"	Hexachlorocyclopentadiene	450	U	UG/KG	483300	1378500
101409	1729	0-6"	Hexachloroethane	450	U	UG/KG	483300	1378500
101409	1729	0-6"	Indeno(1,2,3-cd)pyrene	450	U	UG/KG	483300	1378500
101409	1729	0-6"	Iron	10700		MG/KG	483300	1378500
101409	1729	0-6"	Isophorone	450	U	UG/KG	483300	1378500
101409	1729	0-6"	Lead	12.7		MG/KG	483300	1378500
101409	1729	0-6"	Magnesium	1230	B	MG/KG	483300	1378500
101409	1729	0-6"	Manganese	823		MG/KG	483300	1378500
101409	1729	0-6"	Mercury	.13	UN	MG/KG	483300	1378500
101409	1729	0-6"	Methoxychlor	110	U	UG/KG	483300	1378500
101409	1729	0-6"	Methylene chloride	24	B	UG/KG	483300	1378500
101409	1729	0-6"	Molybdenum	6.9		MG/KG	483300	1378500
101409	1729	0-6"	N-Nitroso-di-n-propylamine	450	U	UG/KG	483300	1378500
101409	1729	0-6"	N-Nitrosodiphenylamine	450	U	UG/KG	483300	1378500
101409	1729	0-6"	Naphthalene	450	U	UG/KG	483300	1378500
101409	1729	0-6"	Nickel	12.7		MG/KG	483300	1378500
101409	1729	0-6"	Nitrobenzene	450	U	UG/KG	483300	1378500
101409	1729	0-6"	Pentachlorophenol	2200	U	UG/KG	483300	1378500
101409	1729	0-6"	Phenanthrene	450	U	UG/KG	483300	1378500
101409	1729	0-6"	Phenol	450	U	UG/KG	483300	1378500
101409	1729	0-6"	Potassium	486	B	MG/KG	483300	1378500
101409	1729	0-6"	Pyrene	450	U	UG/KG	483300	1378500
101409	1729	0-6"	Selenium	.52	UN	MG/KG	483300	1378500
101409	1729	0-6"	Silicon	351	*	MG/KG	483300	1378500
101409	1729	0-6"	Silver	2.6	U	MG/KG	483300	1378500
101409	1729	0-6"	Sodium	27.9	B	MG/KG	483300	1378500
101409	1729	0-6"	Styrene	7	U	UG/KG	483300	1378500
101409	1729	0-6"	Tetrachlorethene	7	U	UG/KG	483300	1378500
101409	1729	0-6"	Thallium	.52	U	MG/KG	483300	1378500
101409	1729	0-6"	Toluene	7	U	UG/KG	483300	1378500
101409	1729	0-6"	Total xylenes	7	U	UG/KG	483300	1378500
101409	1729	0-6"	Toxaphene	210	U	UG/KG	483300	1378500

PT/2-93/WP/409196:NEWEWMFA.TAb(table from database)

SAMPLE NUMBER BORING DEPTH	ANALYTE	CONC	VALIDATION QUALIFIER	UNIT	STATE PLANNER COORDINATES	
101409 1729 0-6"	trans-1,3-Dichloropropene	7	U	UG/KG	483300	1378500
101409 1729 0-6"	Trichloroethene	7	U	UG/KG	483300	1378500
101409 1729 0-6"	Vanadium	16.8		MG/KG	483300	1378500
101409 1729 0-6"	Vinyl Acetate	13	U	UG/KG	483300	1378500
101409 1729 0-6"	Vinyl chloride	13	U	UG/KG	483300	1378500
101409 1729 0-6"	Zinc	28.5		MG/KG	483300	1378500

PT/2-93/WP/409196:NEWEWMFA.TAb(table from database)

DRAFT

GEOCHEMICAL RADIONUCLIDE DATA

From: KIRK::RIFSDLB 8-DEC-1992 16:10:38.06
To: ASILJW
CC:
Subj:

SAMPLE NUMBER	BORING	DEPTH	RADIONUCLIDE	CONCENTRATION	UNITS/QUALIFIER	COORDINATES	
100318	2733	0-.5	CS-137	0.34	pCi/g J	477070.67	1383161.03
100318	2733	0-.5	GROSS ALPHA	14.9	pCi/g -	477070.67	1383161.03
100318	2733	0-.5	GROSS BETA	13.0	pCi/g -	477070.67	1383161.03
100318	2733	0-.5	PU-238	< 0.6	pCi/g J	477070.67	1383161.03
100318	2733	0-.5	PU-239/240	< 0.6	pCi/g -	477070.67	1383161.03
100318	2733	0-.5	RA-226	0.59	pCi/g J	477070.67	1383161.03
100318	2733	0-.5	RA-228	0.59	pCi/g J	477070.67	1383161.03
100318	2733	0-.5	RU-106	< 1.0	pCi/g J	477070.67	1383161.03
100318	2733	0-.5	SR-90	< 0.8	pCi/g D	477070.67	1383161.03
100318	2733	0-.5	TC-99	< 0.9	pCi/g J	477070.67	1383161.03
100318	2733	0-.5	TH-228	< 0.6	pCi/g J	477070.67	1383161.03
100318	2733	0-.5	TH-230	0.70	pCi/g J	477070.67	1383161.03
100318	2733	0-.5	TH-232	< 0.6	pCi/g -	477070.67	1383161.03
100318	2733	0-.5	TH-TOTAL	4.08	ug/g -	477070.67	1383161.03
100318	2733	0-.5	U-234	1.24	pCi/g J	477070.67	1383161.03
100318	2733	0-.5	U-235/236	< 0.6	pCi/g J	477070.67	1383161.03
100318	2733	0-.5	U-238	1.66	pCi/g -	477070.67	1383161.03
100318	2733	0-.5	U-TOTAL	4.04	ug/g J	477070.67	1383161.03
100333	2733	28.0'-28.5'	CS-137	< 0.2	pCi/g J	477070.67	1383161.03
100333	2733	28.0'-28.5'	GROSS ALPHA	14.9	pCi/g -	477070.67	1383161.03
100333	2733	28.0'-28.5'	GROSS BETA	14.9	pCi/g -	477070.67	1383161.03
100333	2733	28.0'-28.5'	PU-238	< 0.6	pCi/g J	477070.67	1383161.03
100333	2733	28.0'-28.5'	PU-239/240	< 0.6	pCi/g -	477070.67	1383161.03
100333	2733	28.0'-28.5'	RA-226	0.63	pCi/g J	477070.67	1383161.03
100333	2733	28.0'-28.5'	RA-228	0.59	pCi/g J	477070.67	1383161.03
100333	2733	28.0'-28.5'	RU-106	< 1.0	pCi/g J	477070.67	1383161.03
100333	2733	28.0'-28.5'	SR-90	< 0.7	pCi/g D	477070.67	1383161.03
100333	2733	28.0'-28.5'	TC-99	< 0.9	pCi/g -	477070.67	1383161.03
100333	2733	28.0'-28.5'	TH-228	9.17	pCi/g J	477070.67	1383161.03
100333	2733	28.0'-28.5'	TH-230	1.68	pCi/g J	477070.67	1383161.03
100333	2733	28.0'-28.5'	TH-232	6.98	pCi/g -	477070.67	1383161.03
100333	2733	28.0'-28.5'	TH-TOTAL	63.0	ug/g -	477070.67	1383161.03
100333	2733	28.0'-28.5'	U-234	1.03	pCi/g J	477070.67	1383161.03
100333	2733	28.0'-28.5'	U-235/236	< 0.6	pCi/g J	477070.67	1383161.03
100333	2733	28.0'-28.5'	U-238	0.80	pCi/g -	477070.67	1383161.03
100333	2733	28.0'-28.5'	U-TOTAL	2.07	ug/g J	477070.67	1383161.03
100360	1733	28.0'-30.0'	CS-137	< 0.2	pCi/g J	477080.44	1383156.49
100360	1733	28.0'-30.0'	GROSS ALPHA	10.1	pCi/g -	477080.44	1383156.49
100360	1733	28.0'-30.0'	GROSS BETA	14.0	pCi/g -	477080.44	1383156.49
100360	1733	28.0'-30.0'	PU-238	< 0.6	pCi/g -	477080.44	1383156.49
100360	1733	28.0'-30.0'	PU-239/240	< 0.6	pCi/g -	477080.44	1383156.49
100360	1733	28.0'-30.0'	RA-226	0.71	pCi/g J	477080.44	1383156.49
100360	1733	28.0'-30.0'	RA-228	0.55	pCi/g J	477080.44	1383156.49
100360	1733	28.0'-30.0'	RU-106	< 1.0	pCi/g J	477080.44	1383156.49
100360	1733	28.0'-30.0'	SR-90	< 0.5	pCi/g -	477080.44	1383156.49
100360	1733	28.0'-30.0'	TC-99	< 0.9	pCi/g J	477080.44	1383156.49
100360	1733	28.0'-30.0'	TH-228	1.77	pCi/g -	477080.44	1383156.49
100360	1733	28.0'-30.0'	TH-230	2.10	pCi/g -	477080.44	1383156.49
100360	1733	28.0'-30.0'	TH-232	< 0.6	pCi/g -	477080.44	1383156.49
100360	1733	28.0'-30.0'	TH-TOTAL	3.71	ug/g -	477080.44	1383156.49
100360	1733	28.0'-30.0'	U-234	1.09	pCi/g -	477080.44	1383156.49
100360	1733	28.0'-30.0'	U-235/236	< 0.6	pCi/g -	477080.44	1383156.49
100360	1733	28.0'-30.0'	U-238	0.92	pCi/g -	477080.44	1383156.49
100360	1733	28.0'-30.0'	U-TOTAL	< 3.8	ug/g JD	477080.44	1383156.49
100371	2728	0.0 - 0.5	CS-137	0.37	pCi/g J	483301.63	1377960.59
100371	2728	0.0 - 0.5	GROSS ALPHA	18.7	pCi/g -	483301.63	1377960.59
100371	2728	0.0 - 0.5	GROSS BETA	21.6	pCi/g -	483301.63	1377960.59
100371	2728	0.0 - 0.5	PU-238	< 0.6	pCi/g J	483301.63	1377960.59
100371	2728	0.0 - 0.5	PU-239/240	< 0.6	pCi/g -	483301.63	1377960.59
100371	2728	0.0 - 0.5	RA-226	0.99	pCi/g J	483301.63	1377960.59
100371	2728	0.0 - 0.5	RA-228	1.08	pCi/g J	483301.63	1377960.59
100371	2728	0.0 - 0.5	RU-106	< 1.0	pCi/g J	483301.63	1377960.59
100371	2728	0.0 - 0.5	SR-90	< 0.5	pCi/g -	483301.63	1377960.59
100371	2728	0.0 - 0.5	TC-99	< 0.9	pCi/g -	483301.63	1377960.59
100371	2728	0.0 - 0.5	TH-228	0.93	pCi/g J	483301.63	1377960.59
100371	2728	0.0 - 0.5	TH-230	1.32	pCi/g J	483301.63	1377960.59
100371	2728	0.0 - 0.5	TH-232	0.97	pCi/g -	483301.63	1377960.59
100371	2728	0.0 - 0.5	TH-TOTAL	8.74	ug/g -	483301.63	1377960.59
100371	2728	0.0 - 0.5	U-234	2.43	pCi/g J	483301.63	1377960.59
100371	2728	0.0 - 0.5	U-235/236	< 0.6	pCi/g J	483301.63	1377960.59
100371	2728	0.0 - 0.5	U-238	2.68	pCi/g -	483301.63	1377960.59
100371	2728	0.0 - 0.5	U-TOTAL	8.59	ug/g J	483301.63	1377960.59
100378	2728	14.0' - 14.5'	CS-137	< 0.2	pCi/g J	483301.63	1377960.59
100378	2728	14.0' - 14.5'	RA-226	0.88	pCi/g J	483301.63	1377960.59
100378	2728	14.0' - 14.5'	RA-228	0.81	pCi/g J	483301.63	1377960.59
100378	2728	14.0' - 14.5'	RU-106	< 1.0	pCi/g J	483301.63	1377960.59
100378	2728	14.0' - 14.5'	U-235	< 0.3	pCi/g J	483301.63	1377960.59
100378	2728	14.0' - 14.5'	U-238	< 1.6	pCi/g JD	483301.63	1377960.59
100413	1679	19.0 - 20.5	CS-137	< 0.2	pCi/g -	483924.53	1378264.61

SAMPLE NUMBER	BORING	DEPTH	RADIONUCLIDE	CONCENTRATION	UNITS/QUALIFIER	COORDINATES	
100413	1679	19.0 - 20.5	RA-226	0.69	pCi/g -	483924.53	1378264.61
100413	1679	19.0 - 20.5	RA-228	0.79	pCi/g -	483924.53	1378264.61
100413	1679	19.0 - 20.5	RU-106	< 1.0	pCi/g -	483924.53	1378264.61
100413	1679	19.0 - 20.5	U-235	< 0.24	pCi/g -	483924.53	1378264.61
100413	1679	19.0 - 20.5	U-238	0.94	pCi/g -	483924.53	1378264.61
100422	1679	0.0 - 0.5	CS-137	0.43	pCi/g -	483924.53	1378264.61
100422	1679	0.0 - 0.5	GROSS ALPHA	27.6	pCi/g -	483924.53	1378264.61
100422	1679	0.0 - 0.5	GROSS BETA	26.2	pCi/g -	483924.53	1378264.61
100422	1679	0.0 - 0.5	NP-237	< 1.0	pCi/g DM	483924.53	1378264.61
100422	1679	0.0 - 0.5	PU-238	< 1.0	pCi/g JD	483924.53	1378264.61
100422	1679	0.0 - 0.5	PU-239/240	< 1.0	pCi/g D	483924.53	1378264.61
100422	1679	0.0 - 0.5	RA-226	0.85	pCi/g -	483924.53	1378264.61
100422	1679	0.0 - 0.5	RA-228	1.11	pCi/g -	483924.53	1378264.61
100422	1679	0.0 - 0.5	RU-106	< 1.0	pCi/g -	483924.53	1378264.61
100422	1679	0.0 - 0.5	SR-90	1.00	pCi/g -	483924.53	1378264.61
100422	1679	0.0 - 0.5	TC-99	< 0.9	pCi/g -	483924.53	1378264.61
100422	1679	0.0 - 0.5	TH-228	1.74	pCi/g J	483924.53	1378264.61
100422	1679	0.0 - 0.5	TH-230	2.52	pCi/g J	483924.53	1378264.61
100422	1679	0.0 - 0.5	TH-232	1.20	pCi/g -	483924.53	1378264.61
100422	1679	0.0 - 0.5	TH-TOTAL	10.8	ug/g -	483924.53	1378264.61
100422	1679	0.0 - 0.5	U-234	2.18	pCi/g J	483924.53	1378264.61
100422	1679	0.0 - 0.5	U-235/236	< 1.0	pCi/g JD	483924.53	1378264.61
100422	1679	0.0 - 0.5	U-238	2.81	pCi/g -	483924.53	1378264.61
100422	1679	0.0 - 0.5	U-TOTAL	6.40	ug/g -	483924.53	1378264.61
100424	1679	DRUMMED CUTTING	TH-TOTAL	5.87	ug/g -	483924.53	1378264.61
100424	1679	DRUMMED CUTTING	U-TOTAL	< 5.3	ug/g D	483924.53	1378264.61
100571	2731	17.5 - 19.0	CS-137	< 0.2	pCi/g R	484155	1382895
100571	2731	17.5 - 19.0	RA-226	1.01	pCi/g R	484155	1382895
100571	2731	17.5 - 19.0	RA-228	1.00	pCi/g R	484155	1382895
100571	2731	17.5 - 19.0	RU-106	< 1.0	pCi/g R	484155	1382895
100571	2731	17.5 - 19.0	U-235	< 0.2	pCi/g R	484155	1382895
100571	2731	17.5 - 19.0	U-TOTAL	1.33	ug/g R	484155	1382895
100577	2731	0.0 - 0.5	CS-137	< 0.2	pCi/g J	484155	1382895
100577	2731	0.0 - 0.5	GROSS ALPHA	17.7	pCi/g -	484155	1382895
100577	2731	0.0 - 0.5	GROSS BETA	31.2	pCi/g -	484155	1382895
100577	2731	0.0 - 0.5	PU-238	< 0.6	pCi/g J	484155	1382895
100577	2731	0.0 - 0.5	PU-239/240	< 0.6	pCi/g -	484155	1382895
100577	2731	0.0 - 0.5	RA-226	1.00	pCi/g J	484155	1382895
100577	2731	0.0 - 0.5	RA-228	1.20	pCi/g J	484155	1382895
100577	2731	0.0 - 0.5	RU-106	< 1.0	pCi/g J	484155	1382895
100577	2731	0.0 - 0.5	SR-90	< 0.7	pCi/g D	484155	1382895
100577	2731	0.0 - 0.5	TC-99	< 0.9	pCi/g J	484155	1382895
100577	2731	0.0 - 0.5	TH-228	0.81	pCi/g J	484155	1382895
100577	2731	0.0 - 0.5	TH-230	1.29	pCi/g J	484155	1382895
100577	2731	0.0 - 0.5	TH-232	0.67	pCi/g -	484155	1382895
100577	2731	0.0 - 0.5	TH-TOTAL	6.05	ug/g -	484155	1382895
100577	2731	0.0 - 0.5	U-234	2.41	pCi/g -	484155	1382895
100577	2731	0.0 - 0.5	U-235/236	< 0.6	pCi/g J	484155	1382895
100577	2731	0.0 - 0.5	U-238	2.63	pCi/g J	484155	1382895
100577	2731	0.0 - 0.5	U-TOTAL	8.78	ug/g J	484155	1382895
100579	2731	DRUMMED CUTTING	TH-TOTAL	< 1.3	ug/g -	484155	1382895
100579	2731	DRUMMED CUTTING	U-TOTAL	2.55	ug/g J	484155	1382895
100600	1070	0.0 - 0.5	CS-137	0.29	pCi/g -	476940.09	1382104.78
100600	1070	0.0 - 0.5	GROSS ALPHA	13.0	pCi/g -	476940.09	1382104.78
100600	1070	0.0 - 0.5	GROSS BETA	20.0	pCi/g -	476940.09	1382104.78
100600	1070	0.0 - 0.5	PU-238	< 0.6	pCi/g J	476940.09	1382104.78
100600	1070	0.0 - 0.5	PU-239/240	< 0.6	pCi/g J	476940.09	1382104.78
100600	1070	0.0 - 0.5	RA-226	0.79	pCi/g -	476940.09	1382104.78
100600	1070	0.0 - 0.5	RA-228	1.05	pCi/g -	476940.09	1382104.78
100600	1070	0.0 - 0.5	RU-106	< 1.0	pCi/g -	476940.09	1382104.78
100600	1070	0.0 - 0.5	SR-90	1.16	pCi/g -	476940.09	1382104.78
100600	1070	0.0 - 0.5	TC-99	< 0.9	pCi/g -	476940.09	1382104.78
100600	1070	0.0 - 0.5	TH-228	2.49	pCi/g J	476940.09	1382104.78
100600	1070	0.0 - 0.5	TH-230	1.43	pCi/g J	476940.09	1382104.78
100600	1070	0.0 - 0.5	TH-232	0.80	pCi/g -	476940.09	1382104.78
100600	1070	0.0 - 0.5	TH-TOTAL	7.20	ug/g -	476940.09	1382104.78
100600	1070	0.0 - 0.5	U-234	1.98	pCi/g -	476940.09	1382104.78
100600	1070	0.0 - 0.5	U-235/236	< 0.6	pCi/g J	476940.09	1382104.78
100600	1070	0.0 - 0.5	U-238	1.97	pCi/g J	476940.09	1382104.78
100600	1070	0.0 - 0.5	U-TOTAL	5.89	ug/g -	476940.09	1382104.78
100624	1070	16.5 - 18.0	CS-137	< 0.2	pCi/g -	476940.09	1382104.78
100624	1070	16.5 - 18.0	RA-226	0.87	pCi/g -	476940.09	1382104.78
100624	1070	16.5 - 18.0	RA-228	0.78	pCi/g -	476940.09	1382104.78
100624	1070	16.5 - 18.0	RU-106	< 1.0	pCi/g -	476940.09	1382104.78
100624	1070	16.5 - 18.0	U-TOTAL	< 3.3	ug/g D	476940.09	1382104.78
100648	1070	DRUMMED CUTTING	TH-TOTAL	5.44	ug/g -	476940.09	1382104.78
100648	1070	DRUMMED CUTTING	U-TOTAL	2.70	ug/g J	476940.09	1382104.78
100651	1748	0.0 - 0.5 FT.	CS-137	0.28	pCi/g R	477300	1382500
100651	1748	0.0 - 0.5 FT.	GROSS ALPHA	< 7.1	pCi/g -	477300	1382500
100651	1748	0.0 - 0.5 FT.	GROSS BETA	18.9	pCi/g -	477300	1382500
100651	1748	0.0 - 0.5 FT.	PU-238	< 0.6	pCi/g R	477300	1382500
100651	1748	0.0 - 0.5 FT.	PU-239/240	< 0.6	pCi/g R	477300	1382500
100651	1748	0.0 - 0.5 FT.	RA-226	1.06	pCi/g R	477300	1382500

SAMPLE NUMBER	BORING	DEPTH	RADIONUCLIDE	CONCENTRATION	UNITS/QUALIFIER	COORDINATES	
100651	1748	0.0 - 0.5 FT.	RA-228	1.02	pCi/g R	477300	1382500
100651	1748	0.0 - 0.5 FT.	RU-106	< 1.0	pCi/g R	477300	1382500
100651	1748	0.0 - 0.5 FT.	SR-90	3.01	pCi/g -	477300	1382500
100651	1748	0.0 - 0.5 FT.	TC-99	< 0.9	pCi/g R	477300	1382500
100651	1748	0.0 - 0.5 FT.	TH-228	0.70	pCi/g J	477300	1382500
100651	1748	0.0 - 0.5 FT.	TH-230	0.91	pCi/g J	477300	1382500
100651	1748	0.0 - 0.5 FT.	TH-232	1.10	pCi/g -	477300	1382500
100651	1748	0.0 - 0.5 FT.	TH-TOTAL	9.94	ug/g -	477300	1382500
100651	1748	0.0 - 0.5 FT.	U-234	2.09	pCi/g R	477300	1382500
100651	1748	0.0 - 0.5 FT.	U-235/236	< 0.6	pCi/g R	477300	1382500
100651	1748	0.0 - 0.5 FT.	U-238	2.46	pCi/g R	477300	1382500
100651	1748	0.0 - 0.5 FT.	U-TOTAL	6.88	ug/g J	477300	1382500
100664	1748	14.0 - 15.0 FT.	CS-137	< 0.2	pCi/g J	477300	1382500
100664	1748	14.0 - 15.0 FT.	RA-226	0.78	pCi/g J	477300	1382500
100664	1748	14.0 - 15.0 FT.	RA-228	0.87	pCi/g J	477300	1382500
100664	1748	14.0 - 15.0 FT.	RU-106	< 1.0	pCi/g J	477300	1382500
100664	1748	14.0 - 15.0 FT.	U-235	< 0.3	pCi/g J	477300	1382500
100664	1748	14.0 - 15.0 FT.	U-238	1.23	pCi/g J	477300	1382500
100687	1746	0.0 - 0.5	CS-137	0.36	pCi/g	478000	1382500
100687	1746	0.0 - 0.5	GROSS ALPHA	33.6	pCi/g	478000	1382500
100687	1746	0.0 - 0.5	GROSS BETA	22.6	pCi/g	478000	1382500
100687	1746	0.0 - 0.5	NP-237	< 0.6	pCi/g	478000	1382500
100687	1746	0.0 - 0.5	PU-238	< 0.6	pCi/g	478000	1382500
100687	1746	0.0 - 0.5	PU-239/240	< 0.6	pCi/g	478000	1382500
100687	1746	0.0 - 0.5	RA-226	0.94	pCi/g	478000	1382500
100687	1746	0.0 - 0.5	RA-228	1.09	pCi/g	478000	1382500
100687	1746	0.0 - 0.5	RU-106	< 1.0	pCi/g	478000	1382500
100687	1746	0.0 - 0.5	SR-90	1.62	pCi/g	478000	1382500
100687	1746	0.0 - 0.5	TC-99	< 0.9	pCi/g	478000	1382500
100687	1746	0.0 - 0.5	TH-228	1.63	pCi/g	478000	1382500
100687	1746	0.0 - 0.5	TH-230	1.77	pCi/g	478000	1382500
100687	1746	0.0 - 0.5	TH-232	1.04	pCi/g	478000	1382500
100687	1746	0.0 - 0.5	TH-TOTAL	9.42	ug/g	478000	1382500
100687	1746	0.0 - 0.5	U-234	4.63	pCi/g	478000	1382500
100687	1746	0.0 - 0.5	U-235/236	0.81	pCi/g	478000	1382500
100687	1746	0.0 - 0.5	U-238	3.56	pCi/g	478000	1382500
100687	1746	0.0 - 0.5	U-TOTAL	23.7	ug/g	478000	1382500
100697	1746	7.0 - 8.5	CS-137	< 0.2	pCi/g J	478000	1382500
100697	1746	7.0 - 8.5	GROSS BETA	14.2	pCi/g -	478000	1382500
100697	1746	7.0 - 8.5	PU-238	< 0.6	pCi/g J	478000	1382500
100697	1746	7.0 - 8.5	PU-239/240	< 0.6	pCi/g R	478000	1382500
100697	1746	7.0 - 8.5	RA-226	< 0.3	pCi/g J	478000	1382500
100697	1746	7.0 - 8.5	RA-228	0.51	pCi/g J	478000	1382500
100697	1746	7.0 - 8.5	RU-106	< 1.0	pCi/g J	478000	1382500
100697	1746	7.0 - 8.5	SR-90	< 0.5	pCi/g -	478000	1382500
100697	1746	7.0 - 8.5	TC-99	< 0.9	pCi/g R	478000	1382500
100697	1746	7.0 - 8.5	TH-228	1.35	pCi/g J	478000	1382500
100697	1746	7.0 - 8.5	TH-230	2.37	pCi/g J	478000	1382500
100697	1746	7.0 - 8.5	TH-232	< 0.6	pCi/g -	478000	1382500
100697	1746	7.0 - 8.5	TH-TOTAL	1.95	ug/g -	478000	1382500
100697	1746	7.0 - 8.5	U-234	1.46	pCi/g J	478000	1382500
100697	1746	7.0 - 8.5	U-235/236	< 0.6	pCi/g J	478000	1382500
100697	1746	7.0 - 8.5	U-238	0.89	pCi/g -	478000	1382500
100697	1746	7.0 - 8.5	U-TOTAL	2.30	ug/g J	478000	1382500
100701	1744	0.0 - 0.5	CS-137	0.23	pCi/g J	478500	1383000
100701	1744	0.0 - 0.5	GROSS ALPHA	26.2	pCi/g -	478500	1383000
100701	1744	0.0 - 0.5	GROSS BETA	20.1	pCi/g -	478500	1383000
100701	1744	0.0 - 0.5	PU-238	< 0.6	pCi/g J	478500	1383000
100701	1744	0.0 - 0.5	PU-239/240	< 0.6	pCi/g R	478500	1383000
100701	1744	0.0 - 0.5	RA-226	1.03	pCi/g J	478500	1383000
100701	1744	0.0 - 0.5	RA-228	0.94	pCi/g J	478500	1383000
100701	1744	0.0 - 0.5	RU-106	< 1.0	pCi/g J	478500	1383000
100701	1744	0.0 - 0.5	SR-90	0.95	pCi/g -	478500	1383000
100701	1744	0.0 - 0.5	TC-99	< 0.9	pCi/g -	478500	1383000
100701	1744	0.0 - 0.5	TH-228	1.44	pCi/g J	478500	1383000
100701	1744	0.0 - 0.5	TH-230	< 0.6	pCi/g J	478500	1383000
100701	1744	0.0 - 0.5	TH-232	0.76	pCi/g -	478500	1383000
100701	1744	0.0 - 0.5	TH-TOTAL	6.88	ug/g -	478500	1383000
100701	1744	0.0 - 0.5	U-234	4.13	pCi/g J	478500	1383000
100701	1744	0.0 - 0.5	U-235/236	< 0.6	pCi/g J	478500	1383000
100701	1744	0.0 - 0.5	U-238	2.81	pCi/g -	478500	1383000
100701	1744	0.0 - 0.5	U-TOTAL	1.00	ug/g J	478500	1383000
100714	1744	12 - 12.5	CS-137	< 0.2	pCi/g J	478500	1383000
100714	1744	12 - 12.5	GROSS ALPHA	< 11	pCi/g -	478500	1383000
100714	1744	12 - 12.5	GROSS BETA	10.6	pCi/g -	478500	1383000
100714	1744	12 - 12.5	PU-238	< 0.6	pCi/g J	478500	1383000
100714	1744	12 - 12.5	PU-239/240	< 0.6	pCi/g R	478500	1383000
100714	1744	12 - 12.5	RA-226	0.51	pCi/g J	478500	1383000
100714	1744	12 - 12.5	RA-228	< 0.5	pCi/g J	478500	1383000
100714	1744	12 - 12.5	RU-106	< 1.0	pCi/g J	478500	1383000
100714	1744	12 - 12.5	SR-90	< 0.5	pCi/g -	478500	1383000
100714	1744	12 - 12.5	TC-99	< 0.9	pCi/g -	478500	1383000
100714	1744	12 - 12.5	TH-228	1.05	pCi/g J	478500	1383000

PT/2-93/WP/409196:EWMF.Tab(table from database)

SAMPLE NUMBER	BORING	DEPTH	RADIONUCLIDE	CONCENTRATION	UNITS/QUALIFIER	COORDINATES	
100714	1744	12 - 12.5	TH-230	0.97	pCi/g J	478500	1383000
100714	1744	12 - 12.5	TH-232	< 0.6	pCi/g -	478500	1383000
100714	1744	12 - 12.5	TH-TOTAL	3.33	ug/g -	478500	1383000
100714	1744	12 - 12.5	U-234	0.66	pCi/g J	478500	1383000
100714	1744	12 - 12.5	U-235/236	< 0.6	pCi/g J	478500	1383000
100714	1744	12 - 12.5	U-238	< 0.6	pCi/g -	478500	1383000
100714	1744	12 - 12.5	U-TOTAL	< 3.0	ug/g J	478500	1383000
100715	1742	0.0-0.5	CS-137	0.43	pCi/g J	480213	1383000
100715	1742	0.0-0.5	GROSS ALPHA	94.7	pCi/g -	480213	1383000
100715	1742	0.0-0.5	GROSS BETA	69.0	pCi/g -	480213	1383000
100715	1742	0.0-0.5	PU-238	< 0.6	pCi/g J	480213	1383000
100715	1742	0.0-0.5	PU-239/240	< 0.6	pCi/g R	480213	1383000
100715	1742	0.0-0.5	RA-226	0.99	pCi/g J	480213	1383000
100715	1742	0.0-0.5	RA-228	1.47	pCi/g J	480213	1383000
100715	1742	0.0-0.5	RU-106	< 1.0	pCi/g J	480213	1383000
100715	1742	0.0-0.5	SR-90	1.26	pCi/g -	480213	1383000
100715	1742	0.0-0.5	TC-99	< 0.9	pCi/g J	480213	1383000
100715	1742	0.0-0.5	TH-228	2.50	pCi/g J	480213	1383000
100715	1742	0.0-0.5	TH-230	2.73	pCi/g J	480213	1383000
100715	1742	0.0-0.5	TH-232	1.60	pCi/g -	480213	1383000
100715	1742	0.0-0.5	TH-TOTAL	14.5	ug/g -	480213	1383000
100715	1742	0.0-0.5	U-234	40.7	pCi/g J	480213	1383000
100715	1742	0.0-0.5	U-235/236	4.83	pCi/g JE	480213	1383000
100715	1742	0.0-0.5	U-238	39.0	pCi/g C	480213	1383000
100715	1742	0.0-0.5	U-TOTAL	161	ug/g J	480213	1383000
100730	1742	14.5-16.0	CS-137	< 0.2	pCi/g -	480213	1383000
100730	1742	14.5-16.0	RA-226	0.81	pCi/g -	480213	1383000
100730	1742	14.5-16.0	RA-228	0.76	pCi/g -	480213	1383000
100730	1742	14.5-16.0	RU-106	< 1.0	pCi/g -	480213	1383000
100730	1742	14.5-16.0	U-235	< 0.2	pCi/g -	480213	1383000
100730	1742	14.5-16.0	U-238	1.07	pCi/g -	480213	1383000
100753	1740	0.0 - 0.5'	CS-137	0.22	pCi/g J	481800	1383000
100753	1740	0.0 - 0.5'	GROSS ALPHA	24.4	pCi/g -	481800	1383000
100753	1740	0.0 - 0.5'	GROSS BETA	25.0	pCi/g -	481800	1383000
100753	1740	0.0 - 0.5'	PU-238	< 0.6	pCi/g J	481800	1383000
100753	1740	0.0 - 0.5'	PU-239/240	< 0.6	pCi/g R	481800	1383000
100753	1740	0.0 - 0.5'	RA-226	1.00	pCi/g J	481800	1383000
100753	1740	0.0 - 0.5'	RA-228	1.19	pCi/g J	481800	1383000
100753	1740	0.0 - 0.5'	RU-106	< 1.0	pCi/g J	481800	1383000
100753	1740	0.0 - 0.5'	SR-90	0.89	pCi/g -	481800	1383000
100753	1740	0.0 - 0.5'	TC-99	< 0.9	pCi/g J	481800	1383000
100753	1740	0.0 - 0.5'	TH-228	2.22	pCi/g J	481800	1383000
100753	1740	0.0 - 0.5'	TH-230	1.70	pCi/g J	481800	1383000
100753	1740	0.0 - 0.5'	TH-232	0.95	pCi/g -	481800	1383000
100753	1740	0.0 - 0.5'	TH-TOTAL	8.59	ug/g -	481800	1383000
100753	1740	0.0 - 0.5'	U-234	4.83	pCi/g J	481800	1383000
100753	1740	0.0 - 0.5'	U-235/236	1.16	pCi/g J	481800	1383000
100753	1740	0.0 - 0.5'	U-238	5.36	pCi/g -	481800	1383000
100753	1740	0.0 - 0.5'	U-TOTAL	4.77	ug/g J	481800	1383000
100770	1740	15.0 - 17.0	CS-137	< 0.2	pCi/g J	481800	1383000
100770	1740	15.0 - 17.0	RA-226	0.81	pCi/g J	481800	1383000
100770	1740	15.0 - 17.0	RA-228	0.59	pCi/g J	481800	1383000
100770	1740	15.0 - 17.0	RU-106	< 1.0	pCi/g J	481800	1383000
100770	1740	15.0 - 17.0	U-235	< 0.2	pCi/g J	481800	1383000
100770	1740	15.0 - 17.0	U-238	0.86	pCi/g J	481800	1383000
100781	1740	22.0 - 22.5	CS-137	< 0.2	pCi/g J	481800	1383000
100781	1740	22.0 - 22.5	GROSS ALPHA	580	pCi/g -	481800	1383000
100781	1740	22.0 - 22.5	GROSS BETA	9.48	pCi/g -	481800	1383000
100781	1740	22.0 - 22.5	PU-238	< 0.6	pCi/g -	481800	1383000
100781	1740	22.0 - 22.5	PU-239/240	< 0.6	pCi/g -	481800	1383000
100781	1740	22.0 - 22.5	RA-226	0.64	pCi/g J	481800	1383000
100781	1740	22.0 - 22.5	RA-228	< 0.5	pCi/g J	481800	1383000
100781	1740	22.0 - 22.5	RU-106	< 1.0	pCi/g J	481800	1383000
100781	1740	22.0 - 22.5	SR-90	0.55	pCi/g -	481800	1383000
100781	1740	22.0 - 22.5	TC-99	< 0.9	pCi/g -	481800	1383000
100781	1740	22.0 - 22.5	TH-228	2.12	pCi/g -	481800	1383000
100781	1740	22.0 - 22.5	TH-230	1.25	pCi/g -	481800	1383000
100781	1740	22.0 - 22.5	TH-232	< 0.6	pCi/g -	481800	1383000
100781	1740	22.0 - 22.5	TH-TOTAL	4.34	ug/g -	481800	1383000
100781	1740	22.0 - 22.5	U-234	1.03	pCi/g -	481800	1383000
100781	1740	22.0 - 22.5	U-235/236	< 0.6	pCi/g -	481800	1383000
100781	1740	22.0 - 22.5	U-238	0.91	pCi/g -	481800	1383000
100781	1740	22.0 - 22.5	U-TOTAL	< 4.5	ug/g JD	481800	1383000
100782	1738	0.0-0.5	CS-137	< 0.2	pCi/g J	483539	1382635
100782	1738	0.0-0.5	GROSS ALPHA	15.3	pCi/g -	483539	1382635
100782	1738	0.0-0.5	GROSS BETA	19.2	pCi/g -	483539	1382635
100782	1738	0.0-0.5	PU-238	< 0.6	pCi/g J	483539	1382635
100782	1738	0.0-0.5	PU-239/240	< 0.6	pCi/g -	483539	1382635
100782	1738	0.0-0.5	RA-226	0.88	pCi/g J	483539	1382635
100782	1738	0.0-0.5	RA-228	1.01	pCi/g J	483539	1382635
100782	1738	0.0-0.5	RU-106	< 1.0	pCi/g J	483539	1382635
100782	1738	0.0-0.5	SR-90	1.00	pCi/g -	483539	1382635
100782	1738	0.0-0.5	TC-99	< 0.9	pCi/g -	483539	1382635

SAMPLE NUMBER	BORING	DEPTH	RADIONUCLIDE	CONCENTRATION	UNITS/QUALIFIER	COORDINATES	
100782	1738	0.0-0.5	TH-228	2.81	pCi/g J	483539	1382635
100782	1738	0.0-0.5	TH-230	1.93	pCi/g J	483539	1382635
100782	1738	0.0-0.5	TH-232	1.15	pCi/g -	483539	1382635
100782	1738	0.0-0.5	TH-TOTAL	10.4	ug/g -	483539	1382635
100782	1738	0.0-0.5	U-234	2.96	pCi/g J	483539	1382635
100782	1738	0.0-0.5	U-235/236	< 0.6	pCi/g J	483539	1382635
100782	1738	0.0-0.5	U-238	2.69	pCi/g -	483539	1382635
100782	1738	0.0-0.5	U-TOTAL	8.32	ug/g J	483539	1382635
100802	1738	15-17	CS-137	< 0.2	pCi/g J	483539	1382635
100802	1738	15-17	RA-226	0.81	pCi/g J	483539	1382635
100802	1738	15-17	RA-228	0.75	pCi/g J	483539	1382635
100802	1738	15-17	RU-106	< 1.0	pCi/g J	483539	1382635
100802	1738	15-17	U-235	< 0.3	pCi/g J	483539	1382635
100802	1738	15-17	U-238	0.86	pCi/g J	483539	1382635
100820	1736	0.0-0.5	CS-137	< 0.2	pCi/g J	483334	1381000
100820	1736	0.0-0.5	GROSS ALPHA	27.2	pCi/g -	483334	1381000
100820	1736	0.0-0.5	GROSS BETA	23.8	pCi/g -	483334	1381000
100820	1736	0.0-0.5	PU-238	< 0.6	pCi/g -	483334	1381000
100820	1736	0.0-0.5	PU-239/240	< 0.6	pCi/g -	483334	1381000
100820	1736	0.0-0.5	RA-226	0.89	pCi/g J	483334	1381000
100820	1736	0.0-0.5	RA-228	0.98	pCi/g J	483334	1381000
100820	1736	0.0-0.5	RU-106	< 1.0	pCi/g J	483334	1381000
100820	1736	0.0-0.5	SR-90	1.37	pCi/g -	483334	1381000
100820	1736	0.0-0.5	TC-99	< 0.9	pCi/g -	483334	1381000
100820	1736	0.0-0.5	TH-228	2.91	pCi/g -	483334	1381000
100820	1736	0.0-0.5	TH-230	1.80	pCi/g -	483334	1381000
100820	1736	0.0-0.5	TH-232	0.85	pCi/g -	483334	1381000
100820	1736	0.0-0.5	TH-TOTAL	7.64	ug/g -	483334	1381000
100820	1736	0.0-0.5	U-234	3.34	pCi/g -	483334	1381000
100820	1736	0.0-0.5	U-235/236	0.63	pCi/g -	483334	1381000
100820	1736	0.0-0.5	U-238	2.64	pCi/g -	483334	1381000
100820	1736	0.0-0.5	U-TOTAL	8.68	ug/g J	483334	1381000
100839	1736	14.0-15.0	CS-137	< 0.2	pCi/g J	483334	1381000
100839	1736	14.0-15.0	GROSS ALPHA	10.7	pCi/g -	483334	1381000
100839	1736	14.0-15.0	GROSS BETA	11.9	pCi/g -	483334	1381000
100839	1736	14.0-15.0	PU-238	< 0.6	pCi/g -	483334	1381000
100839	1736	14.0-15.0	PU-239/240	< 0.6	pCi/g -	483334	1381000
100839	1736	14.0-15.0	RA-226	< 0.3	pCi/g J	483334	1381000
100839	1736	14.0-15.0	RA-228	< 0.5	pCi/g J	483334	1381000
100839	1736	14.0-15.0	RU-106	< 1.0	pCi/g J	483334	1381000
100839	1736	14.0-15.0	SR-90	2.67	pCi/g -	483334	1381000
100839	1736	14.0-15.0	TC-99	< 0.9	pCi/g -	483334	1381000
100839	1736	14.0-15.0	TH-228	2.00	pCi/g -	483334	1381000
100839	1736	14.0-15.0	TH-230	1.69	pCi/g -	483334	1381000
100839	1736	14.0-15.0	TH-232	< 0.6	pCi/g -	483334	1381000
100839	1736	14.0-15.0	TH-TOTAL	4.00	ug/g -	483334	1381000
100839	1736	14.0-15.0	U-234	0.70	pCi/g -	483334	1381000
100839	1736	14.0-15.0	U-235/236	< 0.6	pCi/g -	483334	1381000
100839	1736	14.0-15.0	U-238	0.75	pCi/g -	483334	1381000
100839	1736	14.0-15.0	U-TOTAL	< 4.6	ug/g JD	483334	1381000
100841	1734	0.0-0.5	CS-137	< 0.2	pCi/g J	483300	1380000
100841	1734	0.0-0.5	GROSS ALPHA	21.6	pCi/g -	483300	1380000
100841	1734	0.0-0.5	GROSS BETA	25.0	pCi/g -	483300	1380000
100841	1734	0.0-0.5	PU-238	< 0.6	pCi/g -	483300	1380000
100841	1734	0.0-0.5	PU-239/240	< 0.6	pCi/g -	483300	1380000
100841	1734	0.0-0.5	RA-226	1.13	pCi/g J	483300	1380000
100841	1734	0.0-0.5	RA-228	1.18	pCi/g J	483300	1380000
100841	1734	0.0-0.5	RU-106	< 1.0	pCi/g J	483300	1380000
100841	1734	0.0-0.5	SR-90	< 0.5	pCi/g -	483300	1380000
100841	1734	0.0-0.5	TC-99	< 0.9	pCi/g J	483300	1380000
100841	1734	0.0-0.5	TH-228	2.43	pCi/g -	483300	1380000
100841	1734	0.0-0.5	TH-230	1.38	pCi/g -	483300	1380000
100841	1734	0.0-0.5	TH-232	1.23	pCi/g -	483300	1380000
100841	1734	0.0-0.5	TH-TOTAL	11.1	ug/g -	483300	1380000
100841	1734	0.0-0.5	U-234	2.56	pCi/g -	483300	1380000
100841	1734	0.0-0.5	U-235/236	< 0.6	pCi/g -	483300	1380000
100841	1734	0.0-0.5	U-238	3.05	pCi/g -	483300	1380000
100841	1734	0.0-0.5	U-TOTAL	8.70	ug/g J	483300	1380000
100859	1734	14-16'	CS-137	< 0.2	pCi/g J	483300	1380000
100859	1734	14-16'	RA-226	0.81	pCi/g J	483300	1380000
100859	1734	14-16'	RA-228	0.66	pCi/g J	483300	1380000
100859	1734	14-16'	RU-106	< 1.0	pCi/g J	483300	1380000
100859	1734	14-16'	U-235	< 0.2	pCi/g J	483300	1380000
100859	1734	14-16'	U-238	1.09	pCi/g J	483300	1380000
100862	1734	24-26	CS-137	< 0.2	pCi/g J	483300	1380000
100862	1734	24-26	GROSS ALPHA	10.8	pCi/g -	483300	1380000
100862	1734	24-26	GROSS BETA	19.7	pCi/g -	483300	1380000
100862	1734	24-26	PU-238	< 0.6	pCi/g -	483300	1380000
100862	1734	24-26	PU-239/240	< 0.6	pCi/g -	483300	1380000
100862	1734	24-26	RA-226	0.72	pCi/g J	483300	1380000
100862	1734	24-26	RA-228	0.78	pCi/g J	483300	1380000
100862	1734	24-26	RU-106	< 1.0	pCi/g J	483300	1380000
100862	1734	24-26	SR-90	< 0.5	pCi/g -	483300	1380000

SAMPLE NUMBER	BORING	DEPTH	RADIONUCLIDE	CONCENTRATION	UNITS/QUALIFIER		COORDINATES	
100862	1734	24-26	TC-99	< 0.9	pCi/g	J	483300	1380000
100862	1734	24-26	TH-228	2.07	pCi/g	-	483300	1380000
100862	1734	24-26	TH-230	1.48	pCi/g	-	483300	1380000
100862	1734	24-26	TH-232	0.95	pCi/g	-	483300	1380000
100862	1734	24-26	TH-TOTAL	8.56	ug/g	-	483300	1380000
100862	1734	24-26	U-234	3.25	pCi/g	-	483300	1380000
100862	1734	24-26	U-235/236	< 0.6	pCi/g	-	483300	1380000
100862	1734	24-26	U-238	4.30	pCi/g	-	483300	1380000
100862	1734	24-26	U-TOTAL	2.93	ug/g	J	483300	1380000
100863	1734	0-26	TH-TOTAL	5.51	ug/g		483300	1380000
100863	1734	0-26	U-TOTAL	2.18	ug/g		483300	1380000
100865	1730	0.0-0.5	CS-137	0.33	pCi/g	J	483300	1379000
100865	1730	0.0-0.5	GROSS ALPHA	17.7	pCi/g	-	483300	1379000
100865	1730	0.0-0.5	GROSS BETA	23.9	pCi/g	-	483300	1379000
100865	1730	0.0-0.5	PU-238	< 0.6	pCi/g	-	483300	1379000
100865	1730	0.0-0.5	PU-239/240	< 0.6	pCi/g	-	483300	1379000
100865	1730	0.0-0.5	RA-226	1.12	pCi/g	J	483300	1379000
100865	1730	0.0-0.5	RA-228	1.13	pCi/g	J	483300	1379000
100865	1730	0.0-0.5	RU-106	< 1.0	pCi/g	J	483300	1379000
100865	1730	0.0-0.5	SR-90	< 0.5	pCi/g	-	483300	1379000
100865	1730	0.0-0.5	TC-99	< 0.9	pCi/g	J	483300	1379000
100865	1730	0.0-0.5	TH-228	2.52	pCi/g	-	483300	1379000
100865	1730	0.0-0.5	TH-230	1.69	pCi/g	-	483300	1379000
100865	1730	0.0-0.5	TH-232	1.12	pCi/g	-	483300	1379000
100865	1730	0.0-0.5	TH-TOTAL	10.2	ug/g	-	483300	1379000
100865	1730	0.0-0.5	U-234	2.61	pCi/g	-	483300	1379000
100865	1730	0.0-0.5	U-235/236	< 0.6	pCi/g	-	483300	1379000
100865	1730	0.0-0.5	U-238	3.06	pCi/g	-	483300	1379000
100865	1730	0.0-0.5	U-TOTAL	9.07	ug/g	J	483300	1379000
100879	1730	14.5-16.5	CS-137	< 0.2	pCi/g	J	483300	1379000
100879	1730	14.5-16.5	RA-226	0.78	pCi/g	J	483300	1379000
100879	1730	14.5-16.5	RA-228	0.77	pCi/g	J	483300	1379000
100879	1730	14.5-16.5	RU-106	< 1.0	pCi/g	J	483300	1379000
100879	1730	14.5-16.5	U-235	< 0.2	pCi/g	J	483300	1379000
100879	1730	14.5-16.5	U-238	0.86	pCi/g	J	483300	1379000
100893	1730	0-30.5	TH-TOTAL	6.06	ug/g		483300	1379000
100893	1730	0-30.5	U-TOTAL	4.09	ug/g		483300	1379000
100895	1736	0-16	TH-TOTAL	7.21	ug/g		483334	1381000
100895	1736	0-16	U-TOTAL	2.16	ug/g		483334	1381000
100897	1738	0-30	TH-TOTAL	5.75	ug/g		483539	1382635
100897	1738	0-30	U-TOTAL	2.98	ug/g		483539	1382635
100899	1740	0-24	TH-TOTAL	6.72	ug/g		481800	1383000
100899	1740	0-24	U-TOTAL	3.72	ug/g		481800	1383000
100901	1742	0-29	TH-TOTAL	6.68	ug/g		480213	1383000
100901	1742	0-29	U-TOTAL	3.78	ug/g		480213	1383000
100903	1744	0-13.5	TH-TOTAL	8.55	ug/g		478500	1383000
100903	1744	0-13.5	U-TOTAL	3.71	ug/g		478500	1383000
100905	1746	0-12.5	TH-TOTAL	6.09	ug/g		478000	1382500
100905	1746	0-12.5	U-TOTAL	2.94	ug/g		478000	1382500
100907	1748	0-13.0	TH-TOTAL	4.13	ug/g		477300	1382500
100907	1748	0-13.0	U-TOTAL	2.62	ug/g		477300	1382500
101233	1747	15.0'-15.5'	CS-137	< 0.2	pCi/g	J	477600	1382500
101233	1747	15.0'-15.5'	RA-226	0.66	pCi/g	J	477600	1382500
101233	1747	15.0'-15.5'	RA-228	0.58	pCi/g	J	477600	1382500
101233	1747	15.0'-15.5'	RU-106	< 1.0	pCi/g	J	477600	1382500
101233	1747	15.0'-15.5'	U-235	< 0.3	pCi/g	J	477600	1382500
101233	1747	15.0'-15.5'	U-238	1.26	pCi/g	J	477600	1382500
101243	1747	21.0'-21.5'	CS-137	< 0.2	pCi/g	J	477600	1382500
101243	1747	21.0'-21.5'	GROSS ALPHA	10.7	pCi/g	-	477600	1382500
101243	1747	21.0'-21.5'	GROSS BETA	16.5	pCi/g	-	477600	1382500
101243	1747	21.0'-21.5'	PU-238	< 0.6	pCi/g	J	477600	1382500
101243	1747	21.0'-21.5'	PU-239/240	< 0.6	pCi/g	-	477600	1382500
101243	1747	21.0'-21.5'	RA-226	0.67	pCi/g	J	477600	1382500
101243	1747	21.0'-21.5'	RA-228	< 0.5	pCi/g	J	477600	1382500
101243	1747	21.0'-21.5'	RU-106	< 1.0	pCi/g	J	477600	1382500
101243	1747	21.0'-21.5'	SR-90	< 0.5	pCi/g	-	477600	1382500
101243	1747	21.0'-21.5'	TC-99	< 0.9	pCi/g	R	477600	1382500
101243	1747	21.0'-21.5'	TH-228	1.44	pCi/g	J	477600	1382500
101243	1747	21.0'-21.5'	TH-230	< 0.6	pCi/g	J	477600	1382500
101243	1747	21.0'-21.5'	TH-232	0.75	pCi/g	-	477600	1382500
101243	1747	21.0'-21.5'	TH-TOTAL	6.79	ug/g	-	477600	1382500
101243	1747	21.0'-21.5'	U-234	3.58	pCi/g	J	477600	1382500
101243	1747	21.0'-21.5'	U-235/236	1.56	pCi/g	J	477600	1382500
101243	1747	21.0'-21.5'	U-238	1.58	pCi/g	-	477600	1382500
101243	1747	21.0'-21.5'	U-TOTAL	2.88	ug/g	J	477600	1382500
101244	1747	0.0'-0.5'	CS-137	0.23	pCi/g	J	477600	1382500
101244	1747	0.0'-0.5'	GROSS ALPHA	12.7	pCi/g	-	477600	1382500
101244	1747	0.0'-0.5'	GROSS BETA	19.6	pCi/g	-	477600	1382500
101244	1747	0.0'-0.5'	PU-238	< 0.6	pCi/g	J	477600	1382500
101244	1747	0.0'-0.5'	PU-239/240	< 0.6	pCi/g	-	477600	1382500
101244	1747	0.0'-0.5'	RA-226	0.88	pCi/g	J	477600	1382500
101244	1747	0.0'-0.5'	RA-228	1.08	pCi/g	J	477600	1382500
101244	1747	0.0'-0.5'	RU-106	< 1.0	pCi/g	J	477600	1382500

SAMPLE NUMBER	BORING	DEPTH	RADIONUCLIDE	CONCENTRATION	UNITS/QUALIFIER		COORDINATES	
101244	1747	0.0'-0.5'	SR-90	0.96	pCi/g	-	477600	1382500
101244	1747	0.0'-0.5'	TC-99	< 0.9	pCi/g	R	477600	1382500
101244	1747	0.0'-0.5'	TH-228	2.06	pCi/g	J	477600	1382500
101244	1747	0.0'-0.5'	TH-230	1.71	pCi/g	J	477600	1382500
101244	1747	0.0'-0.5'	TH-232	0.74	pCi/g	-	477600	1382500
101244	1747	0.0'-0.5'	TH-TOTAL	6.67	ug/g	-	477600	1382500
101244	1747	0.0'-0.5'	U-234	2.85	pCi/g	J	477600	1382500
101244	1747	0.0'-0.5'	U-235/236	< 0.6	pCi/g	J	477600	1382500
101244	1747	0.0'-0.5'	U-238	2.02	pCi/g	-	477600	1382500
101244	1747	0.0'-0.5'	U-TOTAL	6.37	ug/g	J	477600	1382500
101251	1745	6 IN	CS-137	< 0.2	pCi/g		477600	1382500
101251	1745	6 IN	GROSS ALPHA	26.1	pCi/g		477600	1382500
101251	1745	6 IN	GROSS BETA	20.4	pCi/g		477600	1382500
101251	1745	6 IN	NP-237	< 0.6	pCi/g		477600	1382500
101251	1745	6 IN	PU-238	< 0.6	pCi/g		477600	1382500
101251	1745	6 IN	PU-239/240	< 0.6	pCi/g		477600	1382500
101251	1745	6 IN	RA-226	1.24	pCi/g		477600	1382500
101251	1745	6 IN	RA-228	1.32	pCi/g		477600	1382500
101251	1745	6 IN	RU-106	< 1.0	pCi/g		477600	1382500
101251	1745	6 IN	SR-90	2.67	pCi/g		477600	1382500
101251	1745	6 IN	TC-99	< 0.9	pCi/g		477600	1382500
101251	1745	6 IN	TH-228	1.81	pCi/g		477600	1382500
101251	1745	6 IN	TH-230	1.76	pCi/g		477600	1382500
101251	1745	6 IN	TH-232	1.01	pCi/g		477600	1382500
101251	1745	6 IN	TH-TOTAL	9.14	ug/g		477600	1382500
101251	1745	6 IN	U-234	2.26	pCi/g		477600	1382500
101251	1745	6 IN	U-235/236	< 0.6	pCi/g		477600	1382500
101251	1745	6 IN	U-238	2.59	pCi/g		477600	1382500
101251	1745	6 IN	U-TOTAL	15.0	ug/g		477600	1382500
101282	1743	6 IN	CS-137	0.36	pCi/g	J	479100	1383000
101282	1743	6 IN	GROSS ALPHA	15.8	pCi/g	-	479100	1383000
101282	1743	6 IN	GROSS BETA	23.4	pCi/g	-	479100	1383000
101282	1743	6 IN	PU-238	< 0.6	pCi/g	J	479100	1383000
101282	1743	6 IN	PU-239/240	< 0.6	pCi/g	R	479100	1383000
101282	1743	6 IN	RA-226	0.85	pCi/g	J	479100	1383000
101282	1743	6 IN	RA-228	1.01	pCi/g	J	479100	1383000
101282	1743	6 IN	RU-106	< 1.0	pCi/g	J	479100	1383000
101282	1743	6 IN	SR-90	0.56	pCi/g	-	479100	1383000
101282	1743	6 IN	TC-99	< 0.9	pCi/g	J	479100	1383000
101282	1743	6 IN	TH-228	1.45	pCi/g	J	479100	1383000
101282	1743	6 IN	TH-230	0.66	pCi/g	J	479100	1383000
101282	1743	6 IN	TH-232	0.93	pCi/g	-	479100	1383000
101282	1743	6 IN	TH-TOTAL	8.41	ug/g	-	479100	1383000
101282	1743	6 IN	U-234	4.32	pCi/g	J	479100	1383000
101282	1743	6 IN	U-235/236	0.84	pCi/g	J	479100	1383000
101282	1743	6 IN	U-238	3.68	pCi/g	-	479100	1383000
101282	1743	6 IN	U-TOTAL	10.5	ug/g	J	479100	1383000
101293	1743	12.0-13.0	CS-137	< 0.2	pCi/g	J	479100	1383000
101293	1743	12.0-13.0	RA-226	0.65	pCi/g	J	479100	1383000
101293	1743	12.0-13.0	RA-228	0.69	pCi/g	J	479100	1383000
101293	1743	12.0-13.0	RU-106	< 1.0	pCi/g	J	479100	1383000
101293	1743	12.0-13.0	U-235	< 2.9	pCi/g	JD	479100	1383000
101293	1743	12.0-13.0	U-238	0.91	pCi/g	J	479100	1383000
101310	1741	0-6 IN.	CS-137	0.58	pCi/g	J	480700	1383000
101310	1741	0-6 IN.	GROSS ALPHA	37.8	pCi/g	-	480700	1383000
101310	1741	0-6 IN.	GROSS BETA	28.7	pCi/g	-	480700	1383000
101310	1741	0-6 IN.	PU-238	< 0.6	pCi/g	J	480700	1383000
101310	1741	0-6 IN.	PU-239/240	< 0.6	pCi/g	R	480700	1383000
101310	1741	0-6 IN.	RA-226	0.96	pCi/g	J	480700	1383000
101310	1741	0-6 IN.	RA-228	1.04	pCi/g	J	480700	1383000
101310	1741	0-6 IN.	RU-106	< 1.0	pCi/g	J	480700	1383000
101310	1741	0-6 IN.	SR-90	0.82	pCi/g	-	480700	1383000
101310	1741	0-6 IN.	TC-99	< 0.9	pCi/g	J	480700	1383000
101310	1741	0-6 IN.	TH-228	1.70	pCi/g	J	480700	1383000
101310	1741	0-6 IN.	TH-230	1.61	pCi/g	J	480700	1383000
101310	1741	0-6 IN.	TH-232	0.97	pCi/g	-	480700	1383000
101310	1741	0-6 IN.	TH-TOTAL	8.79	ug/g	-	480700	1383000
101310	1741	0-6 IN.	U-234	14.2	pCi/g	J	480700	1383000
101310	1741	0-6 IN.	U-235/236	2.18	pCi/g	JE	480700	1383000
101310	1741	0-6 IN.	U-238	15.1	pCi/g	C	480700	1383000
101310	1741	0-6 IN.	U-TOTAL	17.3	ug/g	J	480700	1383000
101321	1741	14.0-16.0	CS-137	< 0.2	pCi/g	-	480700	1383000
101321	1741	14.0-16.0	RA-226	0.73	pCi/g	-	480700	1383000
101321	1741	14.0-16.0	RA-228	0.89	pCi/g	-	480700	1383000
101321	1741	14.0-16.0	RU-106	< 1.0	pCi/g	-	480700	1383000
101321	1741	14.0-16.0	U-235	< 0.3	pCi/g	-	480700	1383000
101321	1741	14.0-16.0	U-238	0.87	pCi/g	-	480700	1383000
101334	1739	0-6 IN.	CS-137	< 0.2	pCi/g	J	482400	1383000
101334	1739	0-6 IN.	GROSS ALPHA	13.5	pCi/g	-	482400	1383000
101334	1739	0-6 IN.	GROSS BETA	19.7	pCi/g	-	482400	1383000
101334	1739	0-6 IN.	PU-238	< 0.6	pCi/g	J	482400	1383000
101334	1739	0-6 IN.	PU-239/240	< 0.6	pCi/g	-	482400	1383000
101334	1739	0-6 IN.	RA-226	0.90	pCi/g	J	482400	1383000

SAMPLE NUMBER	BORING	DEPTH	RADIONUCLIDE	CONCENTRATION	UNITS/QUALIFIER		COORDINATES	
101334	1739	0-6 IN.	RA-228	1.05	pCi/g	J	482400	1383000
101334	1739	0-6 IN.	RU-106	< 1.0	pCi/g	J	482400	1383000
101334	1739	0-6 IN.	SR-90	0.62	pCi/g	-	482400	1383000
101334	1739	0-6 IN.	TC-99	< 0.9	pCi/g	-	482400	1383000
101334	1739	0-6 IN.	TH-228	2.56	pCi/g	J	482400	1383000
101334	1739	0-6 IN.	TH-230	1.97	pCi/g	J	482400	1383000
101334	1739	0-6 IN.	TH-232	< 0.6	pCi/g	-	482400	1383000
101334	1739	0-6 IN.	TH-TOTAL	8.79	ug/g	-	482400	1383000
101334	1739	0-6 IN.	U-234	2.36	pCi/g	J	482400	1383000
101334	1739	0-6 IN.	U-235/236	< 0.6	pCi/g	J	482400	1383000
101334	1739	0-6 IN.	U-238	2.52	pCi/g	-	482400	1383000
101334	1739	0-6 IN.	U-TOTAL	8.44	ug/g	J	482400	1383000
101346	1739	15.0-17.0	CS-137	< 0.2	pCi/g	J	482400	1383000
101346	1739	15.0-17.0	RA-226	0.72	pCi/g	J	482400	1383000
101346	1739	15.0-17.0	RA-228	0.68	pCi/g	J	482400	1383000
101346	1739	15.0-17.0	RU-106	< 1.0	pCi/g	J	482400	1383000
101346	1739	15.0-17.0	U-235	< 0.3	pCi/g	J	482400	1383000
101346	1739	15.0-17.0	U-238	0.92	pCi/g	J	482400	1383000
101358	1737	0-6"	CS-137	0.42	pCi/g	J	483306	1381957
101358	1737	0-6"	GROSS ALPHA	15.0	pCi/g	-	483306	1381957
101358	1737	0-6"	GROSS BETA	33.1	pCi/g	-	483306	1381957
101358	1737	0-6"	PU-238	< 0.6	pCi/g	-	483306	1381957
101358	1737	0-6"	PU-239/240	< 0.6	pCi/g	-	483306	1381957
101358	1737	0-6"	RA-226	0.86	pCi/g	J	483306	1381957
101358	1737	0-6"	RA-228	1.03	pCi/g	J	483306	1381957
101358	1737	0-6"	RU-106	< 1.0	pCi/g	J	483306	1381957
101358	1737	0-6"	SR-90	2.84	pCi/g	-	483306	1381957
101358	1737	0-6"	TC-99	< 0.9	pCi/g	-	483306	1381957
101358	1737	0-6"	TH-228	2.94	pCi/g	-	483306	1381957
101358	1737	0-6"	TH-230	1.87	pCi/g	-	483306	1381957
101358	1737	0-6"	TH-232	1.15	pCi/g	-	483306	1381957
101358	1737	0-6"	TH-TOTAL	10.4	ug/g	-	483306	1381957
101358	1737	0-6"	U-234	5.86	pCi/g	-	483306	1381957
101358	1737	0-6"	U-235/236	< 0.6	pCi/g	-	483306	1381957
101358	1737	0-6"	U-238	5.71	pCi/g	-	483306	1381957
101358	1737	0-6"	U-TOTAL	13.9	ug/g	J	483306	1381957
101371	1737	10-15'	CS-137	< 0.2	pCi/g	J	483306	1381957
101371	1737	10-15'	GROSS ALPHA	47.5	pCi/g	-	483306	1381957
101371	1737	10-15'	GROSS BETA	16.7	pCi/g	-	483306	1381957
101371	1737	10-15'	PU-238	< 0.6	pCi/g	-	483306	1381957
101371	1737	10-15'	PU-239/240	< 0.6	pCi/g	-	483306	1381957
101371	1737	10-15'	RA-226	0.60	pCi/g	J	483306	1381957
101371	1737	10-15'	RA-228	0.64	pCi/g	J	483306	1381957
101371	1737	10-15'	RU-106	< 1.0	pCi/g	J	483306	1381957
101371	1737	10-15'	SR-90	2.16	pCi/g	-	483306	1381957
101371	1737	10-15'	TC-99	< 0.9	pCi/g	-	483306	1381957
101371	1737	10-15'	TH-228	2.14	pCi/g	-	483306	1381957
101371	1737	10-15'	TH-230	1.08	pCi/g	-	483306	1381957
101371	1737	10-15'	TH-232	0.62	pCi/g	-	483306	1381957
101371	1737	10-15'	TH-TOTAL	5.62	ug/g	-	483306	1381957
101371	1737	10-15'	U-234	< 0.6	pCi/g	-	483306	1381957
101371	1737	10-15'	U-235/236	< 0.6	pCi/g	-	483306	1381957
101371	1737	10-15'	U-238	< 0.6	pCi/g	-	483306	1381957
101371	1737	10-15'	U-TOTAL	< 3.9	ug/g	JD	483306	1381957
101372	1735	0-6"	CS-137	0.51	pCi/g	J		
101372	1735	0-6"	GROSS ALPHA	27.1	pCi/g	-		
101372	1735	0-6"	GROSS BETA	33.0	pCi/g	-		
101372	1735	0-6"	PU-238	< 0.6	pCi/g	-		
101372	1735	0-6"	PU-239/240	< 0.6	pCi/g	-		
101372	1735	0-6"	RA-226	1.10	pCi/g	J		
101372	1735	0-6"	RA-228	1.35	pCi/g	J		
101372	1735	0-6"	RU-106	< 1.0	pCi/g	J		
101372	1735	0-6"	SR-90	< 0.5	pCi/g	-		
101372	1735	0-6"	TC-99	< 0.9	pCi/g	J		
101372	1735	0-6"	TH-228	2.74	pCi/g	-		
101372	1735	0-6"	TH-230	3.14	pCi/g	-		
101372	1735	0-6"	TH-232	1.24	pCi/g	-		
101372	1735	0-6"	TH-TOTAL	11.2	ug/g	-		
101372	1735	0-6"	U-234	2.82	pCi/g	-		
101372	1735	0-6"	U-235/236	< 0.6	pCi/g	-		
101372	1735	0-6"	U-238	3.07	pCi/g	-		
101372	1735	0-6"	U-TOTAL	9.05	ug/g	J		
101385	1732	0-6"	CS-137	< 0.2	pCi/g	J		
101385	1732	0-6"	GROSS ALPHA	22.7	pCi/g	-		
101385	1732	0-6"	GROSS BETA	23.1	pCi/g	-		
101385	1732	0-6"	PU-238	< 0.6	pCi/g	-		
101385	1732	0-6"	PU-239/240	< 0.6	pCi/g	-		
101385	1732	0-6"	RA-226	0.93	pCi/g	J		
101385	1732	0-6"	RA-228	1.10	pCi/g	J		
101385	1732	0-6"	RU-106	< 1.0	pCi/g	J		
101385	1732	0-6"	SR-90	< 0.5	pCi/g	-		
101385	1732	0-6"	TC-99	< 0.9	pCi/g	J		

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SAMPLE NUMBER	BORING	DEPTH	RADIONUCLIDE	CONCENTRATION	UNITS/QUALIFIER	COORDINATES	
101385	1732	0-6"	TH-228	2.80	pCi/g -		
101385	1732	0-6"	TH-230	1.66	pCi/g -		
101385	1732	0-6"	TH-232	1.10	pCi/g -		
101385	1732	0-6"	TH-TOTAL	9.96	ug/g -		
101385	1732	0-6"	U-234	1.25	pCi/g -		
101385	1732	0-6"	U-235/236	< 0.6	pCi/g -		
101385	1732	0-6"	U-238	1.69	pCi/g -		
101385	1732	0-6"	U-TOTAL	4.53	ug/g J		
101409	1729	0-6"	CS-137	0.47	pCi/g J	483300	1378500
101409	1729	0-6"	GROSS ALPHA	28.5	pCi/g -	483300	1378500
101409	1729	0-6"	GROSS BETA	24.1	pCi/g -	483300	1378500
101409	1729	0-6"	PU-238	< 0.6	pCi/g J	483300	1378500
101409	1729	0-6"	PU-239/240	< 0.6	pCi/g -	483300	1378500
101409	1729	0-6"	RA-226	0.86	pCi/g J	483300	1378500
101409	1729	0-6"	RA-228	0.92	pCi/g J	483300	1378500
101409	1729	0-6"	RU-106	< 1.0	pCi/g -	483300	1378500
101409	1729	0-6"	SR-90	0.83	pCi/g -	483300	1378500
101409	1729	0-6"	TC-99	< 0.9	pCi/g J	483300	1378500
101409	1729	0-6"	TH-228	2.24	pCi/g J	483300	1378500
101409	1729	0-6"	TH-230	1.45	pCi/g J	483300	1378500
101409	1729	0-6"	TH-232	1.10	pCi/g J	483300	1378500
101409	1729	0-6"	TH-TOTAL	9.94	ug/g -	483300	1378500
101409	1729	0-6"	U-234	2.41	pCi/g -	483300	1378500
101409	1729	0-6"	U-235/236	< 0.6	pCi/g J	483300	1378500
101409	1729	0-6"	U-238	3.22	pCi/g -	483300	1378500
101409	1729	0-6"	U-TOTAL	9.88	ug/g J	483300	1378500
101429	1729	16-18	CS-137	< 0.2	pCi/g J	483300	1378500
101429	1729	16-18	RA-226	0.70	pCi/g J	483300	1378500
101429	1729	16-18	RA-228	0.73	pCi/g J	483300	1378500
101429	1729	16-18	RU-106	< 1.0	pCi/g J	483300	1378500
101429	1729	16-18	U-235	< 0.2	pCi/g J	483300	1378500
101429	1729	16-18	U-238	1.26	pCi/g J	483300	1378500
101440	1745	0 - 27	TH-TOTAL	6.11	ug/g	478500	1382000
101440	1745	0 - 27	U-TOTAL	4.09	ug/g	478500	1382000
101442	1743	0 - 24	TH-TOTAL	6.87	ug/g	479100	1383000
101442	1743	0 - 24	U-TOTAL	5.42	ug/g	479100	1383000
101444	1741	0 - 30	TH-TOTAL	7.31	ug/g	480700	1383000
101444	1741	0 - 30	U-TOTAL	< 3.0	ug/g	480700	1383000
101446	1739	0 - 30	TH-TOTAL	8.42	ug/g	482400	1383000
101446	1739	0 - 30	U-TOTAL	2.97	ug/g	482400	1383000
101448	1737	0 - 15	TH-TOTAL	5.56	ug/g	483306	1381957
101448	1737	0 - 15	U-TOTAL	2.48	ug/g	483306	1381957
101450	1735	0 - 13	TH-TOTAL	10.8	ug/g	483300	1380500
101450	1735	0 - 13	U-TOTAL	3.38	ug/g	483300	1380500
101452	1732	0 - 21	TH-TOTAL	10.9	ug/g	483300	1379500
101452	1732	0 - 21	U-TOTAL	2.63	ug/g	483300	1379500
101454	1729	0 - 30	TH-TOTAL	6.53	ug/g	483300	1378500
101454	1729	0 - 30	U-TOTAL	3.92	ug/g	483300	1378500
101801	1728	NA	U-TOTAL	< 0.6	ug/g	483308.25	1377966.74
101802	1728	NA	U-TOTAL	< 0.6	ug/g	483308.25	1377966.74
101803	1729	NA	U-TOTAL	< 0.6	ug/g	483300	1378500
101804	1729	NA	U-TOTAL	< 0.6	ug/g	483300	1378500
101805	1730	NA	U-TOTAL	< 0.6	ug/g	483300	1379000
101806	1730	NA	U-TOTAL	< 0.6	ug/g	483300	1379000
101807	1732	NA	U-TOTAL	< 0.6	ug/g	483300	1379500
101808	1732	NA	U-TOTAL	< 0.6	ug/g	483300	1379500
101809	1734	NA	U-TOTAL	< 0.6	ug/g	483300	1380000
101810	1734	NA	U-TOTAL	< 0.6	ug/g	483300	1380000
101811	1735	NA	U-TOTAL	< 0.6	ug/g	483300	1380500
101812	1735	NA	U-TOTAL	< 0.6	ug/g	483300	1380500
101813	1736	NA	U-TOTAL	< 0.6	ug/g	483334	1381000
101814	1736	NA	U-TOTAL	< 0.6	ug/g	483334	1381000
101815	1737	NA	U-TOTAL	< 0.6	ug/g	483306	1381957
101816	1737	NA	U-TOTAL	< 0.6	ug/g	483306	1381957
101817	1738	NA	U-TOTAL	< 0.6	ug/g	483539	1382635
101818	1738	NA	U-TOTAL	< 0.6	ug/g	483539	1382635

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APPENDIX D

SURFACE GAMMA SURVEY FIELD MEASUREMENTS

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CHARACTERIZATION OF THE PROPOSED ENGINEERED WASTE MANAGEMENT FACILITY SITE SURFACE RADIATION FIELD MEASUREMENTS SUMMARY REPORT

March 13, 1992

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Appendix A SURFACE RADIATION FIELD MEASUREMENT PROCEDURE

Appendix B FIELD SURVEY DATA RECORDS

Appendix C MEASUREMENT RESULTS SORTED BY LOCATION AND BY EXPOSURE RATE

Appendix D EXPOSURE RATE DATA - GRAPHICAL PRESENTATIONS

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FEMP
March 13, 1992

1.0 PURPOSE

This is a summary report of the surface radiation field measurements for characterization of the proposed Engineered Waste Management Facility (EWMF) site at the Fernald Environmental Management Project (FEMP). The report will discuss methodology in Section 3.0 and Data Results in Section 4.0.

2.0 OBJECTIVES

Previous surface radiation field measurements were made under the Feed Materials Production Center (FMPC) Remedial Investigation/Feasibility Study (RI/FS) Surface Soil Characterization Task. Additional measurements were needed in areas not covered by the Surface Soil Characterization Task in support of the siting evaluation for the EWMF within the FEMP property boundaries. Measurement protocol for the surface radiation field measurements was established in accordance with Section 1.0 of the "RI/FS: Volume I: Sampling Plan" (March, 1988). The RI/FS sampling plan required 100-foot intervals between measurement locations. Large-volume [2" x 2" NaI(Tl)] scintillation survey instruments (SPA-3/ESP-1) manufactured by Eberline Instrument Company (Sante Fe, NM) were used to make the measurements. A Reuter-Stokes pressurized ionization chamber (PIC), which has a traceable calibration for radiation exposure rate measurements, was used to standardize the SPA-3/ESP-1 measurements.

3.0 METHODOLOGY

The Surface Radiation Field Measurement Procedure (December 3, 1991) presents the methodology for obtaining gamma radiation measurements. A copy of the procedure is included in Appendix A. Instrument count rates (SPA-3/ESP-1 readings) due to gamma radiations were measured at a distance of one meter above the ground surface at the nodes of 100-foot grids in areas north and east of the Production Area of the FEMP in areas designated by the "Engineered Waste Management Facility Sampling and Analysis Plan" (November, 1991). Count rates were converted to exposure rates using conversion factors (standardization factors) derived from comparisons of scintillation survey instrument readings to exposure rate measurements taken with the PIC at the same location.

Prior to using the survey instruments for field measurements, source checks were made to ensure that each instrument operated within established acceptable ranges. Also, before use and every four hours when kept in use, each SPA-3/ESP-1 was standardized with the PIC for ten one-minute counts. Source checks and standardizations were performed outdoors. Field measurements were made at survey points on the state planar coordinate grid system with SPA-3/ESP-1 instruments. The instruments were held one-meter (~3 feet) above the ground facing the direction of maximum exposure rate. A one-minute count was collected and recorded at each grid node. Copies of field survey data records, including standardization records, are included as Appendix B.

Three SPA-3/ESP-1 instruments and one pic were used on this project. The instrument serial numbers were as follows:

Instrument	Manufacturer	Serial Number
PIC	Reuter Stokes	E9691
SPA-3/ESP 1	Eberline	16/1793, 23/2057, 20/2058

4.0 DATA RESULTS

The Surface Radiation Field Measurements Plan commenced on December 5, 1991, and concluded on January 29, 1992. Within this time period approximately 1571 locations were surveyed with an average of 65 locations surveyed per day. Figure 1 illustrates the location of each measurement site. The data collected are summarized by state planar grid coordinate in and by exposure rate in Appendix C. Appendix D is a summary of exposure rates along each North State Planar Coordinate in 100 foot increments. Calculated exposure rate contours (isopleths) are shown in Figure 2. A three-dimensional representation of calculated exposure rates is shown in Figure 3.

ENGINEERED WASTE MANAGEMENT FACILITY
SURFACE RADIATION FIELD MEASUREMENT PROCEDURE

1.0 Introduction

The purpose of this procedure is to control conduct of field radiological surveys and data reduction and analysis of the data generated during the field radiological surveys in support of the siting evaluation for the Engineered Waste Management Facility (EWMF) at the Fernald Environmental Management Project (FEMP). The field radiological surveys will accomplish the following:

- Locate areas containing elevated levels of radionuclides to verify that radiological surface soil samples collected from the geological and geotechnical borings are representative of the study area.
- Preliminarily identify how much topsoil in the study area must be treated as contaminated material during construction.
- Provide information to assess the short-term hazards to construction workers from areas with elevated gamma-radiation levels.

Count rates from gamma radiation will be measured at one meter above ground at the nodes of 100 foot grids using 2" x 2" scintillation counters [NaI(Tl)] in areas north and west of the Production Area of the FEMP in areas designated by Reference 2.1. Count rates will be converted to exposure rates using conversion factors obtained from comparisons of scintillation counter readings to exposure rate measurements taken with a Reuter-Stokes pressurized ion chamber.

2.0 References

2.1 U.S. Department of Energy, Engineered Waste Management Facility Sampling and Analysis Plan, November, 1991.

2.2 Eberline Instrument Corporation, Technical Manual for Eberline Smart Portable Model ESP-1.

2.3 Reuter-Stokes Corporation, Operational Manual RSS-111 Area Monitor System.

3.0 Equipment

ESP-1/SPA-3 (3)
RSS-111 pressurized ion chamber
Extra cables for ESP-1/SPA-3 (2)
Extra "C" cell batteries (12)
ESP-1 and RSS-111 instruction manuals

Calculator
Cs-137 check source
Uranium slab S/N 2741/91
Markers/pens
Clipboards
Plastic bags to cover equipment
Two-way radios (3)
Tape

4.0 Instrument Calibration/Operational Check

Scintillation counters (SPA-3/ESP-1) and Reuter-Stokes pressurized ion chamber (RSS-111) shall be calibrated within one year of use. Prior to each use or daily when kept in use, conduct the following on each instrument in accordance with Reference 2.2 and 2.3, as applicable:

- source response check
- battery check
- test of the reset button
- test of audible response
- test of zero
- examination for physical damage
- verification that the instrument is in calibration

Instruments failing any of the above tests shall be taken out of service, segregated from other instruments, tagged as "out of service", and repaired prior to use.

4.1 SPA-3/ESP-1 Source Check

Conduct source checks on the SPA-3/ESP-1s using the following:

- Conduct source checks outdoors.
- Measure background counts on the instrument for a one-minute count.
- Place the Cs-137 check source on the flat surface on the detector centerline with the source label next to the detector and measure the counts on the instrument for a one-minute count. Subtract the background counts from the gross counts and compare to the acceptable range marked on the instrument.
- If an instrument falls outside of the acceptable range, repeat the source check. If the instrument falls outside of the acceptable range a second consecutive time, take the instrument out of service.
- Record results of the source checks, source check location, field conditions, etc on the Field Activity Daily Log Form.

4.2 RSS-111 Source Check

Conduct source checks on the RSS-111 using the following:

- Conduct source checks outdoors with the instrument on the tripod and the detector center approximately 3 feet above the ground.
- Make all measurements after the reading has stabilized. Round all readings to the nearest μR/hr.
- Measure the background exposure rate.
- Place the box containing the uranium slab feet side down on the top of the detector with the center of the box over the detector centerline. Measure the exposure rate. Subtract the background from the gross exposure rate and compare to the acceptable range marked on the instrument.
- If an instrument falls outside of the acceptable range, repeat the source check. If the instrument falls outside of the acceptable range a second consecutive time, take the instrument out of service.
- Record results of the source checks, source check location, field conditions, etc on the field activity daily log form.

4.3 Establishing Acceptable Ranges for Source Checks

If not previously performed, establish acceptable ranges for source checks for the SPA-3/ESP-1 per the following:

- Record all readings and calculations on IT calculation sheets. Sign and date all sheets.
- Measure background counts on the instrument for ten, one-minute counts. Calculate the arithmetic mean of the background counts.
- Place the Cs-137 check source on the flat surface on the detector centerline with the source label next to the detector and measure the counts on the instrument for ten, one-minute counts. Remove and replace the source on the detector between counts. Calculate the sample mean and sample standard deviation for the sample counts.
- Calculate the net count by subtracting the mean background count from the mean gross count. Calculate the acceptable range by adding and subtracting three times the source count standard deviation from the net count. Record the acceptable range in counts per minute on the instrument.

5.0 Conduct of the Survey

5.1 Standardization with the RS-111

- Prior to each use or every four hours when kept in use, standardize each SPA-3/ESP-1s that is in use with the RSS-111 in accordance with the following:

- Locate the RS-111 with the detector centerline at three feet above ground level and within 1000 feet of all areas to be surveyed prior to the next standardization.

- Turn RS-111 power switch to "batt".

- Turn RS-111 electrometer switch to "zero" and wait one-minute, then verify the LCD output reads zero.

- Turn RS-111 electrometer switch to "read".

- Allow RS-111 LCD output reading to stabilize.

- At approximately 20-second intervals, record the background radiation exposure rate ten times on the RS-111. Round all results to the nearest μR/hr. Calculate the arithmetic average of the ten readings. Record results on the survey form, Attachment 1.

- At approximately three feet above ground level and 10 feet from the RS-111, record the counts for ten, one-minute counts on each in-use SPA-3/ESP-1. Calculate the arithmetic average of the ten readings. Record results on the survey form, Attachment 1. Use a separate form for each SPA-3/ESP-1.

- Calculate the standardization factor by dividing the average exposure rate by the average count rate for each instrument and record on Attachment 1.

5.2 Field Measurements

Field measurements will be performed by teams consisting of one or two radiation surveyors, one data recorder and location surveying personnel. Wireless communication is recommended for use among team members when employing multiple radiation surveyors. At the survey point locate the maximum exposure rate by slowly rotating 360° and listening for the maximum audible response. Facing the direction of maximum exposure rate, measure the counts on the SPA-3/ESP-1 for one-minute counts holding the probe with the front at 3 feet above the ground. Perform measurements on a 100-foot grid in the study area as close as possible to the grid nodes in accordance with Reference 2.1.

5.3 Documentation

Record data on Attachment 1. Locate survey points using state planar coordinate grid system. Use separate forms for each survey instrument and standardization period. Transmit daily the previous day's survey data and field activity daily log forms electronically to Nuclear Sciences, Knoxville for data reduction and evaluation.

INTERNATIONAL TECHNOLOGY CORPORATION

SURVEY DATA

Date: _____

Instrument No.: _____

Page 1 of ____

STANDARDIZATION DATA

Location: _____ _____

READING	1	2	3	4	5	6	7	8	9	10	AVG
RSS-111 (μR/hr)											
SPA-3 (cpm)											

STANDARDIZATION FACTOR: _____ μR/cpm

SURVEY RESULTS

LOCATION	TIME (24 hr Clock)	COUNT RATE (cpm)

Radiation Surveyor: _____ Date: _____

Signature

_____

Print

INTERNATIONAL TECHNOLOGY CORPORATION

SURVEY DATA
(Continuation)

Date: _____ Page ____ of ____

Instrument No.: _____

LOCATION	TIME (24 hr Clock)	COUNT RATE (cpm)

Radiation Surveyor: _____ Date: _____
Signature

_____
Print

DRAFT

FEMP
March 13, 1992

DRAFT

MEASUREMENT RESULTS SORTED BY LOCATION

10-Feb-92

NTH COORDINATE	EAST COORDINATE	DATE	TIME	EXPOSURE RATE	COUNT RATE	STD. FACTOR
476800	1382100	12/11/91	11:28	11.7	9.91E+03	1.18E-03
476800	1382200	12/11/91	11:45	11.1	9.41E+03	1.18E-03
476800	1382300	12/11/91	11:56	10.9	9.21E+03	1.18E-03
476800	1382400	12/11/91	12:07	10.8	9.16E+03	1.18E-03
476800	1383200	01/27/92	11:00	9.7	1.03E+04	9.37E-04
476800	1383300	01/27/92	11:02	9.5	1.01E+04	9.37E-04
476700	1382100	12/11/91	11:22	11.4	9.64E+03	1.18E-03
476700	1382200	12/11/91	11:42	11.6	9.86E+03	1.18E-03
476700	1382300	12/11/91	11:54	11.8	9.99E+03	1.18E-03
476700	1382400	12/11/91	12:05	11.8	1.00E+04	1.18E-03
476700	1382500	12/11/91	12:18	11.8	9.98E+03	1.18E-03
476700	1382600	12/11/91	12:40	11.2	9.52E+03	1.18E-03
476700	1382700	12/11/91	12:48	11.1	9.41E+03	1.18E-03
476700	1382800	12/11/91	12:59	10.9	9.27E+03	1.18E-03
476700	1382900	12/11/91	14:16	11.0	9.35E+03	1.18E-03
476700	1383000	01/27/92	10:32	9.2	9.83E+03	9.37E-04
476700	1383100	01/27/92	10:34	8.9	9.48E+03	9.37E-04
476700	1383200	01/27/92	10:58	9.3	9.92E+03	9.37E-04
476700	1383300	01/27/92	11:04	9.4	1.00E+04	9.37E-04
476800	1382000	12/11/91	11:16	11.7	9.93E+03	1.18E-03
476800	1382000	12/11/91	14:22	11.0	9.35E+03	1.18E-03
476800	1382100	12/11/91	11:20	11.5	9.75E+03	1.18E-03
476800	1382200	12/11/91	11:36	11.5	9.71E+03	1.18E-03
476800	1382300	12/11/91	11:52	11.5	9.74E+03	1.18E-03
476800	1382400	12/11/91	12:01	11.3	9.56E+03	1.18E-03
476800	1382500	12/11/91	12:16	11.9	1.01E+04	1.18E-03
476800	1382600	12/11/91	12:38	11.2	9.51E+03	1.18E-03
476800	1382700	12/11/91	12:46	11.6	9.79E+03	1.18E-03
476800	1382800	12/11/91	12:57	10.2	8.67E+03	1.18E-03
476800	1382900	12/11/91	14:14	10.8	9.16E+03	1.18E-03
476800	1383000	01/27/92	10:30	9.4	1.00E+04	9.37E-04
476800	1383100	01/27/92	10:36	9.1	9.68E+03	9.37E-04
476800	1383200	01/27/92	10:56	9.2	9.83E+03	9.37E-04
476800	1383300	01/27/92	11:06	9.7	1.04E+04	9.37E-04
476900	1382000	12/11/91	11:13	11.3	9.56E+03	1.18E-03
476900	1382000	12/11/91	14:20	10.9	9.25E+03	1.18E-03
476900	1382100	01/27/92	11:30	9.7	1.03E+04	9.37E-04
476900	1382200	12/11/91	11:32	11.8	1.00E+04	1.18E-03
476900	1382300	12/11/91	11:50	11.8	1.00E+04	1.18E-03
476900	1382400	12/11/91	11:59	11.8	1.00E+04	1.18E-03
476900	1382500	12/11/91	12:14	11.8	9.98E+03	1.18E-03
476900	1382600	12/11/91	12:35	11.6	9.85E+03	1.18E-03
476900	1382700	12/11/91	12:44	11.2	9.53E+03	1.18E-03
476900	1382800	12/11/91	12:54	11.1	9.42E+03	1.18E-03
476900	1382900	12/11/91	14:10	11.2	9.48E+03	1.18E-03
476900	1383000	01/27/92	10:28	9.7	1.04E+04	9.37E-04
476900	1383100	01/27/92	10:38	9.7	1.04E+04	9.37E-04
476900	1383200	01/27/92	10:53	9.8	1.05E+04	9.37E-04
476900	1383300	01/27/92	11:08	9.9	1.06E+04	9.37E-04
477000	1382000	12/05/91	14:40	11.9	1.00E+04	1.19E-03
477000	1382100	12/05/91	14:43	11.5	9.70E+03	1.19E-03
477000	1382200	12/05/91	14:45	11.4	9.62E+03	1.19E-03
477000	1382300	12/05/91	14:47	11.5	9.64E+03	1.19E-03
477000	1382400	12/09/91	13:33	10.1	1.01E+04	9.99E-04
477000	1382500	12/09/91	13:35	9.9	9.90E+03	9.99E-04
477000	1382600	12/09/91	13:37	9.8	9.77E+03	9.99E-04
477000	1382700	12/09/91	13:39	9.8	9.84E+03	9.99E-04
477000	1382800	12/09/91	13:41	9.7	9.66E+03	9.99E-04
477000	1382900	12/09/91	13:43	9.6	9.61E+03	9.99E-04
477000	1383000	12/09/91	13:45	9.7	9.71E+03	9.99E-04
477000	1383100	01/27/92	10:41	9.8	1.05E+04	9.37E-04
477000	1383200	01/27/92	10:51	9.9	1.06E+04	9.37E-04
477000	1383300	01/27/92	11:10	10.2	1.09E+04	9.37E-04
477100	1382000	12/09/91	14:20	9.8	9.76E+03	9.99E-04
477100	1382100	12/09/91	14:17	10.3	1.03E+04	9.99E-04
477100	1382200	12/09/91	14:15	10.1	1.01E+04	9.99E-04
477100	1382300	12/09/91	14:13	10.5	1.05E+04	9.99E-04
477100	1382400	12/09/91	14:11	10.1	1.01E+04	9.99E-04
477100	1382500	12/09/91	14:07	10.1	1.01E+04	9.99E-04
477100	1382600	12/09/91	14:05	9.9	9.91E+03	9.99E-04
477100	1382700	12/09/91	14:02	9.8	9.83E+03	9.99E-04
477100	1382800	12/09/91	14:00	10.0	9.99E+03	9.99E-04
477100	1382900	12/09/91	13:58	9.7	9.75E+03	9.99E-04
477100	1383000	12/09/91	13:56	9.1	9.10E+03	9.99E-04
477100	1383100	01/27/92	10:43	10.1	1.08E+04	9.37E-04
477100	1383200	01/27/92	10:49	9.9	1.06E+04	9.37E-04

10-Feb-92

RTH COORDINATE	EAST COORDINATE	DATE	TIME	EXPOSURE RATE	COUNT RATE	STD. FACTOR
477100	1383300	01/27/92	11:12	9.7	1.04E+04	9.37E-04
477200	1382000	12/09/91	14:19	11.0	1.11E+04	9.91E-04
477200	1382100	12/09/91	14:17	11.2	1.13E+04	9.91E-04
477200	1382200	12/09/91	14:15	11.0	1.11E+04	9.91E-04
477200	1382300	12/09/91	14:13	11.3	1.14E+04	9.91E-04
477200	1382400	12/09/91	14:11	10.9	1.10E+04	9.91E-04
477200	1382500	12/09/91	14:07	11.0	1.11E+04	9.91E-04
477200	1382600	12/09/91	14:05	10.8	1.09E+04	9.91E-04
477200	1382700	12/09/91	14:02	10.9	1.10E+04	9.91E-04
477200	1382800	12/09/91	14:00	11.1	1.12E+04	9.91E-04
477200	1382900	12/09/91	13:58	10.9	1.10E+04	9.91E-04
477200	1383000	12/09/91	13:56	11.0	1.11E+04	9.91E-04
477200	1383100	01/27/92	10:45	10.0	1.07E+04	9.37E-04
477200	1383200	01/27/92	10:47	9.8	1.05E+04	9.37E-04
477200	1383300	01/27/92	11:14	9.9	1.06E+04	9.37E-04
477300	1382000	12/09/91	14:40	11.2	1.13E+04	9.91E-04
477300	1382100	12/09/91	14:41	11.1	1.12E+04	9.91E-04
477300	1382200	12/09/91	14:43	11.2	1.13E+04	9.91E-04
477300	1382300	12/09/91	14:45	11.4	1.15E+04	9.91E-04
477300	1382400	12/09/91	14:47	10.9	1.10E+04	9.91E-04
477300	1382500	12/09/91	14:49	10.3	1.04E+04	9.91E-04
477300	1382600	12/09/91	14:51	11.0	1.11E+04	9.91E-04
477300	1382700	12/09/91	14:53	10.9	1.10E+04	9.91E-04
477300	1382800	12/09/91	14:55	10.8	1.09E+04	9.91E-04
477300	1382900	12/09/91	14:57	10.9	1.10E+04	9.91E-04
477300	1383000	12/09/91	14:59	11.3	1.14E+04	9.91E-04
477300	1383100	12/11/91	14:39	11.6	9.81E+03	1.18E-03
477300	1383200	12/11/91	14:43	11.9	1.01E+04	1.18E-03
477300	1383300	12/11/91	14:47	12.0	1.02E+04	1.18E-03
477400	1382000	12/09/91	14:40	9.9	9.91E+03	9.99E-04
477400	1382100	12/09/91	14:41	9.9	9.92E+03	9.99E-04
477400	1382200	12/09/91	14:43	10.0	1.00E+04	9.99E-04
477400	1382300	12/09/91	14:45	10.3	1.03E+04	9.99E-04
477400	1382400	12/09/91	14:47	9.9	9.95E+03	9.99E-04
477400	1382400	12/05/91	14:17	11.9	1.00E+04	1.19E-03
477400	1382500	12/09/91	14:49	10.2	1.02E+04	9.99E-04
477400	1382600	12/09/91	14:51	10.3	1.03E+04	9.99E-04
477400	1382700	12/09/91	14:53	9.8	9.79E+03	9.99E-04
477400	1382800	12/09/91	14:55	9.8	9.79E+03	9.99E-04
477400	1382900	12/09/91	14:57	10.2	1.02E+04	9.99E-04
477400	1383000	12/09/91	14:59	10.2	1.02E+04	9.99E-04
477400	1383100	12/11/91	14:52	11.3	9.58E+03	1.18E-03
477400	1383200	12/11/91	14:54	11.7	9.89E+03	1.18E-03
477400	1383300	12/11/91	14:56	12.5	1.06E+04	1.18E-03
477500	1381800	12/09/91	16:06	10.1	1.01E+04	9.99E-04
477500	1381900	12/09/91	16:04	10.0	9.97E+03	9.99E-04
477500	1382000	12/09/91	16:02	10.1	1.01E+04	9.99E-04
477500	1382100	12/09/91	16:01	10.4	1.04E+04	9.99E-04
477500	1382200	12/09/91	15:59	10.3	1.03E+04	9.99E-04
477500	1382300	12/09/91	15:57	10.5	1.05E+04	9.99E-04
477500	1382400	12/09/91	15:55	10.4	1.04E+04	9.99E-04
477500	1382500	12/05/91	14:14	11.2	9.43E+03	1.19E-03
477500	1382500	12/09/91	15:53	10.4	1.04E+04	9.99E-04
477500	1382600	12/09/91	15:51	9.8	9.84E+03	9.99E-04
477500	1382700	12/09/91	15:49	10.0	9.99E+03	9.99E-04
477500	1382800	12/09/91	15:39	10.1	1.01E+04	9.99E-04
477500	1382900	12/09/91	15:38	10.2	1.02E+04	9.99E-04
477500	1383000	12/09/91	15:35	10.1	1.01E+04	9.99E-04
477500	1383100	12/11/91	15:02	11.6	9.86E+03	1.18E-03
477500	1383200	12/11/91	15:04	11.2	9.46E+03	1.18E-03
477500	1383300	12/11/91	15:07	11.2	9.50E+03	1.18E-03
477600	1381800	12/09/91	16:05	11.2	1.13E+04	9.91E-04
477600	1381900	12/09/91	16:03	11.4	1.15E+04	9.91E-04
477600	1382000	12/09/91	16:02	11.1	1.12E+04	9.91E-04
477600	1382100	12/09/91	16:01	11.4	1.15E+04	9.91E-04
477600	1382200	12/09/91	15:59	11.3	1.14E+04	9.91E-04
477600	1382300	12/09/91	15:57	11.4	1.15E+04	9.91E-04
477600	1382400	12/09/91	15:55	11.1	1.12E+04	9.91E-04
477600	1382500	12/09/91	15:53	10.2	1.03E+04	9.91E-04
477600	1382600	12/09/91	15:51	11.1	1.12E+04	9.91E-04
477600	1382700	12/09/91	15:49	11.0	1.11E+04	9.91E-04
477600	1382800	12/09/91	15:39	10.9	1.10E+04	9.91E-04
477600	1382900	12/09/91	15:37	11.1	1.12E+04	9.91E-04
477600	1383000	12/09/91	15:35	11.3	1.14E+04	9.91E-04
477600	1383100	12/11/91	15:09	11.4	9.65E+03	1.18E-03
477600	1383200	12/11/91	15:13	11.0	9.32E+03	1.18E-03

10-Feb-92

NTH COORDINATE	EAST COORDINATE	DATE	TIME	EXPOSURE RATE	COUNT RATE	STD. FACTOR
477600	1383300	12/11/91	15:16	11.4	9.62E+03	1.18E-03
477700	1381800	12/10/91	10:27	10.2	1.10E+04	9.26E-04
477700	1381900	12/10/91	10:29	9.9	1.07E+04	9.26E-04
477700	1382000	12/10/91	10:31	9.8	1.06E+04	9.26E-04
477700	1382100	12/10/91	10:33	9.9	1.07E+04	9.26E-04
477700	1382200	12/10/91	10:35	9.8	1.06E+04	9.26E-04
477700	1382300	12/10/91	10:37	9.9	1.07E+04	9.26E-04
477700	1382400	12/10/91	10:40	9.7	1.05E+04	9.26E-04
477700	1382500	12/10/91	10:42	9.7	1.05E+04	9.26E-04
477700	1382600	12/10/91	10:43	9.7	1.05E+04	9.26E-04
477700	1382700	12/10/91	10:46	9.5	1.03E+04	9.26E-04
477700	1382800	12/10/91	10:48	9.6	1.04E+04	9.26E-04
477700	1382900	12/10/91	10:50	9.6	1.04E+04	9.26E-04
477700	1383000	12/10/91	10:52	9.9	1.07E+04	9.26E-04
477700	1383100	12/12/91	10:22	11.3	1.09E+04	1.04E-03
477700	1383200	12/12/91	10:25	11.4	1.10E+04	1.04E-03
477700	1383300	12/12/91	10:27	12.0	1.15E+04	1.04E-03
477800	1381900	12/10/91	10:31	10.1	1.22E+04	8.26E-04
477800	1382000	12/10/91	10:32	9.9	1.20E+04	8.26E-04
477800	1382100	12/10/91	10:34	9.7	1.17E+04	8.26E-04
477800	1382200	12/10/91	10:36	9.8	1.19E+04	8.26E-04
477800	1382300	12/10/91	10:38	9.8	1.18E+04	8.26E-04
477800	1382400	12/10/91	10:40	9.6	1.16E+04	8.26E-04
477800	1382500	12/10/91	10:42	9.8	1.18E+04	8.26E-04
477800	1382600	12/10/91	10:43	9.8	1.19E+04	8.26E-04
477800	1382700	12/10/91	10:46	9.8	1.18E+04	8.26E-04
477800	1382800	12/10/91	10:48	9.8	1.18E+04	8.26E-04
477800	1382900	12/10/91	10:50	9.6	1.16E+04	8.26E-04
477800	1383000	12/10/91	10:52	9.6	1.16E+04	8.26E-04
477800	1383100	12/12/91	10:15	9.9	1.00E+04	9.91E-04
477800	1383200	12/12/91	10:18	10.1	1.02E+04	9.91E-04
477800	1383300	12/12/91	10:22	10.0	1.01E+04	9.91E-04
477900	1381800	12/10/91	12:00	8.8	1.07E+04	8.26E-04
477900	1381900	12/10/91	11:58	10.9	1.32E+04	8.26E-04
477900	1382000	12/10/91	11:56	9.7	1.17E+04	8.26E-04
477900	1382100	12/10/91	11:55	9.7	1.17E+04	8.26E-04
477900	1382200	12/10/91	11:53	9.8	1.18E+04	8.26E-04
477900	1382300	12/10/91	11:51	9.9	1.20E+04	8.26E-04
477900	1382400	12/10/91	11:50	10.1	1.22E+04	8.26E-04
477900	1382500	12/10/91	11:48	9.7	1.17E+04	8.26E-04
477900	1382600	12/10/91	11:47	9.7	1.17E+04	8.26E-04
477900	1382700	12/10/91	11:45	9.6	1.16E+04	8.26E-04
477900	1382800	12/10/91	11:44	10.2	1.23E+04	8.26E-04
477900	1382900	12/10/91	11:42	9.3	1.13E+04	8.26E-04
477900	1383000	12/10/91	11:40	9.3	1.12E+04	8.26E-04
477900	1383100	12/12/91	10:32	9.7	9.80E+03	9.91E-04
477900	1383200	12/12/91	10:33	10.2	1.03E+04	9.91E-04
477900	1383300	12/12/91	10:35	10.4	1.05E+04	9.91E-04
478000	1381800	12/10/91	12:00	8.8	9.46E+03	9.26E-04
478000	1381900	12/10/91	11:58	9.4	1.01E+04	9.26E-04
478000	1382000	12/10/91	11:56	9.0	9.70E+03	9.26E-04
478000	1382100	12/10/91	11:55	8.6	9.28E+03	9.26E-04
478000	1382200	12/10/91	11:53	8.8	9.53E+03	9.26E-04
478000	1382300	12/10/91	11:51	9.5	1.03E+04	9.26E-04
478000	1382400	12/10/91	11:50	9.7	1.05E+04	9.26E-04
478000	1382500	12/10/91	11:48	9.8	1.06E+04	9.26E-04
478000	1382600	12/10/91	11:47	9.8	1.06E+04	9.26E-04
478000	1382700	12/10/91	11:45	9.8	1.06E+04	9.26E-04
478000	1382800	12/10/91	11:44	9.7	1.05E+04	9.26E-04
478000	1382900	12/10/91	11:42	9.7	1.05E+04	9.26E-04
478000	1383000	12/10/91	11:40	9.0	9.71E+03	9.26E-04
478000	1383100	12/12/91	10:33	11.9	1.14E+04	1.04E-03
478000	1383200	12/12/91	10:35	11.5	1.11E+04	1.04E-03
478000	1383300	12/12/91	10:37	12.0	1.15E+04	1.04E-03
478100	1381600	12/10/91	12:27	10.0	1.08E+04	9.26E-04
478100	1381700	12/10/91	12:29	9.8	1.06E+04	9.26E-04
478100	1381800	12/10/91	12:30	10.0	1.08E+04	9.26E-04
478100	1381900	12/10/91	12:32	10.0	1.08E+04	9.26E-04
478100	1382000	12/10/91	12:33	9.9	1.07E+04	9.26E-04
478100	1382100	12/10/91	12:35	10.2	1.10E+04	9.26E-04
478100	1382200	12/10/91	12:37	10.1	1.09E+04	9.26E-04
478100	1382300	12/10/91	12:39	10.1	1.09E+04	9.26E-04
478100	1382400	12/10/91	12:41	9.7	1.05E+04	9.26E-04
478100	1382500	12/10/91	12:43	9.9	1.07E+04	9.26E-04
478100	1382600	12/10/91	12:45	9.8	1.06E+04	9.26E-04
478100	1382700	12/10/91	12:46	9.8	1.06E+04	9.26E-04

EWMF Survey – Sorted by Location (N,E)

10-Feb-92

TH COORDINATE	EAST COORDINATE	DATE	TIME	EXPOSURE RATE	COUNT RATE	STD. FACTOR
478100	1382800	12/10/91	12:48	9.6	1.04E+04	9.26E-04
478100	1382900	12/10/91	12:49	9.7	1.05E+04	9.26E-04
478100	1383000	12/10/91	12:51	9.5	1.03E+04	9.26E-04
478100	1383100	12/12/91	10:45	10.2	1.03E+04	9.91E-04
478100	1383200	12/12/91	10:47	10.2	1.03E+04	9.91E-04
478100	1383300	12/12/91	10:49	10.0	1.01E+04	9.91E-04
478200	1381600	12/10/91	12:27	9.9	1.20E+04	8.26E-04
478200	1381700	12/10/91	12:29	10.8	1.31E+04	8.26E-04
478200	1381800	12/10/91	12:31	9.6	1.16E+04	8.26E-04
478200	1381900	12/10/91	12:32	9.5	1.15E+04	8.26E-04
478200	1382000	12/10/91	12:34	9.8	1.19E+04	8.26E-04
478200	1382100	12/10/91	12:36	9.8	1.18E+04	8.26E-04
478200	1382200	12/10/91	12:38	9.9	1.20E+04	8.26E-04
478200	1382300	12/10/91	12:39	9.5	1.15E+04	8.26E-04
478200	1382400	12/10/91	12:41	9.7	1.17E+04	8.26E-04
478200	1382500	12/10/91	12:43	9.6	1.16E+04	8.26E-04
478200	1382600	12/10/91	12:45	9.8	1.18E+04	8.26E-04
478200	1382700	12/10/91	12:46	9.8	1.18E+04	8.26E-04
478200	1382800	12/10/91	12:48	9.5	1.15E+04	8.26E-04
478200	1382900	12/10/91	12:50	9.3	1.13E+04	8.26E-04
478200	1383000	12/10/91	12:51	9.4	1.14E+04	8.26E-04
478200	1383100	12/12/91	10:45	11.4	1.10E+04	1.04E-03
478200	1383200	12/12/91	10:47	11.6	1.12E+04	1.04E-03
478200	1383300	12/12/91	10:49	12.4	1.19E+04	1.04E-03
478300	1381600	12/10/91	15:37	12.3	1.09E+04	1.13E-03
478300	1381700	12/10/91	15:34	12.0	1.07E+04	1.13E-03
478300	1381800	12/10/91	15:32	12.0	1.07E+04	1.13E-03
478300	1381900	12/10/91	15:30	11.9	1.06E+04	1.13E-03
478300	1382000	12/10/91	15:29	12.3	1.09E+04	1.13E-03
478300	1382100	12/10/91	15:27	11.9	1.06E+04	1.13E-03
478300	1382200	12/10/91	15:25	11.4	1.01E+04	1.13E-03
478300	1382300	12/10/91	15:23	11.7	1.04E+04	1.13E-03
478300	1382400	12/10/91	15:22	11.3	1.00E+04	1.13E-03
478300	1382500	12/10/91	15:19	11.1	9.82E+03	1.13E-03
478300	1382600	12/10/91	15:14	11.2	9.95E+03	1.13E-03
478300	1382700	12/10/91	15:11	11.5	1.02E+04	1.13E-03
478300	1382800	12/10/91	15:09	11.3	1.00E+04	1.13E-03
478300	1382900	12/10/91	15:07	11.2	9.96E+03	1.13E-03
478300	1383000	12/10/91	15:04	11.5	1.02E+04	1.13E-03
478300	1383100	12/12/91	11:07	10.0	1.01E+04	9.91E-04
478300	1383200	12/12/91	11:10	10.2	1.03E+04	9.91E-04
478300	1383300	12/12/91	11:13	10.5	1.06E+04	9.91E-04
478400	1381600	12/10/91	15:37	13.1	1.23E+04	1.07E-03
478400	1381700	12/10/91	15:34	12.7	1.19E+04	1.07E-03
478400	1381800	12/10/91	15:32	12.7	1.19E+04	1.07E-03
478400	1381900	12/10/91	15:30	12.6	1.18E+04	1.07E-03
478400	1382000	12/10/91	15:29	12.8	1.18E+04	1.07E-03
478400	1382100	12/10/91	15:27	12.7	1.19E+04	1.07E-03
478400	1382200	12/10/91	15:25	12.2	1.15E+04	1.07E-03
478400	1382300	12/10/91	15:23	12.1	1.14E+04	1.07E-03
478400	1382400	12/10/91	15:22	12.5	1.17E+04	1.07E-03
478400	1382500	12/10/91	15:20	12.2	1.15E+04	1.07E-03
478400	1382600	12/10/91	15:18	12.0	1.13E+04	1.07E-03
478400	1382700	12/10/91	15:16	12.0	1.13E+04	1.07E-03
478400	1382800	12/10/91	15:14	11.9	1.12E+04	1.07E-03
478400	1382900	12/10/91	15:12	12.1	1.14E+04	1.07E-03
478400	1383000	12/10/91	15:11	12.1	1.14E+04	1.07E-03
478400	1383100	12/12/91	11:07	11.6	1.12E+04	1.04E-03
478400	1383200	12/12/91	11:10	11.5	1.11E+04	1.04E-03
478400	1383300	12/12/91	11:14	11.8	1.13E+04	1.04E-03
478500	1381500	12/16/91	10:15	12.9	1.07E+04	1.21E-03
478500	1381600	12/16/91	10:13	12.9	1.07E+04	1.21E-03
478500	1381700	12/16/91	10:11	12.7	1.05E+04	1.21E-03
478500	1381800	12/16/91	10:09	13.3	1.10E+04	1.21E-03
478500	1381900	12/16/91	10:08	12.8	1.06E+04	1.21E-03
478500	1382000	12/16/91	10:06	12.6	1.04E+04	1.21E-03
478500	1382100	12/16/91	10:05	12.7	1.05E+04	1.21E-03
478500	1382200	12/16/91	10:03	12.5	1.03E+04	1.21E-03
478500	1382300	12/16/91	10:01	12.2	1.01E+04	1.21E-03
478500	1382400	12/16/91	09:59	12.0	9.94E+03	1.21E-03
478500	1382500	12/16/91	09:58	11.8	9.75E+03	1.21E-03
478500	1382600	12/16/91	09:53	12.1	1.00E+04	1.21E-03
478500	1382700	12/16/91	09:52	12.8	1.06E+04	1.21E-03
478500	1382800	12/16/91	09:51	12.1	1.00E+04	1.21E-03
478500	1382900	12/16/91	09:49	11.9	9.83E+03	1.21E-03
478500	1383000	12/16/91	09:48	12.1	1.00E+04	1.21E-03

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EWMF Survey – Sorted by Location (N,E)

10–Feb–92

NORTH COORDINATE	EAST COORDINATE	DATE	TIME	EXPOSURE RATE	COUNT RATE	STD. FACTOR
478500	1383100	12/16/91	09:46	11.9	9.82E+03	1.21E-03
478500	1383200	12/16/91	09:44	11.9	9.82E+03	1.21E-03
478500	1383300	12/16/91	09:43	11.7	9.71E+03	1.21E-03
478600	1381400	12/16/91	10:20	12.1	1.17E+04	1.03E-03
478600	1381500	12/16/91	10:18	11.8	1.15E+04	1.03E-03
478600	1381600	12/16/91	10:13	12.1	1.17E+04	1.03E-03
478600	1381700	12/16/91	10:11	12.4	1.20E+04	1.03E-03
478600	1381800	12/16/91	10:09	12.3	1.19E+04	1.03E-03
478600	1381900	12/16/91	10:08	12.1	1.17E+04	1.03E-03
478600	1382000	12/16/91	10:06	12.2	1.18E+04	1.03E-03
478600	1382100	12/16/91	10:05	11.6	1.13E+04	1.03E-03
478600	1382200	12/16/91	10:03	11.6	1.13E+04	1.03E-03
478600	1382300	12/16/91	10:02	11.5	1.12E+04	1.03E-03
478600	1382400	12/16/91	09:59	11.4	1.11E+04	1.03E-03
478600	1382500	12/16/91	09:58	11.0	1.07E+04	1.03E-03
478600	1382600	12/16/91	09:53	11.0	1.07E+04	1.03E-03
478600	1382700	12/16/91	09:52	11.4	1.11E+04	1.03E-03
478600	1382800	12/16/91	09:50	11.5	1.12E+04	1.03E-03
478600	1382900	12/16/91	09:49	11.5	1.12E+04	1.03E-03
478600	1383000	12/16/91	09:48	11.2	1.09E+04	1.03E-03
478600	1383100	12/16/91	09:46	11.2	1.09E+04	1.03E-03
478600	1383200	12/16/91	09:44	11.1	1.08E+04	1.03E-03
478600	1383300	12/16/91	09:43	10.9	1.06E+04	1.03E-03
478700	1381800	12/16/91	11:10	12.8	1.06E+04	1.21E-03
478700	1381900	12/16/91	11:08	12.7	1.05E+04	1.21E-03
478700	1382000	12/16/91	11:06	12.3	1.02E+04	1.21E-03
478700	1382100	12/16/91	10:58	12.2	1.01E+04	1.21E-03
478700	1382200	12/16/91	10:56	12.9	1.07E+04	1.21E-03
478700	1382300	12/16/91	10:54	12.5	1.03E+04	1.21E-03
478700	1382400	12/16/91	10:51	12.5	1.03E+04	1.21E-03
478700	1382500	12/16/91	10:49	11.4	9.44E+03	1.21E-03
478700	1382600	12/16/91	10:47	12.7	1.05E+04	1.21E-03
478700	1382700	12/16/91	10:45	12.1	9.98E+03	1.21E-03
478700	1382800	12/16/91	10:43	12.5	1.03E+04	1.21E-03
478700	1382900	12/16/91	10:42	12.1	9.99E+03	1.21E-03
478700	1383000	12/16/91	10:40	12.1	9.97E+03	1.21E-03
478700	1383100	12/16/91	10:39	12.2	1.01E+04	1.21E-03
478700	1383200	12/16/91	10:37	11.9	9.81E+03	1.21E-03
478700	1383300	12/16/91	10:35	11.7	9.65E+03	1.21E-03
478800	1381800	12/16/91	11:12	9.8	9.51E+03	1.03E-03
478800	1381900	12/16/91	11:09	11.8	1.15E+04	1.03E-03
478800	1382000	12/16/91	11:07	11.8	1.15E+04	1.03E-03
478800	1382100	12/16/91	11:04	11.9	1.16E+04	1.03E-03
478800	1382200	12/16/91	11:02	12.1	1.17E+04	1.03E-03
478800	1382300	12/16/91	10:59	11.8	1.15E+04	1.03E-03
478800	1382400	12/16/91	10:56	11.1	1.08E+04	1.03E-03
478800	1382500	12/16/91	10:53	11.0	1.07E+04	1.03E-03
478800	1382600	12/16/91	10:49	11.4	1.11E+04	1.03E-03
478800	1382700	12/16/91	10:47	11.8	1.15E+04	1.03E-03
478800	1382800	12/16/91	10:43	11.2	1.09E+04	1.03E-03
478800	1382900	12/16/91	10:37	11.2	1.09E+04	1.03E-03
478800	1383000	12/16/91	10:36	11.2	1.09E+04	1.03E-03
478800	1383100	12/16/91	10:35	10.9	1.06E+04	1.03E-03
478800	1383200	12/16/91	10:33	11.1	1.08E+04	1.03E-03
478800	1383300	12/16/91	10:31	10.6	1.03E+04	1.03E-03
478900	1382000	12/16/91	11:50	11.4	1.11E+04	1.03E-03
478900	1382100	12/16/91	11:48	11.2	1.09E+04	1.03E-03
478900	1382200	12/16/91	11:46	11.6	1.13E+04	1.03E-03
478900	1382300	12/16/91	11:44	11.8	1.15E+04	1.03E-03
478900	1382400	12/16/91	11:43	11.1	1.08E+04	1.03E-03
478900	1382500	12/16/91	11:41	11.6	1.13E+04	1.03E-03
478900	1382600	12/16/91	11:39	11.9	1.16E+04	1.03E-03
478900	1382700	12/16/91	11:37	11.7	1.14E+04	1.03E-03
478900	1382800	12/16/91	11:35	11.6	1.13E+04	1.03E-03
478900	1382900	12/16/91	11:33	11.5	1.12E+04	1.03E-03
478900	1383000	12/16/91	11:31	11.2	1.09E+04	1.03E-03
478900	1383100	12/16/91	11:29	10.8	1.05E+04	1.03E-03
478900	1383200	12/16/91	11:27	11.1	1.08E+04	1.03E-03
478900	1383300	12/16/91	11:25	10.9	1.06E+04	1.03E-03
479000	1382000	12/16/91	11:50	10.5	8.70E+03	1.21E-03
479000	1382100	12/16/91	11:48	13.9	1.15E+04	1.21E-03
479000	1382200	12/16/91	11:46	12.7	1.05E+04	1.21E-03
479000	1382300	12/16/91	11:43	10.9	8.98E+03	1.21E-03
479000	1382400	12/16/91	11:42	11.9	9.84E+03	1.21E-03
479000	1382500	12/16/91	11:40	12.1	1.00E+04	1.21E-03
479000	1382600	12/16/91	11:38	12.6	1.04E+04	1.21E-03

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10-Feb-92

TH COORDINATE	EAST COORDINATE	DATE	TIME	EXPOSURE RATE	COUNT RATE	STD. FACTOR
479000	1382700	12/16/91	11:36	12.6	1.04E+04	1.21E-03
479000	1382800	12/16/91	11:34	12.5	1.03E+04	1.21E-03
479000	1382900	12/16/91	11:32	11.7	9.65E+03	1.21E-03
479000	1383000	12/16/91	11:31	11.6	9.61E+03	1.21E-03
479000	1383100	12/16/91	11:28	11.2	9.28E+03	1.21E-03
479000	1383200	12/16/91	11:27	10.9	8.99E+03	1.21E-03
479000	1383300	12/16/91	11:25	11.4	9.44E+03	1.21E-03
479100	1382000	12/16/91	15:21	11.3	1.16E+04	9.71E-04
479100	1382100	12/16/91	15:19	6.1	6.32E+03	9.71E-04
479100	1382200	12/16/91	15:17	10.1	1.04E+04	9.71E-04
479100	1382300	12/16/91	15:15	7.8	8.01E+03	9.71E-04
479100	1382400	12/16/91	15:13	10.1	1.04E+04	9.71E-04
479100	1382500	12/16/91	15:11	10.5	1.08E+04	9.71E-04
479100	1382600	12/16/91	15:09	10.3	1.06E+04	9.71E-04
479100	1382700	12/16/91	15:08	10.3	1.06E+04	9.71E-04
479100	1382800	12/16/91	15:05	9.9	1.02E+04	9.71E-04
479100	1382900	12/16/91	15:03	9.5	9.74E+03	9.71E-04
479100	1383000	12/16/91	15:02	9.4	9.64E+03	9.71E-04
479100	1383100	12/16/91	15:00	9.2	9.48E+03	9.71E-04
479100	1383200	12/16/91	14:58	9.2	9.45E+03	9.71E-04
479100	1383300	12/16/91	14:57	9.5	9.75E+03	9.71E-04
479200	1382000	12/16/91	15:21	10.5	1.21E+04	8.66E-04
479200	1382100	12/16/91	15:19	9.5	1.10E+04	8.66E-04
479200	1382200	12/16/91	15:17	8.1	9.38E+03	8.66E-04
479200	1382300	12/16/91	15:15	9.1	1.05E+04	8.66E-04
479200	1382400	12/16/91	15:13	10.1	1.17E+04	8.66E-04
479200	1382500	12/16/91	15:11	9.7	1.12E+04	8.66E-04
479200	1382600	12/16/91	15:09	10.6	1.22E+04	8.66E-04
479200	1382700	12/16/91	15:08	10.2	1.18E+04	8.66E-04
479200	1382800	12/16/91	15:06	9.4	1.08E+04	8.66E-04
479200	1382900	12/16/91	15:04	9.3	1.07E+04	8.66E-04
479200	1383000	12/16/91	15:02	8.9	1.03E+04	8.66E-04
479200	1383100	12/16/91	15:00	8.9	1.03E+04	8.66E-04
479200	1383200	12/16/91	14:58	9.7	1.12E+04	8.66E-04
479200	1383300	12/16/91	14:57	9.1	1.05E+04	8.66E-04
479300	1382200	12/16/91	16:43	10.2	1.18E+04	8.66E-04
479300	1382300	12/16/91	16:41	10.1	1.17E+04	8.66E-04
479300	1382400	12/16/91	16:39	10.6	1.22E+04	8.66E-04
479300	1382500	12/16/91	16:36	10.3	1.19E+04	8.66E-04
479300	1382600	12/16/91	16:31	10.5	1.21E+04	8.66E-04
479300	1382700	12/16/91	16:28	10.0	1.15E+04	8.66E-04
479300	1382800	12/16/91	16:26	9.8	1.13E+04	8.66E-04
479300	1382900	12/16/91	16:24	9.7	1.12E+04	8.66E-04
479300	1383000	12/16/91	16:23	9.4	1.09E+04	8.66E-04
479300	1383100	12/16/91	16:21	10.1	1.17E+04	8.66E-04
479300	1383200	12/16/91	16:19	9.1	1.05E+04	8.66E-04
479300	1383300	12/16/91	16:17	8.7	1.00E+04	8.66E-04
479400	1382000	12/16/91	16:49	9.7	9.95E+03	9.71E-04
479400	1382100	12/16/91	16:47	11.3	1.16E+04	9.71E-04
479400	1382200	12/16/91	16:45	11.2	1.15E+04	9.71E-04
479400	1382300	12/16/91	16:42	7.5	7.69E+03	9.71E-04
479400	1382400	12/16/91	16:38	10.9	1.12E+04	9.71E-04
479400	1382500	12/16/91	16:35	10.7	1.10E+04	9.71E-04
479400	1382600	12/16/91	16:31	10.8	1.11E+04	9.71E-04
479400	1382700	12/16/91	16:28	11.6	1.19E+04	9.71E-04
479400	1382800	12/16/91	16:26	10.7	1.10E+04	9.71E-04
479400	1382900	12/16/91	16:24	9.7	9.95E+03	9.71E-04
479400	1383000	12/16/91	16:23	11.1	1.14E+04	9.71E-04
479400	1383100	12/16/91	16:21	10.6	1.09E+04	9.71E-04
479400	1383200	12/16/91	16:19	10.5	1.08E+04	9.71E-04
479400	1383300	12/16/91	16:17	9.5	9.74E+03	9.71E-04
479500	1382100	01/06/92	09:03	7.8	1.37E+04	5.70E-04
479500	1382200	01/06/92	09:01	7.6	1.34E+04	5.70E-04
479500	1382300	12/17/91	10:35	9.6	1.23E+04	7.79E-04
479500	1382400	12/17/91	10:31	10.8	1.38E+04	7.79E-04
479500	1382500	12/17/91	10:28	10.0	1.29E+04	7.79E-04
479500	1382600	12/17/91	10:26	9.7	1.25E+04	7.79E-04
479500	1382700	12/17/91	10:24	9.5	1.22E+04	7.79E-04
479500	1382800	12/17/91	10:22	8.8	1.13E+04	7.79E-04
479500	1382900	12/17/91	10:20	9.9	1.27E+04	7.79E-04
479500	1383000	12/17/91	10:18	9.5	1.22E+04	7.79E-04
479500	1383100	12/17/91	10:16	8.2	1.05E+04	7.79E-04
479500	1383200	12/17/91	10:10	8.7	1.12E+04	7.79E-04
479500	1383300	12/17/91	10:00	8.4	1.08E+04	7.79E-04
479600	1382100	01/06/92	09:05	8.2	1.43E+04	5.70E-04
479600	1382200	01/06/92	09:08	8.2	1.43E+04	5.70E-04

EWMF Survey – Sorted by Location (N,E)

10-Feb-92

TH COORDINATE	EAST COORDINATE	DATE	TIME	EXPOSURE RATE	COUNT RATE	STD. FACTOR
479600	1382300	12/17/91	11:27	10.5	1.35E+04	7.79E-04
479600	1382400	12/17/91	11:24	11.0	1.41E+04	7.79E-04
479600	1382500	12/17/91	11:21	10.2	1.31E+04	7.79E-04
479600	1382600	12/17/91	11:19	9.9	1.27E+04	7.79E-04
479600	1382700	12/17/91	11:16	9.6	1.23E+04	7.79E-04
479600	1382800	12/17/91	11:14	9.9	1.27E+04	7.79E-04
479600	1382900	12/17/91	11:12	9.8	1.26E+04	7.79E-04
479600	1383000	12/17/91	11:09	9.3	1.20E+04	7.79E-04
479600	1383100	12/17/91	11:06	9.6	1.23E+04	7.79E-04
479600	1383200	12/17/91	11:03	9.4	1.21E+04	7.79E-04
479600	1383300	12/17/91	11:01	9.1	1.17E+04	7.79E-04
479700	1382100	01/06/92	09:12	8.6	1.50E+04	5.70E-04
479700	1382200	01/06/92	09:11	8.4	1.47E+04	5.70E-04
479700	1382300	12/17/91	13:35	11.5	1.48E+04	7.79E-04
479700	1382400	12/17/91	13:33	11.7	1.50E+04	7.79E-04
479700	1382500	12/17/91	13:32	11.0	1.41E+04	7.79E-04
479700	1382600	12/17/91	13:30	11.0	1.41E+04	7.79E-04
479700	1382700	12/17/91	13:28	10.7	1.37E+04	7.79E-04
479700	1382800	12/17/91	13:26	10.4	1.34E+04	7.79E-04
479700	1382900	12/17/91	13:24	11.9	1.53E+04	7.79E-04
479700	1383000	12/17/91	13:22	9.9	1.27E+04	7.79E-04
479700	1383100	12/17/91	13:20	10.1	1.30E+04	7.79E-04
479700	1383200	12/17/91	13:18	9.8	1.26E+04	7.79E-04
479700	1383300	12/17/91	13:16	9.3	1.20E+04	7.79E-04
479800	1382100	01/06/92	09:14	9.3	1.63E+04	5.70E-04
479800	1382200	01/06/92	09:16	9.2	1.62E+04	5.70E-04
479800	1382300	12/17/91	14:00	12.0	1.54E+04	7.79E-04
479800	1382400	12/17/91	13:58	13.0	1.67E+04	7.79E-04
479800	1382500	12/17/91	13:56	11.7	1.50E+04	7.79E-04
479800	1382600	12/17/91	13:54	11.8	1.52E+04	7.79E-04
479800	1382700	12/17/91	13:52	11.5	1.47E+04	7.79E-04
479800	1382800	12/17/91	13:49	11.2	1.44E+04	7.79E-04
479800	1382900	12/17/91	13:47	10.7	1.37E+04	7.79E-04
479800	1383000	12/17/91	13:45	9.2	1.18E+04	7.79E-04
479800	1383100	12/17/91	13:43	10.8	1.38E+04	7.79E-04
479800	1383200	12/17/91	13:41	10.4	1.34E+04	7.79E-04
479800	1383300	12/17/91	13:38	9.9	1.27E+04	7.79E-04
479900	1382100	01/06/92	09:19	9.7	1.71E+04	5.70E-04
479900	1382200	01/06/92	09:18	10.3	1.81E+04	5.70E-04
479900	1382300	12/17/91	15:34	10.9	1.69E+04	6.46E-04
479900	1382400	12/17/91	15:31	11.0	1.71E+04	6.46E-04
479900	1382500	12/17/91	15:29	10.3	1.60E+04	6.46E-04
479900	1382600	12/17/91	15:27	10.0	1.55E+04	6.46E-04
479900	1382700	12/17/91	15:25	9.7	1.50E+04	6.46E-04
479900	1382800	12/17/91	15:23	9.0	1.40E+04	6.46E-04
479900	1382900	12/17/91	15:20	9.5	1.47E+04	6.46E-04
480000	1382000	01/06/92	09:29	8.1	1.42E+04	5.70E-04
480000	1382100	01/06/92	09:27	9.3	1.63E+04	5.70E-04
480000	1382200	01/06/92	09:25	12.0	2.10E+04	5.70E-04
480000	1382300	01/06/92	09:24	10.5	1.85E+04	5.70E-04
480000	1382300	12/17/91	15:37	11.2	1.74E+04	6.46E-04
480000	1382400	12/17/91	15:39	12.9	2.00E+04	6.46E-04
480000	1382500	12/17/91	15:41	12.0	1.86E+04	6.46E-04
480000	1382600	12/17/91	15:44	11.7	1.81E+04	6.46E-04
480000	1382700	12/17/91	15:46	11.0	1.70E+04	6.46E-04
480000	1382800	12/17/91	15:48	10.7	1.65E+04	6.46E-04
480000	1382900	12/17/91	15:51	11.3	1.75E+04	6.46E-04
480100	1382000	01/06/92	09:43	6.3	1.11E+04	5.70E-04
480100	1382100	01/06/92	09:42	11.6	2.03E+04	5.70E-04
480100	1382200	01/06/92	09:32	14.3	2.50E+04	5.70E-04
480100	1382300	01/06/92	09:33	13.1	2.29E+04	5.70E-04
480100	1382300	12/17/91	16:05	12.9	2.00E+04	6.46E-04
480100	1382400	12/17/91	16:03	14.2	2.20E+04	6.46E-04
480100	1382500	12/17/91	16:01	12.5	1.94E+04	6.46E-04
480100	1382600	12/17/91	15:59	11.5	1.78E+04	6.46E-04
480100	1382700	12/17/91	15:57	11.4	1.76E+04	6.46E-04
480100	1382800	12/17/91	15:55	11.4	1.76E+04	6.46E-04
480100	1382900	12/17/91	15:53	12.2	1.89E+04	6.46E-04
480200	1382000	01/06/92	09:47	18.4	3.23E+04	5.70E-04
480200	1382100	01/06/92	09:39	15.2	2.66E+04	5.70E-04
480200	1382200	01/06/92	09:37	14.7	2.58E+04	5.70E-04
480200	1382300	01/06/92	09:35	14.7	2.58E+04	5.70E-04
480200	1382300	12/17/91	16:07	15.4	2.39E+04	6.46E-04
480200	1382400	12/17/91	16:09	15.4	2.38E+04	6.46E-04
480200	1382500	12/17/91	16:13	13.8	2.14E+04	6.46E-04
480200	1382600	12/17/91	16:15	12.6	1.95E+04	6.46E-04

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10-Feb-92

'RTH COORDINATE	EAST COORDINATE	DATE	TIME	EXPOSURE RATE	COUNT RATE	STD. FACTOR
480200	1382700	12/17/91	16:17	12.6	1.95E+04	6.46E-04
480200	1382800	12/17/91	16:19	11.6	1.80E+04	6.46E-04
480200	1382900	12/17/91	16:21	12.5	1.93E+04	6.46E-04
480200	1383000	12/17/91	16:23	13.0	2.02E+04	6.46E-04
480200	1383100	12/17/91	16:25	12.9	1.99E+04	6.46E-04
480200	1383200	12/17/91	16:27	10.7	1.65E+04	6.46E-04
480200	1383300	12/17/91	16:29	7.7	1.19E+04	6.46E-04
480300	1382000	01/06/92	09:49	23.4	4.11E+04	5.70E-04
480300	1382100	01/06/92	09:53	20.5	3.59E+04	5.70E-04
480300	1382200	01/06/92	09:54	21.6	3.79E+04	5.70E-04
480300	1382400	12/17/91	16:51	16.9	2.61E+04	6.46E-04
480300	1382500	12/17/91	16:48	17.1	2.64E+04	6.46E-04
480300	1382600	12/17/91	16:45	15.1	2.33E+04	6.46E-04
480300	1382700	12/17/91	16:43	13.6	2.10E+04	6.46E-04
480300	1382800	12/17/91	16:41	12.3	1.90E+04	6.46E-04
480300	1382900	12/17/91	16:39	11.5	1.78E+04	6.46E-04
480300	1383000	12/17/91	16:37	11.0	1.70E+04	6.46E-04
480300	1383100	12/17/91	16:35	11.3	1.75E+04	6.46E-04
480300	1383200	12/17/91	16:33	11.8	1.82E+04	6.46E-04
480300	1383300	12/17/91	16:31	9.9	1.53E+04	6.46E-04
480400	1382000	01/06/92	10:00	37.6	6.59E+04	5.70E-04
480400	1382100	01/06/92	09:59	29.9	5.25E+04	5.70E-04
480400	1382200	01/06/92	09:57	26.1	4.58E+04	5.70E-04
480400	1382300	12/19/91	13:11	20.5	3.13E+04	6.55E-04
480400	1382400	12/19/91	13:08	17.9	2.74E+04	6.55E-04
480400	1382500	12/19/91	13:06	17.0	2.60E+04	6.55E-04
480400	1382600	12/19/91	13:04	14.5	2.21E+04	6.55E-04
480400	1382700	12/19/91	13:02	12.7	1.94E+04	6.55E-04
480400	1382800	12/19/91	13:00	11.7	1.78E+04	6.55E-04
480400	1382900	12/19/91	12:58	10.8	1.65E+04	6.55E-04
480400	1383000	12/19/91	12:57	10.7	1.63E+04	6.55E-04
480400	1383100	12/19/91	12:55	10.3	1.58E+04	6.55E-04
480400	1383200	12/19/91	12:53	10.1	1.54E+04	6.55E-04
480400	1383300	12/19/91	12:51	9.2	1.41E+04	6.55E-04
480500	1382000	01/06/92	10:02	43.9	7.71E+04	5.70E-04
480500	1382100	01/06/92	10:04	42.7	7.49E+04	5.70E-04
480500	1382200	01/06/92	10:06	33.3	5.84E+04	5.70E-04
480500	1382300	12/19/91	13:15	23.8	3.63E+04	6.55E-04
480500	1382400	12/19/91	13:17	21.1	3.22E+04	6.55E-04
480500	1382500	12/19/91	13:19	18.2	2.78E+04	6.55E-04
480500	1382600	12/19/91	13:22	15.5	2.37E+04	6.55E-04
480500	1382700	12/19/91	13:25	13.4	2.04E+04	6.55E-04
480500	1382800	12/19/91	13:26	11.8	1.80E+04	6.55E-04
480500	1382900	12/19/91	13:29	10.8	1.65E+04	6.55E-04
480500	1383000	12/19/91	13:32	10.3	1.57E+04	6.55E-04
480500	1383100	12/19/91	13:34	10.1	1.54E+04	6.55E-04
480500	1383200	12/19/91	13:36	9.9	1.51E+04	6.55E-04
480500	1383300	12/19/91	13:38	7.3	1.11E+04	6.55E-04
480600	1382000	01/06/92	10:12	72.4	1.27E+05	5.70E-04
480600	1382100	01/06/92	10:10	69.5	1.22E+05	5.70E-04
480600	1382200	01/06/92	10:08	44.5	7.81E+04	5.70E-04
480600	1382400	12/19/91	13:55	24.8	3.79E+04	6.55E-04
480600	1382500	12/19/91	13:54	19.5	2.98E+04	6.55E-04
480600	1382600	12/19/91	13:52	16.1	2.46E+04	6.55E-04
480600	1382700	12/19/91	13:51	13.7	2.09E+04	6.55E-04
480600	1382800	12/19/91	13:49	12.2	1.86E+04	6.55E-04
480600	1382900	12/19/91	13:47	11.0	1.68E+04	6.55E-04
480600	1383000	12/19/91	13:45	10.6	1.62E+04	6.55E-04
480600	1383100	12/19/91	13:43	10.3	1.57E+04	6.55E-04
480600	1383200	12/19/91	13:41	9.8	1.50E+04	6.55E-04
480600	1383300	12/19/91	13:40	9.2	1.41E+04	6.55E-04
480700	1382000	01/06/92	10:13	160.2	2.81E+05	5.70E-04
480700	1382100	01/06/92	10:15	101.5	1.78E+05	5.70E-04
480700	1382200	01/06/92	10:17	55.4	9.72E+04	5.70E-04
480700	1382400	12/19/91	13:59	26.6	4.06E+04	6.55E-04
480700	1382500	12/19/91	14:02	20.9	3.19E+04	6.55E-04
480700	1382600	12/19/91	14:03	18.3	2.80E+04	6.55E-04
480700	1382700	12/19/91	14:05	14.4	2.20E+04	6.55E-04
480700	1382800	12/19/91	14:49	12.6	1.92E+04	6.55E-04
480700	1382900	12/19/91	14:51	11.4	1.74E+04	6.55E-04
480700	1383000	12/19/91	14:53	10.3	1.58E+04	6.55E-04
480700	1383100	12/19/91	14:54	10.1	1.54E+04	6.55E-04
480700	1383200	12/19/91	14:56	9.8	1.49E+04	6.55E-04
480700	1383300	12/19/91	14:58	9.3	1.42E+04	6.55E-04
480800	1382000	01/06/92	10:24	338.8	5.94E+05	5.70E-04
480800	1382100	01/06/92	10:23	118.8	2.08E+05	5.70E-04

EWMF Survey – Sorted by Location (N,E)

10-Feb-92

TH COORDINATE	EAST COORDINATE	DATE	TIME	EXPOSURE RATE	COUNT RATE	STD. FACTOR
480800	1382200	01/06/92	10:21	57.6	1.01E+05	5.70E-04
480800	1382300	01/06/92	10:19	36.2	6.35E+04	5.70E-04
480800	1382400	12/19/91	15:18	27.1	4.14E+04	6.55E-04
480800	1382500	12/19/91	15:16	21.0	3.21E+04	6.55E-04
480800	1382600	12/19/91	15:14	16.8	2.56E+04	6.55E-04
480800	1382700	12/19/91	15:13	14.3	2.19E+04	6.55E-04
480800	1382800	12/19/91	15:11	12.6	1.92E+04	6.55E-04
480800	1382800	12/19/91	15:27	12.7	1.94E+04	6.55E-04
480800	1382900	12/19/91	15:29	11.5	1.76E+04	6.55E-04
480800	1382900	12/19/91	15:08	11.4	1.74E+04	6.55E-04
480800	1383000	12/19/91	15:06	10.3	1.58E+04	6.55E-04
480800	1383000	12/19/91	15:31	10.8	1.65E+04	6.55E-04
480800	1383100	12/19/91	15:33	10.1	1.54E+04	6.55E-04
480800	1383100	12/19/91	15:05	10.0	1.53E+04	6.55E-04
480800	1383200	12/19/91	15:36	9.1	1.39E+04	6.55E-04
480800	1383200	12/19/91	15:03	9.7	1.48E+04	6.55E-04
480800	1383300	12/19/91	15:01	8.8	1.34E+04	6.55E-04
480800	1383300	12/19/91	15:39	8.6	1.31E+04	6.55E-04
480900	1382000	01/06/92	10:26	145.9	2.56E+05	5.70E-04
480900	1382100	01/06/92	10:29	74.7	1.31E+05	5.70E-04
480900	1382200	01/06/92	10:31	48.7	8.55E+04	5.70E-04
480900	1382300	01/06/92	10:32	33.1	5.81E+04	5.70E-04
480900	1382400	12/19/91	15:20	26.7	4.07E+04	6.55E-04
480900	1382400	12/19/91	16:01	24.8	3.78E+04	6.55E-04
480900	1382500	12/19/91	15:59	20.2	3.09E+04	6.55E-04
480900	1382500	12/19/91	15:22	21.1	3.22E+04	6.55E-04
480900	1382600	12/19/91	15:57	17.3	2.64E+04	6.55E-04
480900	1382600	12/19/91	15:24	17.5	2.67E+04	6.55E-04
480900	1382700	12/19/91	15:25	14.5	2.22E+04	6.55E-04
480900	1382700	12/19/91	15:56	14.6	2.23E+04	6.55E-04
480900	1382800	12/19/91	15:53	13.0	1.98E+04	6.55E-04
480900	1382900	12/19/91	15:52	11.6	1.77E+04	6.55E-04
480900	1383000	12/19/91	15:48	9.6	1.46E+04	6.55E-04
480900	1383100	12/19/91	15:46	10.0	1.53E+04	6.55E-04
480900	1383200	12/19/91	15:44	9.4	1.43E+04	6.55E-04
480900	1383300	12/19/91	15:42	9.0	1.38E+04	6.55E-04
481000	1382000	01/06/92	10:43	58.7	1.03E+05	5.70E-04
481000	1382100	01/06/92	10:39	55.3	9.70E+04	5.70E-04
481000	1382200	01/06/92	10:37	42.1	7.38E+04	5.70E-04
481000	1382300	01/06/92	10:34	30.3	5.31E+04	5.70E-04
481000	1382400	01/07/92	09:28	32.0	3.67E+04	8.73E-04
481000	1382500	01/07/92	09:27	26.7	3.06E+04	8.73E-04
481000	1382600	01/07/92	09:25	22.5	2.58E+04	8.73E-04
481000	1382700	01/07/92	09:24	19.4	2.22E+04	8.73E-04
481000	1382800	01/07/92	09:22	17.4	1.99E+04	8.73E-04
481000	1382900	01/07/92	09:20	15.2	1.74E+04	8.73E-04
481000	1383000	01/07/92	09:19	14.4	1.65E+04	8.73E-04
481000	1383100	01/07/92	09:17	13.3	1.52E+04	8.73E-04
481000	1383200	01/07/92	09:15	12.7	1.46E+04	8.73E-04
481000	1383300	01/07/92	09:14	12.1	1.39E+04	8.73E-04
481100	1382000	01/06/92	14:23	37.9	7.22E+04	5.25E-04
481100	1382100	01/06/92	14:22	41.5	7.90E+04	5.25E-04
481100	1382200	01/06/92	14:20	32.4	6.17E+04	5.25E-04
481100	1382300	01/06/92	14:18	25.1	4.79E+04	5.25E-04
481100	1382400	01/07/92	09:32	30.4	3.48E+04	8.73E-04
481100	1382500	01/07/92	09:34	26.8	3.07E+04	8.73E-04
481100	1382600	01/07/92	09:36	23.6	2.70E+04	8.73E-04
481100	1382700	01/07/92	09:37	20.4	2.34E+04	8.73E-04
481100	1382800	01/07/92	09:39	17.6	2.02E+04	8.73E-04
481100	1382900	01/07/92	09:40	16.0	1.83E+04	8.73E-04
481100	1383000	01/07/92	09:42	14.7	1.68E+04	8.73E-04
481100	1383100	01/07/92	09:43	13.5	1.55E+04	8.73E-04
481100	1383200	01/07/92	09:45	13.0	1.49E+04	8.73E-04
481100	1383300	01/07/92	09:47	12.2	1.40E+04	8.73E-04
481200	1382000	01/06/92	14:26	35.0	6.66E+04	5.25E-04
481200	1382100	01/06/92	14:28	31.6	6.01E+04	5.25E-04
481200	1382200	01/06/92	14:30	27.8	5.29E+04	5.25E-04
481200	1382300	01/06/92	14:32	21.9	4.17E+04	5.25E-04
481200	1382400	01/07/92	10:10	29.6	3.39E+04	8.73E-04
481200	1382500	01/07/92	10:08	24.5	2.81E+04	8.73E-04
481200	1382600	01/07/92	10:07	22.0	2.52E+04	8.73E-04
481200	1382700	01/07/92	10:05	18.2	2.09E+04	8.73E-04
481200	1382800	01/07/92	10:04	16.9	1.94E+04	8.73E-04
481200	1382900	01/07/92	10:03	14.8	1.69E+04	8.73E-04
481200	1383000	01/07/92	10:02	14.3	1.64E+04	8.73E-04
481200	1383100	01/07/92	09:59	13.2	1.51E+04	8.73E-04

DRAFT

EWMF Survey – Sorted by Location (N,E)

10-Feb-92

TH COORDINATE	EAST COORDINATE	DATE	TIME	EXPOSURE RATE	COUNT RATE	STD. FACTOR
481200	1383200	01/07/92	09:58	12.4	1.42E+04	8.73E-04
481200	1383300	01/07/92	09:56	11.6	1.33E+04	8.73E-04
481300	1382100	01/06/92	14:40	33.7	6.41E+04	5.25E-04
481300	1382200	01/06/92	14:38	26.0	4.95E+04	5.25E-04
481300	1382300	01/06/92	14:36	21.0	4.00E+04	5.25E-04
481300	1382400	01/07/92	10:14	28.2	3.23E+04	8.73E-04
481300	1382500	01/07/92	10:15	24.8	2.84E+04	8.73E-04
481300	1382600	01/07/92	10:17	20.7	2.37E+04	8.73E-04
481300	1382700	01/07/92	10:19	19.0	2.18E+04	8.73E-04
481300	1382800	01/07/92	10:21	16.3	1.87E+04	8.73E-04
481300	1382900	01/07/92	10:22	14.9	1.71E+04	8.73E-04
481300	1383000	01/07/92	10:24	14.1	1.61E+04	8.73E-04
481300	1383100	01/07/92	10:25	13.3	1.52E+04	8.73E-04
481300	1383200	01/07/92	10:26	13.0	1.49E+04	8.73E-04
481300	1383300	01/07/92	10:28	11.4	1.31E+04	8.73E-04
481400	1382100	01/06/92	14:43	32.9	6.27E+04	5.25E-04
481400	1382200	01/06/92	14:45	26.3	5.01E+04	5.25E-04
481400	1382300	01/06/92	14:46	20.3	3.86E+04	5.25E-04
481400	1382400	01/07/92	10:44	26.1	2.99E+04	8.73E-04
481400	1382500	01/07/92	10:42	23.1	2.65E+04	8.73E-04
481400	1382600	01/07/92	10:40	19.9	2.28E+04	8.73E-04
481400	1382700	01/07/92	10:39	17.5	2.01E+04	8.73E-04
481400	1382800	01/07/92	10:37	15.5	1.77E+04	8.73E-04
481400	1382900	01/07/92	10:36	14.1	1.61E+04	8.73E-04
481400	1383000	01/07/92	10:34	13.2	1.51E+04	8.73E-04
481400	1383100	01/07/92	10:33	13.0	1.49E+04	8.73E-04
481400	1383200	01/07/92	10:31	12.1	1.39E+04	8.73E-04
481400	1383300	01/07/92	10:30	12.0	1.37E+04	8.73E-04
481500	1382100	01/06/92	15:18	33.3	6.34E+04	5.25E-04
481500	1382200	01/06/92	14:50	24.8	4.72E+04	5.25E-04
481500	1382300	01/06/92	14:48	19.7	3.75E+04	5.25E-04
481500	1382400	01/07/92	13:09	25.4	2.59E+04	9.81E-04
481500	1382500	01/07/92	13:11	23.7	2.42E+04	9.81E-04
481500	1382600	01/07/92	13:12	20.4	2.08E+04	9.81E-04
481500	1382700	01/07/92	13:14	18.1	1.85E+04	9.81E-04
481500	1382800	01/07/92	13:16	16.6	1.69E+04	9.81E-04
481500	1382900	01/07/92	13:18	14.7	1.50E+04	9.81E-04
481500	1383000	01/07/92	13:19	13.0	1.33E+04	9.81E-04
481500	1383100	01/07/92	13:21	13.3	1.36E+04	9.81E-04
481500	1383200	01/07/92	13:24	12.5	1.27E+04	9.81E-04
481500	1383300	01/07/92	13:26	11.8	1.20E+04	9.81E-04
481600	1382100	01/06/92	15:20	33.0	6.29E+04	5.25E-04
481600	1382200	01/06/92	15:23	23.7	4.52E+04	5.25E-04
481600	1382300	01/06/92	15:24	18.1	3.44E+04	5.25E-04
481600	1382400	01/07/92	13:45	23.6	2.41E+04	9.81E-04
481600	1382500	01/07/92	13:43	22.5	2.29E+04	9.81E-04
481600	1382600	01/07/92	13:41	19.5	1.99E+04	9.81E-04
481600	1382700	01/07/92	13:39	16.7	1.70E+04	9.81E-04
481600	1382800	01/07/92	13:37	14.9	1.52E+04	9.81E-04
481600	1382900	01/07/92	13:36	14.2	1.45E+04	9.81E-04
481600	1383000	01/07/92	13:34	12.9	1.32E+04	9.81E-04
481600	1383100	01/07/92	13:33	11.7	1.19E+04	9.81E-04
481600	1383200	01/07/92	13:31	12.2	1.24E+04	9.81E-04
481600	1383300	01/07/92	13:29	12.1	1.23E+04	9.81E-04
481700	1382100	01/06/92	15:31	29.8	5.68E+04	5.25E-04
481700	1382200	01/06/92	15:28	22.5	4.28E+04	5.25E-04
481700	1382300	01/06/92	15:25	17.5	3.34E+04	5.25E-04
481700	1382400	01/07/92	13:50	21.0	2.14E+04	9.81E-04
481700	1382500	01/07/92	13:52	20.3	2.07E+04	9.81E-04
481700	1382600	01/07/92	13:54	17.5	1.78E+04	9.81E-04
481700	1382700	01/07/92	13:56	19.1	1.95E+04	9.81E-04
481700	1382800	01/07/92	13:58	19.1	1.95E+04	9.81E-04
481700	1382900	01/07/92	14:00	9.8	1.00E+04	9.81E-04
481700	1383000	01/07/92	14:09	12.0	1.22E+04	9.81E-04
481700	1383100	01/07/92	14:12	13.0	1.33E+04	9.81E-04
481700	1383200	01/07/92	14:15	12.2	1.24E+04	9.81E-04
481700	1383300	01/07/92	14:17	12.0	1.22E+04	9.81E-04
481800	1382100	01/06/92	15:33	23.6	4.49E+04	5.25E-04
481800	1382200	01/06/92	15:35	20.7	3.95E+04	5.25E-04
481800	1382300	01/06/92	15:37	17.2	3.28E+04	5.25E-04
481800	1382400	01/07/92	14:49	20.9	2.13E+04	9.81E-04
481800	1382500	01/07/92	14:47	18.7	1.91E+04	9.81E-04
481800	1382600	01/07/92	14:44	15.9	1.62E+04	9.81E-04
481800	1382700	01/07/92	14:42	13.9	1.42E+04	9.81E-04
481800	1382800	01/07/92	14:41	13.5	1.38E+04	9.81E-04
481800	1382900	01/07/92	14:39	13.3	1.36E+04	9.81E-04

10-Feb-92

NORTH COORDINATE	EAST COORDINATE	DATE	TIME	EXPOSURE RATE	COUNT RATE	STD. FACTOR
481800	1383000	01/07/92	14:37	12.8	1.30E+04	9.81E-04
481800	1383100	01/07/92	14:35	11.9	1.21E+04	9.81E-04
481800	1383200	01/07/92	14:33	11.6	1.18E+04	9.81E-04
481800	1383300	01/07/92	14:31	11.5	1.17E+04	9.81E-04
481900	1382100	01/06/92	15:42	22.1	4.21E+04	5.25E-04
481900	1382200	01/06/92	15:40	17.7	3.37E+04	5.25E-04
481900	1382300	01/06/92	15:39	15.6	2.98E+04	5.25E-04
481900	1382400	01/07/92	14:50	18.5	1.89E+04	9.81E-04
481900	1382500	01/07/92	14:52	17.8	1.81E+04	9.81E-04
481900	1382600	01/07/92	14:54	15.9	1.62E+04	9.81E-04
481900	1382700	01/07/92	14:56	14.3	1.46E+04	9.81E-04
481900	1382800	01/07/92	14:58	13.8	1.41E+04	9.81E-04
481900	1382900	01/07/92	15:00	12.9	1.31E+04	9.81E-04
481900	1383000	01/07/92	15:02	12.7	1.29E+04	9.81E-04
481900	1383100	01/07/92	15:03	12.4	1.26E+04	9.81E-04
481900	1383200	01/07/92	15:05	11.7	1.19E+04	9.81E-04
481900	1383300	01/07/92	15:07	11.5	1.17E+04	9.81E-04
482000	1382100	01/06/92	15:44	17.3	3.29E+04	5.25E-04
482000	1382200	01/06/92	15:46	14.4	2.74E+04	5.25E-04
482000	1382300	01/06/92	15:48	13.0	2.47E+04	5.25E-04
482000	1382400	01/07/92	15:41	16.8	1.69E+04	9.81E-04
482000	1382500	01/07/92	15:38	16.7	1.70E+04	9.81E-04
482000	1382600	01/07/92	15:37	15.0	1.53E+04	9.81E-04
482000	1382700	01/07/92	15:35	13.1	1.34E+04	9.81E-04
482000	1382800	01/07/92	15:33	13.5	1.38E+04	9.81E-04
482000	1382900	01/07/92	15:30	12.2	1.24E+04	9.81E-04
482000	1383000	01/07/92	15:28	12.5	1.27E+04	9.81E-04
482000	1383100	01/07/92	15:23	11.9	1.21E+04	9.81E-04
482000	1383200	01/07/92	15:21	11.2	1.14E+04	9.81E-04
482000	1383300	01/07/92	15:09	11.9	1.21E+04	9.81E-04
482100	1382100	01/06/92	15:53	14.6	2.79E+04	5.25E-04
482100	1382200	01/06/92	15:51	12.9	2.45E+04	5.25E-04
482100	1382300	01/06/92	15:49	11.3	2.16E+04	5.25E-04
482100	1382400	01/08/92	09:30	15.3	1.79E+04	8.57E-04
482100	1382500	01/08/92	09:31	15.9	1.86E+04	8.57E-04
482100	1382600	01/08/92	09:33	14.1	1.64E+04	8.57E-04
482100	1382700	01/08/92	09:34	13.8	1.61E+04	8.57E-04
482100	1382800	01/08/92	09:36	12.9	1.50E+04	8.57E-04
482100	1382900	01/08/92	09:38	12.7	1.48E+04	8.57E-04
482100	1383000	01/08/92	09:39	12.1	1.41E+04	8.57E-04
482100	1383100	01/08/92	09:41	11.8	1.38E+04	8.57E-04
482100	1383200	01/08/92	09:42	11.7	1.36E+04	8.57E-04
482100	1383300	01/08/92	09:44	10.9	1.27E+04	8.57E-04
482200	1382100	01/06/92	15:55	12.4	2.37E+04	5.25E-04
482200	1382200	01/06/92	15:57	11.1	2.11E+04	5.25E-04
482200	1382300	01/06/92	15:59	10.3	1.97E+04	5.25E-04
482200	1382400	01/08/92	10:02	14.9	1.74E+04	8.57E-04
482200	1382500	01/08/92	10:00	14.2	1.66E+04	8.57E-04
482200	1382600	01/08/92	09:59	13.6	1.59E+04	8.57E-04
482200	1382700	01/08/92	09:56	13.0	1.52E+04	8.57E-04
482200	1382800	01/08/92	09:54	12.3	1.44E+04	8.57E-04
482200	1382900	01/08/92	09:52	11.6	1.35E+04	8.57E-04
482200	1383000	01/08/92	09:51	11.2	1.31E+04	8.57E-04
482200	1383100	01/08/92	09:49	11.5	1.34E+04	8.57E-04
482200	1383200	01/08/92	09:47	11.3	1.32E+04	8.57E-04
482200	1383300	01/08/92	09:46	11.0	1.28E+04	8.57E-04
482300	1382100	01/06/92	16:05	11.1	2.12E+04	5.25E-04
482300	1382200	01/06/92	16:03	10.2	1.95E+04	5.25E-04
482300	1382300	01/06/92	16:01	10.0	1.90E+04	5.25E-04
482300	1382400	01/08/92	10:04	14.1	1.65E+04	8.57E-04
482300	1382500	01/08/92	10:05	13.4	1.56E+04	8.57E-04
482300	1382600	01/08/92	10:07	12.6	1.47E+04	8.57E-04
482300	1382700	01/08/92	10:09	12.5	1.46E+04	8.57E-04
482300	1382800	01/08/92	10:11	12.0	1.40E+04	8.57E-04
482300	1382900	01/08/92	10:13	11.8	1.38E+04	8.57E-04
482300	1383000	01/08/92	10:14	11.7	1.36E+04	8.57E-04
482300	1383100	01/08/92	10:16	11.2	1.31E+04	8.57E-04
482300	1383200	01/08/92	10:17	10.9	1.27E+04	8.57E-04
482300	1383300	01/08/92	10:19	10.4	1.21E+04	8.57E-04
482400	1382100	01/06/92	16:06	9.8	1.86E+04	5.25E-04
482400	1382200	01/06/92	16:08	10.0	1.90E+04	5.25E-04
482400	1382300	01/06/92	16:10	9.4	1.79E+04	5.25E-04
482400	1382400	01/08/92	10:36	12.9	1.50E+04	8.57E-04
482400	1382500	01/08/92	10:34	12.8	1.49E+04	8.57E-04
482400	1382600	01/08/92	10:32	12.2	1.42E+04	8.57E-04
482400	1382700	01/08/92	10:30	12.1	1.41E+04	8.57E-04

10–Feb–92

'RTH COORDINATE	EAST COORDINATE	DATE	TIME	EXPOSURE RATE	COUNT RATE	STD. FACTOR
482400	1382800	01/08/92	10:29	11.7	1.36E+04	8.57E-04
482400	1382900	01/08/92	10:27	11.7	1.36E+04	8.57E-04
482400	1383000	01/08/92	10:26	10.7	1.25E+04	8.57E-04
482400	1383100	01/08/92	10:24	10.5	1.23E+04	8.57E-04
482400	1383200	01/08/92	10:23	10.6	1.24E+04	8.57E-04
482400	1383300	01/08/92	10:21	11.2	1.31E+04	8.57E-04
482500	1382100	01/22/92	10:21	18.6	1.86E+04	1.00E-03
482500	1382200	01/22/92	10:18	17.6	1.76E+04	1.00E-03
482500	1382300	01/22/92	10:16	16.3	1.63E+04	1.00E-03
482500	1382400	01/22/92	10:12	14.7	1.47E+04	1.00E-03
482500	1382400	01/08/92	10:38	12.6	1.47E+04	8.57E-04
482500	1382500	01/08/92	10:40	12.4	1.45E+04	8.57E-04
482500	1382600	01/08/92	10:41	11.7	1.37E+04	8.57E-04
482500	1382700	01/08/92	10:44	11.9	1.39E+04	8.57E-04
482500	1382800	01/08/92	10:45	11.8	1.38E+04	8.57E-04
482500	1382900	01/08/92	10:47	10.8	1.26E+04	8.57E-04
482500	1383000	01/08/92	10:53	10.7	1.25E+04	8.57E-04
482500	1383100	01/08/92	10:56	10.7	1.25E+04	8.57E-04
482500	1383200	01/08/92	10:58	10.5	1.22E+04	8.57E-04
482600	1382100	01/22/92	10:24	16.5	1.65E+04	1.00E-03
482600	1382200	01/22/92	10:27	16.0	1.60E+04	1.00E-03
482600	1382300	01/22/92	10:28	15.0	1.50E+04	1.00E-03
482600	1382400	01/08/92	13:43	14.3	1.45E+04	9.83E-04
482600	1382400	01/22/92	10:30	15.0	1.50E+04	1.00E-03
482600	1382500	01/08/92	13:44	14.1	1.43E+04	9.83E-04
482600	1382600	01/08/92	13:46	14.2	1.44E+04	9.83E-04
482600	1382700	01/08/92	13:48	13.9	1.41E+04	9.83E-04
482600	1382800	01/08/92	13:50	14.0	1.42E+04	9.83E-04
482600	1382900	01/08/92	13:52	13.2	1.34E+04	9.83E-04
482600	1383000	01/08/92	13:53	13.2	1.34E+04	9.83E-04
482600	1383100	01/08/92	13:54	12.7	1.29E+04	9.83E-04
482600	1383200	01/08/92	13:56	12.4	1.26E+04	9.83E-04
482600	1383300	01/08/92	13:57	11.8	1.20E+04	9.83E-04
482674	1382367	01/13/92	10:30	14.5	1.44E+04	1.01E-03
482677	1382267	01/13/92	10:31	15.6	1.54E+04	1.01E-03
482680	1382167	01/13/92	10:35	15.3	1.51E+04	1.01E-03
482684	1382067	01/13/92	10:37	15.9	1.57E+04	1.01E-03
482687	1381967	01/13/92	10:39	15.5	1.53E+04	1.01E-03
482690	1381867	01/13/92	10:40	17.4	1.72E+04	1.01E-03
482694	1381767	01/13/92	10:42	16.9	1.67E+04	1.01E-03
482697	1381667	01/13/92	10:43	18.2	1.80E+04	1.01E-03
482700	1379300	01/21/92	10:20	12.3	1.32E+04	9.34E-04
482700	1379400	01/21/92	10:18	13.0	1.39E+04	9.34E-04
482700	1379500	01/21/92	10:16	14.4	1.54E+04	9.34E-04
482700	1379600	01/21/92	10:14	15.1	1.62E+04	9.34E-04
482700	1379700	01/21/92	10:12	16.4	1.76E+04	9.34E-04
482700	1379800	01/21/92	10:10	17.7	1.89E+04	9.34E-04
482700	1379900	01/21/92	10:08	17.6	1.88E+04	9.34E-04
482700	1380000	01/21/92	10:06	21.3	2.28E+04	9.34E-04
482700	1380100	01/21/92	10:04	24.3	2.60E+04	9.34E-04
482700	1380200	01/21/92	10:01	30.7	3.29E+04	9.34E-04
482700	1380300	01/21/92	10:00	30.6	3.28E+04	9.34E-04
482700	1380400	01/21/92	09:50	34.7	3.72E+04	9.34E-04
482700	1380500	01/21/92	09:52	38.9	4.16E+04	9.34E-04
482700	1380600	01/21/92	09:54	34.9	3.74E+04	9.34E-04
482700	1380700	01/21/92	09:56	31.2	3.34E+04	9.34E-04
482700	1381567	01/13/92	10:45	19.5	1.93E+04	1.01E-03
482700	1382400	01/08/92	14:23	13.2	1.34E+04	9.83E-04
482700	1382500	01/08/92	14:20	10.2	1.04E+04	9.83E-04
482700	1382600	01/08/92	14:19	13.2	1.34E+04	9.83E-04
482700	1382700	01/08/92	14:16	13.0	1.32E+04	9.83E-04
482700	1382800	01/08/92	14:14	12.5	1.27E+04	9.83E-04
482700	1382900	01/08/92	14:13	12.8	1.30E+04	9.83E-04
482700	1383000	01/08/92	14:11	12.5	1.27E+04	9.83E-04
482700	1383100	01/08/92	14:10	11.9	1.21E+04	9.83E-04
482700	1383200	01/08/92	14:08	12.1	1.23E+04	9.83E-04
482700	1383300	01/08/92	14:03	12.1	1.23E+04	9.83E-04
482700	1383400	01/08/92	14:05	11.5	1.17E+04	9.83E-04
482704	1381467	01/13/92	10:46	20.6	2.04E+04	1.01E-03
482707	1381367	01/13/92	10:48	22.0	2.18E+04	1.01E-03
482710	1381267	01/13/92	10:49	23.9	2.37E+04	1.01E-03
482713	1381167	01/13/92	10:51	25.6	2.53E+04	1.01E-03
482717	1381067	01/13/92	10:52	28.4	2.81E+04	1.01E-03
482720	1380967	01/13/92	10:53	30.7	3.04E+04	1.01E-03
482723	1380867	01/13/92	10:55	32.9	3.26E+04	1.01E-03
482794	1382417	01/13/92	11:11	13.2	1.31E+04	1.01E-03

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TH COORDINATE	EAST COORDINATE	DATE	TIME	EXPOSURE RATE	COUNT RATE	STD. FACTOR
482797	1382317	01/13/92	11:13	14.4	1.43E+04	1.01E-03
482799	1382217	01/13/92	11:15	15.0	1.49E+04	1.01E-03
482800	1379300	01/21/92	10:23	11.8	1.26E+04	9.34E-04
482800	1379400	01/21/92	10:25	13.1	1.40E+04	9.34E-04
482800	1379500	01/21/92	10:27	13.6	1.46E+04	9.34E-04
482800	1379600	01/21/92	10:28	14.9	1.59E+04	9.34E-04
482800	1379700	01/21/92	10:30	15.7	1.68E+04	9.34E-04
482800	1379800	01/21/92	10:32	17.0	1.82E+04	9.34E-04
482800	1379900	01/21/92	10:34	16.4	1.76E+04	9.34E-04
482800	1380000	01/21/92	10:35	18.5	1.98E+04	9.34E-04
482800	1380100	01/21/92	10:37	23.4	2.50E+04	9.34E-04
482800	1380200	01/21/92	10:39	27.2	2.91E+04	9.34E-04
482800	1380300	01/21/92	10:41	30.2	3.23E+04	9.34E-04
482800	1380400	01/21/92	10:44	29.3	3.14E+04	9.34E-04
482800	1380500	01/21/92	10:47	29.1	3.12E+04	9.34E-04
482800	1380600	01/21/92	10:49	28.6	3.06E+04	9.34E-04
482800	1380700	01/21/92	10:52	28.2	3.02E+04	9.34E-04
482800	1380800	01/21/92	10:55	22.5	2.41E+04	9.34E-04
482800	1381400	01/27/92	16:25	11.4	1.14E+04	9.99E-04
482800	1381500	01/27/92	16:23	11.2	1.12E+04	9.99E-04
482800	1381600	01/27/92	16:21	10.5	1.05E+04	9.99E-04
482800	1381700	01/27/92	16:19	11.7	1.17E+04	9.99E-04
482800	1381800	01/27/92	16:17	11.6	1.16E+04	9.99E-04
482800	1381900	01/27/92	16:14	11.9	1.19E+04	9.99E-04
482800	1382000	01/27/92	16:12	11.9	1.19E+04	9.99E-04
482800	1382100	01/27/92	16:10	11.5	1.15E+04	9.99E-04
482800	1382200	01/27/92	16:02	11.5	1.15E+04	9.99E-04
482800	1382300	01/27/92	16:00	12.0	1.20E+04	9.99E-04
482800	1382400	01/27/92	15:58	11.7	1.17E+04	9.99E-04
482800	1382400	01/08/92	14:24	12.9	1.31E+04	9.83E-04
482800	1382500	01/08/92	14:26	12.5	1.27E+04	9.83E-04
482800	1382600	01/08/92	14:28	13.1	1.33E+04	9.83E-04
482800	1382700	01/08/92	14:30	11.5	1.17E+04	9.83E-04
482800	1382800	01/08/92	14:32	12.2	1.24E+04	9.83E-04
482800	1382900	01/08/92	14:34	11.7	1.19E+04	9.83E-04
482800	1383000	01/08/92	14:36	12.1	1.23E+04	9.83E-04
482800	1383100	01/08/92	14:37	11.9	1.21E+04	9.83E-04
482800	1383200	01/08/92	14:40	11.9	1.21E+04	9.83E-04
482800	1383300	01/08/92	14:42	12.0	1.22E+04	9.83E-04
482800	1383400	01/08/92	14:44	11.4	1.16E+04	9.83E-04
482802	1382117	01/13/92	11:17	15.2	1.50E+04	1.01E-03
482805	1382017	01/13/92	11:19	14.8	1.47E+04	1.01E-03
482808	1381917	01/13/92	11:20	16.2	1.60E+04	1.01E-03
482810	1381817	01/13/92	11:22	16.1	1.59E+04	1.01E-03
482813	1381717	01/13/92	11:24	15.9	1.57E+04	1.01E-03
482816	1381617	01/13/92	11:26	16.8	1.66E+04	1.01E-03
482819	1381517	01/13/92	11:28	17.4	1.72E+04	1.01E-03
482821	1381418	01/13/92	11:30	18.3	1.81E+04	1.01E-03
482824	1381318	01/13/92	11:31	19.1	1.89E+04	1.01E-03
482827	1381218	01/13/92	11:33	20.5	2.03E+04	1.01E-03
482830	1381118	01/13/92	11:34	21.8	2.16E+04	1.01E-03
482832	1381018	01/13/92	11:36	23.3	2.31E+04	1.01E-03
482835	1380918	01/13/92	11:37	25.7	2.54E+04	1.01E-03
482900	1377800	01/29/92	14:37	10.8	8.60E+03	1.25E-03
482900	1377900	01/29/92	14:36	11.4	1.02E+04	1.12E-03
482900	1378000	01/27/92	16:29	11.1	1.00E+04	1.11E-03
482900	1378100	01/27/92	16:27	11.2	1.01E+04	1.11E-03
482900	1378200	01/27/92	16:25	11.4	1.03E+04	1.11E-03
482900	1378300	01/27/92	16:23	11.4	1.03E+04	1.11E-03
482900	1378400	01/27/92	16:21	11.9	1.07E+04	1.11E-03
482900	1378500	01/27/92	16:19	11.5	1.04E+04	1.11E-03
482900	1378600	01/27/92	16:17	11.9	1.07E+04	1.11E-03
482900	1378700	01/27/92	16:16	11.8	1.06E+04	1.11E-03
482900	1378800	01/27/92	16:12	11.9	1.07E+04	1.11E-03
482900	1378900	01/27/92	16:06	11.5	1.04E+04	1.11E-03
482900	1379000	01/27/92	16:04	12.2	1.10E+04	1.11E-03
482900	1379100	01/27/92	16:02	12.5	1.13E+04	1.11E-03
482900	1379200	01/27/92	15:58	12.3	1.11E+04	1.11E-03
482900	1379300	01/21/92	14:36	11.2	1.30E+04	8.58E-04
482900	1379400	01/21/92	14:31	11.8	1.37E+04	8.58E-04
482900	1379500	01/21/92	14:29	11.9	1.39E+04	8.58E-04
482900	1379600	01/21/92	14:28	12.1	1.41E+04	8.58E-04
482900	1379700	01/21/92	14:26	13.1	1.53E+04	8.58E-04
482900	1379800	01/21/92	14:25	13.3	1.55E+04	8.58E-04
482900	1379900	01/21/92	14:23	14.2	1.65E+04	8.58E-04
482900	1380000	01/21/92	14:22	15.8	1.84E+04	8.58E-04

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NORTH COORDINATE	EAST COORDINATE	DATE	TIME	EXPOSURE RATE	COUNT RATE	STD. FACTOR
482900	1380100	01/21/92	14:21	15.8	1.84E+04	8.58E-04
482900	1380200	01/21/92	14:19	19.0	2.22E+04	8.58E-04
482900	1380300	01/21/92	14:17	20.2	2.36E+04	8.58E-04
482900	1380400	01/21/92	14:16	20.2	2.35E+04	8.58E-04
482900	1380500	01/21/92	14:14	21.7	2.53E+04	8.58E-04
482900	1380600	01/21/92	14:13	21.2	2.47E+04	8.58E-04
482900	1380700	01/21/92	14:12	21.8	2.54E+04	8.58E-04
482900	1380800	01/21/92	14:10	18.0	2.10E+04	8.58E-04
482900	1382600	01/08/92	15:16	10.9	1.11E+04	9.83E-04
482900	1382700	01/08/92	15:14	11.8	1.20E+04	9.83E-04
482900	1382800	01/08/92	15:12	11.3	1.15E+04	9.83E-04
482900	1382900	01/08/92	15:10	11.2	1.14E+04	9.83E-04
482900	1383000	01/08/92	15:08	11.0	1.12E+04	9.83E-04
482900	1383100	01/08/92	15:06	11.7	1.19E+04	9.83E-04
482900	1383200	01/08/92	15:04	11.8	1.20E+04	9.83E-04
482900	1383300	01/08/92	15:02	11.8	1.20E+04	9.83E-04
482900	1383400	01/08/92	14:58	11.5	1.17E+04	9.83E-04
482916	1382447	01/15/92	09:03	16.1	1.10E+04	1.46E-03
482919	1382348	01/15/92	09:05	18.5	1.27E+04	1.46E-03
482922	1382248	01/15/92	09:07	18.4	1.26E+04	1.46E-03
482925	1382148	01/15/92	09:08	19.4	1.33E+04	1.46E-03
482928	1382048	01/15/92	09:10	19.4	1.33E+04	1.46E-03
482931	1381948	01/15/92	09:12	20.0	1.37E+04	1.46E-03
482933	1381848	01/15/92	09:13	20.3	1.39E+04	1.46E-03
482936	1381748	01/15/92	09:14	20.1	1.38E+04	1.46E-03
482939	1381648	01/15/92	09:16	20.1	1.38E+04	1.46E-03
482942	1381548	01/15/92	09:17	20.0	1.37E+04	1.46E-03
482945	1381448	01/15/92	09:19	22.5	1.54E+04	1.46E-03
482948	1381348	01/15/92	09:20	23.1	1.58E+04	1.46E-03
482951	1381248	01/15/92	09:22	23.9	1.64E+04	1.46E-03
482954	1381148	01/15/92	09:24	24.1	1.65E+04	1.46E-03
482957	1381048	01/15/92	09:26	25.4	1.74E+04	1.46E-03
482960	1380948	01/15/92	09:28	24.8	1.70E+04	1.46E-03
483000	1377800	01/29/92	14:35	12.0	9.58E+03	1.25E-03
483000	1377900	01/29/92	14:33	11.9	1.06E+04	1.12E-03
483000	1378000	01/28/92	11:05	12.7	1.04E+04	1.22E-03
483000	1378100	01/28/92	11:03	12.0	9.83E+03	1.22E-03
483000	1378200	01/28/92	11:01	12.4	1.02E+04	1.22E-03
483000	1378300	01/28/92	10:59	12.1	9.92E+03	1.22E-03
483000	1378400	01/28/92	10:57	12.4	1.02E+04	1.22E-03
483000	1378500	01/28/92	10:55	13.1	1.07E+04	1.22E-03
483000	1378600	01/28/92	10:53	13.4	1.10E+04	1.22E-03
483000	1378700	01/28/92	10:55	12.7	1.04E+04	1.22E-03
483000	1378800	01/28/92	10:53	12.6	1.03E+04	1.22E-03
483000	1378900	01/28/92	10:51	13.1	1.07E+04	1.22E-03
483000	1379000	01/28/92	10:49	13.8	1.13E+04	1.22E-03
483000	1379100	01/28/92	10:47	13.4	1.10E+04	1.22E-03
483000	1379200	01/28/92	10:45	13.1	1.07E+04	1.22E-03
483000	1379300	01/21/92	14:40	10.5	1.22E+04	8.58E-04
483000	1379400	01/21/92	14:41	10.3	1.20E+04	8.58E-04
483000	1379500	01/21/92	14:44	11.4	1.33E+04	8.58E-04
483000	1379600	01/21/92	14:46	11.6	1.35E+04	8.58E-04
483000	1379700	01/21/92	14:48	12.2	1.42E+04	8.58E-04
483000	1379800	01/21/92	14:49	12.7	1.48E+04	8.58E-04
483000	1379900	01/21/92	14:51	13.0	1.51E+04	8.58E-04
483000	1380000	01/21/92	14:43	13.6	1.59E+04	8.58E-04
483000	1380100	01/21/92	14:54	14.2	1.65E+04	8.58E-04
483000	1380200	01/21/92	14:56	15.4	1.79E+04	8.58E-04
483000	1380300	01/21/92	15:57	16.0	1.87E+04	8.58E-04
483000	1380400	01/21/92	15:59	18.2	2.12E+04	8.58E-04
483000	1380500	01/21/92	16:00	18.4	2.15E+04	8.58E-04
483000	1380600	01/21/92	16:01	18.0	2.10E+04	8.58E-04
483000	1380700	01/21/92	16:03	17.8	2.08E+04	8.58E-04
483000	1380800	01/21/92	16:04	18.0	2.10E+04	8.58E-04
483000	1382600	01/08/92	15:40	11.3	1.15E+04	9.83E-04
483000	1382700	01/08/92	15:42	12.6	1.28E+04	9.83E-04
483000	1382800	01/08/92	15:46	11.5	1.17E+04	9.83E-04
483000	1382900	01/08/92	15:48	10.9	1.11E+04	9.83E-04
483000	1383000	01/08/92	15:49	11.5	1.17E+04	9.83E-04
483000	1383100	01/08/92	15:51	11.5	1.17E+04	9.83E-04
483000	1383200	01/08/92	15:53	12.1	1.23E+04	9.83E-04
483000	1383300	01/08/92	15:55	11.4	1.16E+04	9.83E-04
483000	1383400	01/08/92	15:57	11.9	1.21E+04	9.83E-04
483000	1383500	01/08/92	15:59	11.9	1.21E+04	9.83E-04
483041	1382489	01/15/92	09:31	16.5	1.13E+04	1.46E-03
483044	1382389	01/15/92	09:33	16.4	1.12E+04	1.46E-03

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NORTH COORDINATE	EAST COORDINATE	DATE	TIME	EXPOSURE RATE	COUNT RATE	STD. FACTOR
483047	1382289	01/15/92	09:35	17.7	1.21E+04	1.46E-03
483050	1382189	01/15/92	09:37	17.2	1.18E+04	1.46E-03
483054	1382089	01/15/92	09:41	17.7	1.21E+04	1.46E-03
483057	1381989	01/15/92	09:45	17.4	1.19E+04	1.46E-03
483060	1381889	01/15/92	09:47	17.7	1.21E+04	1.46E-03
483064	1381789	01/15/92	09:49	19.0	1.30E+04	1.46E-03
483067	1381689	01/15/92	09:50	19.7	1.35E+04	1.46E-03
483070	1381589	01/15/92	09:52	19.6	1.34E+04	1.46E-03
483073	1381489	01/15/92	09:53	19.6	1.34E+04	1.46E-03
483076	1381389	01/15/92	09:54	21.5	1.47E+04	1.46E-03
483080	1381289	01/15/92	09:56	21.5	1.47E+04	1.46E-03
483083	1381189	01/15/92	09:58	21.5	1.47E+04	1.46E-03
483086	1381089	01/15/92	10:01	22.5	1.54E+04	1.46E-03
483089	1380989	01/15/92	10:03	23.1	1.58E+04	1.46E-03
483100	1377800	01/29/92	14:33	11.4	9.12E+03	1.25E-03
483100	1377900	01/29/92	14:31	11.8	1.05E+04	1.12E-03
483100	1378000	01/28/92	11:05	10.4	1.10E+04	9.43E-04
483100	1378100	01/28/92	11:03	10.6	1.12E+04	9.43E-04
483100	1378200	01/28/92	11:01	10.6	1.12E+04	9.43E-04
483100	1378300	01/28/92	10:59	10.9	1.16E+04	9.43E-04
483100	1378400	01/28/92	10:57	10.5	1.11E+04	9.43E-04
483100	1378500	01/28/92	10:55	10.6	1.12E+04	9.43E-04
483100	1378600	01/28/92		11.0	1.17E+04	9.43E-04
483100	1378700	01/28/92	10:54	10.9	1.16E+04	9.43E-04
483100	1378800	01/28/92	10:52	11.0	1.17E+04	9.43E-04
483100	1378900	01/28/92	10:50	11.3	1.20E+04	9.43E-04
483100	1379000	01/28/92	10:48	11.3	1.20E+04	9.43E-04
483100	1379100	01/28/92	10:46	11.1	1.18E+04	9.43E-04
483100	1379200	01/28/92	10:44	10.9	1.16E+04	9.43E-04
483100	1379300	01/21/92	16:33	9.6	1.14E+04	8.58E-04
483100	1379400	01/21/92	16:31	11.0	1.28E+04	8.58E-04
483100	1379500	01/21/92	16:29	11.6	1.35E+04	8.58E-04
483100	1379600	01/21/92	16:27	11.2	1.31E+04	8.58E-04
483100	1379700	01/21/92	16:24	12.1	1.41E+04	8.58E-04
483100	1379800	01/21/92	16:22	12.3	1.43E+04	8.58E-04
483100	1379900	01/21/92	16:20	12.4	1.44E+04	8.58E-04
483100	1380000	01/21/92	16:18	13.1	1.53E+04	8.58E-04
483100	1380100	01/21/92	16:16	13.4	1.56E+04	8.58E-04
483100	1380200	01/21/92	16:14	13.8	1.61E+04	8.58E-04
483100	1380300	01/21/92	16:13	15.3	1.78E+04	8.58E-04
483100	1380400	01/21/92	16:11	14.7	1.71E+04	8.58E-04
483100	1380500	01/21/92	16:10	14.8	1.73E+04	8.58E-04
483100	1380600	01/21/92	16:08	14.9	1.74E+04	8.58E-04
483100	1380700	01/21/92	16:07	14.9	1.74E+04	8.58E-04
483100	1380800	01/21/92	16:05	15.2	1.77E+04	8.58E-04
483100	1382600	01/08/92	16:19	10.5	1.07E+04	9.83E-04
483100	1382700	01/08/92	16:18	12.3	1.25E+04	9.83E-04
483100	1382800	01/08/92	16:15	8.9	9.10E+03	9.83E-04
483100	1382900	01/08/92	16:14	11.8	1.20E+04	9.83E-04
483100	1383000	01/08/92	16:12	11.9	1.21E+04	9.83E-04
483100	1383100	01/08/92	16:11	11.6	1.18E+04	9.83E-04
483100	1383200	01/08/92	16:09	12.0	1.22E+04	9.83E-04
483100	1383300	01/08/92	16:08	11.7	1.19E+04	9.83E-04
483100	1383400	01/08/92	16:06	12.0	1.22E+04	9.83E-04
483100	1383500	01/08/92	16:05	12.0	1.22E+04	9.83E-04
483164	1382574	01/15/92	10:09	15.9	1.09E+04	1.46E-03
483167	1382474	01/15/92	10:10	17.4	1.19E+04	1.46E-03
483169	1382374	01/15/92	10:12	16.8	1.15E+04	1.46E-03
483172	1382274	01/15/92	10:14	17.7	1.21E+04	1.46E-03
483174	1382174	01/15/92	10:15	17.8	1.22E+04	1.46E-03
483177	1382074	01/15/92	10:17	18.3	1.25E+04	1.46E-03
483180	1381974	01/15/92	10:19	18.3	1.25E+04	1.46E-03
483182	1381874	01/15/92	10:20	18.4	1.26E+04	1.46E-03
483185	1381774	01/15/92	10:21	19.1	1.31E+04	1.46E-03
483188	1381674	01/15/92	10:23	18.5	1.27E+04	1.46E-03
483190	1381574	01/15/92	10:24	18.4	1.26E+04	1.46E-03
483193	1381474	01/15/92	10:26	18.5	1.27E+04	1.46E-03
483196	1381374	01/15/92	10:27	20.0	1.37E+04	1.46E-03
483199	1381274	01/15/92	10:29	20.0	1.37E+04	1.46E-03
483200	1377800	01/29/92	14:31	12.0	9.61E+03	1.25E-03
483200	1377900	01/29/92	14:30	11.5	1.03E+04	1.12E-03
483200	1378000	01/28/92	11:09	12.2	1.00E+04	1.22E-03
483200	1378100	01/28/92	11:11	12.2	9.97E+03	1.22E-03
483200	1378200	01/28/92	11:13	12.1	9.95E+03	1.22E-03
483200	1378300	01/28/92	11:17	12.0	9.80E+03	1.22E-03
483200	1378400	01/28/92	11:19	12.0	9.80E+03	1.22E-03

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EWMF Survey – Sorted by Location (N,E)

10-Feb-92

RTH COORDINATE	EAST COORDINATE	DATE	TIME	EXPOSURE RATE	COUNT RATE	STD. FACTOR
483200	1378500	01/28/92	11:21	11.7	9.62E+03	1.22E-03
483200	1378600	01/28/92	11:23	13.7	1.12E+04	1.22E-03
483200	1378700	01/28/92	11:25	13.2	1.08E+04	1.22E-03
483200	1378800	01/28/92	11:27	12.7	1.04E+04	1.22E-03
483200	1378900	01/28/92	11:29	13.2	1.08E+04	1.22E-03
483200	1379000	01/28/92	11:31	13.2	1.08E+04	1.22E-03
483200	1379100	01/28/92	11:33	13.1	1.07E+04	1.22E-03
483200	1379200	01/28/92	11:35	12.9	1.06E+04	1.22E-03
483200	1379300	01/29/92	10:46	12.7	1.15E+04	1.10E-03
483200	1379400	01/29/92	10:44	13.1	1.19E+04	1.10E-03
483200	1379500	01/29/92	10:41	13.6	1.24E+04	1.10E-03
483200	1379600	01/29/92	10:38	13.5	1.23E+04	1.10E-03
483200	1379700	01/29/92	10:36	12.9	1.17E+04	1.10E-03
483200	1379800	01/21/92	16:06	12.2	1.29E+04	9.48E-04
483200	1379900	01/21/92	16:13	12.5	1.32E+04	9.48E-04
483200	1380000	01/21/92	16:15	12.5	1.32E+04	9.48E-04
483200	1380100	01/21/92	16:17	13.1	1.38E+04	9.48E-04
483200	1380200	01/21/92	16:21	13.6	1.43E+04	9.48E-04
483200	1380300	01/21/92	16:23	13.7	1.45E+04	9.48E-04
483200	1380400	01/21/92	16:24	13.8	1.46E+04	9.48E-04
483200	1380500	01/21/92	16:26	15.1	1.59E+04	9.48E-04
483200	1380600	01/21/92	16:28	15.1	1.59E+04	9.48E-04
483200	1380700	01/21/92	16:30	14.7	1.55E+04	9.48E-04
483200	1380800	01/21/92	16:31	14.0	1.48E+04	9.48E-04
483200	1380900	01/21/92	16:33	12.0	1.27E+04	9.48E-04
483200	1382600	01/08/92	16:21	9.2	9.31E+03	9.83E-04
483200	1382700	01/08/92	16:25	11.8	1.20E+04	9.83E-04
483200	1382900	01/09/92	10:36	12.1	1.22E+04	9.90E-04
483200	1383000	01/09/92	10:39	11.6	1.17E+04	9.90E-04
483200	1383100	01/09/92	10:42	11.4	1.15E+04	9.90E-04
483200	1383200	01/09/92	10:44	12.1	1.22E+04	9.90E-04
483200	1383300	01/09/92	10:45	12.4	1.25E+04	9.90E-04
483200	1383400	01/09/92	10:48	11.7	1.18E+04	9.90E-04
483200	1383500	01/09/92	10:52	12.4	1.25E+04	9.90E-04
483201	1381174	01/15/92	10:30	20.4	1.40E+04	1.46E-03
483204	1381074	01/15/92	10:32	21.2	1.45E+04	1.46E-03
483206	1380974	01/15/92	10:33	21.0	1.44E+04	1.46E-03
483286	1382657	01/15/92	10:40	16.6	1.14E+04	1.46E-03
483289	1382557	01/15/92	10:41	17.2	1.18E+04	1.46E-03
483293	1382457	01/15/92	10:43	13.6	9.32E+03	1.46E-03
483296	1382357	01/15/92	10:44	15.2	1.04E+04	1.46E-03
483298	1382257	01/15/92	10:46	18.1	1.24E+04	1.46E-03
483300	1377800	01/29/92	14:28	11.8	9.44E+03	1.25E-03
483300	1377900	01/29/92	14:28	11.3	1.01E+04	1.12E-03
483300	1378000	01/28/92	11:09	10.7	1.13E+04	9.43E-04
483300	1378100	01/28/92	11:11	10.6	1.12E+04	9.43E-04
483300	1378200	01/28/92	11:13	10.6	1.12E+04	9.43E-04
483300	1378300	01/28/92	11:17	10.5	1.11E+04	9.43E-04
483300	1378400	01/28/92	11:19	10.6	1.12E+04	9.43E-04
483300	1378500	01/28/92	11:21	10.6	1.12E+04	9.43E-04
483300	1378600	01/28/92	11:23	10.5	1.11E+04	9.43E-04
483300	1378700	01/28/92	11:25	10.9	1.16E+04	9.43E-04
483300	1378800	01/28/92	11:27	10.8	1.15E+04	9.43E-04
483300	1378900	01/28/92	11:29	11.2	1.19E+04	9.43E-04
483300	1379000	01/28/92	11:31	10.8	1.15E+04	9.43E-04
483300	1379100	01/28/92	11:33	11.4	1.21E+04	9.43E-04
483300	1379200	01/28/92	11:35	11.2	1.19E+04	9.43E-04
483300	1379300	01/29/92	10:46	12.5	1.17E+04	1.07E-03
483300	1379400	01/29/92	10:44	13.3	1.24E+04	1.07E-03
483300	1379500	01/29/92	10:40	13.2	1.23E+04	1.07E-03
483300	1379600	01/29/92	10:38	13.6	1.27E+04	1.07E-03
483300	1379700	01/29/92	10:36	13.4	1.25E+04	1.07E-03
483300	1379800	01/21/92	16:03	11.5	1.21E+04	9.48E-04
483300	1379900	01/21/92	15:58	11.9	1.25E+04	9.48E-04
483300	1380000	01/21/92	15:56	12.4	1.31E+04	9.48E-04
483300	1380100	01/21/92	15:54	12.3	1.30E+04	9.48E-04
483300	1380200	01/21/92	15:52	13.0	1.37E+04	9.48E-04
483300	1380300	01/21/92	15:50	13.1	1.38E+04	9.48E-04
483300	1380400	01/21/92	15:48	13.4	1.41E+04	9.48E-04
483300	1380500	01/21/92	15:46	13.7	1.44E+04	9.48E-04
483300	1380600	01/21/92	15:45	13.8	1.46E+04	9.48E-04
483300	1380700	01/21/92	15:43	13.2	1.39E+04	9.48E-04
483300	1380800	01/21/92	15:28	13.0	1.37E+04	9.48E-04
483300	1380900	01/21/92	15:26	10.5	1.11E+04	9.48E-04
483300	1382700	01/09/92	11:18	10.1	1.02E+04	9.90E-04
483300	1382800	01/09/92	11:15	11.8	1.19E+04	9.90E-04

EWMFLOC.WK3

EWMF Survey – Sorted by Location (N,E)

10-Feb-92

TH COORDINATE	EAST COORDINATE	DATE	TIME	EXPOSURE RATE	COUNT RATE	STD. FACTOR
483300	1382900	01/09/92	11:11	12.1	1.22E+04	9.90E-04
483300	1383000	01/09/92	11:07	12.1	1.22E+04	9.90E-04
483300	1383100	01/09/92	11:05	10.1	1.02E+04	9.90E-04
483300	1383200	01/09/92	11:02	12.0	1.21E+04	9.90E-04
483300	1383300	01/09/92	11:00	12.4	1.25E+04	9.90E-04
483300	1383400	01/09/92	10:57	12.0	1.21E+04	9.90E-04
483300	1383500	01/09/92	10:54	12.0	1.21E+04	9.90E-04
483301	1382157	01/15/92	10:47	17.5	1.20E+04	1.46E-03
483304	1382057	01/15/92	10:49	18.1	1.24E+04	1.46E-03
483307	1381957	01/15/92	10:51	17.7	1.21E+04	1.46E-03
483310	1381857	01/15/92	10:52	18.0	1.23E+04	1.46E-03
483313	1381757	01/15/92	10:53	18.0	1.23E+04	1.46E-03
483316	1381657	01/15/92	10:55	18.8	1.29E+04	1.46E-03
483319	1381557	01/15/92	10:56	19.4	1.33E+04	1.46E-03
483322	1381457	01/15/92	10:58	19.0	1.30E+04	1.46E-03
483325	1381357	01/15/92	10:59	19.6	1.34E+04	1.46E-03
483328	1381257	01/15/92	11:01	19.1	1.31E+04	1.46E-03
483331	1381157	01/15/92	11:02	19.3	1.32E+04	1.46E-03
483333	1381057	01/15/92	11:03	19.1	1.31E+04	1.46E-03
483337	1380957	01/15/92	11:05	16.6	1.14E+04	1.46E-03
483400	1377800	01/29/92	14:28	12.5	1.00E+04	1.25E-03
483400	1377900	01/29/92	14:26	12.4	1.11E+04	1.12E-03
483400	1378000	01/28/92	14:25	9.7	1.07E+04	9.09E-04
483400	1378100	01/28/92	14:21	9.8	1.08E+04	9.09E-04
483400	1378200	01/28/92	14:19	10.2	1.12E+04	9.09E-04
483400	1378300	01/28/92	14:17	10.2	1.12E+04	9.09E-04
483400	1378400	01/28/92	14:15	9.9	1.09E+04	9.09E-04
483400	1378500	01/28/92	14:13	9.7	1.07E+04	9.09E-04
483400	1378600	01/28/92	14:11	10.2	1.12E+04	9.09E-04
483400	1378700	01/28/92	14:08	10.1	1.11E+04	9.09E-04
483400	1378800	01/28/92	14:07	10.4	1.14E+04	9.09E-04
483400	1378900	01/28/92	14:05	10.5	1.15E+04	9.09E-04
483400	1379000	01/28/92	14:03	10.7	1.18E+04	9.09E-04
483400	1379100	01/28/92	14:00	10.0	1.10E+04	9.09E-04
483400	1379200	01/28/92	13:58	10.7	1.18E+04	9.09E-04
483400	1379300	01/29/92	10:55	12.2	1.11E+04	1.10E-03
483400	1379400	01/29/92	10:59	12.0	1.09E+04	1.10E-03
483400	1379500	01/29/92	11:01	12.2	1.11E+04	1.10E-03
483400	1379600	01/29/92	11:02	12.9	1.17E+04	1.10E-03
483400	1379700	01/29/92	11:05	11.3	1.03E+04	1.10E-03
483400	1379800	01/29/92	11:06	12.7	1.15E+04	1.10E-03
483400	1379900	01/29/92	11:07	13.2	1.20E+04	1.10E-03
483400	1380000	01/21/92	15:00	11.9	1.26E+04	9.48E-04
483400	1380100	01/21/92	15:02	11.8	1.24E+04	9.48E-04
483400	1380200	01/21/92	15:09	12.2	1.29E+04	9.48E-04
483400	1380300	01/21/92	15:11	12.2	1.29E+04	9.48E-04
483400	1380400	01/21/92	15:13	12.8	1.35E+04	9.48E-04
483400	1380500	01/21/92	15:15	12.4	1.31E+04	9.48E-04
483400	1380600	01/21/92	15:16	12.7	1.34E+04	9.48E-04
483400	1380700	01/21/92	15:18	12.2	1.29E+04	9.48E-04
483400	1380800	01/21/92	15:20	12.1	1.28E+04	9.48E-04
483400	1380900	01/21/92	15:22	10.5	1.11E+04	9.48E-04
483400	1382800	01/09/92	11:23	12.0	1.21E+04	9.90E-04
483400	1382900	01/09/92	11:25	12.0	1.21E+04	9.90E-04
483400	1383000	01/09/92	11:27	12.4	1.25E+04	9.90E-04
483400	1383100	01/09/92	11:29	11.2	1.13E+04	9.90E-04
483400	1383200	01/09/92	11:30	11.7	1.18E+04	9.90E-04
483400	1383300	01/09/92	11:32	12.2	1.23E+04	9.90E-04
483400	1383400	01/09/92	11:35	12.4	1.25E+04	9.90E-04
483400	1383500	01/09/92	11:37	12.4	1.25E+04	9.90E-04
483410	1382750	01/15/92	10:39	13.0	1.05E+04	1.24E-03
483413	1382650	01/15/92	10:38	13.0	1.05E+04	1.24E-03
483415	1382550	01/15/92	10:36	13.1	1.06E+04	1.24E-03
483419	1382450	01/15/92	10:33	13.5	1.09E+04	1.24E-03
483421	1382350	01/15/92	10:31	13.4	1.08E+04	1.24E-03
483423	1382250	01/15/92	10:30	13.8	1.11E+04	1.24E-03
483426	1382150	01/15/92	10:28	13.6	1.10E+04	1.24E-03
483429	1382050	01/15/92	10:26	14.1	1.14E+04	1.24E-03
483431	1381950	01/15/92	10:25	14.6	1.18E+04	1.24E-03
483433	1381850	01/15/92	10:23	14.6	1.18E+04	1.24E-03
483436	1381750	01/15/92	10:22	14.4	1.16E+04	1.24E-03
483439	1381650	01/15/92	10:21	14.8	1.19E+04	1.24E-03
483441	1381550	01/15/92	10:19	14.9	1.20E+04	1.24E-03
483443	1381450	01/15/92	10:17	14.8	1.19E+04	1.24E-03
483446	1381350	01/15/92	10:16	14.8	1.19E+04	1.24E-03
483448	1381250	01/15/92	10:14	14.8	1.19E+04	1.24E-03

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EWMF Survey – Sorted by Location (N,E)

10-Feb-92

TH COORDINATE	EAST COORDINATE	DATE	TIME	EXPOSURE RATE	COUNT RATE	STD. FACTOR
483451	1381150	01/15/92	10:13	14.9	1.20E+04	1.24E-03
483453	1381050	01/15/92	10:11	14.3	1.15E+04	1.24E-03
483456	1380950	01/15/92	10:08	12.2	9.82E+03	1.24E-03
483500	1377800	01/29/92	14:23	11.8	9.44E+03	1.25E-03
483500	1377900	01/29/92	14:23	11.6	1.04E+04	1.12E-03
483500	1378000	01/28/92	14:24	12.9	1.02E+04	1.26E-03
483500	1378100	01/28/92	14:20	13.0	1.03E+04	1.26E-03
483500	1378200	01/28/92	14:18	12.9	1.02E+04	1.26E-03
483500	1378300	01/28/92	14:16	13.1	1.04E+04	1.26E-03
483500	1378400	01/28/92	14:14	12.9	1.02E+04	1.26E-03
483500	1378500	01/28/92	14:12	12.7	1.01E+04	1.26E-03
483500	1378600	01/28/92	14:10	12.5	9.96E+03	1.26E-03
483500	1378700	01/28/92	14:08	12.7	1.01E+04	1.26E-03
483500	1378800	01/28/92	14:07	13.1	1.04E+04	1.26E-03
483500	1378900	01/28/92	14:05	13.7	1.09E+04	1.26E-03
483500	1379000	01/28/92	14:03	13.6	1.08E+04	1.26E-03
483500	1379100	01/28/92	14:01	12.7	1.01E+04	1.26E-03
483500	1379200	01/28/92	13:59	13.5	1.07E+04	1.26E-03
483500	1379300	01/29/92	10:53	12.3	1.15E+04	1.07E-03
483500	1379400	01/29/92	10:55	12.2	1.14E+04	1.07E-03
483500	1379500	01/29/92	10:57	12.7	1.19E+04	1.07E-03
483500	1379600	01/29/92	10:59	12.4	1.16E+04	1.07E-03
483500	1379700	01/29/92	11:02	13.4	1.25E+04	1.07E-03
483500	1379800	01/29/92	11:03	13.3	1.24E+04	1.07E-03
483500	1379900	01/29/92	11:06	12.6	1.18E+04	1.07E-03
483500	1380000	01/21/92	14:59	11.0	1.16E+04	9.48E-04
483500	1380150	01/21/92	14:57	11.7	1.23E+04	9.48E-04
483500	1380200	01/21/92	14:54	12.0	1.27E+04	9.48E-04
483500	1380300	01/21/92	14:35	11.4	1.20E+04	9.48E-04
483500	1380400	01/21/92	14:32	11.9	1.26E+04	9.48E-04
483500	1380500	01/21/92	14:30	11.8	1.24E+04	9.48E-04
483500	1380600	01/21/92	14:27	11.6	1.22E+04	9.48E-04
483500	1380700	01/21/92	14:25	10.9	1.15E+04	9.48E-04
483500	1380800	01/21/92	14:22	11.7	1.23E+04	9.48E-04
483500	1380900	01/21/92	14:21	8.9	9.40E+03	9.48E-04
483500	1383000	01/09/92	11:49	12.5	1.26E+04	9.90E-04
483500	1383100	01/09/92	11:47	12.1	1.22E+04	9.90E-04
483500	1383200	01/09/92	11:45	12.1	1.22E+04	9.90E-04
483500	1383300	01/09/92	11:43	12.1	1.22E+04	9.90E-04
483500	1383400	01/09/92	11:41	11.4	1.15E+04	9.90E-04
483500	1383500	01/09/92	11:40	11.8	1.19E+04	9.90E-04
483534	1382835	01/15/92	10:50	12.8	1.03E+04	1.24E-03
483537	1382735	01/15/92	10:52	13.0	1.05E+04	1.24E-03
483539	1382635	01/15/92	10:55	13.4	1.08E+04	1.24E-03
483542	1382535	01/15/92	10:57	13.6	1.10E+04	1.24E-03
483544	1382435	01/15/92	10:59	14.0	1.13E+04	1.24E-03
483547	1382335	01/15/92	11:00	13.4	1.08E+04	1.24E-03
483549	1382235	01/15/92	11:01	14.3	1.15E+04	1.24E-03
483553	1382135	01/15/92	11:02	14.4	1.16E+04	1.24E-03
483555	1382035	01/15/92	11:03	14.8	1.19E+04	1.24E-03
483558	1381935	01/15/92	11:05	14.4	1.16E+04	1.24E-03
483560	1381835	01/15/92	11:06	14.3	1.15E+04	1.24E-03
483563	1381735	01/15/92	11:08	14.3	1.15E+04	1.24E-03
483565	1381635	01/15/92	11:09	14.6	1.18E+04	1.24E-03
483568	1381535	01/15/92	11:11	14.4	1.16E+04	1.24E-03
483570	1381435	01/15/92	11:12	14.8	1.19E+04	1.24E-03
483573	1381335	01/15/92	11:13	15.0	1.21E+04	1.24E-03
483575	1381235	01/15/92	11:14	14.5	1.17E+04	1.24E-03
483577	1381135	01/15/92	11:16	13.9	1.12E+04	1.24E-03
483580	1381035	01/15/92	11:17	13.5	1.09E+04	1.24E-03
483583	1380935	01/15/92	11:18	9.0	7.26E+03	1.24E-03
483600	1377800	01/29/92	14:21	12.0	9.57E+03	1.25E-03
483600	1377900	01/29/92	14:21	11.9	1.06E+04	1.12E-03
483600	1378000	01/28/92	14:28	9.5	1.04E+04	9.09E-04
483600	1378100	01/28/92	14:30	10.0	1.10E+04	9.09E-04
483600	1378200	01/28/92	14:32	10.2	1.12E+04	9.09E-04
483600	1378300	01/28/92	14:34	10.2	1.12E+04	9.09E-04
483600	1378400	01/28/92	14:36	10.0	1.10E+04	9.09E-04
483600	1378500	01/28/92	14:38	10.0	1.10E+04	9.09E-04
483600	1378600	01/28/92	14:39	9.9	1.09E+04	9.09E-04
483600	1378700	01/28/92	14:41	10.2	1.12E+04	9.09E-04
483600	1378800	01/28/92	14:43	10.2	1.12E+04	9.09E-04
483600	1378900	01/28/92	14:45	10.2	1.12E+04	9.09E-04
483600	1379000	01/28/92	14:47	10.8	1.19E+04	9.09E-04
483600	1379100	01/28/92	14:49	10.5	1.15E+04	9.09E-04
483600	1379200	01/28/92	14:52	10.3	1.13E+04	9.09E-04

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10-Feb-92

NORTH COORDINATE	EAST COORDINATE	DATE	TIME	EXPOSURE RATE	COUNT RATE	STD. FACTOR
483600	1379300	01/28/92	15:25	9.9	1.09E+04	9.09E-04
483600	1379400	01/28/92	15:26	10.2	1.12E+04	9.09E-04
483600	1379500	01/28/92	15:28	10.2	1.12E+04	9.09E-04
483600	1379600	01/28/92	15:30	10.9	1.20E+04	9.09E-04
483600	1379700	01/28/92	15:32	11.2	1.23E+04	9.09E-04
483600	1379800	01/28/92	15:33	11.5	1.27E+04	9.09E-04
483600	1379900	01/29/92	11:13	13.1	1.22E+04	1.07E-03
483600	1380000	01/21/92	13:55	11.3	1.19E+04	9.48E-04
483600	1380100	01/21/92	13:57	10.7	1.13E+04	9.48E-04
483600	1380200	01/21/92	14:00	11.4	1.20E+04	9.48E-04
483600	1380300	01/21/92	14:02	11.4	1.20E+04	9.48E-04
483600	1380400	01/21/92	14:05	11.4	1.20E+04	9.48E-04
483600	1380500	01/21/92	14:07	11.5	1.21E+04	9.48E-04
483600	1380600	01/21/92	14:11	10.8	1.14E+04	9.48E-04
483600	1380700	01/21/92	14:13	10.0	1.05E+04	9.48E-04
483600	1380800	01/21/92	14:16	10.0	1.06E+04	9.48E-04
483600	1380900	01/21/92	14:18	10.2	1.08E+04	9.48E-04
483600	1383000	01/09/92	11:51	11.9	1.20E+04	9.90E-04
483600	1383100	01/09/92	11:53	12.3	1.24E+04	9.90E-04
483600	1383200	01/09/92	11:55	12.1	1.22E+04	9.90E-04
483600	1383300	01/09/92	11:57	12.4	1.25E+04	9.90E-04
483600	1383400	01/09/92	11:59	11.8	1.19E+04	9.90E-04
483600	1383500	01/09/92	12:01	12.2	1.23E+04	9.90E-04
483665	1382914	01/15/92	14:30	12.7	1.06E+04	1.20E-03
483667	1382814	01/15/92	14:47	13.4	1.12E+04	1.20E-03
483668	1382714	01/15/92	14:48	13.4	1.12E+04	1.20E-03
483670	1382614	01/15/92	14:50	13.4	1.12E+04	1.20E-03
483672	1382514	01/15/92	14:51	13.4	1.12E+04	1.20E-03
483673	1382414	01/15/92	15:05	13.8	1.15E+04	1.20E-03
483675	1382314	01/15/92	15:07	13.9	1.16E+04	1.20E-03
483677	1382214	01/15/92	15:09	14.4	1.20E+04	1.20E-03
483679	1382114	01/15/92	15:10	14.2	1.18E+04	1.20E-03
483681	1382014	01/15/92	15:12	14.2	1.18E+04	1.20E-03
483682	1381914	01/15/92	15:13	13.8	1.15E+04	1.20E-03
483684	1381814	01/15/92	15:17	13.3	1.11E+04	1.20E-03
483686	1381714	01/15/92	15:19	13.3	1.11E+04	1.20E-03
483687	1381614	01/15/92	15:21	13.6	1.13E+04	1.20E-03
483689	1381514	01/15/92	15:23	14.3	1.19E+04	1.20E-03
483691	1381414	01/15/92	15:26	14.9	1.24E+04	1.20E-03
483700	1377800	01/29/92	14:15	12.4	9.91E+03	1.25E-03
483700	1377900	01/29/92	14:19	11.9	1.06E+04	1.12E-03
483700	1378000	01/28/92	14:28	12.6	9.99E+03	1.26E-03
483700	1378100	01/28/92	14:30	12.9	1.02E+04	1.26E-03
483700	1378200	01/28/92	14:33	12.6	1.00E+04	1.26E-03
483700	1378300	01/28/92	14:35	13.0	1.03E+04	1.26E-03
483700	1378400	01/28/92	14:37	12.9	1.02E+04	1.26E-03
483700	1378500	01/28/92	14:38	13.1	1.04E+04	1.26E-03
483700	1378600	01/28/92	14:40	12.7	1.01E+04	1.26E-03
483700	1378700	01/28/92	14:42	13.1	1.04E+04	1.26E-03
483700	1378800	01/28/92	14:44	12.4	9.88E+03	1.26E-03
483700	1378900	01/28/92	14:46	13.4	1.06E+04	1.26E-03
483700	1379000	01/28/92	14:48	13.6	1.08E+04	1.26E-03
483700	1379100	01/28/92	14:50	13.4	1.06E+04	1.26E-03
483700	1379200	01/28/92	14:52	12.9	1.02E+04	1.26E-03
483700	1379300	01/28/92	15:24	12.7	1.01E+04	1.26E-03
483700	1379400	01/28/92	15:26	13.7	1.09E+04	1.26E-03
483700	1379500	01/28/92	15:28	13.0	1.03E+04	1.26E-03
483700	1379600	01/28/92	15:30	13.7	1.09E+04	1.26E-03
483700	1379700	01/28/92	15:32	13.7	1.09E+04	1.26E-03
483700	1379800	01/28/92	15:34	13.6	1.08E+04	1.26E-03
483700	1379900	01/29/92	11:13	12.1	1.10E+04	1.10E-03
483700	1380000	01/21/92	10:45	10.5	1.13E+04	9.27E-04
483700	1380100	01/21/92	10:50	10.4	1.12E+04	9.27E-04
483700	1380200	01/21/92	10:52	10.7	1.15E+04	9.27E-04
483700	1380300	01/21/92	10:54	10.0	1.08E+04	9.27E-04
483700	1380400	01/21/92	10:56	10.3	1.11E+04	9.27E-04
483700	1380500	01/21/92	10:58	10.8	1.16E+04	9.27E-04
483700	1380600	01/21/92	11:00	9.9	1.07E+04	9.27E-04
483700	1380700	01/21/92	11:02	9.1	9.80E+03	9.27E-04
483700	1380800	01/21/92	11:04	9.2	9.96E+03	9.27E-04
483700	1380900	01/21/92	11:06	8.0	8.62E+03	9.27E-04
483700	1383000	01/09/92	12:11	12.1	1.22E+04	9.90E-04
483700	1383100	01/09/92	12:09	12.3	1.24E+04	9.90E-04
483700	1383200	01/09/92	12:08	12.3	1.24E+04	9.90E-04
483700	1383300	01/09/92	12:06	12.0	1.21E+04	9.90E-04
483700	1383400	01/09/92	12:05	12.0	1.21E+04	9.90E-04

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10-Feb-92

TH COORDINATE	EAST COORDINATE	DATE	TIME	EXPOSURE RATE	COUNT RATE	STD. FACTOR
483700	1383500	01/09/92	12:03	9.0	9.11E+03	9.90E-04
483790	1383002	01/15/92	15:49	15.9	1.35E+04	1.18E-03
483791	1382902	01/15/92	15:51	18.1	1.53E+04	1.18E-03
483793	1382802	01/15/92	15:52	15.2	1.29E+04	1.18E-03
483795	1382702	01/15/92	15:54	18.1	1.53E+04	1.18E-03
483796	1382602	01/15/92	15:55	21.8	1.85E+04	1.18E-03
483798	1382502	01/15/92	15:56	20.9	1.77E+04	1.18E-03
483800	1377800	01/29/92	14:08	12.2	9.73E+03	1.25E-03
483800	1377900	01/29/92	14:06	12.5	1.00E+04	1.25E-03
483800	1378000	01/29/92	14:04	12.8	1.02E+04	1.25E-03
483800	1378100	01/29/92	14:02	12.8	1.02E+04	1.25E-03
483800	1378500	01/28/92	16:03	13.0	1.03E+04	1.26E-03
483800	1378600	01/28/92	16:02	12.2	9.70E+03	1.26E-03
483800	1378700	01/28/92	16:00	12.4	9.82E+03	1.26E-03
483800	1378800	01/28/92	15:58	12.9	1.02E+04	1.26E-03
483800	1378900	01/28/92	15:57	13.1	1.04E+04	1.26E-03
483800	1379000	01/28/92	15:55	13.0	1.03E+04	1.26E-03
483800	1379100	01/28/92	15:53	13.1	1.04E+04	1.26E-03
483800	1379200	01/28/92	15:51	13.1	1.04E+04	1.26E-03
483800	1379200	01/28/92	16:09	13.0	1.03E+04	1.26E-03
483800	1379300	01/28/92	15:49	13.5	1.07E+04	1.26E-03
483800	1379300	01/28/92	16:07	12.7	1.01E+04	1.26E-03
483800	1379400	01/28/92	16:05	13.1	1.04E+04	1.26E-03
483800	1379400	01/28/92	15:46	13.0	1.03E+04	1.26E-03
483800	1379500	01/28/92	15:44	13.1	1.04E+04	1.26E-03
483800	1379600	01/28/92	15:42	12.8	1.00E+04	1.26E-03
483800	1379700	01/28/92	15:40	13.5	1.07E+04	1.26E-03
483800	1379800	01/28/92	15:38	13.4	1.06E+04	1.26E-03
483800	1379900	01/29/92	11:16	11.9	1.08E+04	1.10E-03
483800	1380000	01/21/92	10:40	10.2	1.10E+04	9.27E-04
483800	1380100	01/21/92	10:36	9.6	1.04E+04	9.27E-04
483800	1380200	01/21/92	10:32	10.2	1.10E+04	9.27E-04
483800	1380300	01/21/92	10:30	9.9	1.07E+04	9.27E-04
483800	1380400	01/21/92	10:23	10.3	1.11E+04	9.27E-04
483800	1380500	01/21/92	10:20	9.5	1.03E+04	9.27E-04
483800	1380600	01/21/92	10:11	8.4	9.11E+03	9.27E-04
483800	1380700	01/21/92	10:09	9.0	9.71E+03	9.27E-04
483800	1380800	01/21/92	10:07	9.8	1.04E+04	9.27E-04
483800	1380900	01/21/92	10:05	9.8	1.06E+04	9.27E-04
483800	1382402	01/15/92	15:58	19.2	1.63E+04	1.18E-03
483800	1383200	01/09/92	12:14	11.9	1.20E+04	9.90E-04
483800	1383300	01/09/92	12:15	12.0	1.21E+04	9.90E-04
483800	1383400	01/09/92	12:19	11.9	1.20E+04	9.90E-04
483800	1383500	01/09/92	12:22	11.8	1.19E+04	9.90E-04
483800	1383600	01/09/92	12:24	11.3	1.14E+04	9.90E-04
483801	1382302	01/15/92	15:59	19.0	1.61E+04	1.18E-03
483803	1382202	01/15/92	16:00	16.6	1.41E+04	1.18E-03
483805	1382102	01/15/92	16:02	15.6	1.32E+04	1.18E-03
483806	1382002	01/15/92	16:04	13.5	1.14E+04	1.18E-03
483808	1381902	01/15/92	16:06	14.5	1.23E+04	1.18E-03
483809	1381802	01/15/92	16:08	14.3	1.21E+04	1.18E-03
483810	1381702	01/15/92	16:10	14.3	1.21E+04	1.18E-03
483812	1381602	01/15/92	16:11	13.9	1.18E+04	1.18E-03
483814	1381502	01/15/92	16:13	13.8	1.17E+04	1.18E-03
483900	1377800	01/29/92	14:08	12.3	1.10E+04	1.12E-03
483900	1377900	01/29/92	14:06	11.1	9.90E+03	1.12E-03
483900	1378000	01/29/92	14:03	11.4	1.02E+04	1.12E-03
483900	1378100	01/29/92	14:01	11.8	1.05E+04	1.12E-03
483900	1378200	01/28/92	16:08	9.7	1.07E+04	9.09E-04
483900	1378300	01/28/92	16:06	9.7	1.07E+04	9.09E-04
483900	1378400	01/28/92	16:05	9.9	1.09E+04	9.09E-04
483900	1378500	01/28/92	16:03	10.0	1.10E+04	9.09E-04
483900	1378600	01/28/92	16:01	9.4	1.03E+04	9.09E-04
483900	1378700	01/28/92	15:59	9.9	1.09E+04	9.09E-04
483900	1378800	01/28/92	15:56	9.5	1.05E+04	9.09E-04
483900	1378900	01/28/92	15:54	9.9	1.09E+04	9.09E-04
483900	1379000	01/28/92	15:52	10.1	1.11E+04	9.09E-04
483900	1379100	01/28/92	15:50	10.5	1.15E+04	9.09E-04
483900	1379200	01/28/92	15:48	10.8	1.19E+04	9.09E-04
483900	1379300	01/28/92	15:47	10.5	1.16E+04	9.09E-04
483900	1379400	01/28/92	15:45	10.3	1.13E+04	9.09E-04
483900	1379500	01/28/92	15:43	10.7	1.18E+04	9.09E-04
483900	1379600	01/28/92	15:42	10.7	1.18E+04	9.09E-04
483900	1379700	01/28/92	15:39	10.4	1.14E+04	9.09E-04
483900	1379800	01/28/92	15:38	10.1	1.11E+04	9.09E-04
483900	1379900	01/29/92	11:17	11.8	1.10E+04	1.07E-03

DRAFT

10-Feb-92

RTH COORDINATE	EAST COORDINATE	DATE	TIME	EXPOSURE RATE	COUNT RATE	STD. FACTOR
483900	1383200	01/09/92	12:35	12.0	1.21E+04	9.90E-04
483900	1383300	01/09/92	12:33	12.1	1.22E+04	9.90E-04
483900	1383400	01/09/92	12:31	11.8	1.19E+04	9.90E-04
483900	1383500	01/09/92	12:29	11.8	1.19E+04	9.90E-04
483900	1383600	01/09/92	12:27	9.8	9.90E+03	9.90E-04
483915	1383067	01/15/92	15:51	12.5	1.04E+04	1.20E-03
483917	1382967	01/15/92	15:53	13.1	1.09E+04	1.20E-03
483919	1382867	01/15/92	15:54	13.6	1.13E+04	1.20E-03
483920	1382767	01/15/92	15:55	13.8	1.15E+04	1.20E-03
483923	1382667	01/15/92	15:57	13.8	1.15E+04	1.20E-03
483925	1382567	01/15/92	15:58	13.6	1.13E+04	1.20E-03
483927	1382467	01/15/92	15:59	13.7	1.14E+04	1.20E-03
483929	1382367	01/15/92	16:01	13.8	1.15E+04	1.20E-03
483931	1382267	01/15/92	16:02	13.9	1.16E+04	1.20E-03
483933	1382167	01/15/92	16:04	14.0	1.17E+04	1.20E-03
483935	1382067	01/15/92	16:06	13.7	1.14E+04	1.20E-03
483937	1381967	01/15/92	16:07	12.1	1.01E+04	1.20E-03
483939	1381867	01/15/92	16:12	13.6	1.13E+04	1.20E-03
484000	1383200	01/09/92	13:46	11.8	1.19E+04	9.90E-04
484000	1383300	01/09/92	13:48	12.3	1.24E+04	9.90E-04
484000	1383400	01/09/92	13:49	12.3	1.24E+04	9.90E-04
484000	1383500	01/09/92	13:50	12.0	1.21E+04	9.90E-04
484000	1383600	01/09/92	13:52	9.0	9.05E+03	9.90E-04
484025	1383077	01/15/92	14:52	13.3	1.13E+04	1.18E-03
484030	1382977	01/15/92	14:54	13.1	1.11E+04	1.18E-03
484035	1382878	01/15/92	14:56	13.9	1.18E+04	1.18E-03
484040	1382778	01/15/92	14:58	14.8	1.25E+04	1.18E-03
484046	1382678	01/15/92	15:00	13.6	1.15E+04	1.18E-03
484051	1382578	01/15/92	15:03	14.0	1.19E+04	1.18E-03
484056	1382478	01/15/92	15:07	13.6	1.15E+04	1.18E-03
484061	1382378	01/15/92	15:09	14.3	1.21E+04	1.18E-03
484066	1382278	01/15/92	15:14	13.9	1.18E+04	1.18E-03
484100	1383300	01/09/92	13:59	11.9	1.20E+04	9.90E-04
484100	1383400	01/09/92	13:57	11.9	1.20E+04	9.90E-04
484100	1383500	01/09/92	13:55	12.0	1.21E+04	9.90E-04
484100	1383600	01/09/92	13:54	8.9	8.99E+03	9.90E-04
484200	1383000	01/09/92	14:05	10.8	1.09E+04	9.90E-04
484200	1383100	01/09/92	14:03	11.9	1.20E+04	9.90E-04
484200	1383200	01/09/92	14:01	12.3	1.24E+04	9.90E-04
484200	1383300	01/09/92	14:00	11.8	1.19E+04	9.90E-04
484300	1382700	01/15/92	14:48	13.1	1.11E+04	1.18E-03
484300	1382800	01/15/92	14:46	14.6	1.24E+04	1.18E-03
484300	1382900	01/15/92	14:44	13.0	1.10E+04	1.18E-03
484300	1383000	01/15/92	14:42	12.9	1.09E+04	1.18E-03
484300	1383100	01/15/92	14:40	14.2	1.20E+04	1.18E-03
484300	1383200	01/09/92	14:07	10.0	1.01E+04	9.90E-04
484300	1383200	01/15/92	14:35	13.5	1.14E+04	1.18E-03
484300	1383300	01/09/92	14:09	12.3	1.24E+04	9.90E-04
484300	1383400	01/22/92	10:59	10.3	8.45E+03	1.22E-03
484300	1383400	01/09/92	14:11	12.1	1.22E+04	9.90E-04
484300	1383500	01/22/92	10:55	14.3	1.17E+04	1.22E-03
484300	1383600	01/22/92	10:57	10.7	8.79E+03	1.22E-03
484400	1383400	01/22/92	11:01	14.4	1.18E+04	1.22E-03
484400	1383500	01/22/92	11:03	10.4	8.51E+03	1.22E-03
484400	1383600	01/22/92	11:05	13.1	1.07E+04	1.22E-03

DRAFT

FEMP
March 13, 1992

DRAFT

MEASUREMENT RESULTS SORTED BY EXPOSURE RATE

14-Feb-92

TH COORDINATE	EAST COORDINATE	DATE	TIME	EXPOSURE RATE	COUNT RATE	STD. FACTOR
479100	1382100	12/16/91	15:19	6.1	6.32E+03	9.71E-04
480100	1382000	01/06/92	09:43	6.3	1.11E+04	5.70E-04
480500	1383300	12/19/91	13:38	7.3	1.11E+04	6.55E-04
479600	1382300	12/16/91	16:42	7.5	7.69E+03	9.71E-04
479500	1382200	01/06/92	09:01	7.6	1.34E+04	5.70E-04
480200	1383300	12/17/91	16:29	7.7	1.19E+04	6.46E-04
479100	1382300	12/16/91	15:15	7.8	8.01E+03	9.71E-04
479500	1382100	01/06/92	09:03	7.8	1.37E+04	5.70E-04
483700	1380900	01/21/92	11:06	8.0	8.62E+03	9.27E-04
480000	1382000	01/06/92	09:29	8.1	1.42E+04	5.70E-04
479200	1382200	12/16/91	15:17	8.1	9.38E+03	8.66E-04
479600	1382200	01/06/92	09:08	8.2	1.43E+04	5.70E-04
479600	1382100	01/06/92	09:05	8.2	1.43E+04	5.70E-04
479500	1383100	12/17/91	10:16	8.2	1.05E+04	7.79E-04
479700	1382200	01/06/92	09:11	8.4	1.47E+04	5.70E-04
479500	1383300	12/17/91	10:00	8.4	1.08E+04	7.79E-04
483800	1380600	01/21/92	10:11	8.4	9.11E+03	9.27E-04
479700	1382100	01/06/92	09:12	8.6	1.50E+04	5.70E-04
480800	1383300	12/19/91	15:39	8.6	1.31E+04	6.55E-04
478000	1382100	12/10/91	11:55	8.6	9.28E+03	9.26E-04
479300	1383300	12/16/91	16:17	8.7	1.00E+04	8.66E-04
479500	1383200	12/17/91	10:10	8.7	1.12E+04	7.79E-04
478000	1381800	12/10/91	12:00	8.8	9.46E+03	9.26E-04
480800	1383300	12/19/91	15:01	8.8	1.34E+04	6.55E-04
479500	1382900	12/17/91	10:22	8.8	1.13E+04	7.79E-04
478000	1382200	12/10/91	11:53	8.8	9.53E+03	9.26E-04
477900	1381800	12/10/91	12:00	8.8	1.07E+04	8.26E-04
476700	1383100	01/27/92	10:34	8.9	9.48E+03	9.37E-04
484100	1383600	01/09/92	13:54	8.9	8.99E+03	9.90E-04
483500	1380900	01/21/92	14:21	8.9	9.40E+03	9.48E-04
479200	1383000	12/16/91	15:02	8.9	1.03E+04	8.66E-04
479200	1383100	12/16/91	15:00	8.9	1.03E+04	8.66E-04
483100	1382600	01/08/92	16:15	8.9	9.10E+03	9.83E-04
484000	1383600	01/09/92	13:52	9.0	9.05E+03	9.90E-04
478000	1382000	12/10/91	11:56	9.0	9.70E+03	9.26E-04
478000	1383000	12/10/91	11:40	9.0	9.71E+03	9.26E-04
483800	1380700	01/21/92	10:08	9.0	9.71E+03	9.27E-04
483583	1380935	01/15/92	11:18	9.0	7.26E+03	1.24E-03
483700	1383500	01/09/92	12:03	9.0	9.11E+03	9.90E-04
480900	1383300	12/19/91	15:42	9.0	1.38E+04	6.55E-04
479900	1382800	12/17/91	15:23	9.0	1.40E+04	6.46E-04
476800	1383100	01/27/92	10:36	9.1	9.68E+03	9.37E-04
483700	1380700	01/21/92	11:02	9.1	9.80E+03	9.27E-04
477100	1383000	12/09/91	13:56	9.1	9.10E+03	9.99E-04
479200	1383300	12/16/91	14:57	9.1	1.05E+04	8.66E-04
479300	1383200	12/16/91	16:19	9.1	1.05E+04	8.66E-04
479200	1382300	12/16/91	15:15	9.1	1.05E+04	8.66E-04
480800	1383200	12/19/91	15:36	9.1	1.39E+04	6.55E-04
479600	1383300	12/17/91	11:01	9.1	1.17E+04	7.79E-04
483200	1382600	01/08/92	16:21	9.2	9.31E+03	9.83E-04
479100	1383200	12/16/91	14:58	9.2	9.45E+03	9.71E-04
479800	1383000	12/17/91	13:45	9.2	1.18E+04	7.79E-04
479100	1383100	12/16/91	15:00	9.2	9.48E+03	9.71E-04
476700	1383000	01/27/92	10:32	9.2	9.83E+03	9.37E-04
476800	1383200	01/27/92	10:56	9.2	9.83E+03	9.37E-04
483700	1380800	01/21/92	11:04	9.2	9.96E+03	9.27E-04
479800	1382200	01/06/92	09:16	9.2	1.62E+04	5.70E-04
480600	1383300	12/19/91	13:40	9.2	1.41E+04	6.55E-04
480400	1383300	12/19/91	12:51	9.2	1.41E+04	6.55E-04
477900	1383000	12/10/91	11:40	9.3	1.12E+04	8.26E-04
479200	1382900	12/16/91	15:04	9.3	1.07E+04	8.66E-04
480000	1382100	01/06/92	09:27	9.3	1.63E+04	5.70E-04
479800	1382100	01/06/92	09:14	9.3	1.63E+04	5.70E-04
476700	1383200	01/27/92	10:58	9.3	9.92E+03	9.37E-04
480700	1383300	12/19/91	14:58	9.3	1.42E+04	6.55E-04
477900	1382900	12/10/91	11:42	9.3	1.13E+04	8.26E-04
478200	1382900	12/10/91	12:50	9.3	1.13E+04	8.26E-04
479600	1383000	12/17/91	11:09	9.3	1.20E+04	7.79E-04
479700	1383300	12/17/91	13:16	9.3	1.20E+04	7.79E-04
478000	1381900	12/10/91	11:58	9.4	1.01E+04	9.26E-04
479200	1382800	12/16/91	15:06	9.4	1.08E+04	8.66E-04
479100	1383000	12/16/91	15:02	9.4	9.64E+03	9.71E-04
483900	1378600	01/28/92	16:01	9.4	1.03E+04	9.09E-04
480900	1383200	12/19/91	15:44	9.4	1.43E+04	6.55E-04
476700	1383300	01/27/92	11:04	9.4	1.00E+04	9.37E-04
476800	1383000	01/27/92	10:30	9.4	1.00E+04	9.37E-04

14-Feb-92

ORTH COORDINATE	EAST COORDINATE	DATE	TIME	EXPOSURE RATE	COUNT RATE	STD. FACTOR
482400	1382300	01/06/92	16:10	9.4	1.79E+04	5.25E-04
478200	1383000	12/10/91	12:51	9.4	1.14E+04	8.26E-04
479600	1383200	12/17/91	11:03	9.4	1.21E+04	7.79E-04
479300	1383000	12/16/91	16:23	9.4	1.09E+04	8.66E-04
483600	1378000	01/28/92	14:28	9.5	1.04E+04	9.09E-04
479100	1382900	12/16/91	15:03	9.5	9.74E+03	9.71E-04
479400	1383300	12/16/91	16:17	9.5	9.74E+03	9.71E-04
476600	1383300	01/27/92	11:02	9.5	1.01E+04	9.37E-04
479100	1383300	12/16/91	14:57	9.5	9.75E+03	9.71E-04
479900	1382900	12/17/91	15:20	9.5	1.47E+04	6.46E-04
478200	1381900	12/10/91	12:32	9.5	1.15E+04	8.26E-04
478200	1382300	12/10/91	12:39	9.5	1.15E+04	8.26E-04
478200	1382800	12/10/91	12:48	9.5	1.15E+04	8.26E-04
479500	1383000	12/17/91	10:18	9.5	1.22E+04	7.79E-04
479500	1382700	12/17/91	10:24	9.5	1.22E+04	7.79E-04
479200	1382100	12/16/91	15:19	9.5	1.10E+04	8.66E-04
478000	1382300	12/10/91	11:51	9.5	1.03E+04	9.26E-04
477700	1382700	12/10/91	10:46	9.5	1.03E+04	9.26E-04
478100	1383000	12/10/91	12:51	9.5	1.03E+04	9.26E-04
483900	1378600	01/28/92	15:56	9.5	1.05E+04	9.09E-04
483800	1380500	01/21/92	10:20	9.5	1.03E+04	9.27E-04
480900	1383000	12/19/91	15:48	9.6	1.46E+04	6.55E-04
479600	1383100	12/17/91	11:06	9.6	1.23E+04	7.79E-04
479500	1382300	12/17/91	10:35	9.6	1.23E+04	7.79E-04
479600	1382700	12/17/91	11:16	9.6	1.23E+04	7.79E-04
477800	1383000	12/10/91	10:52	9.6	1.16E+04	8.26E-04
477800	1382400	12/10/91	10:40	9.6	1.16E+04	8.26E-04
477900	1382700	12/10/91	11:45	9.6	1.16E+04	8.26E-04
478200	1382500	12/10/91	12:43	9.6	1.16E+04	8.26E-04
478200	1381800	12/10/91	12:31	9.6	1.16E+04	8.26E-04
477800	1382900	12/10/91	10:50	9.6	1.16E+04	8.26E-04
477000	1382900	12/09/91	13:43	9.6	9.61E+03	9.99E-04
477700	1382800	12/10/91	10:48	9.6	1.04E+04	9.26E-04
477700	1382900	12/10/91	10:50	9.6	1.04E+04	9.26E-04
478100	1382800	12/10/91	12:48	9.6	1.04E+04	9.26E-04
483800	1380800	01/21/92	10:07	9.6	1.04E+04	9.27E-04
483800	1380100	01/21/92	10:36	9.6	1.04E+04	9.27E-04
477000	1382800	12/09/91	13:41	9.7	9.66E+03	9.99E-04
476600	1383200	01/27/92	11:00	9.7	1.03E+04	9.37E-04
476900	1382100	01/27/92	11:30	9.7	1.03E+04	9.37E-04
479400	1382000	12/16/91	16:49	9.7	9.95E+03	9.71E-04
479400	1382900	12/16/91	16:24	9.7	9.95E+03	9.71E-04
477900	1382000	12/10/91	11:56	9.7	1.17E+04	8.26E-04
477900	1382500	12/10/91	11:46	9.7	1.17E+04	8.26E-04
477800	1382100	12/10/91	10:34	9.7	1.17E+04	8.26E-04
478200	1382400	12/10/91	12:41	9.7	1.17E+04	8.26E-04
477900	1382600	12/10/91	11:47	9.7	1.17E+04	8.26E-04
477900	1382100	12/10/91	11:55	9.7	1.17E+04	8.26E-04
479900	1382700	12/17/91	15:25	9.7	1.50E+04	6.46E-04
480800	1383200	12/19/91	15:03	9.7	1.48E+04	6.55E-04
479300	1382900	12/16/91	16:24	9.7	1.12E+04	8.66E-04
479200	1383200	12/16/91	14:58	9.7	1.12E+04	8.66E-04
479200	1382500	12/16/91	15:11	9.7	1.12E+04	8.66E-04
477000	1383000	12/09/91	13:45	9.7	9.71E+03	9.99E-04
477900	1383100	12/12/91	10:32	9.7	9.80E+03	9.91E-04
477700	1382500	12/10/91	10:42	9.7	1.05E+04	9.26E-04
478100	1382900	12/10/91	12:49	9.7	1.05E+04	9.26E-04
477700	1382400	12/10/91	10:40	9.7	1.05E+04	9.26E-04
478000	1382800	12/10/91	11:44	9.7	1.05E+04	9.26E-04
477700	1382600	12/10/91	10:43	9.7	1.05E+04	9.26E-04
478000	1382900	12/10/91	11:42	9.7	1.05E+04	9.26E-04
478000	1382400	12/10/91	11:50	9.7	1.05E+04	9.26E-04
478100	1382400	12/10/91	12:41	9.7	1.05E+04	9.26E-04
483900	1378300	01/28/92	16:05	9.7	1.07E+04	9.09E-04
483900	1378200	01/28/92	16:08	9.7	1.07E+04	9.09E-04
483400	1378000	01/28/92	14:25	9.7	1.07E+04	9.09E-04
483400	1378500	01/28/92	14:13	9.7	1.07E+04	9.09E-04
479500	1382600	12/17/91	10:26	9.7	1.25E+04	7.79E-04
477100	1382900	12/09/91	13:58	9.7	9.75E+03	9.99E-04
477100	1383300	01/27/92	11:12	9.7	1.04E+04	9.37E-04
476900	1383000	01/27/92	10:28	9.7	1.04E+04	9.37E-04
476900	1383100	01/27/92	10:38	9.7	1.04E+04	9.37E-04
476800	1383300	01/27/92	11:06	9.7	1.04E+04	9.37E-04
479900	1382100	01/06/92	09:19	9.7	1.71E+04	5.70E-04
477100	1382000	12/09/91	14:20	9.8	9.76E+03	9.99E-04
477800	1382500	12/10/91	10:42	9.8	1.18E+04	8.26E-04

DRAFT

14-Feb-92

"H COORDINATE	EAST COORDINATE	DATE	TIME	EXPOSURE RATE	COUNT RATE	STD. FACTOR
478200	1382800	12/10/91	12:45	9.8	1.18E+04	8.26E-04
477900	1382200	12/10/91	11:53	9.8	1.18E+04	8.26E-04
478200	1382100	12/10/91	12:36	9.8	1.18E+04	8.26E-04
477800	1382300	12/10/91	10:38	9.8	1.18E+04	8.26E-04
478200	1382700	12/10/91	12:46	9.8	1.18E+04	8.26E-04
477800	1382800	12/10/91	10:48	9.8	1.18E+04	8.26E-04
477800	1382700	12/10/91	10:46	9.8	1.18E+04	8.26E-04
480700	1383200	12/19/91	14:56	9.8	1.49E+04	6.55E-04
477000	1382800	12/09/91	13:37	9.8	9.77E+03	9.99E-04
482400	1382100	01/06/92	16:06	9.8	1.86E+04	5.25E-04
477400	1382800	12/09/91	14:55	9.8	9.79E+03	9.99E-04
477400	1382700	12/09/91	14:53	9.8	9.79E+03	9.99E-04
483100	1379300	01/21/92	16:33	9.8	1.14E+04	8.58E-04
479300	1382800	12/16/91	16:26	9.8	1.13E+04	8.66E-04
478800	1381800	12/16/91	11:12	9.8	9.51E+03	1.03E-03
483900	1383600	01/09/92	12:27	9.8	9.90E+03	9.90E-04
481700	1382900	01/07/92	14:00	9.8	1.00E+04	9.81E-04
477700	1382000	12/10/91	10:31	9.8	1.06E+04	9.26E-04
478100	1381700	12/10/91	12:29	9.8	1.06E+04	9.26E-04
477700	1382200	12/10/91	10:35	9.8	1.06E+04	9.26E-04
478100	1382600	12/10/91	12:45	9.8	1.06E+04	9.26E-04
478000	1382600	12/10/91	11:47	9.8	1.06E+04	9.26E-04
478100	1382700	12/10/91	12:46	9.8	1.06E+04	9.26E-04
478000	1382700	12/10/91	11:45	9.8	1.06E+04	9.26E-04
478000	1382500	12/10/91	11:48	9.8	1.06E+04	9.26E-04
479600	1382900	12/17/91	11:12	9.8	1.26E+04	7.79E-04
479700	1383200	12/17/91	13:18	9.8	1.26E+04	7.79E-04
483400	1378100	01/28/92	14:21	9.8	1.08E+04	9.09E-04
477100	1382700	12/09/91	14:02	9.8	9.83E+03	9.99E-04
480600	1383200	12/19/91	13:41	9.8	1.50E+04	6.55E-04
483800	1380900	01/21/92	10:05	9.8	1.06E+04	9.27E-04
477000	1382700	12/09/91	13:39	9.8	9.84E+03	9.99E-04
477500	1382600	12/09/91	15:51	9.8	9.84E+03	9.99E-04
478200	1382000	12/10/91	12:34	9.8	1.19E+04	8.26E-04
477800	1382800	12/10/91	10:43	9.8	1.19E+04	8.26E-04
477800	1382200	12/10/91	10:36	9.8	1.19E+04	8.26E-04
477000	1383100	01/27/92	10:41	9.8	1.05E+04	9.37E-04
477200	1383200	01/27/92	10:47	9.8	1.05E+04	9.37E-04
476900	1383200	01/27/92	10:53	9.8	1.05E+04	9.37E-04
480300	1383300	12/17/91	16:31	9.9	1.53E+04	6.46E-04
477000	1382500	12/09/91	13:35	9.9	9.90E+03	9.99E-04
480500	1383200	12/19/91	13:36	9.9	1.51E+04	6.55E-04
479700	1383000	12/17/91	13:22	9.9	1.27E+04	7.79E-04
479500	1382900	12/17/91	10:20	9.9	1.27E+04	7.79E-04
479600	1382800	12/17/91	11:14	9.9	1.27E+04	7.79E-04
479800	1383300	12/17/91	13:38	9.9	1.27E+04	7.79E-04
479600	1382600	12/17/91	11:19	9.9	1.27E+04	7.79E-04
477400	1382000	12/09/91	14:40	9.9	9.91E+03	9.99E-04
477100	1382600	12/09/91	14:05	9.9	9.91E+03	9.99E-04
479100	1382800	12/16/91	15:05	9.9	1.02E+04	9.71E-04
478100	1382000	12/10/91	12:33	9.9	1.07E+04	9.26E-04
477700	1381900	12/10/91	10:29	9.9	1.07E+04	9.26E-04
478100	1382500	12/10/91	12:43	9.9	1.07E+04	9.26E-04
477700	1383000	12/10/91	10:52	9.9	1.07E+04	9.26E-04
477700	1382100	12/10/91	10:33	9.9	1.07E+04	9.26E-04
477700	1382300	12/10/91	10:37	9.9	1.07E+04	9.26E-04
483900	1378900	01/28/92	15:54	9.9	1.09E+04	9.09E-04
483600	1378600	01/28/92	14:39	9.9	1.09E+04	9.09E-04
483400	1378400	01/28/92	14:15	9.9	1.09E+04	9.09E-04
483600	1379300	01/28/92	15:25	9.9	1.09E+04	9.09E-04
483900	1378700	01/28/92	15:59	9.9	1.09E+04	9.09E-04
483900	1378400	01/28/92	16:05	9.9	1.09E+04	9.09E-04
477800	1383100	12/12/91	10:15	9.9	1.00E+04	9.91E-04
477400	1382100	12/09/91	14:41	9.9	9.92E+03	9.99E-04
478200	1381600	12/10/91	12:27	9.9	1.20E+04	8.26E-04
478200	1382200	12/10/91	12:38	9.9	1.20E+04	8.26E-04
477800	1382000	12/10/91	10:32	9.9	1.20E+04	8.26E-04
477900	1382300	12/10/91	11:51	9.9	1.20E+04	8.26E-04
483700	1380600	01/21/92	11:00	9.9	1.07E+04	9.27E-04
483800	1380300	01/21/92	10:30	9.9	1.07E+04	9.27E-04
477200	1383300	01/27/92	11:14	9.9	1.06E+04	9.37E-04
476900	1383300	01/27/92	11:08	9.9	1.06E+04	9.37E-04
477000	1383200	01/27/92	10:51	9.9	1.06E+04	9.37E-04
477100	1383200	01/27/92	10:49	9.9	1.06E+04	9.37E-04
477400	1382400	12/09/91	14:47	9.9	9.95E+03	9.99E-04
483600	1380700	01/21/92	14:13	10.0	1.05E+04	9.48E-04

DRAFT

14-Feb-92

RTH COORDINATE	EAST COORDINATE	DATE	TIME	EXPOSURE RATE	COUNT RATE	STD. FACTOR
479300	1382700	12/16/91	16:28	10.0	1.15E+04	8.66E-04
477500	1381900	12/09/91	16:04	10.0	9.97E+03	9.99E-04
482400	1382200	01/06/92	16:08	10.0	1.90E+04	5.25E-04
482300	1382300	01/06/92	16:01	10.0	1.90E+04	5.25E-04
477500	1382700	12/09/91	15:49	10.0	9.99E+03	9.99E-04
477100	1382800	12/09/91	14:00	10.0	9.99E+03	9.99E-04
477400	1382200	12/09/91	14:43	10.0	1.00E+04	9.99E-04
483900	1378500	01/28/92	16:03	10.0	1.10E+04	9.09E-04
483800	1378500	01/28/92	14:38	10.0	1.10E+04	9.09E-04
483600	1378100	01/28/92	14:30	10.0	1.10E+04	9.09E-04
483800	1378400	01/28/92	14:36	10.0	1.10E+04	9.09E-04
483400	1379100	01/28/92	14:00	10.0	1.10E+04	9.09E-04
484300	1383200	01/09/92	14:07	10.0	1.01E+04	9.90E-04
478100	1381900	12/10/91	12:32	10.0	1.08E+04	9.26E-04
478100	1381600	12/10/91	12:27	10.0	1.08E+04	9.26E-04
478100	1381800	12/10/91	12:30	10.0	1.08E+04	9.26E-04
478100	1383300	12/12/91	10:49	10.0	1.01E+04	9.91E-04
477800	1383300	12/12/91	10:22	10.0	1.01E+04	9.91E-04
478300	1383100	12/12/91	11:07	10.0	1.01E+04	9.91E-04
483700	1380300	01/21/92	10:54	10.0	1.08E+04	9.27E-04
479900	1382600	12/17/91	15:27	10.0	1.55E+04	6.46E-04
480900	1383100	12/19/91	15:46	10.0	1.53E+04	6.55E-04
480800	1383100	12/19/91	15:05	10.0	1.53E+04	6.55E-04
477200	1383100	01/27/92	10:45	10.0	1.07E+04	9.37E-04
483600	1380800	01/21/92	14:16	10.0	1.06E+04	9.48E-04
479500	1382500	12/17/91	10:28	10.0	1.29E+04	7.79E-04
477900	1382400	12/10/91	11:50	10.1	1.22E+04	8.26E-04
477800	1381900	12/10/91	10:31	10.1	1.22E+04	8.26E-04
480800	1383100	12/19/91	15:33	10.1	1.54E+04	6.55E-04
480700	1383100	12/19/91	14:54	10.1	1.54E+04	6.55E-04
480400	1383200	12/19/91	12:53	10.1	1.54E+04	6.55E-04
480500	1383100	12/19/91	13:34	10.1	1.54E+04	6.55E-04
477500	1382800	12/09/91	15:39	10.1	1.01E+04	9.99E-04
477100	1382400	12/09/91	14:11	10.1	1.01E+04	9.99E-04
477500	1381800	12/09/91	16:06	10.1	1.01E+04	9.99E-04
477500	1382000	12/09/91	16:02	10.1	1.01E+04	9.99E-04
483900	1379800	01/28/92	15:38	10.1	1.11E+04	9.09E-04
477500	1383000	12/09/91	15:35	10.1	1.01E+04	9.99E-04
477000	1382400	12/09/91	13:33	10.1	1.01E+04	9.99E-04
477100	1382200	12/09/91	14:15	10.1	1.01E+04	9.99E-04
483900	1379000	01/28/92	15:52	10.1	1.11E+04	9.09E-04
483400	1378700	01/28/92	14:08	10.1	1.11E+04	9.09E-04
477100	1382500	12/09/91	14:07	10.1	1.01E+04	9.99E-04
478100	1382300	12/10/91	12:39	10.1	1.09E+04	9.26E-04
478100	1382200	12/10/91	12:37	10.1	1.09E+04	9.26E-04
483300	1382700	01/09/92	11:18	10.1	1.02E+04	9.90E-04
483300	1383100	01/09/92	11:05	10.1	1.02E+04	9.90E-04
479100	1382200	12/16/91	15:17	10.1	1.04E+04	9.71E-04
479100	1382400	12/16/91	15:13	10.1	1.04E+04	9.71E-04
477800	1383200	12/12/91	10:18	10.1	1.02E+04	9.91E-04
477100	1383100	01/27/92	10:43	10.1	1.08E+04	9.37E-04
479700	1383100	12/17/91	13:20	10.1	1.30E+04	7.79E-04
479300	1383100	12/16/91	16:21	10.1	1.17E+04	8.66E-04
479300	1382300	12/16/91	16:41	10.1	1.17E+04	8.66E-04
479200	1382400	12/16/91	15:13	10.1	1.17E+04	8.66E-04
477900	1382800	12/10/91	11:44	10.2	1.23E+04	8.26E-04
483600	1378300	01/28/92	14:34	10.2	1.12E+04	9.09E-04
483600	1378900	01/28/92	14:45	10.2	1.12E+04	9.09E-04
483400	1378600	01/28/92	14:11	10.2	1.12E+04	9.09E-04
483600	1378800	01/28/92	14:43	10.2	1.12E+04	9.09E-04
483400	1378200	01/28/92	14:19	10.2	1.12E+04	9.09E-04
483600	1379500	01/28/92	15:28	10.2	1.12E+04	9.09E-04
483600	1378200	01/28/92	14:32	10.2	1.12E+04	9.09E-04
483600	1379400	01/28/92	15:26	10.2	1.12E+04	9.09E-04
483600	1378700	01/28/92	14:41	10.2	1.12E+04	9.09E-04
483400	1378300	01/28/92	14:17	10.2	1.12E+04	9.09E-04
478100	1382100	12/10/91	12:35	10.2	1.10E+04	9.26E-04
477700	1381800	12/10/91	10:27	10.2	1.10E+04	9.26E-04
477400	1383000	12/09/91	14:59	10.2	1.02E+04	9.99E-04
477400	1382900	12/09/91	14:57	10.2	1.02E+04	9.99E-04
477500	1382900	12/09/91	15:38	10.2	1.02E+04	9.99E-04
477400	1382500	12/09/91	14:49	10.2	1.02E+04	9.99E-04
483800	1380200	01/21/92	10:32	10.2	1.10E+04	9.27E-04
483800	1380000	01/21/92	10:40	10.2	1.10E+04	9.27E-04
479600	1382500	12/17/91	11:21	10.2	1.31E+04	7.79E-04
478100	1383100	12/12/91	10:45	10.2	1.03E+04	9.91E-04

14-Feb-92

TH COORDINATE	EAST COORDINATE	DATE	TIME	EXPOSURE RATE	COUNT RATE	STD. FACTOR
477900	1383200	12/12/91	10:33	10.2	1.03E+04	9.91E-04
478300	1383200	12/12/91	11:10	10.2	1.03E+04	9.91E-04
477600	1382500	12/09/91	15:53	10.2	1.03E+04	9.91E-04
478100	1383200	12/12/91	10:47	10.2	1.03E+04	9.91E-04
477000	1383300	01/27/92	11:10	10.2	1.09E+04	9.37E-04
479300	1382200	12/16/91	16:43	10.2	1.18E+04	8.66E-04
479200	1382700	12/16/91	15:08	10.2	1.18E+04	8.66E-04
482700	1382500	01/08/92	14:20	10.2	1.04E+04	9.83E-04
478800	1382800	12/11/91	12:57	10.2	8.67E+03	1.18E-03
482300	1382200	01/06/92	16:03	10.2	1.95E+04	5.25E-04
483600	1380900	01/21/92	14:18	10.2	1.08E+04	9.48E-04
483600	1379200	01/28/92	14:52	10.3	1.13E+04	9.09E-04
483900	1379400	01/28/92	15:45	10.3	1.13E+04	9.09E-04
480500	1383000	12/19/91	13:32	10.3	1.57E+04	6.55E-04
480600	1383100	12/19/91	13:43	10.3	1.57E+04	6.55E-04
477100	1382100	12/09/91	14:17	10.3	1.03E+04	9.99E-04
477400	1382600	12/09/91	14:51	10.3	1.03E+04	9.99E-04
477400	1382300	12/09/91	14:45	10.3	1.03E+04	9.99E-04
483700	1380400	01/21/92	10:56	10.3	1.11E+04	9.27E-04
483800	1380400	01/21/92	10:23	10.3	1.11E+04	9.27E-04
477500	1382200	12/09/91	15:59	10.3	1.03E+04	9.99E-04
479100	1382600	12/16/91	15:09	10.3	1.06E+04	9.71E-04
479100	1382700	12/16/91	15:08	10.3	1.06E+04	9.71E-04
483000	1379400	01/21/92	14:41	10.3	1.20E+04	8.58E-04
479300	1382500	12/16/91	16:36	10.3	1.19E+04	8.66E-04
477300	1382500	12/09/91	14:49	10.3	1.04E+04	9.91E-04
484300	1383400	01/22/92	10:59	10.3	8.45E+03	1.22E-03
479900	1382200	01/06/92	09:18	10.3	1.81E+04	5.70E-04
479900	1382500	12/17/91	15:29	10.3	1.60E+04	6.46E-04
482200	1382300	01/06/92	15:59	10.3	1.97E+04	5.25E-04
480800	1383000	12/19/91	15:06	10.3	1.58E+04	6.55E-04
480400	1383100	12/19/91	12:55	10.3	1.58E+04	6.55E-04
480700	1383000	12/19/91	14:53	10.3	1.58E+04	6.55E-04
483900	1379700	01/28/92	15:39	10.4	1.14E+04	9.09E-04
483400	1378800	01/28/92	14:07	10.4	1.14E+04	9.09E-04
482300	1383300	01/08/92	10:19	10.4	1.21E+04	8.57E-04
483100	1378000	01/28/92	11:06	10.4	1.10E+04	9.43E-04
484400	1383500	01/22/92	11:03	10.4	8.51E+03	1.22E-03
483700	1380100	01/21/92	10:50	10.4	1.12E+04	9.27E-04
477500	1382500	12/09/91	15:53	10.4	1.04E+04	9.99E-04
477500	1382400	12/09/91	15:58	10.4	1.04E+04	9.99E-04
477500	1382100	12/09/91	16:01	10.4	1.04E+04	9.99E-04
477900	1383300	12/12/91	10:35	10.4	1.05E+04	9.91E-04
479700	1382800	12/17/91	13:26	10.4	1.34E+04	7.79E-04
479800	1383200	12/17/91	13:41	10.4	1.34E+04	7.79E-04
483400	1378900	01/28/92	14:05	10.5	1.15E+04	9.09E-04
483600	1379100	01/28/92	14:49	10.5	1.15E+04	9.09E-04
483900	1379100	01/28/92	15:50	10.5	1.15E+04	9.09E-04
482500	1383200	01/08/92	10:58	10.5	1.22E+04	8.57E-04
483300	1378600	01/28/92	11:23	10.5	1.11E+04	9.43E-04
483100	1378400	01/28/92	10:57	10.5	1.11E+04	9.43E-04
483300	1378300	01/28/92	11:17	10.5	1.11E+04	9.43E-04
483000	1379300	01/21/92	14:40	10.5	1.22E+04	8.58E-04
483700	1380000	01/21/92	10:45	10.5	1.13E+04	9.27E-04
479300	1382600	12/16/91	16:31	10.5	1.21E+04	8.66E-04
479200	1382000	12/16/91	15:21	10.5	1.21E+04	8.66E-04
479400	1383200	12/16/91	16:19	10.5	1.08E+04	9.71E-04
479100	1382500	12/16/91	15:11	10.5	1.08E+04	9.71E-04
482800	1381600	01/27/92	16:21	10.5	1.05E+04	9.99E-04
477500	1382300	12/09/91	15:57	10.5	1.05E+04	9.99E-04
477100	1382300	12/09/91	14:13	10.5	1.05E+04	9.99E-04
478300	1383300	12/12/91	11:13	10.5	1.06E+04	9.91E-04
479600	1382300	12/17/91	11:27	10.5	1.35E+04	7.79E-04
483100	1382600	01/08/92	16:19	10.5	1.07E+04	9.83E-04
483400	1380900	01/21/92	15:22	10.5	1.11E+04	9.48E-04
483300	1380900	01/21/92	15:26	10.5	1.11E+04	9.48E-04
479000	1382000	12/16/91	11:50	10.5	8.70E+03	1.21E-03
482400	1383100	01/08/92	10:24	10.5	1.23E+04	8.57E-04
483900	1379300	01/28/92	15:47	10.5	1.16E+04	9.09E-04
480000	1382300	01/06/92	09:24	10.5	1.85E+04	5.70E-04
483100	1378100	01/28/92	11:03	10.6	1.12E+04	9.43E-04
483100	1378500	01/28/92	10:55	10.6	1.12E+04	9.43E-04
483100	1378200	01/28/92	11:01	10.6	1.12E+04	9.43E-04
483300	1378100	01/28/92	11:11	10.6	1.12E+04	9.43E-04
483300	1378500	01/28/92	11:21	10.6	1.12E+04	9.43E-04
483300	1378400	01/28/92	11:19	10.6	1.12E+04	9.43E-04

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14-Feb-92

NTH COORDINATE	EAST COORDINATE	DATE	TIME	EXPOSURE RATE	COUNT RATE	STD. FACTOR
483300	1378200	01/28/92	11:13	10.6	1.12E+04	9.43E-04
479300	1382400	12/16/91	16:39	10.6	1.22E+04	8.66E-04
479200	1382600	12/16/91	15:09	10.6	1.22E+04	8.66E-04
479400	1383100	12/16/91	16:21	10.6	1.09E+04	9.71E-04
478800	1383300	12/16/91	10:31	10.6	1.03E+04	1.03E-03
480600	1383000	12/19/91	13:45	10.6	1.62E+04	6.55E-04
482400	1383200	01/08/92	10:23	10.6	1.24E+04	8.57E-04
483300	1378000	01/28/92	11:09	10.7	1.13E+04	9.43E-04
480000	1382800	12/17/91	15:48	10.7	1.65E+04	6.46E-04
480200	1383200	12/17/91	16:27	10.7	1.65E+04	6.46E-04
483700	1380200	01/21/92	10:52	10.7	1.15E+04	9.27E-04
479700	1382700	12/17/91	13:28	10.7	1.37E+04	7.79E-04
479800	1382900	12/17/91	13:47	10.7	1.37E+04	7.79E-04
480400	1383000	12/19/91	12:57	10.7	1.63E+04	6.55E-04
479400	1382500	12/16/91	16:35	10.7	1.10E+04	9.71E-04
479400	1382800	12/16/91	16:26	10.7	1.10E+04	9.71E-04
483600	1380100	01/21/92	13:57	10.7	1.13E+04	9.48E-04
482500	1383000	01/08/92	10:53	10.7	1.25E+04	8.57E-04
482500	1383100	01/08/92	10:56	10.7	1.25E+04	8.57E-04
482400	1383000	01/08/92	10:26	10.7	1.25E+04	8.57E-04
484300	1383600	01/22/92	10:57	10.7	8.79E+03	1.22E-03
483400	1379200	01/28/92	13:58	10.7	1.18E+04	9.09E-04
483900	1379600	01/28/92	15:42	10.7	1.18E+04	9.09E-04
483900	1379600	01/28/92	15:43	10.7	1.18E+04	9.09E-04
483400	1379000	01/28/92	14:03	10.7	1.18E+04	9.09E-04
482900	1377800	01/29/92	14:37	10.8	8.60E+03	1.25E-03
479500	1382400	12/17/91	10:31	10.8	1.38E+04	7.79E-04
479800	1383100	12/17/91	13:43	10.8	1.38E+04	7.79E-04
483700	1380500	01/21/92	10:58	10.8	1.16E+04	9.27E-04
479400	1382600	12/16/91	16:31	10.8	1.11E+04	9.71E-04
484200	1383000	01/09/92	14:05	10.8	1.09E+04	9.90E-04
482500	1382900	01/08/92	10:47	10.8	1.26E+04	8.57E-04
477200	1382600	12/09/91	14:05	10.8	1.09E+04	9.91E-04
477300	1382800	12/09/91	14:55	10.8	1.09E+04	9.91E-04
483600	1380600	01/21/92	14:11	10.8	1.14E+04	9.48E-04
480500	1382900	12/19/91	13:29	10.8	1.65E+04	6.55E-04
480800	1383000	12/19/91	15:31	10.8	1.65E+04	6.55E-04
480400	1382900	12/19/91	12:58	10.8	1.65E+04	6.55E-04
476800	1382900	12/11/91	14:14	10.8	9.16E+03	1.18E-03
476600	1382400	12/11/91	12:07	10.8	9.16E+03	1.18E-03
478900	1383100	12/16/91	11:29	10.8	1.05E+04	1.03E-03
483600	1379000	01/28/92	14:47	10.8	1.19E+04	9.09E-04
483900	1379200	01/28/92	15:48	10.8	1.19E+04	9.09E-04
478200	1381700	12/10/91	12:29	10.8	1.31E+04	8.26E-04
483300	1378800	01/28/92	11:27	10.8	1.15E+04	9.43E-04
483300	1379000	01/28/92	11:31	10.8	1.15E+04	9.43E-04
479000	1382300	12/16/91	11:43	10.9	8.98E+03	1.21E-03
476600	1382300	12/11/91	11:56	10.9	9.21E+03	1.18E-03
479400	1382400	12/16/91	16:38	10.9	1.12E+04	9.71E-04
479000	1383200	12/16/91	11:27	10.9	8.99E+03	1.21E-03
482300	1383200	01/08/92	10:17	10.9	1.27E+04	8.57E-04
482100	1383300	01/08/92	09:44	10.9	1.27E+04	8.57E-04
477600	1382800	12/09/91	15:39	10.9	1.10E+04	9.91E-04
477300	1382900	12/09/91	14:57	10.9	1.10E+04	9.91E-04
477300	1382400	12/09/91	14:47	10.9	1.10E+04	9.91E-04
477200	1382700	12/09/91	14:02	10.9	1.10E+04	9.91E-04
477300	1382700	12/09/91	14:53	10.9	1.10E+04	9.91E-04
477200	1382900	12/09/91	13:58	10.9	1.10E+04	9.91E-04
477200	1382400	12/09/91	14:11	10.9	1.10E+04	9.91E-04
483500	1380700	01/21/92	14:25	10.9	1.15E+04	9.48E-04
483600	1379600	01/28/92	15:30	10.9	1.20E+04	9.09E-04
477900	1381900	12/10/91	11:58	10.9	1.32E+04	8.26E-04
483000	1382900	01/08/92	15:48	10.9	1.11E+04	9.83E-04
482900	1382600	01/08/92	15:16	10.9	1.11E+04	9.83E-04
476900	1382000	12/11/91	14:20	10.9	9.25E+03	1.18E-03
479900	1382300	12/17/91	15:34	10.9	1.69E+04	6.46E-04
478900	1383300	12/16/91	11:25	10.9	1.06E+04	1.03E-03
478800	1383100	12/16/91	10:35	10.9	1.06E+04	1.03E-03
478600	1383300	12/16/91	09:43	10.9	1.06E+04	1.03E-03
476700	1382800	12/11/91	12:59	10.9	9.27E+03	1.18E-03
483100	1379200	01/28/92	10:44	10.9	1.16E+04	9.43E-04
483300	1378700	01/28/92	11:25	10.9	1.16E+04	9.43E-04
483100	1378300	01/28/92	10:59	10.9	1.16E+04	9.43E-04
483100	1378700	01/28/92	10:54	10.9	1.16E+04	9.43E-04
482200	1383300	01/08/92	09:46	11.0	1.28E+04	8.57E-04
480000	1382700	12/17/91	15:46	11.0	1.70E+04	6.46E-04

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14-Feb-92

NORTH COORDINATE	EAST COORDINATE	DATE	TIME	EXPOSURE RATE	COUNT RATE	STD. FACTOR
480300	1383000	12/17/91	16:37	11.0	1.70E+04	6.46E-04
483100	1379400	01/21/92	16:31	11.0	1.28E+04	8.58E-04
479700	1382600	12/17/91	13:30	11.0	1.41E+04	7.79E-04
479600	1382400	12/17/91	11:24	11.0	1.41E+04	7.79E-04
479700	1382500	12/17/91	13:32	11.0	1.41E+04	7.79E-04
483500	1380000	01/21/92	14:59	11.0	1.16E+04	9.48E-04
477600	1383200	12/11/91	15:13	11.0	9.32E+03	1.18E-03
477300	1382600	12/09/91	14:51	11.0	1.11E+04	9.91E-04
477200	1382200	12/09/91	14:15	11.0	1.11E+04	9.91E-04
477600	1382700	12/09/91	15:49	11.0	1.11E+04	9.91E-04
477200	1382000	12/09/91	14:19	11.0	1.11E+04	9.91E-04
477200	1383000	12/09/91	13:56	11.0	1.11E+04	9.91E-04
477200	1382500	12/09/91	14:07	11.0	1.11E+04	9.91E-04
480600	1382900	12/19/91	13:47	11.0	1.68E+04	6.55E-04
482900	1383000	01/08/92	15:08	11.0	1.12E+04	9.83E-04
478600	1382600	12/16/91	09:53	11.0	1.07E+04	1.03E-03
478800	1382500	12/16/91	10:53	11.0	1.07E+04	1.03E-03
478600	1382500	12/16/91	09:58	11.0	1.07E+04	1.03E-03
476800	1382000	12/11/91	14:22	11.0	9.35E+03	1.18E-03
476700	1382900	12/11/91	14:16	11.0	9.35E+03	1.18E-03
483100	1378600	01/28/92		11.0	1.17E+04	9.43E-04
483100	1378800	01/28/92	10:52	11.0	1.17E+04	9.43E-04
479900	1382400	12/17/91	15:31	11.0	1.71E+04	6.46E-04
478300	1382500	12/10/91	15:19	11.1	9.82E+03	1.13E-03
479400	1383000	12/16/91	16:23	11.1	1.14E+04	9.71E-04
482200	1382200	01/06/92	15:57	11.1	2.11E+04	5.25E-04
483900	1377900	01/29/92	14:06	11.1	9.90E+03	1.12E-03
477600	1382600	12/09/91	15:51	11.1	1.12E+04	9.91E-04
477600	1382900	12/09/91	15:37	11.1	1.12E+04	9.91E-04
477300	1382100	12/09/91	14:41	11.1	1.12E+04	9.91E-04
477200	1382600	12/09/91	14:00	11.1	1.12E+04	9.91E-04
477600	1382400	12/09/91	15:55	11.1	1.12E+04	9.91E-04
477600	1382000	12/09/91	16:02	11.1	1.12E+04	9.91E-04
482900	1378000	01/27/92	16:29	11.1	1.00E+04	1.11E-03
476600	1382200	12/11/91	11:45	11.1	9.41E+03	1.18E-03
476700	1382700	12/11/91	12:48	11.1	9.41E+03	1.18E-03
476900	1382600	12/11/91	12:54	11.1	9.42E+03	1.18E-03
478900	1382400	12/16/91	11:43	11.1	1.08E+04	1.03E-03
478800	1383200	12/16/91	10:33	11.1	1.08E+04	1.03E-03
478600	1383200	12/16/91	09:44	11.1	1.08E+04	1.03E-03
478900	1383200	12/16/91	11:27	11.1	1.08E+04	1.03E-03
478800	1382400	12/16/91	10:58	11.1	1.08E+04	1.03E-03
483100	1379100	01/28/92	10:46	11.1	1.18E+04	9.43E-04
482300	1382100	01/06/92	16:05	11.1	2.12E+04	5.25E-04
482900	1379300	01/21/92	14:36	11.2	1.30E+04	8.58E-04
477500	1383200	12/11/91	15:04	11.2	9.46E+03	1.18E-03
479400	1382200	12/16/91	16:45	11.2	1.15E+04	9.71E-04
483600	1379700	01/28/92	15:32	11.2	1.23E+04	9.09E-04
482000	1383200	01/07/92	15:21	11.2	1.14E+04	9.81E-04
476900	1382900	12/11/91	14:10	11.2	9.48E+03	1.18E-03
483400	1383100	01/09/92	11:29	11.2	1.13E+04	9.90E-04
482800	1381500	01/27/92	16:23	11.2	1.12E+04	9.99E-04
477600	1381800	12/09/91	16:05	11.2	1.13E+04	9.91E-04
477300	1382000	12/09/91	14:40	11.2	1.13E+04	9.91E-04
477200	1382100	12/09/91	14:17	11.2	1.13E+04	9.91E-04
477300	1382200	12/09/91	14:43	11.2	1.13E+04	9.91E-04
478300	1382600	12/10/91	15:14	11.2	9.95E+03	1.13E-03
482900	1382900	01/08/92	15:10	11.2	1.14E+04	9.83E-04
477500	1383300	12/11/91	15:07	11.2	9.50E+03	1.18E-03
482900	1378100	01/27/92	16:27	11.2	1.01E+04	1.11E-03
478300	1382900	12/10/91	15:07	11.2	9.96E+03	1.13E-03
479800	1382800	12/17/91	13:49	11.2	1.44E+04	7.79E-04
483300	1379200	01/28/92	11:35	11.2	1.19E+04	9.43E-04
477500	1382500	12/05/91	14:14	11.2	9.43E+03	1.19E-03
483300	1378900	01/28/92	11:29	11.2	1.19E+04	9.43E-04
476800	1382600	12/11/91	12:38	11.2	9.51E+03	1.18E-03
482300	1383100	01/08/92	10:16	11.2	1.31E+04	8.57E-04
482200	1383000	01/08/92	09:51	11.2	1.31E+04	8.57E-04
482400	1383300	01/08/92	10:21	11.2	1.31E+04	8.57E-04
478600	1383000	12/16/91	09:48	11.2	1.09E+04	1.03E-03
478800	1383000	12/16/91	10:36	11.2	1.09E+04	1.03E-03
478900	1382100	12/16/91	11:48	11.2	1.09E+04	1.03E-03
478900	1383000	12/16/91	11:31	11.2	1.09E+04	1.03E-03
478600	1383100	12/16/91	09:46	11.2	1.09E+04	1.03E-03
478800	1382800	12/16/91	10:43	11.2	1.09E+04	1.03E-03
478800	1382900	12/16/91	10:37	11.2	1.09E+04	1.03E-03

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14-Feb-92

NORTH COORDINATE	EAST COORDINATE	DATE	TIME	EXPOSURE RATE	COUNT RATE	STD. FACTOR
479000	1383100	12/16/91	11:28	11.2	9.28E+03	1.21E-03
476700	1382600	12/11/91	12:40	11.2	9.52E+03	1.18E-03
483100	1379600	01/21/92	16:27	11.2	1.31E+04	8.58E-04
480000	1382300	12/17/91	15:37	11.2	1.74E+04	6.46E-04
478900	1382700	12/11/91	12:44	11.2	9.53E+03	1.18E-03
478300	1382800	12/10/91	15:09	11.3	1.00E+04	1.13E-03
478300	1382400	12/10/91	15:22	11.3	1.00E+04	1.13E-03
479400	1382100	12/16/91	16:47	11.3	1.16E+04	9.71E-04
479100	1382000	12/16/91	15:21	11.3	1.16E+04	9.71E-04
476900	1382000	12/11/91	11:13	11.3	9.56E+03	1.18E-03
476800	1382400	12/11/91	12:01	11.3	9.56E+03	1.18E-03
483600	1380000	01/21/92	13:55	11.3	1.19E+04	9.48E-04
483800	1383600	01/09/92	12:24	11.3	1.14E+04	9.90E-04
477600	1383000	12/09/91	15:35	11.3	1.14E+04	9.91E-04
477600	1382200	12/09/91	15:59	11.3	1.14E+04	9.91E-04
477200	1382300	12/09/91	14:13	11.3	1.14E+04	9.91E-04
477300	1383000	12/09/91	14:59	11.3	1.14E+04	9.91E-04
477400	1383100	12/11/91	14:52	11.3	9.58E+03	1.18E-03
482900	1382800	01/08/92	15:12	11.3	1.15E+04	9.83E-04
483000	1382600	01/08/92	15:40	11.3	1.15E+04	9.83E-04
480000	1382900	12/17/91	15:51	11.3	1.75E+04	6.46E-04
480300	1383100	12/17/91	16:35	11.3	1.75E+04	6.46E-04
483300	1379900	01/29/92	14:28	11.3	1.01E+04	1.12E-03
482200	1383200	01/08/92	09:47	11.3	1.32E+04	8.57E-04
483100	1378900	01/28/92	10:50	11.3	1.20E+04	9.43E-04
483100	1379300	01/28/92	10:48	11.3	1.20E+04	9.43E-04
483400	1379700	01/29/92	11:05	11.3	1.03E+04	1.10E-03
477700	1383100	12/12/91	10:22	11.3	1.09E+04	1.04E-03
482100	1382300	01/06/92	15:49	11.3	2.16E+04	5.25E-04
477600	1383300	12/11/91	15:16	11.4	9.62E+03	1.18E-03
480100	1382700	12/17/91	15:57	11.4	1.76E+04	6.46E-04
480100	1382800	12/17/91	15:55	11.4	1.76E+04	6.46E-04
478300	1382200	12/10/91	15:25	11.4	1.01E+04	1.13E-03
476700	1382100	12/11/91	11:22	11.4	9.64E+03	1.18E-03
483500	1380300	01/21/92	14:35	11.4	1.20E+04	9.48E-04
483600	1380400	01/21/92	14:05	11.4	1.20E+04	9.48E-04
483600	1380300	01/21/92	14:02	11.4	1.20E+04	9.48E-04
483600	1380200	01/21/92	14:00	11.4	1.20E+04	9.48E-04
483500	1383400	01/09/92	11:41	11.4	1.15E+04	9.90E-04
483200	1383100	01/09/92	10:42	11.4	1.15E+04	9.90E-04
477600	1383100	12/11/91	15:09	11.4	9.65E+03	1.18E-03
482800	1381400	01/27/92	16:25	11.4	1.14E+04	9.99E-04
477600	1381900	12/09/91	16:03	11.4	1.15E+04	9.91E-04
477300	1382300	12/09/91	14:45	11.4	1.15E+04	9.91E-04
477600	1382300	12/09/91	15:57	11.4	1.15E+04	9.91E-04
477600	1382100	12/09/91	16:01	11.4	1.15E+04	9.91E-04
480800	1382900	12/19/91	15:08	11.4	1.74E+04	6.55E-04
480700	1382900	12/19/91	14:51	11.4	1.74E+04	6.55E-04
483100	1377800	01/29/92	14:33	11.4	9.12E+03	1.25E-03
482800	1383400	01/08/92	14:44	11.4	1.16E+04	9.83E-04
483000	1383300	01/08/92	15:55	11.4	1.16E+04	9.83E-04
483300	1379100	01/28/92	11:33	11.4	1.21E+04	9.43E-04
483000	1379500	01/21/92	14:44	11.4	1.33E+04	8.58E-04
478700	1382500	12/16/91	10:49	11.4	9.44E+03	1.21E-03
479000	1383300	12/16/91	11:25	11.4	9.44E+03	1.21E-03
482900	1377900	01/29/92	14:36	11.4	1.02E+04	1.12E-03
483900	1378000	01/29/92	14:03	11.4	1.02E+04	1.12E-03
482900	1378200	01/27/92	16:25	11.4	1.03E+04	1.11E-03
478600	1382400	12/16/91	09:59	11.4	1.11E+04	1.03E-03
482900	1378300	01/27/92	16:23	11.4	1.03E+04	1.11E-03
478900	1382000	12/16/91	11:50	11.4	1.11E+04	1.03E-03
478800	1382600	12/16/91	10:49	11.4	1.11E+04	1.03E-03
478600	1382700	12/16/91	09:52	11.4	1.11E+04	1.03E-03
481300	1383300	01/07/92	10:28	11.4	1.31E+04	8.73E-04
478200	1383100	12/12/91	10:45	11.4	1.10E+04	1.04E-03
477700	1383200	12/12/91	10:25	11.4	1.10E+04	1.04E-03
477000	1382200	12/05/91	14:45	11.4	9.62E+03	1.19E-03
479800	1382700	12/17/91	13:52	11.5	1.47E+04	7.79E-04
476800	1382200	12/11/91	11:36	11.5	9.71E+03	1.18E-03
483600	1380500	01/21/92	14:07	11.5	1.21E+04	9.48E-04
483300	1379800	01/21/92	16:03	11.5	1.21E+04	9.48E-04
477000	1382300	12/05/91	14:47	11.5	9.64E+03	1.19E-03
481900	1383300	01/07/92	15:07	11.5	1.17E+04	9.81E-04
481800	1383300	01/07/92	14:31	11.5	1.17E+04	9.81E-04
482200	1383100	01/08/92	09:49	11.5	1.34E+04	8.57E-04
478300	1382700	12/10/91	15:11	11.5	1.02E+04	1.13E-03

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EWMF Survey – Sorted by Exposure Rates

14-Feb-92

NORTH COORDINATE	EAST COORDINATE	DATE	TIME	EXPOSURE RATE	COUNT RATE	STD. FACTOR
478300	1383000	12/10/91	15:04	11.5	1.02E+04	1.13E-03
482800	1382100	01/27/92	16:10	11.5	1.15E+04	9.99E-04
482800	1382200	01/27/92	16:02	11.5	1.15E+04	9.99E-04
476800	1382300	12/11/91	11:52	11.5	9.74E+03	1.18E-03
480100	1382600	12/17/91	15:59	11.5	1.78E+04	6.46E-04
480300	1382900	12/17/91	16:39	11.5	1.78E+04	6.46E-04
482700	1383400	01/08/92	14:05	11.5	1.17E+04	9.83E-04
482900	1383400	01/08/92	14:58	11.5	1.17E+04	9.83E-04
483000	1383100	01/08/92	15:51	11.5	1.17E+04	9.83E-04
482800	1382700	01/08/92	14:30	11.5	1.17E+04	9.83E-04
483000	1382800	01/08/92	15:46	11.5	1.17E+04	9.83E-04
483000	1383000	01/08/92	15:49	11.5	1.17E+04	9.83E-04
476800	1382100	12/11/91	11:20	11.5	9.75E+03	1.18E-03
480800	1382900	12/19/91	15:29	11.5	1.76E+04	6.55E-04
479700	1382300	12/17/91	13:35	11.5	1.48E+04	7.79E-04
478600	1382300	12/16/91	10:02	11.5	1.12E+04	1.03E-03
478900	1382900	12/16/91	11:33	11.5	1.12E+04	1.03E-03
478600	1382900	12/16/91	09:49	11.5	1.12E+04	1.03E-03
478600	1382600	12/16/91	09:50	11.5	1.12E+04	1.03E-03
483200	1377900	01/29/92	14:30	11.5	1.03E+04	1.12E-03
477000	1382100	12/05/91	14:43	11.5	9.70E+03	1.19E-03
482900	1378900	01/27/92	16:06	11.5	1.04E+04	1.11E-03
482900	1378500	01/27/92	16:19	11.5	1.04E+04	1.11E-03
478400	1383200	12/12/91	11:10	11.5	1.11E+04	1.04E-03
478000	1383200	12/12/91	10:35	11.5	1.11E+04	1.04E-03
483600	1379800	01/28/92	15:33	11.5	1.27E+04	9.09E-04
476800	1382700	12/11/91	12:46	11.6	9.79E+03	1.18E-03
479400	1382700	12/16/91	16:28	11.6	1.19E+04	9.71E-04
483500	1380600	01/21/92	14:27	11.6	1.22E+04	9.48E-04
482200	1382900	01/08/92	09:52	11.6	1.35E+04	8.57E-04
480100	1382100	01/06/92	09:42	11.6	2.03E+04	5.70E-04
477300	1383100	12/11/91	14:39	11.6	9.81E+03	1.18E-03
481800	1383200	01/07/92	14:33	11.6	1.18E+04	9.81E-04
483100	1379500	01/21/92	16:29	11.6	1.35E+04	8.58E-04
483000	1379600	01/21/92	14:46	11.6	1.35E+04	8.58E-04
483200	1383000	01/09/92	10:39	11.6	1.17E+04	9.90E-04
482800	1381800	01/27/92	16:17	11.6	1.16E+04	9.99E-04
480900	1382900	12/19/91	15:52	11.6	1.77E+04	6.55E-04
483100	1383100	01/08/92	16:11	11.6	1.18E+04	9.83E-04
481200	1383300	01/07/92	09:56	11.6	1.33E+04	8.73E-04
476900	1382600	12/11/91	12:35	11.6	9.85E+03	1.18E-03
480200	1382800	12/17/91	16:19	11.6	1.80E+04	6.46E-04
479000	1383000	12/16/91	11:31	11.6	9.61E+03	1.21E-03
477500	1383100	12/11/91	15:02	11.6	9.86E+03	1.18E-03
476700	1382200	12/11/91	11:42	11.6	9.86E+03	1.18E-03
478600	1382200	12/16/91	10:03	11.6	1.13E+04	1.03E-03
478900	1382200	12/16/91	11:46	11.6	1.13E+04	1.03E-03
478900	1382500	12/16/91	11:41	11.6	1.13E+04	1.03E-03
478600	1382100	12/16/91	10:05	11.6	1.13E+04	1.03E-03
478900	1382800	12/16/91	11:35	11.6	1.13E+04	1.03E-03
478200	1383200	12/12/91	10:47	11.6	1.12E+04	1.04E-03
478400	1383100	12/12/91	11:07	11.6	1.12E+04	1.04E-03
483500	1377900	01/29/92	14:23	11.6	1.04E+04	1.12E-03
482400	1382900	01/08/92	10:27	11.7	1.36E+04	8.57E-04
482300	1383000	01/08/92	10:14	11.7	1.36E+04	8.57E-04
482400	1382800	01/08/92	10:29	11.7	1.36E+04	8.57E-04
482100	1383200	01/08/92	09:42	11.7	1.36E+04	8.57E-04
480400	1382800	12/19/91	13:00	11.7	1.78E+04	6.55E-04
483500	1380800	01/21/92	14:22	11.7	1.23E+04	9.48E-04
483500	1380100	01/21/92	14:57	11.7	1.23E+04	9.48E-04
477400	1383200	12/11/91	14:54	11.7	9.89E+03	1.18E-03
481600	1383100	01/07/92	13:33	11.7	1.19E+04	9.81E-04
481900	1383200	01/07/92	15:05	11.7	1.19E+04	9.81E-04
478700	1383300	12/16/91	10:35	11.7	9.65E+03	1.21E-03
479000	1382900	12/16/91	11:32	11.7	9.65E+03	1.21E-03
483200	1383400	01/09/92	10:48	11.7	1.18E+04	9.90E-04
483400	1383200	01/09/92	11:30	11.7	1.18E+04	9.90E-04
479700	1382400	12/17/91	13:33	11.7	1.50E+04	7.79E-04
479800	1382500	12/17/91	13:56	11.7	1.50E+04	7.79E-04
482800	1381700	01/27/92	16:19	11.7	1.17E+04	9.99E-04
482800	1382400	01/27/92	15:58	11.7	1.17E+04	9.99E-04
480000	1382600	12/17/91	15:44	11.7	1.81E+04	6.46E-04
476600	1382100	12/11/91	11:26	11.7	9.91E+03	1.18E-03
482800	1382900	01/08/92	14:34	11.7	1.19E+04	9.83E-04
483100	1383300	01/08/92	16:08	11.7	1.19E+04	9.83E-04
482900	1383100	01/08/92	15:06	11.7	1.19E+04	9.83E-04

EWMF Survey – Sorted by Exposure Rates

14-Feb-92

NORTH COORDINATE	EAST COORDINATE	DATE	TIME	EXPOSURE RATE	COUNT RATE	STD. FACTOR
478300	1382300	12/10/91	15:23	11.7	1.04E+04	1.13E-03
476800	1382000	12/11/91	11:16	11.7	9.93E+03	1.18E-03
483200	1378500	01/28/92	11:21	11.7	9.82E+03	1.22E-03
482500	1382800	01/08/92	10:41	11.7	1.37E+04	8.57E-04
478900	1382700	12/16/91	11:37	11.7	1.14E+04	1.03E-03
478500	1383300	12/16/91	09:43	11.7	9.71E+03	1.21E-03
478400	1383300	12/12/91	11:14	11.8	1.13E+04	1.04E-03
482900	1379400	01/21/92	14:31	11.8	1.37E+04	8.58E-04
483400	1380100	01/21/92	15:02	11.8	1.24E+04	9.48E-04
483500	1380500	01/21/92	14:30	11.8	1.24E+04	9.48E-04
480300	1383200	12/17/91	16:33	11.8	1.82E+04	6.46E-04
483900	1378100	01/29/92	14:01	11.8	1.05E+04	1.12E-03
483100	1377900	01/29/92	14:31	11.8	1.05E+04	1.12E-03
482900	1378700	01/27/92	16:16	11.8	1.06E+04	1.11E-03
482800	1379300	01/21/92	10:23	11.8	1.26E+04	9.34E-04
483900	1379900	01/29/92	11:17	11.8	1.10E+04	1.07E-03
481500	1383300	01/07/92	13:28	11.8	1.20E+04	9.81E-04
476900	1382500	12/11/91	12:14	11.8	9.98E+03	1.18E-03
476700	1382500	12/11/91	12:18	11.8	9.98E+03	1.18E-03
484000	1383200	01/09/92	13:46	11.8	1.19E+04	9.90E-04
483500	1383500	01/09/92	11:40	11.8	1.19E+04	9.90E-04
483600	1383400	01/09/92	11:59	11.8	1.19E+04	9.90E-04
483800	1383500	01/09/92	12:22	11.8	1.19E+04	9.90E-04
484200	1383300	01/09/92	14:00	11.8	1.19E+04	9.90E-04
483900	1383400	01/09/92	12:31	11.8	1.19E+04	9.90E-04
483900	1383500	01/09/92	12:29	11.8	1.19E+04	9.90E-04
483300	1382800	01/09/92	11:15	11.8	1.19E+04	9.90E-04
476700	1382300	12/11/91	11:54	11.8	9.99E+03	1.18E-03
480500	1382800	12/19/91	13:26	11.8	1.80E+04	6.55E-04
483200	1382700	01/08/92	16:25	11.8	1.20E+04	9.83E-04
482900	1382700	01/08/92	15:14	11.8	1.20E+04	9.83E-04
483100	1382900	01/08/92	16:14	11.8	1.20E+04	9.83E-04
482900	1383200	01/08/92	15:04	11.8	1.20E+04	9.83E-04
482600	1383300	01/08/92	13:57	11.8	1.20E+04	9.83E-04
482900	1383300	01/08/92	15:02	11.8	1.20E+04	9.83E-04
478500	1382500	12/16/91	09:58	11.8	9.75E+03	1.21E-03
476700	1382400	12/11/91	12:05	11.8	1.00E+04	1.18E-03
476900	1382200	12/11/91	11:32	11.8	1.00E+04	1.18E-03
476900	1382300	12/11/91	11:50	11.8	1.00E+04	1.18E-03
476900	1382400	12/11/91	11:59	11.8	1.00E+04	1.18E-03
483500	1377800	01/29/92	14:23	11.8	9.44E+03	1.25E-03
483300	1377800	01/29/92	14:28	11.8	9.44E+03	1.25E-03
482100	1383100	01/08/92	09:41	11.8	1.38E+04	8.57E-04
482300	1382900	01/08/92	10:13	11.8	1.38E+04	8.57E-04
482500	1382800	01/08/92	10:45	11.8	1.38E+04	8.57E-04
479800	1382600	12/17/91	13:54	11.8	1.52E+04	7.79E-04
478600	1381500	12/16/91	10:18	11.8	1.15E+04	1.03E-03
478800	1382000	12/16/91	11:07	11.8	1.15E+04	1.03E-03
478900	1382300	12/16/91	11:44	11.8	1.15E+04	1.03E-03
478800	1382700	12/16/91	10:47	11.8	1.15E+04	1.03E-03
478800	1381900	12/16/91	11:09	11.8	1.15E+04	1.03E-03
478800	1382300	12/16/91	10:59	11.8	1.15E+04	1.03E-03
483300	1379900	01/21/92	15:58	11.9	1.25E+04	9.48E-04
478000	1383100	12/12/91	10:33	11.9	1.14E+04	1.04E-03
481800	1383100	01/07/92	14:35	11.9	1.21E+04	9.81E-04
482000	1383100	01/07/92	15:23	11.9	1.21E+04	9.81E-04
482000	1383300	01/07/92	15:09	11.9	1.21E+04	9.81E-04
478700	1383200	12/16/91	10:37	11.9	9.81E+03	1.21E-03
483700	1377900	01/29/92	14:19	11.9	1.06E+04	1.12E-03
483000	1377900	01/29/92	14:33	11.9	1.06E+04	1.12E-03
483600	1377900	01/29/92	14:21	11.9	1.06E+04	1.12E-03
482900	1378400	01/27/92	16:21	11.9	1.07E+04	1.11E-03
482900	1378800	01/27/92	16:12	11.9	1.07E+04	1.11E-03
482900	1378600	01/27/92	16:17	11.9	1.07E+04	1.11E-03
484100	1383300	01/09/92	13:59	11.9	1.20E+04	9.90E-04
484100	1383400	01/09/92	13:57	11.9	1.20E+04	9.90E-04
483800	1383200	01/09/92	12:14	11.9	1.20E+04	9.90E-04
483800	1383400	01/09/92	12:19	11.9	1.20E+04	9.90E-04
483600	1383000	01/09/92	11:51	11.9	1.20E+04	9.90E-04
484200	1383100	01/09/92	14:03	11.9	1.20E+04	9.90E-04
483800	1379900	01/29/92	11:16	11.9	1.08E+04	1.10E-03
478500	1383100	12/16/91	09:46	11.9	9.82E+03	1.21E-03
478500	1383200	12/16/91	09:44	11.9	9.82E+03	1.21E-03
482800	1382000	01/27/92	16:12	11.9	1.19E+04	9.99E-04
482800	1381900	01/27/92	16:14	11.9	1.19E+04	9.99E-04
483000	1383400	01/08/92	15:57	11.9	1.21E+04	9.83E-04

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NORTH COORDINATE	EAST COORDINATE	DATE	TIME	EXPOSURE RATE	COUNT RATE	STD. FACTOR
483100	1383000	01/08/92	16:12	11.9	1.21E+04	9.83E-04
482800	1383200	01/08/92	14:40	11.9	1.21E+04	9.83E-04
478500	1382900	12/16/91	09:49	11.9	9.83E+03	1.21E-03
483000	1383500	01/08/92	15:59	11.9	1.21E+04	9.83E-04
482800	1383100	01/08/92	14:37	11.9	1.21E+04	9.83E-04
482700	1383100	01/08/92	14:10	11.9	1.21E+04	9.83E-04
477000	1382000	12/05/91	14:40	11.9	1.00E+04	1.19E-03
477400	1382400	12/05/91	14:17	11.9	1.00E+04	1.19E-03
479000	1382400	12/16/91	11:42	11.9	9.84E+03	1.21E-03
482500	1382700	01/08/92	10:44	11.9	1.39E+04	8.57E-04
476800	1382500	12/11/91	12:16	11.9	1.01E+04	1.18E-03
477300	1383200	12/11/91	14:43	11.9	1.01E+04	1.18E-03
479700	1382900	12/17/91	13:24	11.9	1.53E+04	7.79E-04
482900	1379500	01/21/92	14:29	11.9	1.39E+04	8.58E-04
478400	1382800	12/10/91	15:14	11.9	1.12E+04	1.07E-03
478300	1381900	12/10/91	15:30	11.9	1.06E+04	1.13E-03
478300	1382100	12/10/91	15:27	11.9	1.06E+04	1.13E-03
483400	1380000	01/21/92	15:00	11.9	1.26E+04	9.48E-04
483500	1380400	01/21/92	14:32	11.9	1.26E+04	9.48E-04
478900	1382600	12/16/91	11:39	11.9	1.16E+04	1.03E-03
478800	1382100	12/16/91	11:04	11.9	1.16E+04	1.03E-03
483200	1378300	01/28/92	11:17	12.0	9.80E+03	1.22E-03
483200	1378400	01/28/92	11:19	12.0	9.80E+03	1.22E-03
478000	1383300	12/12/91	10:37	12.0	1.15E+04	1.04E-03
477700	1383300	12/12/91	10:27	12.0	1.15E+04	1.04E-03
481400	1383300	01/07/92	10:30	12.0	1.37E+04	8.73E-04
483600	1377800	01/29/92	14:21	12.0	9.57E+03	1.25E-03
481700	1383300	01/07/92	14:17	12.0	1.22E+04	9.81E-04
481700	1383000	01/07/92	14:09	12.0	1.22E+04	9.81E-04
480000	1382200	01/06/92	09:25	12.0	2.10E+04	5.70E-04
483000	1377800	01/29/92	14:35	12.0	9.58E+03	1.25E-03
483300	1383400	01/09/92	10:57	12.0	1.21E+04	9.90E-04
483700	1383400	01/09/92	12:05	12.0	1.21E+04	9.90E-04
484000	1383500	01/09/92	13:50	12.0	1.21E+04	9.90E-04
483300	1383200	01/09/92	11:02	12.0	1.21E+04	9.90E-04
483400	1382800	01/09/92	11:23	12.0	1.21E+04	9.90E-04
483400	1382900	01/09/92	11:25	12.0	1.21E+04	9.90E-04
483300	1383500	01/09/92	10:54	12.0	1.21E+04	9.90E-04
483900	1383200	01/09/92	12:28	12.0	1.21E+04	9.90E-04
484100	1383500	01/09/92	13:55	12.0	1.21E+04	9.90E-04
483700	1383300	01/09/92	12:06	12.0	1.21E+04	9.90E-04
483800	1383300	01/09/92	12:15	12.0	1.21E+04	9.90E-04
482800	1382300	01/27/92	16:00	12.0	1.20E+04	9.99E-04
483400	1379400	01/29/92	10:59	12.0	1.09E+04	1.10E-03
483100	1383500	01/08/92	16:05	12.0	1.22E+04	9.83E-04
482800	1383300	01/08/92	14:42	12.0	1.22E+04	9.83E-04
483100	1383400	01/08/92	16:06	12.0	1.22E+04	9.83E-04
483000	1378100	01/28/92	11:03	12.0	9.83E+03	1.22E-03
483100	1383200	01/08/92	16:09	12.0	1.22E+04	9.83E-04
479800	1382300	12/17/91	14:00	12.0	1.54E+04	7.79E-04
482300	1382800	01/08/92	10:11	12.0	1.40E+04	8.57E-04
483200	1377800	01/29/92	14:31	12.0	9.61E+03	1.25E-03
480000	1382500	12/17/91	15:41	12.0	1.86E+04	6.46E-04
478500	1382400	12/16/91	09:59	12.0	9.94E+03	1.21E-03
478400	1382700	12/10/91	15:16	12.0	1.13E+04	1.07E-03
478400	1382600	12/10/91	15:18	12.0	1.13E+04	1.07E-03
477300	1383300	12/11/91	14:47	12.0	1.02E+04	1.18E-03
483200	1380900	01/21/92	16:33	12.0	1.27E+04	9.48E-04
483500	1380200	01/21/92	14:54	12.0	1.27E+04	9.48E-04
478300	1381800	12/10/91	15:32	12.0	1.07E+04	1.13E-03
478300	1381700	12/10/91	15:34	12.0	1.07E+04	1.13E-03
478600	1381600	12/16/91	10:13	12.1	1.17E+04	1.03E-03
478800	1382200	12/16/91	11:02	12.1	1.17E+04	1.03E-03
478600	1381400	12/16/91	10:20	12.1	1.17E+04	1.03E-03
478600	1381900	12/16/91	10:08	12.1	1.17E+04	1.03E-03
478700	1383000	12/16/91	10:40	12.1	9.97E+03	1.21E-03
481600	1383300	01/07/92	13:29	12.1	1.23E+04	9.81E-04
478700	1382700	12/16/91	10:45	12.1	9.98E+03	1.21E-03
483700	1383000	01/09/92	12:11	12.1	1.22E+04	9.90E-04
483900	1383300	01/09/92	12:33	12.1	1.22E+04	9.90E-04
483200	1383200	01/09/92	10:44	12.1	1.22E+04	9.90E-04
483300	1382900	01/09/92	11:11	12.1	1.22E+04	9.90E-04
483200	1382900	01/09/92	10:36	12.1	1.22E+04	9.90E-04
484300	1383400	01/09/92	14:11	12.1	1.22E+04	9.90E-04
483600	1383200	01/09/92	11:55	12.1	1.22E+04	9.90E-04
483300	1383000	01/09/92	11:07	12.1	1.22E+04	9.90E-04

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NORTH COORDINATE	EAST COORDINATE	DATE	TIME	EXPOSURE RATE	COUNT RATE	STD. FACTOR
483500	1383100	01/09/92	11:47	12.1	1.22E+04	9.90E-04
483500	1383200	01/09/92	11:45	12.1	1.22E+04	9.90E-04
483500	1383300	01/09/92	11:43	12.1	1.22E+04	9.90E-04
482400	1382700	01/08/92	10:30	12.1	1.41E+04	8.57E-04
482100	1383000	01/08/92	09:39	12.1	1.41E+04	8.57E-04
478700	1382900	12/16/91	10:42	12.1	9.99E+03	1.21E-03
483000	1383200	01/08/92	15:53	12.1	1.23E+04	9.83E-04
482800	1383000	01/08/92	14:36	12.1	1.23E+04	9.83E-04
482700	1383200	01/08/92	14:08	12.1	1.23E+04	9.83E-04
482700	1383300	01/08/92	14:03	12.1	1.23E+04	9.83E-04
482900	1379600	01/21/92	14:28	12.1	1.41E+04	8.58E-04
483100	1379700	01/21/92	16:24	12.1	1.41E+04	8.58E-04
479000	1382500	12/16/91	11:40	12.1	1.00E+04	1.21E-03
483700	1379900	01/29/92	11:13	12.1	1.10E+04	1.10E-03
478500	1382800	12/16/91	09:51	12.1	1.00E+04	1.21E-03
478500	1383000	12/16/91	09:48	12.1	1.00E+04	1.21E-03
478500	1382600	12/16/91	09:53	12.1	1.00E+04	1.21E-03
483000	1378300	01/28/92	10:59	12.1	9.92E+03	1.22E-03
483937	1381967	01/15/92	16:07	12.1	1.01E+04	1.20E-03
483400	1380800	01/21/92	15:20	12.1	1.28E+04	9.48E-04
481400	1383200	01/07/92	10:31	12.1	1.39E+04	8.73E-04
481000	1383300	01/07/92	09:14	12.1	1.39E+04	8.73E-04
483200	1378200	01/28/92	11:13	12.1	9.95E+03	1.22E-03
478400	1383000	12/10/91	15:11	12.1	1.14E+04	1.07E-03
478400	1382900	12/10/91	15:12	12.1	1.14E+04	1.07E-03
478400	1382300	12/10/91	15:23	12.1	1.14E+04	1.07E-03
478600	1382000	12/16/91	10:06	12.2	1.18E+04	1.03E-03
483800	1377800	01/29/92	14:08	12.2	9.73E+03	1.25E-03
483200	1378100	01/28/92	11:11	12.2	9.97E+03	1.22E-03
481700	1383200	01/07/92	14:15	12.2	1.24E+04	9.81E-04
482000	1382900	01/07/92	15:30	12.2	1.24E+04	9.81E-04
481600	1383200	01/07/92	13:31	12.2	1.24E+04	9.81E-04
482400	1382600	01/08/92	10:32	12.2	1.42E+04	8.57E-04
483456	1380950	01/15/92	10:08	12.2	9.82E+03	1.24E-03
483400	1383300	01/09/92	11:32	12.2	1.23E+04	9.90E-04
483600	1383500	01/09/92	12:01	12.2	1.23E+04	9.90E-04
480600	1382800	12/19/91	13:49	12.2	1.86E+04	6.55E-04
483000	1379700	01/21/92	14:48	12.2	1.42E+04	8.58E-04
482800	1382800	01/08/92	14:32	12.2	1.24E+04	9.83E-04
483500	1379400	01/29/92	10:55	12.2	1.14E+04	1.07E-03
483200	1378000	01/28/92	11:09	12.2	1.00E+04	1.22E-03
480100	1382900	12/17/91	15:53	12.2	1.89E+04	6.46E-04
482900	1379000	01/27/92	16:04	12.2	1.10E+04	1.11E-03
483400	1379300	01/29/92	10:55	12.2	1.11E+04	1.10E-03
483400	1379500	01/29/92	11:01	12.2	1.11E+04	1.10E-03
478500	1382300	12/16/91	10:01	12.2	1.01E+04	1.21E-03
478700	1382100	12/16/91	10:58	12.2	1.01E+04	1.21E-03
478700	1383100	12/16/91	10:39	12.2	1.01E+04	1.21E-03
481100	1383300	01/07/92	09:47	12.2	1.40E+04	8.73E-04
483800	1378600	01/28/92	16:02	12.2	9.70E+03	1.26E-03
483400	1380300	01/21/92	15:11	12.2	1.29E+04	9.48E-04
483200	1379800	01/21/92	16:06	12.2	1.29E+04	9.48E-04
483400	1380200	01/21/92	15:09	12.2	1.29E+04	9.48E-04
483400	1380700	01/21/92	15:18	12.2	1.29E+04	9.48E-04
478400	1382500	12/10/91	15:20	12.2	1.15E+04	1.07E-03
478400	1382200	12/10/91	15:25	12.2	1.15E+04	1.07E-03
478600	1381800	12/16/91	10:09	12.3	1.19E+04	1.03E-03
483100	1379800	01/21/92	16:22	12.3	1.43E+04	8.58E-04
478300	1382000	12/10/91	15:29	12.3	1.09E+04	1.13E-03
478300	1381600	12/10/91	15:37	12.3	1.09E+04	1.13E-03
480300	1382800	12/17/91	16:41	12.3	1.90E+04	6.46E-04
484000	1383400	01/09/92	13:49	12.3	1.24E+04	9.90E-04
484200	1383200	01/09/92	14:01	12.3	1.24E+04	9.90E-04
484300	1383300	01/09/92	14:09	12.3	1.24E+04	9.90E-04
484000	1383300	01/09/92	13:48	12.3	1.24E+04	9.90E-04
483800	1383100	01/09/92	11:53	12.3	1.24E+04	9.90E-04
483700	1383100	01/09/92	12:09	12.3	1.24E+04	9.90E-04
483700	1383200	01/09/92	12:08	12.3	1.24E+04	9.90E-04
483100	1382700	01/08/92	16:18	12.3	1.25E+04	9.83E-04
483500	1379300	01/29/92	10:53	12.3	1.15E+04	1.07E-03
483900	1377800	01/29/92	14:08	12.3	1.10E+04	1.12E-03
482900	1379200	01/27/92	15:58	12.3	1.11E+04	1.11E-03
483300	1380100	01/21/92	15:54	12.3	1.30E+04	9.48E-04
482700	1379300	01/21/92	10:20	12.3	1.32E+04	9.34E-04
482200	1382800	01/08/92	09:54	12.3	1.44E+04	8.57E-04
478700	1382000	12/16/91	11:06	12.3	1.02E+04	1.21E-03

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RTH COORDINATE	EAST COORDINATE	DATE	TIME	EXPOSURE RATE	COUNT RATE	STD. FACTOR
483100	1379900	01/21/92	16:20	12.4	1.44E+04	8.58E-04
478600	1381700	12/16/91	10:11	12.4	1.20E+04	1.03E-03
481900	1383100	01/07/92	15:03	12.4	1.26E+04	9.81E-04
483800	1378700	01/28/92	16:00	12.4	9.82E+03	1.26E-03
483200	1383500	01/09/92	10:52	12.4	1.25E+04	9.90E-04
483400	1383500	01/09/92	11:37	12.4	1.25E+04	9.90E-04
483400	1383000	01/09/92	11:27	12.4	1.25E+04	9.90E-04
483300	1383300	01/09/92	11:00	12.4	1.25E+04	9.90E-04
483400	1383400	01/09/92	11:35	12.4	1.25E+04	9.90E-04
483200	1383300	01/09/92	10:45	12.4	1.25E+04	9.90E-04
483600	1383300	01/09/92	11:57	12.4	1.25E+04	9.90E-04
478200	1383300	12/12/91	10:49	12.4	1.19E+04	1.04E-03
482800	1383200	01/08/92	13:56	12.4	1.26E+04	9.83E-04
483700	1377800	01/29/92	14:15	12.4	9.91E+03	1.25E-03
481200	1383200	01/07/92	09:58	12.4	1.42E+04	8.73E-04
483500	1379600	01/29/92	10:59	12.4	1.16E+04	1.07E-03
483300	1380000	01/21/92	15:56	12.4	1.31E+04	9.48E-04
483400	1380500	01/21/92	15:15	12.4	1.31E+04	9.48E-04
482500	1382500	01/08/92	10:40	12.4	1.45E+04	8.57E-04
483400	1377900	01/29/92	14:26	12.4	1.11E+04	1.12E-03
482200	1382100	01/06/92	15:55	12.4	2.37E+04	5.25E-04
483000	1378200	01/28/92	11:01	12.4	1.02E+04	1.22E-03
483000	1378400	01/28/92	10:57	12.4	1.02E+04	1.22E-03
483700	1378800	01/28/92	14:44	12.4	9.88E+03	1.26E-03
482000	1383000	01/07/92	15:26	12.5	1.27E+04	9.81E-04
481500	1383200	01/07/92	13:24	12.5	1.27E+04	9.81E-04
478400	1382400	12/10/91	15:22	12.5	1.17E+04	1.07E-03
478700	1382300	12/16/91	10:54	12.5	1.03E+04	1.21E-03
478700	1382400	12/16/91	10:51	12.5	1.03E+04	1.21E-03
478500	1382200	12/16/91	10:03	12.5	1.03E+04	1.21E-03
478700	1382800	12/16/91	10:43	12.5	1.03E+04	1.21E-03
479000	1382800	12/16/91	11:34	12.5	1.03E+04	1.21E-03
480200	1382900	12/17/91	16:21	12.5	1.93E+04	6.46E-04
483500	1383000	01/09/92	11:49	12.5	1.26E+04	9.90E-04
483915	1383067	01/15/92	15:51	12.5	1.04E+04	1.20E-03
482700	1383000	01/08/92	14:11	12.5	1.27E+04	9.83E-04
482700	1382800	01/08/92	14:14	12.5	1.27E+04	9.83E-04
482800	1382500	01/08/92	14:26	12.5	1.27E+04	9.83E-04
483400	1377800	01/29/92	14:28	12.5	1.00E+04	1.25E-03
483800	1377900	01/29/92	14:06	12.5	1.00E+04	1.25E-03
477400	1383300	12/11/91	14:36	12.5	1.06E+04	1.18E-03
482300	1382700	01/08/92	10:09	12.5	1.46E+04	8.57E-04
483200	1379900	01/21/92	16:13	12.5	1.32E+04	9.48E-04
483200	1380000	01/21/92	16:15	12.5	1.32E+04	9.48E-04
483300	1379300	01/29/92	10:46	12.5	1.17E+04	1.07E-03
480100	1382500	12/17/91	16:01	12.5	1.94E+04	6.46E-04
482900	1379100	01/27/92	16:02	12.5	1.13E+04	1.11E-03
483500	1378600	01/28/92	14:10	12.5	9.96E+03	1.26E-03
483000	1378800	01/28/92	10:53	12.6	1.03E+04	1.22E-03
478400	1382000	12/10/91	15:29	12.6	1.18E+04	1.07E-03
478400	1381900	12/10/91	15:30	12.6	1.18E+04	1.07E-03
480700	1382800	12/19/91	14:49	12.6	1.92E+04	6.55E-04
480800	1382800	12/19/91	15:11	12.6	1.92E+04	6.55E-04
483000	1382700	01/08/92	15:42	12.6	1.28E+04	9.83E-04
479000	1382600	12/16/91	11:38	12.6	1.04E+04	1.21E-03
478500	1382000	12/16/91	10:06	12.6	1.04E+04	1.21E-03
479000	1382700	12/16/91	11:36	12.6	1.04E+04	1.21E-03
483700	1378000	01/28/92	14:28	12.6	9.99E+03	1.26E-03
480200	1382600	12/17/91	16:15	12.6	1.95E+04	6.46E-04
480200	1382700	12/17/91	16:17	12.6	1.95E+04	6.46E-04
482300	1382600	01/08/92	10:07	12.6	1.47E+04	8.57E-04
482500	1382400	01/08/92	10:38	12.6	1.47E+04	8.57E-04
483800	1379600	01/28/92	15:42	12.6	1.00E+04	1.26E-03
483700	1378200	01/28/92	14:33	12.6	1.00E+04	1.26E-03
483500	1379900	01/29/92	11:06	12.6	1.18E+04	1.07E-03
483400	1379800	01/29/92	11:06	12.7	1.15E+04	1.10E-03
483200	1379300	01/29/92	10:46	12.7	1.15E+04	1.10E-03
481900	1383000	01/07/92	15:02	12.7	1.29E+04	9.81E-04
478400	1381700	12/10/91	15:34	12.7	1.19E+04	1.07E-03
478400	1382100	12/10/91	15:27	12.7	1.19E+04	1.07E-03
478400	1381600	12/10/91	15:32	12.7	1.19E+04	1.07E-03
482600	1383100	01/08/92	13:54	12.7	1.29E+04	9.83E-04
482100	1382900	01/08/92	09:38	12.7	1.48E+04	8.57E-04
483000	1378700	01/28/92	10:55	12.7	1.04E+04	1.22E-03
483000	1378000	01/28/92	11:05	12.7	1.04E+04	1.22E-03
483200	1378800	01/28/92	11:27	12.7	1.04E+04	1.22E-03

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NORTH COORDINATE	EAST COORDINATE	DATE	TIME	EXPOSURE RATE	COUNT RATE	STD. FACTOR
483000	1379800	01/21/92	14:49	12.7	1.48E+04	8.58E-04
483400	1380800	01/21/92	15:16	12.7	1.34E+04	9.48E-04
478700	1381900	12/16/91	11:08	12.7	1.05E+04	1.21E-03
478700	1382800	12/16/91	10:47	12.7	1.05E+04	1.21E-03
478500	1381700	12/16/91	10:11	12.7	1.05E+04	1.21E-03
479000	1382200	12/16/91	11:46	12.7	1.05E+04	1.21E-03
478500	1382100	12/16/91	10:05	12.7	1.05E+04	1.21E-03
480800	1382800	12/19/91	15:27	12.7	1.94E+04	6.55E-04
480400	1382700	12/19/91	13:02	12.7	1.94E+04	6.55E-04
483885	1382914	01/15/92	14:30	12.7	1.06E+04	1.20E-03
483500	1378500	01/28/92	14:12	12.7	1.01E+04	1.26E-03
483700	1378600	01/28/92	14:40	12.7	1.01E+04	1.26E-03
483800	1379300	01/28/92	16:07	12.7	1.01E+04	1.26E-03
483700	1379300	01/28/92	15:24	12.7	1.01E+04	1.26E-03
483500	1378700	01/28/92	14:08	12.7	1.01E+04	1.26E-03
483500	1379100	01/28/92	14:01	12.7	1.01E+04	1.26E-03
483500	1379500	01/29/92	10:57	12.7	1.19E+04	1.07E-03
481000	1383200	01/07/92	09:15	12.7	1.46E+04	8.73E-04
483800	1378100	01/29/92	14:02	12.8	1.02E+04	1.25E-03
483800	1378000	01/29/92	14:04	12.8	1.02E+04	1.25E-03
481800	1383000	01/07/92	14:37	12.8	1.30E+04	9.81E-04
482400	1382500	01/08/92	10:34	12.8	1.49E+04	8.57E-04
483534	1382835	01/15/92	10:50	12.8	1.03E+04	1.24E-03
482700	1382900	01/08/92	14:13	12.8	1.30E+04	9.83E-04
483400	1380400	01/21/92	15:13	12.8	1.35E+04	9.48E-04
478500	1382700	12/16/91	09:52	12.8	1.06E+04	1.21E-03
478500	1381900	12/16/91	10:08	12.8	1.06E+04	1.21E-03
478700	1381800	12/16/91	11:10	12.8	1.06E+04	1.21E-03
481900	1382900	01/07/92	15:00	12.9	1.31E+04	9.81E-04
483800	1378800	01/28/92	15:58	12.9	1.02E+04	1.26E-03
483700	1378400	01/28/92	14:37	12.9	1.02E+04	1.26E-03
483700	1379200	01/28/92	14:52	12.9	1.02E+04	1.26E-03
483700	1378100	01/28/92	14:30	12.9	1.02E+04	1.26E-03
483500	1378200	01/28/92	14:18	12.9	1.02E+04	1.26E-03
483500	1378000	01/28/92	14:24	12.9	1.02E+04	1.26E-03
483500	1378400	01/28/92	14:14	12.9	1.02E+04	1.26E-03
482400	1382400	01/08/92	10:36	12.9	1.50E+04	8.57E-04
482100	1382800	01/08/92	09:36	12.9	1.50E+04	8.57E-04
480200	1383100	12/17/91	16:25	12.9	1.99E+04	6.46E-04
484300	1383000	01/15/92	14:42	12.9	1.09E+04	1.18E-03
482100	1382200	01/06/92	15:51	12.9	2.45E+04	5.25E-04
483200	1379700	01/29/92	10:38	12.9	1.17E+04	1.10E-03
483400	1379600	01/29/92	11:02	12.9	1.17E+04	1.10E-03
482800	1382400	01/08/92	14:24	12.9	1.31E+04	9.83E-04
480000	1382400	12/17/91	15:39	12.9	2.00E+04	6.46E-04
480100	1382300	12/17/91	16:05	12.9	2.00E+04	6.46E-04
483200	1379200	01/28/92	11:35	12.9	1.06E+04	1.22E-03
478500	1381600	12/16/91	10:13	12.9	1.07E+04	1.21E-03
478500	1381500	12/16/91	10:15	12.9	1.07E+04	1.21E-03
478700	1382200	12/16/91	10:56	12.9	1.07E+04	1.21E-03
481600	1383000	01/07/92	13:34	12.9	1.32E+04	9.81E-04
483000	1379900	01/21/92	14:51	13.0	1.51E+04	8.58E-04
482000	1382300	01/06/92	15:48	13.0	2.47E+04	5.25E-04
480900	1382800	12/19/91	15:53	13.0	1.98E+04	6.55E-04
482700	1382700	01/08/92	14:16	13.0	1.32E+04	9.83E-04
483800	1379400	01/28/92	15:46	13.0	1.03E+04	1.26E-03
483800	1379200	01/28/92	16:09	13.0	1.03E+04	1.26E-03
483700	1379500	01/28/92	15:28	13.0	1.03E+04	1.26E-03
483500	1378100	01/28/92	14:20	13.0	1.03E+04	1.26E-03
483800	1378500	01/28/92	16:03	13.0	1.03E+04	1.26E-03
483700	1378300	01/28/92	14:35	13.0	1.03E+04	1.26E-03
483800	1379000	01/28/92	15:55	13.0	1.03E+04	1.26E-03
484300	1382900	01/15/92	14:44	13.0	1.10E+04	1.18E-03
482700	1379400	01/21/92	10:18	13.0	1.39E+04	9.34E-04
483300	1380200	01/21/92	15:52	13.0	1.37E+04	9.48E-04
483300	1380800	01/21/92	15:28	13.0	1.37E+04	9.48E-04
481100	1383200	01/07/92	09:45	13.0	1.49E+04	8.73E-04
481300	1383200	01/07/92	10:26	13.0	1.49E+04	8.73E-04
481400	1383100	01/07/92	10:33	13.0	1.49E+04	8.73E-04
479800	1382400	12/17/91	13:58	13.0	1.67E+04	7.79E-04
483410	1382750	01/15/92	10:39	13.0	1.05E+04	1.24E-03
483413	1382650	01/15/92	10:38	13.0	1.05E+04	1.24E-03
483537	1382735	01/15/92	10:52	13.0	1.05E+04	1.24E-03
482200	1382700	01/08/92	09:56	13.0	1.52E+04	8.57E-04
481500	1383000	01/07/92	13:19	13.0	1.33E+04	9.81E-04
481700	1383100	01/07/92	14:12	13.0	1.33E+04	9.81E-04

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NORTH COORDINATE	EAST COORDINATE	DATE	TIME	EXPOSURE RATE	COUNT RATE	STD. FACTOR
480200	1383000	12/17/91	16:23	13.0	2.02E+04	6.48E-04
480100	1382300	01/06/92	09:33	13.1	2.29E+04	5.70E-04
483000	1378900	01/28/92	10:51	13.1	1.07E+04	1.22E-03
483000	1378500	01/28/92	10:55	13.1	1.07E+04	1.22E-03
483000	1379200	01/28/92	10:45	13.1	1.07E+04	1.22E-03
483600	1379900	01/29/92	11:13	13.1	1.22E+04	1.07E-03
484400	1383600	01/22/92	11:05	13.1	1.07E+04	1.22E-03
483200	1379100	01/28/92	11:33	13.1	1.07E+04	1.22E-03
482800	1382600	01/08/92	14:28	13.1	1.33E+04	9.83E-04
482800	1379400	01/21/92	10:25	13.1	1.40E+04	9.34E-04
483917	1382967	01/15/92	15:53	13.1	1.09E+04	1.20E-03
483300	1380300	01/21/92	15:50	13.1	1.38E+04	9.48E-04
483200	1380100	01/21/92	16:17	13.1	1.38E+04	9.48E-04
483200	1379400	01/29/92	10:44	13.1	1.19E+04	1.10E-03
484030	1382977	01/15/92	14:54	13.1	1.11E+04	1.18E-03
484300	1382700	01/15/92	14:48	13.1	1.11E+04	1.18E-03
478400	1381600	12/10/91	15:37	13.1	1.23E+04	1.07E-03
483800	1379500	01/28/92	15:44	13.1	1.04E+04	1.26E-03
483700	1378500	01/28/92	14:38	13.1	1.04E+04	1.26E-03
483500	1378300	01/28/92	14:16	13.1	1.04E+04	1.26E-03
483800	1379100	01/28/92	15:53	13.1	1.04E+04	1.26E-03
483800	1379200	01/28/92	15:51	13.1	1.04E+04	1.26E-03
483500	1378600	01/28/92	14:07	13.1	1.04E+04	1.26E-03
483800	1379400	01/28/92	16:05	13.1	1.04E+04	1.26E-03
483800	1378900	01/28/92	15:57	13.1	1.04E+04	1.26E-03
483700	1378700	01/28/92	14:42	13.1	1.04E+04	1.26E-03
482900	1379700	01/21/92	14:28	13.1	1.53E+04	8.58E-04
483100	1380000	01/21/92	16:18	13.1	1.53E+04	8.58E-04
483415	1382550	01/15/92	10:38	13.1	1.06E+04	1.24E-03
482000	1382700	01/07/92	15:35	13.1	1.34E+04	9.81E-04
483300	1379500	01/29/92	10:40	13.2	1.23E+04	1.07E-03
482600	1383000	01/08/92	13:53	13.2	1.34E+04	9.83E-04
482600	1382900	01/08/92	13:52	13.2	1.34E+04	9.83E-04
482700	1382600	01/08/92	14:19	13.2	1.34E+04	9.83E-04
482700	1382400	01/08/92	14:23	13.2	1.34E+04	9.83E-04
483200	1378900	01/28/92	11:29	13.2	1.08E+04	1.22E-03
483200	1379000	01/28/92	11:31	13.2	1.08E+04	1.22E-03
483200	1378700	01/28/92	11:25	13.2	1.08E+04	1.22E-03
483300	1380700	01/21/92	15:43	13.2	1.39E+04	9.48E-04
481400	1383000	01/07/92	10:34	13.2	1.51E+04	8.73E-04
481200	1383100	01/07/92	09:59	13.2	1.51E+04	8.73E-04
483400	1379900	01/29/92	11:07	13.2	1.20E+04	1.10E-03
482794	1382417	01/13/92	11:11	13.2	1.31E+04	1.01E-03
483500	1379800	01/29/92	11:03	13.3	1.24E+04	1.07E-03
483300	1379400	01/29/92	10:44	13.3	1.24E+04	1.07E-03
481300	1383100	01/07/92	10:25	13.3	1.52E+04	8.73E-04
481000	1383100	01/07/92	09:17	13.3	1.52E+04	8.73E-04
482900	1379800	01/21/92	14:25	13.3	1.55E+04	8.58E-04
478500	1381800	12/16/91	10:09	13.3	1.10E+04	1.21E-03
483686	1381714	01/15/92	15:19	13.3	1.11E+04	1.20E-03
483684	1381814	01/15/92	15:17	13.3	1.11E+04	1.20E-03
484025	1383077	01/15/92	14:52	13.3	1.13E+04	1.18E-03
481500	1383100	01/07/92	13:21	13.3	1.36E+04	9.81E-04
481800	1382900	01/07/92	14:39	13.3	1.36E+04	9.81E-04
483700	1378900	01/28/92	14:46	13.4	1.06E+04	1.26E-03
483700	1379100	01/28/92	14:50	13.4	1.06E+04	1.26E-03
483800	1379800	01/28/92	15:38	13.4	1.06E+04	1.26E-03
480500	1382700	12/19/91	13:25	13.4	2.04E+04	6.55E-04
483300	1380400	01/21/92	15:48	13.4	1.41E+04	9.48E-04
482300	1382500	01/08/92	10:05	13.4	1.56E+04	8.57E-04
483500	1379700	01/29/92	11:02	13.4	1.25E+04	1.07E-03
483300	1379700	01/29/92	10:36	13.4	1.25E+04	1.07E-03
483100	1380100	01/21/92	16:16	13.4	1.56E+04	8.58E-04
483539	1382635	01/15/92	10:55	13.4	1.08E+04	1.24E-03
483547	1382335	01/15/92	11:00	13.4	1.08E+04	1.24E-03
483421	1382350	01/15/92	10:31	13.4	1.08E+04	1.24E-03
483000	1378600	01/28/92	10:53	13.4	1.10E+04	1.22E-03
483000	1379100	01/28/92	10:47	13.4	1.10E+04	1.22E-03
483672	1382514	01/15/92	14:51	13.4	1.12E+04	1.20E-03
483668	1382714	01/15/92	14:48	13.4	1.12E+04	1.20E-03
483670	1382614	01/15/92	14:50	13.4	1.12E+04	1.20E-03
483667	1382814	01/15/92	14:47	13.4	1.12E+04	1.20E-03
484300	1383200	01/15/92	14:35	13.5	1.14E+04	1.18E-03
483806	1382002	01/15/92	16:04	13.5	1.14E+04	1.18E-03
483800	1379300	01/28/92	15:49	13.5	1.07E+04	1.26E-03
483500	1379200	01/28/92	13:59	13.5	1.07E+04	1.26E-03

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TH COORDINATE	EAST COORDINATE	DATE	TIME	EXPOSURE RATE	COUNT RATE	STD. FACTOR
483800	1379700	01/28/92	15:40	13.5	1.07E+04	1.26E-03
483580	1381035	01/15/92	11:17	13.5	1.09E+04	1.24E-03
483419	1382450	01/15/92	10:33	13.5	1.09E+04	1.24E-03
483200	1379600	01/29/92	10:38	13.5	1.23E+04	1.10E-03
481100	1383100	01/07/92	09:43	13.5	1.55E+04	8.73E-04
481800	1382800	01/07/92	14:41	13.5	1.38E+04	9.81E-04
482000	1382800	01/07/92	15:33	13.5	1.38E+04	9.81E-04
483200	1380200	01/21/92	16:21	13.6	1.43E+04	9.48E-04
483687	1381614	01/15/92	15:21	13.6	1.13E+04	1.20E-03
483925	1382567	01/15/92	15:58	13.6	1.13E+04	1.20E-03
483939	1381867	01/15/92	16:12	13.6	1.13E+04	1.20E-03
483919	1382867	01/15/92	15:54	13.6	1.13E+04	1.20E-03
480300	1382700	12/17/91	16:43	13.6	2.10E+04	6.46E-04
484056	1382478	01/15/92	15:07	13.6	1.15E+04	1.18E-03
484046	1382678	01/15/92	15:00	13.6	1.15E+04	1.18E-03
483300	1379600	01/29/92	10:38	13.6	1.27E+04	1.07E-03
483293	1382457	01/15/92	10:43	13.6	9.32E+03	1.46E-03
483700	1379000	01/28/92	14:48	13.6	1.08E+04	1.26E-03
483500	1379000	01/28/92	14:03	13.6	1.08E+04	1.26E-03
483700	1379600	01/28/92	15:34	13.6	1.08E+04	1.26E-03
482200	1382600	01/08/92	09:59	13.6	1.59E+04	8.57E-04
482800	1379500	01/21/92	10:27	13.6	1.46E+04	9.34E-04
483200	1379500	01/29/92	10:41	13.6	1.24E+04	1.10E-03
483542	1382535	01/15/92	10:57	13.6	1.10E+04	1.24E-03
483426	1382150	01/15/92	10:28	13.6	1.10E+04	1.24E-03
483000	1380000	01/21/92	14:43	13.6	1.59E+04	8.58E-04
483300	1380600	01/21/92	15:46	13.7	1.44E+04	9.48E-04
483200	1378600	01/28/92	11:23	13.7	1.12E+04	1.22E-03
483935	1382067	01/15/92	16:06	13.7	1.14E+04	1.20E-03
483927	1382467	01/15/92	15:59	13.7	1.14E+04	1.20E-03
480600	1382700	12/19/91	13:51	13.7	2.09E+04	6.55E-04
483700	1379400	01/28/92	15:26	13.7	1.09E+04	1.26E-03
483700	1379700	01/28/92	15:32	13.7	1.09E+04	1.26E-03
483700	1379600	01/28/92	15:30	13.7	1.09E+04	1.26E-03
483500	1378900	01/28/92	14:05	13.7	1.09E+04	1.26E-03
483200	1380300	01/21/92	16:23	13.7	1.45E+04	9.48E-04
483423	1382250	01/15/92	10:30	13.8	1.11E+04	1.24E-03
483000	1379000	01/28/92	10:49	13.8	1.13E+04	1.22E-03
482100	1382700	01/08/92	09:34	13.8	1.61E+04	8.57E-04
483920	1382767	01/15/92	15:55	13.8	1.15E+04	1.20E-03
483682	1381914	01/15/92	15:13	13.8	1.15E+04	1.20E-03
483673	1382414	01/15/92	15:05	13.8	1.15E+04	1.20E-03
483929	1382367	01/15/92	16:01	13.8	1.15E+04	1.20E-03
483923	1382867	01/15/92	15:57	13.8	1.15E+04	1.20E-03
483814	1381502	01/15/92	16:13	13.8	1.17E+04	1.18E-03
483100	1380200	01/21/92	16:14	13.8	1.61E+04	8.58E-04
480200	1382500	12/17/91	16:13	13.8	2.14E+04	6.46E-04
481900	1382800	01/07/92	14:58	13.8	1.41E+04	9.81E-04
483200	1380400	01/21/92	16:24	13.8	1.46E+04	9.48E-04
483300	1380600	01/21/92	15:45	13.8	1.46E+04	9.48E-04
482600	1382700	01/08/92	13:48	13.9	1.41E+04	9.83E-04
483577	1381135	01/15/92	11:16	13.9	1.12E+04	1.24E-03
479000	1382100	12/16/91	11:48	13.9	1.15E+04	1.21E-03
483931	1382267	01/15/92	16:02	13.9	1.16E+04	1.20E-03
483675	1382314	01/15/92	15:07	13.9	1.16E+04	1.20E-03
483812	1381602	01/15/92	16:11	13.9	1.18E+04	1.18E-03
484066	1382278	01/15/92	15:14	13.9	1.18E+04	1.18E-03
484035	1382878	01/15/92	14:56	13.9	1.18E+04	1.18E-03
481800	1382700	01/07/92	14:42	13.9	1.42E+04	9.81E-04
482600	1382800	01/08/92	13:50	14.0	1.42E+04	9.83E-04
483544	1382435	01/15/92	10:59	14.0	1.13E+04	1.24E-03
483200	1380800	01/21/92	16:31	14.0	1.48E+04	9.48E-04
483933	1382167	01/15/92	16:04	14.0	1.17E+04	1.20E-03
484051	1382578	01/15/92	15:03	14.0	1.19E+04	1.18E-03
482100	1382600	01/08/92	09:33	14.1	1.64E+04	8.57E-04
481400	1382900	01/07/92	10:36	14.1	1.61E+04	8.73E-04
481300	1383000	01/07/92	10:24	14.1	1.61E+04	8.73E-04
482600	1382500	01/08/92	13:44	14.1	1.43E+04	9.83E-04
483429	1382050	01/15/92	10:26	14.1	1.14E+04	1.24E-03
482300	1382400	01/08/92	10:04	14.1	1.65E+04	8.57E-04
482600	1382600	01/08/92	13:46	14.2	1.44E+04	9.83E-04
483000	1380100	01/21/92	14:54	14.2	1.65E+04	8.58E-04
482900	1379900	01/21/92	14:23	14.2	1.65E+04	8.58E-04
483681	1382014	01/15/92	15:12	14.2	1.18E+04	1.20E-03
483679	1382114	01/15/92	15:10	14.2	1.18E+04	1.20E-03
484300	1383100	01/15/92	14:40	14.2	1.20E+04	1.18E-03

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ORTH COORDINATE	EAST COORDINATE	DATE	TIME	EXPOSURE RATE	COUNT RATE	STD. FACTOR
480100	1382400	12/17/91	16:03	14.2	2.20E+04	6.46E-04
481800	1382900	01/07/92	13:36	14.2	1.45E+04	9.81E-04
482200	1382500	01/08/92	10:00	14.2	1.68E+04	8.57E-04
480100	1382200	01/06/92	09:32	14.3	2.50E+04	5.70E-04
482800	1382400	01/08/92	13:43	14.3	1.45E+04	9.83E-04
483560	1381835	01/15/92	11:08	14.3	1.15E+04	1.24E-03
483563	1381735	01/15/92	11:08	14.3	1.15E+04	1.24E-03
483453	1381050	01/15/92	10:11	14.3	1.15E+04	1.24E-03
483549	1382235	01/15/92	11:01	14.3	1.15E+04	1.24E-03
484300	1383500	01/22/92	10:55	14.3	1.17E+04	1.22E-03
483810	1381702	01/15/92	16:10	14.3	1.21E+04	1.18E-03
484061	1382378	01/15/92	15:09	14.3	1.21E+04	1.18E-03
483809	1381802	01/15/92	16:08	14.3	1.21E+04	1.18E-03
483689	1381514	01/15/92	15:23	14.3	1.19E+04	1.20E-03
481200	1383000	01/07/92	10:02	14.3	1.64E+04	8.73E-04
481900	1382700	01/07/92	14:56	14.3	1.46E+04	9.81E-04
480800	1382700	12/19/91	15:13	14.3	2.19E+04	6.55E-04
482700	1379500	01/21/92	10:16	14.4	1.54E+04	9.34E-04
483436	1381750	01/15/92	10:22	14.4	1.16E+04	1.24E-03
483568	1381535	01/15/92	11:11	14.4	1.16E+04	1.24E-03
483558	1381935	01/15/92	11:05	14.4	1.16E+04	1.24E-03
483553	1382135	01/15/92	11:02	14.4	1.16E+04	1.24E-03
482000	1382200	01/06/92	15:46	14.4	2.74E+04	5.25E-04
484400	1383400	01/22/92	11:01	14.4	1.18E+04	1.22E-03
483677	1382214	01/15/92	15:09	14.4	1.20E+04	1.20E-03
481000	1383000	01/07/92	09:19	14.4	1.65E+04	8.73E-04
480700	1382700	12/19/91	14:05	14.4	2.20E+04	6.55E-04
482797	1382317	01/13/92	11:13	14.4	1.43E+04	1.01E-03
480400	1382600	12/19/91	13:04	14.5	2.21E+04	6.55E-04
483575	1381235	01/15/92	11:14	14.5	1.17E+04	1.24E-03
483808	1381902	01/15/92	16:06	14.5	1.23E+04	1.18E-03
480900	1382700	12/19/91	15:25	14.5	2.22E+04	6.55E-04
482674	1382367	01/13/92	10:30	14.5	1.44E+04	1.01E-03
480900	1382700	12/19/91	15:56	14.6	2.23E+04	6.55E-04
484300	1382800	01/15/92	14:46	14.6	1.24E+04	1.18E-03
483431	1381950	01/15/92	10:25	14.6	1.18E+04	1.24E-03
483565	1381635	01/15/92	11:09	14.6	1.18E+04	1.24E-03
483433	1381850	01/15/92	10:23	14.6	1.18E+04	1.24E-03
482100	1382100	01/06/92	15:53	14.6	2.79E+04	5.25E-04
481100	1383000	01/07/92	09:42	14.7	1.68E+04	8.73E-04
483100	1380400	01/21/92	16:11	14.7	1.71E+04	8.58E-04
483200	1380700	01/21/92	16:30	14.7	1.55E+04	9.48E-04
482500	1382400	01/22/92	10:12	14.7	1.47E+04	1.00E-03
480200	1382300	01/06/92	09:35	14.7	2.58E+04	5.70E-04
480200	1382200	01/06/92	09:37	14.7	2.58E+04	5.70E-04
481500	1382900	01/07/92	13:18	14.7	1.50E+04	9.81E-04
484040	1382778	01/15/92	14:58	14.8	1.25E+04	1.18E-03
481200	1382900	01/07/92	10:03	14.8	1.69E+04	8.73E-04
483443	1381450	01/15/92	10:17	14.8	1.19E+04	1.24E-03
483446	1381350	01/15/92	10:16	14.8	1.19E+04	1.24E-03
483439	1381650	01/15/92	10:21	14.8	1.19E+04	1.24E-03
483448	1381250	01/15/92	10:14	14.8	1.19E+04	1.24E-03
483570	1381435	01/15/92	11:12	14.8	1.19E+04	1.24E-03
483555	1382035	01/15/92	11:03	14.8	1.19E+04	1.24E-03
483100	1380500	01/21/92	16:10	14.8	1.73E+04	8.58E-04
482805	1382017	01/13/92	11:19	14.8	1.47E+04	1.01E-03
482800	1379600	01/21/92	10:28	14.9	1.59E+04	9.34E-04
483451	1381150	01/15/92	10:13	14.9	1.20E+04	1.24E-03
483691	1381414	01/15/92	15:26	14.9	1.24E+04	1.20E-03
483441	1381550	01/15/92	10:19	14.9	1.20E+04	1.24E-03
481600	1382800	01/07/92	13:37	14.9	1.52E+04	9.81E-04
482200	1382400	01/08/92	10:02	14.9	1.74E+04	8.57E-04
481300	1382900	01/07/92	10:22	14.9	1.71E+04	8.73E-04
483100	1380700	01/21/92	16:07	14.9	1.74E+04	8.58E-04
483100	1380600	01/21/92	16:08	14.9	1.74E+04	8.58E-04
482600	1382300	01/22/92	10:28	15.0	1.50E+04	1.00E-03
482600	1382400	01/22/92	10:30	15.0	1.50E+04	1.00E-03
483573	1381335	01/15/92	11:13	15.0	1.21E+04	1.24E-03
482000	1382600	01/07/92	15:37	15.0	1.53E+04	9.81E-04
482799	1382217	01/13/92	11:15	15.0	1.49E+04	1.01E-03
480300	1382600	12/17/91	16:45	15.1	2.33E+04	6.46E-04
483200	1380600	01/21/92	16:28	15.1	1.59E+04	9.48E-04
483200	1380500	01/21/92	16:26	15.1	1.59E+04	9.48E-04
482700	1379600	01/21/92	10:14	15.1	1.62E+04	9.34E-04
482802	1382117	01/13/92	11:17	15.2	1.50E+04	1.01E-03
480200	1382100	01/06/92	09:39	15.2	2.66E+04	5.70E-04

EWMF Survey – Sorted by Exposure Rates

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14-Feb-92

NORTH COORDINATE	EAST COORDINATE	DATE	TIME	EXPOSURE RATE	COUNT RATE	STD. FACTOR
483296	1382357	01/15/92	10:44	15.2	1.04E+04	1.46E-03
483100	1380800	01/21/92	16:05	15.2	1.77E+04	8.58E-04
481000	1382900	01/07/92	09:20	15.2	1.74E+04	8.73E-04
483793	1382802	01/15/92	15:52	15.2	1.29E+04	1.18E-03
482880	1382167	01/13/92	10:35	15.3	1.51E+04	1.01E-03
483100	1380300	01/21/92	16:13	15.3	1.78E+04	8.58E-04
482100	1382400	01/08/92	09:30	15.3	1.79E+04	8.57E-04
483000	1380200	01/21/92	14:56	15.4	1.79E+04	8.58E-04
480200	1382400	12/17/91	16:09	15.4	2.38E+04	6.46E-04
480200	1382300	12/17/91	16:07	15.4	2.39E+04	6.46E-04
481400	1382800	01/07/92	10:37	15.5	1.77E+04	8.73E-04
482687	1381967	01/13/92	10:39	15.5	1.53E+04	1.01E-03
480500	1382600	12/19/91	13:22	15.5	2.37E+04	6.55E-04
482677	1382267	01/13/92	10:31	15.6	1.54E+04	1.01E-03
483805	1382102	01/15/92	16:02	15.6	1.32E+04	1.18E-03
481900	1382300	01/06/92	15:39	15.6	2.98E+04	5.25E-04
482600	1379700	01/21/92	10:30	15.7	1.68E+04	9.34E-04
482900	1380000	01/21/92	14:22	15.8	1.84E+04	8.58E-04
482900	1380100	01/21/92	14:21	15.8	1.84E+04	8.58E-04
482813	1381717	01/13/92	11:24	15.9	1.57E+04	1.01E-03
482684	1382067	01/13/92	10:37	15.9	1.57E+04	1.01E-03
481900	1382600	01/07/92	14:54	15.9	1.62E+04	9.81E-04
481800	1382600	01/07/92	14:44	15.9	1.62E+04	9.81E-04
483164	1382574	01/15/92	10:09	15.9	1.09E+04	1.46E-03
483790	1383002	01/15/92	15:49	15.9	1.35E+04	1.18E-03
482100	1382500	01/08/92	09:31	15.9	1.86E+04	8.57E-04
481100	1382900	01/07/92	09:40	16.0	1.83E+04	8.73E-04
482600	1382200	01/22/92	10:27	16.0	1.60E+04	1.00E-03
483000	1380300	01/21/92	15:57	16.0	1.87E+04	8.58E-04
482810	1381817	01/13/92	11:22	16.1	1.59E+04	1.01E-03
482916	1382447	01/15/92	09:03	16.1	1.10E+04	1.46E-03
480600	1382600	12/19/91	13:52	16.1	2.46E+04	6.55E-04
482808	1381917	01/13/92	11:20	16.2	1.60E+04	1.01E-03
482500	1382300	01/22/92	10:16	16.3	1.63E+04	1.00E-03
481300	1382800	01/07/92	10:21	16.3	1.87E+04	8.73E-04
483044	1382389	01/15/92	09:33	16.4	1.12E+04	1.46E-03
482800	1379900	01/21/92	10:34	16.4	1.76E+04	9.34E-04
482700	1379700	01/21/92	10:12	16.4	1.76E+04	9.34E-04
483041	1382489	01/15/92	09:31	16.5	1.13E+04	1.46E-03
482600	1382100	01/22/92	10:24	16.5	1.65E+04	1.00E-03
482000	1382400	01/07/92	15:41	16.6	1.69E+04	9.81E-04
481500	1382800	01/07/92	13:18	16.6	1.69E+04	9.81E-04
483803	1382202	01/15/92	16:00	16.6	1.41E+04	1.18E-03
483286	1382657	01/15/92	10:40	16.6	1.14E+04	1.46E-03
483337	1380957	01/15/92	11:05	16.6	1.14E+04	1.46E-03
482000	1382500	01/07/92	15:38	16.7	1.70E+04	9.81E-04
481600	1382700	01/07/92	13:39	16.7	1.70E+04	9.81E-04
482816	1381617	01/13/92	11:28	16.8	1.66E+04	1.01E-03
480800	1382600	12/19/91	15:14	16.8	2.56E+04	6.55E-04
483169	1382374	01/15/92	10:12	16.8	1.15E+04	1.46E-03
480300	1382400	12/17/91	16:51	16.9	2.61E+04	6.46E-04
482694	1381767	01/13/92	10:42	16.9	1.67E+04	1.01E-03
481200	1382800	01/07/92	10:04	16.9	1.94E+04	8.73E-04
482800	1379800	01/21/92	10:32	17.0	1.82E+04	9.34E-04
480400	1382500	12/19/91	13:06	17.0	2.60E+04	6.55E-04
480300	1382500	12/17/91	16:48	17.1	2.64E+04	6.46E-04
481800	1382300	01/06/92	15:37	17.2	3.28E+04	5.25E-04
483289	1382557	01/15/92	10:41	17.2	1.18E+04	1.46E-03
483050	1382189	01/15/92	09:37	17.2	1.18E+04	1.46E-03
482000	1382100	01/06/92	15:44	17.3	3.29E+04	5.25E-04
480900	1382600	12/19/91	15:57	17.3	2.64E+04	6.55E-04
482819	1381517	01/13/92	11:28	17.4	1.72E+04	1.01E-03
482690	1381867	01/13/92	10:40	17.4	1.72E+04	1.01E-03
481000	1382800	01/07/92	09:22	17.4	1.99E+04	8.73E-04
483167	1382474	01/15/92	10:10	17.4	1.19E+04	1.46E-03
483057	1381989	01/15/92	09:45	17.4	1.19E+04	1.46E-03
481700	1382600	01/07/92	13:54	17.5	1.78E+04	9.81E-04
480900	1382600	12/19/91	15:24	17.5	2.67E+04	6.55E-04
483301	1382157	01/15/92	10:47	17.5	1.20E+04	1.46E-03
481700	1382300	01/06/92	15:25	17.5	3.34E+04	5.25E-04
481400	1382700	01/07/92	10:39	17.5	2.01E+04	8.73E-04
482700	1379900	01/21/92	10:08	17.6	1.88E+04	9.34E-04
482500	1382200	01/22/92	10:18	17.6	1.76E+04	1.00E-03
481100	1382800	01/07/92	09:39	17.6	2.02E+04	8.73E-04
482700	1379800	01/21/92	10:10	17.7	1.89E+04	9.34E-04
483054	1382089	01/15/92	09:41	17.7	1.21E+04	1.46E-03

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14-Feb-92

NORTH COORDINATE	EAST COORDINATE	DATE	TIME	EXPOSURE RATE	COUNT RATE	STD. FACTOR
483172	1382274	01/15/92	10:14	17.7	1.21E+04	1.46E-03
483060	1381889	01/15/92	09:47	17.7	1.21E+04	1.46E-03
483307	1381957	01/15/92	10:51	17.7	1.21E+04	1.46E-03
483047	1382289	01/15/92	09:35	17.7	1.21E+04	1.46E-03
481900	1382200	01/06/92	15:40	17.7	3.37E+04	5.25E-04
481900	1382500	01/07/92	14:52	17.8	1.81E+04	9.81E-04
483174	1382174	01/15/92	10:15	17.8	1.22E+04	1.46E-03
483000	1380700	01/21/92	16:03	17.8	2.08E+04	8.58E-04
480400	1382400	12/19/91	13:08	17.9	2.74E+04	6.55E-04
483310	1381857	01/15/92	10:52	18.0	1.23E+04	1.46E-03
483313	1381757	01/15/92	10:53	18.0	1.23E+04	1.46E-03
482900	1380800	01/21/92	14:10	18.0	2.10E+04	8.58E-04
483000	1380800	01/21/92	16:01	18.0	2.10E+04	8.58E-04
483000	1380800	01/21/92	16:04	18.0	2.10E+04	8.58E-04
483795	1382702	01/15/92	15:54	18.1	1.53E+04	1.18E-03
483791	1382902	01/15/92	15:51	18.1	1.53E+04	1.18E-03
481600	1382300	01/06/92	15:24	18.1	3.44E+04	5.25E-04
483304	1382057	01/15/92	10:49	18.1	1.24E+04	1.46E-03
483298	1382257	01/15/92	10:46	18.1	1.24E+04	1.46E-03
481500	1382700	01/07/92	13:14	18.1	1.85E+04	9.81E-04
482897	1381687	01/13/92	10:43	18.2	1.80E+04	1.01E-03
483000	1380400	01/21/92	15:59	18.2	2.12E+04	8.58E-04
480500	1382500	12/19/91	13:19	18.2	2.78E+04	6.55E-04
481200	1382700	01/07/92	10:05	18.2	2.09E+04	8.73E-04
483177	1382074	01/15/92	10:17	18.3	1.25E+04	1.46E-03
483180	1381974	01/15/92	10:19	18.3	1.25E+04	1.46E-03
482821	1381418	01/13/92	11:30	18.3	1.81E+04	1.01E-03
480700	1382600	12/19/91	14:03	18.3	2.80E+04	6.55E-04
483190	1381574	01/15/92	10:24	18.4	1.26E+04	1.46E-03
483182	1381874	01/15/92	10:20	18.4	1.26E+04	1.46E-03
482922	1382248	01/15/92	09:07	18.4	1.26E+04	1.46E-03
480200	1382000	01/06/92	09:47	18.4	3.23E+04	5.70E-04
483000	1380500	01/21/92	16:00	18.4	2.15E+04	8.58E-04
482800	1380000	01/21/92	10:35	18.5	1.98E+04	9.34E-04
481900	1382400	01/07/92	14:50	18.5	1.89E+04	9.81E-04
483188	1381674	01/15/92	10:23	18.5	1.27E+04	1.46E-03
483193	1381474	01/15/92	10:28	18.5	1.27E+04	1.46E-03
482919	1382348	01/15/92	09:05	18.5	1.27E+04	1.46E-03
482500	1382100	01/22/92	10:21	18.6	1.86E+04	1.00E-03
481800	1382500	01/07/92	14:47	18.7	1.91E+04	9.81E-04
483316	1381657	01/15/92	10:55	18.8	1.29E+04	1.46E-03
483064	1381789	01/15/92	09:49	19.0	1.30E+04	1.46E-03
483322	1381457	01/15/92	10:58	19.0	1.30E+04	1.46E-03
483801	1382302	01/15/92	15:59	19.0	1.61E+04	1.18E-03
481300	1382700	01/07/92	10:19	19.0	2.18E+04	8.73E-04
482900	1380200	01/21/92	14:19	19.0	2.22E+04	8.58E-04
482824	1381318	01/13/92	11:31	19.1	1.89E+04	1.01E-03
483185	1381774	01/15/92	10:21	19.1	1.31E+04	1.46E-03
483328	1381257	01/15/92	11:01	19.1	1.31E+04	1.46E-03
483333	1381057	01/15/92	11:03	19.1	1.31E+04	1.46E-03
481700	1382800	01/07/92	13:58	19.1	1.95E+04	9.81E-04
481700	1382700	01/07/92	13:56	19.1	1.95E+04	9.81E-04
483800	1382402	01/15/92	15:58	19.2	1.63E+04	1.18E-03
483331	1381157	01/15/92	11:02	19.3	1.32E+04	1.46E-03
481000	1382700	01/07/92	09:24	19.4	2.22E+04	8.73E-04
482928	1382048	01/15/92	09:10	19.4	1.33E+04	1.46E-03
483319	1381557	01/15/92	10:56	19.4	1.33E+04	1.46E-03
482925	1382148	01/15/92	09:08	19.4	1.33E+04	1.46E-03
482700	1381567	01/13/92	10:45	19.5	1.93E+04	1.01E-03
480600	1382500	12/19/91	13:54	19.5	2.98E+04	6.55E-04
481600	1382600	01/07/92	13:41	19.5	1.99E+04	9.81E-04
483070	1381589	01/15/92	09:52	19.6	1.34E+04	1.46E-03
483325	1381357	01/15/92	10:59	19.6	1.34E+04	1.46E-03
483073	1381489	01/15/92	09:53	19.6	1.34E+04	1.46E-03
481500	1382300	01/06/92	14:48	19.7	3.75E+04	5.25E-04
483067	1381689	01/15/92	09:50	19.7	1.35E+04	1.46E-03
481400	1382600	01/07/92	10:40	19.9	2.28E+04	8.73E-04
483196	1381374	01/15/92	10:27	20.0	1.37E+04	1.46E-03
483199	1381274	01/15/92	10:29	20.0	1.37E+04	1.46E-03
482942	1381548	01/15/92	09:17	20.0	1.37E+04	1.46E-03
482931	1381948	01/15/92	09:12	20.0	1.37E+04	1.46E-03
482936	1381748	01/15/92	09:14	20.1	1.38E+04	1.46E-03
482939	1381648	01/15/92	09:16	20.1	1.38E+04	1.46E-03
482900	1380400	01/21/92	14:16	20.2	2.35E+04	8.58E-04
480900	1382500	12/19/91	15:59	20.2	3.09E+04	6.55E-04
482900	1380300	01/21/92	14:17	20.2	2.36E+04	8.58E-04

14-Feb-92

NORTH COORDINATE	EAST COORDINATE	DATE	TIME	EXPOSURE RATE	COUNT RATE	STD. FACTOR
481400	1382300	01/06/92	14:46	20.3	3.86E+04	5.25E-04
482933	1381848	01/15/92	09:13	20.3	1.39E+04	1.46E-03
481700	1382500	01/07/92	13:52	20.3	2.07E+04	9.81E-04
481500	1382600	01/07/92	13:12	20.4	2.08E+04	9.81E-04
481100	1382700	01/07/92	09:37	20.4	2.34E+04	8.73E-04
483201	1381174	01/15/92	10:30	20.4	1.40E+04	1.46E-03
480300	1382100	01/06/92	09:53	20.5	3.59E+04	5.70E-04
480400	1382300	12/19/91	13:11	20.5	3.13E+04	6.55E-04
482827	1381218	01/13/92	11:33	20.5	2.03E+04	1.01E-03
482704	1381467	01/13/92	10:46	20.6	2.04E+04	1.01E-03
481300	1382600	01/07/92	10:17	20.7	2.37E+04	8.73E-04
481800	1382200	01/06/92	15:35	20.7	3.95E+04	5.25E-04
483798	1382502	01/15/92	15:56	20.9	1.77E+04	1.18E-03
480700	1382500	12/19/91	14:02	20.9	3.19E+04	6.55E-04
481800	1382400	01/07/92	14:49	20.9	2.13E+04	9.81E-04
481700	1382400	01/07/92	13:50	21.0	2.14E+04	9.81E-04
481300	1382300	01/06/92	14:36	21.0	4.00E+04	5.25E-04
483206	1380974	01/15/92	10:33	21.0	1.44E+04	1.46E-03
480800	1382500	12/19/91	15:16	21.0	3.21E+04	6.55E-04
480500	1382400	12/19/91	13:17	21.1	3.22E+04	6.55E-04
480900	1382500	12/19/91	15:22	21.1	3.22E+04	6.55E-04
483204	1381074	01/15/92	10:32	21.2	1.45E+04	1.46E-03
482900	1380800	01/21/92	14:13	21.2	2.47E+04	8.58E-04
482700	1380000	01/21/92	10:06	21.3	2.28E+04	9.34E-04
483083	1381189	01/15/92	09:58	21.5	1.47E+04	1.46E-03
483080	1381289	01/15/92	09:56	21.5	1.47E+04	1.46E-03
483076	1381389	01/15/92	09:54	21.5	1.47E+04	1.46E-03
480300	1382200	01/06/92	09:54	21.6	3.79E+04	5.70E-04
482900	1380500	01/21/92	14:14	21.7	2.53E+04	8.58E-04
482900	1380700	01/21/92	14:12	21.8	2.54E+04	8.58E-04
482830	1381118	01/13/92	11:34	21.8	2.16E+04	1.01E-03
483796	1382602	01/15/92	15:55	21.8	1.85E+04	1.18E-03
481200	1382300	01/06/92	14:32	21.9	4.17E+04	5.25E-04
481200	1382600	01/07/92	10:07	22.0	2.52E+04	8.73E-04
482707	1381367	01/13/92	10:48	22.0	2.18E+04	1.01E-03
481900	1382100	01/06/92	15:42	22.1	4.21E+04	5.25E-04
481600	1382500	01/07/92	13:43	22.5	2.29E+04	9.81E-04
481700	1382200	01/06/92	15:28	22.5	4.28E+04	5.25E-04
483086	1381089	01/15/92	10:01	22.5	1.54E+04	1.46E-03
482945	1381448	01/15/92	09:19	22.5	1.54E+04	1.46E-03
482800	1380800	01/21/92	10:35	22.5	2.41E+04	9.34E-04
481000	1382600	01/07/92	09:25	22.5	2.58E+04	8.73E-04
483089	1380989	01/15/92	10:03	23.1	1.58E+04	1.46E-03
482948	1381348	01/15/92	09:20	23.1	1.58E+04	1.46E-03
481400	1382500	01/07/92	10:42	23.1	2.65E+04	8.73E-04
482832	1381018	01/13/92	11:36	23.3	2.31E+04	1.01E-03
482800	1380100	01/21/92	10:37	23.4	2.50E+04	9.34E-04
480300	1382000	01/06/92	09:49	23.4	4.11E+04	5.70E-04
481100	1382600	01/07/92	09:36	23.6	2.70E+04	8.73E-04
481800	1382100	01/06/92	15:33	23.6	4.49E+04	5.25E-04
481600	1382400	01/07/92	13:45	23.6	2.41E+04	9.81E-04
481600	1382200	01/06/92	15:23	23.7	4.52E+04	5.25E-04
481500	1382500	01/07/92	13:11	23.7	2.42E+04	9.81E-04
480500	1382300	12/19/91	13:15	23.8	3.63E+04	6.55E-04
482710	1381267	01/13/92	10:49	23.9	2.37E+04	1.01E-03
482951	1381248	01/15/92	09:22	23.9	1.64E+04	1.46E-03
482954	1381148	01/15/92	09:24	24.1	1.65E+04	1.46E-03
482700	1380100	01/21/92	10:04	24.3	2.60E+04	9.34E-04
481200	1382500	01/07/92	10:08	24.5	2.81E+04	8.73E-04
480900	1382400	12/19/91	16:01	24.8	3.78E+04	6.55E-04
481500	1382200	01/06/92	14:50	24.8	4.72E+04	5.25E-04
481300	1382500	01/07/92	10:15	24.8	2.84E+04	8.73E-04
482960	1380948	01/15/92	09:28	24.8	1.70E+04	1.46E-03
480600	1382400	12/19/91	13:55	24.8	3.79E+04	6.55E-04
481100	1382300	01/06/92	14:18	25.1	4.79E+04	5.25E-04
482957	1381048	01/15/92	09:26	25.4	1.74E+04	1.46E-03
481500	1382400	01/07/92	13:09	25.4	2.59E+04	9.81E-04
482713	1381167	01/13/92	10:51	25.6	2.53E+04	1.01E-03
482835	1380918	01/13/92	11:37	25.7	2.54E+04	1.01E-03
481300	1382200	01/06/92	14:38	26.0	4.95E+04	5.25E-04
481400	1382400	01/07/92	10:44	26.1	2.99E+04	8.73E-04
480400	1382200	01/06/92	09:57	26.1	4.58E+04	5.70E-04
481400	1382200	01/06/92	14:45	26.3	5.01E+04	5.25E-04
480700	1382400	12/19/91	13:59	26.6	4.06E+04	6.55E-04
480900	1382400	12/19/91	15:20	26.7	4.07E+04	6.55E-04
481000	1382500	01/07/92	09:27	26.7	3.06E+04	8.73E-04

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14-Feb-92

NORTH COORDINATE	EAST COORDINATE	DATE	TIME	EXPOSURE RATE	COUNT RATE	STD. FACTOR
481100	1382500	01/07/92	09:34	26.8	3.07E+04	8.73E-04
480800	1382400	12/19/91	15:18	27.1	4.14E+04	6.55E-04
482800	1380200	01/21/92	10:39	27.2	2.91E+04	9.34E-04
481200	1382200	01/06/92	14:30	27.8	5.29E+04	5.25E-04
481300	1382400	01/07/92	10:14	28.2	3.23E+04	8.73E-04
482800	1380700	01/21/92	10:52	28.2	3.02E+04	9.34E-04
482717	1381067	01/13/92	10:52	28.4	2.81E+04	1.01E-03
482800	1380600	01/21/92	10:49	28.6	3.06E+04	9.34E-04
482800	1380500	01/21/92	10:47	29.1	3.12E+04	9.34E-04
482800	1380400	01/21/92	10:44	29.3	3.14E+04	9.34E-04
481200	1382400	01/07/92	10:10	29.6	3.39E+04	8.73E-04
481700	1382100	01/06/92	15:31	29.8	5.68E+04	5.25E-04
480400	1382100	01/06/92	09:59	29.9	5.25E+04	5.70E-04
482800	1380300	01/21/92	10:41	30.2	3.23E+04	9.34E-04
481000	1382300	01/06/92	10:34	30.3	5.31E+04	5.70E-04
481100	1382400	01/07/92	09:32	30.4	3.48E+04	8.73E-04
482700	1380300	01/21/92	10:00	30.6	3.28E+04	9.34E-04
482720	1380967	01/13/92	10:53	30.7	3.04E+04	1.01E-03
482700	1380200	01/21/92	10:01	30.7	3.29E+04	9.34E-04
482700	1380700	01/21/92	09:56	31.2	3.34E+04	9.34E-04
481200	1382100	01/06/92	14:28	31.6	6.01E+04	5.25E-04
481000	1382400	01/07/92	09:28	32.0	3.67E+04	8.73E-04
481100	1382200	01/06/92	14:20	32.4	6.17E+04	5.25E-04
481400	1382100	01/06/92	14:43	32.9	6.27E+04	5.25E-04
482723	1380967	01/13/92	10:55	32.9	3.26E+04	1.01E-03
481600	1382100	01/06/92	15:20	33.0	6.29E+04	5.25E-04
480900	1382300	01/06/92	10:32	33.1	5.81E+04	5.70E-04
481500	1382100	01/06/92	15:18	33.3	6.34E+04	5.25E-04
480500	1382200	01/06/92	10:06	33.3	5.84E+04	5.70E-04
481300	1382100	01/06/92	14:40	33.7	6.41E+04	5.25E-04
482700	1380400	01/21/92	09:50	34.7	3.72E+04	9.34E-04
482700	1380600	01/21/92	09:54	34.9	3.74E+04	9.34E-04
481200	1382000	01/06/92	14:26	35.0	6.66E+04	5.25E-04
480800	1382300	01/06/92	10:19	36.2	6.35E+04	5.70E-04
480400	1382000	01/06/92	10:00	37.6	6.59E+04	5.70E-04
481100	1382000	01/06/92	14:23	37.9	7.22E+04	5.25E-04
482700	1380500	01/21/92	09:52	38.9	4.16E+04	9.34E-04
481100	1382100	01/06/92	14:22	41.5	7.90E+04	5.25E-04
481000	1382200	01/06/92	10:37	42.1	7.38E+04	5.70E-04
480500	1382100	01/06/92	10:04	42.7	7.49E+04	5.70E-04
480500	1382000	01/06/92	10:02	43.9	7.71E+04	5.70E-04
480800	1382200	01/06/92	10:08	44.5	7.81E+04	5.70E-04
480900	1382200	01/06/92	10:31	48.7	8.55E+04	5.70E-04
481000	1382100	01/06/92	10:39	55.3	9.70E+04	5.70E-04
480700	1382200	01/06/92	10:17	55.4	9.72E+04	5.70E-04
480800	1382200	01/06/92	10:21	57.6	1.01E+05	5.70E-04
481000	1382000	01/06/92	10:43	58.7	1.03E+05	5.70E-04
480600	1382100	01/06/92	10:10	69.5	1.22E+05	5.70E-04
480600	1382000	01/06/92	10:12	72.4	1.27E+05	5.70E-04
480900	1382100	01/06/92	10:29	74.7	1.31E+05	5.70E-04
480700	1382100	01/06/92	10:15	101.5	1.78E+05	5.70E-04
480800	1382100	01/06/92	10:23	118.8	2.08E+05	5.70E-04
480900	1382000	01/06/92	10:28	145.9	2.56E+05	5.70E-04
480700	1382000	01/06/92	10:13	160.2	2.81E+05	5.70E-04
480800	1382000	01/06/92	10:24	338.6	5.94E+05	5.70E-04

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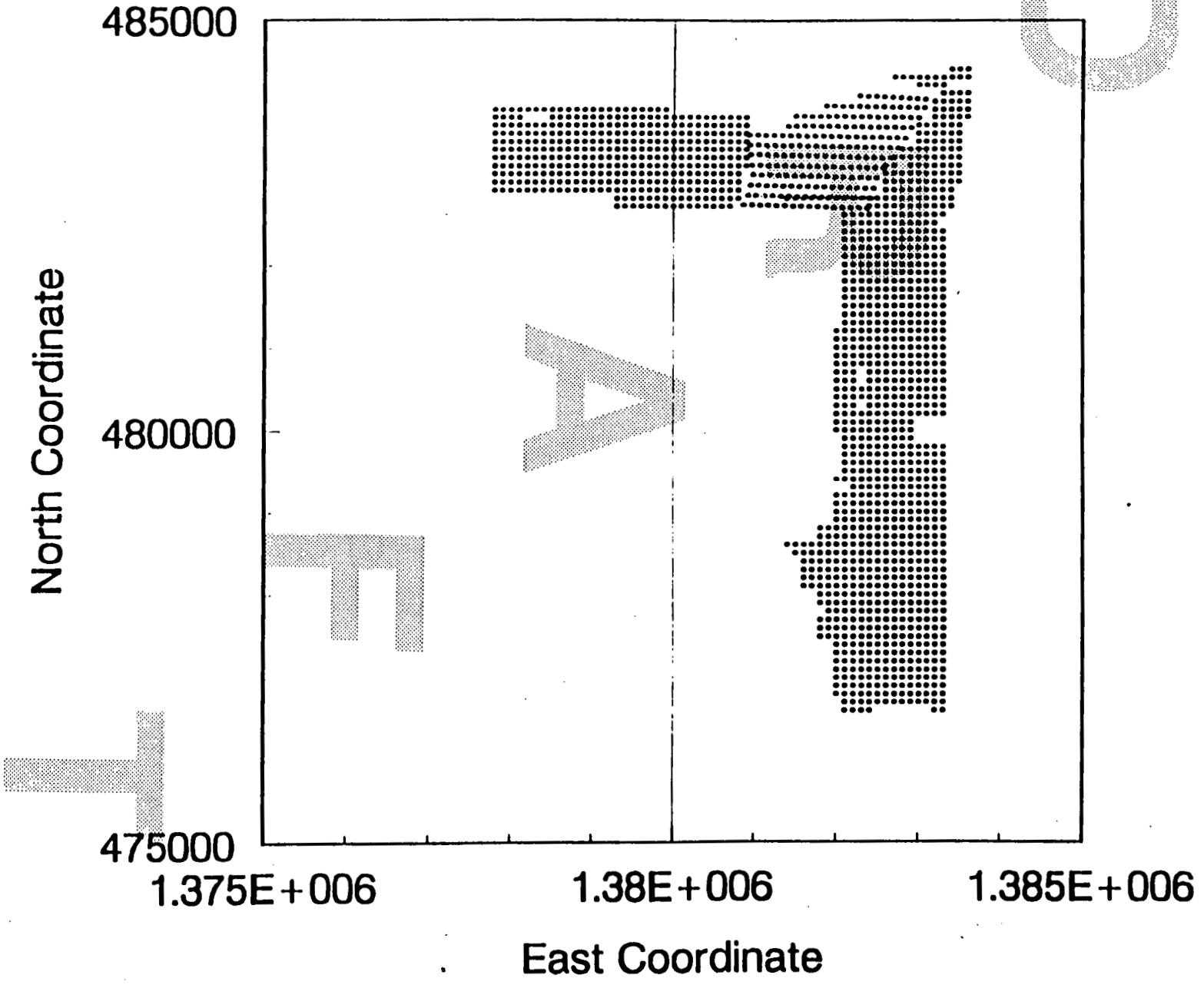
EWMF Radiological Data Survey



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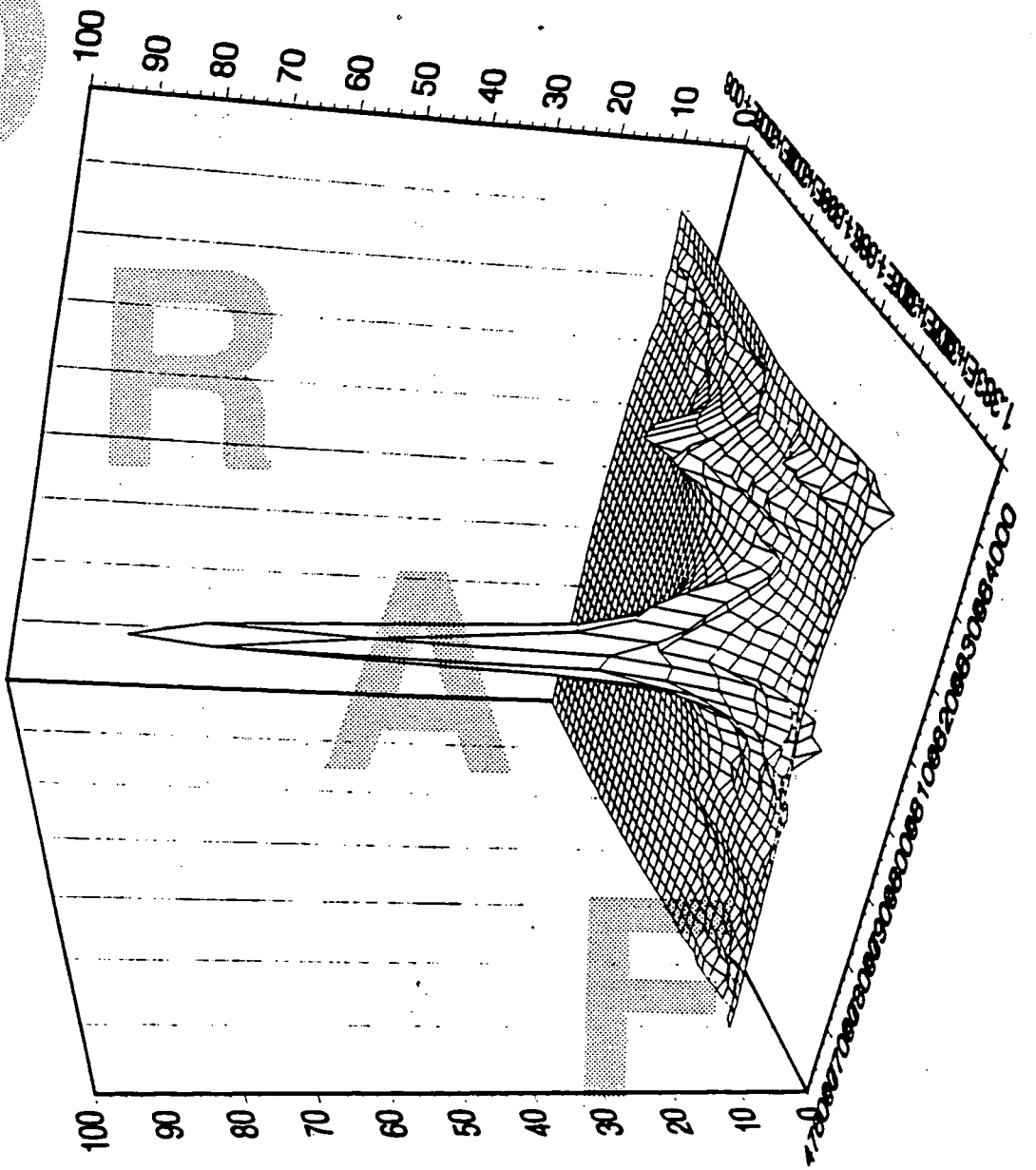

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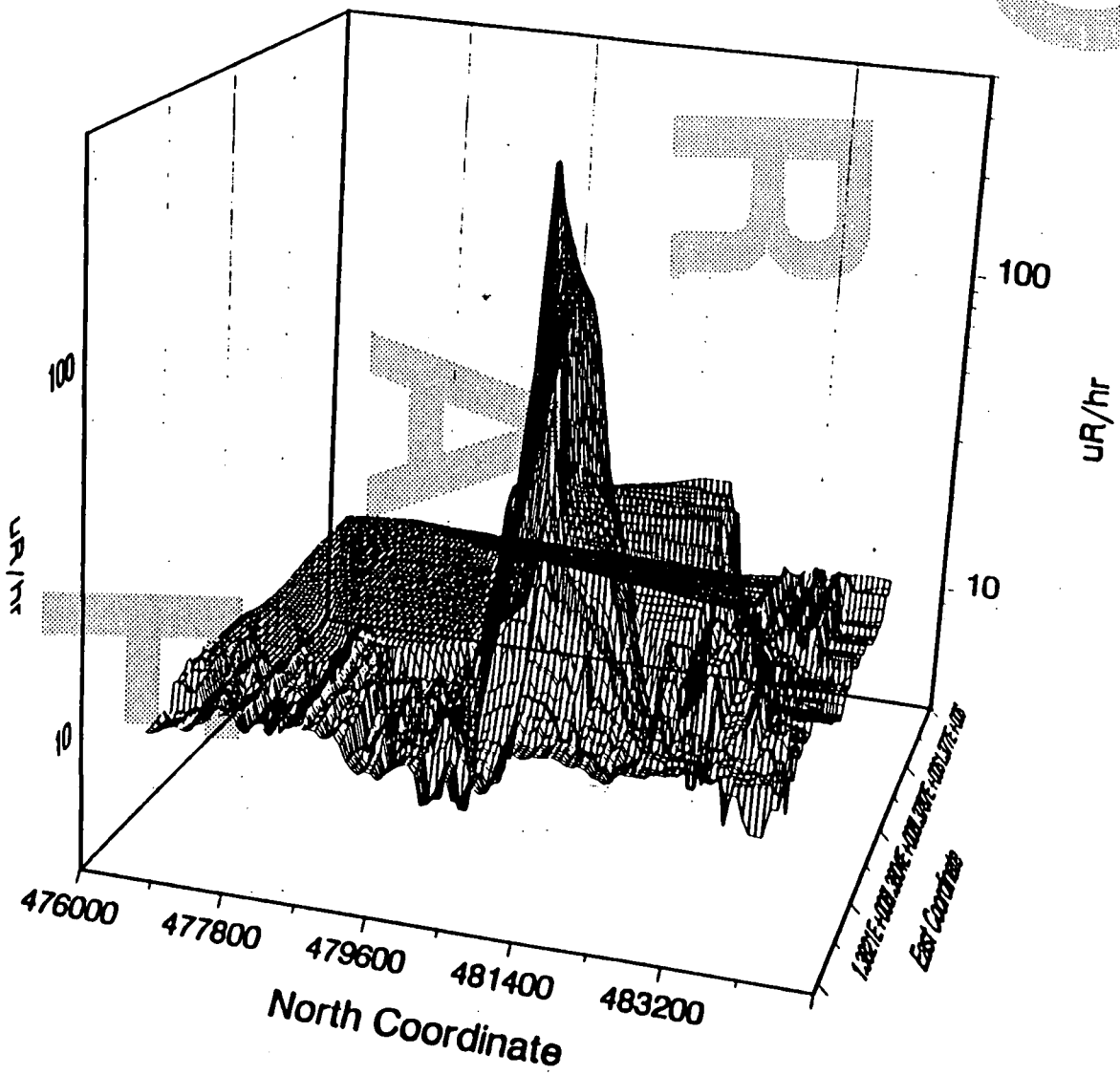

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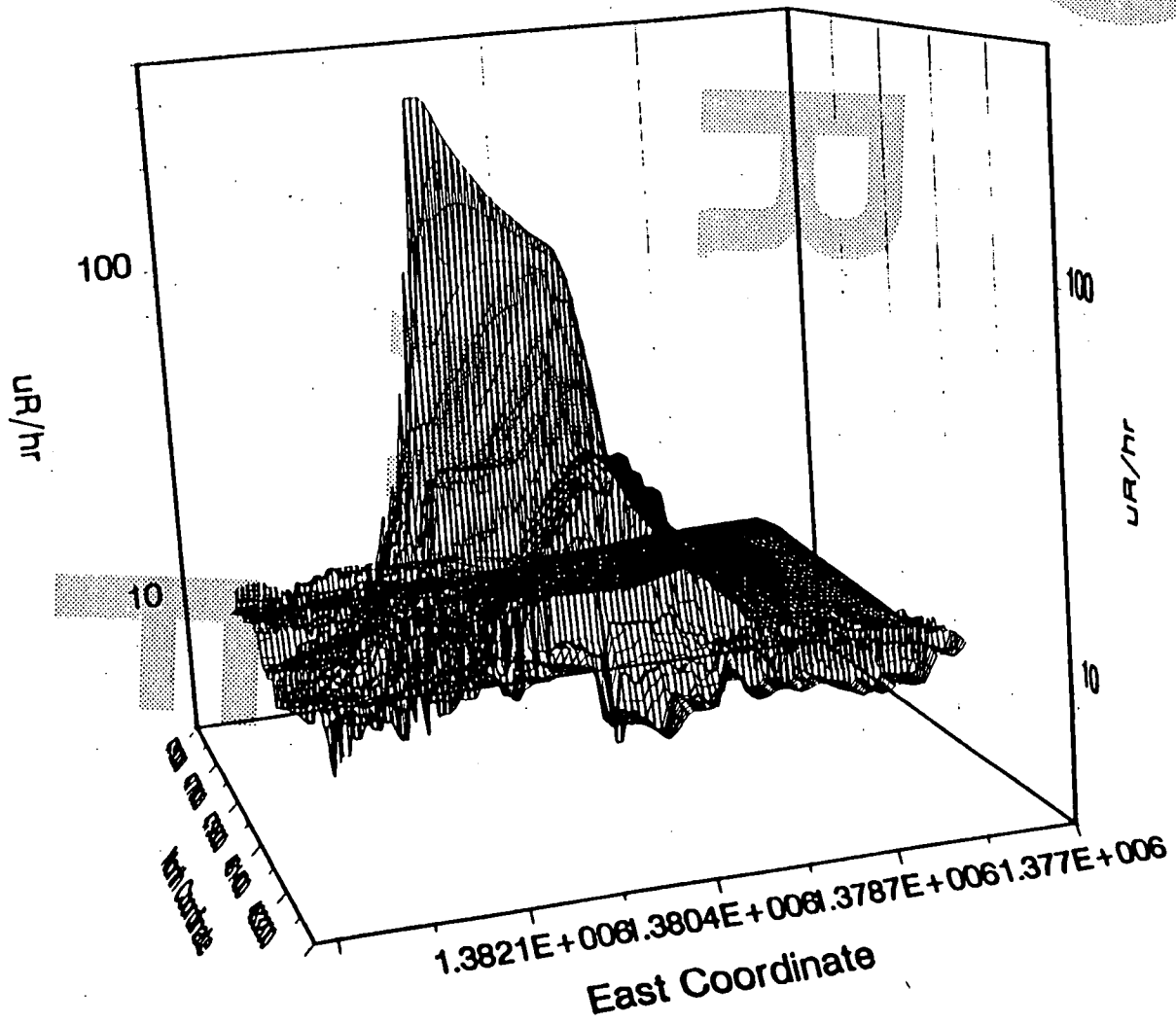

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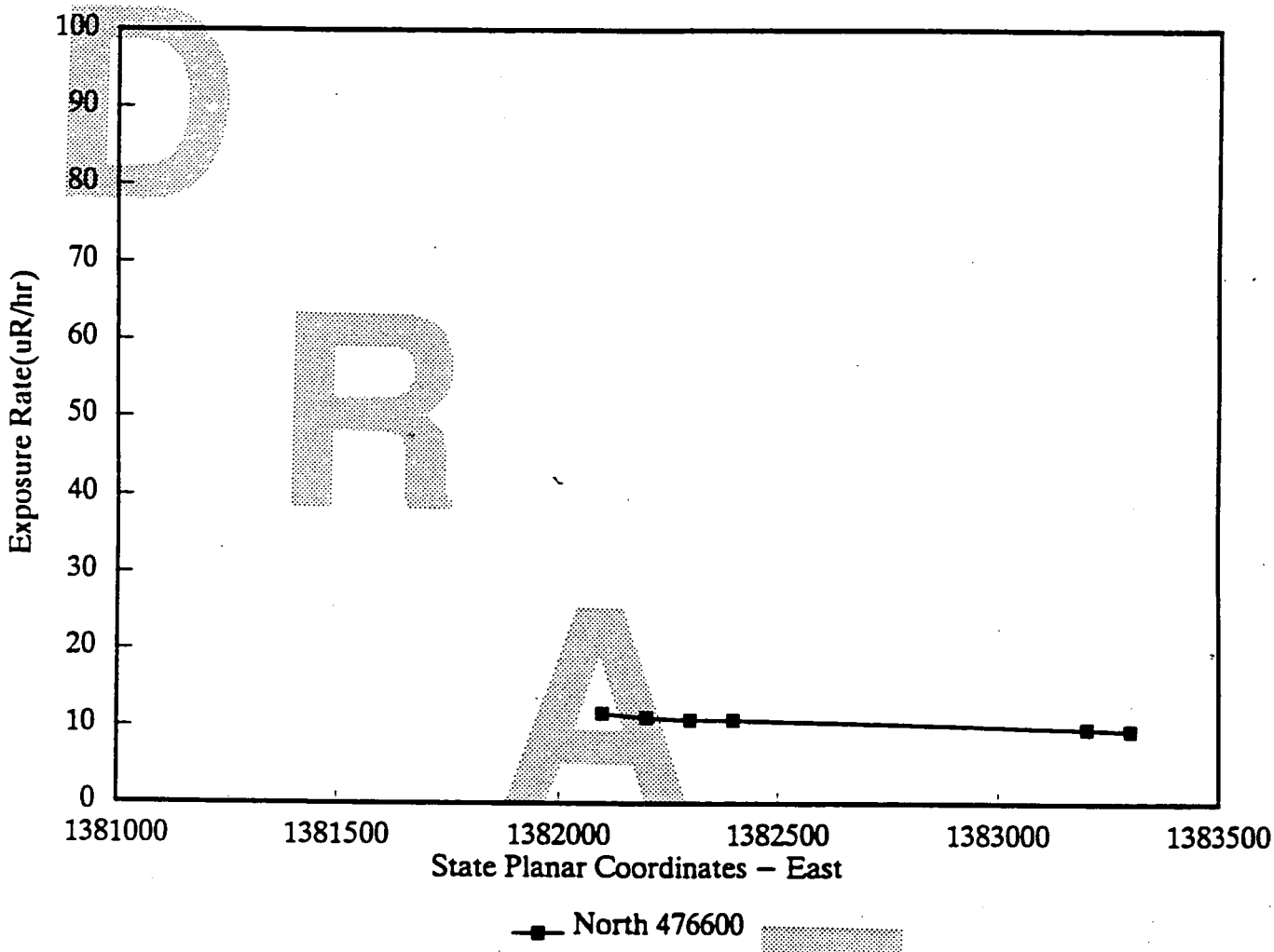
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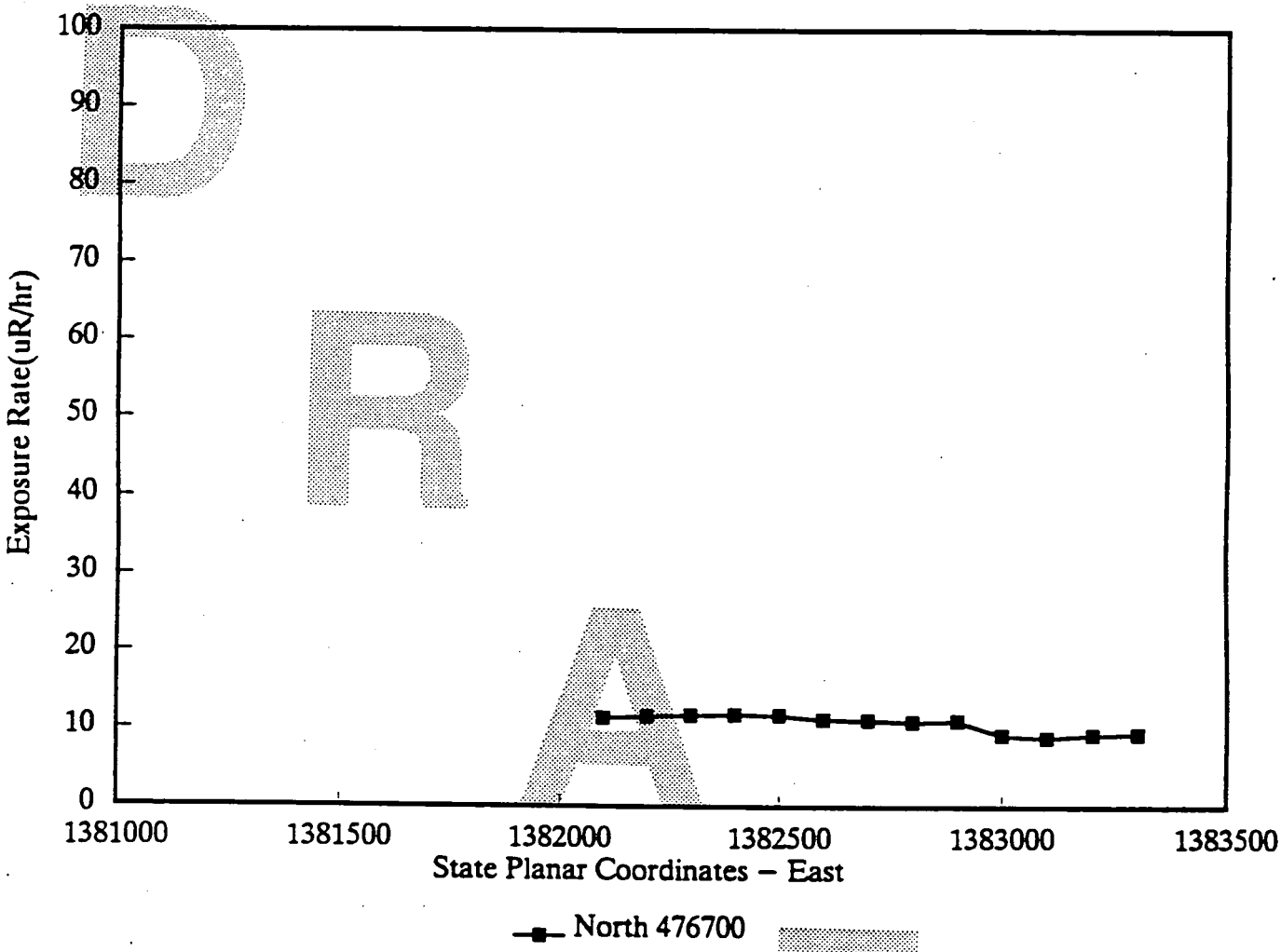
State Planar Coordinates – East
North 476600

DRAFT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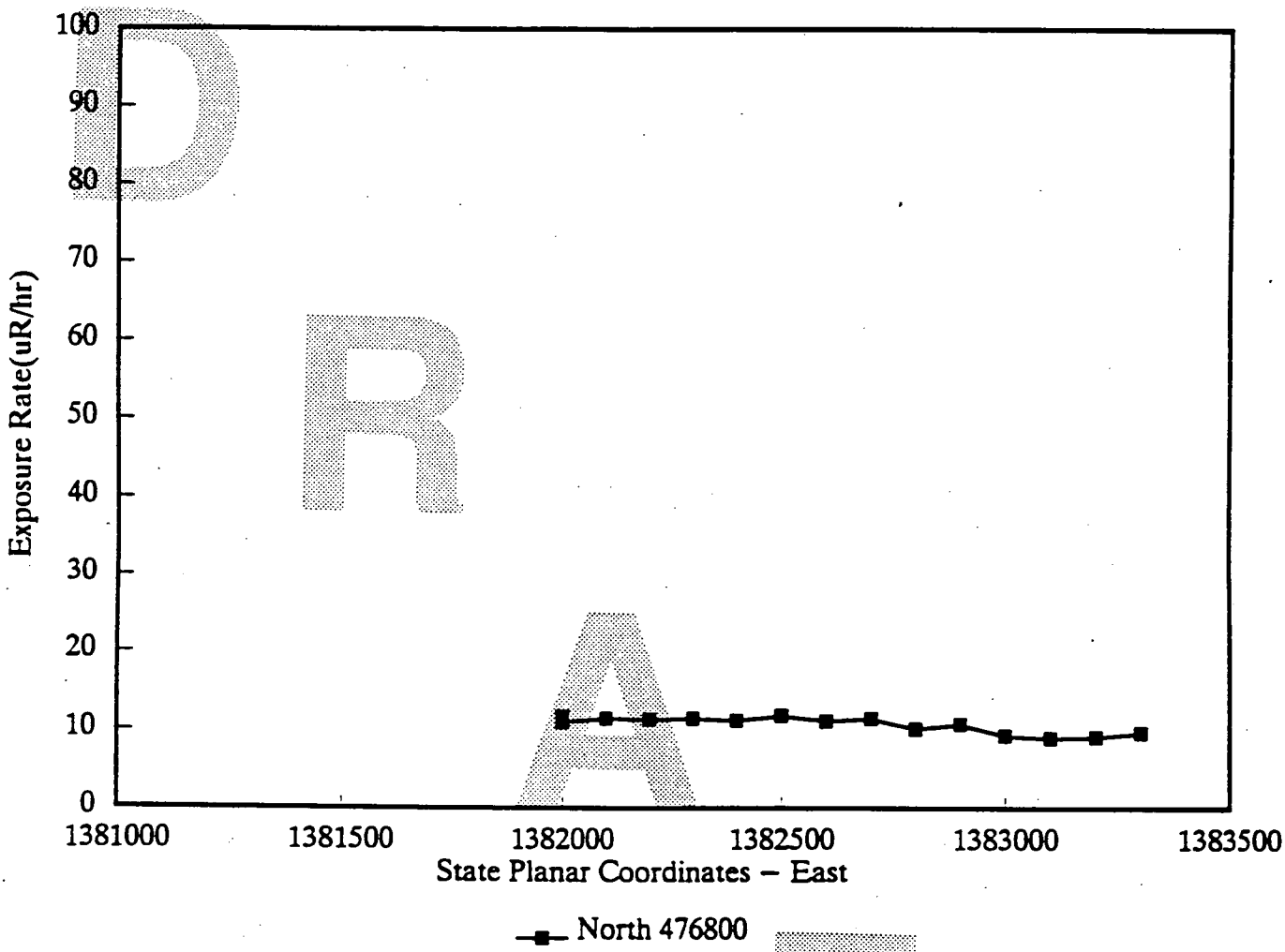
DRAFT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State Planar Coordinates – East
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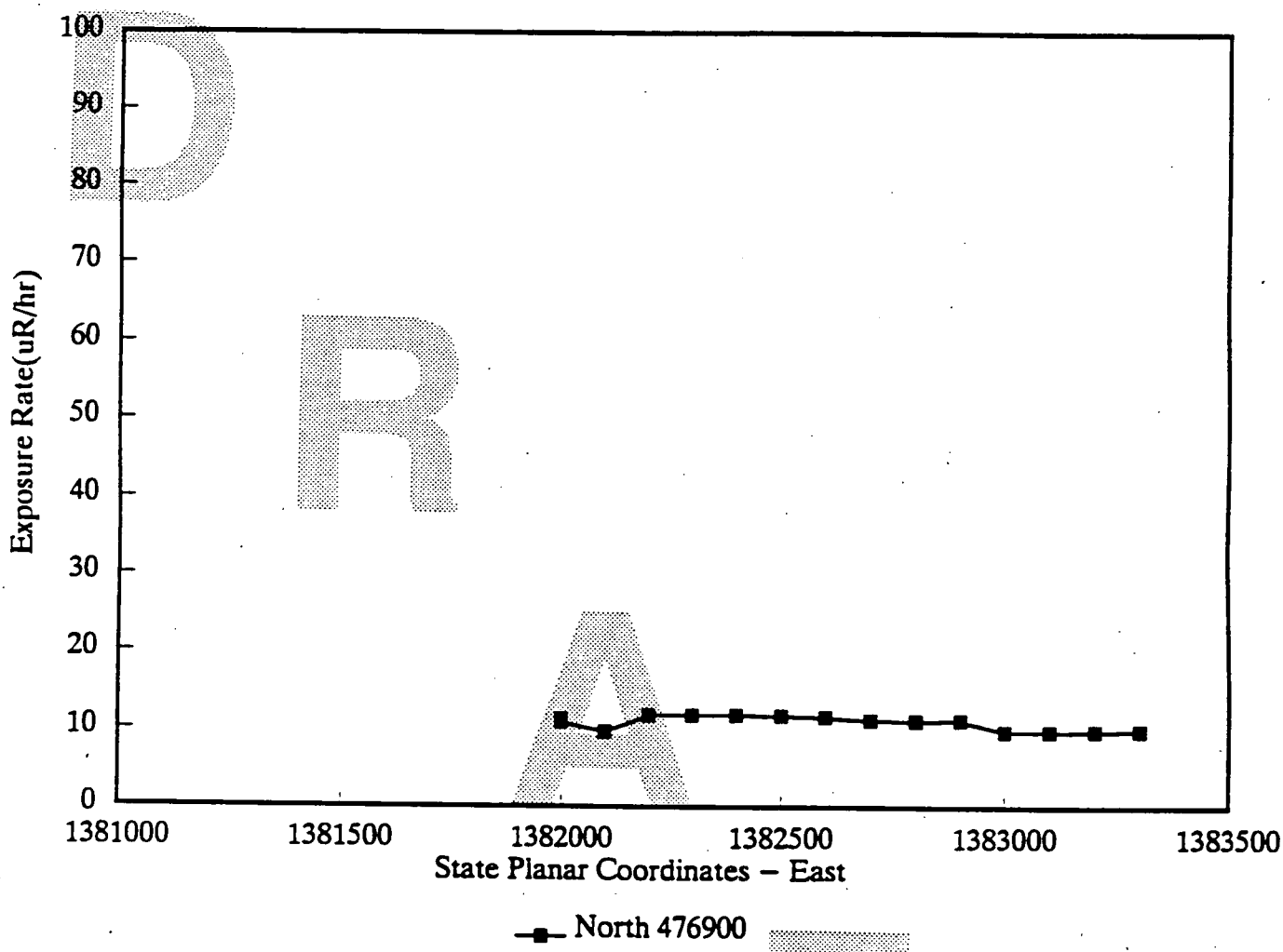
DRAFT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State Planar Coordinates – East
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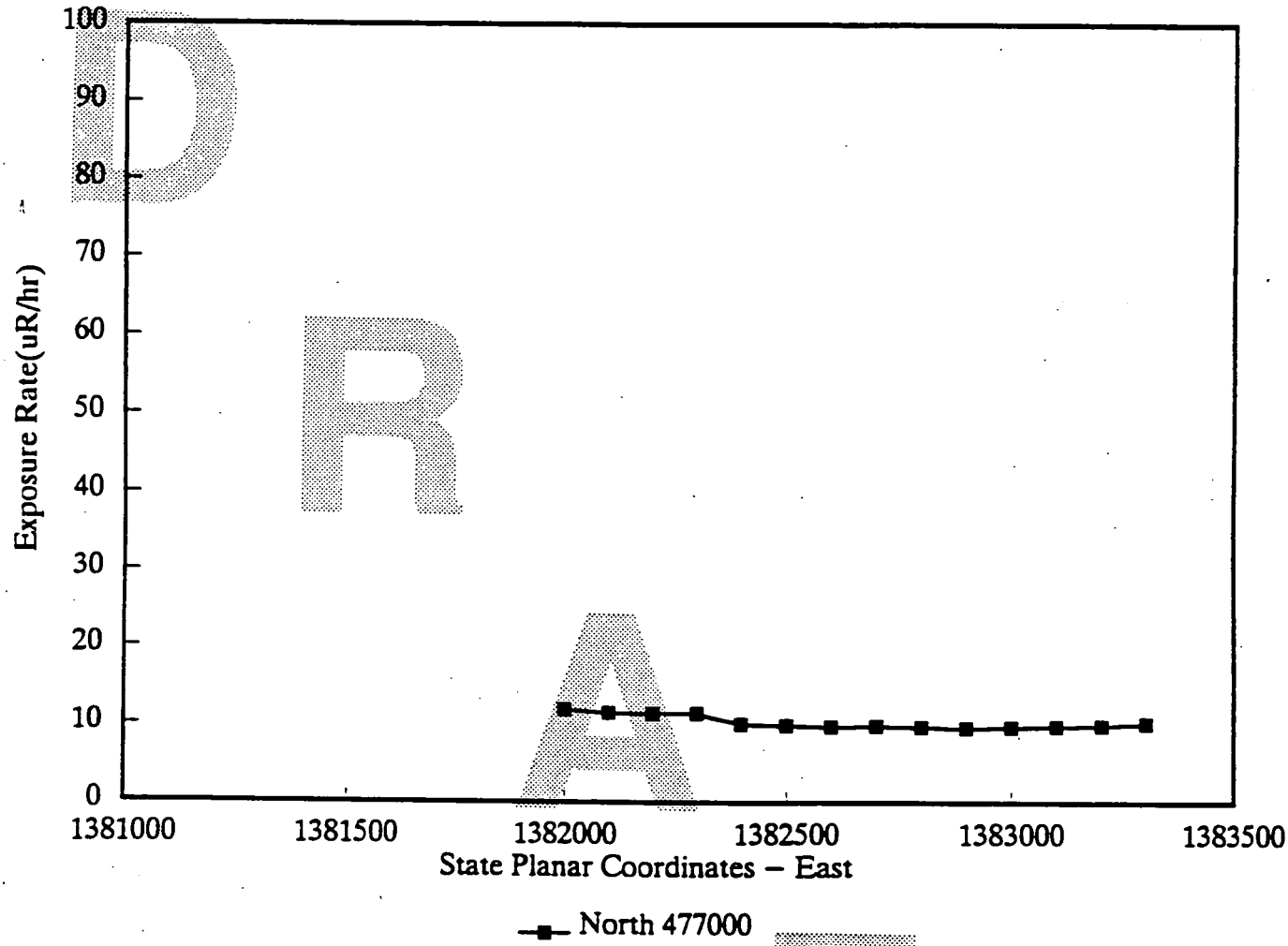
DRAFT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State Planar Coordinates – East
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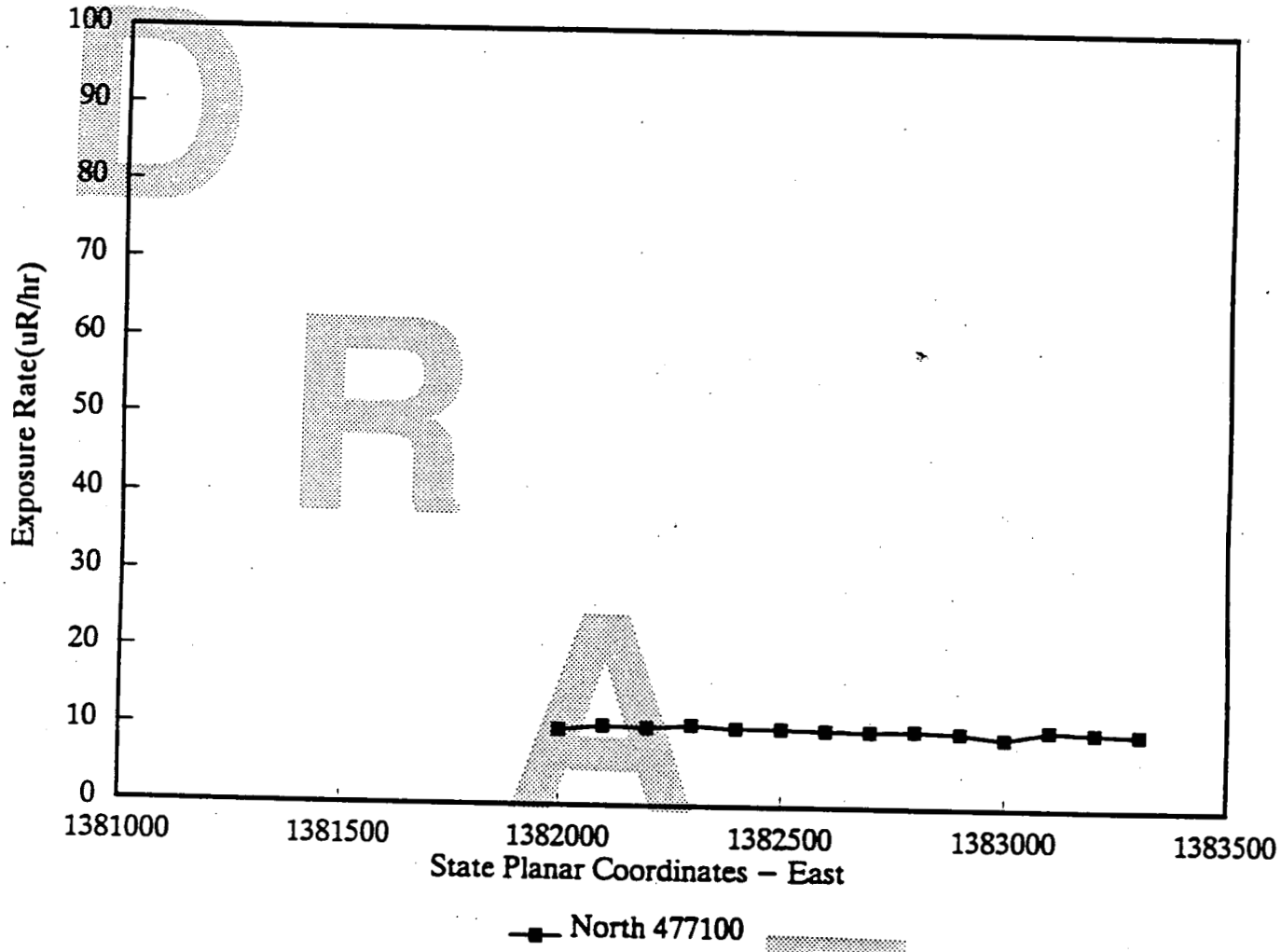
DRAFT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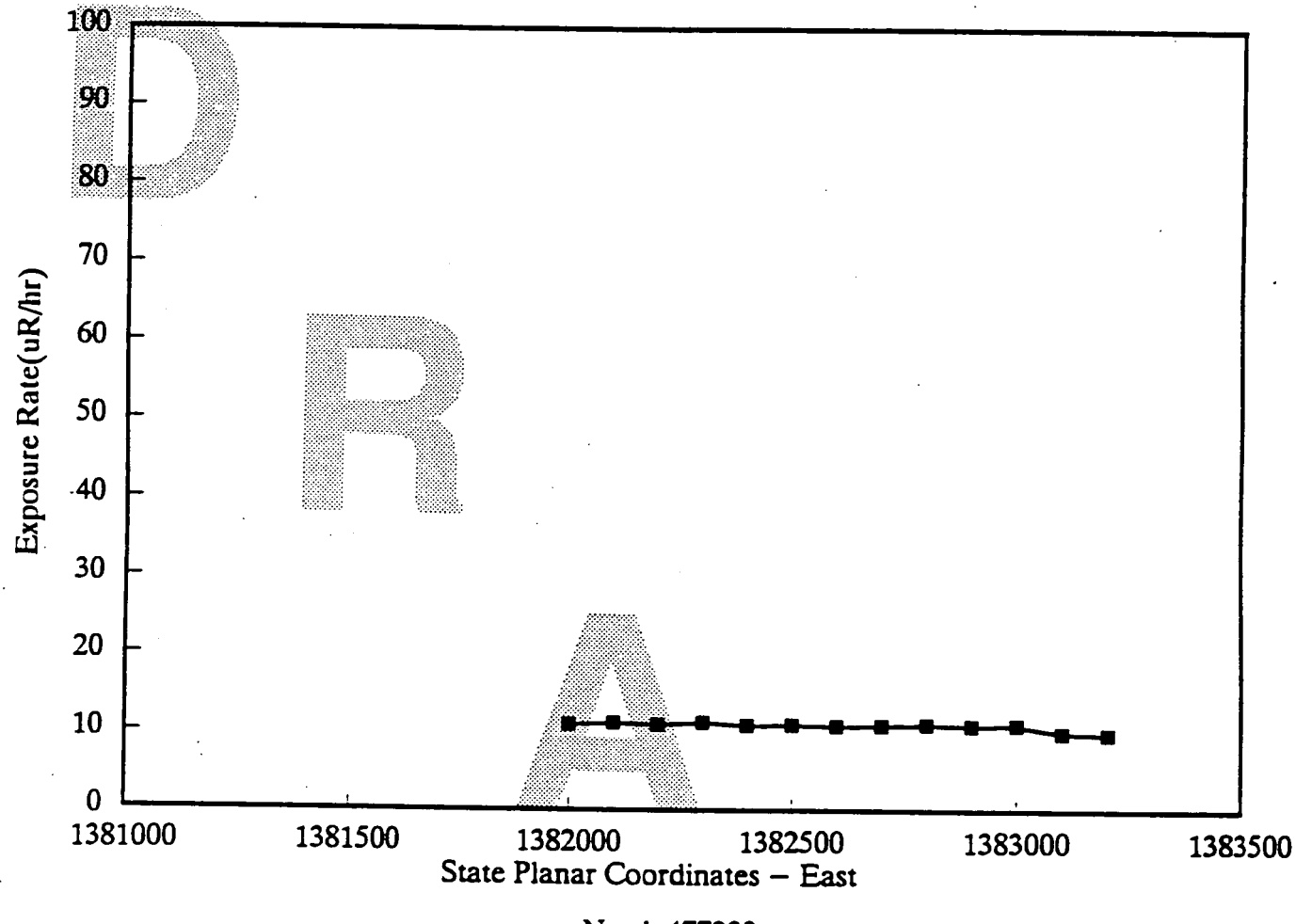
State Planar Coordinates – East
North 477100

DRAFT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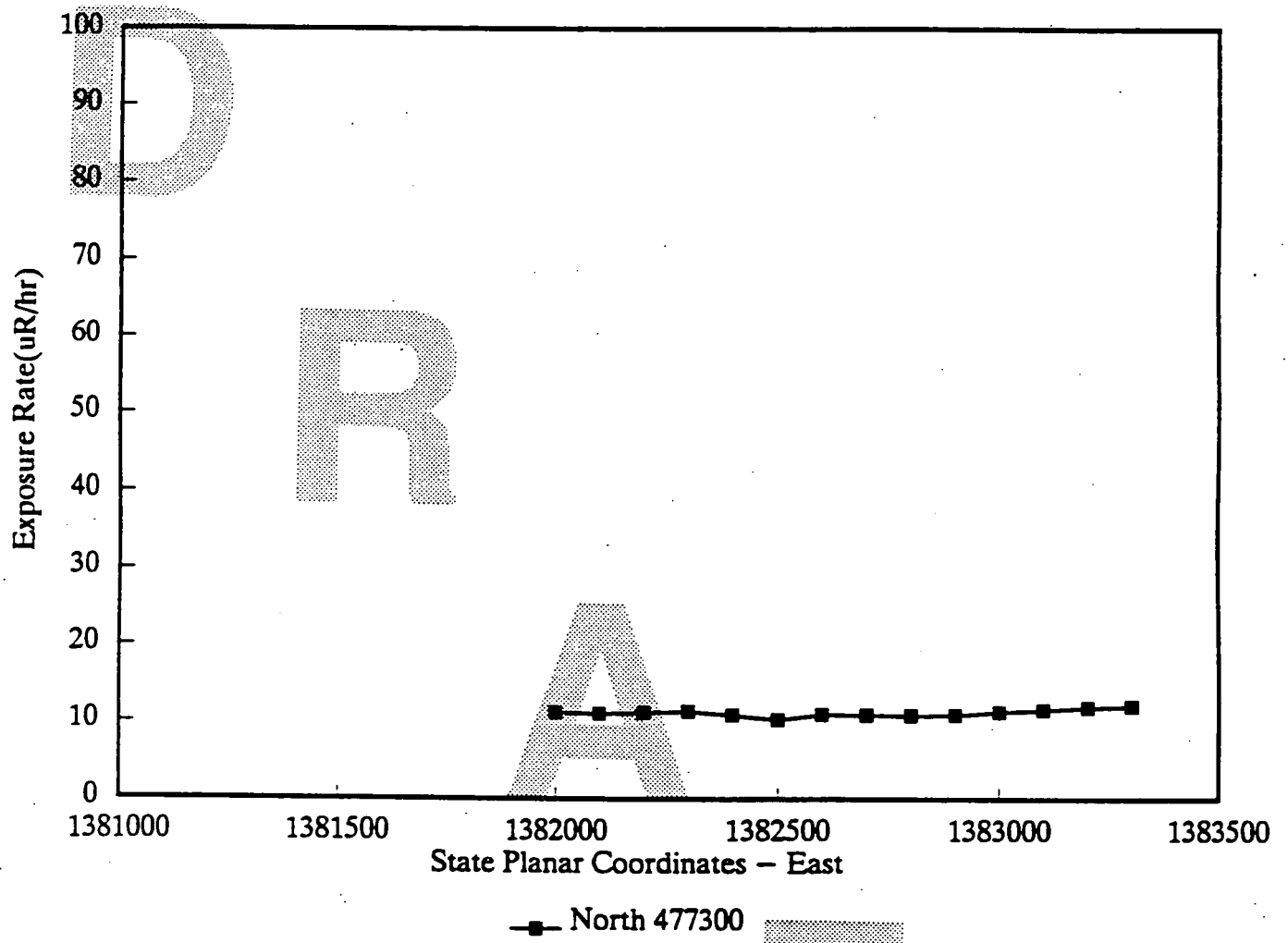
State Planar Coordinates – East
North 477200

DRAFT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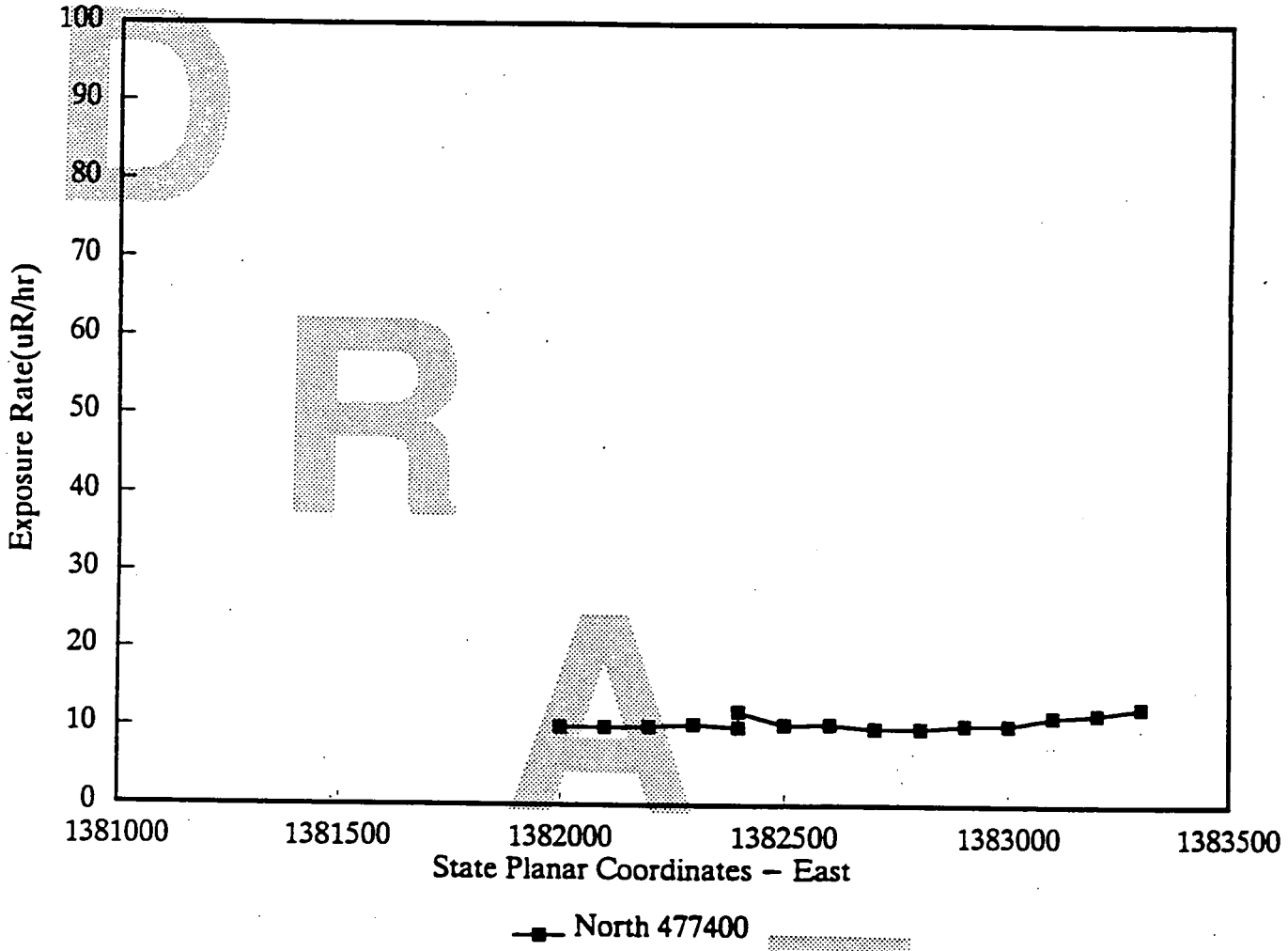
State Planar Coordinates – East
North 477300

DRAFT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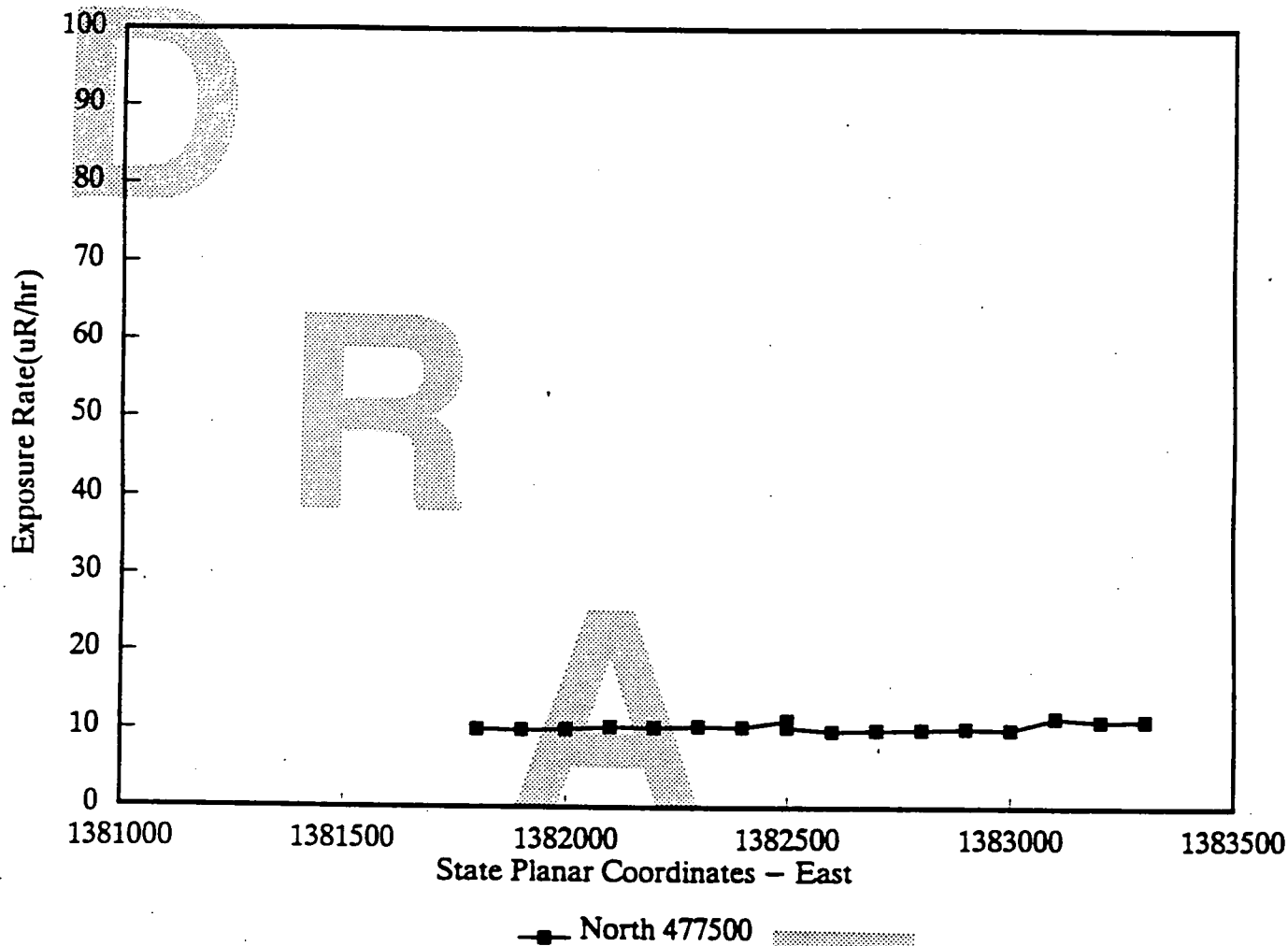
State Planar Coordinates – East
North 477400

DRAFT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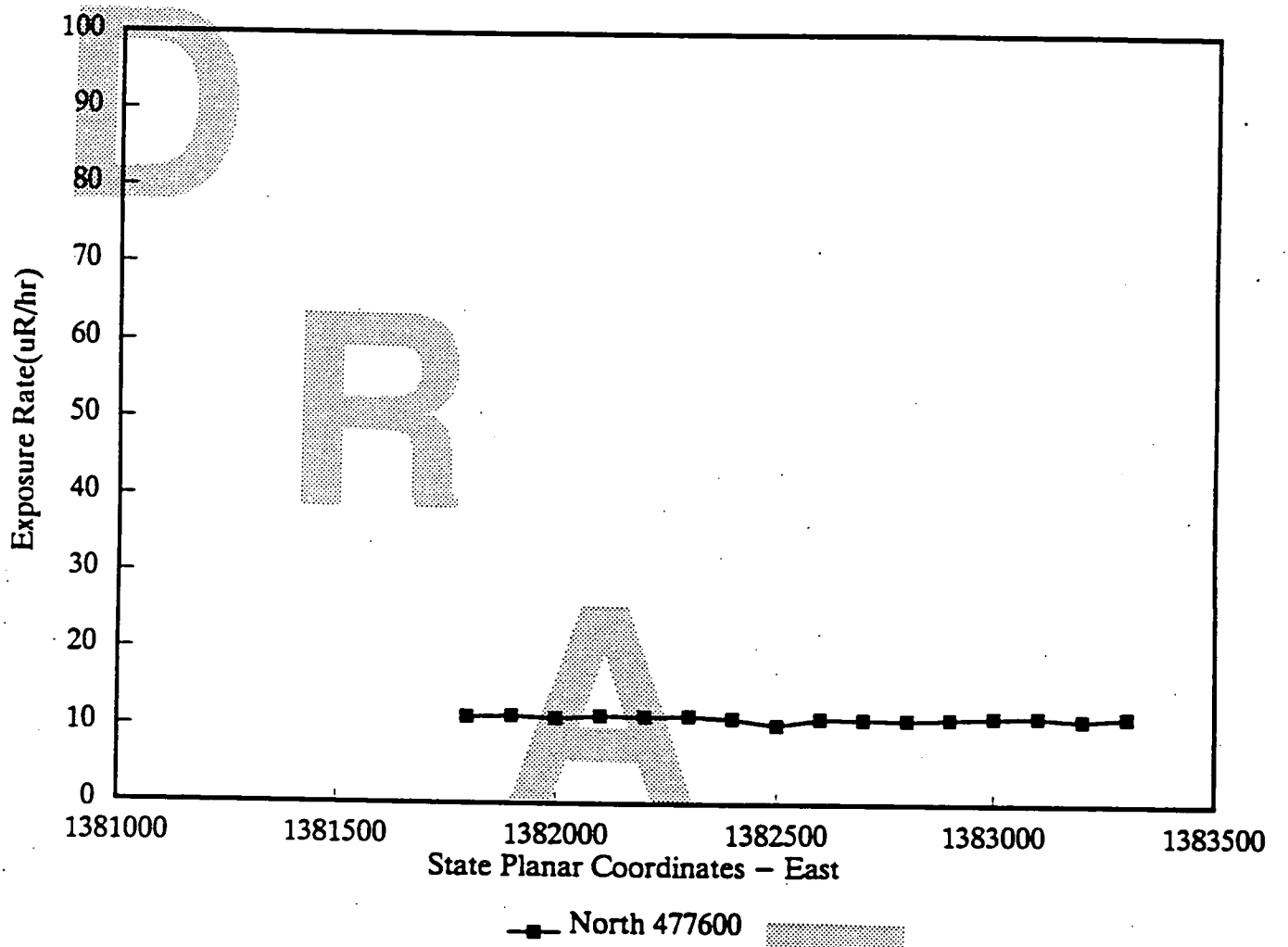
State Planar Coordinates – East
North 477500

DRAFT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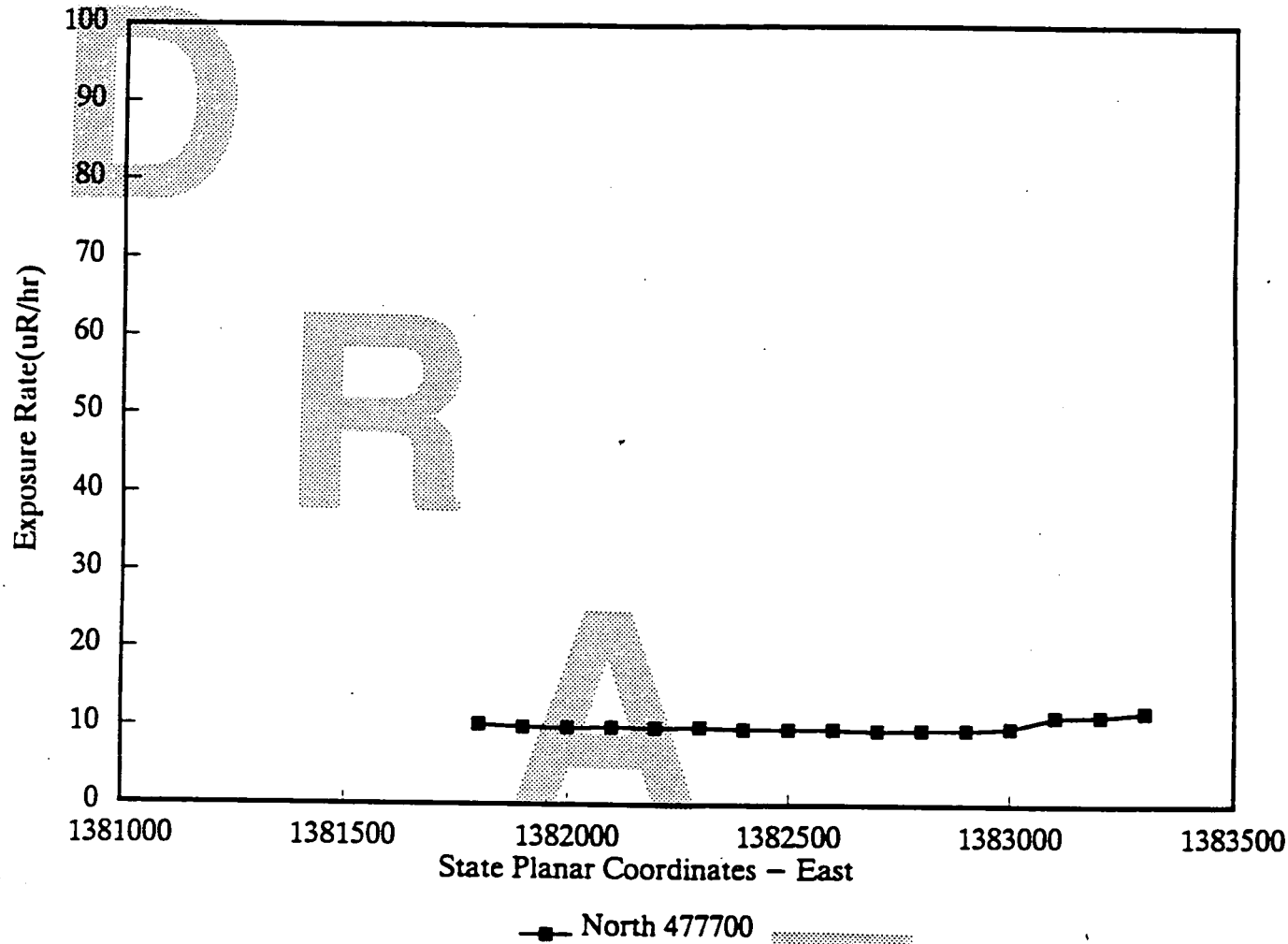
State Planar Coordinates – East
North 477600

DRAFT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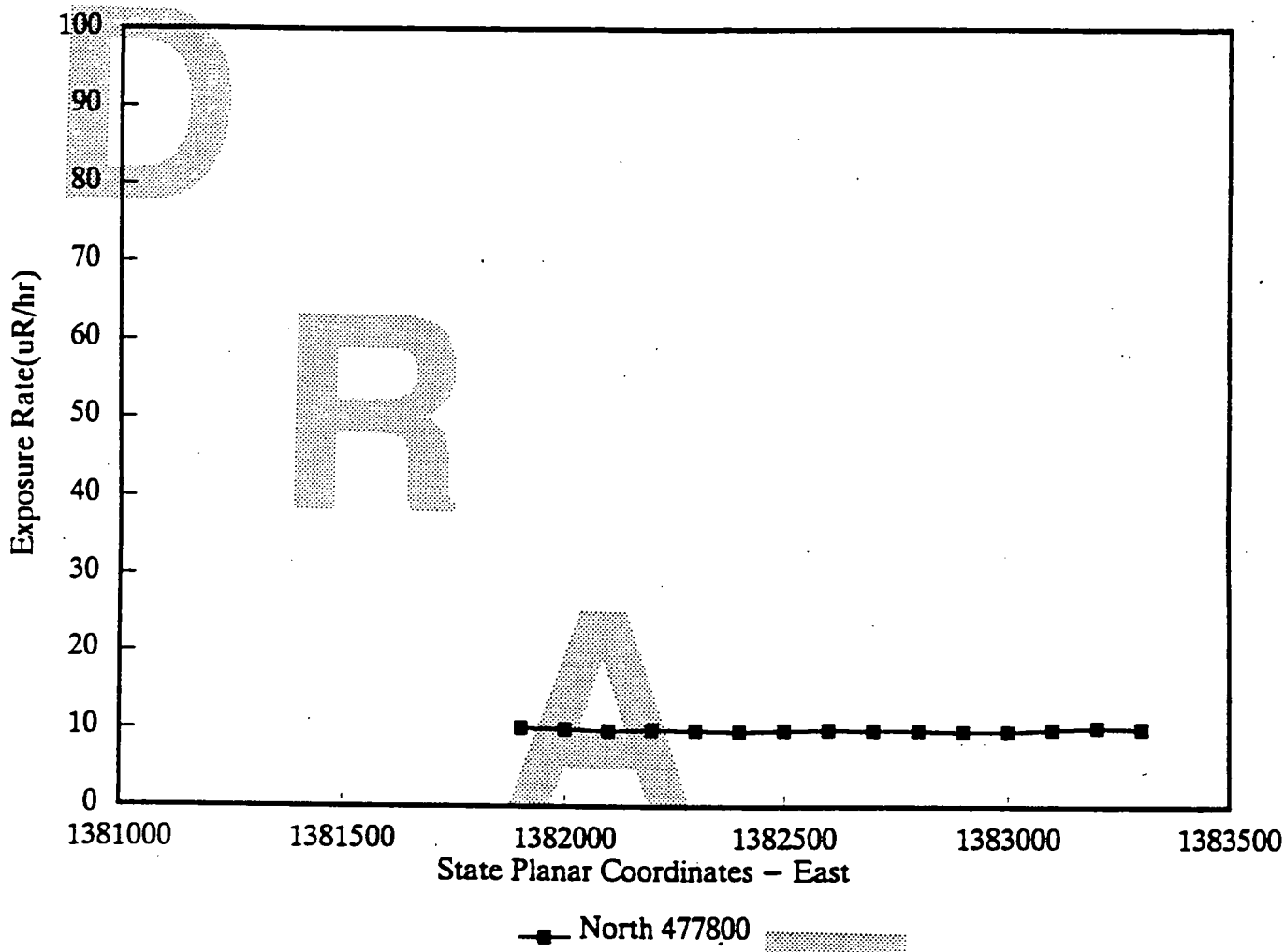
State Planar Coordinates – East
North 477700

DRAFT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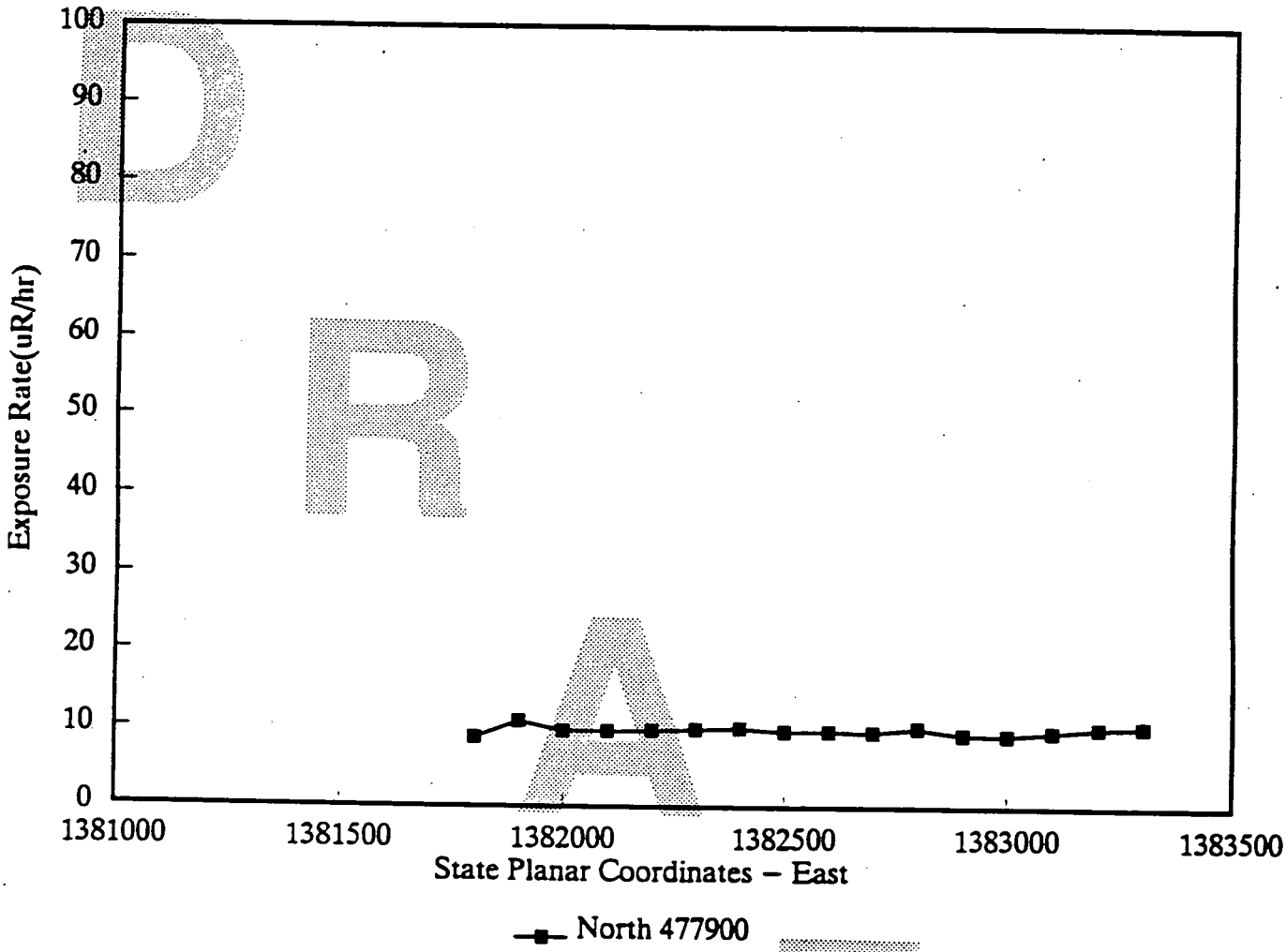
State Planar Coordinates – East
North 477800

DRAFT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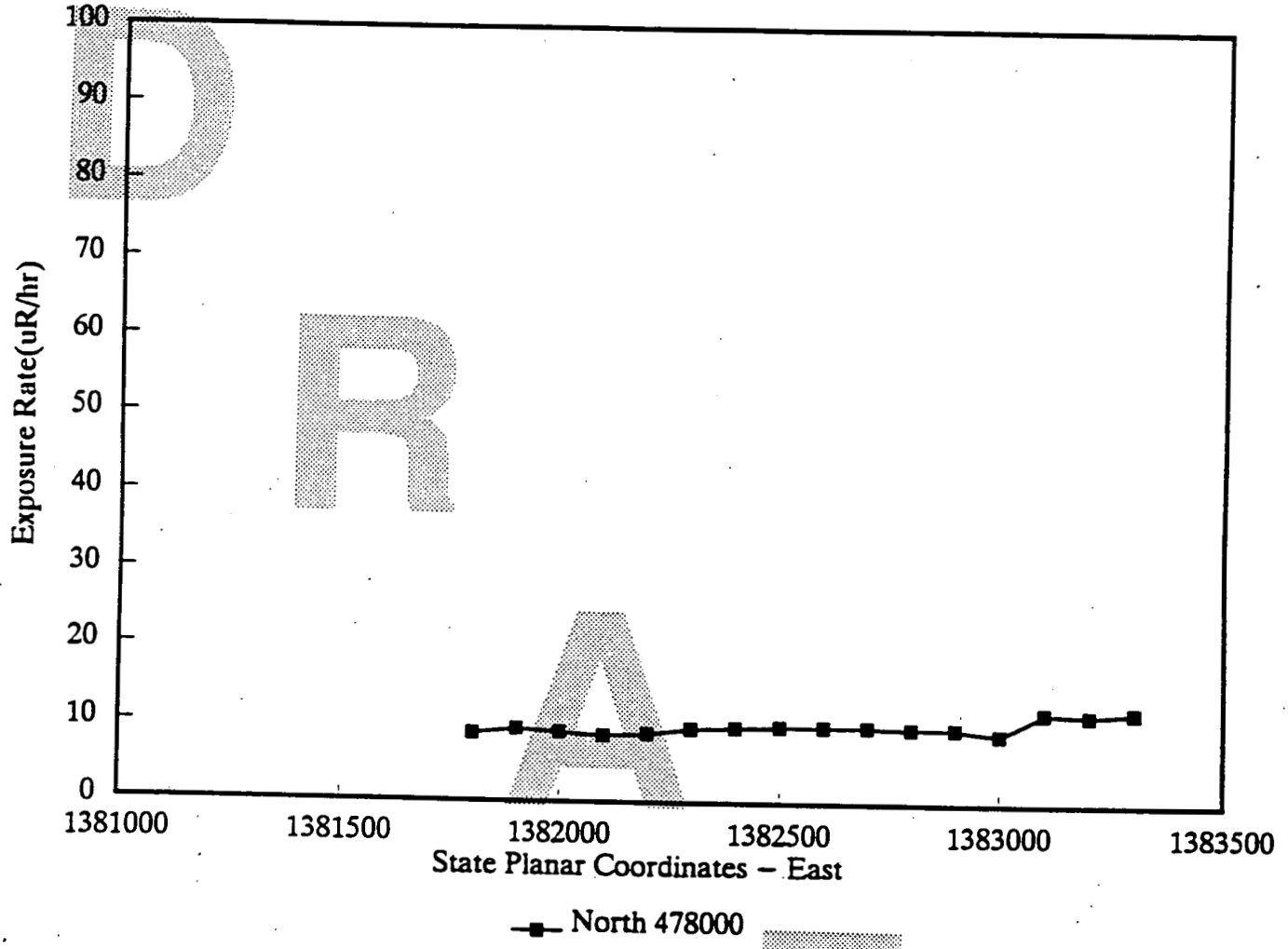
State Planar Coordinates – East
North 477900

DRAFT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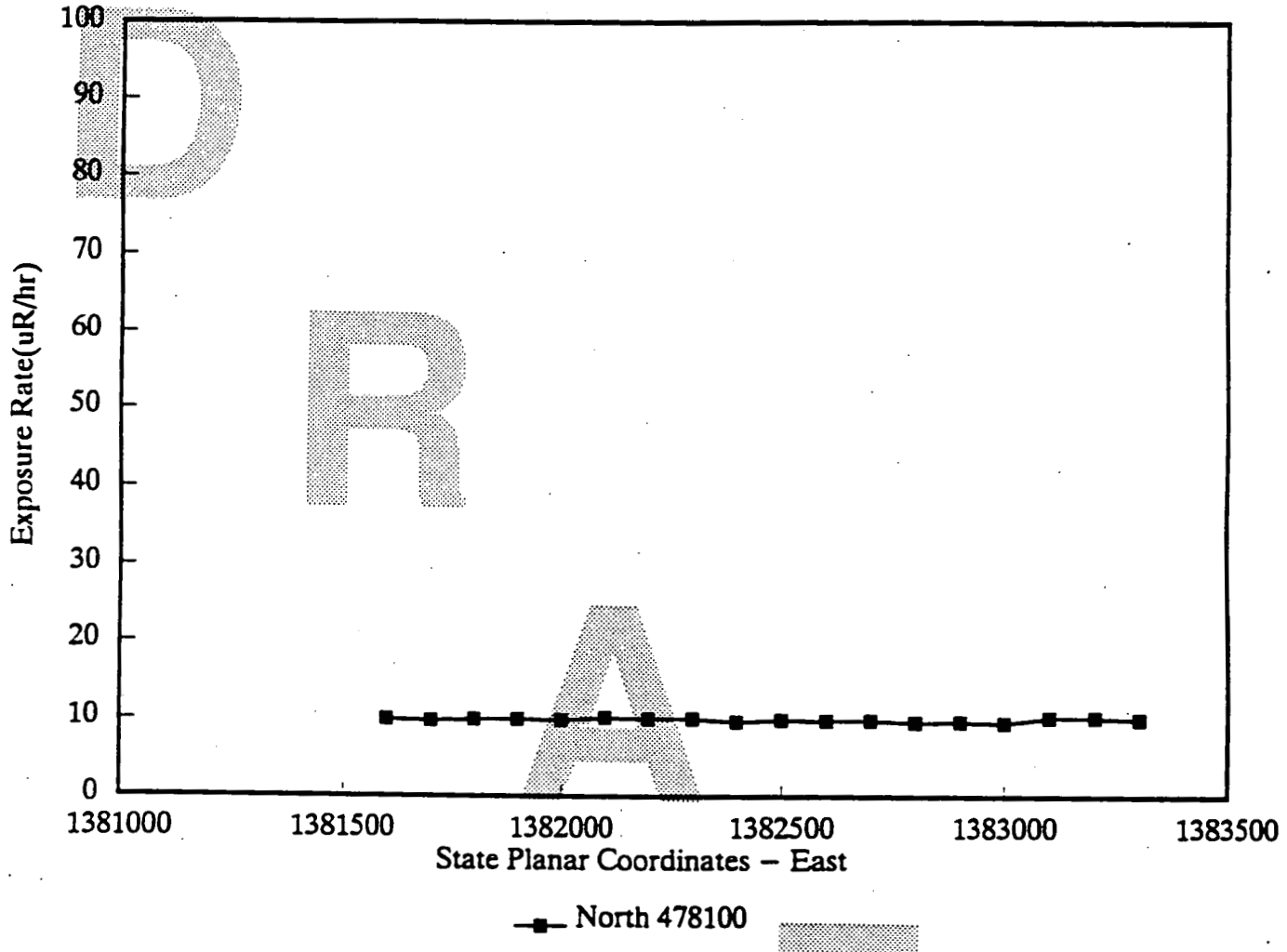
State Planar Coordinates – East
North 478000

DRAFT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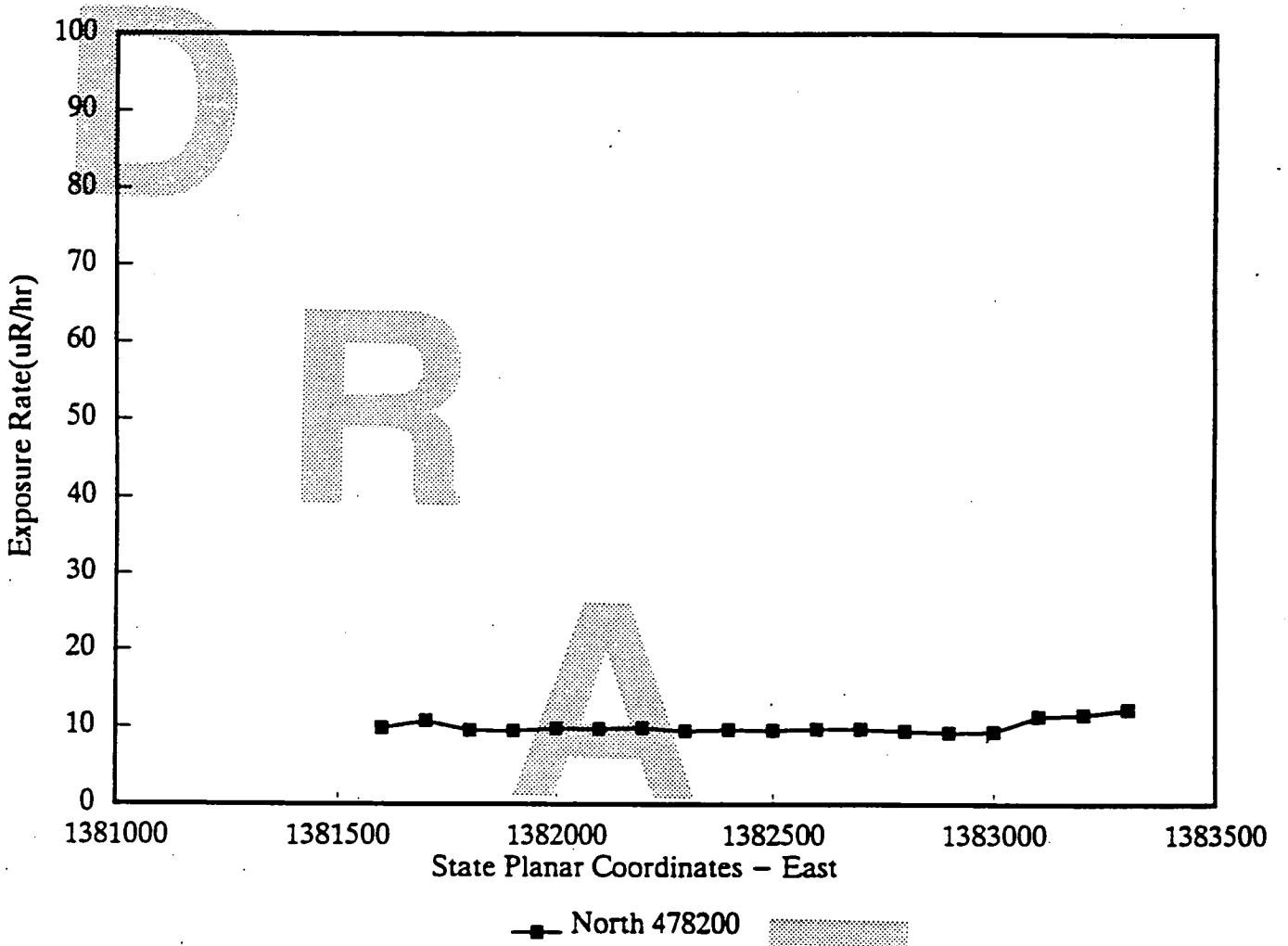
1382000
1382500
1383000
1383500
State Planar Coordinates – East
North 478100

DRAFT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State Planar Coordinates – East
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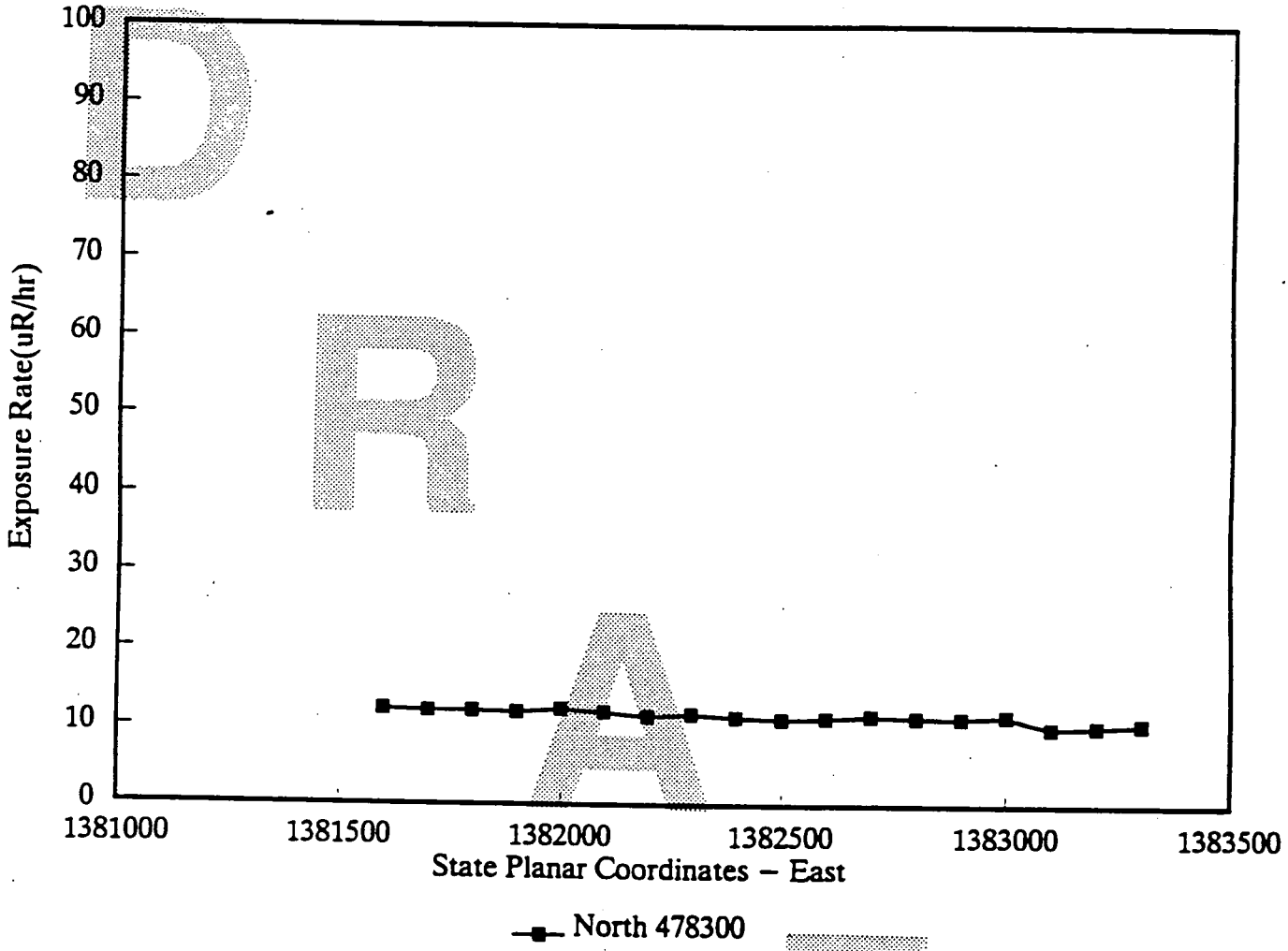
DRAFT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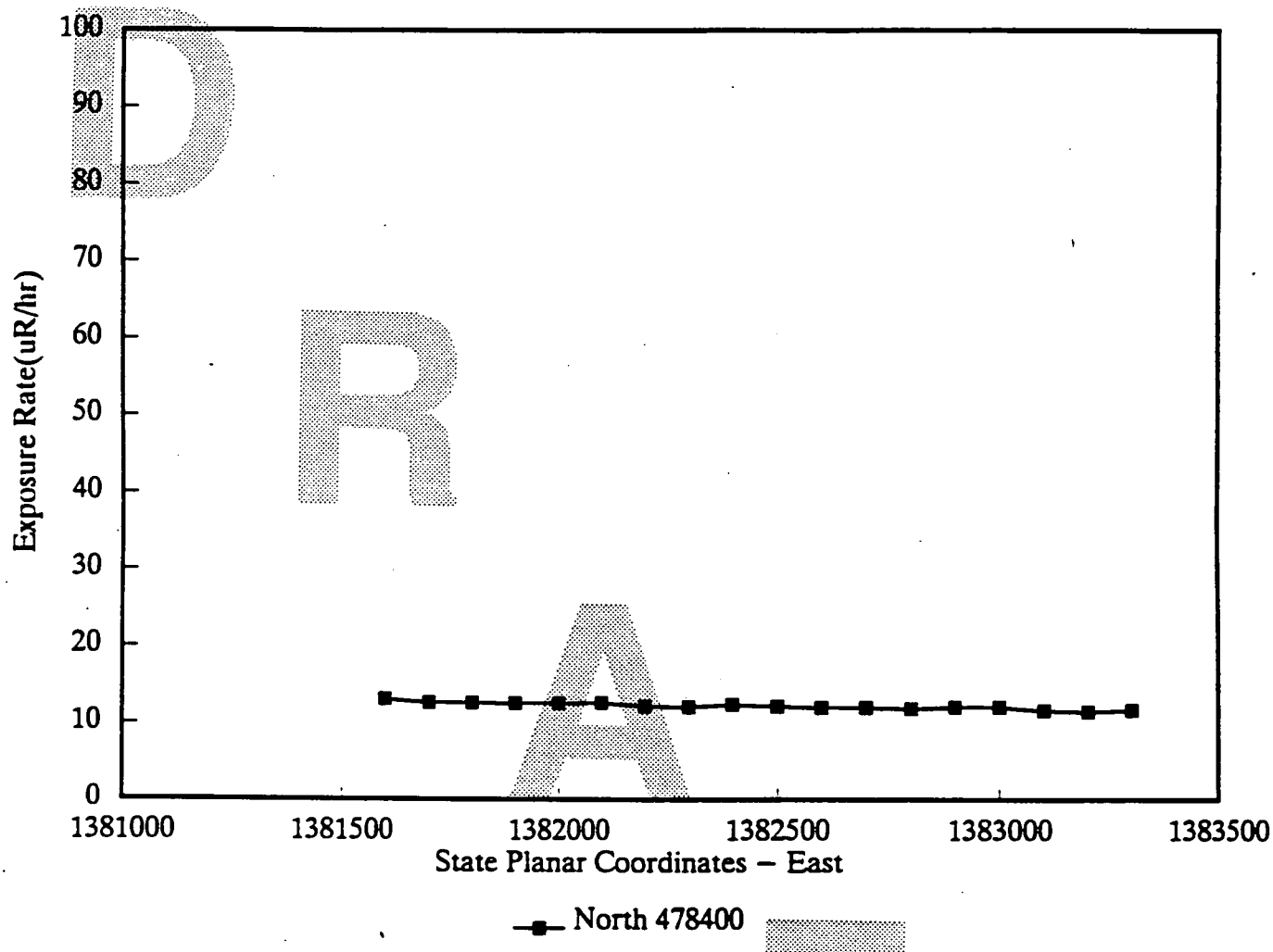
DRAFT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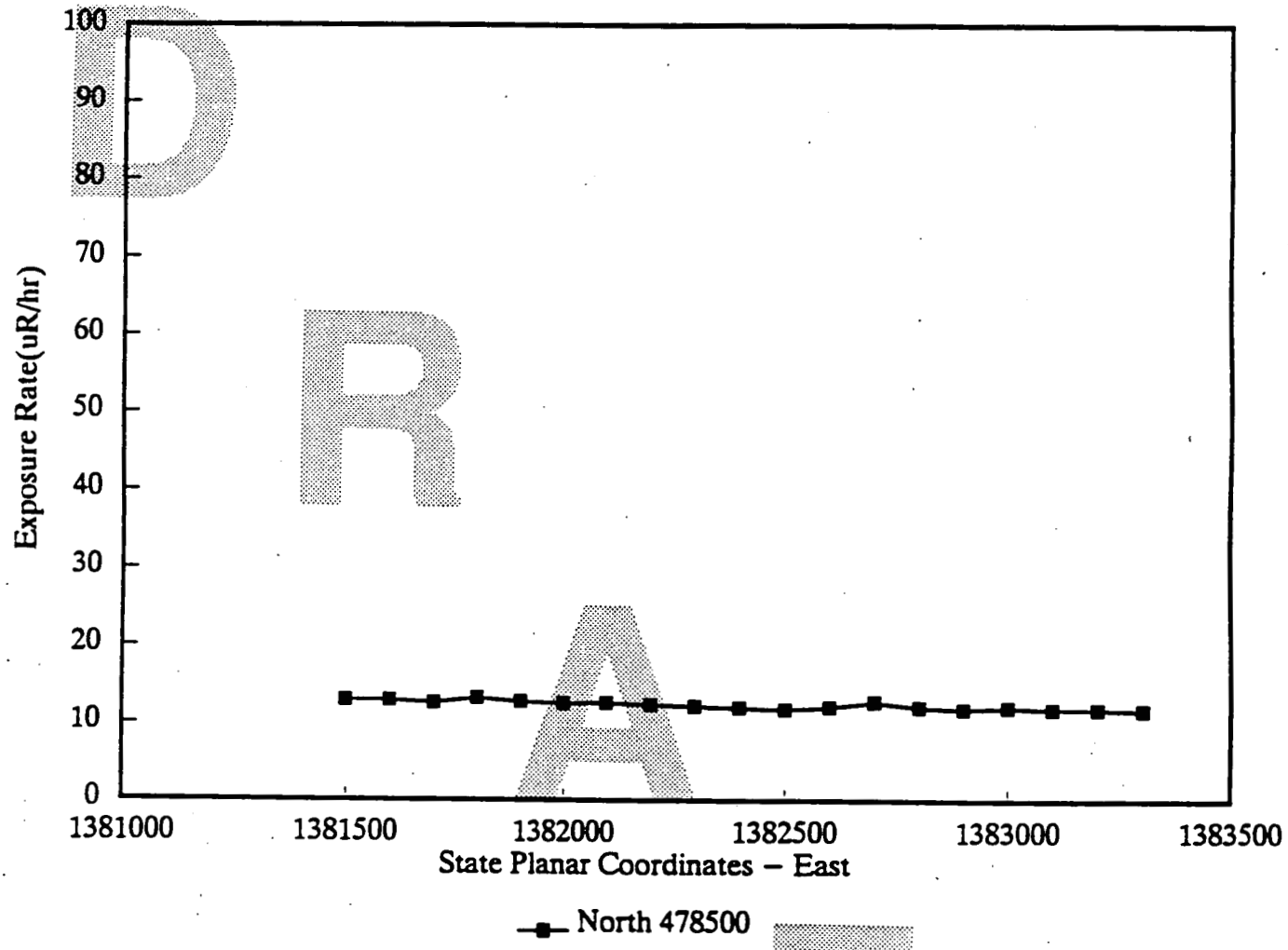
DRAFT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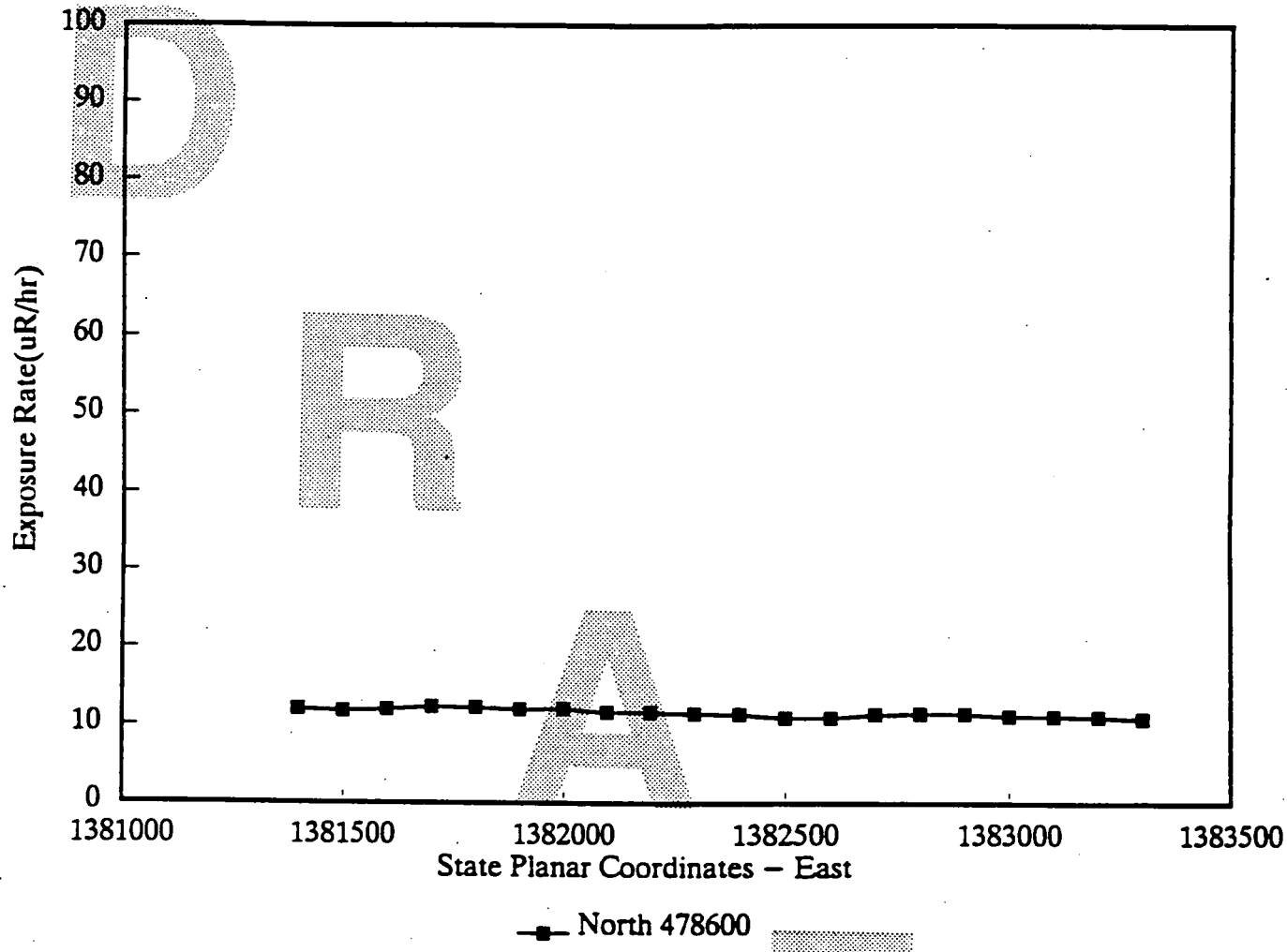
DRAFT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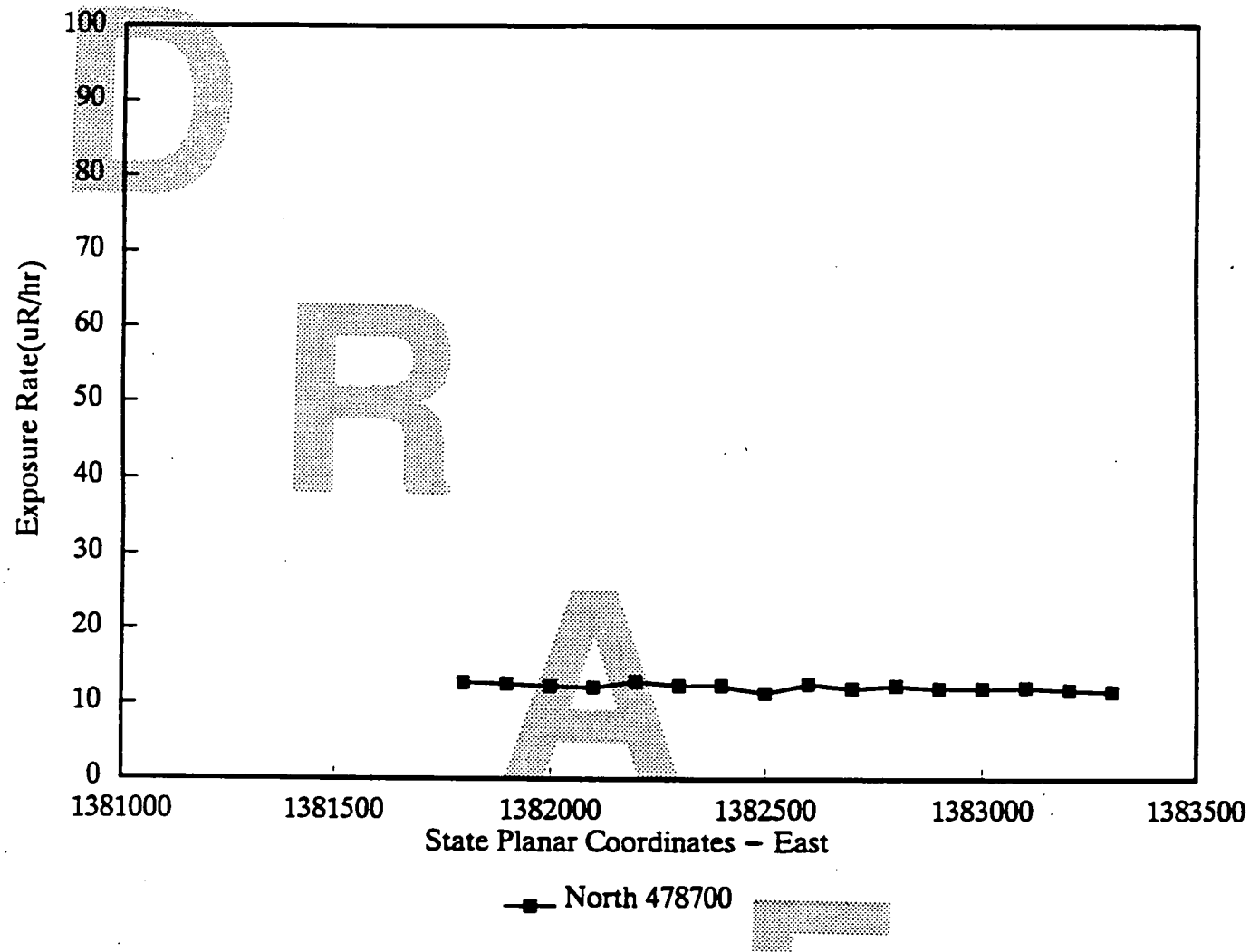
DRAFT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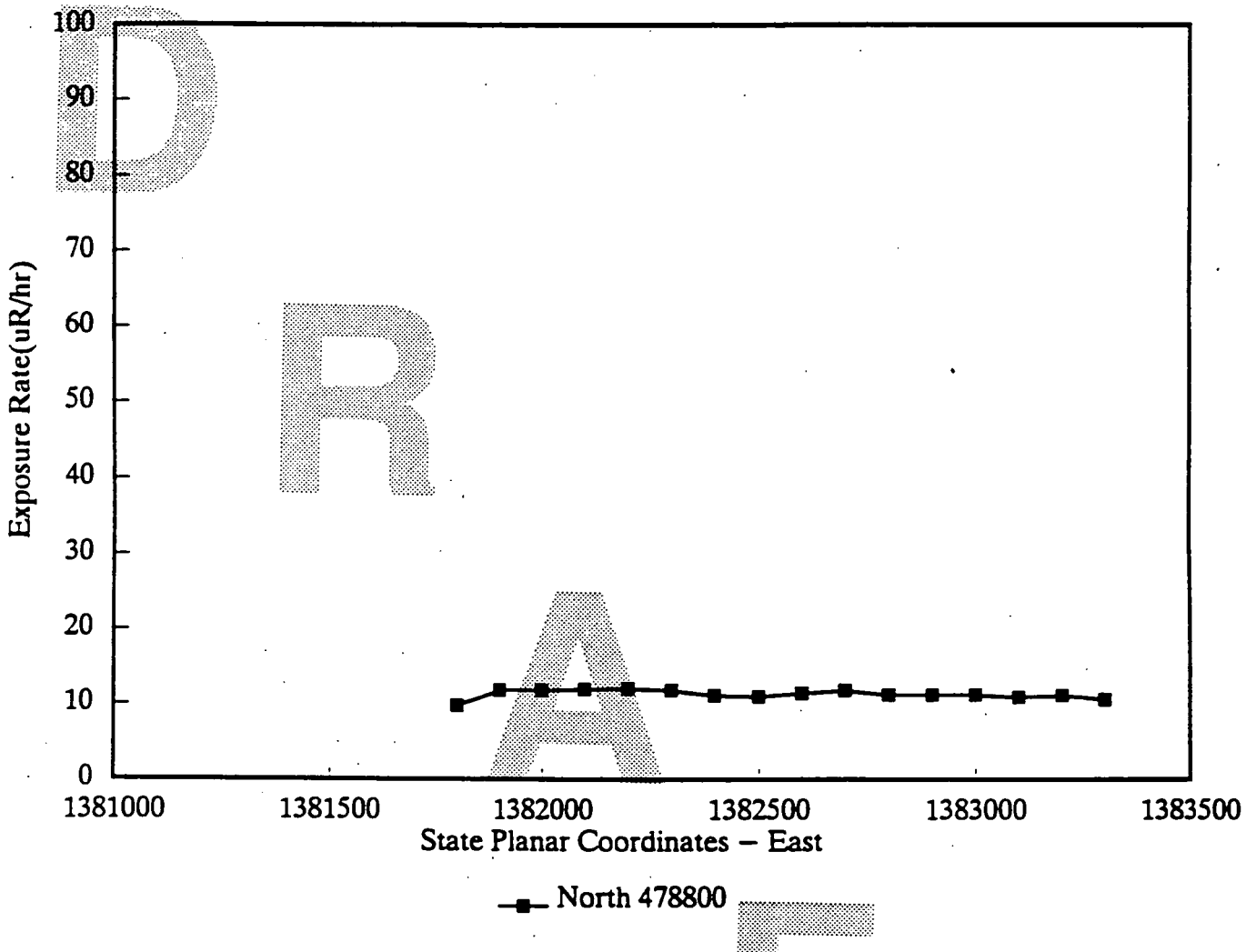
DRAFT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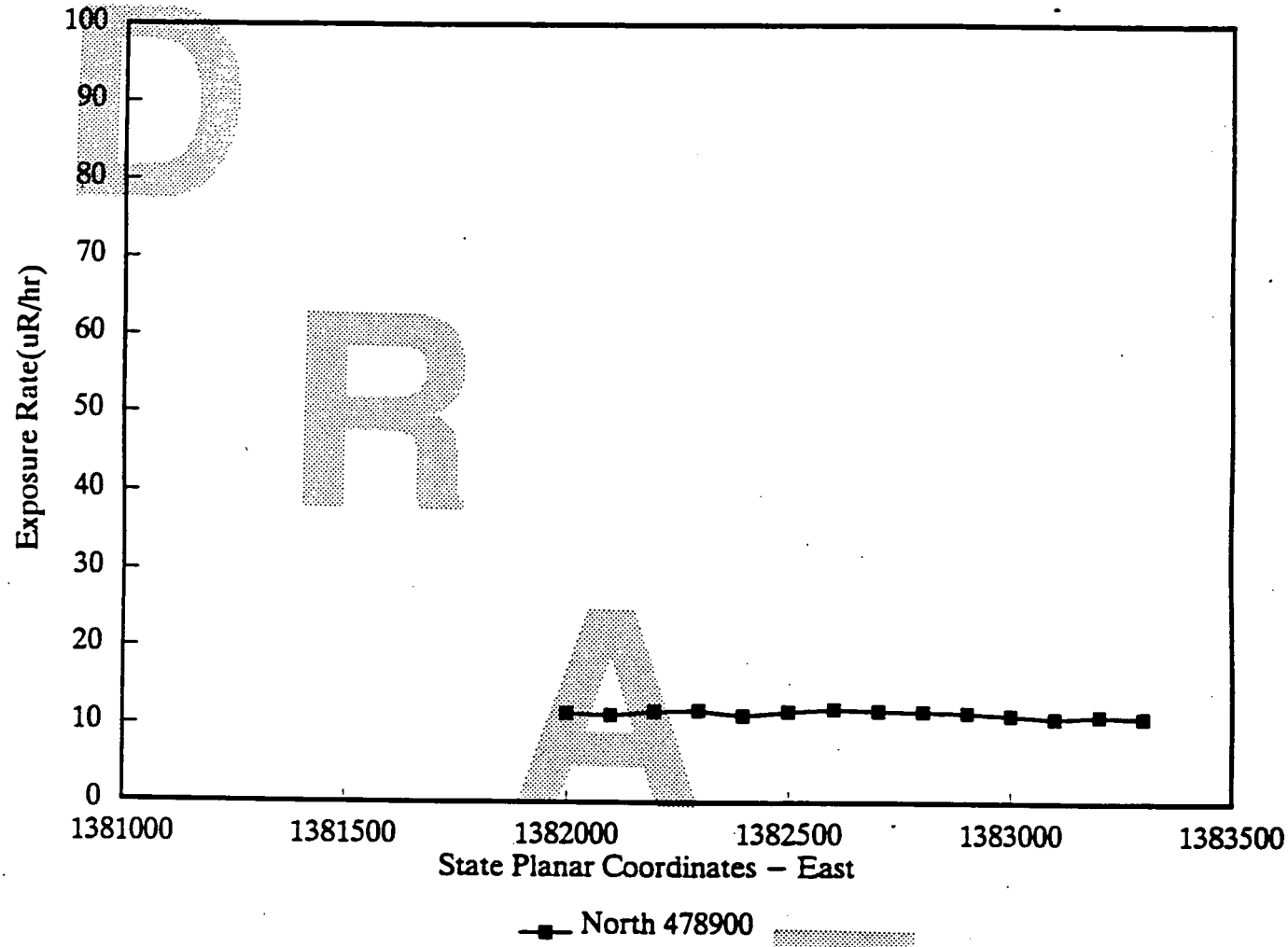
DRAFT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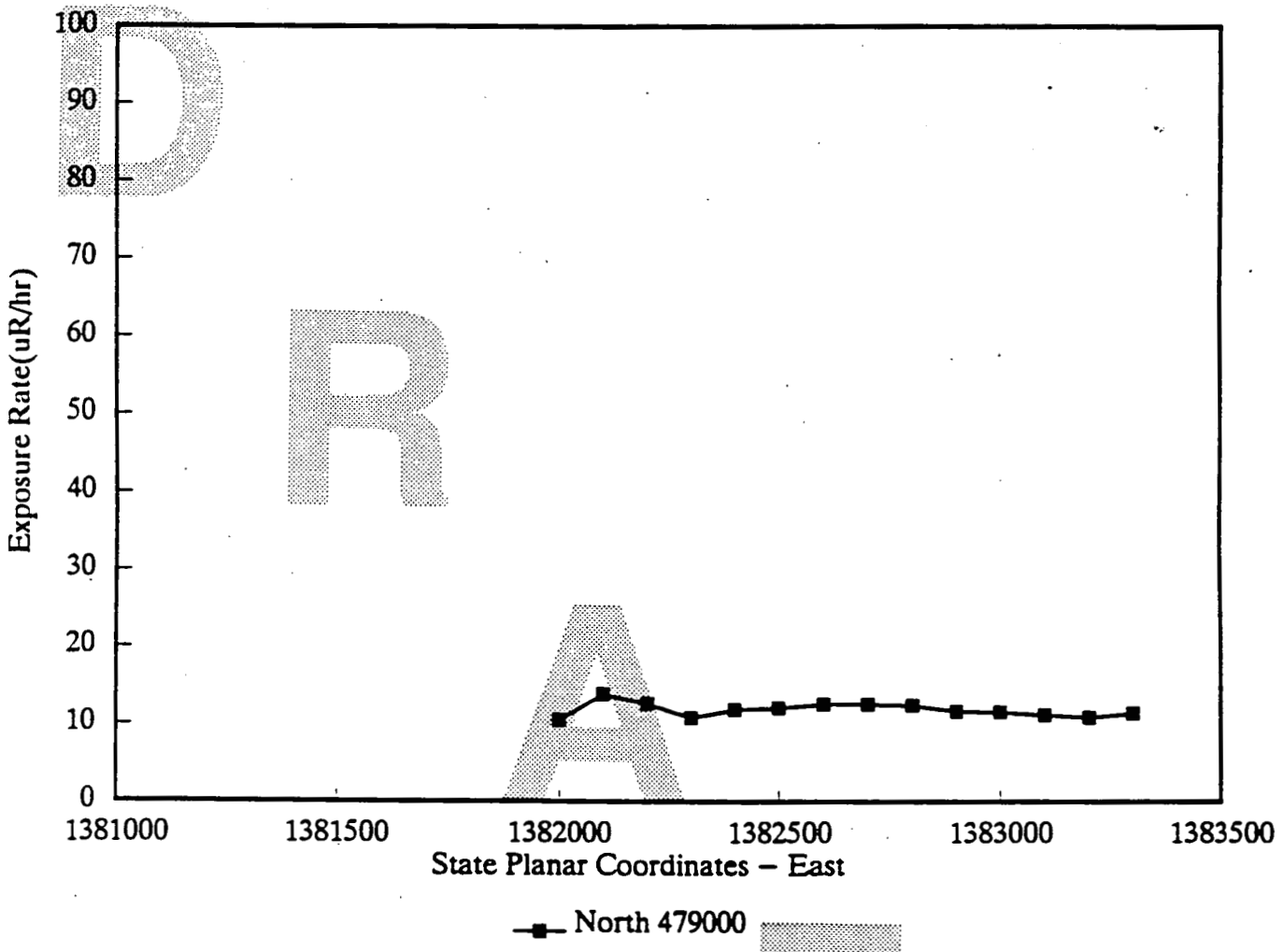
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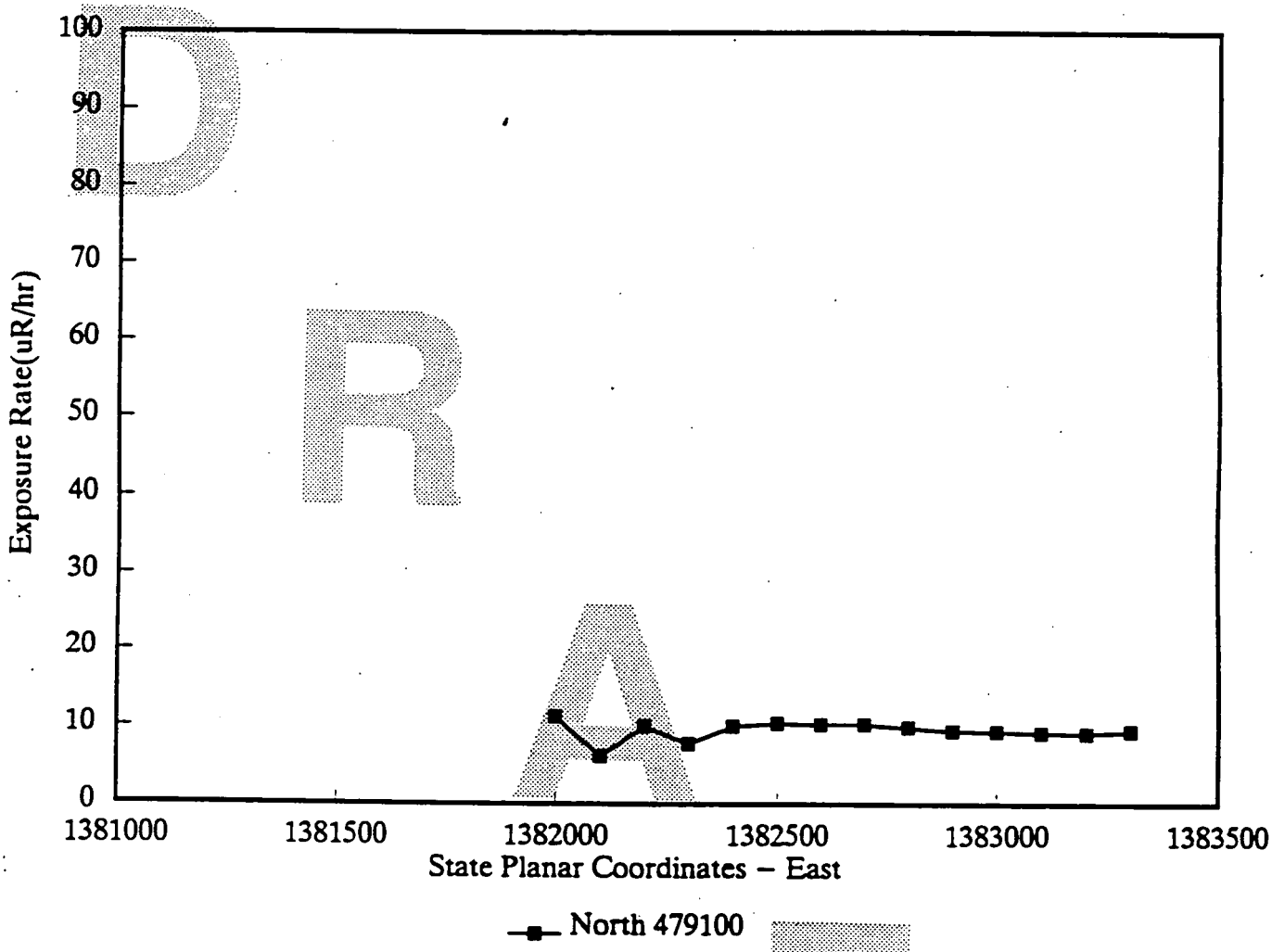
DRAFT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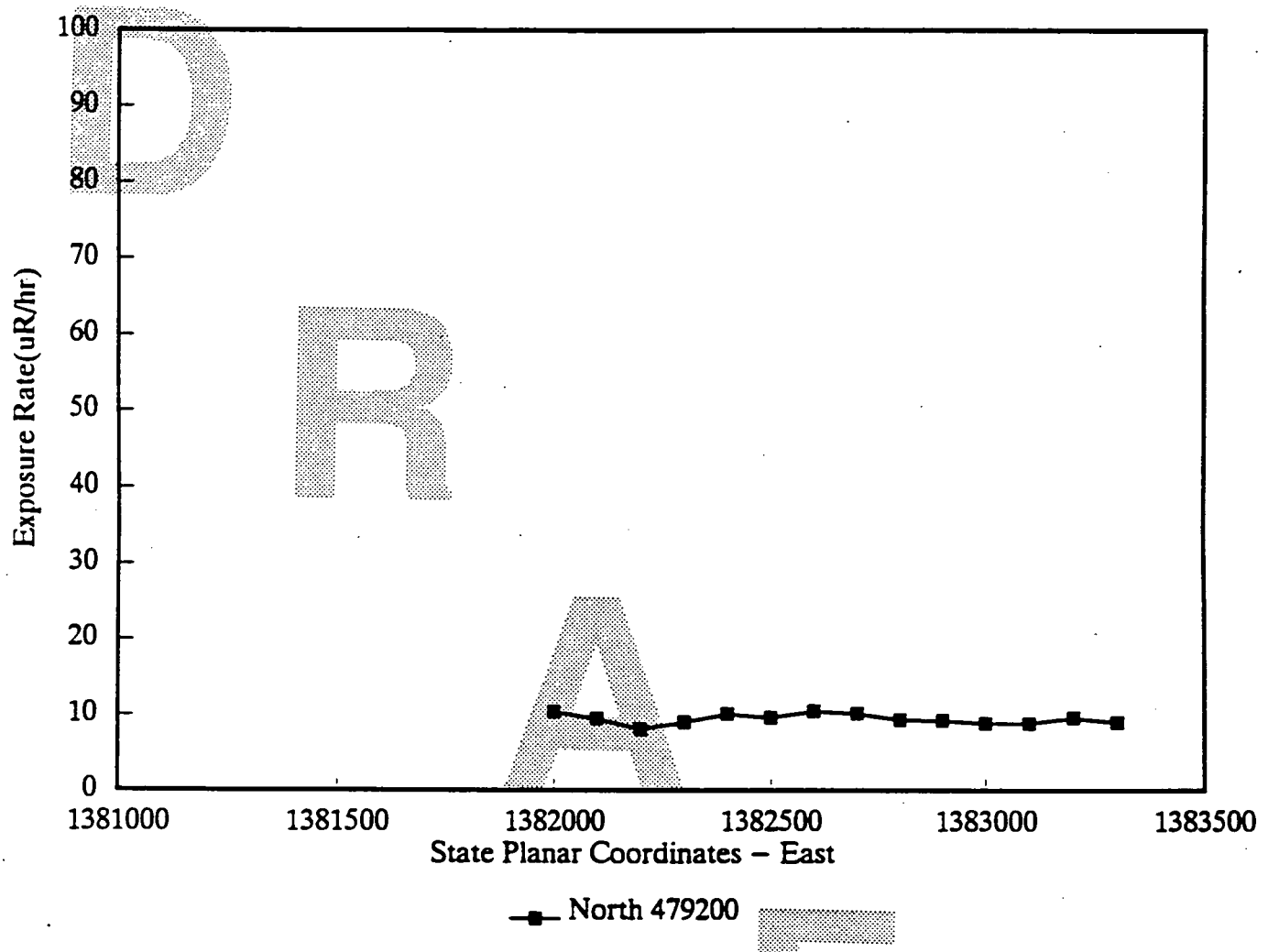
DRAFT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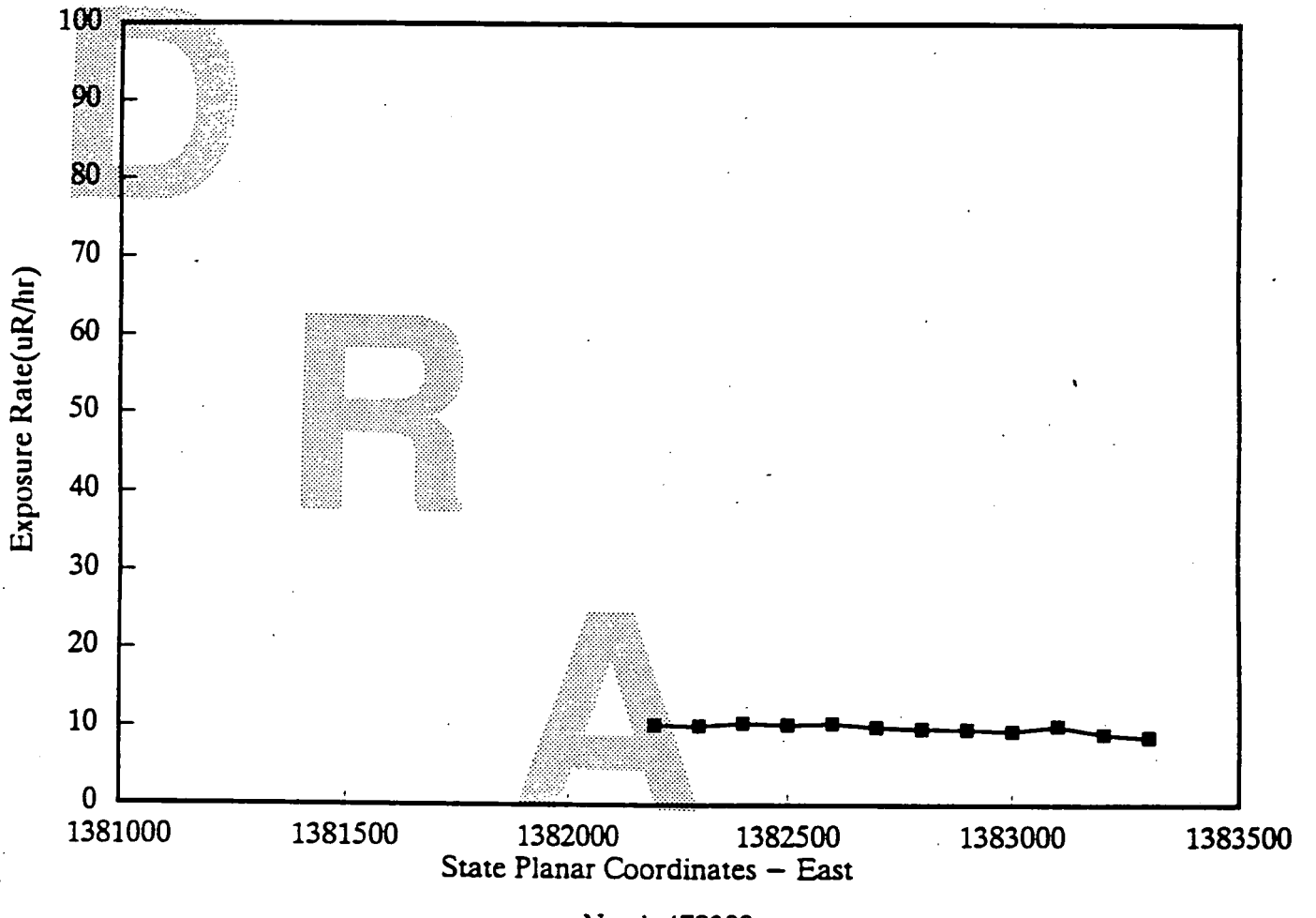
DRAFT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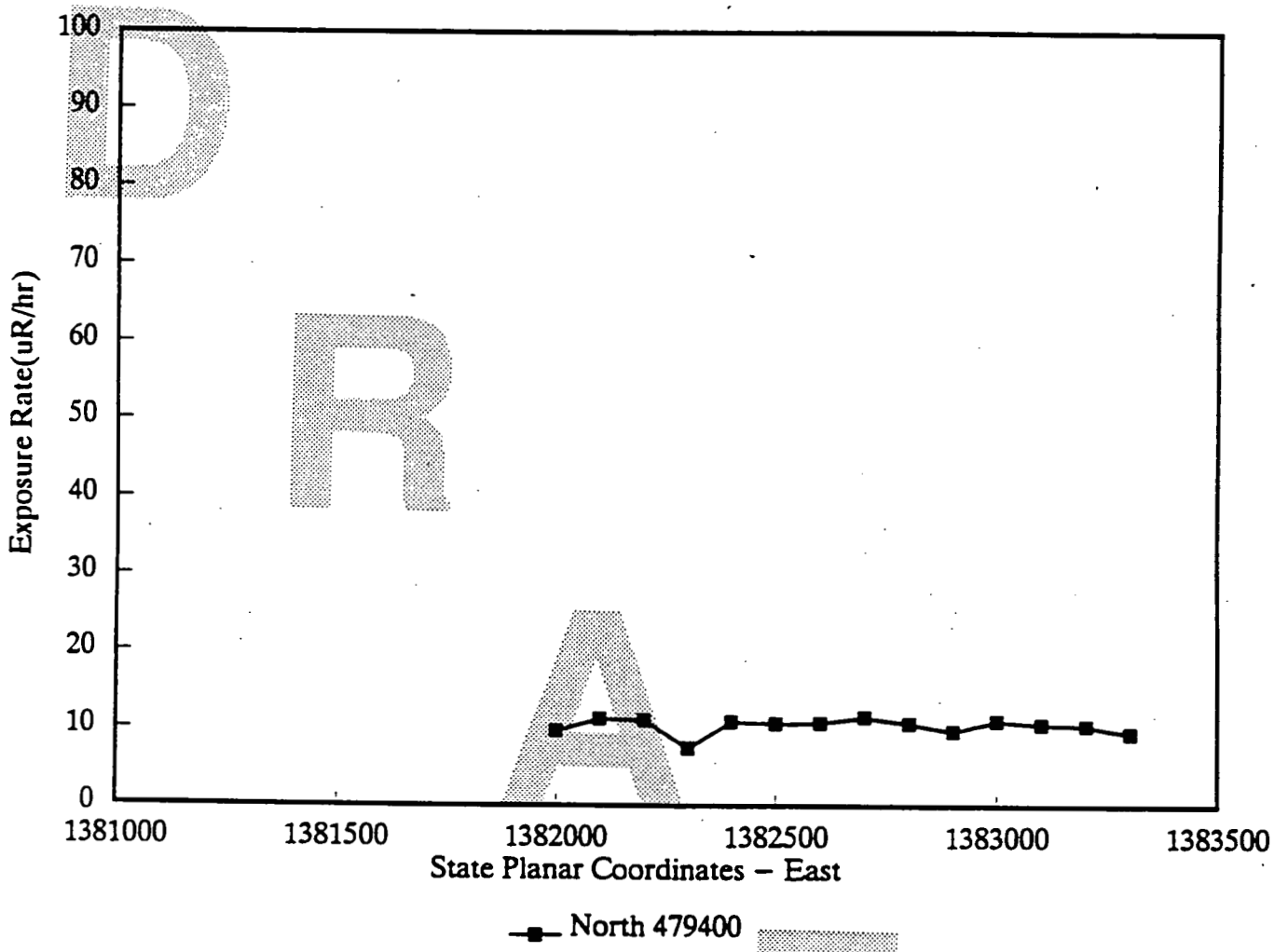
DRAFT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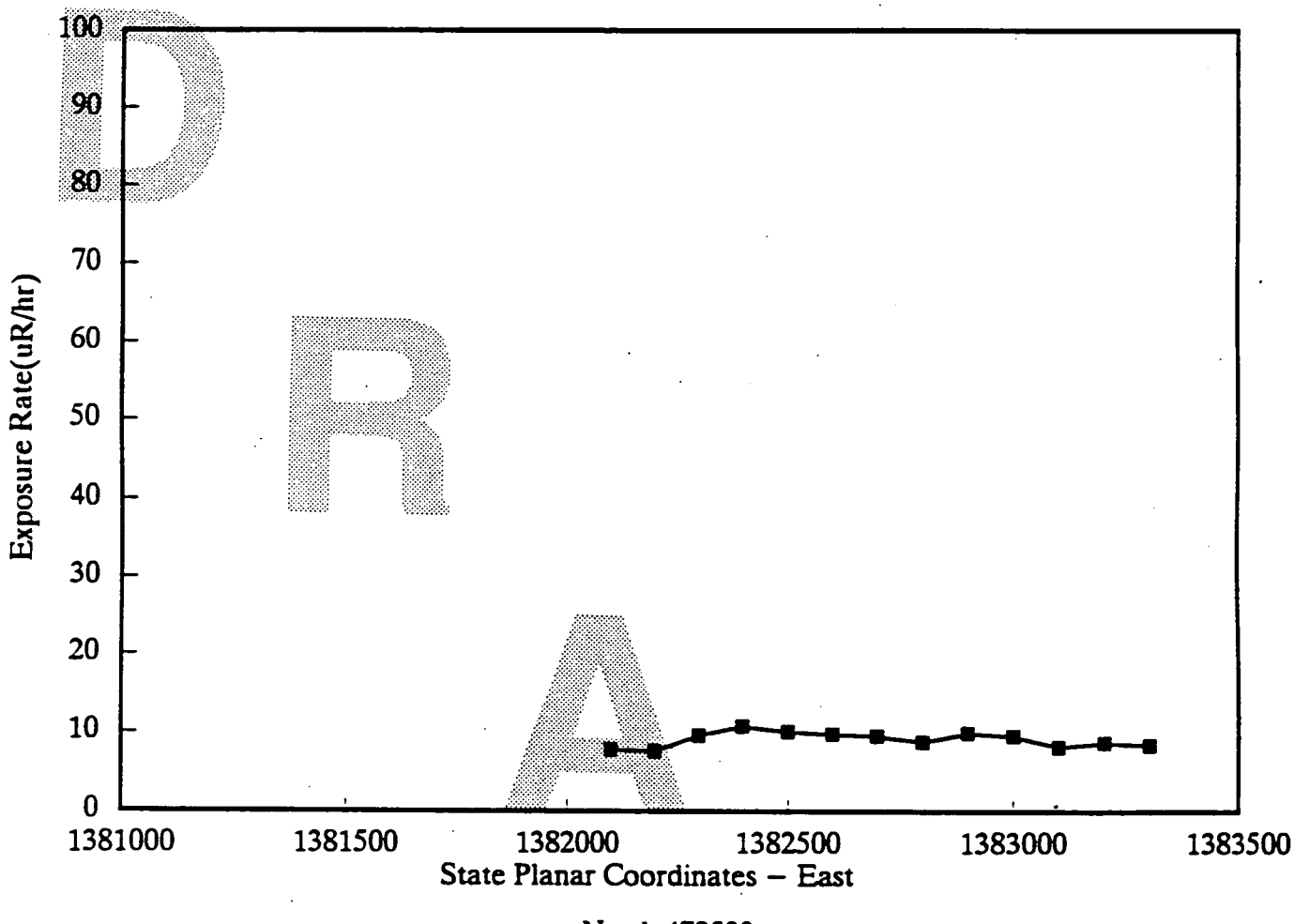
DRAFT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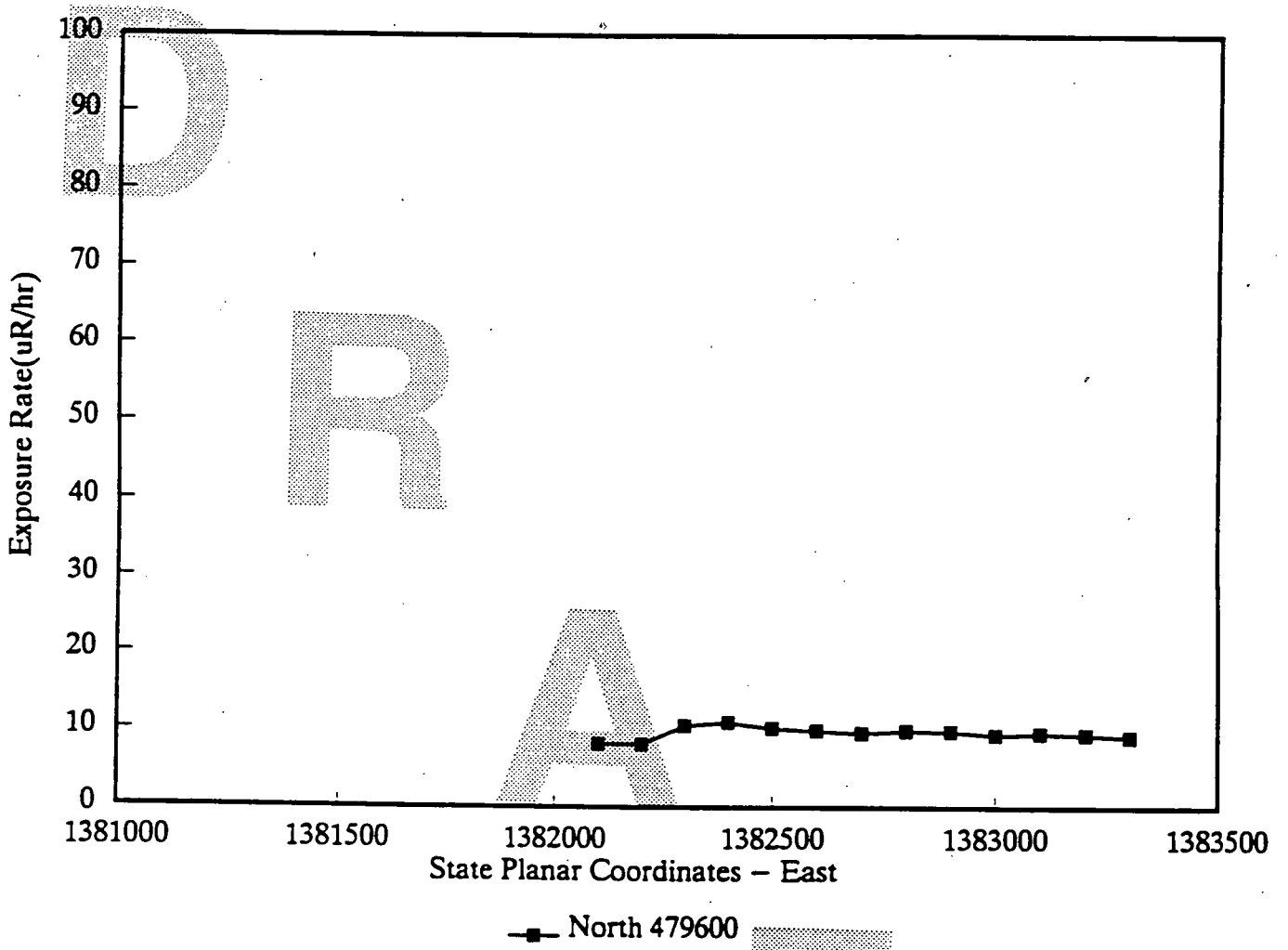
DRAFT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State Planar Coordinates – East
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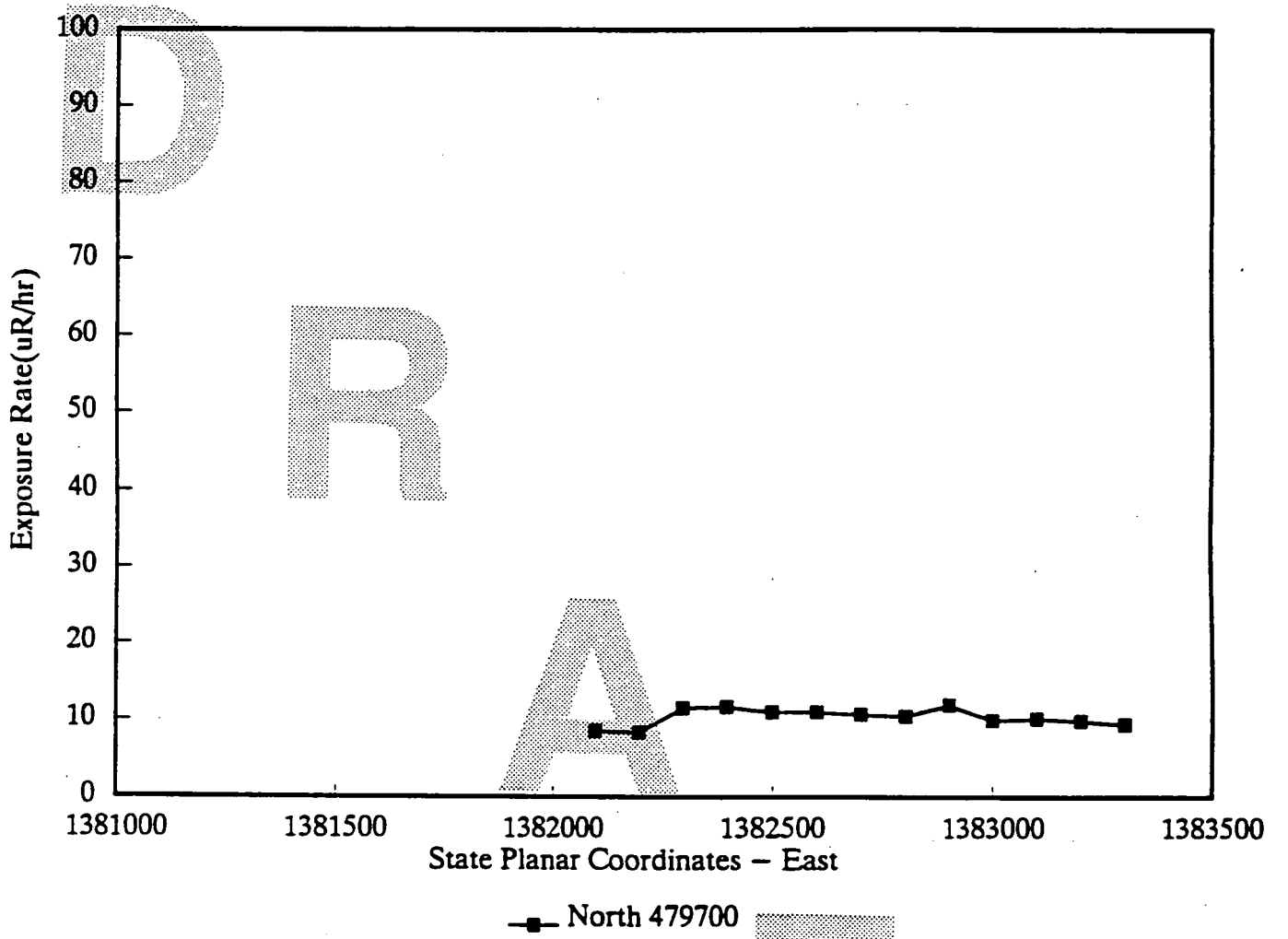
DRAFT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State Planar Coordinates – East
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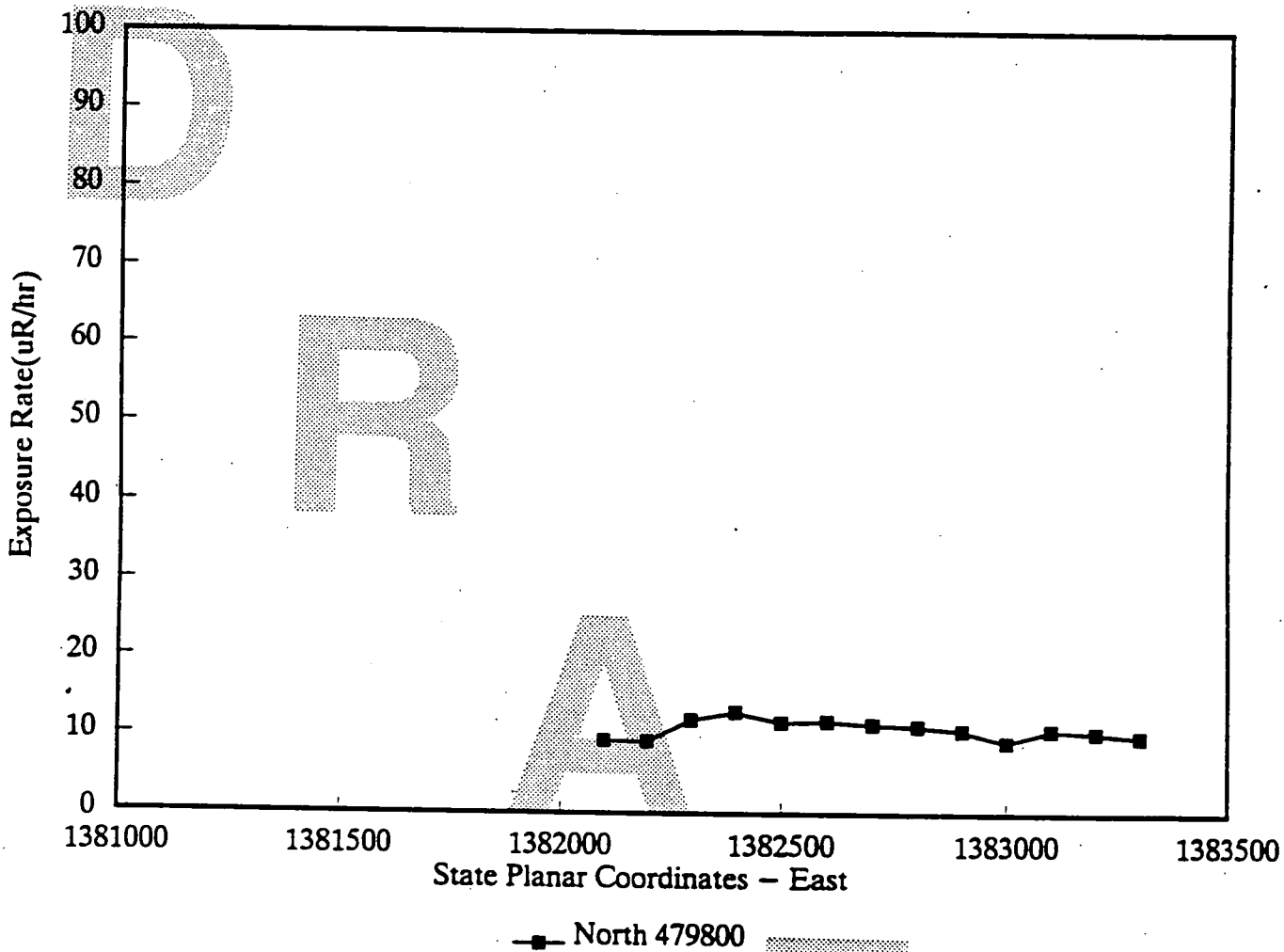
DRAFT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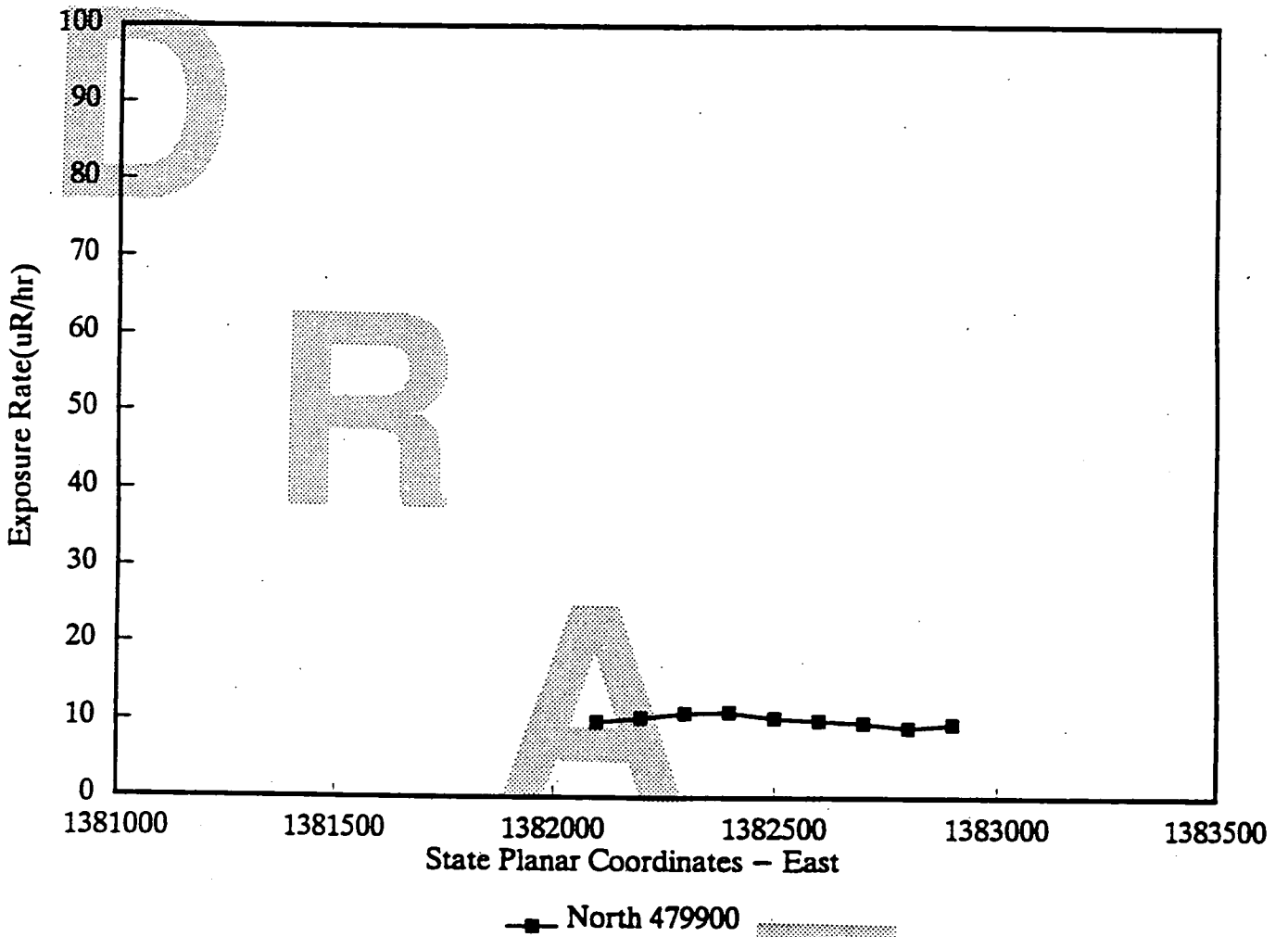
DRAFT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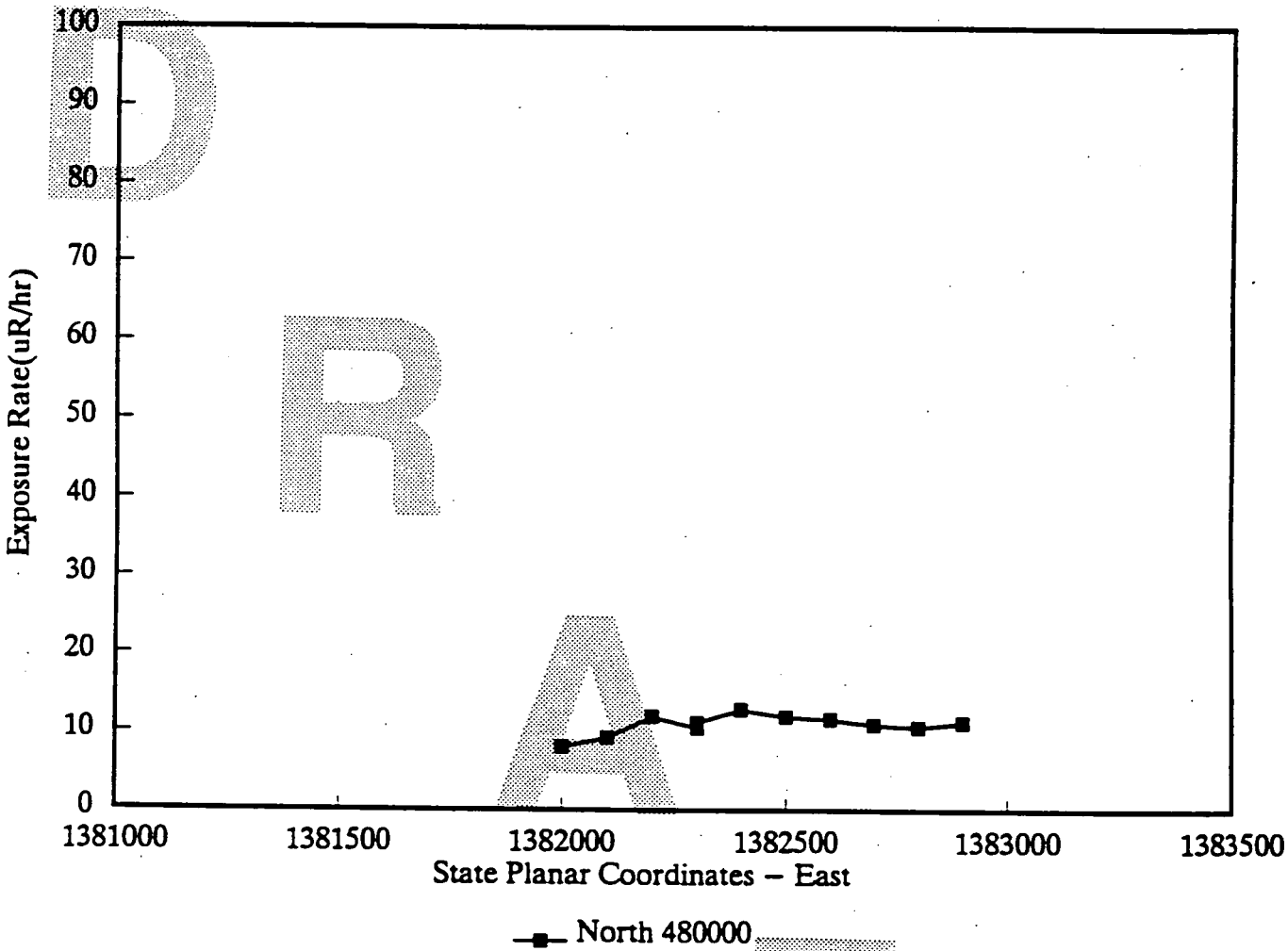
DRAFT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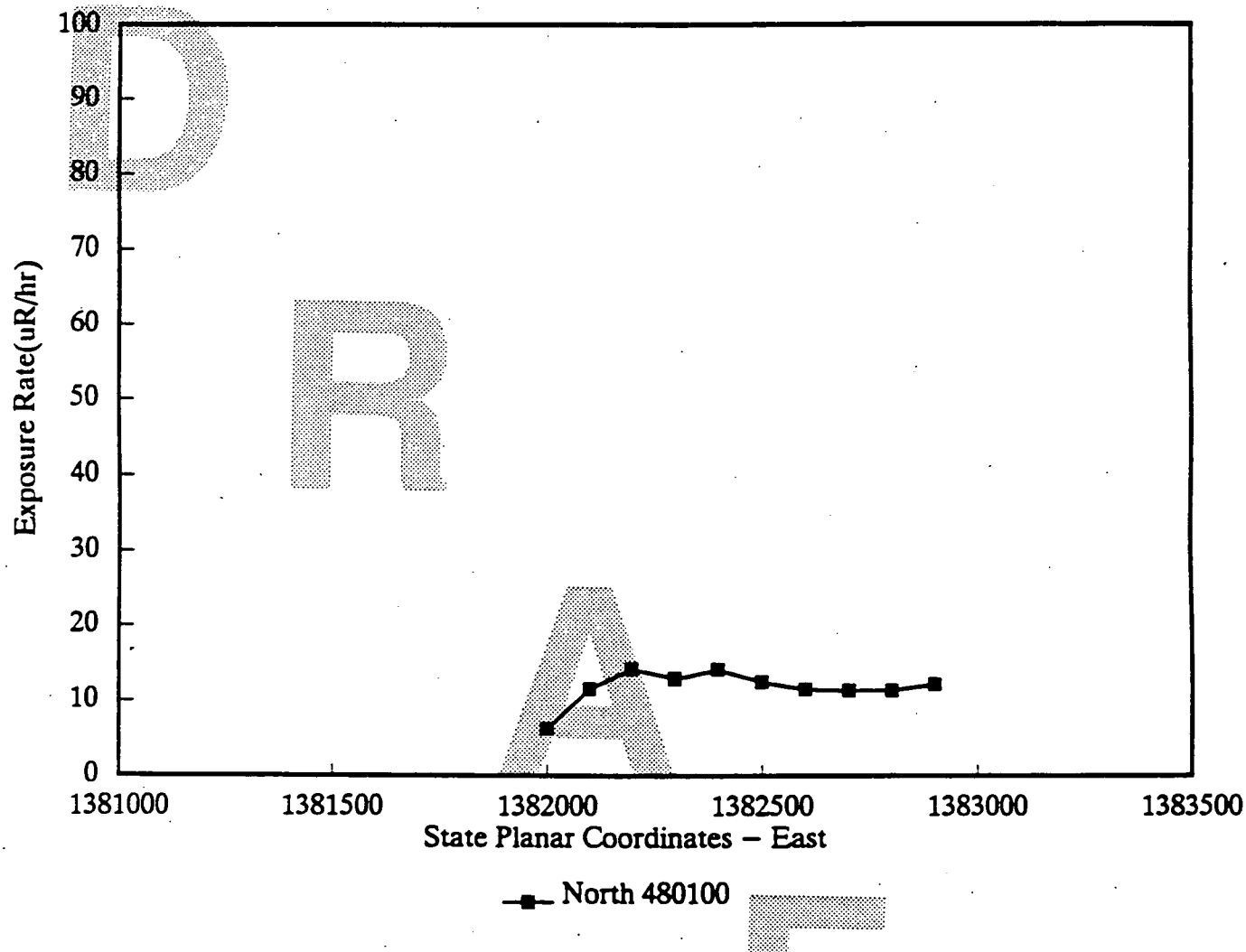
DRAFT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State Planar Coordinates – East
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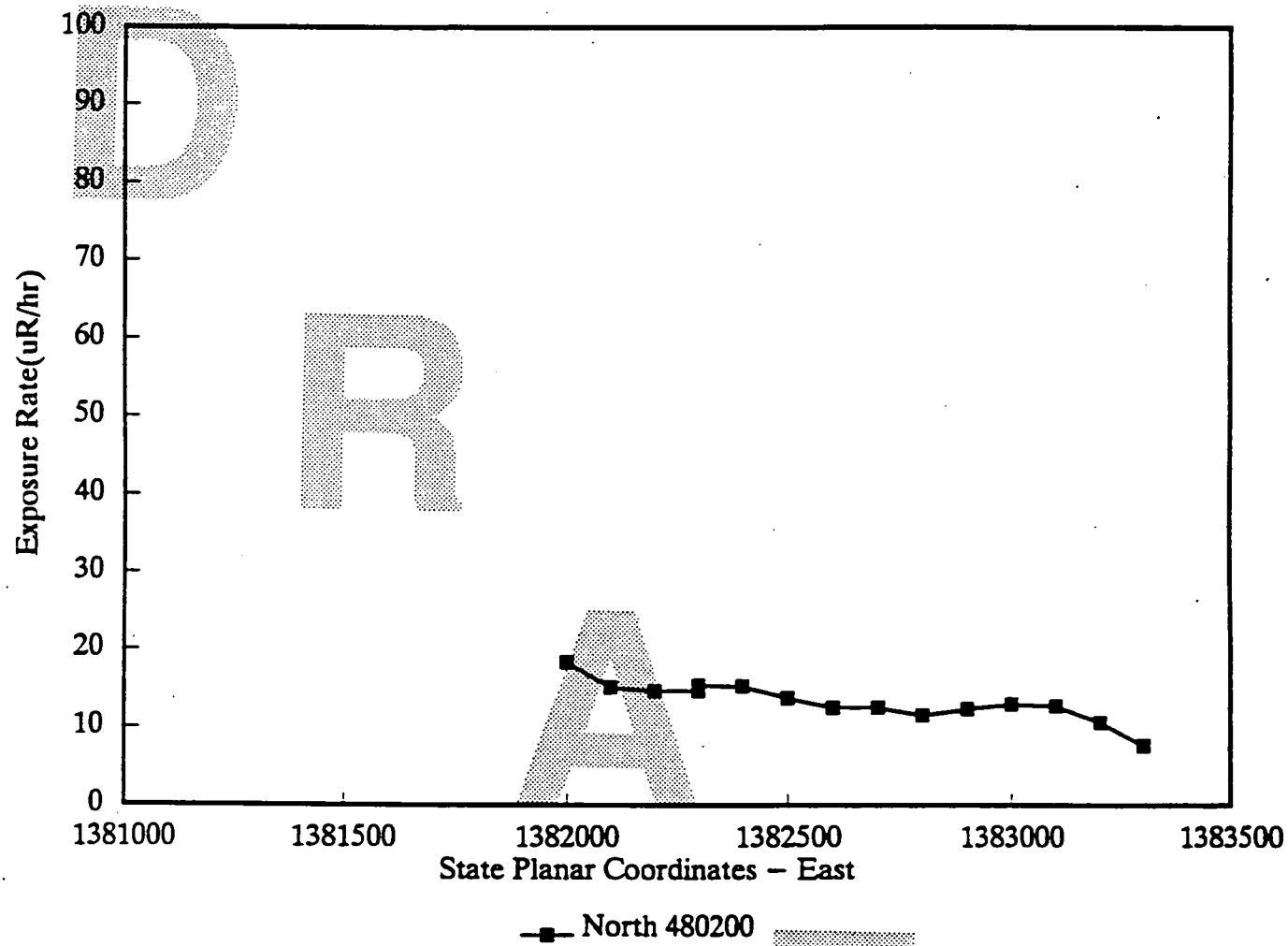
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State Planar Coordinates – East
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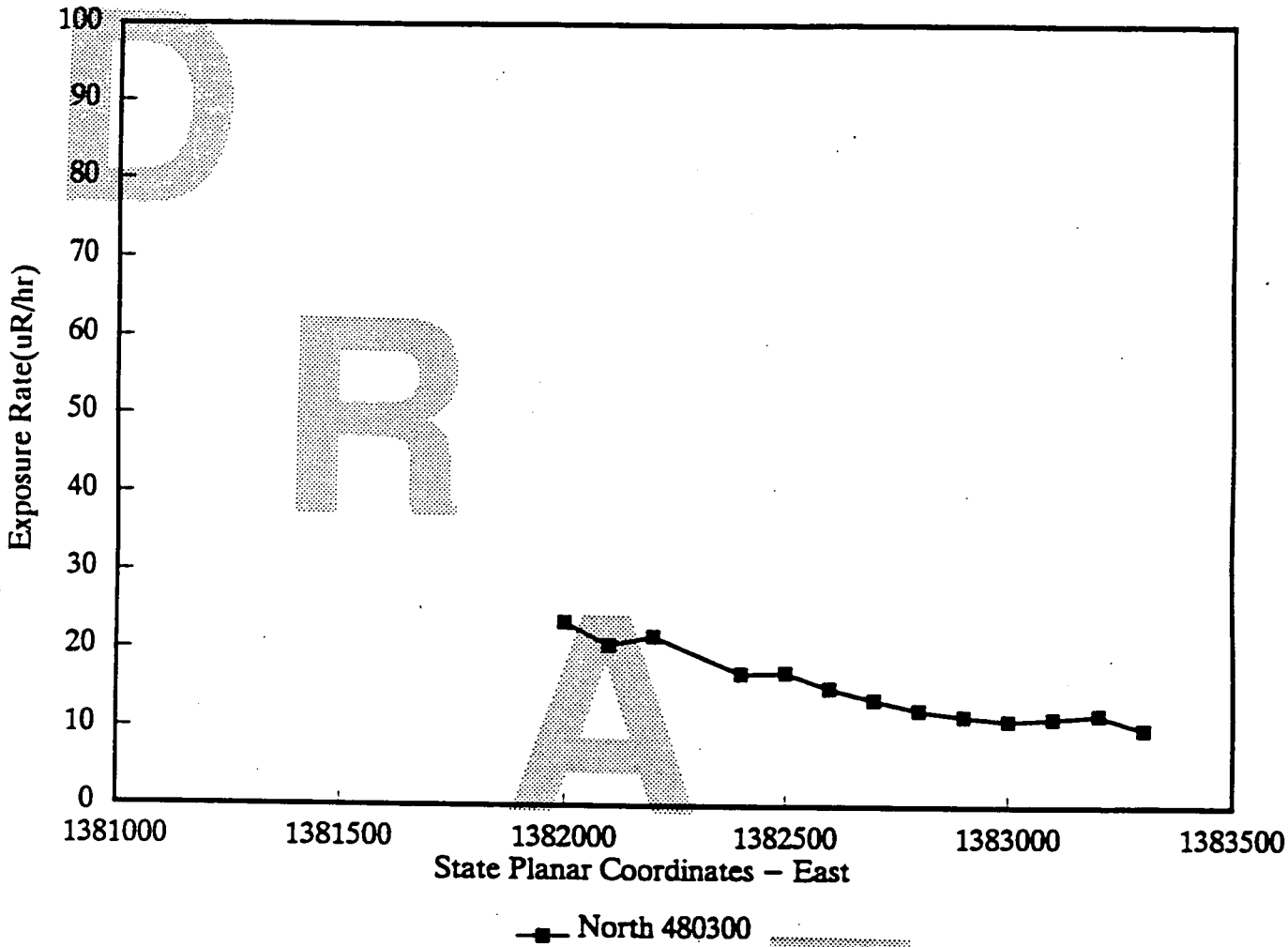
DRAFT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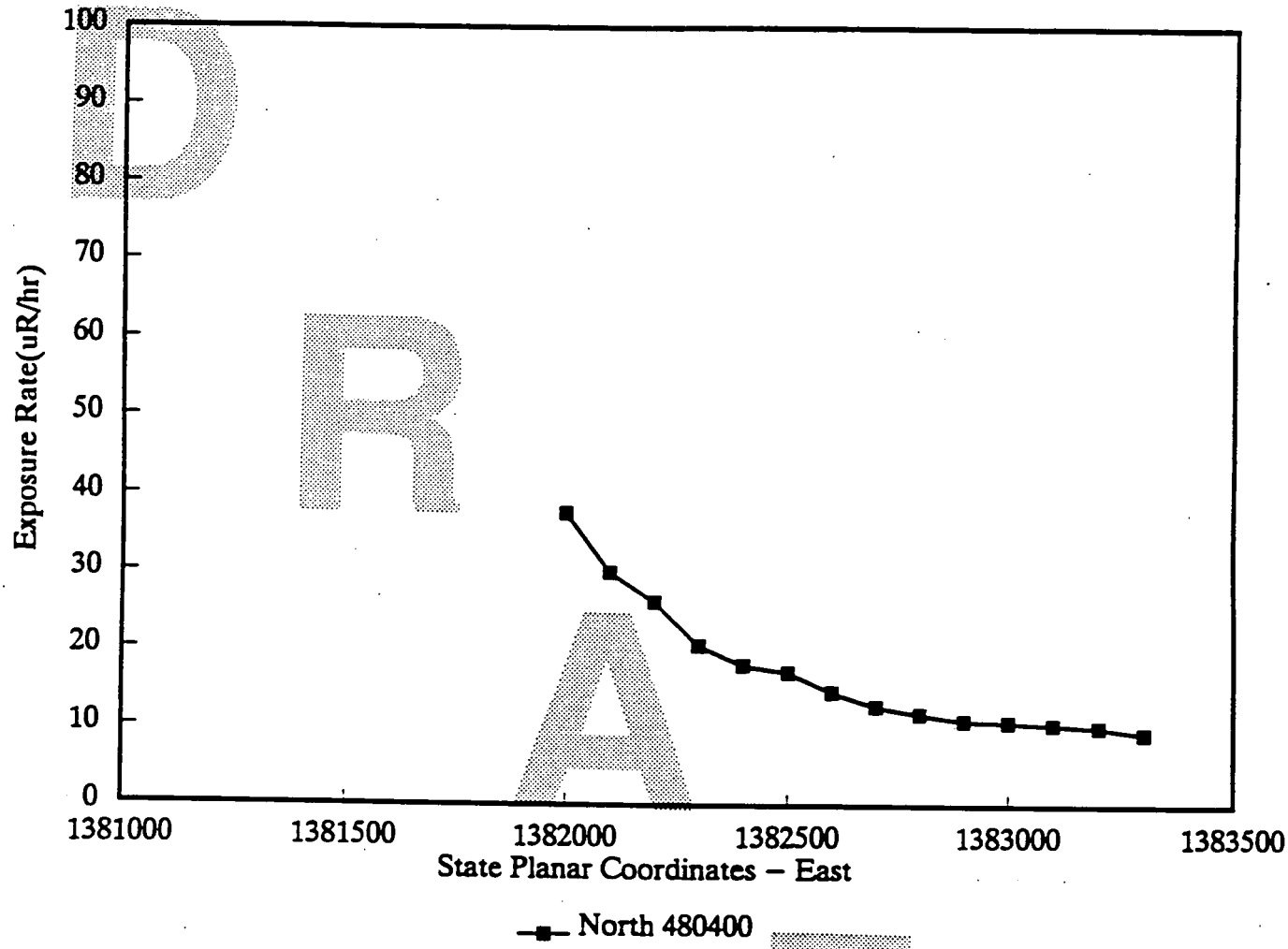
DRAFT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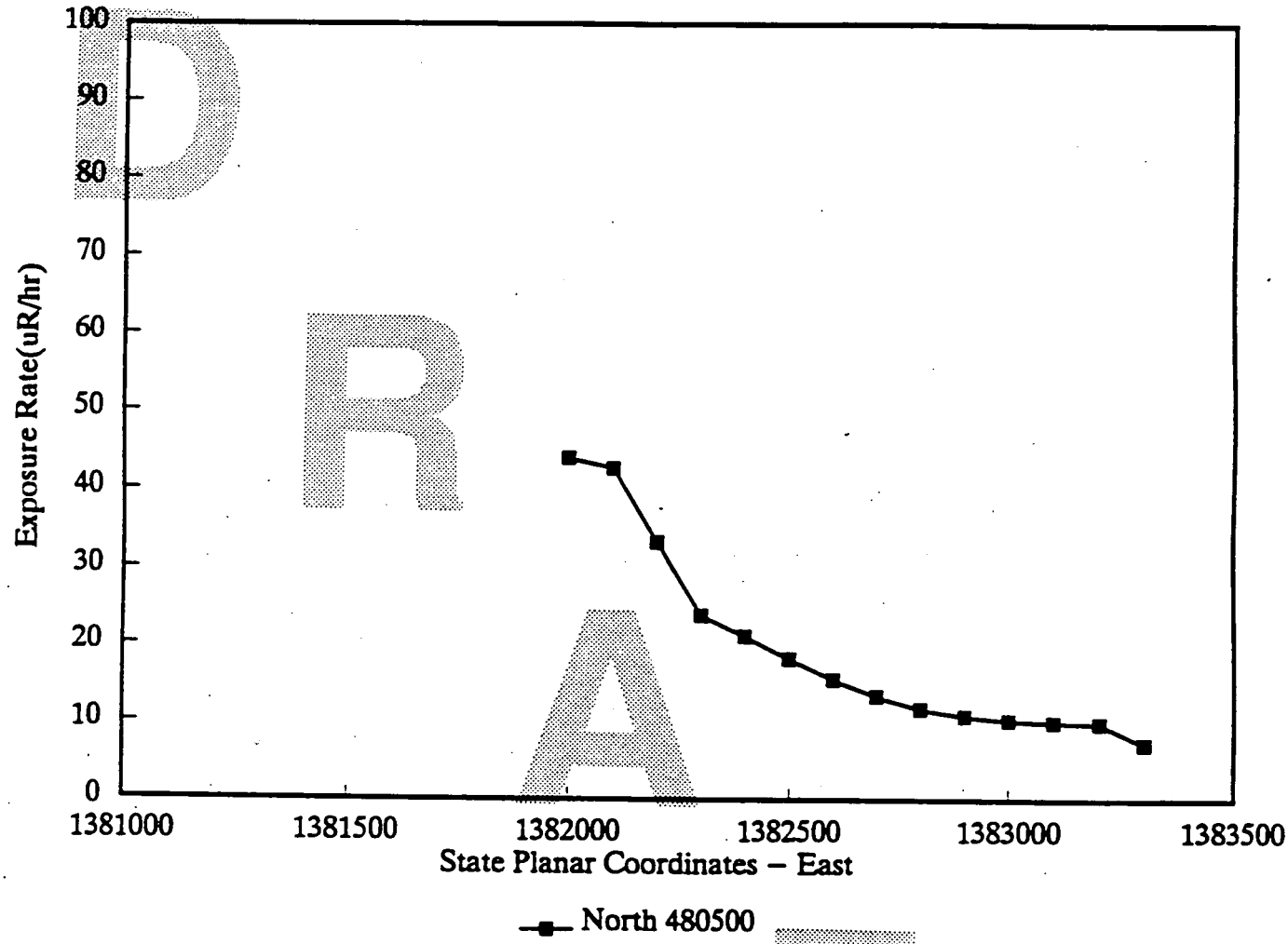
DRAFT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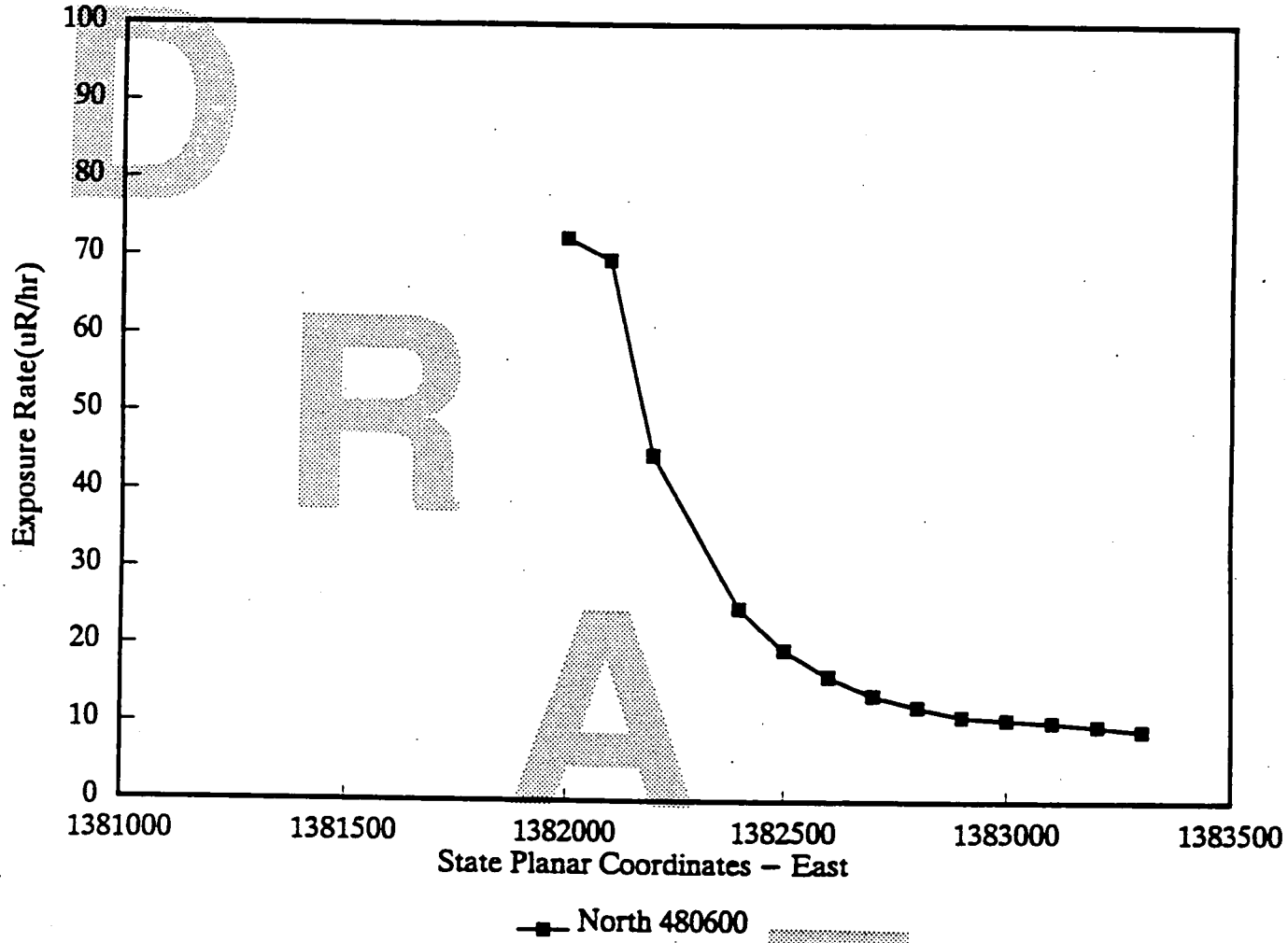
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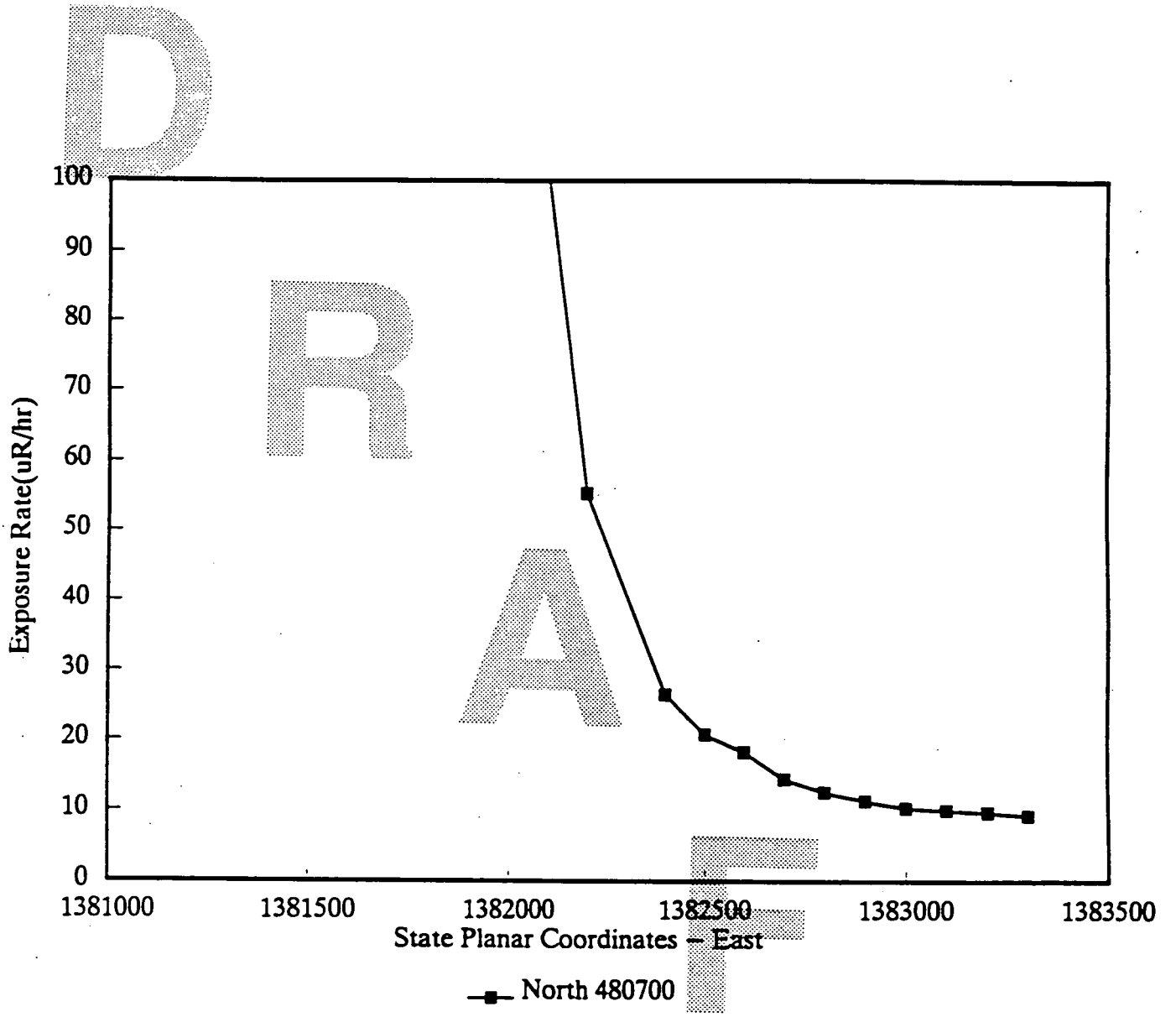
DRAFT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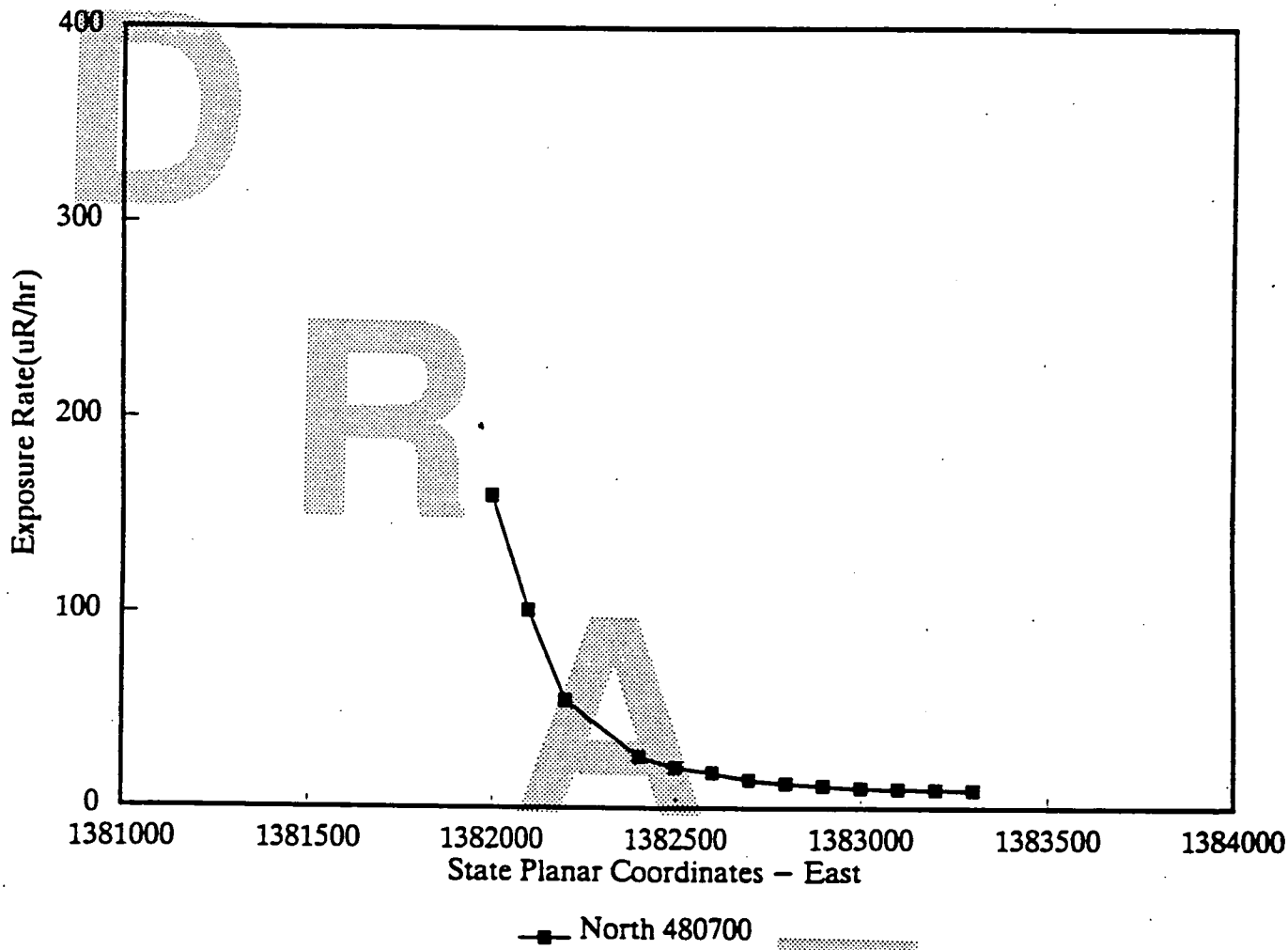
DRAFT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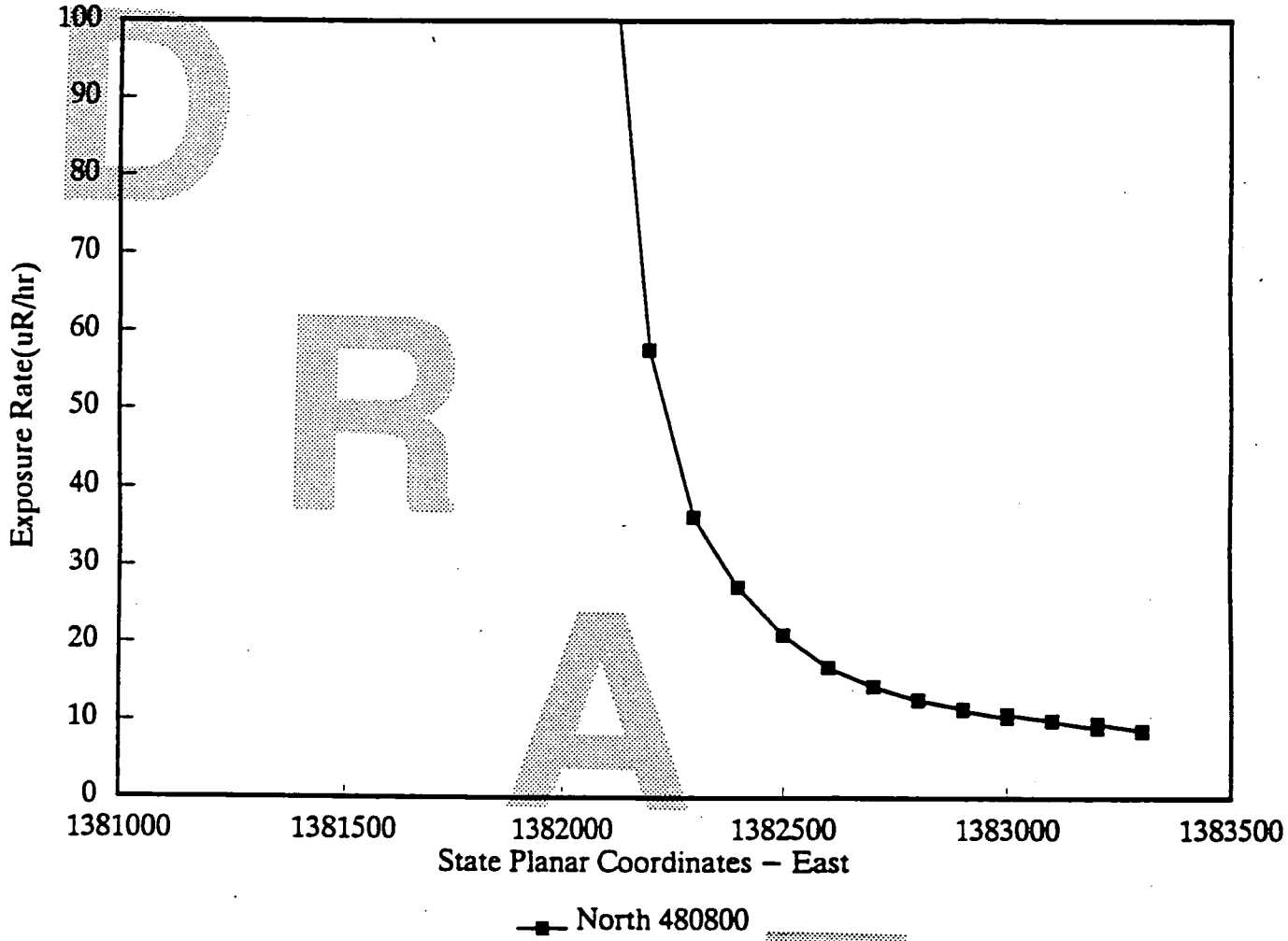
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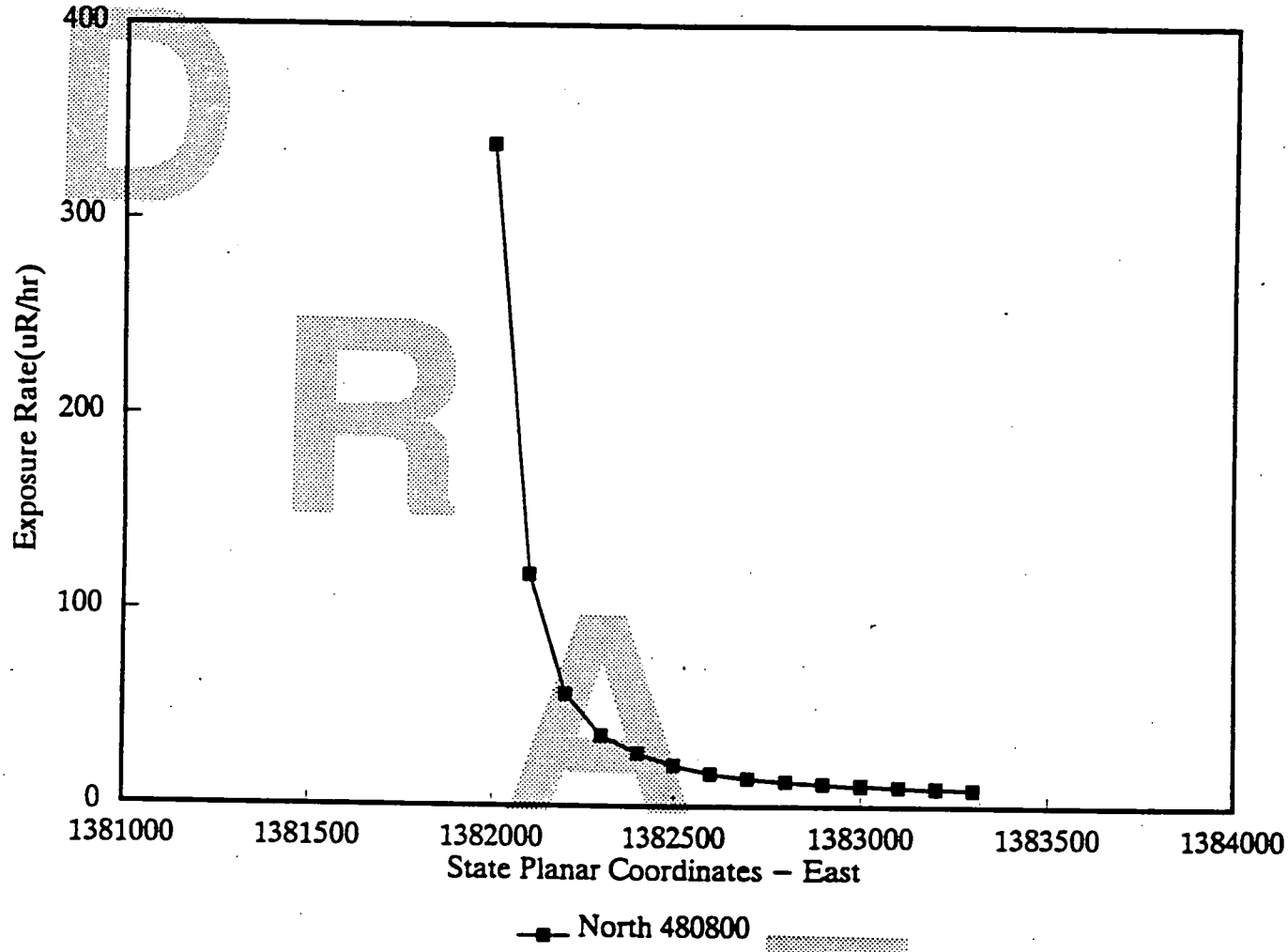
DRAFT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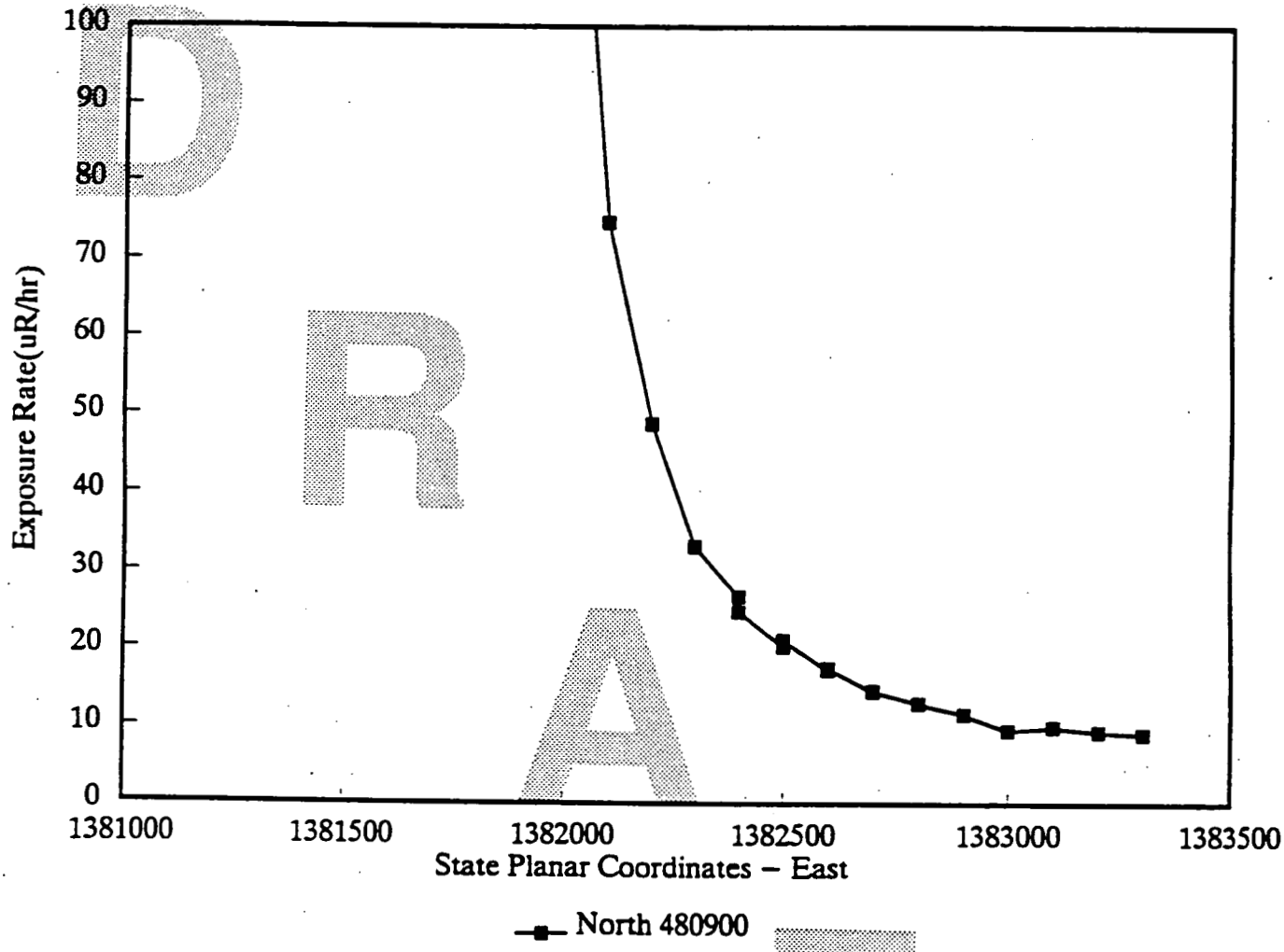
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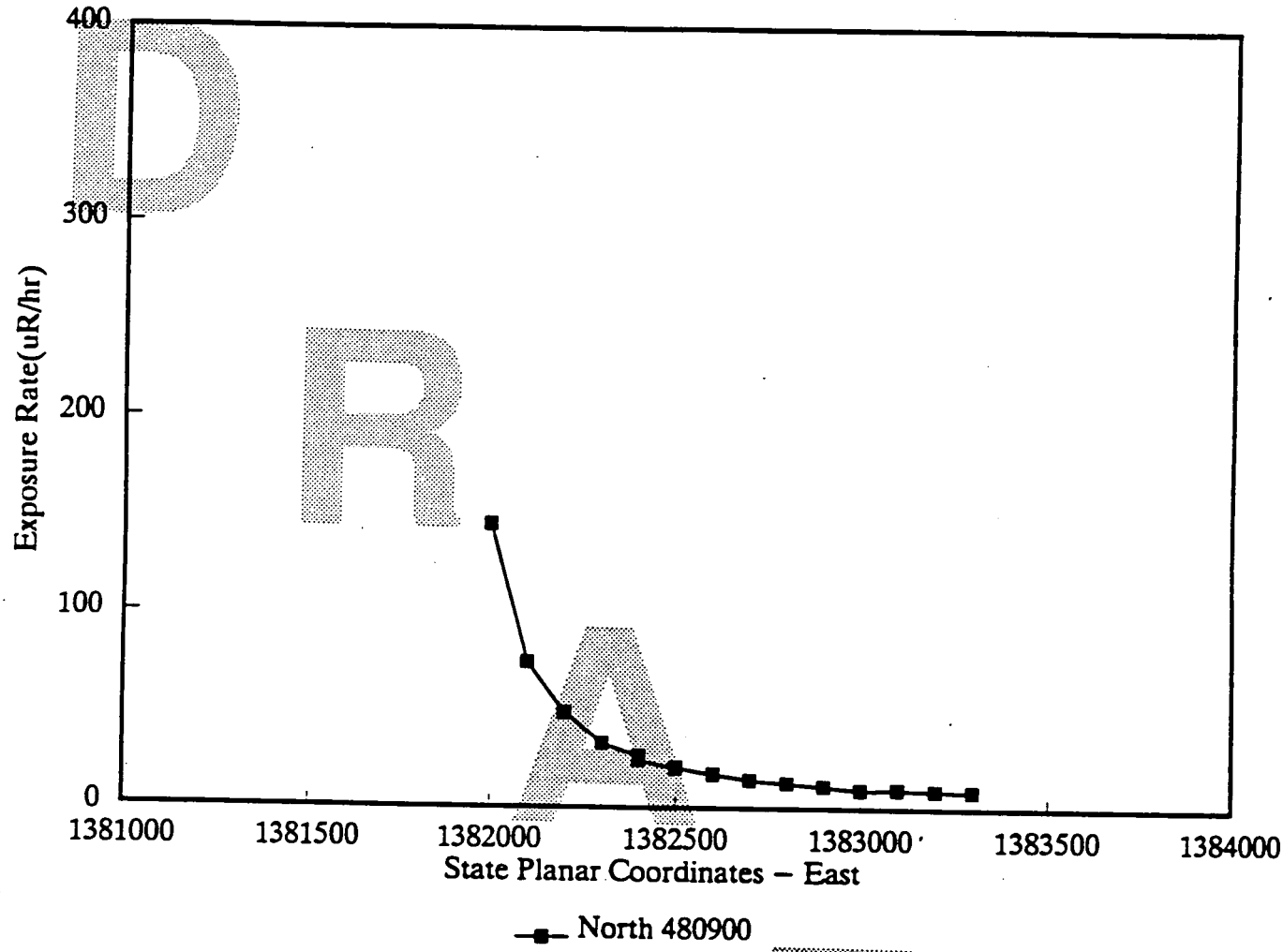
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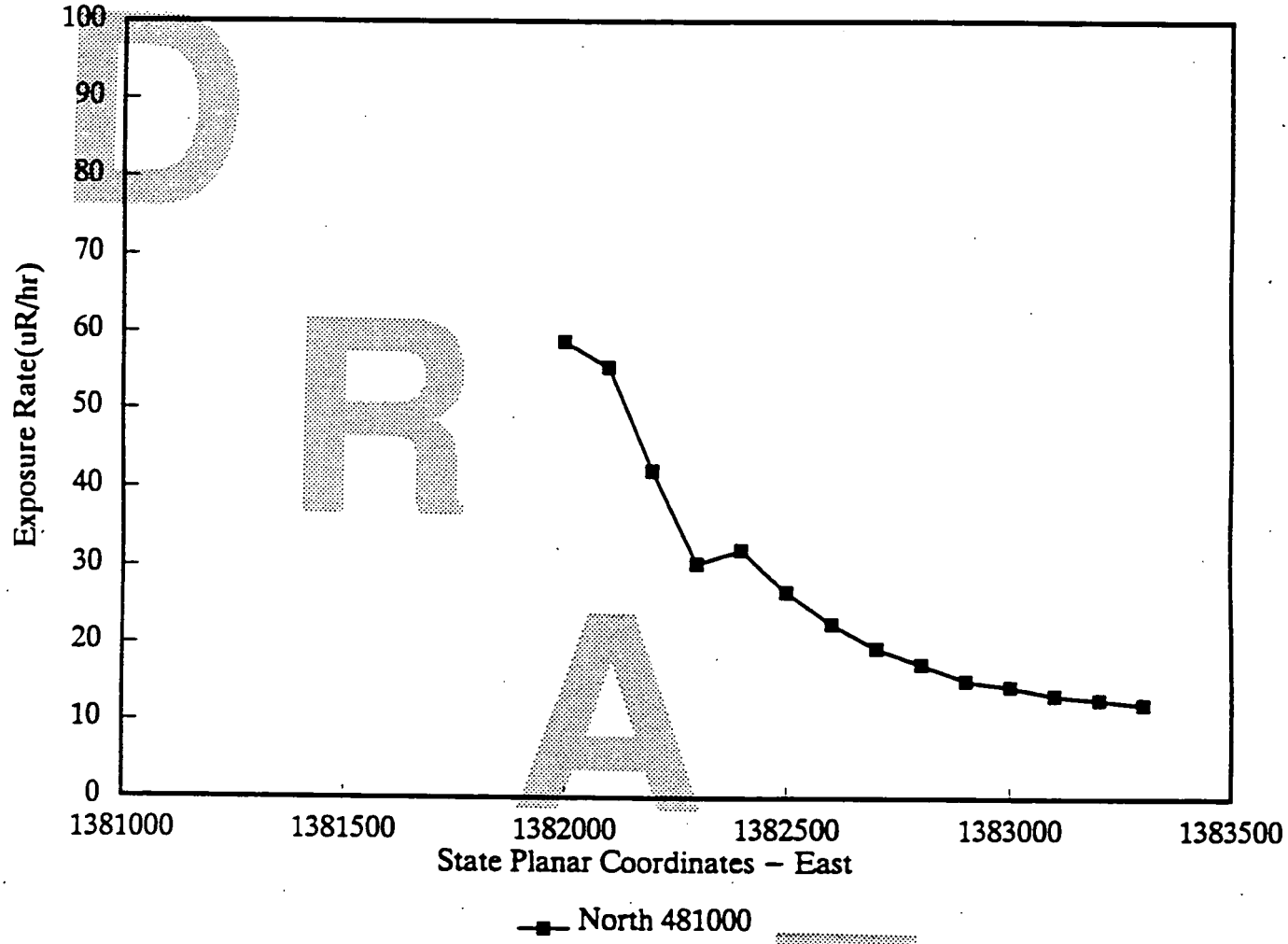
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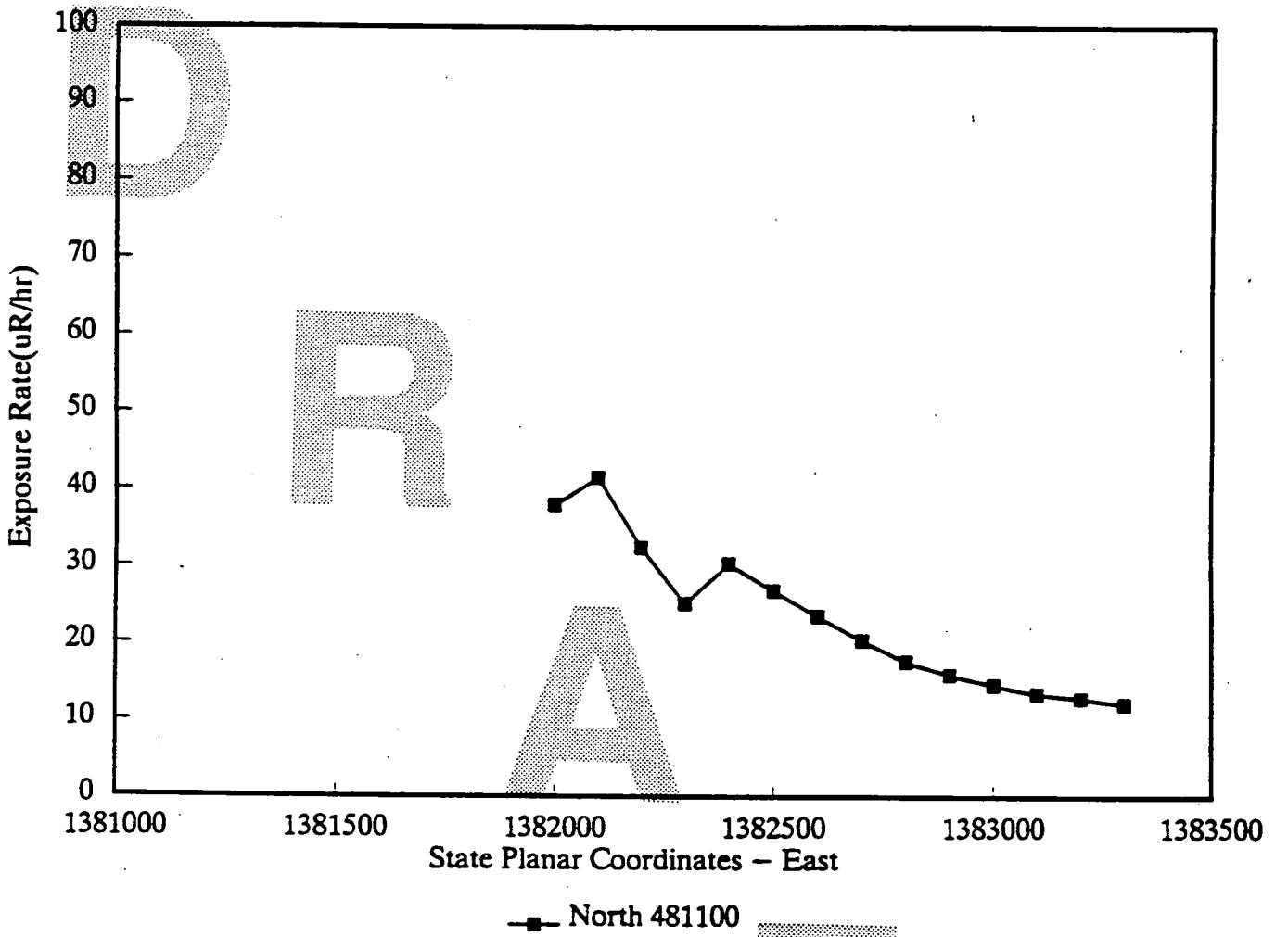
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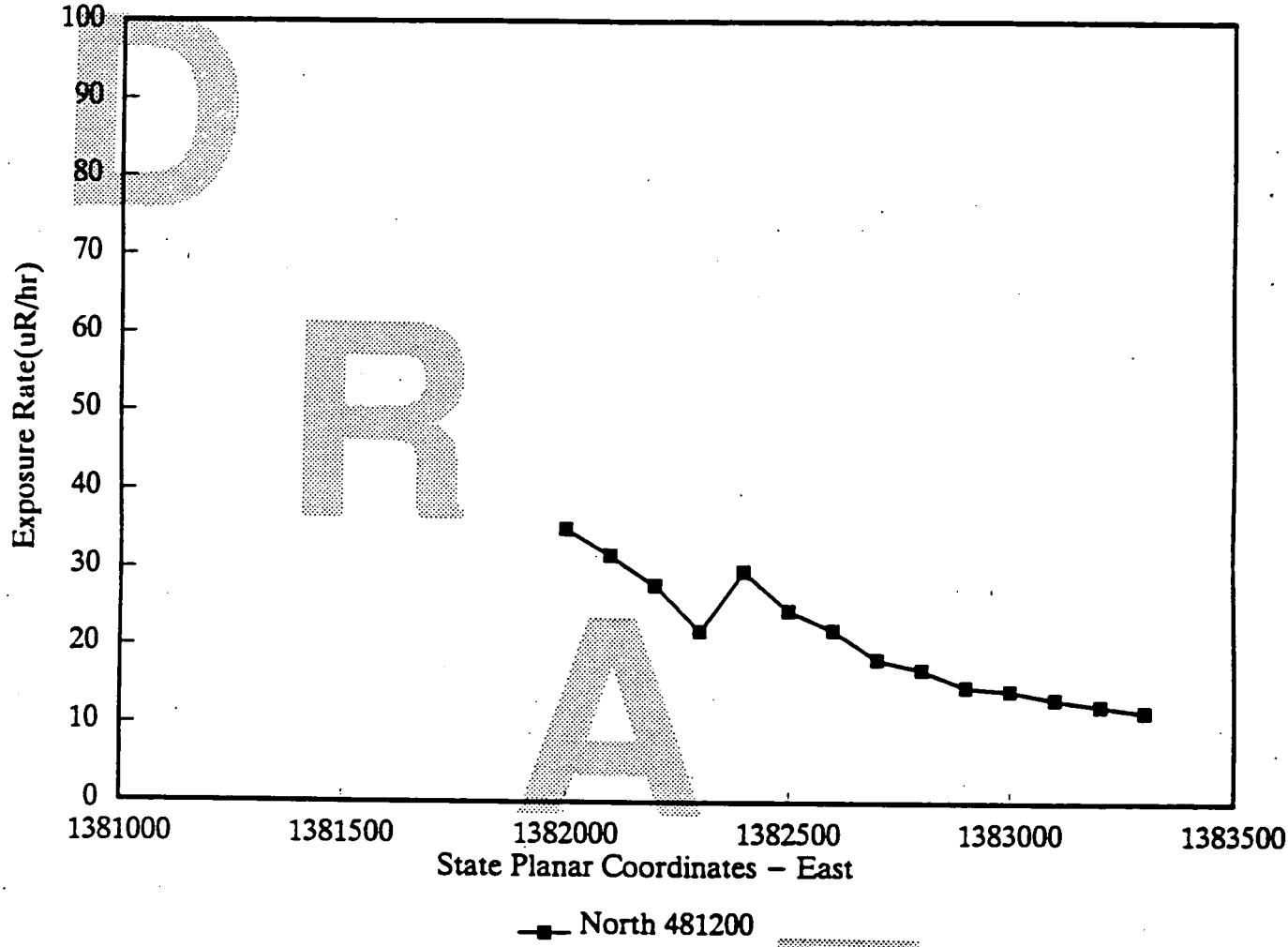
DRAFT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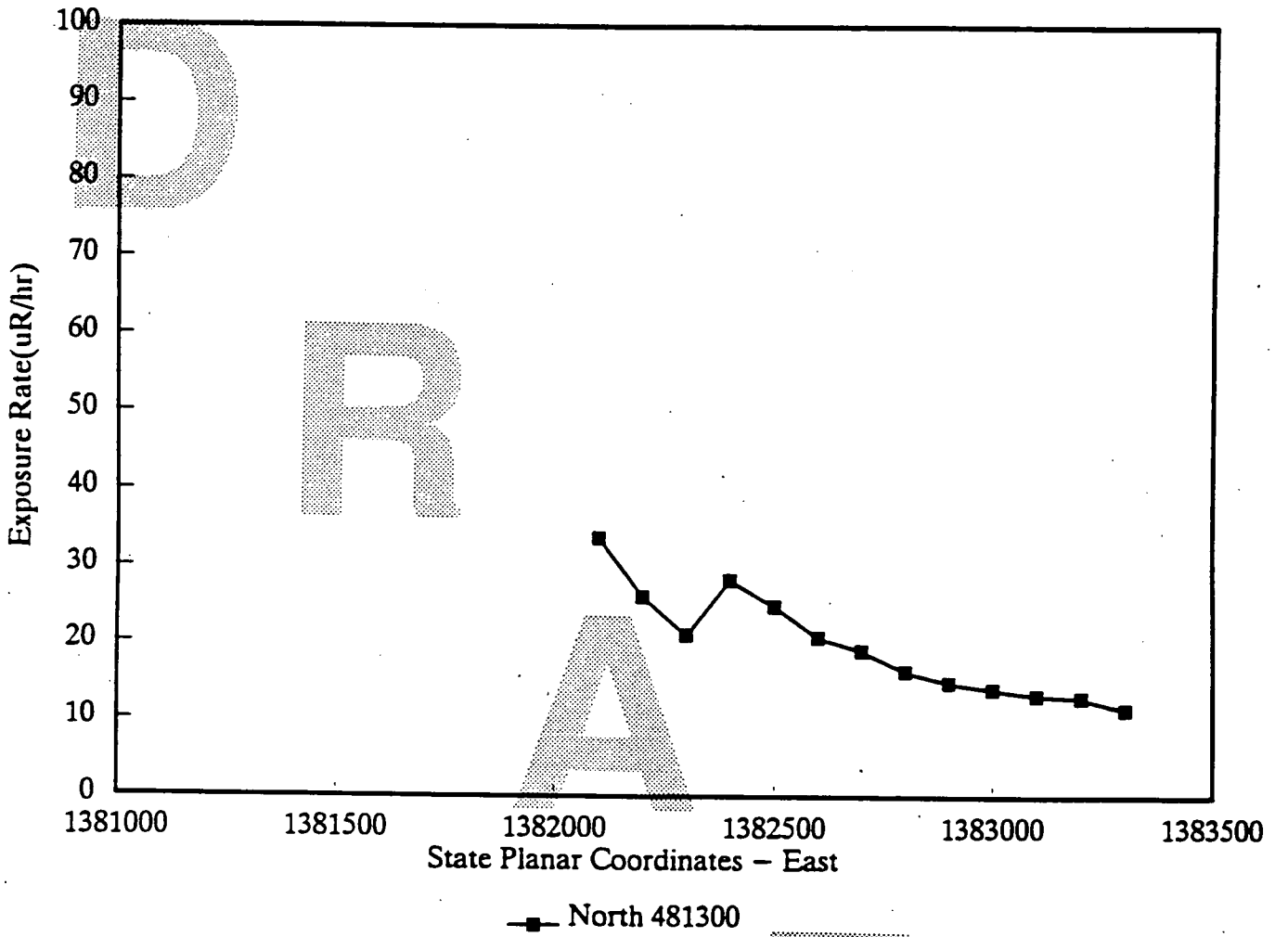
DRAFT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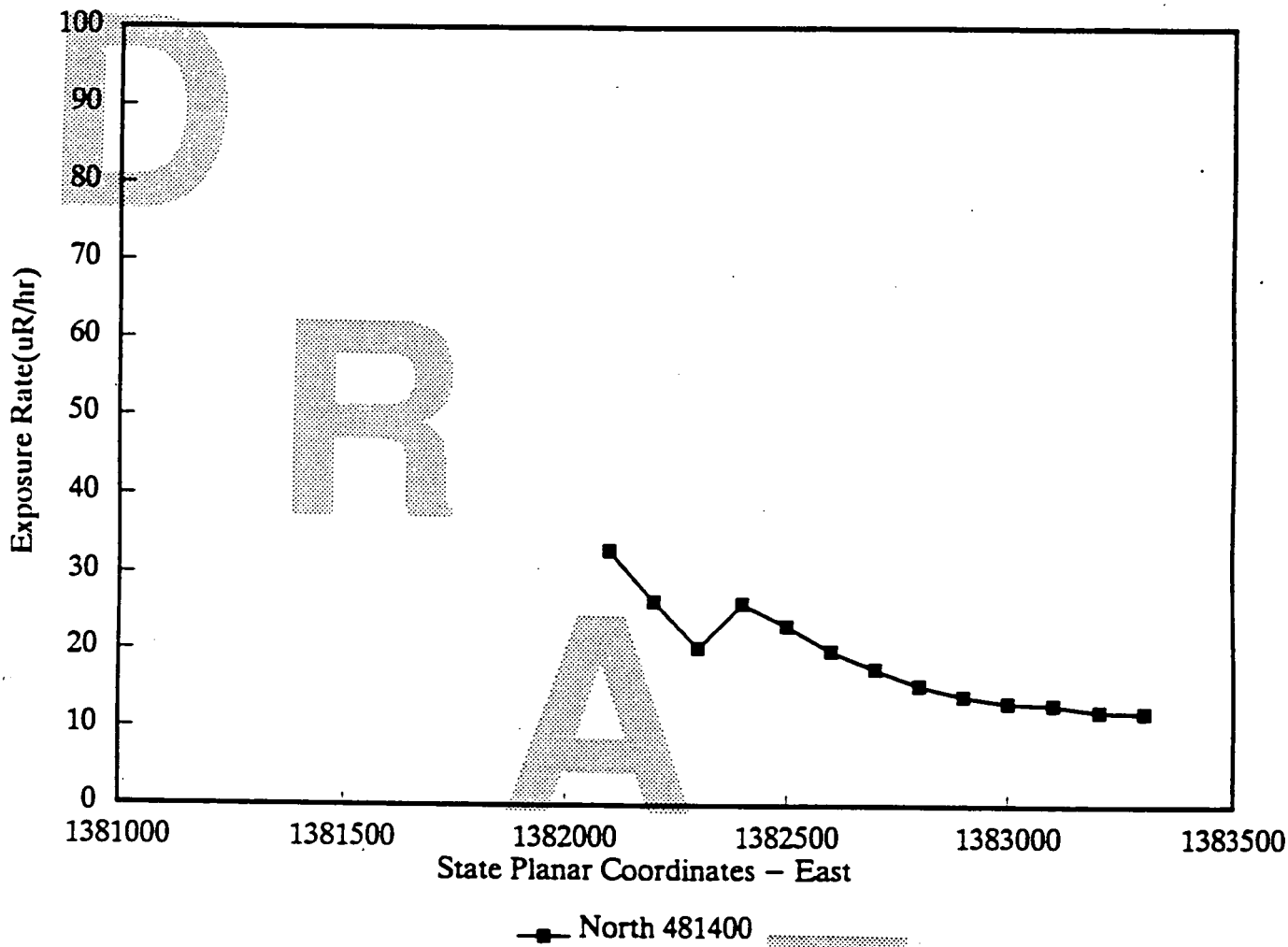
DRAFT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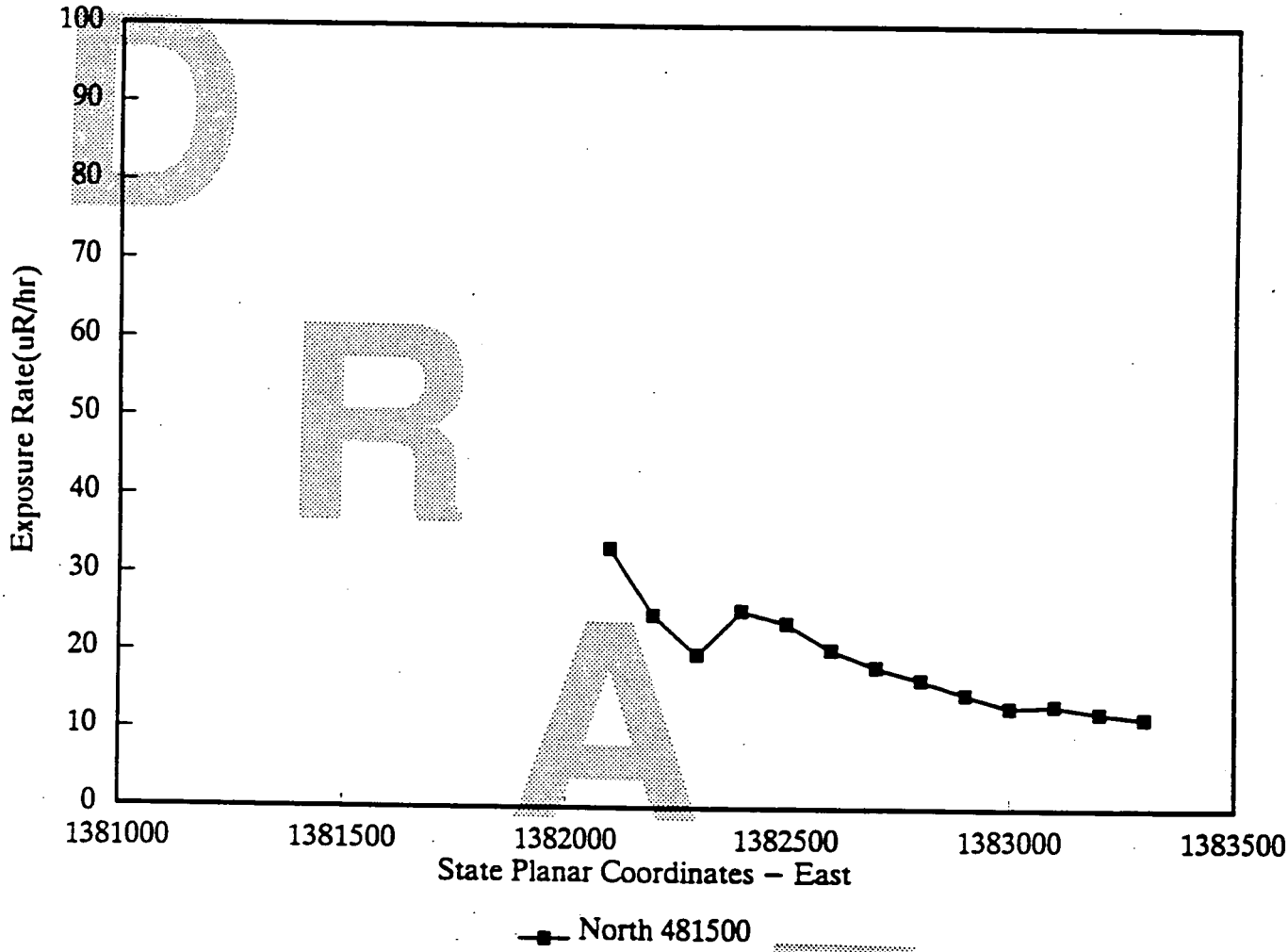
DRAFT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State Planar Coordinates – East
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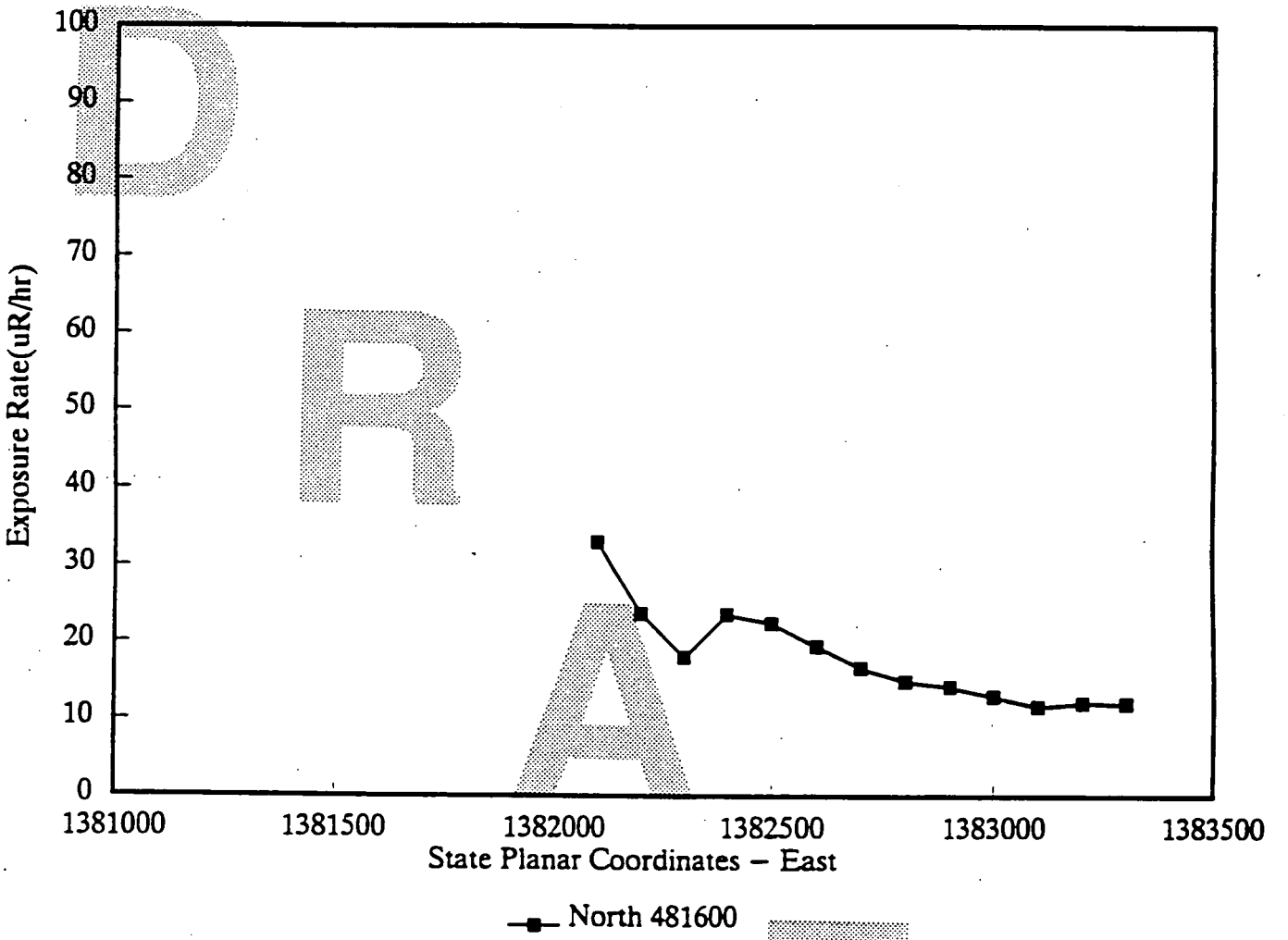
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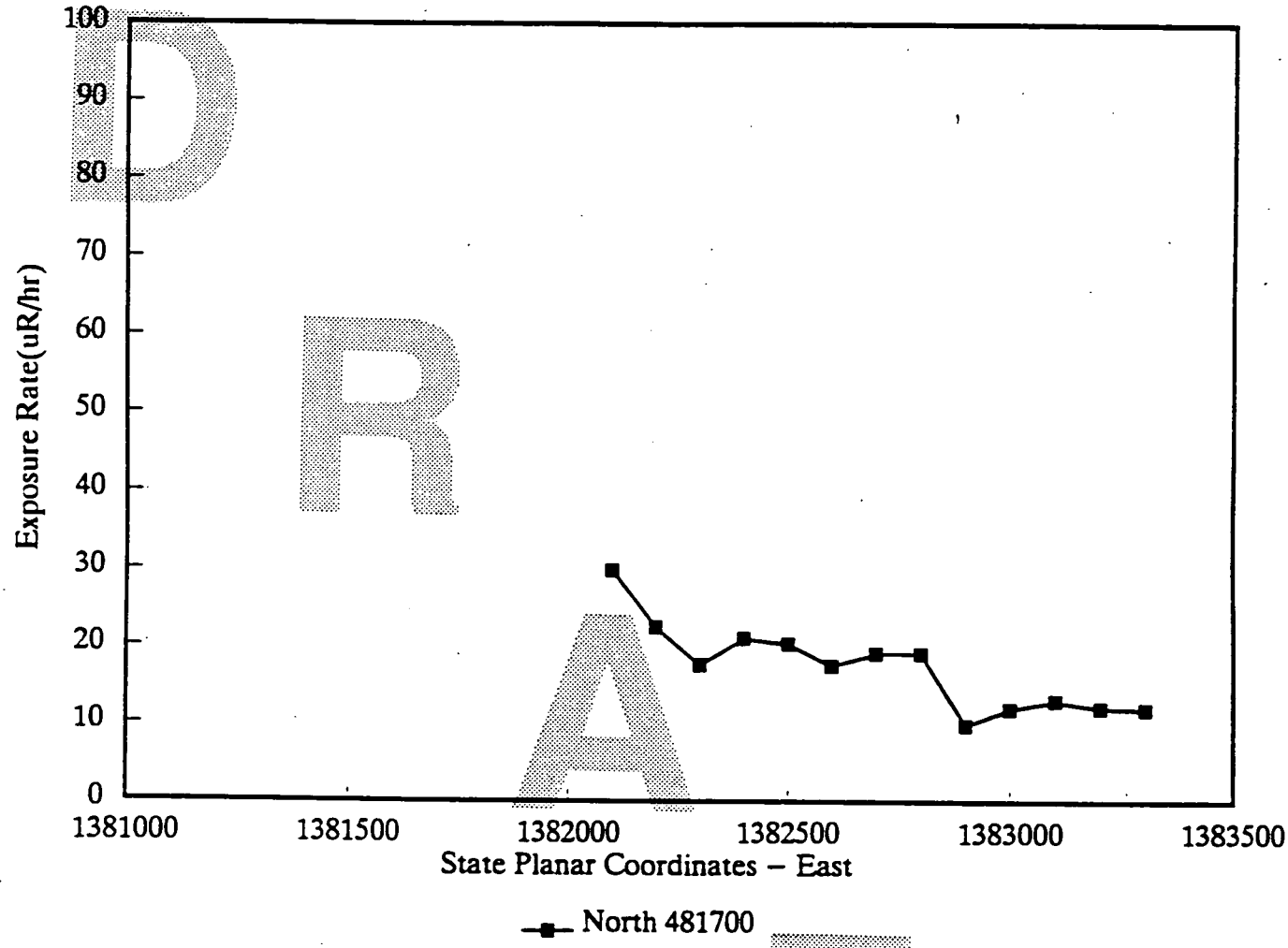
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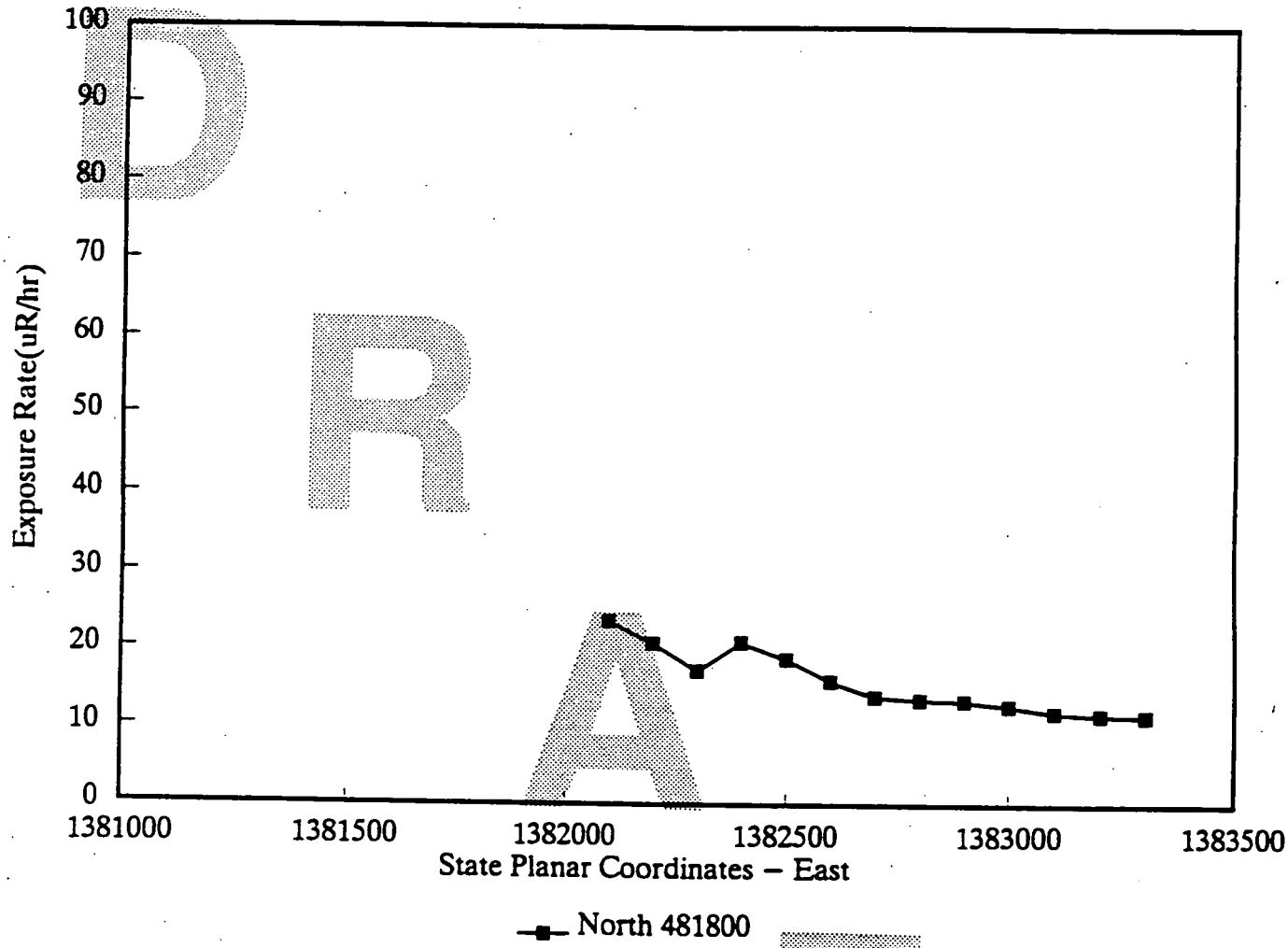
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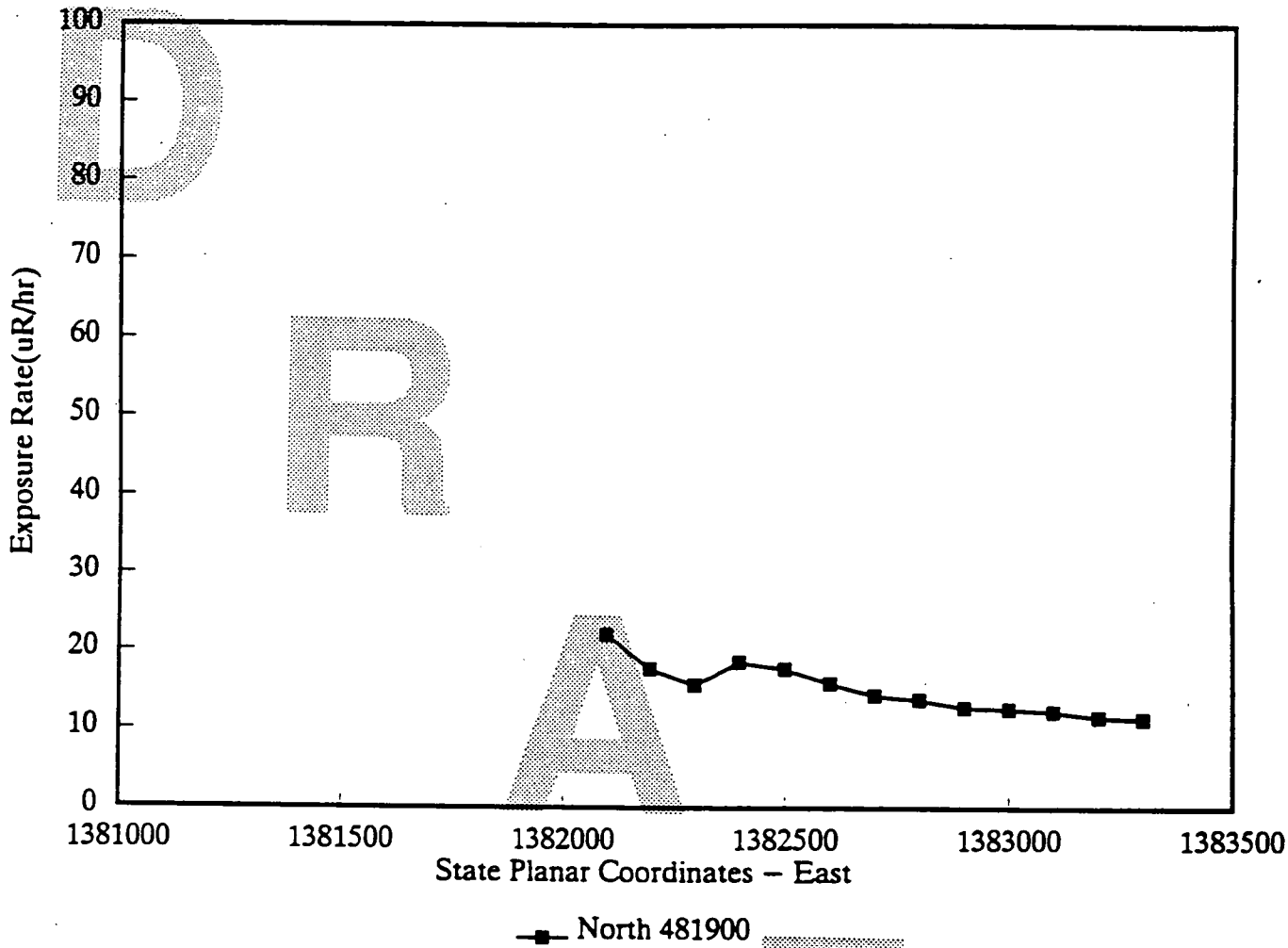
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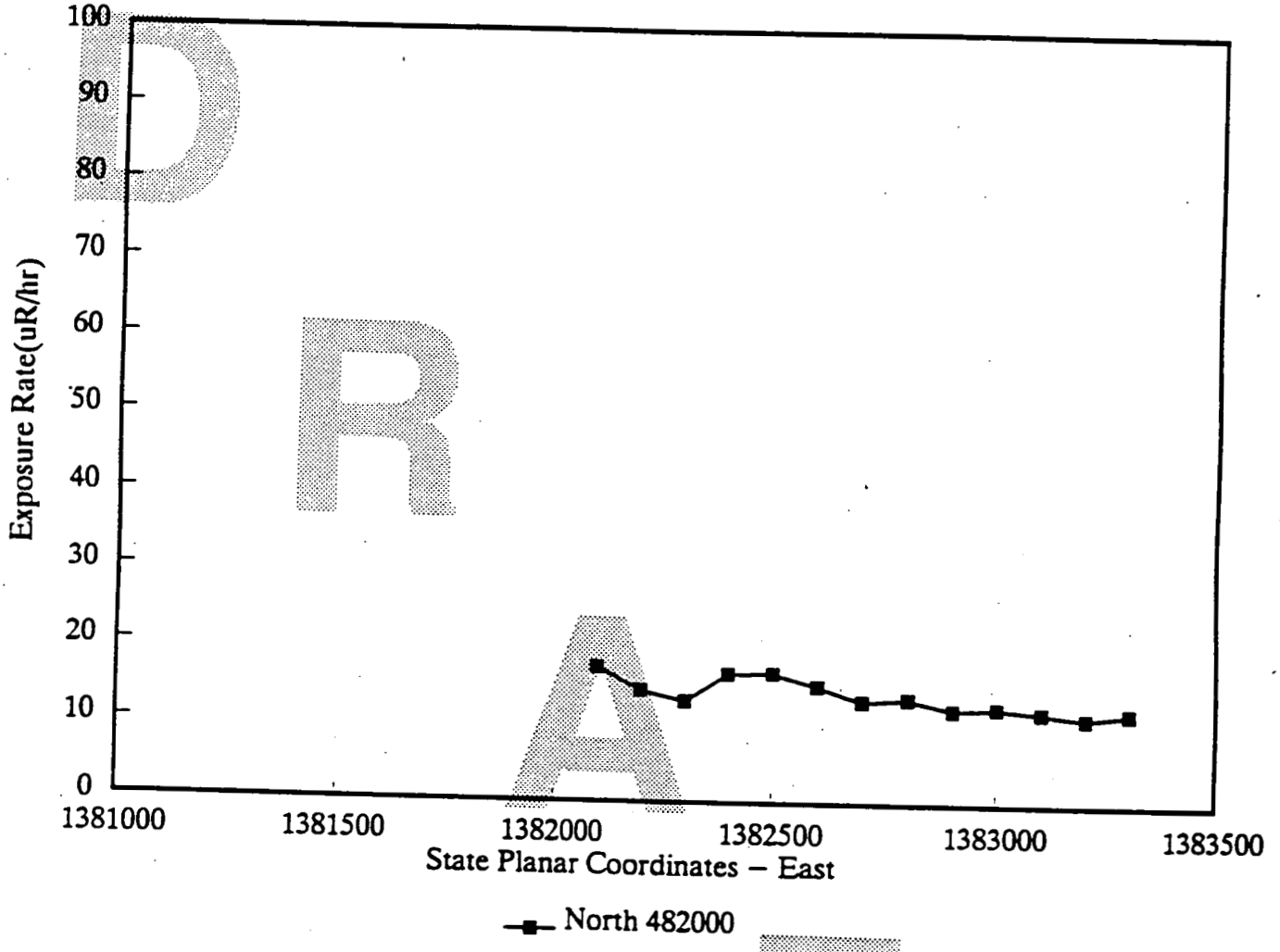
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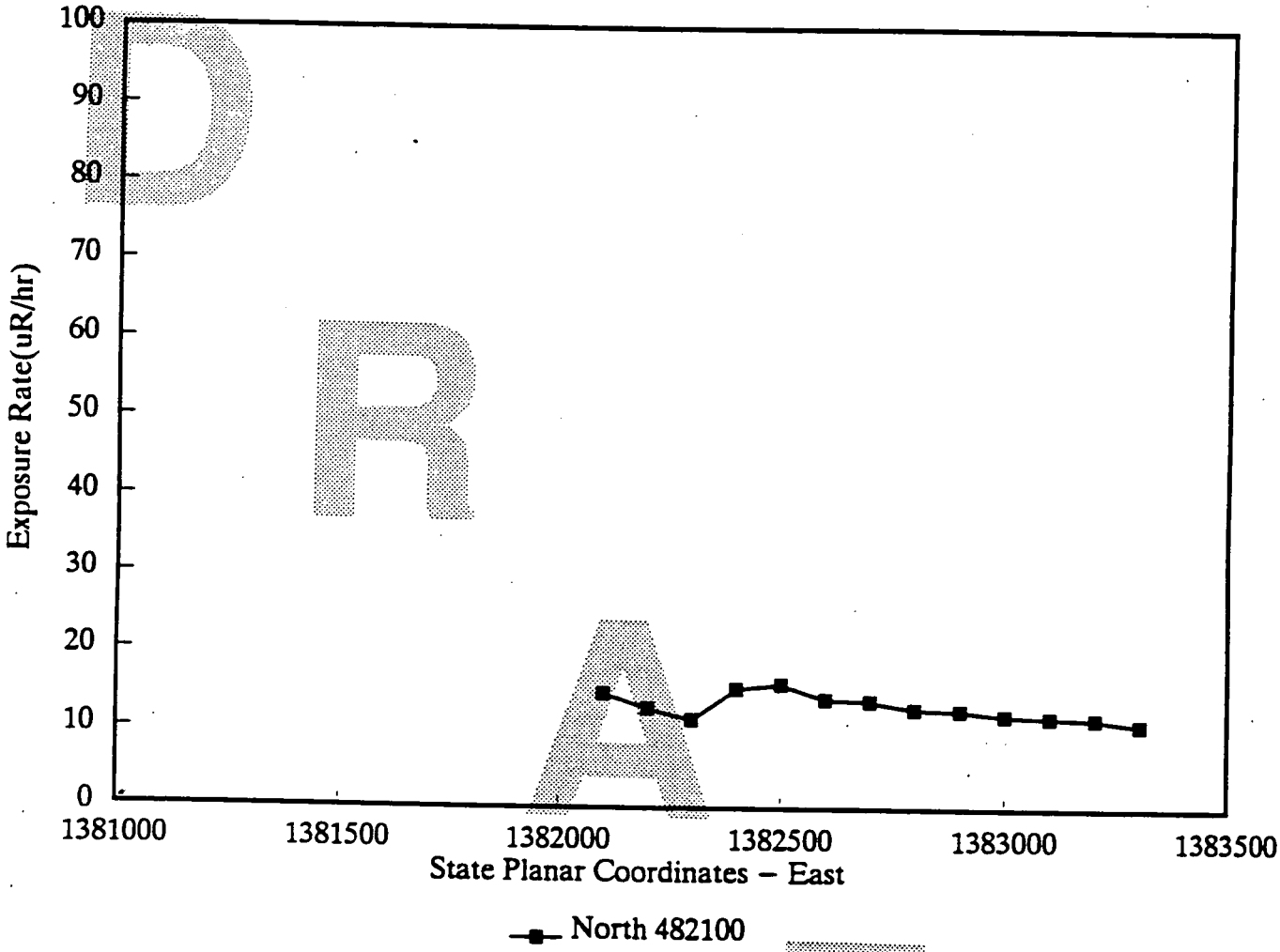
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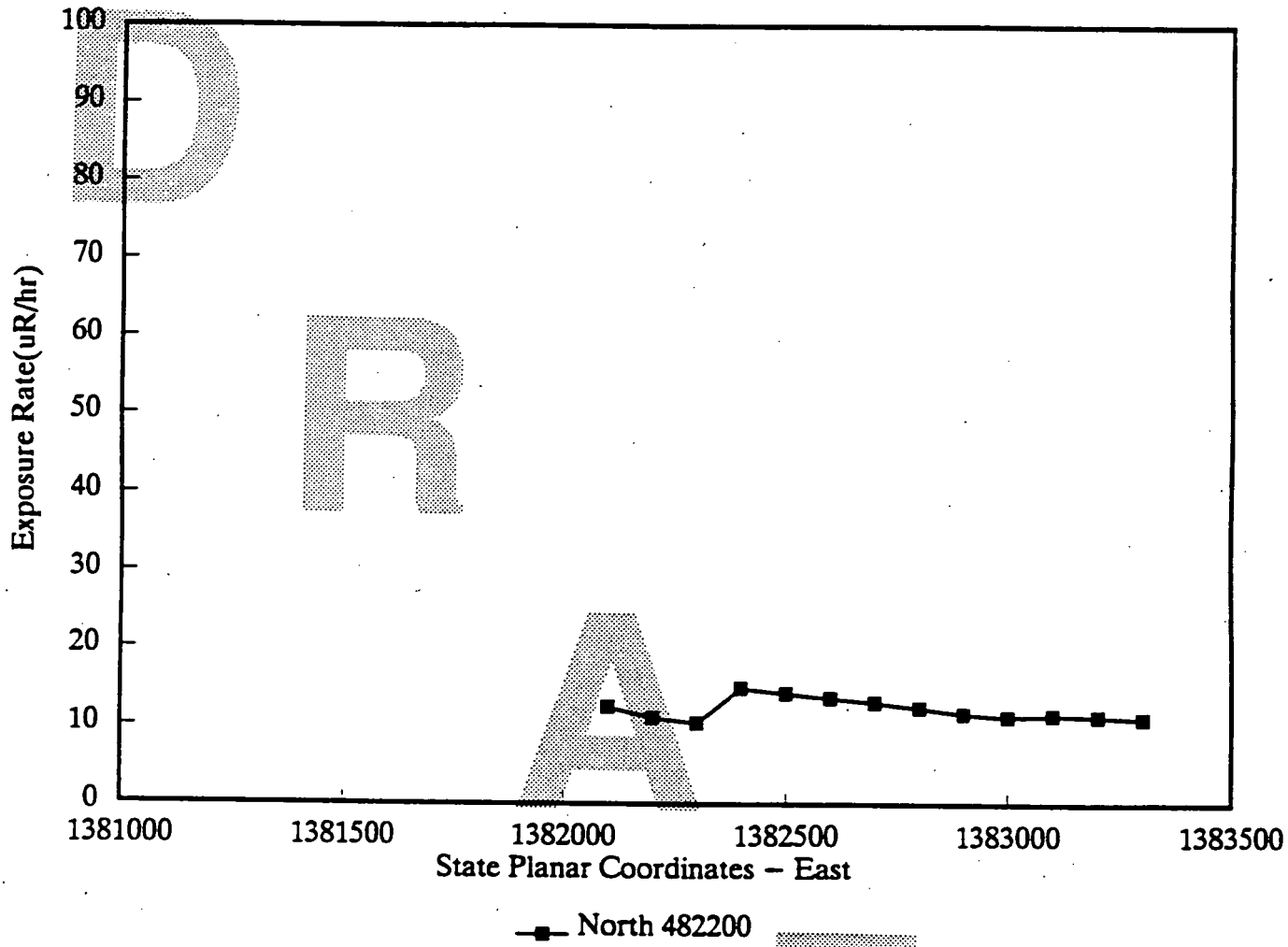
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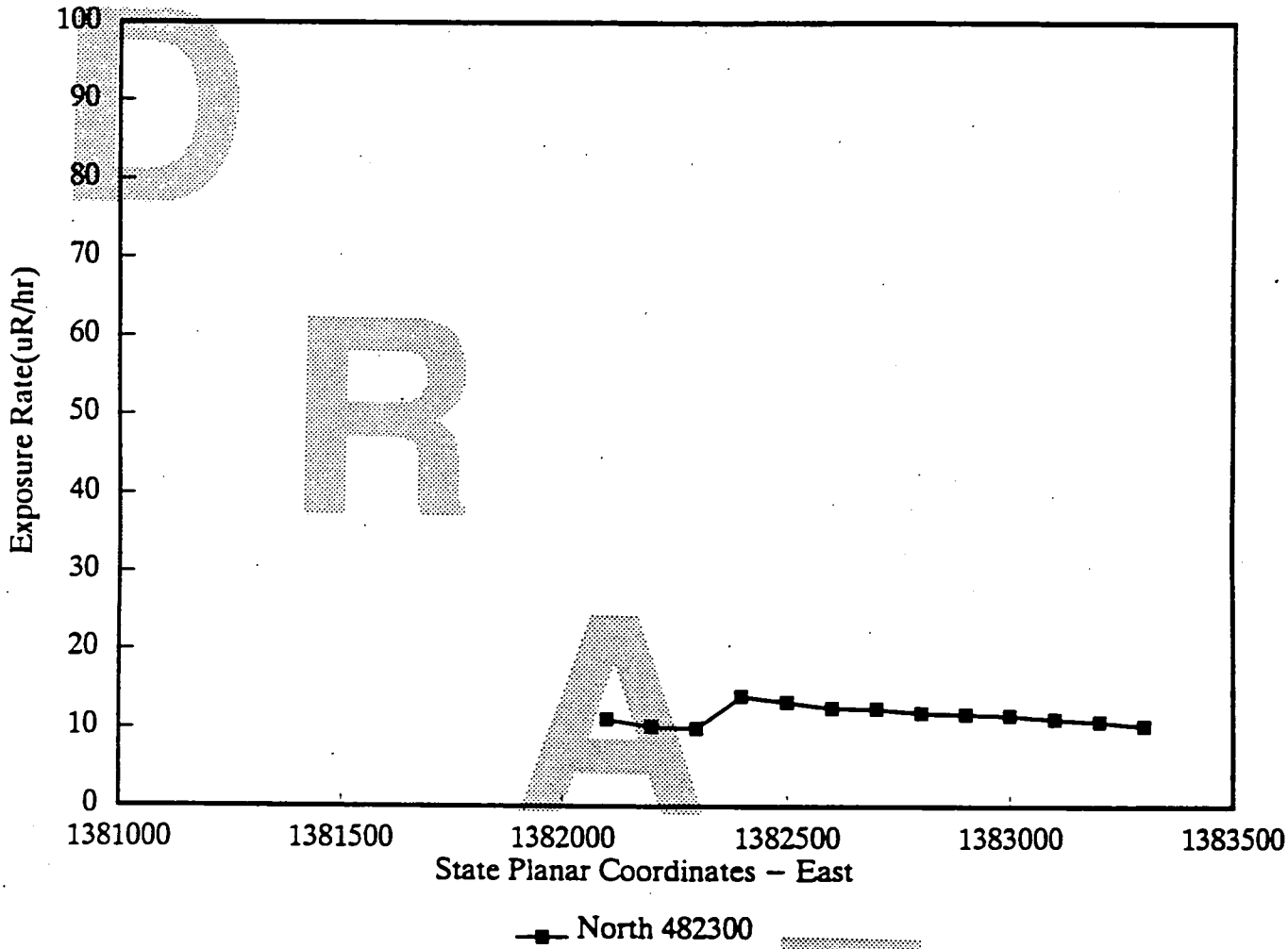
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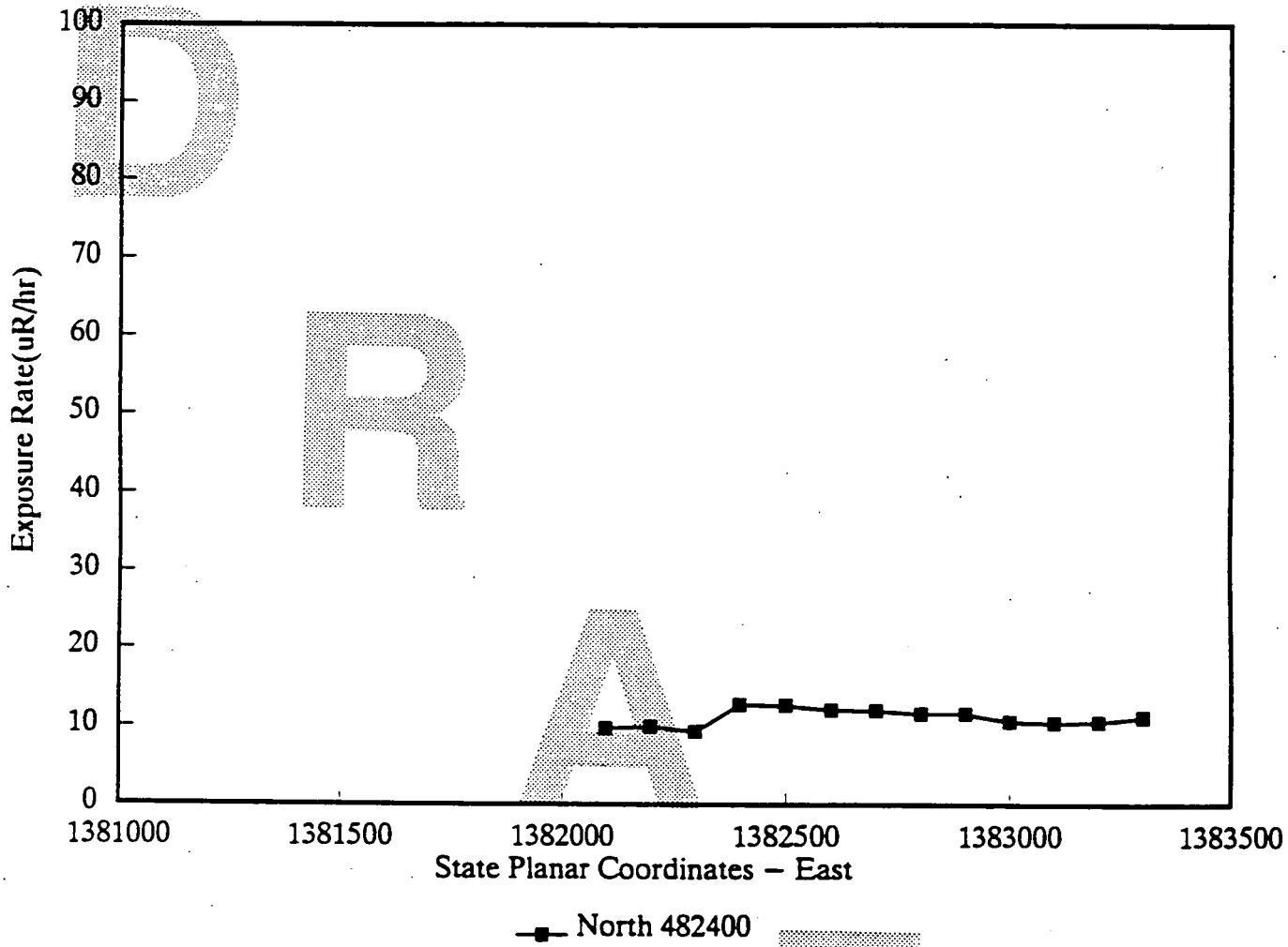
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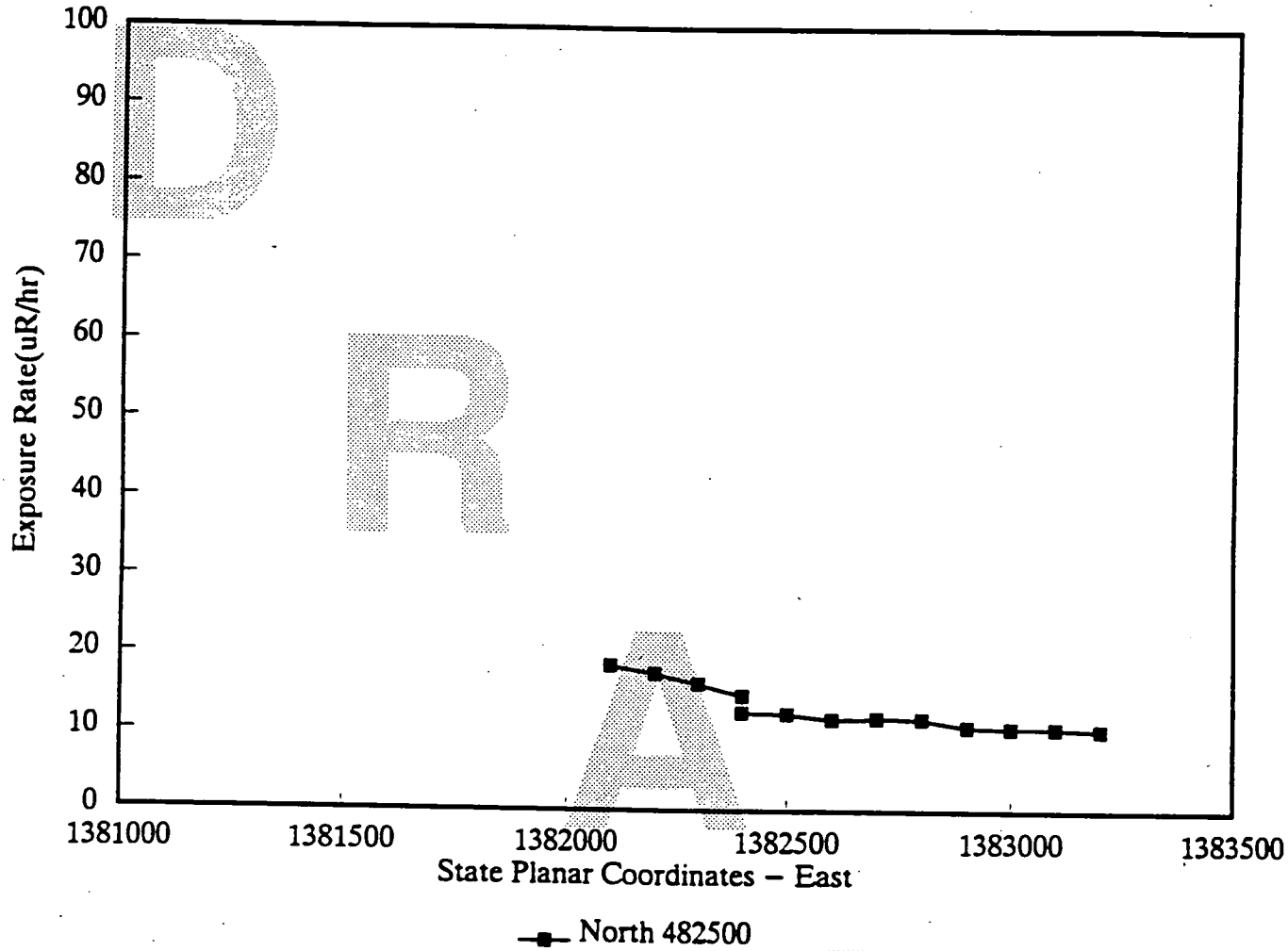
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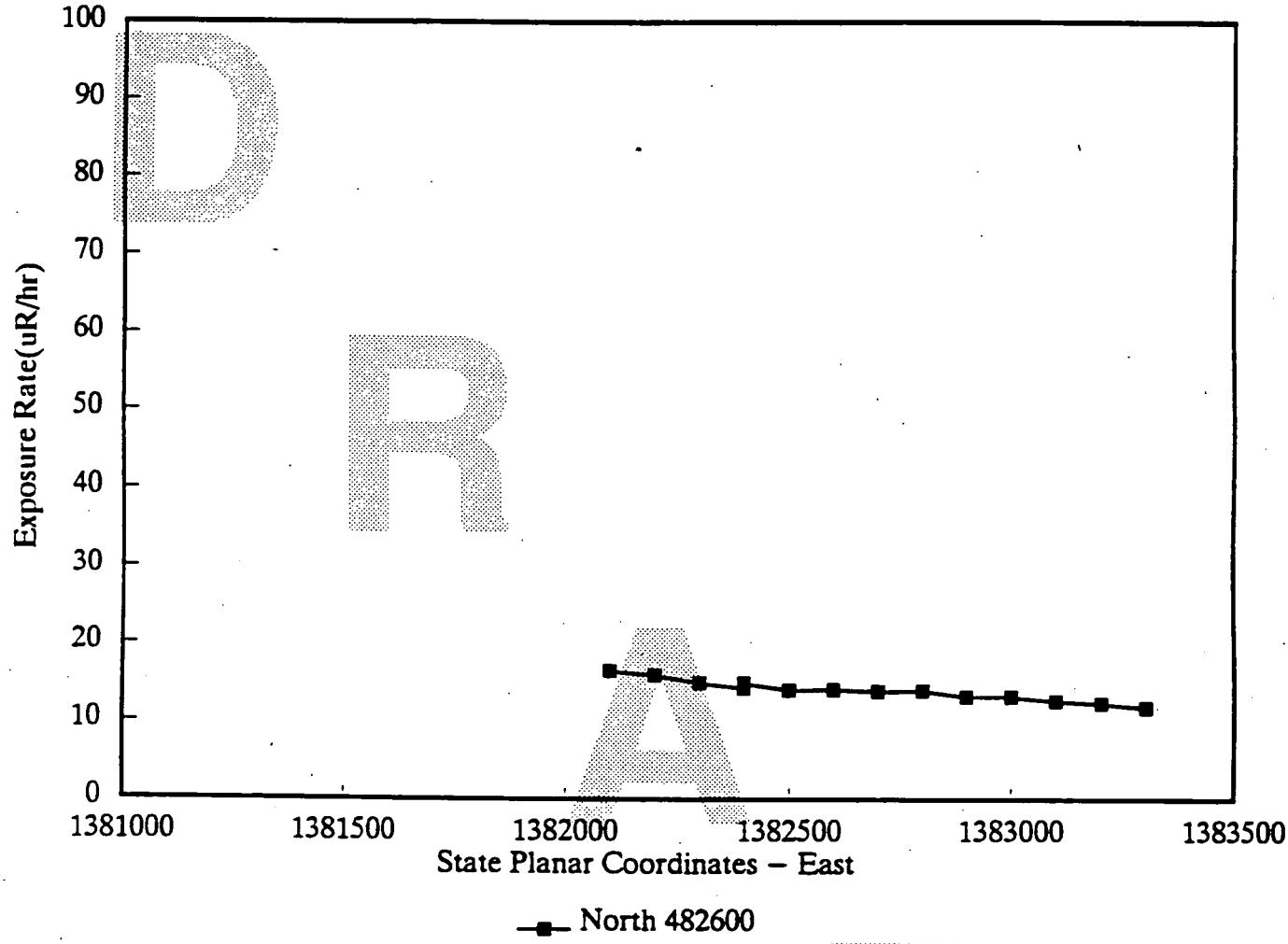
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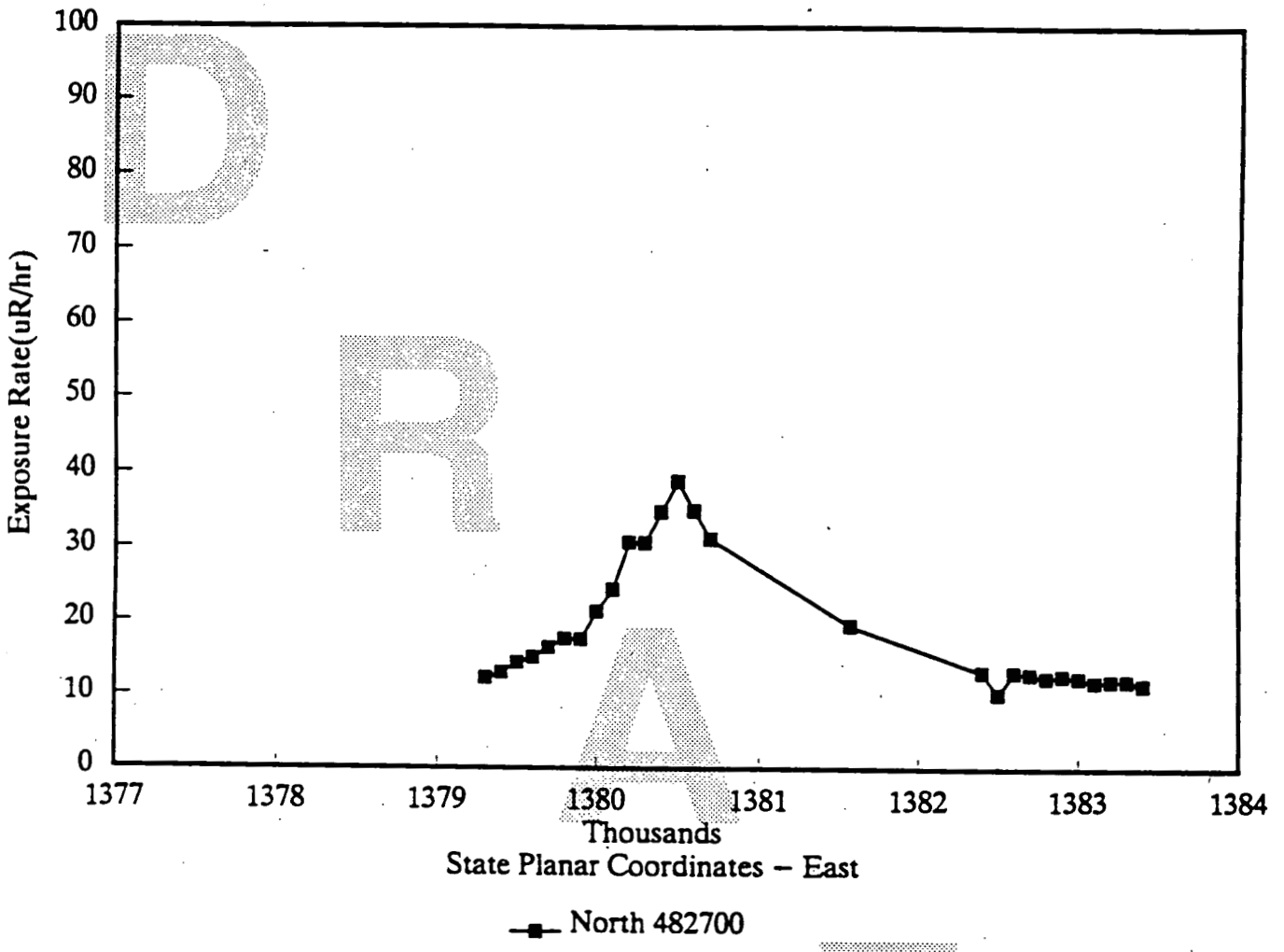
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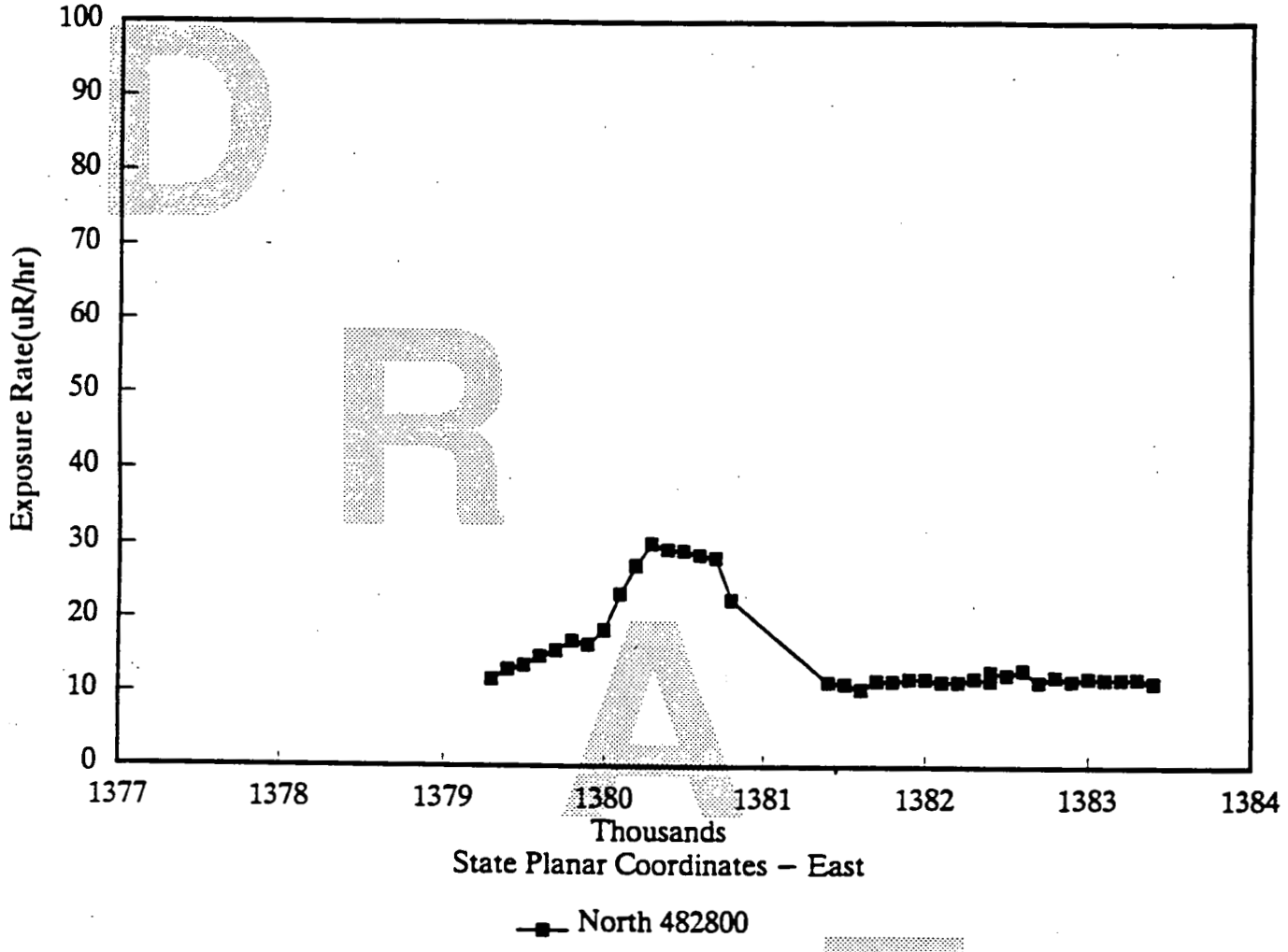
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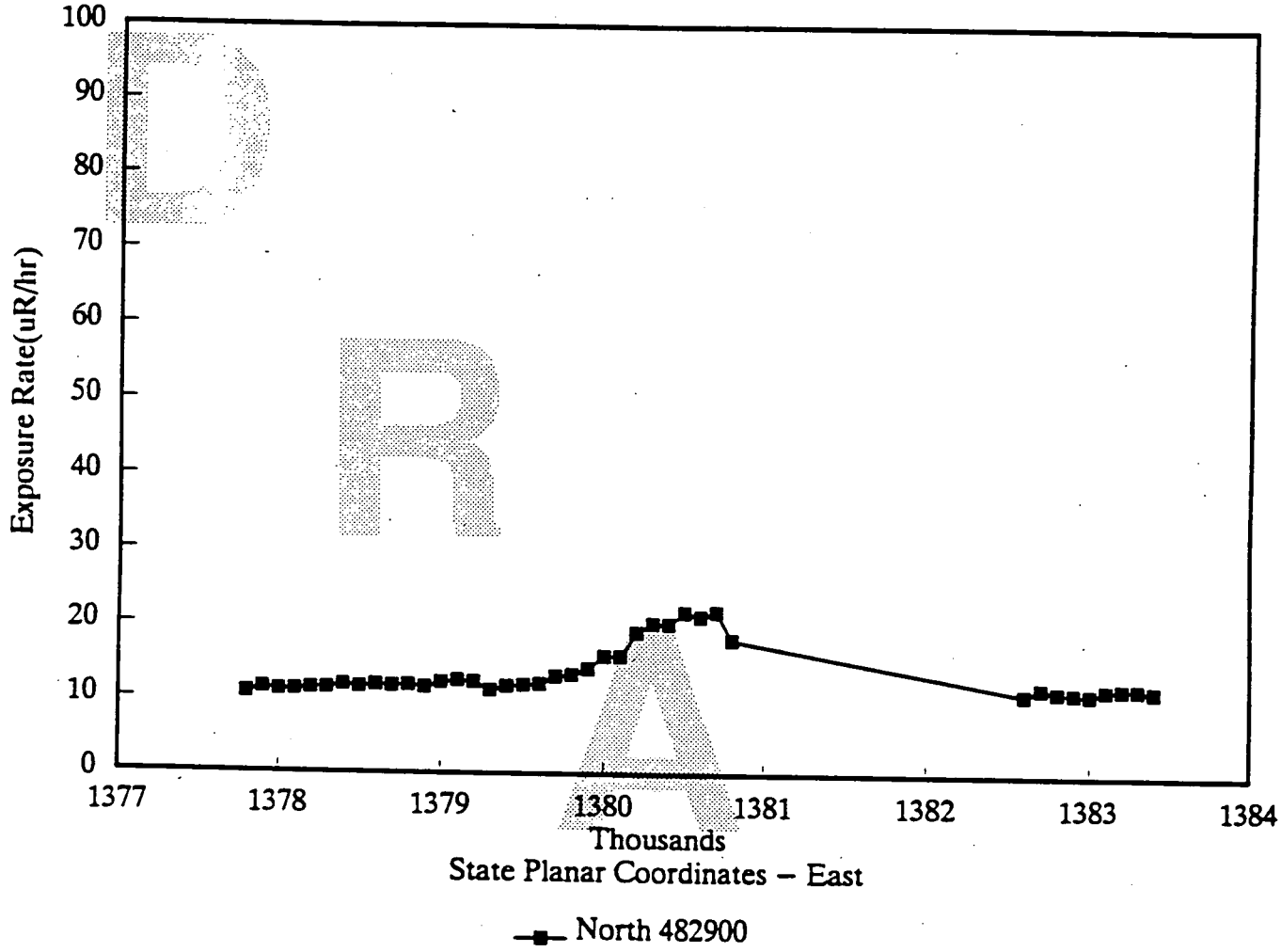
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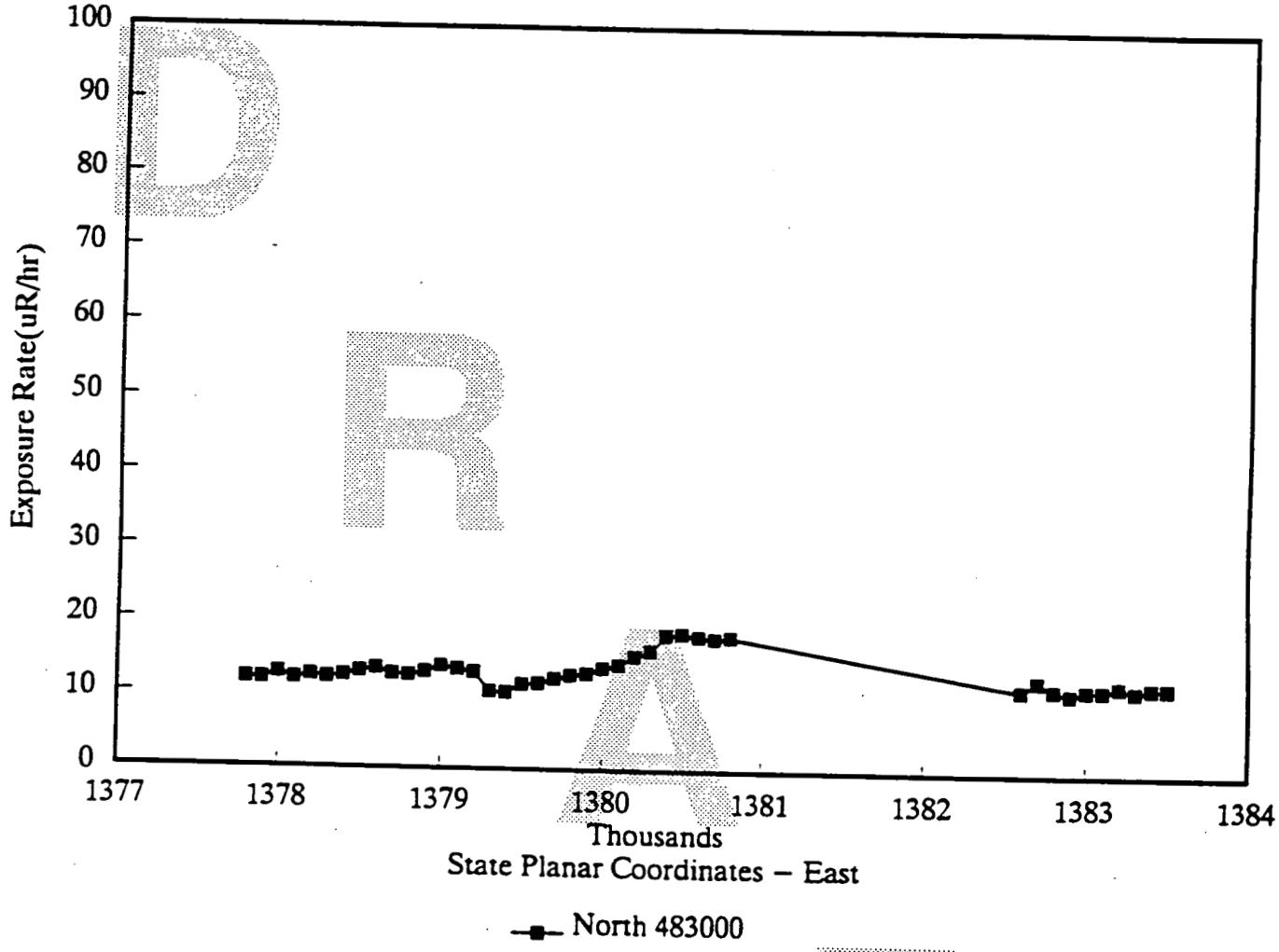
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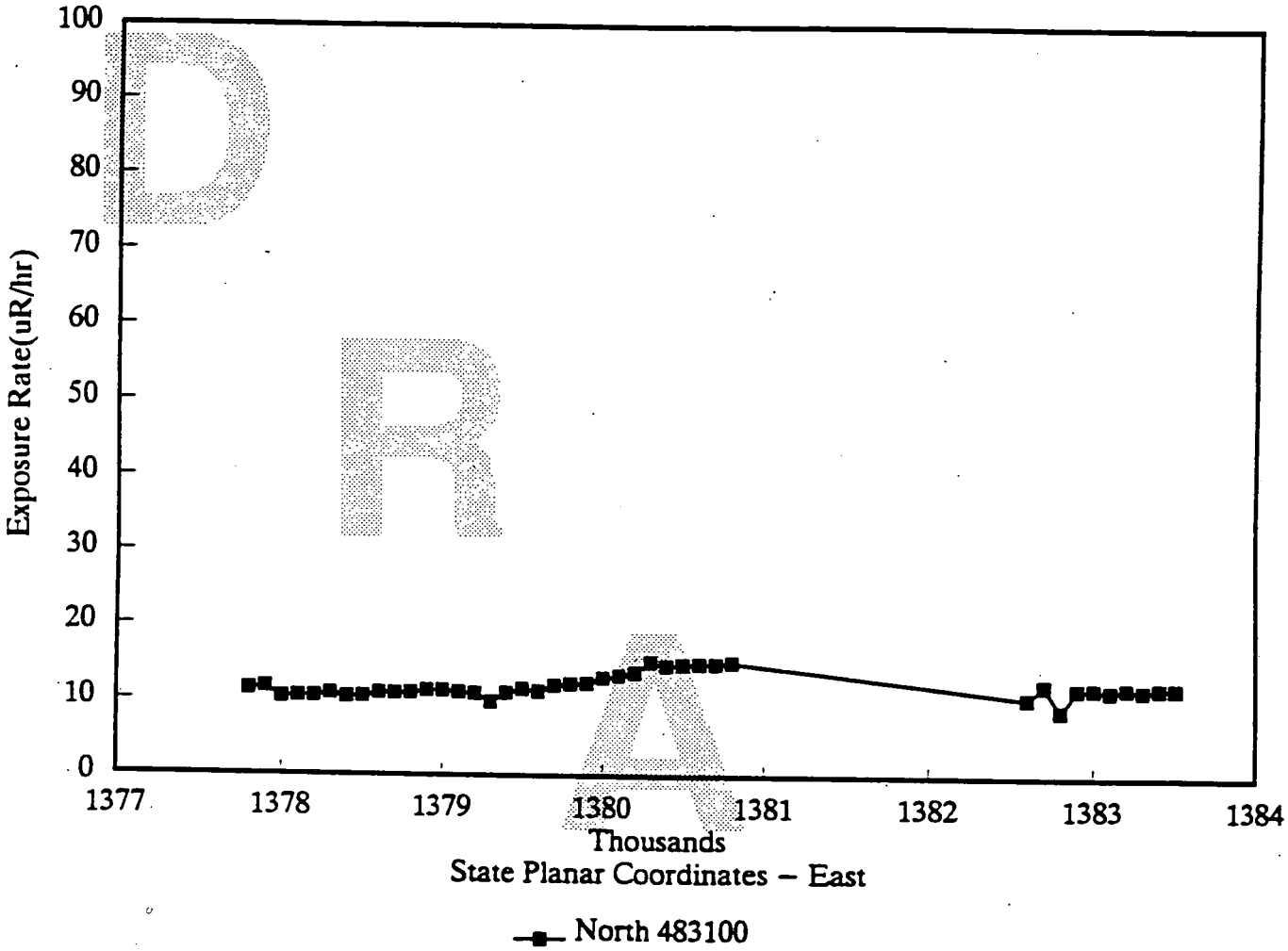
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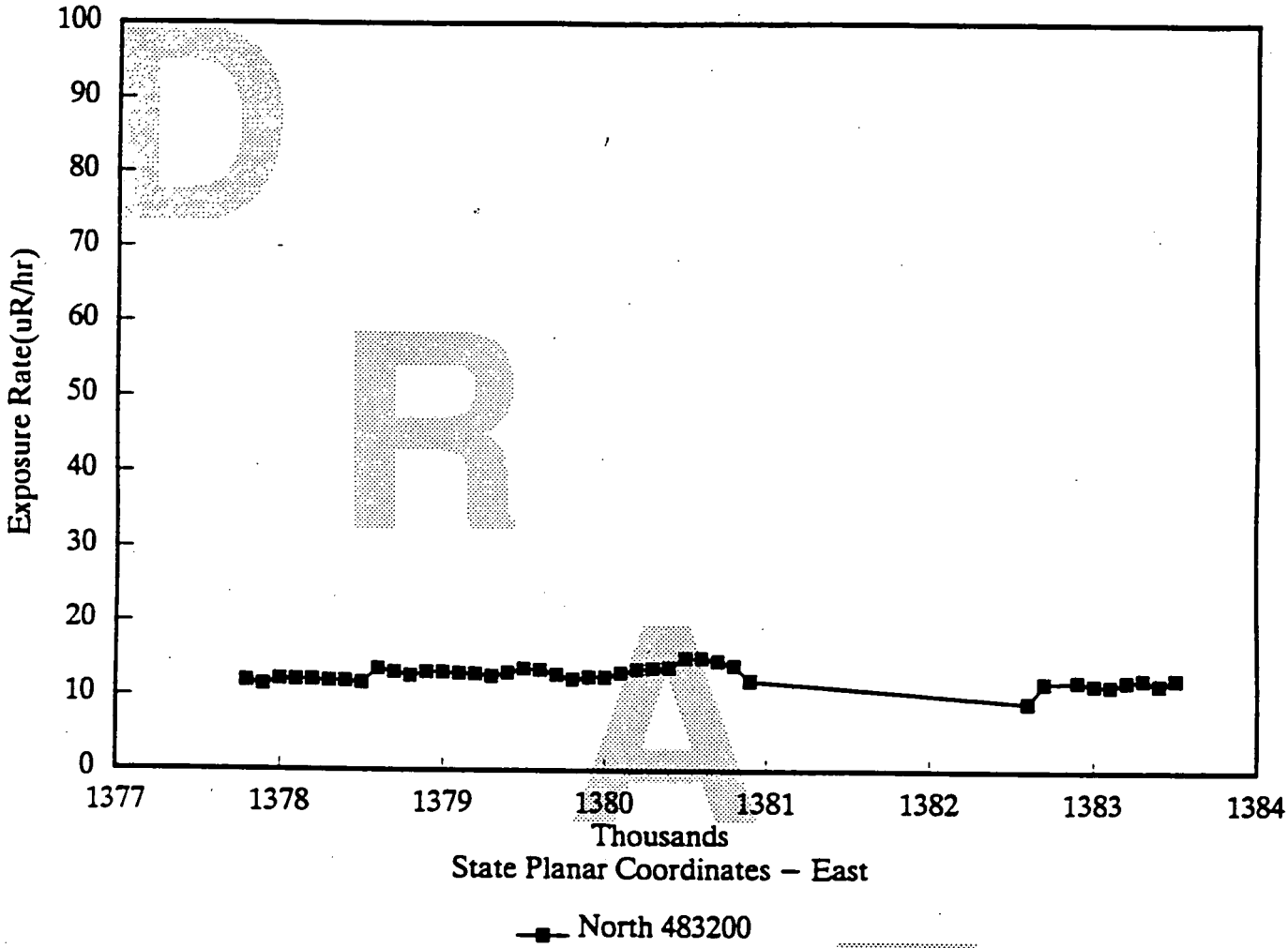
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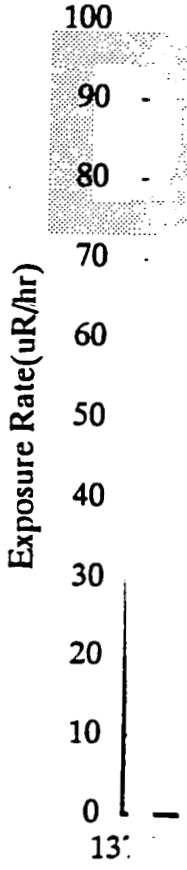
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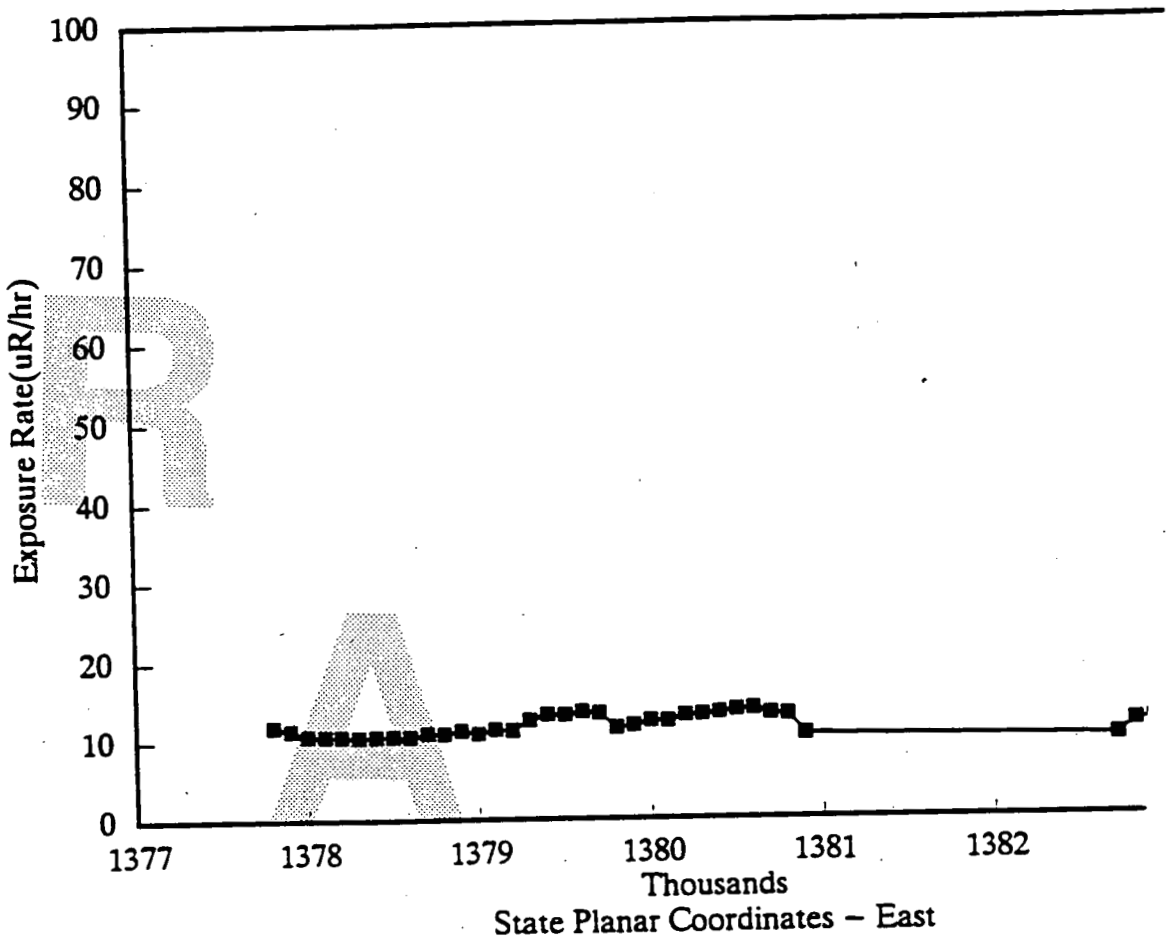
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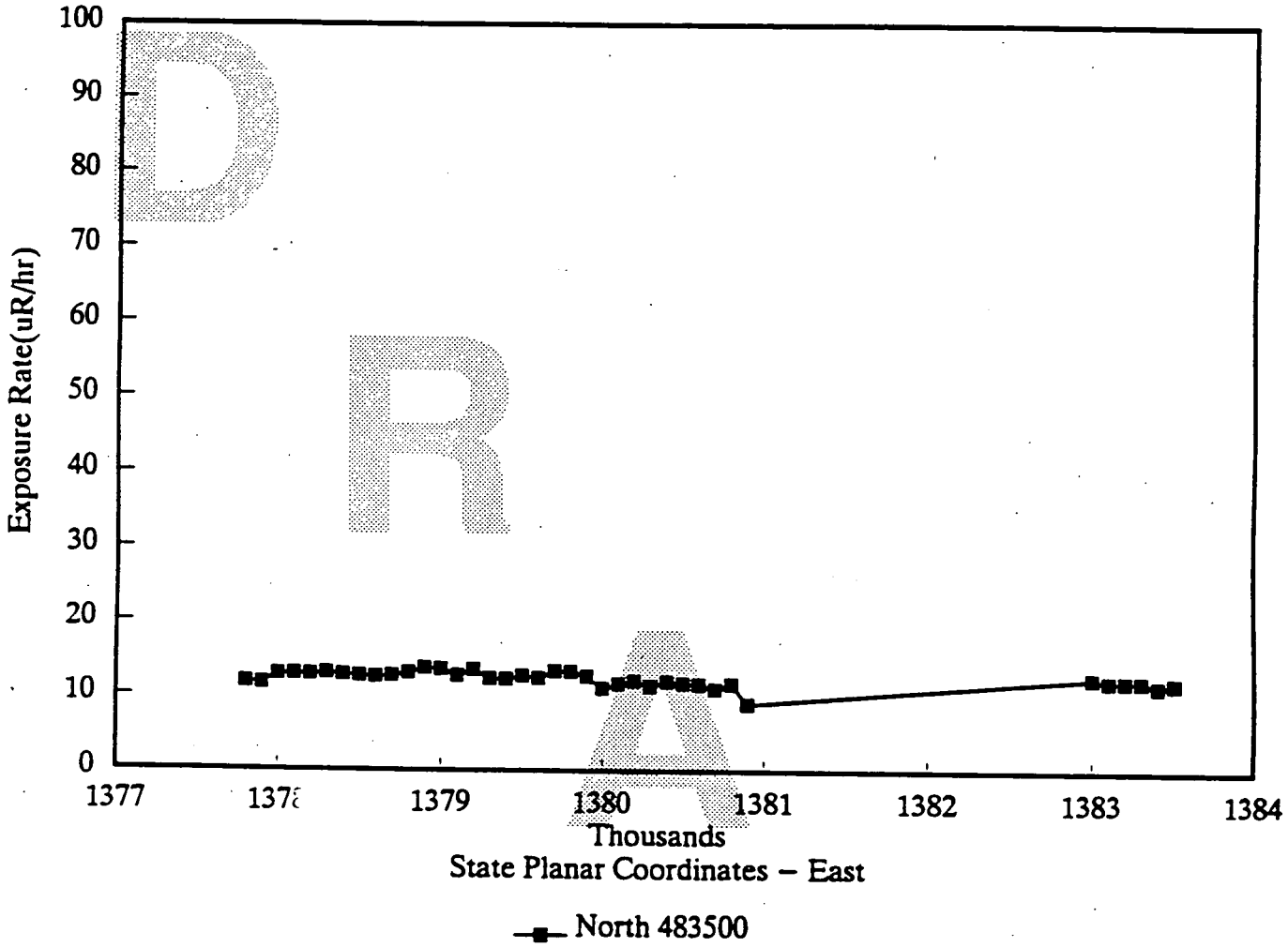
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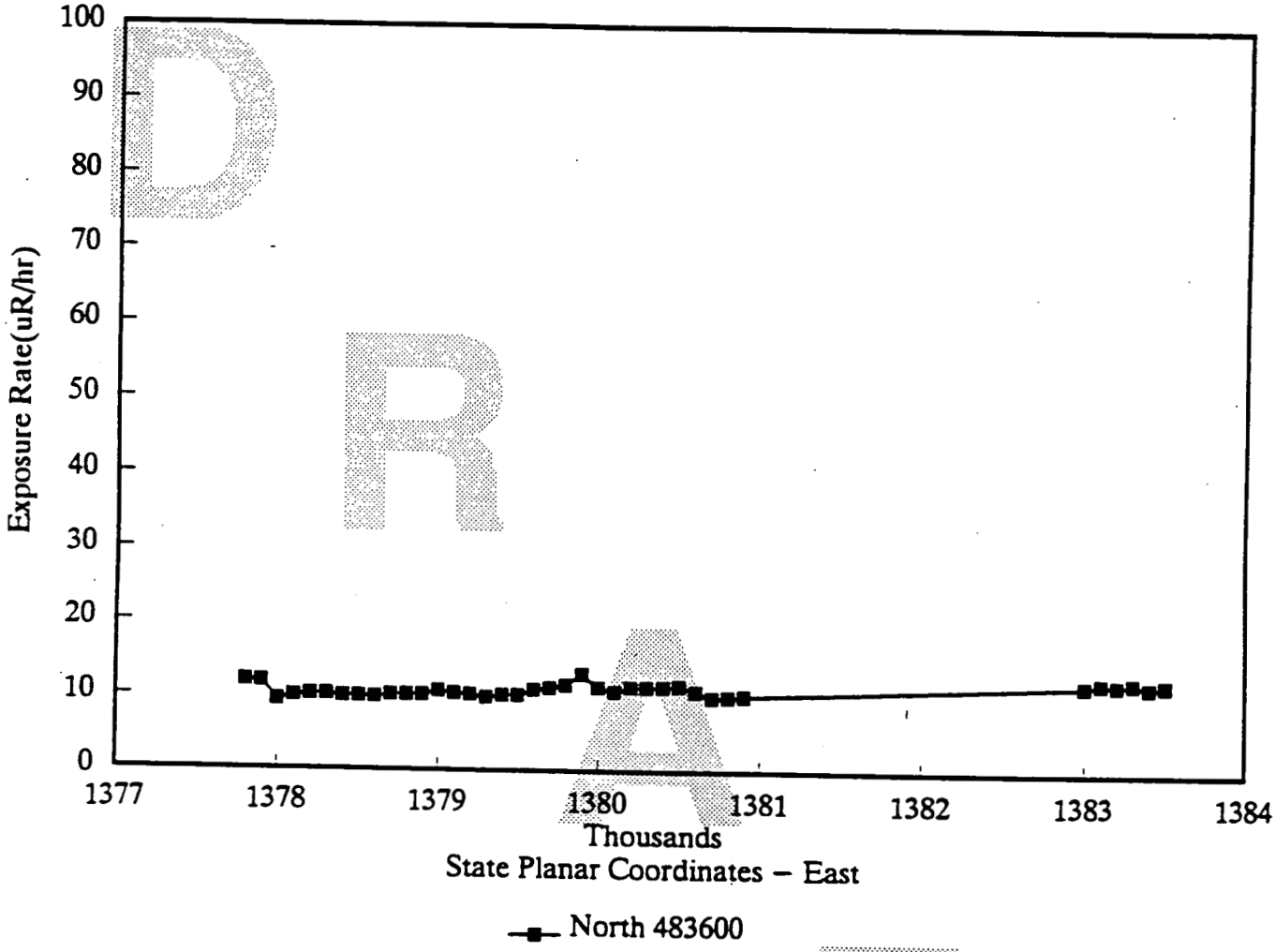
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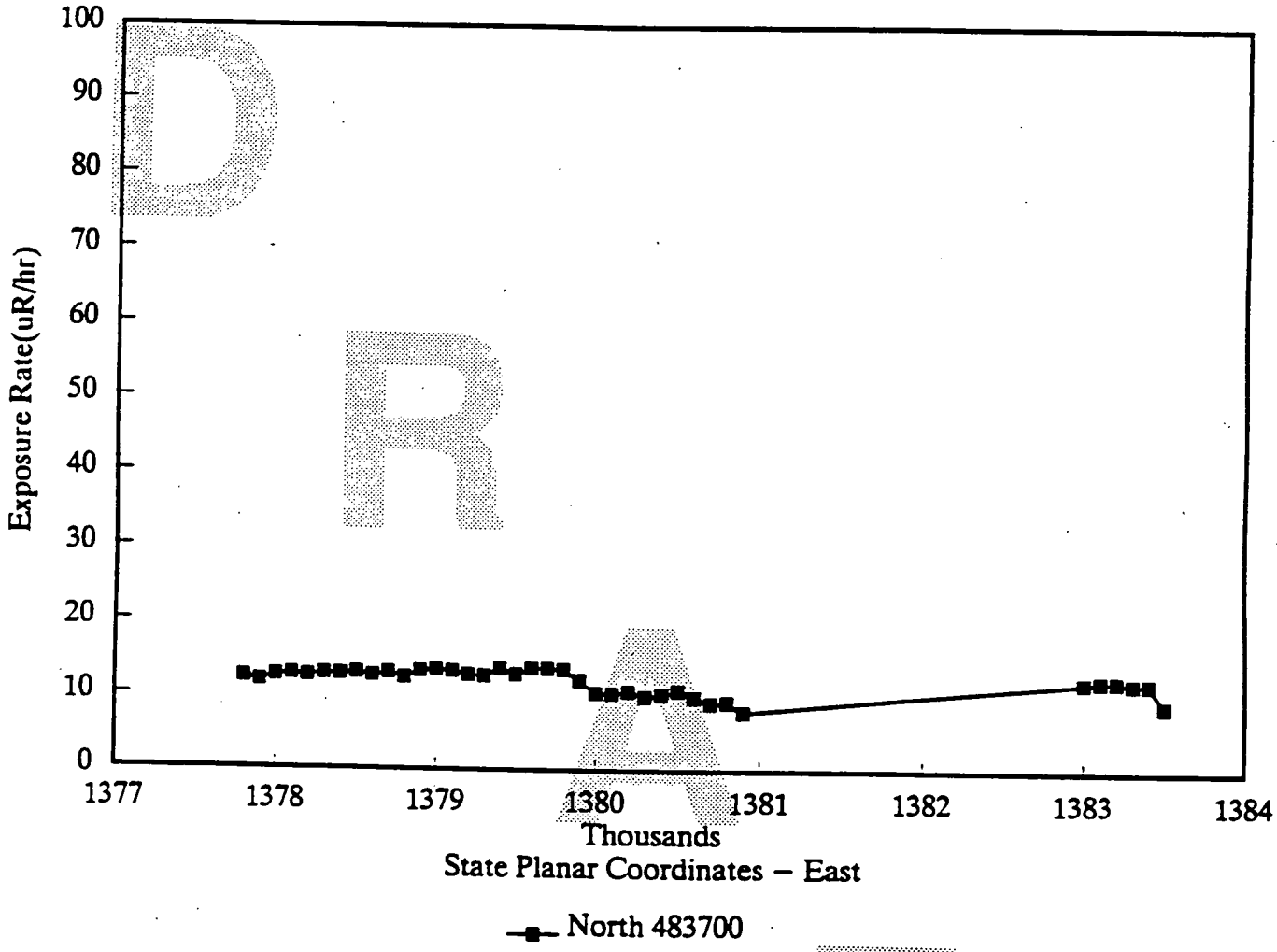
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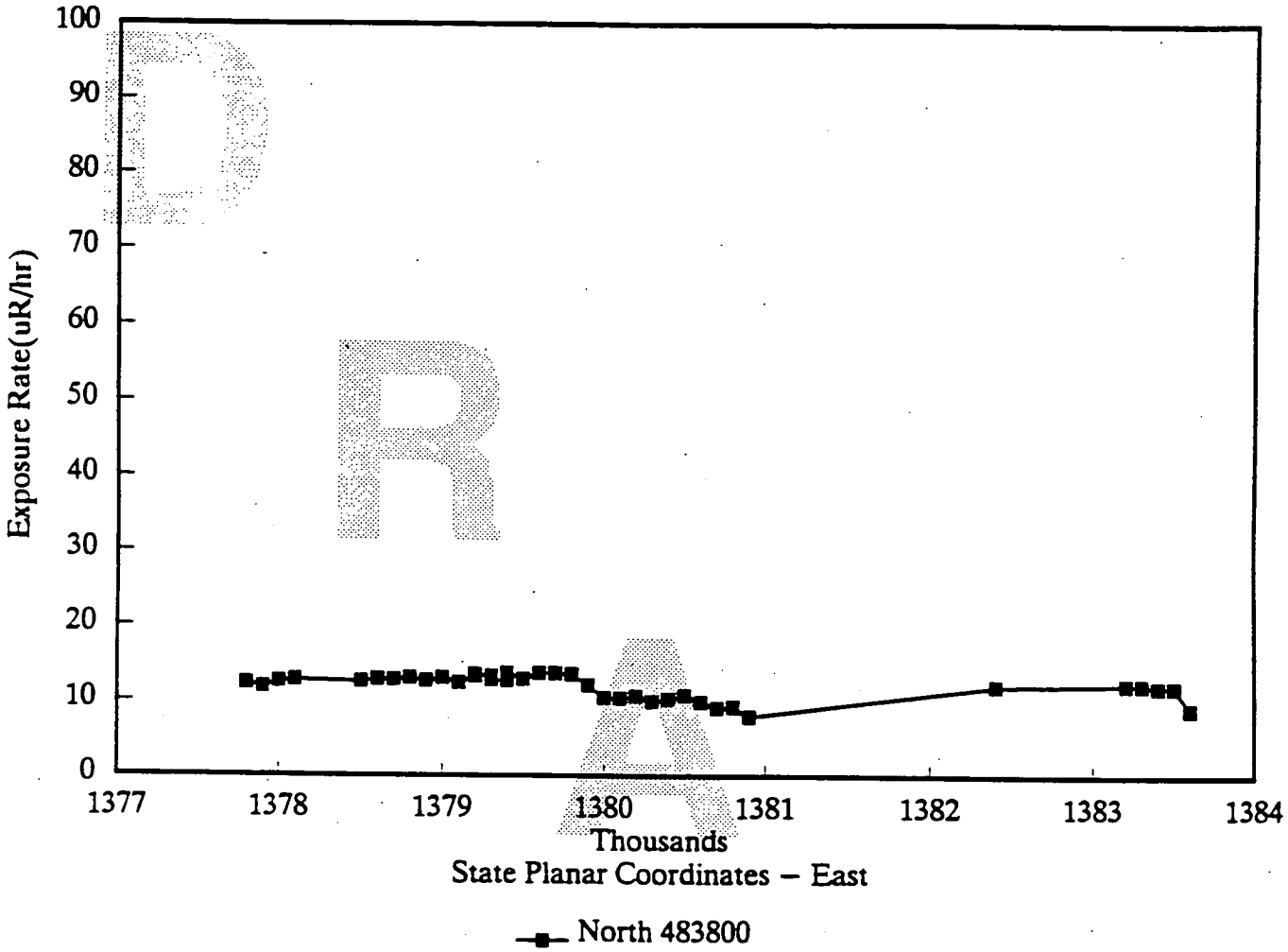
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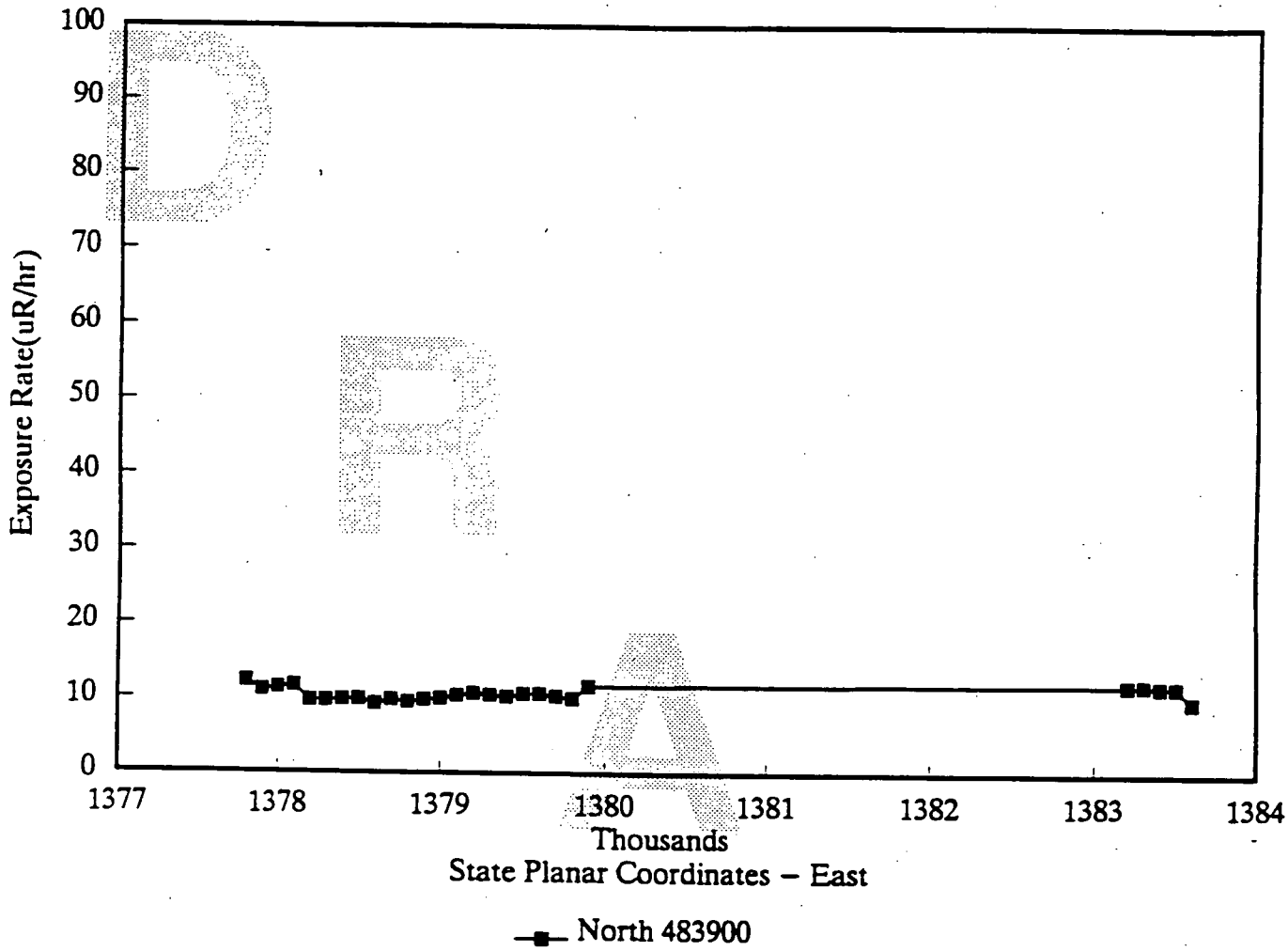
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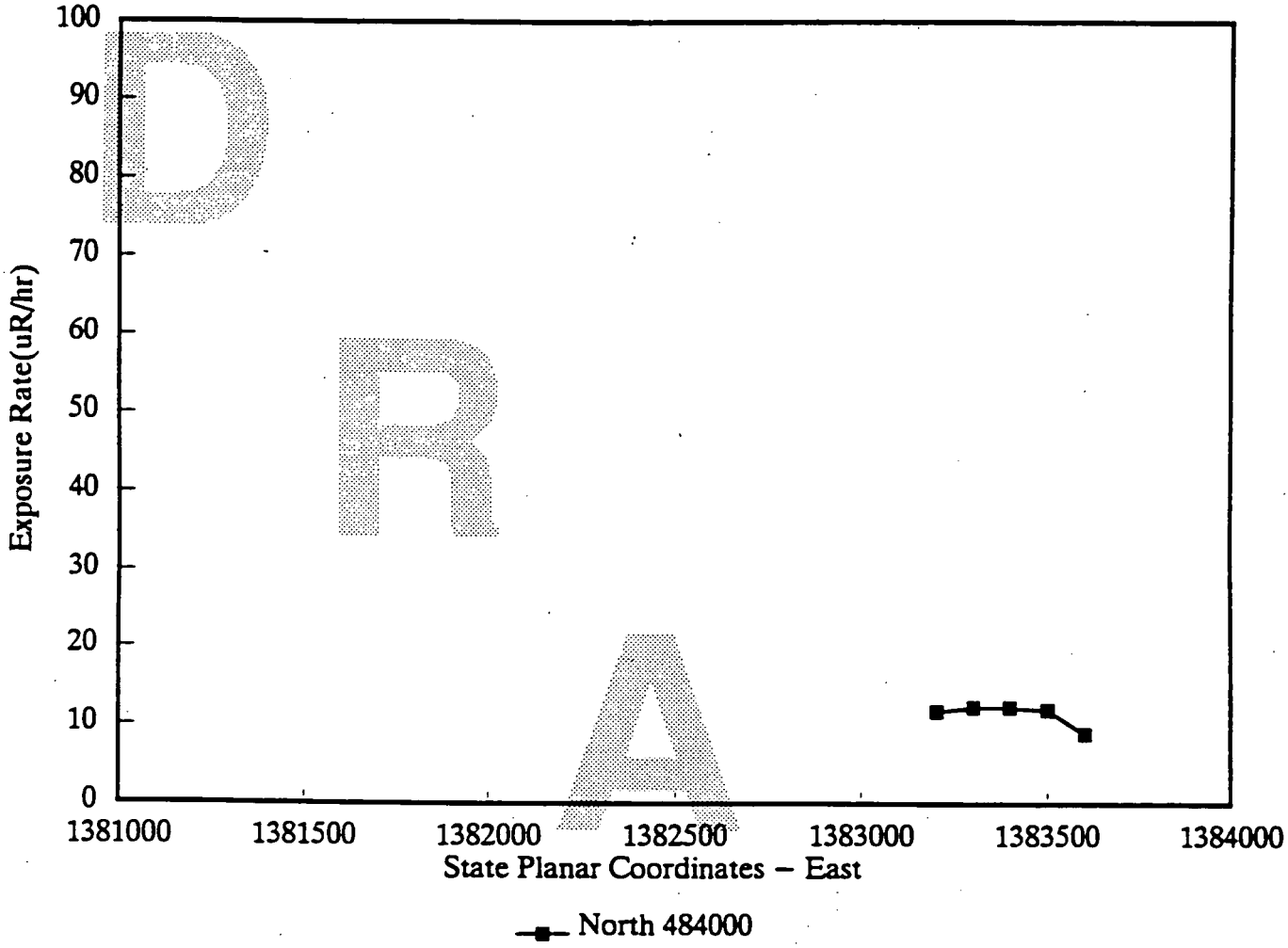
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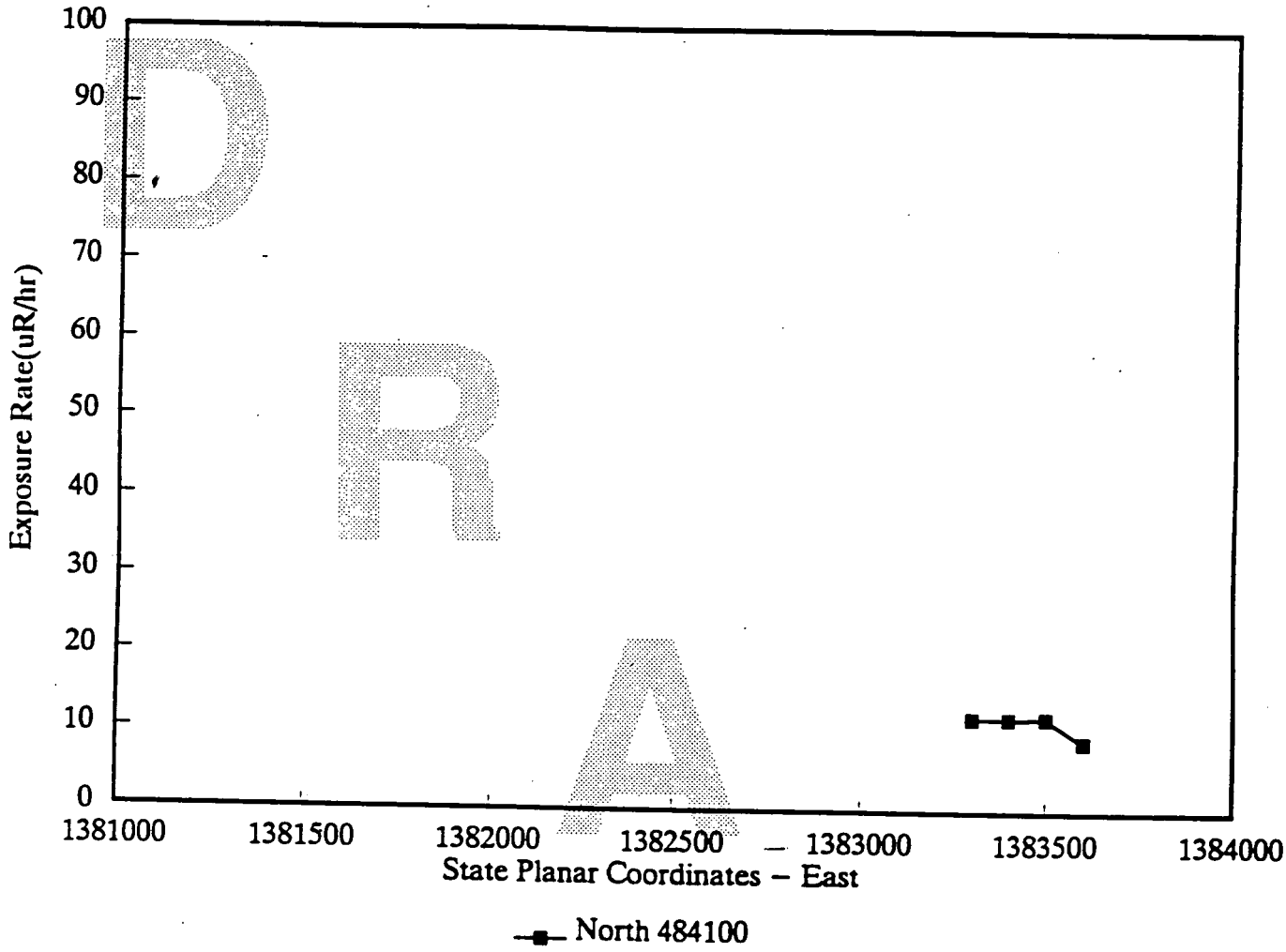
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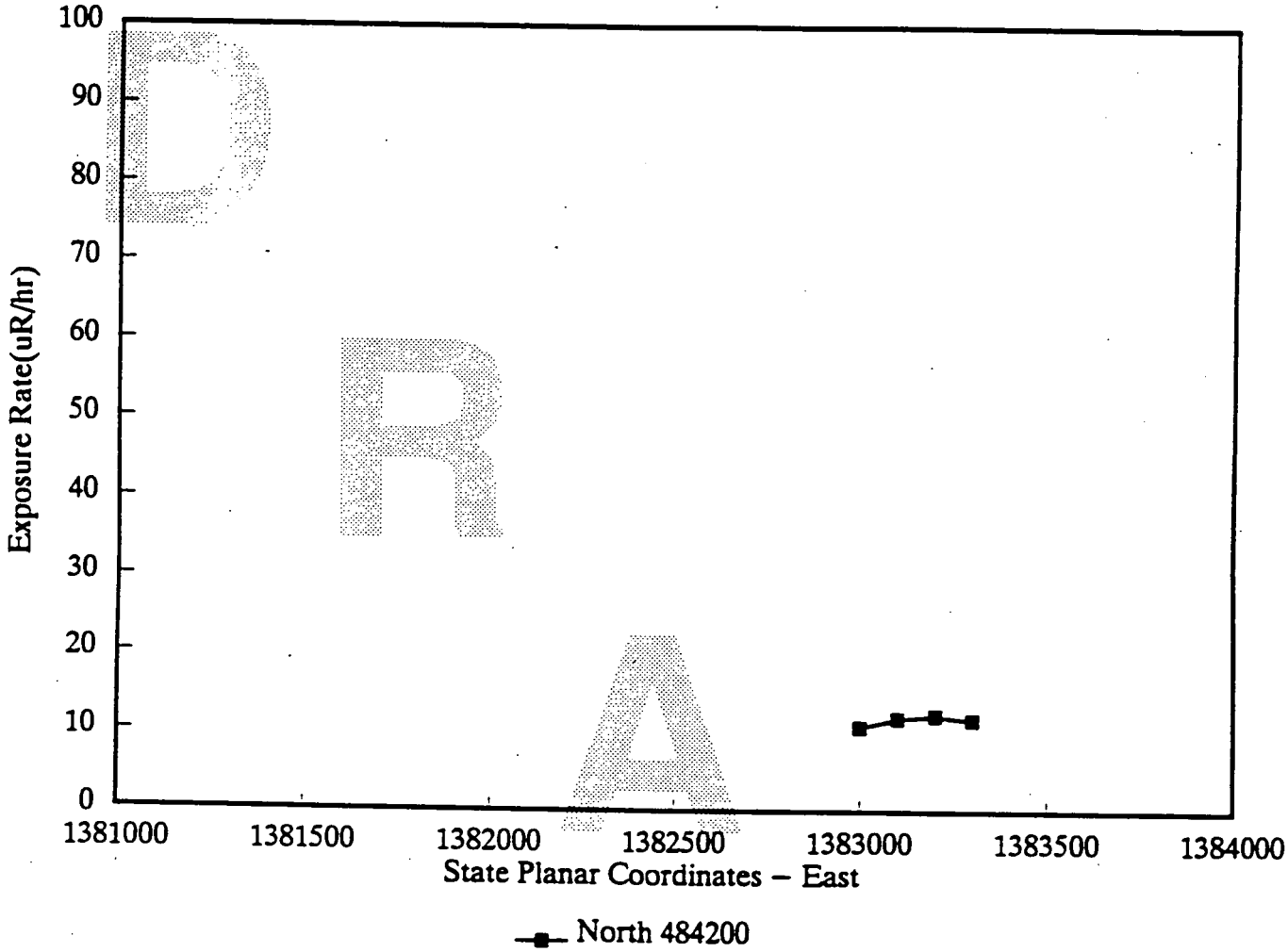
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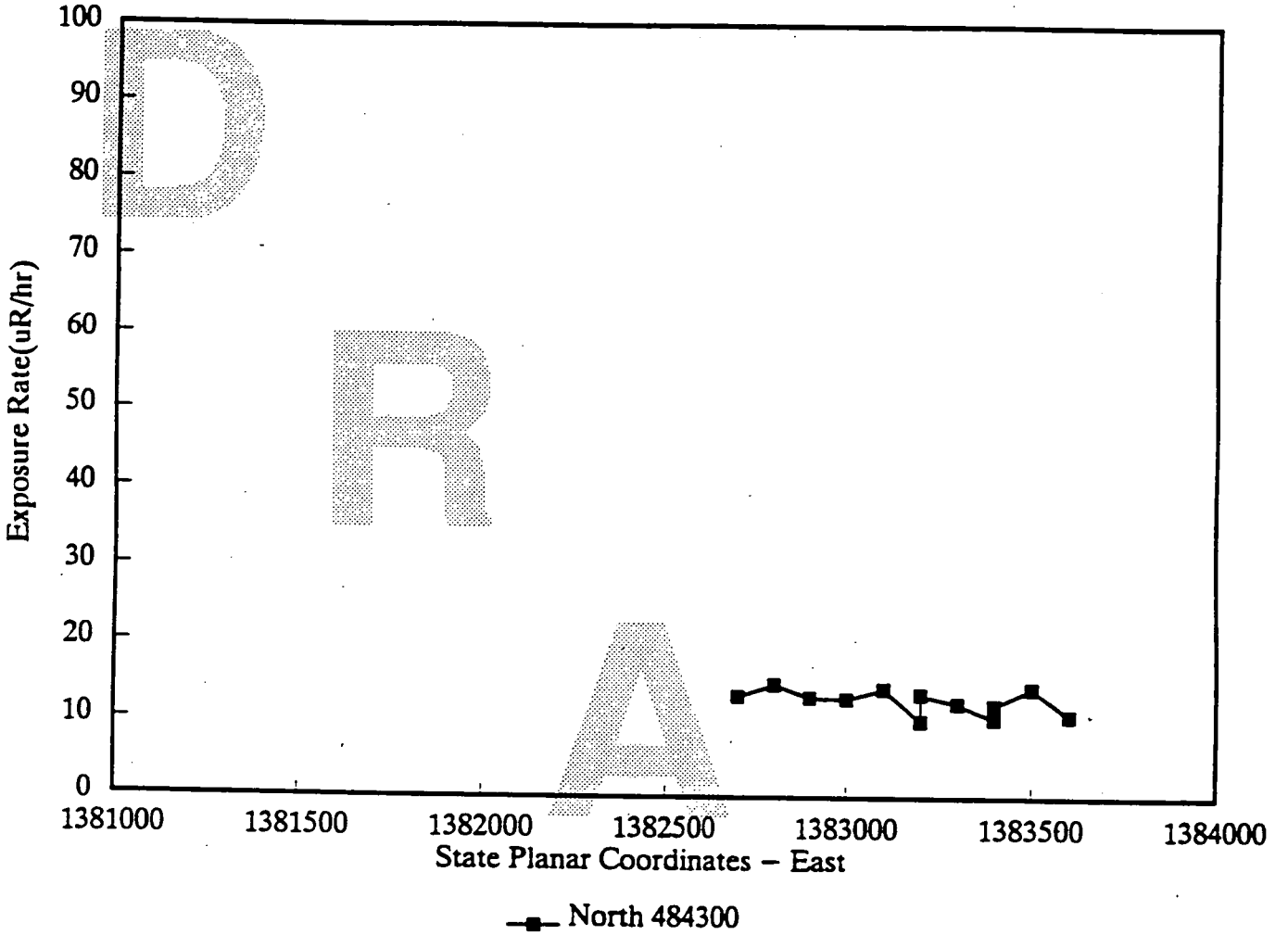
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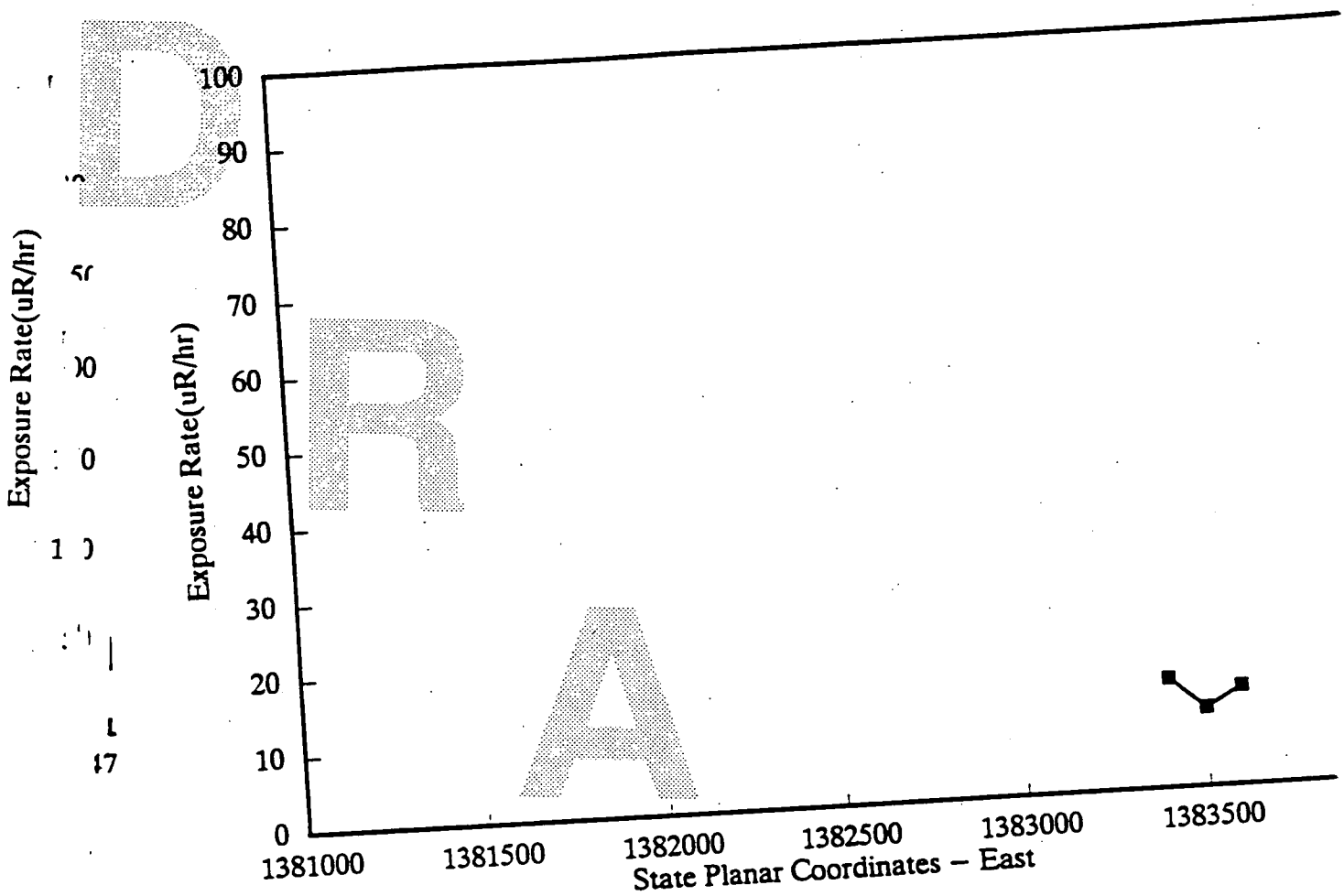
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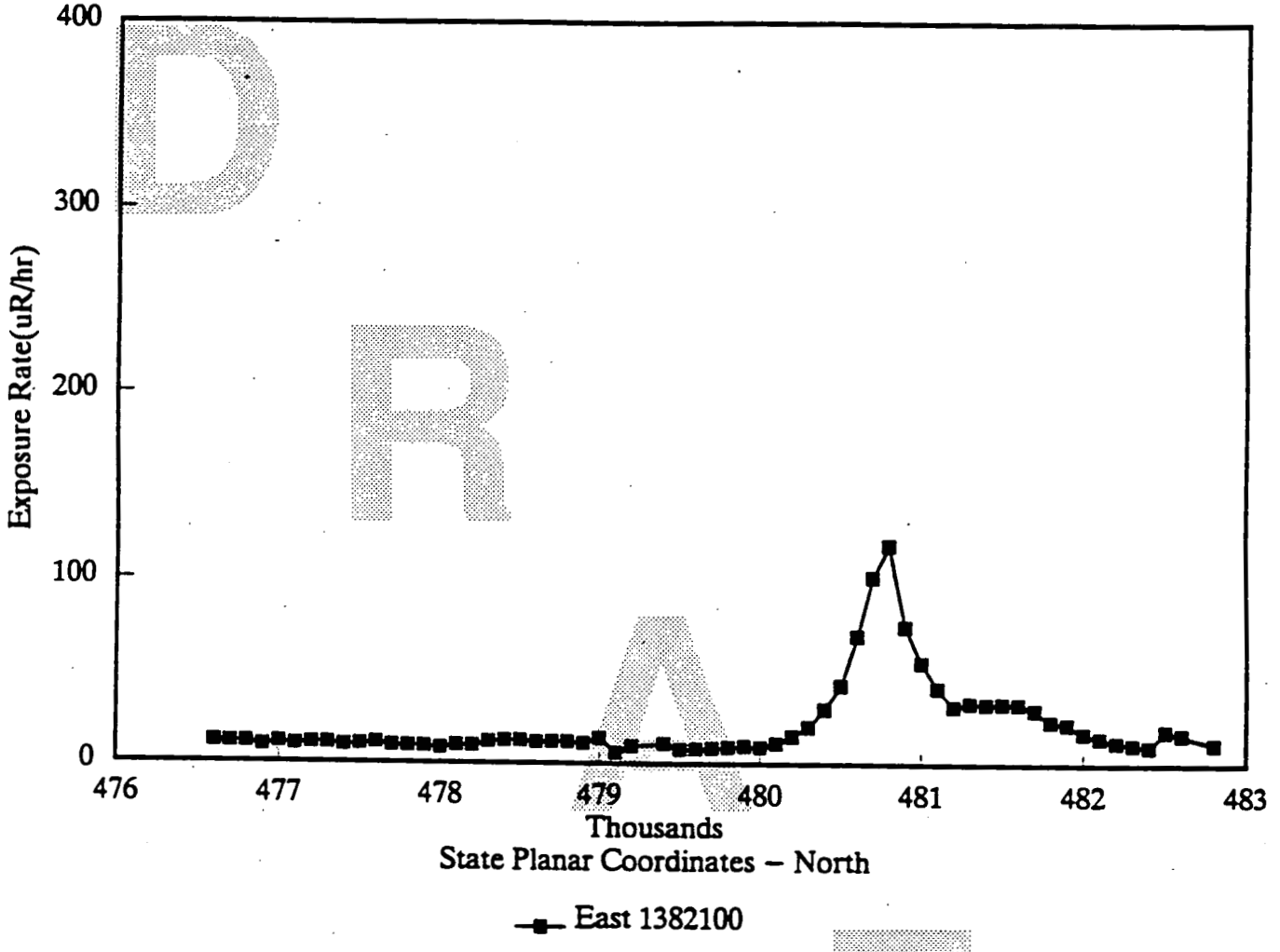
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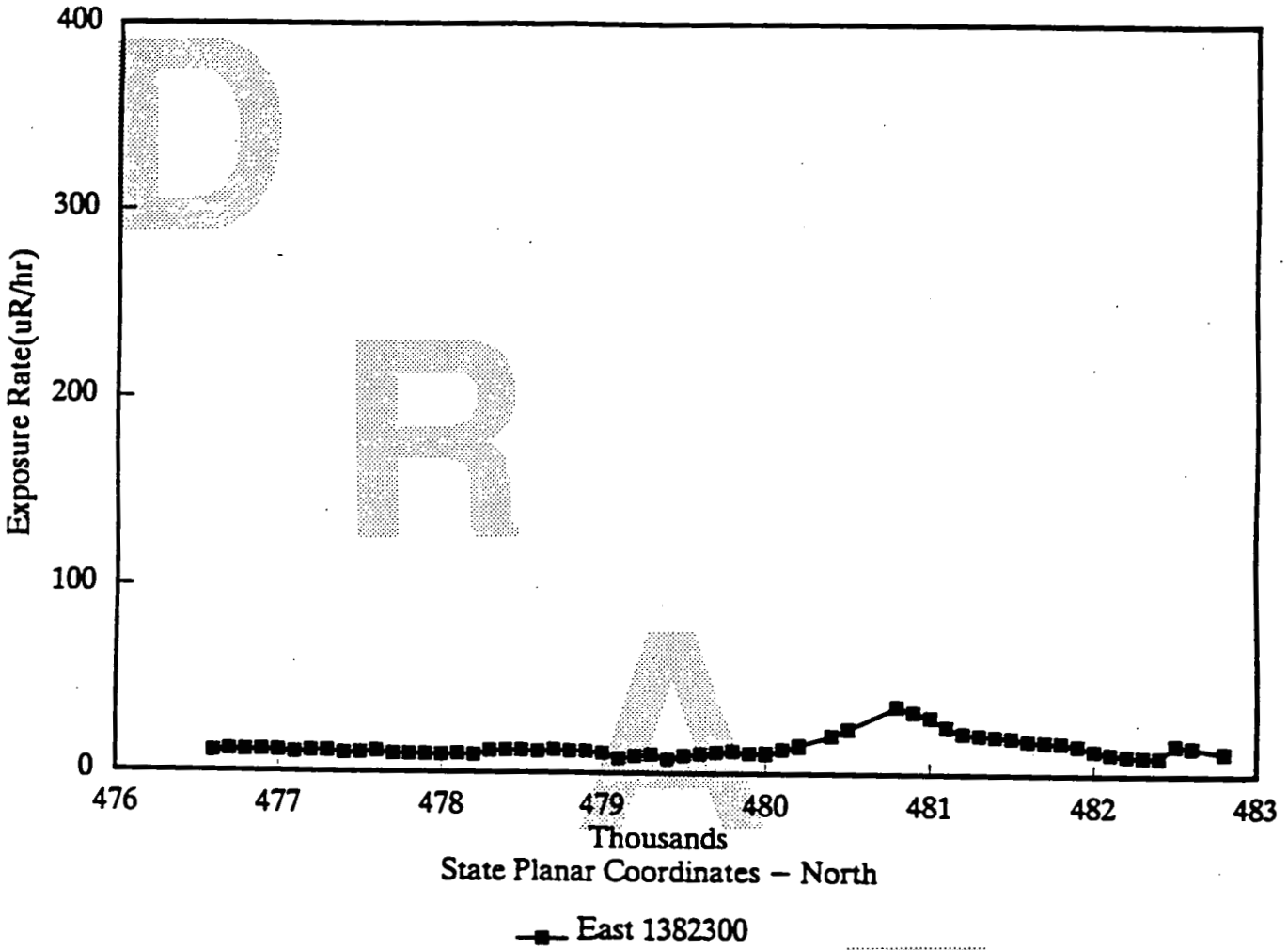
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Thousands
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APPENDIX E

BEDROCK STRATIGRAPHIC SEQUENCE/DESCRIPTIONS

APPENDIX E
BEDROCK STRATIGRAPHIC SEQUENCE/DESCRIPTIONS

The following stratigraphic sequence descriptions for bedrock occurs in the area of the FEMP (from youngest to oldest age) (Swinford, 1990b):

Waynesville Formation

Shale and limestone, interbedded. Shale (65 percent or more of unit), medium- to dark-gray, platy to fissile, calcareous, locally silty, in beds up to 3 feet thick. Zones of well-preserved whole-fossils present. Limestone, light- to medium-gray and light-bluish-gray, coarse -to fine-grained, grainstone and packstone in widely spaced planar beds. The combined thickness of Arnheim and Waynesville formations is 60 or more feet.

Arnheim Formation

Limestone and shale, interbedded. Limestone (50 percent or more of unit), medium- to dark gray, fine- to medium-grained, argillaceous, packstone and wackestone containing well preserved whole fossils and fossil fragments. Beds are planar to wavy, discontinuous, moderately spaced, and up to 8 inches thick. Less abundant, light- to medium-gray, whole and fossil-fragmental grainstone present with discontinuous-fissile shale partings. Beds are lenticular, wavy irregular surfaces, and up to 0.5 feet thick. Limestone (dominant in uppermost portion), medium- to dark-gray, fine-grained, very argillaceous, distinctly nodular bedded packstone and wackestone, with intercalated discontinuous fissile shale. Shale, light- to medium-gray to light-bluish-gray, platy, locally fissile, calcareous and silty, generally fossil poor, in beds 8 inches or less thick. Shale believed dominant in middle of unit. Unit weakly resistant. It is encountered at an elevation range of 750 to 800 feet (MSL).

Mt. Auburn Member of the Grant Lake Limestone

Limestone and shale. Shale (60 percent or more of unit), medium- to dark-gray, fine-grained, very argillaceous, phosphatic, whole-fossil and fossil-fragmental wackestone and packstone. Beds are nodular to wavy, discontinuous, up to 4 feet thick. Whole-abraded brachiopods abundant, particularly in the upper portion of unit. Much less abundant limestone, light- to medium-gray, whole fossil to fossil-fragmental grainstone with discontinuous fissile shale partings. Beds are wavy, discontinuous, and up to 1.5 feet thick. Shale medium- to dark-gray, fissile to platy, with abundant fossil fragments. Unit somewhat resistant and only locally exposed in upland streams and roadcuts. The thickness of the Grant Lake Limestone, which consists of the Mt.Auburn Member, Corryville Member, and Bellevue Member, has been observed to be 75 to 90 feet.

Corryville Member of the Grant Lake Limestone

Shale and limestone, interbedded. Shale (60 percent or more of unit), light- to medium-gray, platy to fissile, calcareous, locally silty with zones of well-preserved whole fossils. Beds may be up to 1.5 feet thick but are commonly less than 8 inches thick. Limestone, light-to medium-gray and light-bluish-gray, fine- to medium-grained, argillaceous, locally silty, fossil-fragmental packstone, grainstone, and wackestone. Beds are planar continuous, up to 1 foot thick but commonly less than 6 inches. Wavy-bedded limestones similar to underlying Bellevue with more abundant platy shale partings are locally abundant. Unit weakly resistant and poorly exposed except locally.

Bellevue Member of the Grant Lake Limestone

Limestone, light-to medium-gray, whole-fossil to fossil-fragmental grainstone with discontinuous fissile shale partings. Beds are discontinuous, wavy, and irregularly surfaced, measuring up to 4 feet in thickness. Whole-and broken-fossils dominated by brachiopods and bryozoans. Much less abundant medium- to coarse-grained, thin-bedded fossiliferous limestone interbedded with light- to medium-gray shale. Unit somewhat resistant forming ledges and riffles in creek beds. Lower contact, base of Grant Lake Limestone, placed either at base of wavy-bedded limestone which overlies the main Miamitown shale body or interbedded limestone and shales of Fairview Formation. Unit thins northward and northwestward. It is encountered at the elevation 750 feet (MSL).

Miamitown Shale

Shale and limestone, interbedded. Shale (75 percent or more of unit), light- to medium- gray, platy to flaggy, calcareous, locally very silty, fossil poor, in beds up to 4 feet thick. Limestone, light- to medium-gray and light-bluish gray, fine to medium-grained, argillaceous, locally very silty, whole and fossil fragmental wackestone and packstone. Beds are planar, lenticular, generally less than 0.5 feet thick. Silt to silty limestone, medium gray to medium-dark-gray, fine-grained, argillaceous, as thin discontinuous beds which contain abundant gastropods and pelecypods. In northern portion of county, base marked by a 0.5 feet to about 3 feet thick wavy-discontinuous-bedded limestone layer with fissile shale partings. The observed thickness of Miamitown Shale is 15 to 35 feet. The Miamitown Shale is encountered at an elevation of 700 feet (MSL).

Fairview Formation

Limestone and shale interbedded. Limestone (50 percent or more of unit), light-to medium-gray, medium- to coarse-grained, fossil-fragmental packstone and grainstone. Beds are planar, lenticular, moderately spaced, commonly having ripple-marks and graded-bedding. Beds commonly 8 inches or less in thickness but can be up to 1.5 feet thick. Fossils commonly broken with few whole fossils. Much less abundant siltstone to silty limestone, medium gray to medium-dark-gray, fine-grained, argillaceous, sparsely fossiliferous, mudstone and wackestone. Beds are planar, lenticular, and generally less than 3 inches thick. Shale, light-to medium-gray and light bluish gray, platy, calcareous,

locally silty, generally fossil poor. Present as individual beds up to 1.5 feet thick or as thin partings. The thickness of a Faireview Formation is 40 to 90 feet; it is encountered at elevation 600 feet (MSL).

Kope Formation

Shale and limestone, interbedded. Shale (75 percent or more of unit), light- to medium-gray and light-bluish-gray, platy, calcareous, locally silty, sparsely fossiliferous. Present as beds commonly about 3 feet thick, and locally up to 10 feet which weather and slump readily. Limestone, medium gray and medium-bluish-gray, fine- to coarse-grained, whole-fossil or fossil-fragmental grainstone, packstone, and wackestone. Beds are planar, lenticular, commonly 6 to 8 inches thick, widely spaced, with ripple marks and graded bedding. Common particularly in upper portion of unit is a siltstone to silty limestone, medium-gray to medium-dark-gray, fine-grained, argillaceous, fossil poor to barren-mudstone to wackestone. Beds are planar, continuous, rarely more than 3 inches thick, laminated to cross-laminated with current marks. Unit is much less resistant than overlying and underlying units, landslides common. The average thickness of Kope formation is 260 to 280 feet. The elevation of the Kope formation ranges from 400 to 500 feet (MSL).

Pt. Pleasant Tongue

Limestone and shale interbedded. Limestone (50 percent or more of unit), medium-light- gray and medium-bluish-gray, coarse-to fine grained, fossil-fragmental wackestone and packstone. Beds are planar, lenticular, commonly less than one foot thick, but locally up to 1.5 feet thick and moderately spaced. Well developed ripple marks present locally. Broken and whole fossils common to abundant, many beds contain abundant crinoid columnals. Shale medium-gray and medium-bluish gray, weathers with a slight yellow to brown cast, platy, calcareous, locally silty, as distinct beds commonly 1 to 1.5 feet thick and as partings within limestone beds. The thickness of Pt. Pleasant Tongue formation is 30+ feet.

Petrology and Mineralogy of the Cincinnatian Series Shales

Samples for mineralogical analysis were obtained from a location south of Middletown in Butler County by the ODNR. Table 1 presents the shale mineralogy at the Ordovician-Silurian contact.

The pattern of mineralogical, textural, and chemical variation is a function of stratigraphic position. The Cincinnati Series shales show a persistent vertical and lateral textural, mineralogical, and chemical uniformity. The mean size distribution is clay (34 percent), silt (64 percent), and sand (2 percent). The mean mineral composition is quartz (24 percent), calcite (6 percent), dolomite (9 percent), illite (47 percent), mixed-layer illite (4.4 percent), chlorite (7.7 percent), mixed-layer chlorite (2 percent) with trace amount of kaolinite, feldspar, and pyrite. The mean elemental weight percentages are Si (21 percent), Al (7.8 percent), K (3.9 percent), Ca (8.6 percent), Mg (2.4 percent), Fe (3.0 percent), and Ti (0.4 percent). Tables 2 and 3 present the results of X-ray spectrochemical analyses of the Cincinnatian shale, and wet chemical analysis of the total shale and the clay fraction accordingly.

TABLE E-1

MEAN SHALE MINERALOGY BY SIZE FRACTION
(Percent by Weight)
Ordovician--Silurian Contact

Sand Fraction							
Quartz	Calcite	Dolomite	Feldspar	Pyrite	Clay Mineral		
6.0	4.2	2.1	tr	0.8	nd		
Silt Fraction							
Quartz	Calcite	Dolomite	Illite	Chlorite	Feldspar	Pyrite	
17.9	8.2	11.1	17.6	1.7	tr	tr	
Clay Fraction							
Quartz	Calcite	Dolomite	Illite	Mixed-Layer Illite	Chlorite	Mixed-Layer Chlorite	Kaolinite
nd	nd	nd	8.4	0.5	0.9	0.2	0.4

NOTE:

ND = not detected
tr = trace

D.M. Scotford, "Petrology of Cincinnatian Series Shales and Environmental Implications: Geological Society of America Bulletin," v. 76.

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TABLE E-2
MEAN VALUES OF X-RAY SPECTROCHEMICAL ANALYSES OF CINCINNATIAN SHALE IN WEIGHT PERCENT

Fe	Ti	Ca	K	Si	Al	Mg
1.78	0.30	11.3	2.96	17.1	6.0	3.2

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TABLE E-3

WET CHEMICAL ANALYSES OF THE TOTAL SHALE AND THE CLAY FRACTION IN WEIGHT PERCENT

	Shale	Clay
SiO_2	44.95	49.05
TiO_2	0.79	0.9
Al_2O_3	15.79	22.58
Fe_2O_3	2.44	2.19
FeO	3.96	4.17
MnO	0.09	0.06
MgO	2.77	3.43
CaO	7.98	1.39
Na_2O	1.03	0.55
K_2O	3.94	6.32
P_2O_5	0.28	0.56
H_2O^+	6.51	6.36
H_2O^-	1.17	1.65
CO_2	7.81	0.57
Total	99.78	99.51

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APPENDIX F

GEOCHEMICAL ANALYTICAL PROCEDURES/TABULATED RESULTS

APPENDIX F
GEOCHEMICAL ANALYTICAL PROCEDURES/TABULATED RESULTS

This appendix summarizes analytical procedures used to acquire the geochemical data and provides tabulated results with a detailed discussion of data applications. Geochemical data were collected to support the subsurface pathway analysis for constituents of concern, which involved analyzing the chemical interactions between leachate and glacial overburden, as well as natural and engineered barrier materials (e.g., clay liners, bentonite/sand mixtures, and structural concrete).

F-1 ANALYTICAL METHODS

Subsurface soil samples obtained from the OSDC acreage were analyzed for particle size, cation exchange capacity, total organic carbon, and mineral composition. Subsurface soil samples selected from weathered, unweathered, and perched water zones in the glacial overburden were used in laboratory batch tests to characterize contaminant adsorption ratios. Additional data were collected by leaching cement/waste monoliths for 90-days in distilled water. The leachate produced from these experiments was analyzed to constrain contaminant concentrations in leachate that may migrate from the OSDC.

F-1.1 Subsurface Soil Samples

Particle size was evaluated using ASTM D422-63, which is a standard sieve analysis followed by hydrometer analysis of silt- and clay-sized grains. This test was performed as part of the geotechnical evaluation of the OSDC site. Cation exchange capacity was measured according to EPA SW846 Method 9081/6010, which evaluates the cation sites that are exchangeable with sodium ion. Total organic carbon was analyzed by SW846 Method 9060, which measures organic carbon as carbon dioxide released from catalytic combustion or chemical oxidation of the organic matter in the soil. A measure of total organic material in the soil is also provided in the mineralogical analysis as modal percent humus.

The mineralogy of glacial overburden samples was determined by petrographic and X-ray diffraction analyses carried out by McCrone Associates, Inc (1992). ASTM or SW846 procedures do not cover mineralogical characterization, and a brief outline of the procedures is provided here.

Petrographic studies were conducted with oversized thin sections prepared from the soil samples. All samples were impregnated with an epoxy resin prior to the preparation of thin sections. One-half of the area of all thin sections was stained for the identification of K-feldspar and dolomite. Optical microscopy was used to identify all mineral phases (e.g., clay, calcite, dolomite, quartz, zircon, etc) and quantification was carried out using a point-counting technique (e.g., 50 percent clay, 20 percent calcite, 10 percent dolomite, 8 percent quartz, etc).

X-ray diffraction studies were conducted to identify the minerals in the silt- and clay-size fraction of the sample. Samples used for X-ray diffraction studies were sieved to separate the size fraction less than 230 mesh. This size fraction was placed in deionized water that contains a deflocullating agent and ultrasonically agitated to disaggregate the particles. Centrifugation was used to separate the silt fraction (>2 microns) and the remaining clay suspension was decanted into a vacuum filtration system to collect the clay fraction and orient the crystallites parallel to their basal (001) d-spacing. The relative intensity of the principal d-spacing reflection of a clay mineral was used to semi-quantify (± 20 percent) the proportion of the clay mineral in a sample. The NBS calibration standard SRM-640b was run prior to and after the analysis of the samples to ensure instrument calibration.

F-1.2 Leachate Samples

A modified ANSI/ANS 16-1 leach test was performed on cement treated waste obtained from Operable Unit 1 to characterize contaminant concentrations in leachate that may migrate from the OSDC. Operable Unit 1 was selected for this characterization because it represents the largest volume of process-generated waste that may be placed in the OSDC.

Prior to conducting the modified ANSI/ANS 16-1 leach test, untreated waste was obtained from each waste pit in Operable Unit 1 and mixed to form a single composite. One to two kilograms of the total mass of waste obtained from each borehole placed into Operable Unit 1 waste pits was used to form the OSDC composite. The waste-pit composite was thoroughly mixed until uniform texture and color were observed. Additionally, six aliquots of the Operable Unit 1 composite were taken for gross αß analysis and the composite was considered homogenous when the coefficient of variation for the six analyses is less than 30 percent.

The OU1 composite was mixed with cement formulations used in OU1 treatability studies and the mixture was cast into cylinders for use in the leach test. Cast cylinders measured about 7.37 cm by 3.51 cm, and casting was carried out in a manner that resulted in smooth outer surfaces (surface area of about 100 cm^2), elimination of internal voids, and overall homogeneity of the final cast form. Specimens so formed were cured in the mold for 30 days prior to initiation of the leach test.

Specimen preparation, initial leachant, leach vessels, and the ratio of leachant volume to specimen external surface area followed the methods outlined in ANSI/ANS 16-1. However, the ANSI/ANS 16-1 method was modified by keeping the initial leachant in contact with the cemented waste throughout the 90-day leach period, and leachate composition was evaluated at 5-, 45-, and 90-day intervals. This modification allowed for the evaluation of contaminant solubility limits (i.e., evaluates the highest contaminant concentration in leachate), rather than diffusion coefficients (which evaluates diffusion release of contaminants as a function of time by keeping fresh leachant in contact with the waste).

Leachate concentrations obtained from experiments that measure the diffusion coefficient of a constituent are generally some fraction of the constituents solubility limit in the leachate.

The modified ANSI/ANS 16-1 leach test was carried out in two 4 liter vessels (i.e., duplicate pairs) for each of the 3 cement formulations in Table F-1. Total leachant volume was maintained at ± 2 percent of the initial volume, and the leachant was kept in the temperature range of 17.5 to 27.5°C during the test.

Five and 45-day samples were extracted from the vessels for analysis of pH, ICP metals, and total uranium, and 90-day samples were characterized for all contaminants of concern (i.e., metals and radionuclides) and general chemistry. Metal concentrations obtained at 5, 45, and 90-days were used to determine which contaminants had reached steady-state values in the leachate. The results are presented in Section F-2.

F-1.3 Batch Sorption Tests

Batch sorption tests were carried out at Brookhaven National Laboratory (BNL) with site-specific soil samples and perched groundwater. Leachate produced from the modified ANSI/ANS 16-1 leach tests was not available in sufficient volume to use in the batch sorption tests. Therefore, the analyses produced from the leachate samples were used as a recipe to prepare a synthetic leachate.

Batch tests conducted at BNL were designed to measure the distribution ratios, or adsorption ratios, of contaminants on subsurface soils obtained from the FEMP site and on a sand/bentonite mixture that will form an engineered barrier below the proposed OSDC. The distribution ratio is used to estimate the distribution coefficient of selected contaminants for given subsurface conditions in the engineered barrier and glacial overburden present at the FEMP site.

The distribution ratio (R_d) differs from the distribution coefficient (K_d) in that R_d predicts the adsorbed mass of contaminants onto a solid medium and K_d implies that the contaminant adsorption predicted by R_d is fully reversible (i.e., adsorption ratio = desorption ratio). In general, the longer a contaminant remains adsorbed to the surface of a solid the probability increases for surface reactions to incorporate the adsorbed contaminant into the solid, where it is no longer available for desorption. Therefore, desorption ratios are generally not equal to adsorption ratios and expert judgement must be retained when R_d is used to estimate K_d.

The batch tests were run by placing solid and contact solution in a container and measuring the concentration of the solution as a function of time. The initial contact solution is spiked with contaminants of concern prior to contacting the solids, with care taken to ensure that contaminant concentrations in the initial contact solution do not exceed solubility limits for known contaminant solids (e.g., the initial lead concentration must be low enough to avoid precipitation of $PbCO_3$ when

TABLE F-1
CEMENT FORMULATIONS FOR MODIFIED ANSI/ANS 16-1 LEACH TESTS

	SAMPLE ID		
Component (units)	1046-18	1046-30	1046-46
OU1 Waste (g)	234.2	228.2	303.9
Portland Type II Cement (g)	119.7	98.3	213.6
Type F Flyash (g)	72.8	98.2	0
Sodium Silicate (g)	0	9.2	0
Attapulgite (g)	14.1	13.7	0
Clinoptilolite (g)	14.4	13.6	0

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the initial contact solution is spiked with lead). After preparing the initial spiked solution, the solids and spiked solution are contacted and sampled at established time intervals. When contaminant concentrations in the solution have reached steady-state values, the solution is considered to be equilibrated with the solid. The distribution ratio is than calculated as follows:

$$R_d = \frac{\textit{micrograms of adsorbed contaminant per gram of solid}}{\textit{micrograms of contaminant per milliliter of solution}} = \frac{ml}{g}$$

where the micrograms of adsorbed contaminant per gram of solid is determined by difference between the initial and steady-state contaminant concentration in the contact solution, and micrograms of contaminant per milliliter of solution refers to the steady-state contaminant concentration in solution.

Distribution ratios measured by the batch test method may be used to estimate K_d when contaminant migration is dominantly through granular porous material. In contrast, when contaminant migration is along joints and fractures, less surface area is exposed to the contaminated solution and, depending on the flow rate, less time is generally available for adsorption reactions to occur. Therefore, the condition of joint and fracture flow is not reproduced by batch tests, and R_d measured by laboratory batch tests cannot be used to estimate K_d under this condition.

The experimental matrix for the batch sorption tests is summarized in Table F-2.

A sand/bentonite mixture and weathered and unweathered glacial overburden were used as solids, and synthetic leachate, synthetic leachate mixed with perched groundwater, and perched groundwater were used as the contact solutions for a combination of 7 distinct experimental sets. This matrix design simulates cement leachate reacting with the sand/bentonite engineered barrier and weathered and unweathered glacial overburden. Once the leachate reaches the glacial overburden, it may mingle or mix with pore waters and/or perched groundwater. Therefore, the leachate/groundwater mix is contacted with weathered and unweathered glacial overburden, but not the sand/bentonite engineered barrier. Likewise, perched groundwater is not expected to reside in the sand/bentonite engineered barrier, and it is restricted to experiments involving only the weathered and unweathered glacial overburden. In all experimental sets, the mass of contact solution was equal to four times the mass of the solid.

Prior to initiating the experiments, the solids were dried and passed through a 200-mesh (75 micrometers) sieve to homogenize the solid sample and to remove the solid fraction larger than fine sand. The removal of solids sized greater than fine sand will not change the adsorption characteristics of the solid significantly, as most adsorption sites are present on the silt- and clay-sized fraction. A mass correction is applied to the experimental results if the soil solids sized greater than

TABLE F-2
EXPERIMENTAL MATRIX FOR BATCH SORPTION TESTS

Solid / Solution	Leachate	Leachate + Groundwater (1:1)	Groundwater
Sand + Bentonite	Yes	No	No
Weathered Till	Yes	Yes	Yes
Unweathered Till	Yes	Yes	Yes

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fine sand comprise greater then 5 weight percent of the total sample. The homogenized dried solid material was divided into the appropriate number of splits, placed in centrifuge tubes, and contacted with perched groundwater solution to moisten and pretreat the exchangeable sites on the solids. Solids were washed four times with the perched groundwater. For the first three washings, the solid and solution mixture was stirred several times over a 15 minute period, allowed to settle, centrifuged, decanted, and repeated. The fourth washing was done over a 24 hour period with occasional stirring, followed by settling, centrifugation and decantation.

Three spiked contact solutions were prepared to simulate the leachate and groundwater solution compositions expected at the site. As noted above, the synthetic cement leachate was prepared from a recipe derived from analytical results on leachate (sample 1046-30) obtained from 90-day leach tests of cement-treated waste forms. Perched groundwater was recovered from a 1000 series background well (1024) to serve as the groundwater endmember. The third contact solution was a one-to-one mixture of the synthetic leachate and perched groundwater. Contact solutions were spiked with the contaminants of interest (see Section F-2 for details on contaminant spikes) and allowed to equilibrate for a minimum of 24 hours. Prepared solutions were then filtered through a 0.45 micrometer filter and analyzed for all dissolved constituents prior to contacting the solids.

Prior to the initiation of the full-scale batch tests, an estimate of the time required to reach steady-state was established using the prepared contact solutions and site-specific solids. This was done with a limited number of samples to minimize the number of analytical tests needed to establish the steady-state equilibration period. Additionally, two sets of control runs were conducted. The first consisted of spiked contact solution placed into an empty tube to evaluate the adsorption of contaminants by the container surface. A second control run involved contacting the solid with perched groundwater to evaluate the addition of contaminants to solution from the solid (i.e., is desorption occurring).

After establishing the equilibration period, each contact solution/solid pair was prepared and run in triplicate. The contents of each tube were initially stirred and periodically agitated. During the last 24 hours of the predetermined contact period, the mixtures were allowed to stand and settle prior to measuring the pH of the samples. After measuring pH, an aliquot of solution from each of the triplicate runs was obtained by using a 0.45 micrometer filtered syringe. The concentration of each contaminant of interest in each aliquot was determined with the appropriate analytical technique and triplicate runs compared to assess whether steady-state conditions had been attained. Steady-state conditions were considered established if the analytical results on triplicate aliquots agree within 2 percent. If steady-state conditions are not established, the contact period was extended for an additional 3 days and the procedure above was repeated until steady-state had been established.

After steady-state conditions had been established, the solution was extracted from the tube through a 0.45 micrometer filtered syringe and analyzed for the contaminants of concern. The mass of

contaminant adsorbed to the solid was calculated by the difference between its concentration in the steady-state and initial contact solution. A distribution ratio was then calculated as indicated above. However, if the analytical results for a steady-state solution reported a concentration for a contaminant that is at the detection limit of the instrument, the distribution ratio was calculated by using the instrument detection limit as the contaminant concentration in the steady-state solution. This is a conservative approach that results in a minimum estimate of the distribution ratio (i.e., maximum concentration in groundwater). For example, if the uranium concentration in the steady-state solution is reported as less than 1 ppb, using a value of 1 ppb in the denominator produces a smaller distribution ratio relative to a number that is less than 1 ppb. Additionally, since the mass adsorbed to the solid is calculated using the difference between the steady-state and initial solutions, using the detection limit value for the steady-state solution will underestimate the amount of contaminant adsorbed to the solid. Therefore, a lower number in the numerator will also contribute to a minimum estimate of the distribution ratio.

F-2 ANALYTICAL RESULTS

Particle size measurements were performed as part of the geotechnical evaluation, and they are presented in Technical Report 5.1A. Results for cation exchange capacity and total organic carbon are given in Table F-3. As noted and illustrated in Section 3.5 and Figure 3-10, variation in cation exchange capacity, as measured by exchangeable sodium ion, is independent of the total organic carbon content of the soil. However, total organic carbon content will affect the degree to which organic, and some inorganic, constituents will be adsorbed by the soil.

The mineralogy of subsurface soil samples is reported in Table F-4 as modal percent. Modal percent is based on the area occupied by a mineral on the surface of a longitudinal or perpendicular section cut through the soil sample. Most samples are dominated by the minerals calcite, dolomite, quartz, and K-feldspar. For calcite and dolomite, most counts fell on clasts of rock composed of dolomite or calcite, and these were counted as the respective mineral. Three of the samples are comprised of the clay minerals illite and corrensite. Corrensite is a mixed layer clay containing smectite and chlorite. The iron-oxide content of the soils varies from 0 to 2.54 percent, and the presence of such phases in the soil is important for retardation of anionic species (e.g., $UO_2(CO_3)_2^{-2}$).

Complete characterization of the 90-day leachates derived from the modified ANSI/ANS 16-1 tests are given in Table 3.6-1, and a comparison of metal concentrations at 5, 45, and 90 days is given here. Analytical results for metals in 5-, 45-, and 90-day leachate samples derived from the modified ANSI/ANS 16-1 tests are given in Table F-5. Cement formulations for the three samples appear in Table F-1. Leachate concentrations for antimony, beryllium, cadmium, cobalt, and silver never reached their respective detection limits, implying that cement treatment of OU1 waste is very successful for these elements. Iron and manganese concentrations were detected at 5 days, but dropped to less than their respective detection limit values at 45 and 90 days, probably due to

TABLE F-3
ANALYTICAL RESULTS FOR CATION EXCHANGE CAPACITY (CEC) AND TOTAL ORGANIC CARBON (TOC)

Boring	Sample ID	Soil Zone[a]	USDA Classification[b]	CEC[c] meq/100g	TOC[d] mg/kg
1730	100881	unweathered	XeB/Ra	4.05	4399
1732	101405	unweathered	Ra	13.05	832
1734	100845	weathered	Ra	2.93	3791
1737	101364	weathered	Ra/DaB/XeB	0.93	6011
1738	100788	weathered	XeB	3.12	3444
1738	100814	unweathered	XeB	1.4	6699
1740	100759	weathered	FdA/RwB2	2.14	3724
1740	100772	unweathered	FdA/RwB2	1.73	7121
1740	100772 (dup)	—	—	0.87	—
1741	101331	unweathered	FdA	1.31	4584
1742	100718	weathered	FdA	4.32	5865
1742	100733	unweathered	FdA	6.08	1140
1742	100733 (dup)	—	—	2.21	—
1743	101287	weathered	XfB2	1.31	713
1743	101297	unweathered	XfB2	1.28	464
1744	100705	weathered	FdA/XfB2	0.8	1188
1745	101279	unweathered	XfA/XfB2	0.42	1641
1745	101279 (dup)	—	—	1.74	—
1746	100691	weathered	XfB2/RdA	1.62	4132
1747	101236	unweathered	XfB2	6.37	5404
1748	100678	unweathered	XfB2	0.92	5135
2731	100554	weathered	EcE2/DaB	3.83	1373
2731	100565	unweathered	EcE2/DaB	5.11	1735

[a]Soil zone refers to unweathered, gray glacial overburden and weathered, yellow glacial overburden.

TABLE F-3
(Continued)

[b]U.S. Department of Agriculture soil classifications are taken from Lerch et al. (1980) and Lerch et al. (1982).

[c]Units for CEC are milliequivalents per 100 grams of soil.

[d]Units for TOC are milligrams per kilogram of soil, or ppm.

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Table F-4
Modal Percent for Minerals in Subsurface Soil Samples

Sample ID	Calcite	Dolomite	Quartz	K-feldspar	Illite	Corrensite	Iron Oxides	Biotite	Chlorite	Hornblende	Humus
100882	39.41	25.06	14.81	12.98	2.56	0.86	0.23	0.00	0.00	1.14	2.95
101403	0.00	0.00	0.00	0.00	65.00	35.00	0.00	0.00	0.00	0.00	0.00
100844	17.72	5.92	42.65	11.14	1.22	0.38	0.00	1.66	0.00	0.47	5.45
101366	26.03	17.57	22.34	21.48	1.55	1.27	1.95	2.17	0.00	2.39	3.25
100787	28.69	27.64	20.47	14.34	1.73	1.43	0.63	0.84	0.00	1.90	2.33
100813	23.34	35.19	11.65	18.20	2.21	0.95	0.49	3.40	0.00	0.49	3.88
100758	34.33	24.42	20.97	12.21	1.78	1.45	0.46	0.46	0.24	1.61	2.07
100771	36.77	31.26	12.64	11.26	1.29	0.32	0.46	0.47	0.00	0.69	1.84
101329	39.96	25.24	10.34	13.93	2.97	1.60	0.60	4.37	0.00	0.80	0.19
100719	22.20	19.03	20.93	18.60	5.20	3.47	2.54	0.00	0.00	2.11	5.92
100732	19.04	27.52	18.58	22.25	4.29	1.44	0.23	4.36	0.00	0.23	2.06
101285	32.26	23.73	15.67	18.20	1.89	1.14	0.46	2.07	0.23	0.70	4.15
101295	24.66	19.73	20.85	26.90	1.55	1.27	0.63	0.00	0.00	2.24	2.02
100704	33.80	25.41	18.18	11.89	2.50	1.34	0.70	0.47	0.00	1.16	3.96
101277	32.64	36.81	13.34	11.81	1.66	0.89	0.92	0.00	0.23	0.69	1.01
100690	21.31	14.14	27.69	24.30	2.19	2.19	1.59	0.00	0.00	0.81	5.78
101234	33.49	26.28	18.45	14.35	1.63	0.88	1.91	2.28	0.00	0.45	0.28
100677	37.30	23.20	12.70	18.28	4.72	0.84	1.79	0.00	0.00	0.60	0.57
100552	2.16	0.00	27.11	7.93	31.76	13.62	0.25	0.00	0.00	0.25	16.92
100567	9.79	7.33	11.25	5.14	45.29	15.10	0.73	0.00	0.00	0.25	5.13

TABLE F-5

ANALYTICAL RESULTS FOR METALS IN 5-, 45-, AND 90-DAY LEACHATE SAMPLES DERIVED FROM MODIFIED ANSI/ANS 16-1

Constituent (units)	1046-18 5	1046-18 45	1046-18 90	1046-30 5	1046-30 45	1046-30 90	1046-46 5	1046-46 45	1046-46 90
pH (std. units)	12.34	12.78	11.95	12.37	12.52	11.99	12.84	12.84	12.36
Aluminum (mg/L)	0.823	2.86	6.44	1.47	4.28	7.23	0.287	0.230	0.244
Antimony (mg/L)	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Barium (mg/L)	1.96	2.87	1.82	1.07	1.25	0.764	2.54	5.36	5.89
Beryllium (mg/L)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Cadmium (mg/L)	<0.002	<0.005	<0.005	<0.002	<0.005	<0.005	<0.002	<0.005	<0.005
Calcium (mg/L)	192	254	174	111	134	93.4	308	617	674
Chromium (mg/L)	<0.01	<0.01	0.0105	<0.01	0.0139	0.029	<0.01	<0.01	<0.01
Cobalt (mg/L)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper (mg/L)	<0.01	0.0261	0.0336	<0.01	0.0229	0.0314	<0.01	0.0277	0.0343
Iron (mg/L)	0.0416	<0.02	<0.02	0.0543	<0.02	<0.02	0.0213	<0.02	<0.02
Magnesium (mg/L)	0.231	0.247	0.200	0.165	0.173	0.131	0.286	0.392	0.406
Manganese (mg/L)	0.0058	<0.01	<0.01	0.0055	<0.01	<0.01	0.0064	<0.01	<0.01
Molybdenum (mg/L)	0.0325	0.109	0.232	0.061	0.249	0.513	0.0311	0.0964	0.125
Sodium (mg/L)	112	125	131	158	197	224	72.6	97.6	105
Silicon (mg/L)	0.840	0.898	1.60	1.32	1.92	3.64	0.410	0.250	0.287
Silver (mg/L)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Uranium (mg/L)	0.0124	0.0148	0.015	0.0140	0.0146	0.0091	0.0141	0.030	0.048
Vanadium (mg/L)	0.0423	<0.01	0.0207	0.033	0.018	0.0577	0.0481	<0.01	<0.01
Zinc (mg/L)	0.0107	<0.005	0.0058	<0.005	0.0089	<0.005	0.0053	0.0113	0.0071

precipitation of amorphous iron- and manganese-oxyhydroxide phases. Chromium, copper, vanadium, and zinc were detected in most samples, although chromium detections were very near the analytical detection limit. Molybdenum concentrations increased with time in all three samples, suggesting molybdenum will be leached and transported in an aqueous environment. Uranium concentrations stabilized in two of the three samples after 90 days. The increasing uranium concentration in sample 1046-46, which is a mixture of waste and portland cement only (Table F-1), indicates that the flyash, attapulgite, and/or clinoptilolite components in the other cement formulations minimize the mobility of uranium in the leachate. Leachate concentrations for aluminum, barium, calcium, magnesium, sodium, and silicon reflect the composition of non-waste components in the cement formulations. Aluminum concentrations are highest in samples 1046-18 and -30 because they contain flyash, attapulgite, and clinoptilolite, components which provide a source for the aluminum. Likewise, sodium and silicon are higher in these samples, and these elements reach their highest concentrations in sample 1046-30 because this formulation contains sodium silicate. Barium, calcium, and magnesium concentrations behave in a similar fashion because these elements are present in portland cement. In general, barium and magnesium will vary sympathetically with calcium concentrations, as these elements can substitute for calcium in calcium alumino-silicate minerals (e.g., hydrogarnet) that form when water reacts with the cement formulations.

F-3 EQ3/6 GEOCHEMICAL CODE

F-3.1 Introduction

As part of the risk assessment evaluation, a computer simulation was performed to determine if contaminant concentrations in leachate produced from the cement-treated waste would be lowered by reaction with minerals in the glacial overburden. The reactions that were simulated include the dissolution of carbonate and silicate minerals by the leachate and the lowering of pH. A simulation of these reactions leads to a prediction of a stable assemblage of minerals, and some of these minerals control contaminant concentrations by mineral solubility constraints.

Mineral solubility calculations were performed with the EQ3/6 geochemical computer code. EQ3/6 was developed at Lawrence Livermore National Laboratory (Wolery, 1983; Wolery and Daveler, 1989) for predicting the behavior of metals, radionuclides, and other contaminants in the natural environment. The EQ3/6 computer code is an industry-standard geochemical model that performs solubility and speciation (aqueous form) calculations and reaction-path modeling. These calculations involve the simultaneous solution of equations describing the mass balance of each component, mass action expressions for solubility equilibrium, oxidation/reduction reactions, and electrical balance constraint. Activity coefficients of aqueous species are approximated with the B-dot set of equations, which are valid up to the ionic strength of seawater.

The EQ3/6 code accesses a data base containing the thermodynamic properties of 78 elements, 862 aqueous species, 886 minerals, and 76 gases. This data base includes 57 aqueous uranium species and 160 uranium-bearing minerals, constituting the most complete data base available for modeling the behavior of uranium in natural waters. EQ3/6 has been validated using standard geochemistry problems, such as the speciation of seawater (Nordstrom, 1979), basalt/seawater interactions (Bowers et al., 1985) and numerous comparisons with experimentally determined mineral solubilities (Jackson, 1988). Benchmark comparisons with the results of similar codes (e.g., PHREEQE) have been performed by INTERA (1983), Nordstrom (1979), Kincaid and Morey (1984) and Kerrisk (1981).

EQ3 is the portion of the code that calculates the initial aqueous species distribution with user provided concentration data and computes the saturation indices of pertinent minerals. The saturation index is defined as SI = log(Q/K), where Q = the ion activity product and K = equilibrium constant. A SI of greater than zero, zero, and less than zero corresponds to a mineral that is supersaturated, saturated, and undersaturated, respectively. After computing the speciation model, EQ3 computes a mass balance for each chemical element and charge balance and writes this information in a pickup file that is used as an input file by EQ6. EQ3 differs from EQ6 in that EQ3 identifies minerals that are supersaturated and undersaturated, but EQ3 does not simulate the precipitation and dissolution of minerals.

The EQ6 portion of the code performs all the calculations of EQ3 and reaction-path calculations. Reaction-path (chemical evolution) modeling simulates a sequence of thermodynamic equilibrium problems in reacting systems consisting of water and minerals or other solids. The reacting system may consist of leachate that migrates through, and equilibrates with, natural minerals in an underlying clay barrier. The chemical evolution of the reacting system is driven by dissolution and precipitation of minerals or solids and/or by changes in temperature and pressure. Along each step of the reaction path, the EQ6 code computes the precipitation and dissolution of minerals based on mass action expressions for solubility equilibrium with water. Thus, EQ6 differs from EQ3 by allowing supersaturated minerals (SI > 0) to precipitate from solution and undersaturated minerals (SI < 0) to dissolve.

F-3.2 Limitations and Assumptions of Mineral Solubility Calculations

The EQ3/6 geochemical code estimates contaminant concentrations by calculating mineral solubilities in water/solid systems. These calculations have the following limitations and assumptions:

- A limited number of organic constituents can be modeled, and this can lead to low estimates of leachate concentrations for some inorganic constituents if organic complexation occurs with constituents not present in the data base.

- Ideal mineral phases are assumed to represent the actual minerals in the barrier material.

- Dissolution and precipitation kinetics are instantaneous, and this can lead to estimates of concentrations that are too high or too low.

- Adsorption processes are not evaluated with the EQ3/6 model.

- Modeled concentrations are site-specific solubility limits, and in most cases these concentrations are the highest concentrations which can exist in solution.

The first four bullets identify limitations and assumptions that introduce the greatest uncertainty in the calculated mineral-solubility concentration, and these merit further discussion. For example, a solution containing trace amounts of tributyl phosphate (an organic complex not present in the EQ3/6 thermodynamic data base) will contain a greater concentration of uranium relative to a solution with no tributyl phosphate. With respect to the second bullet, if a solid phase is present as a metastable amorphous form, rather than a mineral, using a mineral phase for the solid can lead to low estimates of the contaminant concentration. This occurs because mineral phases generally contain shorter and stronger element bonds relative to amorphous solids, and this leads to a lower solubility for the mineral phase. In contrast to the statement of bullet three, dissolution of minerals is rarely instantaneous or complete in the natural environment (e.g., feldspar), except for some highly soluble salts (e.g., NaCl), and this can lead to high estimates of contaminant concentrations (i.e, a conservative error). Assuming instantaneous precipitation of mineral phases can lead to low estimates of element concentrations if the mineral is difficult to nucleate and crystallize in the natural environment, and such minerals can be suppressed from precipitating if this behavior is known (e.g., dolomite). Finally, the calculated solubility concentrations may be too high because adsorption reactions are not considered. Adsorption reactions can substantially lower some contaminant concentrations below a calculated solubility limit (e.g., Cs^+).

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