3004-0605150005

CH2M HILL
Mound, Inc.
1 Mound Road
P.O. Box 3030
Miamisburg, OH
45343-3030

CH2MHILL

SMO-387/05
October 12, 2005

Ms. Margaret L. Marks, Director
Miamisburg Closure Project
U. S. Department of Energy
175 Tri-County Parkway
Springdale, OH 45246

ATTENTION: Paul Lucas

SUBJECT: **Contract No. DE-AC24-03OH20152:** Deliverable #36 Building Data Package; Section C.2.1.1 Facility Demolition; Buildings PH and 24 Building Data Package, Final

Dear Ms. Marks:

Attached is the following Final document for your records:

- Buildings PH and 24 Building Data Package, Final

If you or members of your staff have any questions regarding the document, or if additional support is needed, please contact Dave Rakel at 937-865-4203.

Sincerely,

John Lehew
Site Manager

JL/ms

Enclosures

cc: T. Fischer, USEPA, (1) w/attachments
B. Nickel, OEPA, (1) w/attachments
R. Vandegrift, ODH, (1) w/attachments
J. Webb, ODH, (1) w/attachments
M. Wojciechowski, Tetra Tech, (1) w/attach
G. Gorsuch, DOE/MCP, (1) w/attachments
W Taylor, DOE/MCP, w/o attachments
R. Tormey, DOE/OH, (1) w/attachments
G. Desai, DOE/HQ, (1) w/attachments
S. Davis, CH2M Hill, (1) w/attachments
F. Bullock, MMCIC (3) w/attachments
Public Reading Room (4) w/attachments
ER Records, CH2M Hill, (1) w/attachs
DCC (1) w/attachments
Admin. (2)
J. Lehew, CH2M Hill, w/o attachments
K. Armstrong, CH2M Hill, w/o attachments
D. Rakel, CH2M Hill, w/o attachments
V. Darnell, CH2M Hill, w/o attachments
B. Wier, CH2M Hill, w/o attachments
A. Upshaw, CH2M Hill, w/o attachments
MOAT Coordinator, CH2M Hill, w/o attachs
W. Webb, CH2M Hill, w/o attachments
M. McDougal, CH2M Hill, w/o attachments
file, CH2M Hill, w/o attachments

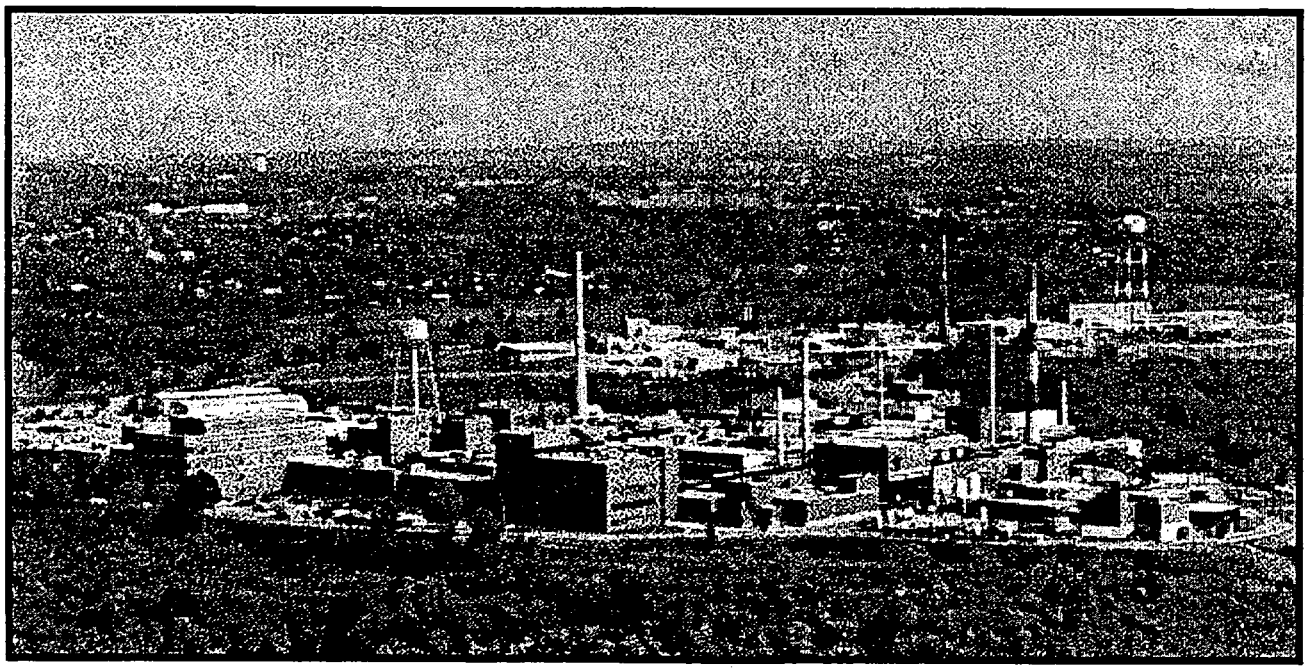
3004-060515 0005

Environmental
Restoration
Program

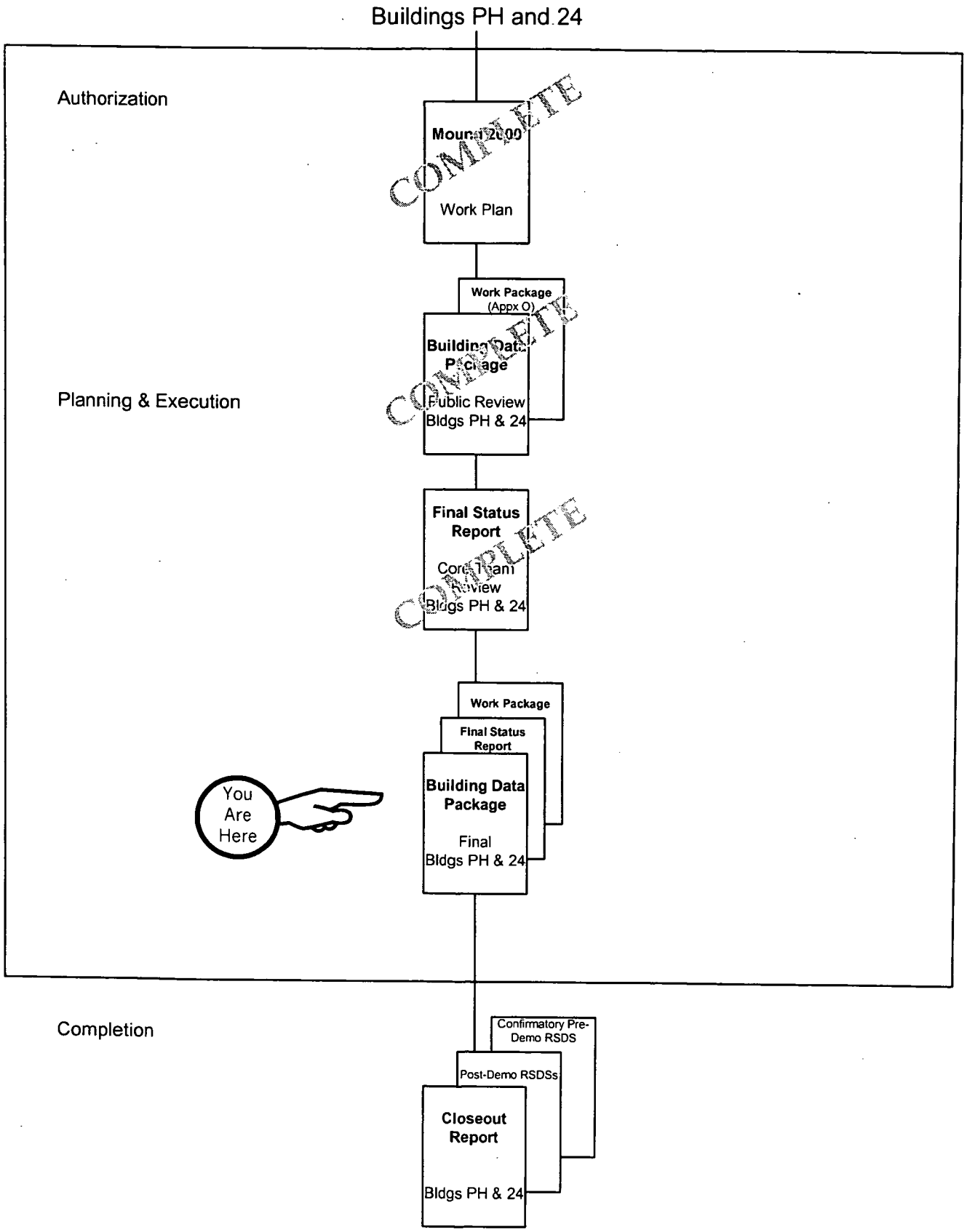
Miamisburg Closure Project
Building Data Package

Buildings PH and 24
(Demolition)

Final
October 2005



Buildings PH and 24



12Sept05stp

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The Mound Core Team
500 Capstone Circle
Miamisburg, OH 45342

September 2005

Mr. Frank Bullock, PE
Director of Operations
Miamisburg Mound Community Improvement Corporation
720 Mound Road
COS Bldg. 4221
Miamisburg, Ohio 45342-6714

Dear Mr. Bullock:

The Core Team, consisting of the U.S. Department of Energy Miamisburg Closure Project (DOE-MCP), U.S. Environmental Protection Agency (USEPA), and the Ohio Environmental Protection Agency (OEPA), appreciates your comments on the Building 24 and PH Building Data Package, Public Review Draft, February 2005.

Attached is our response.

Should the responses to comments require additional detail, please contact Paul Lucas at (513) 246-0071, and we will gladly arrange a meeting or telephone conference.

Sincerely,

DOE/MCP:	Paul Lucas	9/13/05
	Paul Lucas, Remedial Project Manager	date
USEPA:	Timothy J. Fischer	9/13/05
	Timothy J. Fischer, Remedial Project Manager	date
OEPA:	Brian K. Nickel	9/13/05
	Brian K. Nickel, Project Manager	date

STF 9/13/

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Response to Public Comments
From EHS Technology Group, LLC
Building 24 & PH Building Data Package
March 28, 2005

Comment 1. EHS concurs with the planned demolition action for PH Building (Pump House) and Building 24. We understand that all chemicals will be removed prior to demolition and all equipment will either be removed prior to demolition or demolished with the structure.

Response 1.
Your understanding is correct.

Comment 2. EHS understands that the contaminated soils adjacent to the base of Building 24 will be addressed as part of the Building 24 decontamination and decommissioning process and the surrounding soil will be addressed as part of the PRS 441, which is as yet unbinned.

Response 2.
Conceptually, your understanding is correct. PRS 441 was recently binned a Removal Action and will address the contaminated soil at the base of Building 24 and the surrounding area.

Comment 3. Coordination between CH2M Hill, the DOE and MMCIC is important to ensure the building area is left in a condition consistent with the Mound Reuse Plan.

Response 3.
MMCIC is encouraged to coordinate with DOE and the clean-up contractor regarding demolition activities. The individual demolition Work Plans will specify any site restoration activities following structure removal. The Core Team understands MMCIC's request and encourages MMCIC to meet with DOE to obtain an agreeable end state.

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AFFIDAVIT OF PUBLICATION

State of Ohio

SS: CH2MHILL MOUND

Montgomery County

MIAMISBURG CLOSURE PROJECT
POTENTIAL RELEASE SITE PACKAGE
The following document is available (February 25, 2005) for public information in the OEPA/CLA Public Reading Room, 305 E. Central Ave., Miamisburg, Ohio.
Buildings PR (Pump Houses) and 84 (Water Treatment) Phase I Building Data Package
Questions can be referred to Paul Lucas at (937) 847-8350 Ext. 314
U.S. Department of Energy
U.S. Environmental Protection Agency
Ohio Environmental Protection Agency
4818743 2-25/05

Before me, the undersigned, a Notary public in and for said County, personally came Tina Sears, who being first duly sworn says she is the Legal Advertising Agent of the DAYTON DAILY NEWS, which she says is a newspaper of general circulation in Montgomery, Clark, Warren, Butler, Clinton, Greene, Preble, Miami, Darke, Mercer, Shelby, Fayette, Logan, Auglaize, and Champaign Counties, and State of Ohio, and she furthur says that the Legal Advertisement, a copy of which is hereunto attatched, has been published in the said DAYTON DAILY NEWS

20 Lines, **1** Time(s), last day of publication

being **2/25/05**, and he/she furthur says

that the bona fide daily paid circulation of the said DAYTON DAILY NEWS was over Twenty-five Thousand (25,000) at the time the said advertisement was published, and that the price charged for same does not exceed the rates charged on annual contract for the like amount of space to other advertisers in the general display advertising columns.

Signed Tina Sears

Sworn or affirmed to, and subscribed before me, this

25 day of **February** 2005

In Testimony Whereof, I have hereunto set my hand and affixed my official seal, the day and year aforesaid.

Kelly J. Haas

Notary Public in and for the State of Ohio

NOTARIAL SEAL
STATE OF OHIO

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BDP Buildings PH and 24

REV	DESCRIPTION	DATE
WORKING DRAFT (to DOE)		**February 2005**
DRAFT (to Core Team)	BDPs for construction demolitions undergo simultaneous review by the Core Team and public.	**N/A**
PUBLIC REVIEW DRAFT	Public review period was February 24, 2005 through March 27, 2005.	**February 2005**
DRAFT PROPOSED FINAL (incorporates Core Team comments)	Text changes were made in response to OEPA and USEPA comments.	**May 2005**
FINAL	Core Team responses to public comments are provided in the front of this document.	**October 2005**

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1.0 GENERAL OVERVIEW

1.1 Introduction

The purpose of this Building Data Package (BDP) is to prepare for the demolition of PH Building (Pump House) and Building 24 (Water Treatment Plant) and to identify, if possible, any recognized environmental conditions (defined below) that may affect the subject property and buildings.

Recognized Environmental Condition: The presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a likely release, a past release, or a material threat of a release of any hazardous substances or petroleum into structures, or into the air, ground, groundwater, or surface water near the buildings.

1.2 Scope

This document has been prepared in accordance with the agreements and requirements as specified in the *Work Plan for Environmental Restoration of the DOE Mound Site, The Mound 2000 Approach*. This document is a BDP for PH Building and Building 24 located at the Department of Energy (DOE) Miamisburg Closure Project (MCP) in Miamisburg, Ohio. The investigation performed to support this BDP models procedures found in *ASTM Standard Practice for Environmental Site Assessments; Phase I Environmental Site Assessment Process* (Designation E 1527-00).

The scope of the investigation included PH Building and Building 24, the soil beneath, and a 15-foot wide perimeter around the buildings. The investigation of PH Building and Building 24 included the following:

A) Building and perimeter inspections.
B) An examination of historical aerial photographs and maps.
C) A review of federal and state regulatory agency records.
D) Personnel interviews.
E) A review of site records for:

   1) History of spills, releases and chemical inventories
   2) Past sampling data

      - Radiological survey
      - Soil sampling
      - Lead-based paint
      - Asbestos
      - Radon

In addition to the building investigations conducted by site contractor personnel, documents were reviewed. Information used to compile BDPs includes the following:

- Characterization of Mound's Hazardous, Radioactive, and Mixed Wastes, August 1990
- Operable Unit 9 (OU-9) Site Scoping Report, Volumes 1-12
- Mound Facility Physical Characterization, December 1992
- Active Underground Storage Tank Plan, November 1994
- OU-9 Hydrological Investigation, Bedrock Report, January 1994
- OU-9 Hydrological Investigation, Buried Valley Aquifer Report, March 1994
- Environmental Appraisal Report of the Mound Plant, March 1996
- Title Search
- Lease Information
- EDR Report - Radius Map
- Building Prints
- Potential Release Site (PRS) information
- MD-22153, Mound Site Radionuclides By Location, June 1995 Contaminant Surveys
- MLM-3791, Mound Facility Physical Characterization, December 1993

2.0 PH BUILDING AND BUILDING 24 OVERVIEW

Pump House Building

Pump House (PH) building was one of the original buildings constructed at Mound in 1948 and is located just east of Building 24. The building was constructed to provide a facility to pump fuel oil and brine water to the Mound facility power plant (Building P). PH building is situated in the west-central portion of the site (Appendix C, Figure 1). The building footprint occupies approximately 610 square feet of floor space (floor plan provided in Appendix D).

PH Building was constructed as a one-story structure, measuring 37 feet-4 inches by 16 feet-4 inches by 10-feet high. PH Building, as constructed, has a gross floor area of 610 square feet and a gross volume of 11,410 cubic feet. The building walls, ceiling, and floor are of poured, reinforced concrete construction. The walls are 8-inch thick concrete reinforced with #3 rebar on 12-inch centers, each way, and on each face. The floor slab is 5-inch thick concrete reinforced with #3 rebar on 12-inch centers, each way. The ceiling/roof is 4-inch thick concrete reinforced with #3 rebar on 6-inch centers. There are concrete beams (12 inches x 14 inches) that lie along the north-south centerline of each room, that help support the ceiling (two beams total). The concrete beams are reinforced with two #8 rebar and one #6 rebar. The concrete ceiling/roof is waterproofed with a "built-up-membrane" of felt coated with asphalt and gravel.

In the original construction, there were two pits in PH Building. The pit floors serve as footers for building walls. The pit on the western end of the building (approximately 5-feet by 15-feet by 6-feet deep) contained piping, and valving for the two chlorinating units in the west room. A well water supply line also passed through this pit. The pit on the eastern end of the building contained two brine pumps. The chlorinating units and valving were removed from the building in the 1950s. The brine pumps and associated piping were removed from the building in the late 1960s. The fuel oil pumps and associated piping were removed from the building in the early-mid 1970s, and later the pump pit in the east room was partially filled in with concrete (a pit approximately five feet by eight feet by six feet deep remains). No other structural changes have been made to the building.

As part of the original construction plan, an in-ground (not buried) concrete brine tank was built to support brine processing of the well water. The brine tank was approximately 16-feet by 22-feet by 11-feet (tall) and was located approximately thirty-three feet to the east of PH Building. The time frame for removal of the brine tank and associated piping can only be estimated as occurring in the 1970s when the PH Building brine pumps were removed.

Also as part of the original construction plan, a 300,000-gallon aboveground steel tank was built to store No. 6 fuel oil. This fuel tank was approximately 45-feet in diameter by 30-feet tall and was located approximately 120-feet to the south of PH building. The fuel tank was originally sited in an earthen-diked containment pit to capture and retain any fuel spills. Due to erosion, the containment pit was replaced with an asphalt dike and pad around the tank in the late1960s. The fuel oil for the tank was originally delivered by rail car, pumped from the rail cars to the tank via the PH building fuel oil pumps. The rail spur ran south of PH Building (between PH Building and the fuel tank). The fuel tank, containment pit, and associated piping were removed in the late1990s as part of the project to extend the rail spur.

Building 24

Building 24 is situated in the west-central portion of the site and is adjacent to and just west of PH Building. The building was constructed in 1965 as a water treatment plant. The building is a single-story structure with 840 square foot (42-feet long by 20-feet wide by 20-feet high) of floor space (floor plan provided in Appendix D).

The walls are 12-inch concrete block, with joint reinforcing on 16-inch centers. The foundations are set on 5-foot deep concrete footers reinforced with #4 rebar at 12-inches, each way and each face. The base of the wall footer is reinforced concrete with two #6 reinforcing bars. The floor slab is 8 inches thick concrete reinforced with #3 rebar on 12-inch centers laid each way. The concrete slab floor is set on a gravel fill bed. The roof is constructed of 8-inch thick cored, precast concrete slabs with a built up membrane, asphalted roof.

The facility contains two large-capacity (100,000-gallon) zeolite-softening bed tanks and the chemicals and injection equipment for chlorination and rust inhibition. Each tank contains gravel and approximately 350 cubic feet of non-hazardous zeolite resin material (Amerlite IR120 NA Resin). As part of the water treatment process, the facility injects sodium hypochlorate (chlorine disinfecting) and sodium silicate (corrosion inhibitor) into the

water supply. Two high-capacity booster pumps in Building 24 are use to distribute the treated water. The primary mission this water treatment facility had been to pump treated water into the SM-PP water tower to service the SM/PP area. Currently, due to the shutdown of P Building (Powerhouse), Building 24 is supplying treated water to the majority of the remaining site structures. Building 24 water treatment operations are projected to cease in the April timeframe. No structural changes have been done to the building since construction.

Utilities

PH Building used central steam for heating (disconnected). The west room of the building was cooled by a window air conditioning unit; otherwise the building has no cooling system. Electric service is 480 volts. The building has no potable or service water. The building is not serviced by sanitary or storm drains. The building also has no fire sprinkler system.

Building 24 used central steam for heating (disconnected) but never had a cooling system. Electric service is 480 volts. Raw well water is supplied to the building for treatment (softening and chlorination). "Domestic" (potable) water is pumped from the building for site use. The building has domestic water supplied to a sink and the building is equipped with a storm (floor) drain. The building does not have a fire sprinkler system or sanitary services.

2.1 Past Uses of Buildings PH and 24

PH Building

Originally, the building was constructed to provide a facility to pump fuel oil and brine water to the Mound facility power plant (Building P). PH building housed, in the east room, the fuel oil pumps that unloaded the rail tank cars to the four underground oil storage tanks located adjacent to P building via an overhead pipe on the pipe stanchions. The pumps were also used to pump fuel oil to the aboveground fuel oil storage tank that was located in a containment "pit" located across the railroad tracks south of PH building. Also, originally PH building housed, in the east room, the brine pumps that were used to regenerate the water softeners in P building. The west room once housed the chlorination equipment to chlorinate the plant water supply. In the 1950s, the chlorinators and valving were removed from the east room and later an air compressor was installed to provide process compressed air to the buildings in the area around PH Building. In the 1950s, a small steam line condensate pump and storage tank was installed in the east room of PH Building (prior to this installation, the condensate drained to the ground exterior to the building). In the late 1960s, the brine pumps and associated piping were removed from the building. The adjacent concrete brine tank, to the east of PH Building, was also removed at this time. In the early-mid 1970s, due to the additional buildings constructed in the area and the extensive routing of steam lines to these buildings, a central condensate collection tank and pumping station was installed in the east room of PH Building. Also in the early-mid 1970s time frame, the fuel oil pumps and associated piping were removed from the building (the fuel oil was no longer delivered by rail and Power House boilers were fueled by natural gas). Some time later, the pump pit in the east room was partially filled in with concrete (a pit approximately five feet by eight feet by six feet deep remains). Soon afterward, PH building was converted to a storage area for utilities related supplies and the

east room is still used as a supply storage area at the present time. The steam lines to PH building were disconnected in 2001.

Building 24

Building 24 was constructed in 1965 for the purpose of treating raw well water and was one of two site domestic water softening and chlorination facilities; the Power House was the other facility. Building 24 contains two100,000-gallon zeolite-softening beds (tanks) and the chemicals and injection equipment for chlorination and rust inhibition. The facility also contains two high-capacity booster pumps to distribute the treated water. The facility has not been used for any other purpose since construction.

2.2 Current Uses of Buildings PH and 24

PH Building

Currently, the east room of PH building is used as a storage area for utilities related supplies. All required equipment will be removed from the building during Safe Shutdown activities (in accordance with 41 CFR 101-200). Any remaining equipment will be left in place and demolished/disposed of with the building.

Building 24

The water softening equipment is bypassed (not used) and only chlorination of the water supply is still being done. Chlorination of the water supply is scheduled to be terminated in April 2005. All required equipment will be removed from the building during Safe Shutdown activities (in accordance with 41 CFR 101-200). Any remaining equipment will be left in place and demolished/disposed of with the building (the zeolite material is non hazardous and will become part of the building debris).

2.3 Environmental Concerns and Findings – Buildings PH and 24

Table 1: Summary of Environmental Concerns and Findings

Description	Comment	Resolution
Lead-Based Paint	No previous lead surveys or sampling data could be found for Buildings PH and 24. A walk-through survey of the accessible areas of the referenced buildings was performed during October of 2004 in order to identify any existing or potential lead paint hazards. The paint coatings present were observed to be largely intact and no potential hazards observed. Since the buildings are scheduled for imminent demolition, painted surfaces will be tested for lead content as planned work indicates the need for such testing in order to avoid worker exposure to lead. (Appendix J).	No paint analysis would be necessary to protect occupant or worker health unless any coatings were to be disturbed by close worker contact (sanding, grinding, scraping, torch cutting, etc.). If these types of activities are planned, the affected paint coatings will be tested to verify the absence of lead. Waste Management performed worst-case scenario calculations to determine that building demolition debris containing lead-based paint meets the waste acceptance criteria at the landfill.
Chemicals	Appendix K provides a list of chemicals and products reportedly used or stored in Buildings PH and 24.	All chemicals will be removed prior to demolition, and dispositioned by Waste Management.
Ballasts associated with Fluorescent Lamps	Fluorescent lamps were used in the buildings. Ballasts may contain polychlorinated biphenyls (PCBs).	Ballasts that may contain PCBs will be removed prior to demolition, and disposed of by Waste Management.
Air Emissions	There were no processes that created air emissions in Buildings PH or 24.	N/A
Asbestos	During October of 2004 a comprehensive walk-through survey of all areas of Buildings PH and 24 were performed in order to identify all asbestos-containing materials (ACMs) prior to demolition of the facilities (Appendix I). Other than roofing materials, no asbestos-containing materials were found in Building 24. Interior and exterior to PH Building, various forms of pipe insulation were identified as asbestos-containing. Also, gaskets in explosion-proof light fixtures, interior and exterior to PH Building, were assumed to be asbestos-containing material. The pipe insulation and light fixture gaskets identified as asbestos-containing will require removal prior to building demolition.	The pipe insulation and light fixture gaskets interior and exterior to Building PH will be removed in accordance with NESHAP requirements prior to commencement of demolition activities, and disposed of per Waste Management direction. The asphalt roofing on both buildings, which are assumed to contain asbestos, are considered Nonfriable Category I materials. As Nonfirable Category I materials, in accordance with NESHAP, these materials will remain in place during demolition and be disposed of as construction waste. All work will be performed in accordance with current state and federal regulations.
Drainage Sumps	There are no sumps in either Building PH or 24.	N/A

Table 1: Summary of Environmental Concerns and Findings

Description	Comment	Resolution
Lead	N/A	N/A
Mercury	Mercury vapor light fixtures were used in building 24. Electrical switches in both buildings may contain mercury.	Lighting fixtures and switches that may contain mercury will be removed prior to demolition, and disposed of by Waste Management
Radiological	The Final Status Report for Buildings 24 and PH is provided in Appendix G. Refer to Section 2.4 of this BDP for a summary of the results. No research, development, or production activities using radiological materials occurred in Buildings PH and 24. Due to the close proximity of Buildings PH and 24 to the rail spur soil staging area, a confirmatory radiological survey will be performed (of both interior and exterior building surfaces) just prior to demolition of the buildings to confirm that contamination of building surfaces has not occurred.	All radiological survey results were below surface release criteria. The confirmatory radiological survey will be included in the Closeout Report.
Septic System	N/A	N/A
Wastewater	N/A	N/A
Stains & Corrosion	N/A	N/A
Storage Tanks	One aboveground 40-gallon condensate storage tank is located in the east room of PH Building along the north wall. An aboveground, 300,000-gallon capacity, fuel oil storage tank (no Tank identification number), was located approximately 120-feet south of PH Building. An in-ground concrete brine solution storage tank, approximately 16-feet by 22-feet by 11-feet (tall), was located approximately 33 feet to the east of PH Building. Two 100,000-gallon capacity zeolite-softening bed tanks are located in Building 24.	The condensate tank will be demolished with the building and will be removed as part of the building debris. The 300,000-gallon aboveground tank was demolished in the 1990s. The verification of PRS 441 will include sampling of the soils below the former location of the tank. The brine solution storage tank was demolished in the late 1960s. The zeolite-softening bed tanks will be demolished with the building and will be removed as part of the building debris.
Solid Waste Disposal	N/A	N/A
Migratory Hazards	N/A	N/A

Table 1: Summary of Environmental Concerns and Findings

Description	Comment	Resolution
Radon	Radon level is not applicable for open-air demolitions.	N/A
HVAC	N/A	N/A
Energetic Materials	N/A	N/A
Soil Contamination	Appendix L contains a graphic showing soil sample locations within 15 feet of the perimeters of Buildings PH and 24, and provides tables for detected compounds (results above laboratory detection limits) and non-detected compounds (results below laboratory detection limits). Three sample locations (O04846, B18, and SCR129) show Thorium 232 results above Cleanup Objective and Hot Spot Criteria, and chemical and uranium-234 and -238 results above screening criteria (reference Table 2). Results for all other sample locations within the 15-ft. perimeter of the buildings are less than the screening level (Core Team approved or the more stringent of either 10^{-6} Risk-Based Guideline Value [RBGV] plus background or Hazard Index = 1). The chemical contaminated soil locations referred to in the PRS 358 Core Team recommendation (N3 of 3, Appendix N) are included in PRS 441.	Three locations (O04846, B18, and SCR129) have Thorium 232 results above Cleanup Objective and Hot Spot Criteria. Two sample locations (B18 and O04846) are in an URMA. There are no discernable indications of the borehole locations in the asphalt or grounds around Building 24; however, the digitized coordinates of the sample locations are known. These sample locations will be marked to prevent them from being disturbed during demolition activities; therefore, potential soil contamination at these locations will not affect worker safety during demolition activities. Sample locations identified in Table 2 and/or beneath Buildings PH and 24 (including locations O04846, SCR129, and B18), with radiological or chemical results exceeding cleanup objectives, will be excavated, sampled, and verified as part of the PRS 441 remediation activities.

N/A: Not applicable

Table 2: Maximum Results Exceeding Screening Levels

Analyte	Sample Location	Maximum Result	Background	RBGV (10^{-6})	Screening Level
Thorium-232 (pCi/g)	O04846	34.32[1]	1.4	0.07	1.47
Uranium-234 (pCi/g)	B18	1.64	1.2	0.09	1.2
Uranium-238 (pCi/g)	B18	1.31	1.2	0.09	1.29
Benzo(a)anthracene (mg/Kg)	B18	10	N/A	4.08	4.08
Benzo(a)pyrene (mg/Kg)	B18	9.1[2]	N/A	0.41	0.41
Benzo(b)fluoranthene (mg/Kg)	B18	16	N/A	4.08	4.08
Dibenz(a,h)anthracene (mg/Kg)	B18	0.93	N/A	0.41	0.41
Indeno(1,2,3-cd)pyrene (mg/Kg)	B18	5.4	N/A	4.08	4.08

RBGV: most stringent of construction and office worker scenarios per Risk-Based Guideline Values, March 1997, Final, as performed using April 2001 Health Effects Assessment Summary Table (HEAST) slope factors.

[1] - Result exceeds Cleanup Objective (2.1 pCi/g) and the Hot Spot Criteria (3.4 pCi/g) for Thorium-232.

[2] - Result exceeds Cleanup Objective (4.08 mg/Kg)

Sample locations identified in Table 2 and/or beneath Buildings PH and 24 (including locations O04846, SCR129, and B18), with radiological or chemical results exceeding cleanup objectives, will be excavated, sampled, and verified as part of the PRS 441 remediation activities.

2.4 Radiological Information for Buildings PH and 24

PH Building

A radiological assessment of PH Building was performed by reviewing its operational history and preliminary radiological survey information.

Pump House (PH) building was one of the original buildings constructed at Mound in 1948 and is located just east of Building 24. The building was constructed to provide a facility to pump fuel oil and brine water to the Mound facility power plant (Building P). PH building is situated in the west-central portion of the site (Appendix C, Figure 1). The building footprint occupies approximately 610 square feet of floor space (floor plan provided in Appendix D).

PH Building is designated as impacted and is scheduled for demolition in accordance with MCP goals. Residual tritium activity was found and remediated in one survey unit. The fixed point, scanning, and smear surveys found no residual activity above the Derived Concentration Guideline Levels, Wide Area Average ($DCGL_w$). Surveys of building surfaces were performed inside and outside the building in accordance with the Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM). Analysis of sediment samples collected from floor drains and ventilation units found no activity above background levels. The review team concluded that the building meets radiological surface release criteria established by DOE Order 5400.5 and no further radiological surveys are required. Subsurface material (under-slab, footers, etc) and associated soil is not evaluated in this survey, but will be assessed separately when surfaces are accessible.

Supporting documentation for the information summarized in Table 3 is contained in the Final Status Report (Appendix G).

Table 3: Radiological Summary of PH Building

TYPE	RSDS (Radiological Survey Data Sheet)	LOCATION	SURVEY RESULTS (dpm/100 cm^2) (Note 1)	SURFACE CONTAMINATION GUIDELINES (dpm/100 cm^2) (Note 2)
Highest Alpha Smearable Activity	04-TF-0062	Solvent Shed	6.57	20
Highest Alpha Fixed Activity	04-TF-0127	Ceiling	99	100
Highest Beta Smearable Activity	04-TF-0090	Floor	33.4	1,000
Highest Beta Fixed Activity	04-TF-0082	Floor	2,815	5,000
Highest Tritium Smearable Activity	04-TF-0094	Wall	2,879	10,000

Note 1: Residual radiological activity may be present and not be a concern (within applicable limits). This may result from or be a function of counting statistics, instrument variances, the randomness of decay, radon presence, and/or natural fluctuations in background levels.

Note 2: Guideline values per DOE Order 5400.5, Radiation Protection of the Public and the Environment.

Building 24

A radiological assessment of Building 24 was performed by reviewing its operational history and preliminary radiological survey information.

Building 24 was constructed in 1965 for the purpose of treating raw well water and is one of two site domestic water softening and chlorination facilities; the Power House is the other facility. Building 24 contains 100,000-gallon zeolite-softening beds (tanks) and the chemicals and injection equipment for chlorination and rust inhibition. The facility also contains two high-capacity booster pumps to distribute the treated water. The facility has not been used for any other purpose since construction.

Surveys were performed inside and outside the building in accordance with the MARSSIM. The fixed point, scanning, and smear surveys found no residual activity above the $DCGL_w$. Analysis of smear samples collected from floor drains and ventilation units found no activity above background levels. The review team concluded that the building meets radiological surface release criteria established by DOE Order 5400.5 and no further radiological surveys are required. Subsurface material (under-slab, footers, etc) and associated soil is not evaluated in this survey, but will be assessed separately when surfaces are accessible.

Supporting documentation for the information summarized in Table 4 is contained in the Final Status Report (Appendix G).

Table 4: Radiological Summary of Building 24

TYPE	RSDS (Radiological Survey Data Sheet)	LOCATION	SURVEY RESULTS (dpm/100 cm^2) (Note 1)	SURFACE CONTAMINATION GUIDELINES (dpm/100 cm^2) (Note 2)
Highest Alpha Smearable Activity	04-TF-0129	Floor	5.19	20
Highest Alpha Fixed Activity	04-TF-0134	Exterior Wall	87	100
Highest Beta Smearable Activity	04-TF-0129	Interior Wall	5.06	1,000
Highest Beta Fixed Activity	04-TF-0134	Roof	1,611	5,000
Highest Tritium Smearable Activity	04-TF-0134	Exterior Wall	133	10,000

Note 1: Residual radiological activity may be present and not be a concern (within applicable limits). This may result from or be a function of counting statistics, instrument variances, the randomness of decay, radon presence, and/or natural fluctuations in background levels.

Note 2: Guideline values per DOE Order 5400.5, Radiation Protection of the Public and the Environment.

2.5 National Historic Preservation Act (NHPA)

Building PH is one of Mound's original structures built to support the polonium processing and research mission. Consequently, the Ohio Historic Preservation Office (OHPO) has determined Building PH to be a historic structure. Consistent with guidelines established by OHPO in a Memorandum of Agreement (MOA) between DOE and the Advisory Council on Historic Preservation, a document package was prepared to mitigate the adverse impacts of demolishing a historical structure.

The mitigative document package has been completed and the demolition of this structure can proceed without the need for any additional evaluations of the activities to affect or impact cultural resources or historic property. However, if any items or artifacts are discovered as this project progresses, the Cultural Resource Representative will be notified at extension 4080. Work will be suspended until which time the items or artifacts have been recovered.

Building 24 is not listed as a historic structure with the Ohio Historic Preservation Office (OHPO). No mitigative document package is required. However, if any items or artifacts are discovered as this project progresses, the Cultural Resource Representative will be notified at extension 4080. If necessary, work will be suspended until which time the items or artifacts have been recovered.

3.0 SITE DESCRIPTION

3.1 Site/Vicinity Location and Characteristics

PH Building and Building 24 are located at the DOE MCP site, formerly known as the Mound Plant. The MCP site is situated in the City of Miamisburg, Miami Township, Montgomery County, State of Ohio as shown in Appendix B.

The Mound Plant at one time was situated on approximately 300 acres of land and contained approximately 130 buildings with a total of approximately 1.4 million square feet of floor space (the number of buildings is constantly diminishing as buildings are decommissioned and either sold or demolished). The original 182-acre site, purchased by the Manhattan Engineering District in 1946, consisted of two hills and an intervening valley that runs approximately east and west. The 124-acre tract acquired in 1981 was an undeveloped mixture of fields and woods that undulates and slopes downward to the west, away from the main site. This area was acquired to serve as a buffer and has been used as a staging area and parking area for contractors working onsite.

To the west lie a railroad line and the north south trending Miami-Erie Canal. The northern boundaries of the site abut the residential area of Miamisburg, Ohio. Mound Road marks the northern half of the eastern perimeter of the facility then veers east, away from the southern half of the eastern boundary. A public golf course (belonging to the City of Miamisburg), the Miamisburg Mound Memorial Park, old agricultural fields, residential lots, and vacant wooded lots border the facility along Mound Road. Benner Road formed the southern property line of the Mound Plant (at the 300-acre stage), with agricultural fields and farms occupying the lands beyond.

3.2 Description of Structures, Roads, and Other Improvements in Proximity to PH Building and Building 24

As shown in Appendix C, Figure 1, Buildings PH and 24 are bordered on the north by an asphalt roadway, Building 104, and Trailer 4; on the east by Trailer 12; on the south by the railroad spur and the waste soil staging area; and on the west by an open lot along the rail spur.

3.3 Current and Past Uses of Buildings in Proximity to Buildings PH and 24

Current buildings in proximity (Figure 1) to Buildings PH and 24 include:

- Building 104 was constructed in 1991 as the "Test Fire Maintenance Building". The building is a 1,800 square-foot steel frame structure with corrugated steel siding and roof. The building was constructed slab-on-grade with a loading dock and ramp and is located to the north north east of PH Building. Building 104 continued to function as a maintenance area until the mid 1990's when the building was made available to the Miamisburg Mound Community Improvement Corporation (MMCIC) as a "user facility" and leased to a commercial entity. In 2002, the building was returned to site use as an office area and is still used in that capacity at the present time. Demolition of the building is planned to occur in 2005.

- Trailer 4, located north of Buildings PH and 24, is a 2,100 square-foot triple-wide modular structure used as an office trailer. The trailer was purchased and set in place in August 2002 to provide temporary office space and has always been used in that capacity. The structure is sited at the former location of Building 123. The plan is to demolish the structure as an industrial demolition when it is no longer needed as an office area.

- Trailer 12, located to the east of Building PH, is a 450 square-foot single-wide modular structure used as an office trailer. The trailer was moved to its current location in approximately 1996 and has been used at several other locations around the site. The trailer was purchased to provide temporary office space and has always been used in that capacity. The plan is to demolish the structure as an industrial demolition when it is no longer needed as an office area.

Previous buildings in proximity (Figure 1) to Buildings PH and 24 include:

- Building 41 was a 234 square-foot Waste Transfer Station, located northwest of Buildings PH and 24, used to pump contaminated wastewater from the SM/PP area buildings to the WD facility. The structure was demolished between 1983 and 1994 (based on aerial photos).

- Building 1, constructed in 1958 was a one-story, 986-square-foot concrete block structure, with a sheet metal addition on one side. The roof was of built-up membrane coal tar and asphalt. The Building was located to the southeast of Buildings PH and 24. Building 1 was sited in between Building 106 (on the east) and Building 74 on the west). Building 1 was constructed and used to for the development, production, packaging, and testing of energetic materials. The building was demolished (1998 – 2000) as a standard industrial demolition.

- Building 74, constructed in 1984, was a one-story, 400-square-foot, slab-on-grade structure. The facility was a manufactured Butler Building with metal arched walls and roof. The building was located to the southeast of Buildings PH and 24. The building was sited adjacent to the west side of Building 1. It was used for packaging items containing explosives. Building 74 was used for the same purpose since construction until activities were discontinued. The structure was sold by auction in January 1998 and removed from site in February 1998. The concrete slab for the structure was demolished in February 1999 and site restoration was completed in March 1999.

- Building 106, constructed in 1985 as a general storage facility, was a one-story, 200-square-foot, metal walled and roof structure was located to the southeast of Buildings PH and 24. The commercial Butler building was built slab-on-grade. It was sited on the east side of Building 1. It was used to store cartons, wooden cases, and metal shipping containers for packaging items containing explosives. The building was demolished (1998 – 2000) as a standard industrial demolition.

- Building 67, constructed in 1983, was a 3,787 square-foot building located southwest of Buildings PH and 24. Built slab-on-grade, it was a concrete-covered, polystyrene foam building with a metal roof. The building served as office space for energetic materials support staff and was always used in that capacity. The building was demolished in 2001 as a standard industrial demolition.

- Building 123 was a steel-framed Rubb®-Brand tent-type building, located north of Building 104, in the location presently occupied by Trailer 4. It was built in 1993 or 1994 as a temporary structure to house containers of low-specific activity (LSA) radioactive waste, and measured approximately 38 feet by 100 feet (3,838 square-foot). Processes conducted in the building included loading, unloading, sampling, and transferring contaminated soil in and out of LSA containers, and included staging soil on sheeting placed atop the dirt and gravel building floor. In 1999 all containers with radiological waste were removed from the building and the building was subsequently used to house heavy equipment. Decontamination of the heavy equipment was also conducted within the tent. The structure was demolished as a standard industrial demolition in July 2002.

- Building 27 was a two-story building constructed in 1966. The structure was located to the south of Buildings PH and 24. A 1969 building addition brought the total footprint to 5,285 square feet. Building 27 was constructed and used for the development, production, and testing of energetic materials. There was also a solvent shed associated with Building 27, located approximately 70 feet north of the building, where solvents (acetone and ethanol) were stored for use in Building 27 processes. Demolition of the solvent shed was completed in November 2002. Demolition of Building 27 and site restoration was completed in December 2002. Both structures were demolished as standard industrial demolitions.

These buildings are believed to have had no adverse environmental impact on Buildings PH and 24.

4.0 RECORDS REVIEW

4.1 General/Historical CERCLA Information

In compliance with permit requirements under Resource Conservation and Recovery Act (RCRA), the Clean Water Act (CWA), the Safe Drinking Water Act (SDWA), and the Clean Air Act (CAA), Mound Plant has applied for or has received permits for its surface water discharges, air emissions, and hazardous waste program. The site had operated a hazardous waste storage facility under a RCRA Part B permit dated October 18, 1996. The site currently maintains a National Pollutant Discharge Elimination System (NPDES) surface water discharge permit with Facility I.D. number OH 0009857. Operations that produce particulate or vaporous emissions are either permitted or registered with RAPCA and the Ohio Environmental Protection Agency (OEPA). The site also submits annual Emergency and Hazardous Chemical Inventory forms to OEPA, pursuant to the Superfund Amendment and Reauthorization Act (SARA), Title III, the Emergency Planning and

Community Right-to-Know Act. The March 2002 version of this report indicated that no reportable chemicals were stored in either Building PH or 24 (Appendix K).

The Mound Plant was identified as a contaminated site on the National Priorities List (NPL) under CERCLA (Superfund) in 1989. The Mound Plant was originally listed due to volatile organic compound (VOC) contamination in the western end of the lower valley area. The cleanup of the site was originally to be accomplished under the CERCLA mandated procedures for regulating Superfund Sites using the operable unit (OU) system to define and characterize cleanup areas. As the cleanup effort went forward, it became apparent that the site did not fit the profile for a cleanup strategy based on the operable units. The DOE, the United States Environmental Protection Agency (USEPA), and OEPA designed a new decision making process for the cleanup of the site.

The new process is known formally as a "removal site evaluation process" and informally as the "Mound 2000 Process." For a more detailed description, refer to the *Work Plan for Environmental Restoration of the DOE Mound Site, the Mound 2000 Approach*. The Mound 2000 Process system divided the site into geographical parcels containing more than 400 PRSs with approximately equal numbers of PRSs concerned with potentially contaminated soil and with potential contamination in or associated primarily with building operations. A PRS is an area where knowledge of historic or current use indicates that the site may have had releases of radioactive and/or hazardous materials. The PRSs were initially identified and documented as part of the Mound site scoping process under the Federal Facility Agreement (FFA). The original list of PRSs can be found in the OU9- Site Scoping Report Volume 12, Site Summary Report, 1994. One of the objectives of the Site Scoping report was to provide a comprehensive summary of PRSs identified through the scoping process. Subsequent to the 1994 Site Scoping Report, additional PRSs have been identified as information became available. The assignment of a PRS does not necessarily mean that there is a threat to human health or the environment. The tabulation of all PRSs simply provides an explicit means of tracking and evaluating all potential releases onsite, the need for further action, and the identification of the authority responsible for action.

Through the process described above, the specific PRSs in the vicinity of Buildings PH and 24 (Section 4.2.3) are listed in Table 5 along with their binning status. The locations of the PRSs, except for one, are shown on Figure 2 of Appendix C (PRS 441, only recently identified, is not shown on Figure 2 of Appendix C). Six of the seven PRSs in the vicinity of Buildings PH and 24 have been determined by the Core Team to require No Further Assessment (NFA). One PRS (PRS 441) is presently Unbinned. For a PRS to be binned NFA or as a completed RA, the Core Team has reviewed the PRS data and agrees that all existing environmental issues associated with that PRS have been resolved and the PRS is protective of human health and the environment. No other PRSs associated with Buildings PH and 24 have been identified.

4.2 Specific Record Sources for Buildings PH and 24

4.2.1 Occurrence Reports

Building PH

A search of the occurrence reporting system revealed three reports for Building PH, all of which were minor and without environmental impact:

- *April 1997 NPDES Exceedance (May 1997).*
- *Plant Outfall 001 & 601 National Pollution Elimination Discharge System Permit Exceedance (ROLL-UP) (October 1997).*
- *Exceedance of NPDES Permit for Carbonaceous Biological Oxygen Demand (CBOD) (June 2002).*

Building 24

A search of the occurrence reporting system revealed no occurrence reports for Building 24.

4.2.2 Spills and Releases

- None

4.2.3 Associated PRS Overview

As a result of the investigations and documentation accomplished to comply with the CERCLA cleanup process via the Federal Facilities Agreement (FFA)/DOE Environmental Restoration (ER) Program, DOE and the site contractor tabulated all the PRSs identified under the various regulatory programs in effect at the site. Seven PRSs are at or near Buildings PH and 24 as identified in Table 5. The PRS locations, except for PRS 441 (which has only recently been identified), are shown on Figure 2 of Appendix C. The boundary of PRS 441 has not yet been determined and thus is not shown on Figure 2 of Appendix C. Recommendation sheets for the PRSs, except for PRS 441, are provided in Appendix N. Note: The recommendation sheet for PRS 358 (N3 of 3, of Appendix N) indicates that the contaminated soil adjacent to the base of Building 24 will be addressed as part of the Building 24 decontamination and decommissioning evaluation process, however this soil will be addressed as part of PRS 441.

Table 5 - PRSs in Proximity to Buildings PH and 24

PRS	CERCLA or Bldg. Related	Binning Status	Comments
59	CERCLA	NFA	Contaminated Soil Box Storage Area
176	CERCLA	NFA	Area 14, Radioactive Waste Line break
177	CERCLA	NFA	Building 41Alpha Wastewater Tank (Tank 208)
178	CERCLA	NFA	Building 41Alpha Wastewater Tank (Tank 209)
300	CERCLA	NFA	Area 19, Underground Waste Transfer Line
358	CERCLA	NFA	Elevated Soil Gas Location
441	CERCLA	Unbinned	Soil Staging Area. Includes contaminated soil from locations B18, SCR129, and O04846, and PRS 358.

4.3 Review of Building Prints

Building prints were reviewed and no significant items were identified. Floor plans are included in Appendix D.

4.4 Aerial Photographs

Aerial photographs from 1949 (following construction of PH Building), 1959 (following construction of PH Building and prior to construction of Building 24), 1965 (following construction of Building 24), 1996 (typically used as the latest aerial photo), and 2004 (most recent aerial photo) were reviewed and no significant items were identified. Aerial photographs are presented in Appendix E.

4.5 Interviews

PH Building

The past/current Building Manager, A. W. Upshaw, was interviewed via a building manager questionnaire (included in Appendix F, Pages F35 through F46) and in-person regarding past facility operations and current conditions. No significant items in the building were identified based on the questionnaire or interviews.

Building 24

The past/current Building Manager, A. W. Upshaw, was interviewed via a building manager questionnaire (included in Appendix F, Pages F81 through F91) and in-person regarding past facility operations and current conditions. No significant items in the building were identified based on the questionnaire or interviews.

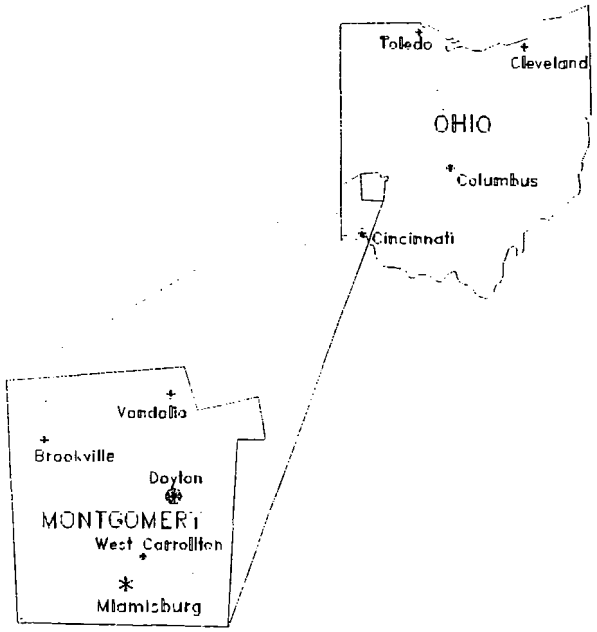
Appendix A

General Listing of Acronyms

ASTM	American Society for Testing and Materials
BDP	Building Data Package
CAA	Clean Air Act
CERCLA	Comprehensive Environmental Response, Compensation & Liability Act
cm^2	centimeters squared
CWA	Clean Water Act
DOE	United States Department of Energy
DPM	disintegrations per minute
EPA	United States Environmental Protection Agency
ER	Environmental Restoration (Program)
FFA	Federal Facility Agreement
HAZMAT	hazardous materials
MARSSIM	Multi-Agency Radiation Survey and Site Investigation Manual
MCP	Miamisburg Closure Project
N/A	not applicable
NPDES	National Pollutant Discharge Elimination System
OEPA	Ohio Environmental Protection Agency
OU	Operable Unit
PCB	polychlorinated biphenyl
pCi/L	picoCuries per liter
PRS	Potential Release Site
RI/FS	Remedial Investigation/Feasibility Study
RAPCA	Regional Air Pollution Control Agency
RCRA	Resource Conservation and Recovery Act
RSDS	Radiological Survey Data Sheet
SARA	Superfund Amendments and Reauthorization Act
SDWA	Safe Drinking Water Act
USEPA	United States Environmental Protection Agency
VOC	volatile organic compound

Appendix B

Map of Montgomery County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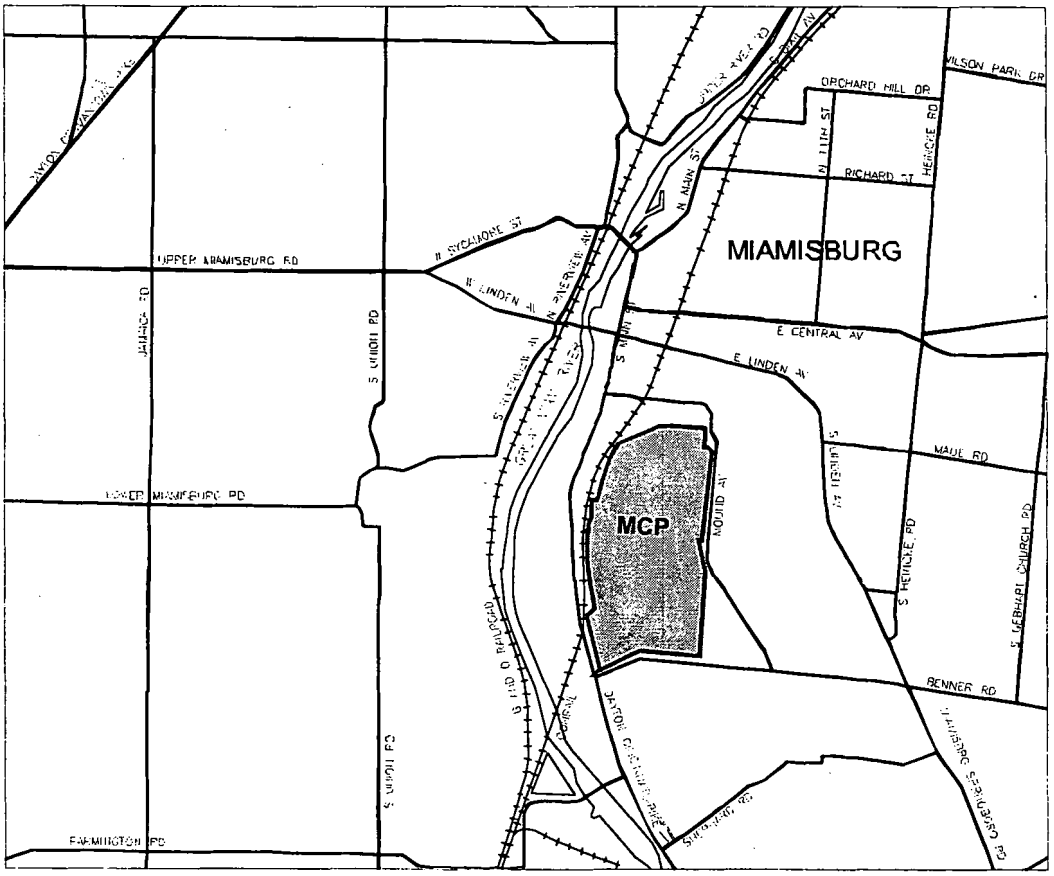
Cleveland
OHIO
Columbus
Cincinnati
Vandalia
Brookville
Dayton
MONTGOMERY
West Carrollton
Miamisburg


MIAMISBURG
MCP
ORCHARD HILL DR
WILSON PARK DR
RICHARD ST
HEMICLE RD
N MAIN ST
N SYCAMORE ST
N LINDEN AV
UPPER MIAMISBURG RD
JAMACO RD
S UNION RD
E CENTRAL AV
E LINDEN AV
MAUE RD
S HEMICLE RD
E LEBHART CHURCH RD
BENNER RD
LOWER MIAMISBURG RD
FARMINGTON RD

B1 of 1

Appendix C

Figures

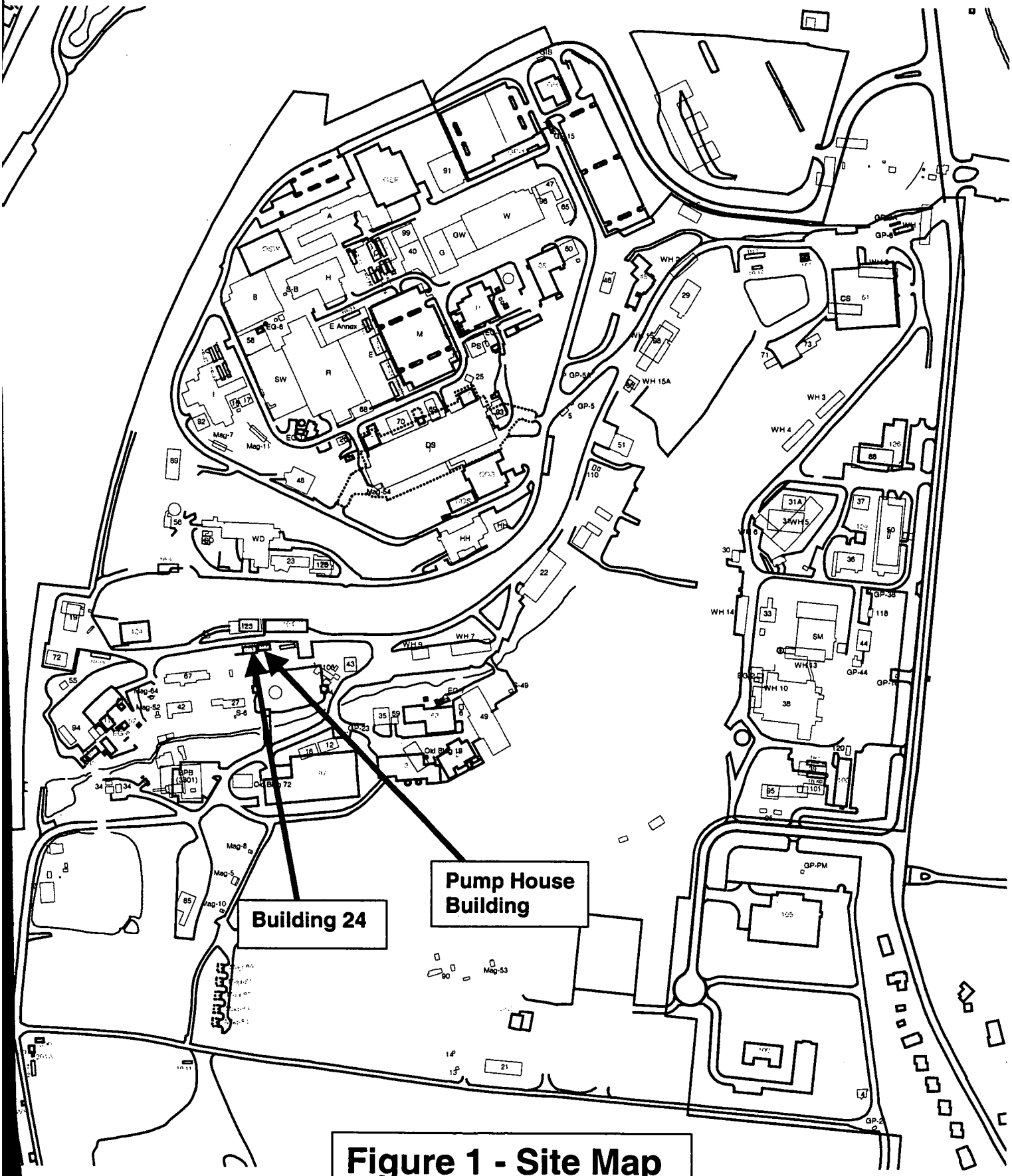
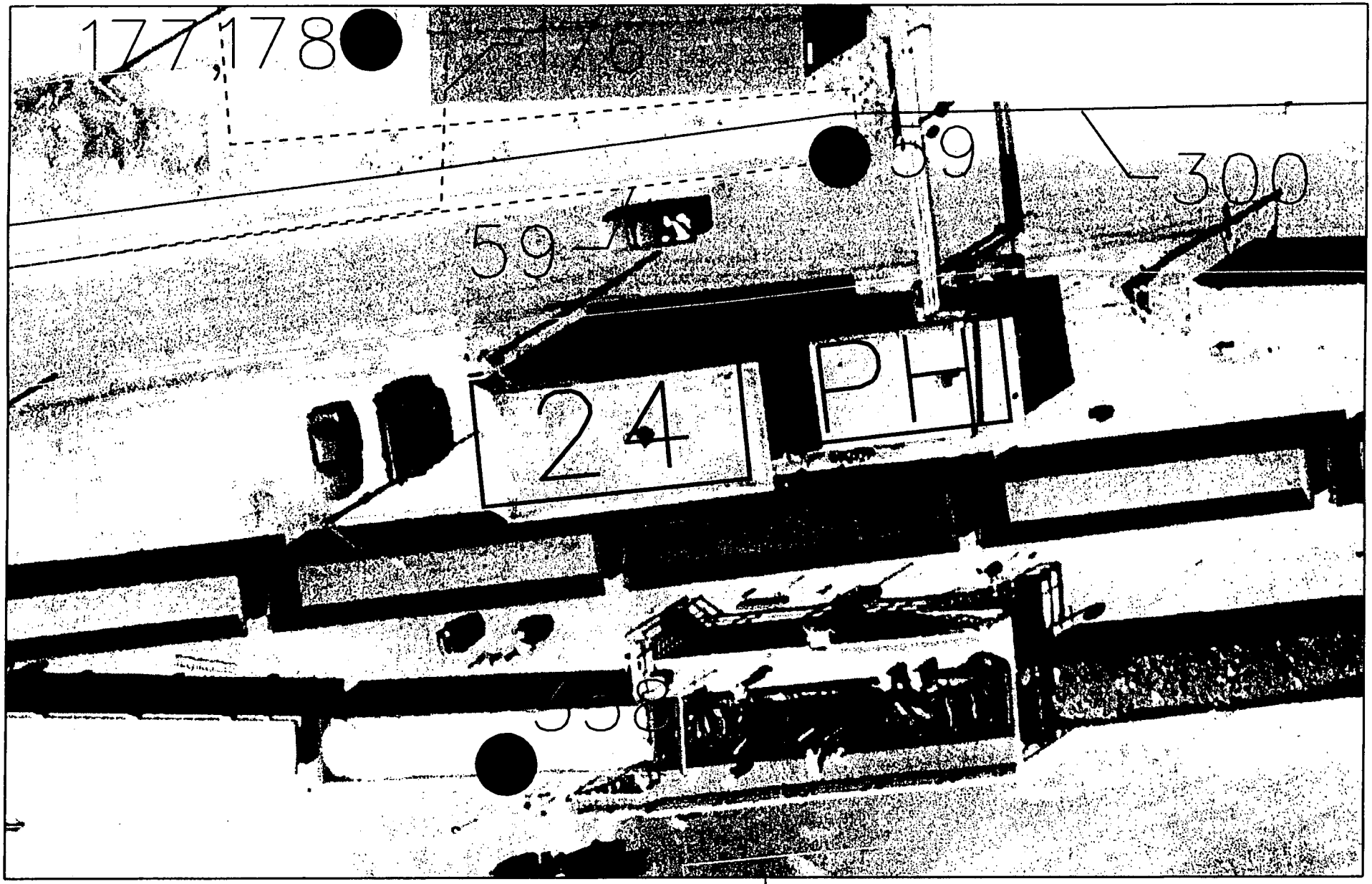


Figure 1 - Site Map

C1 of 5



● PRS Point

PRS Area

PRS Line

20 10 0 20 40FT

GRAPHIC SCALE

MOUND

Environmental Restoration Geographic

SHEET	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
ISSUE																					
SHEET	1	2	3	4	5	6															
ISSUE																					

PART CLASSIFICATION

DRAWING CLASSIFICATION

UNCLASSIFIED

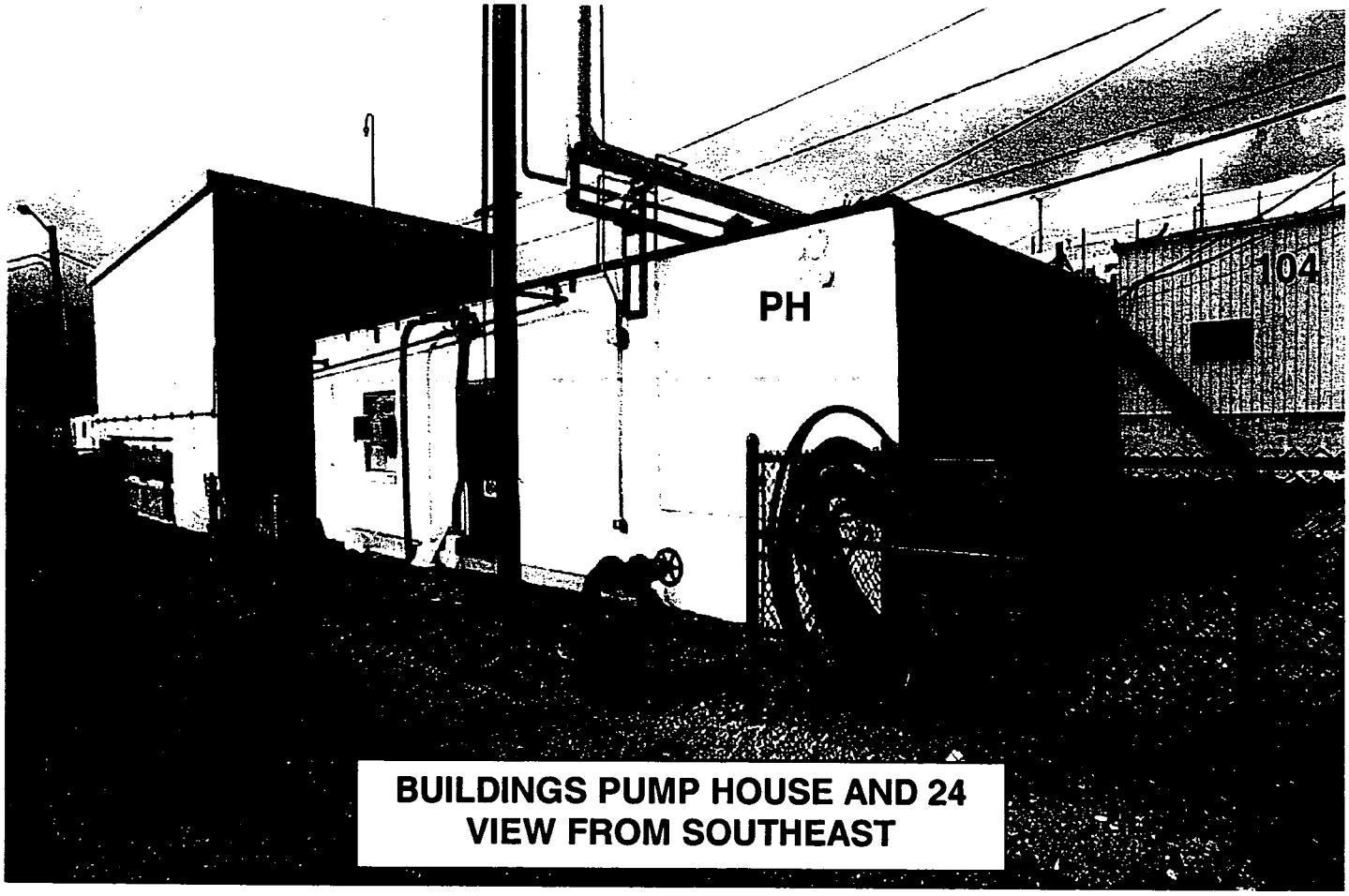
SCALE

DRAWING NAME: vicinity.dgn

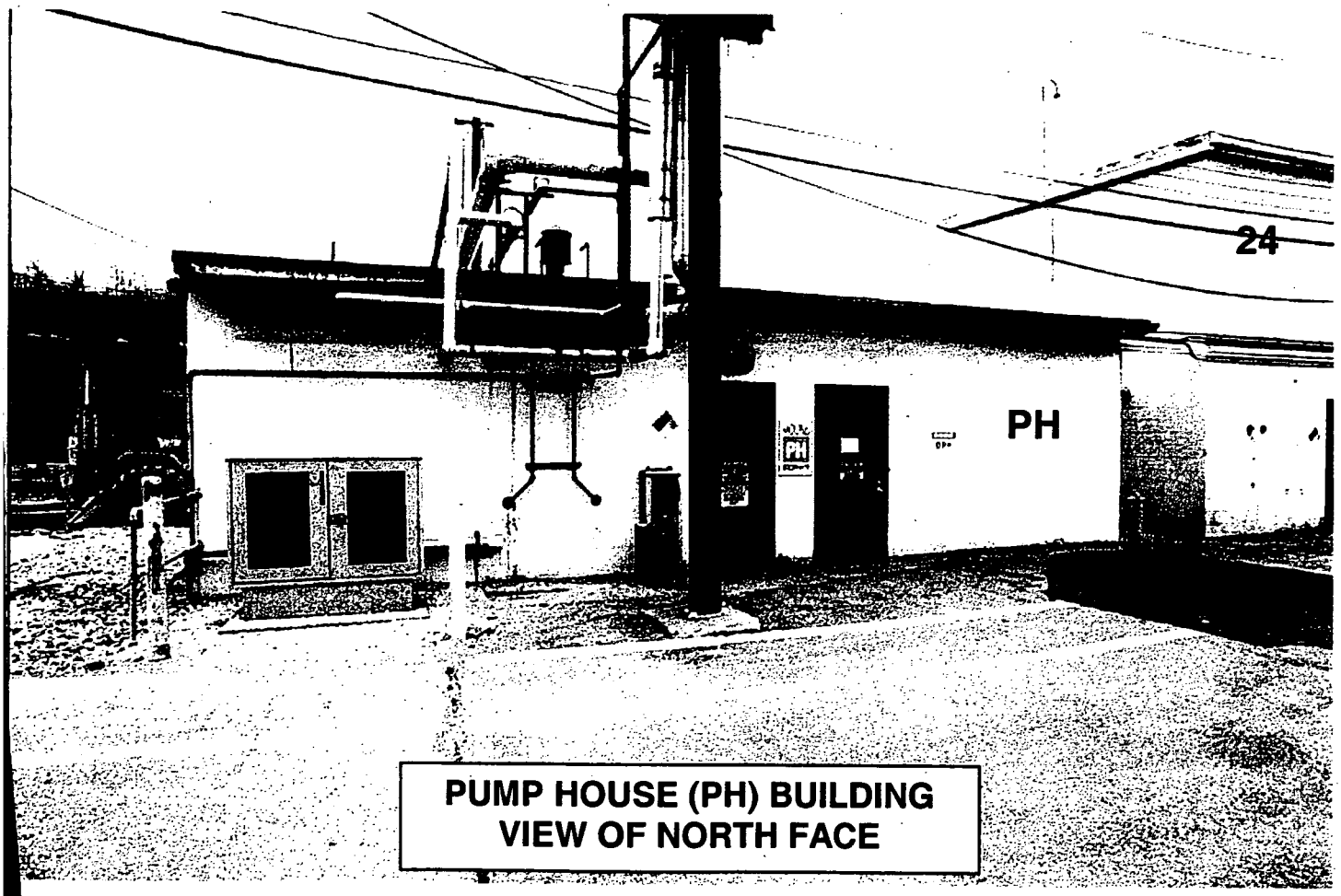
JOB NUMBER

Figure 2: Building 24 & PH and Vicinity

1204



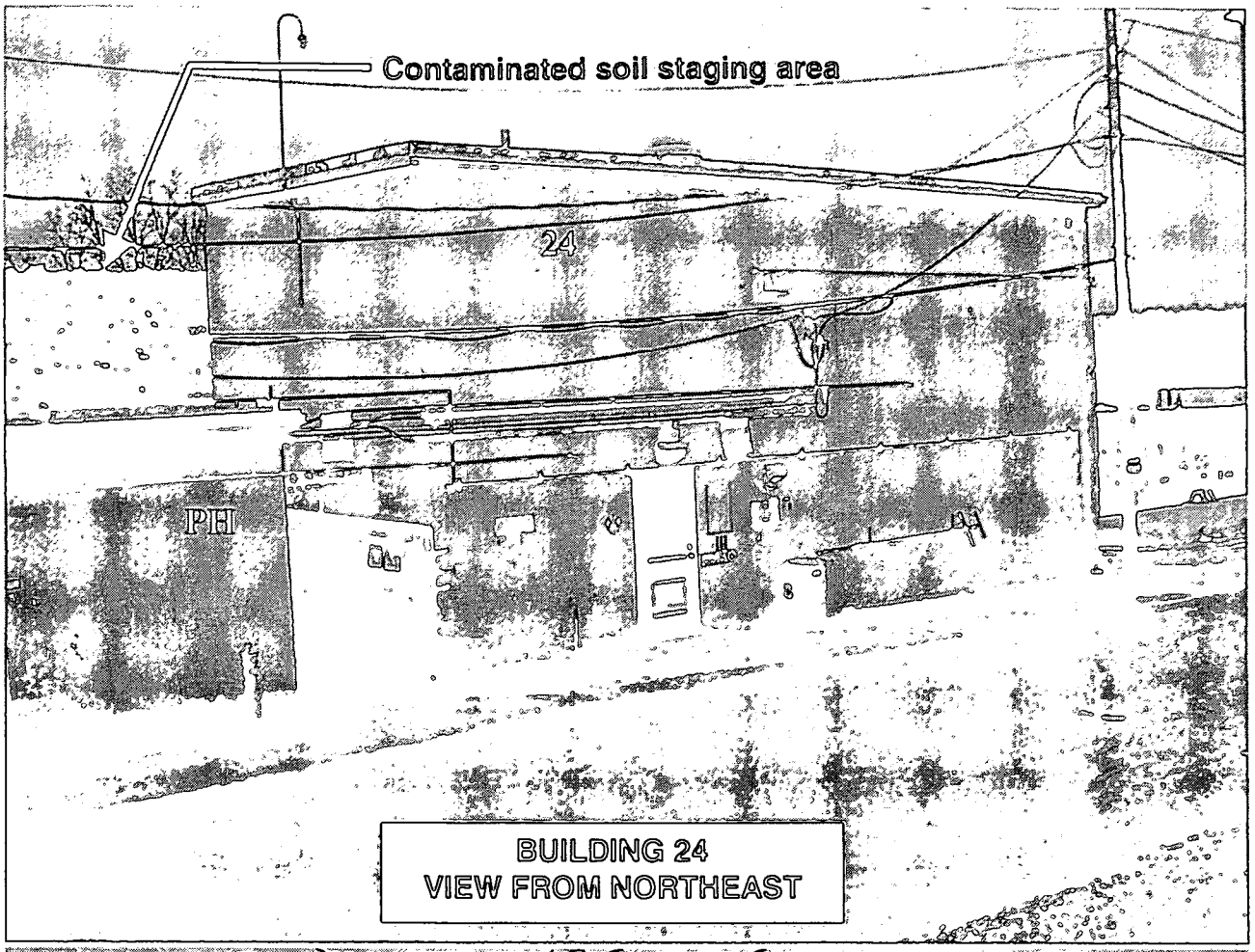
BUILDINGS PUMP HOUSE AND 24
VIEW FROM SOUTHEAST



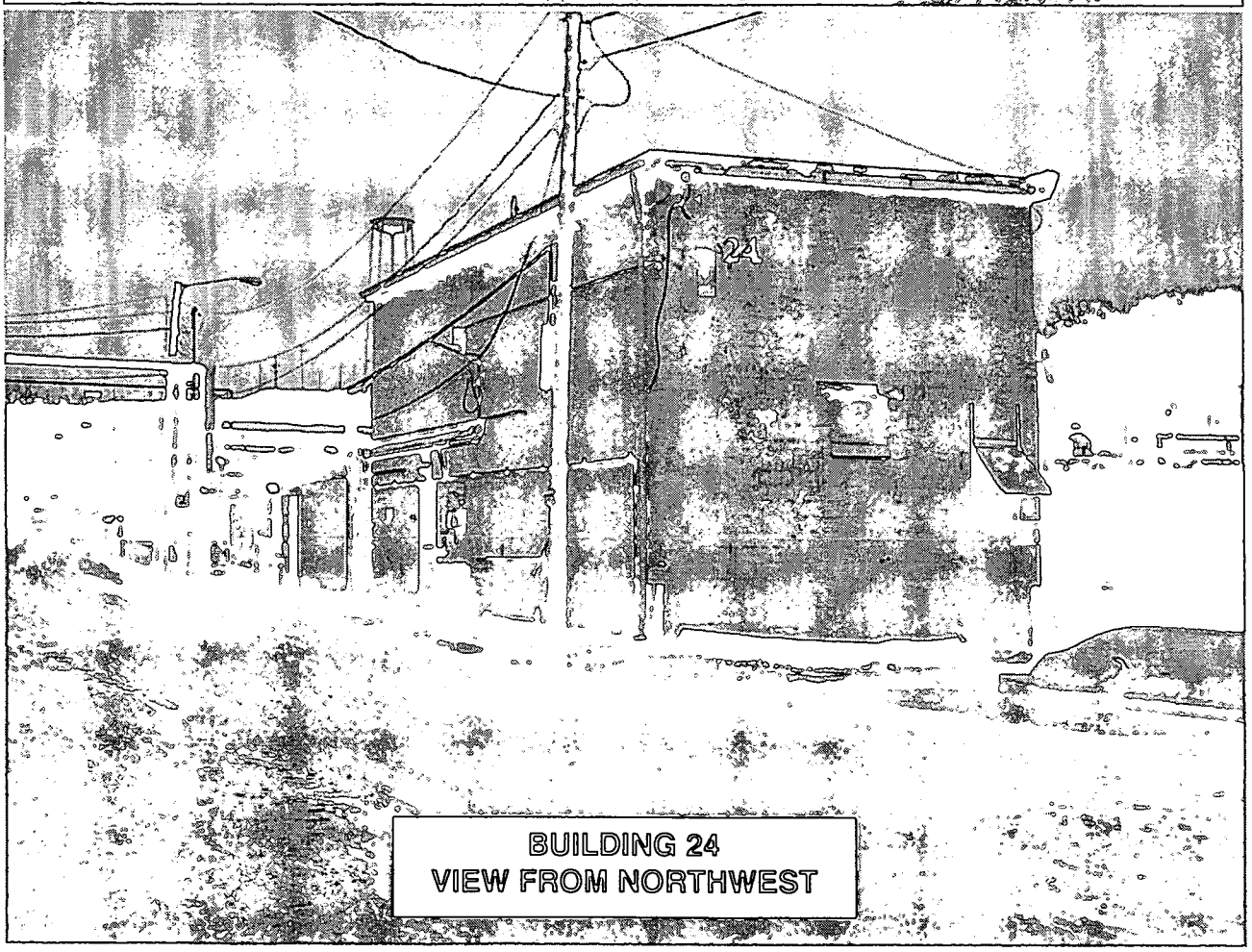
PUMP HOUSE (PH) BUILDING
VIEW OF NORTH FACE

FIGURE 3

C3 of 5



BUILDING 24
VIEW FROM NORTHEAST



BUILDING 24
VIEW FROM NORTHWEST

FIGURE 4

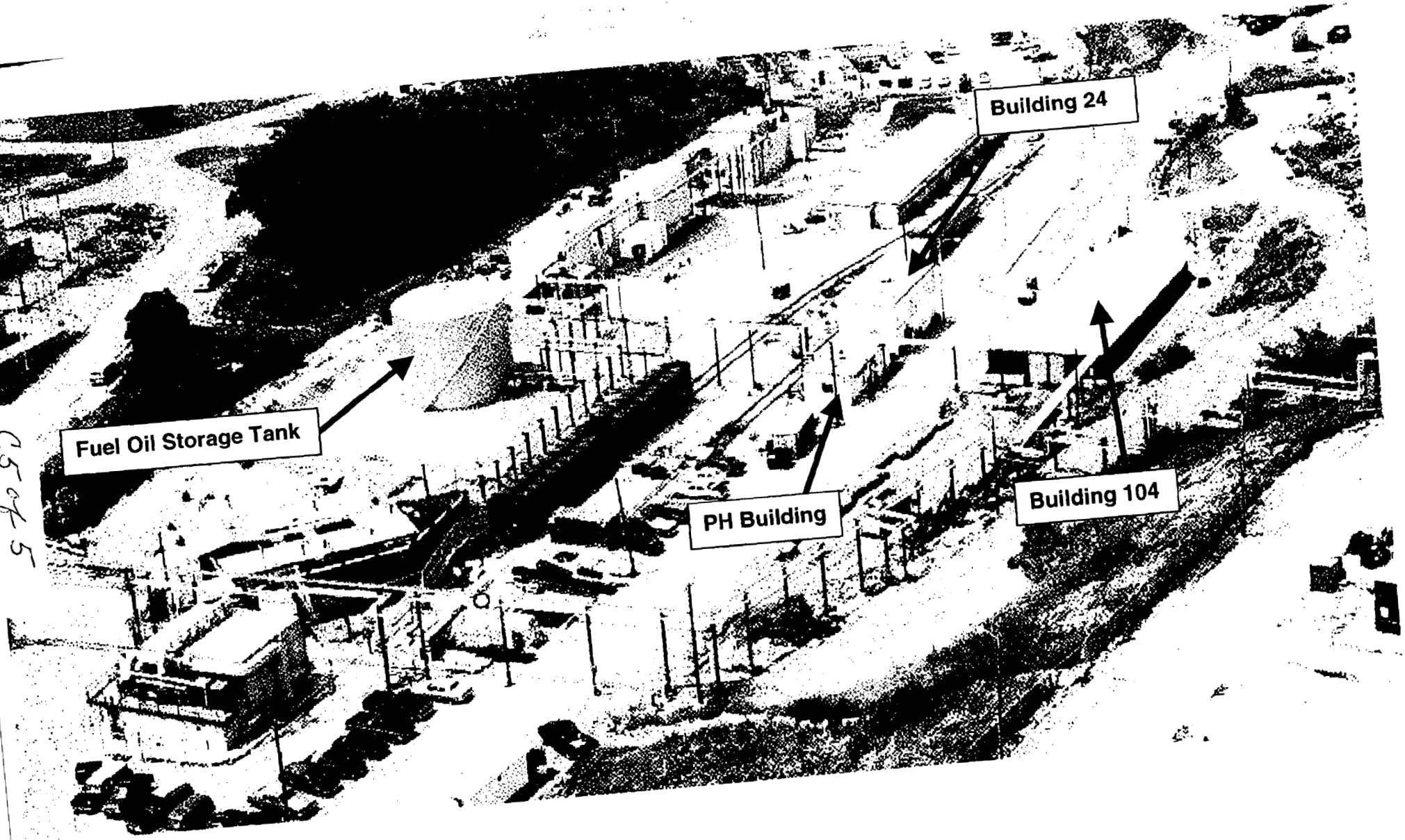
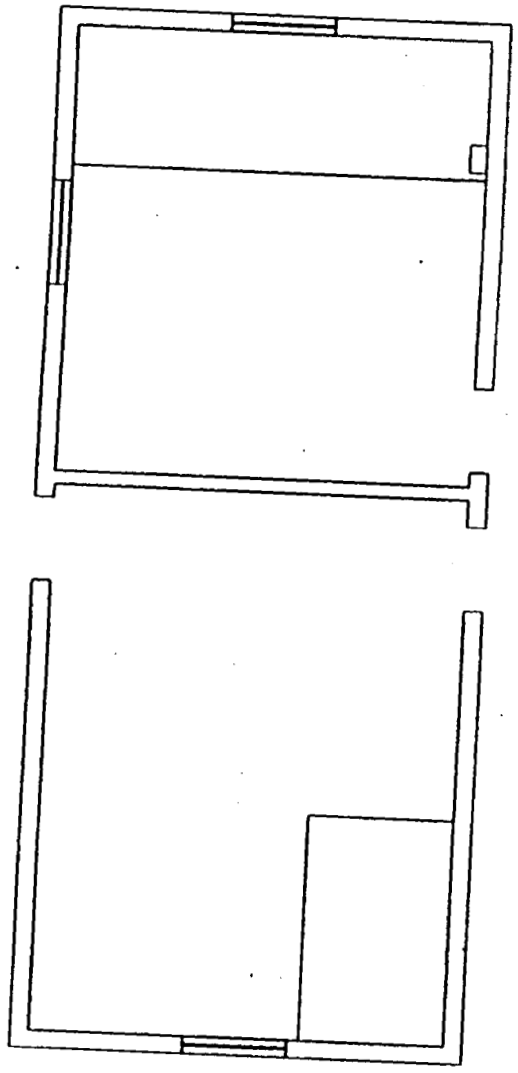


FIGURE 5, STRUCTURES IN VICINITY OF BUILDINGS PH AND 24, CIRCA 1988

Appendix D

Floor Plans

ITEM	DATE	REVISION	BY	CHKR	ENG	LEADER	APVD	R
B	12/12/91	ASBUILT ISSUE	DCW				DVD	



Dig 2

PH BLDG
FIRST FLOOR
BLDG CODE:3512

APPROVALS:
SAFETY COMMITTEE REQUIRED: DATE:
___ NONE ___ TRUEROC ___ TEROC ___ CHROC
TECH. REP. ___
BR. MGR. ___
TRUEROC ___
TEROC ___
CHROC ___

DESIGN ENG	DRAFTSMAN
DRCM	DWG ADMIN
LP & EC	PROD REV
CHG MGR	
APVD	DATE

SHEET	1	2	3	4	5	6
TOTAL	8					

FORT CLASSIFICATION

TITLE (U) TITLE CLASSIFICATION
PH BLDG
FLOOR PLANS

DRAWING CLASSIFICATION: UNCLASSIFIED
SIZE: C
DRAWING NUMBER: FSC911318
JOB NUMBER: 12335
DWG TYPE: SFP
PROJ: PH BLDG
CODE: 14863
SCALE: AS NOTED
SHEET: 1 OF 1
STATUS: MD-REL-12/12/91
ORIGIN: MD-BRJ-V3.8

ISS	DATE	REVISION	BY	CHKR	ENG	LPRCC	APVD	R
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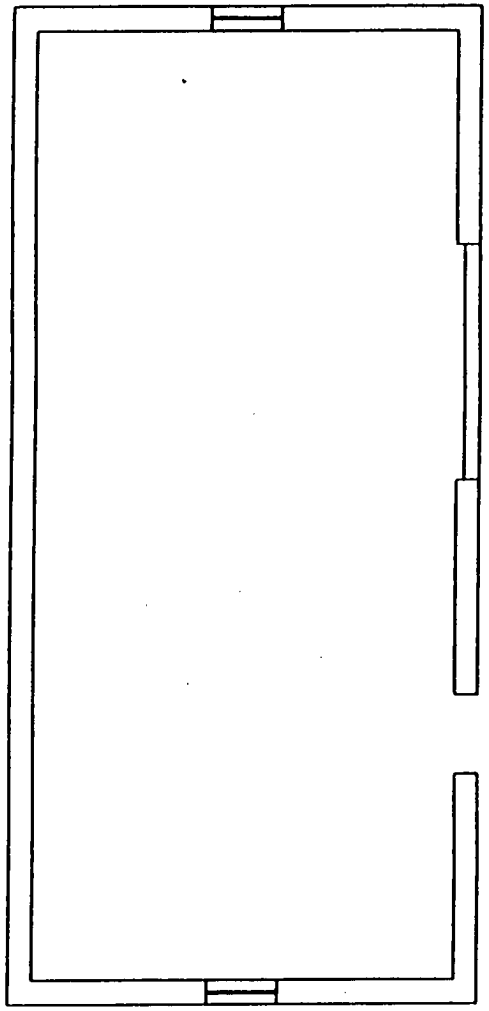
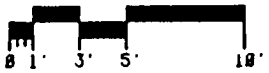




BLDG #24
FIRST FLOOR
BLDG CODE:3024

SHEET	1	2	3	4	5	6
ISSUE	0					

PART CLASSIFICATION

TITLE (U) TITLE CLASSIFICATION

BLDG #24
FLOOR PLANS

DESIGN ENG | PROJ MGR
BPO-4 | CHE SUPV

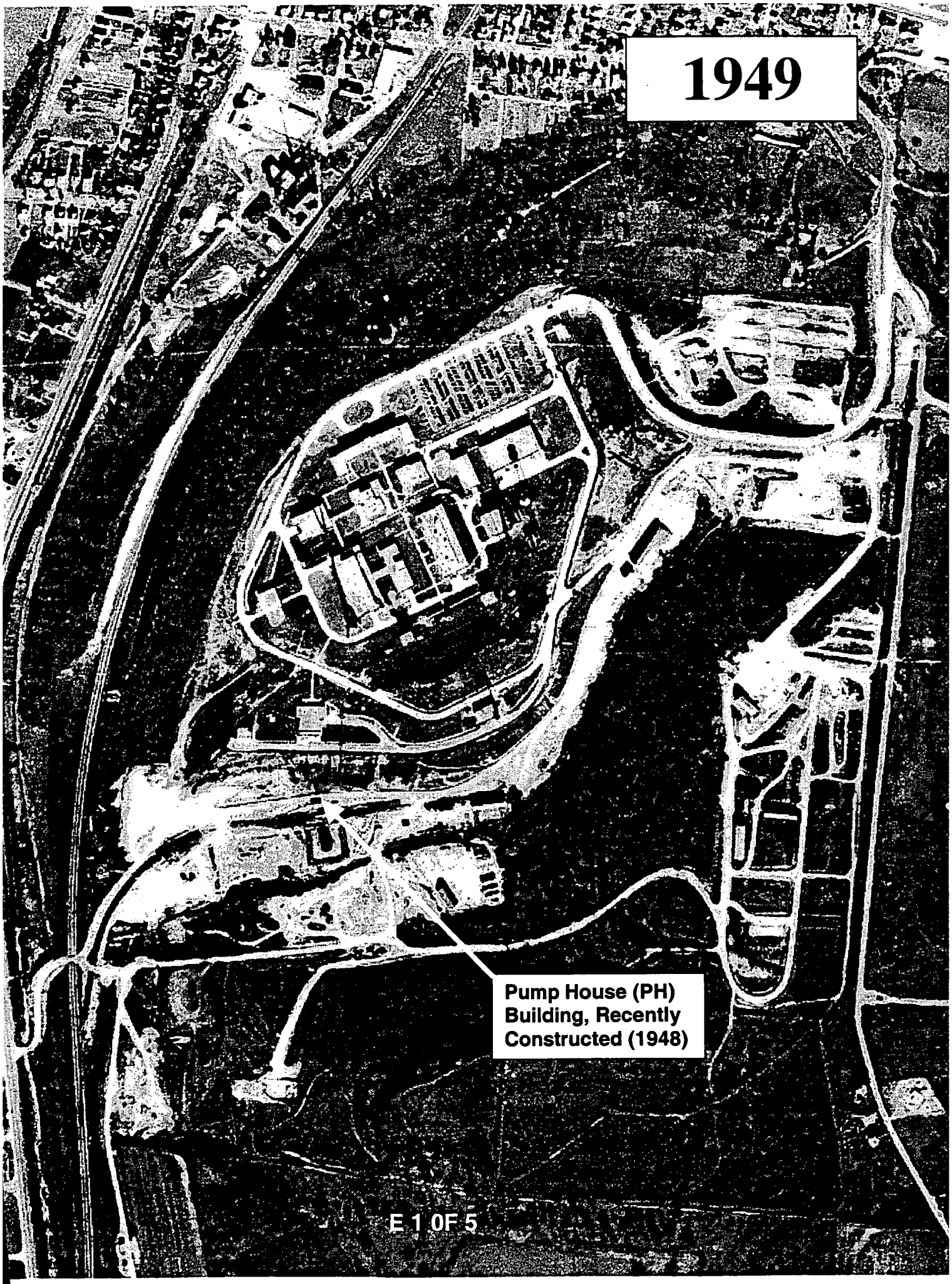
APPROVALS: DATE:
SAFETY COMMITTEE REQUIRED:
___ NONE ___ TRUEBOC ___ TEBOC ___ EMBOC

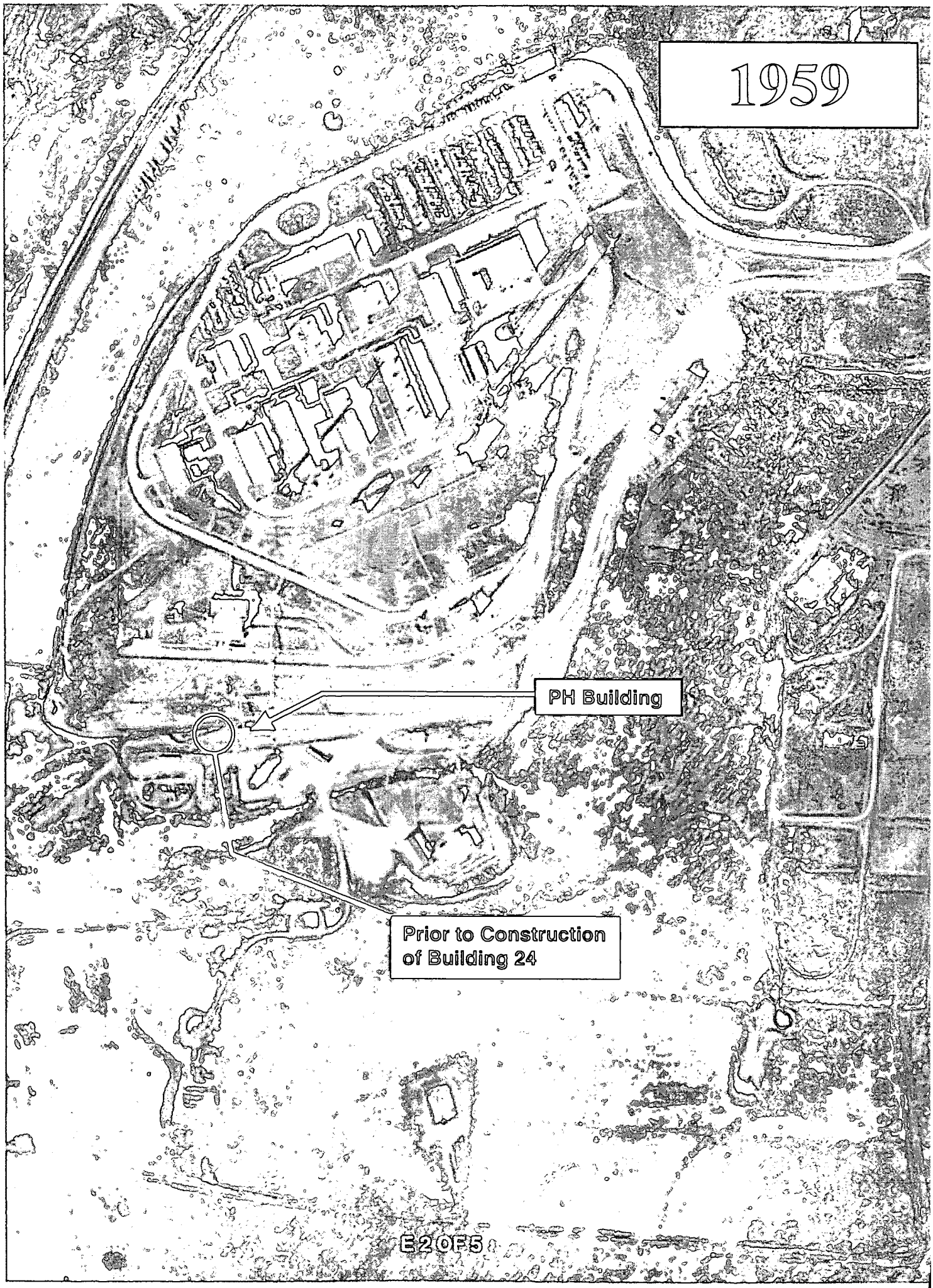
2 of 2

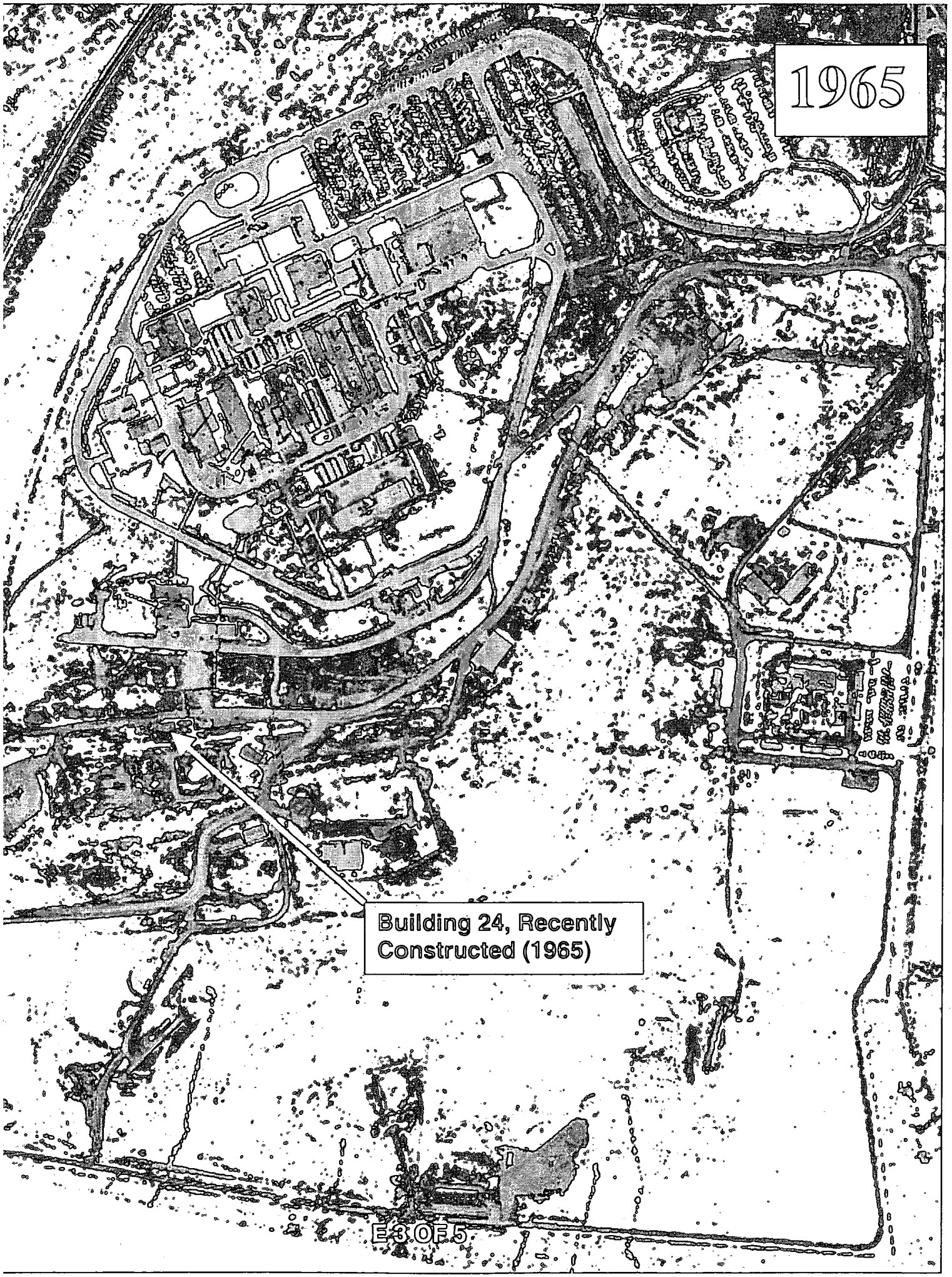
9-47-6

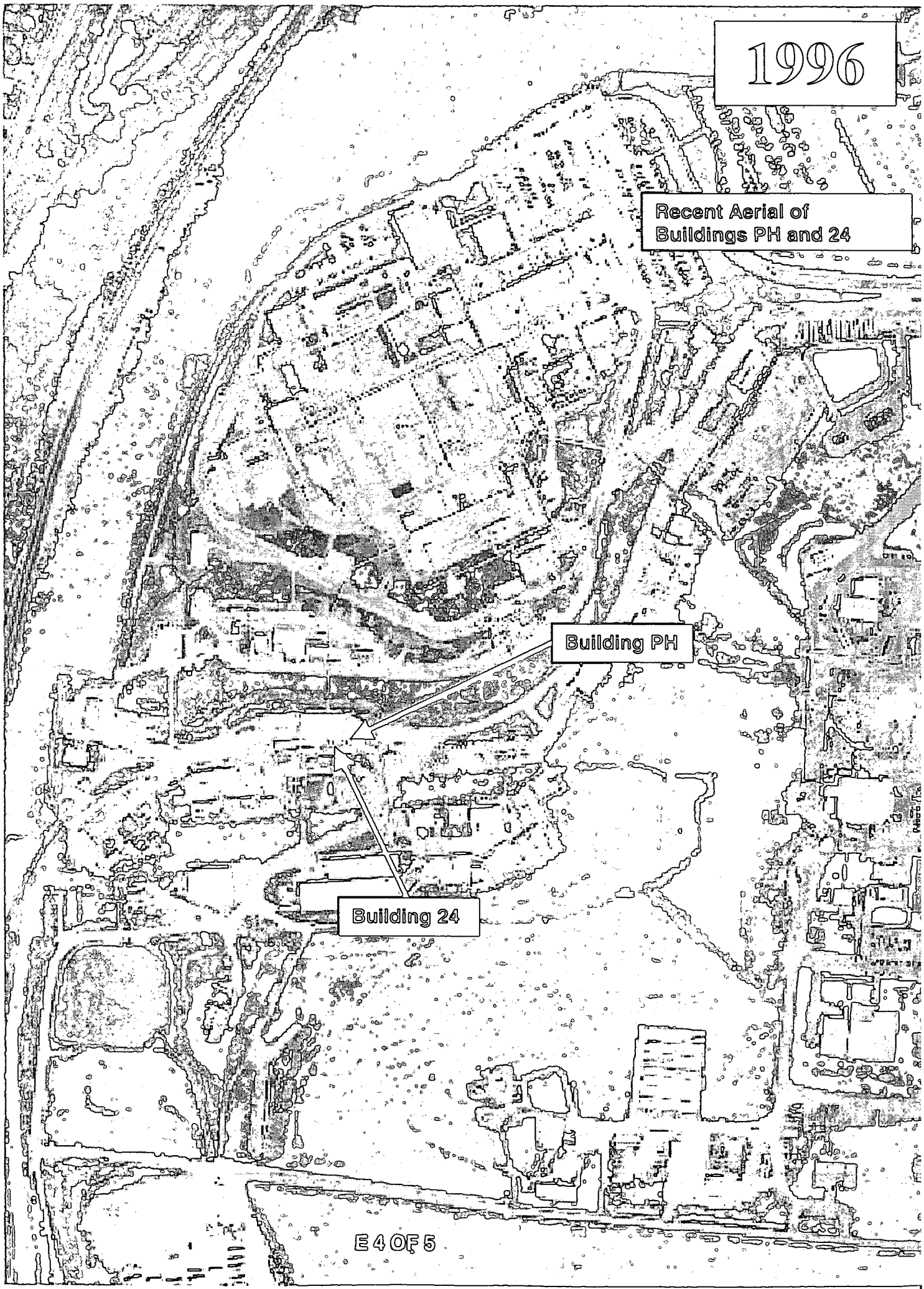
Appendix E

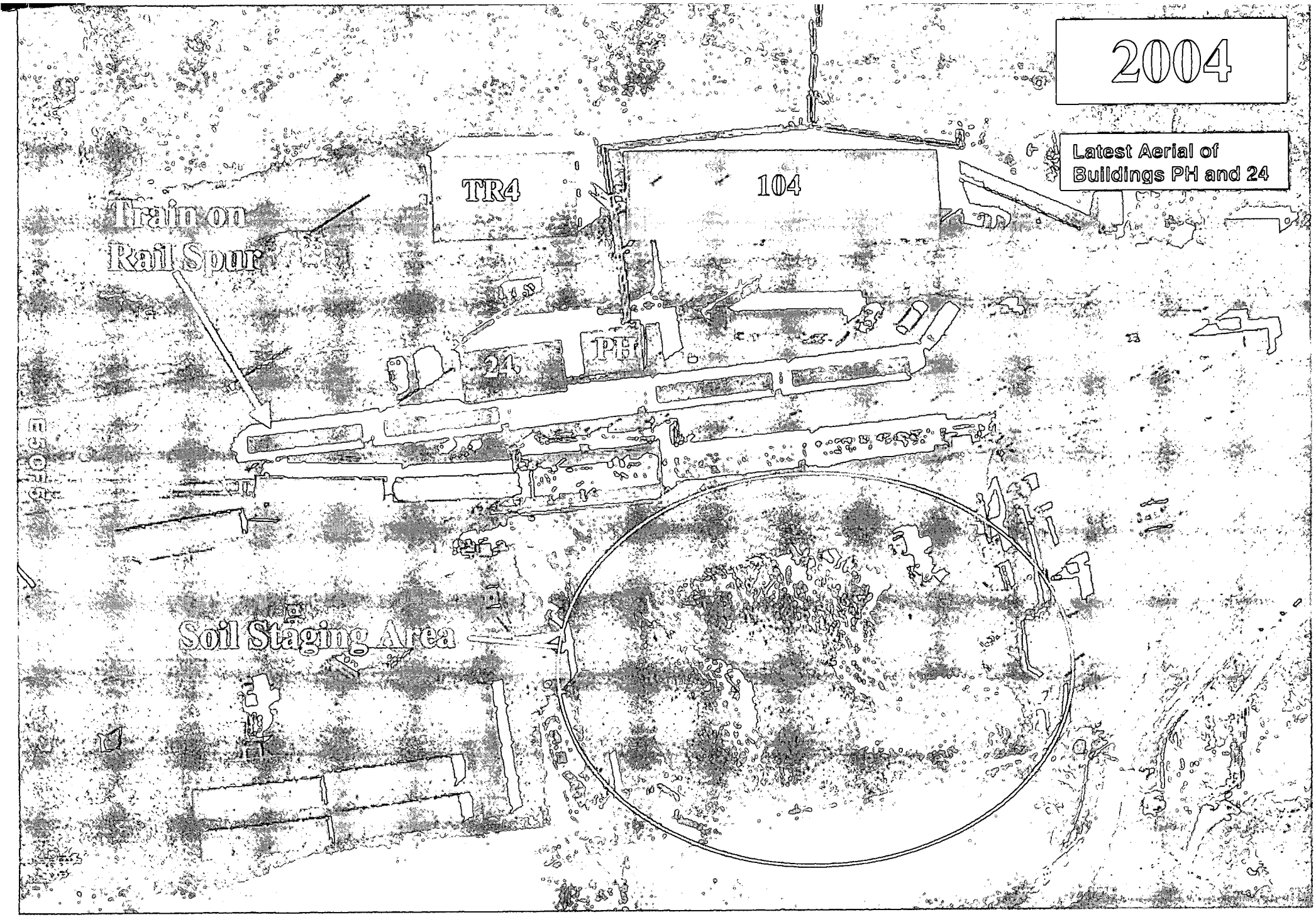
Aerial Photographs


1949
Pump House (PH) Building, Recently Constructed (1948)


1959
PH Building
Prior to Construction
of Building 24


1965
Building 24, Recently Constructed (1965)


1996
Recent Aerial of
Buildings PH and 24
Building PH
Building 24


2004
Latest Aerial of Buildings PH and 24
TR4
104
Train on Rail Spur
24
PH
Soil Staging Area

Appendix F

Environmental Appraisal Report of the Mound Plant (excerpt)

	Pages
• PH Building	F1 through F46
• Building 24	F47 through F91

The Environmental Appraisal Report was prepared in 1996 and documents the observed conditions at the time of inspection. Information provided in the Building Data Package text supercedes information provided in this appendix.

Based on a review by subject matter experts, hand-written corrections have been made to the report provided in this appendix. Only the text portion of the report is provided herein.

9.23 BUILDING PH

9.23.1 Scope of Building PH Report

In late 1995 and the early months of 1996, EG&G MAT performed a review of environmental conditions at the Mound Plant. The purpose was to develop a performance baseline, and to identify areas for improvement on a building and a sitewide basis. EG&G MAT did not perform a "due diligence" or Phase I Environmental Site Assessment as specified by ASTM 1527 or ASTM 1528. The scope of the appraisal effort and a discussion of the appraisal methodology are detailed in Sections 2.0 and 5.0, found in Volume 1 of this report.

The appraisal team performed a walk-through of Building PH on the morning of January 22, 1996. The Environmental Appraisal Checklist (EAC) was used to record findings. The EAC is included as Attachment 1 (Section 9.23.6.1). The appraisers were accompanied by the building manager. Other information was supplied by the building manager and recorded on the Building Manager's Questionnaire (BMQ), included as Attachment 2 (Section 9.23.6.2).

9.23.2 Description of Building PH

SBD 11/22/04

Building PH is a 646-square-foot poured concrete ~~block~~ structure with built-up membrane roof. Its location is shown in Attachment 3 (Section 9.23.6.3). The building is bounded by Building 24 to the west, the Mound Conrail spur to the south, the Lower Hill access road to the north and open pavement to the west. Floor plans are presented in Attachment 4 (Section 9.23.6.4). The facility is serviced by central steam heat, a window unit air conditioner and 480V three-phase power.

SBD 11/22/04

Building PH was constructed in 1948 to house the pumps used to pump fuel oil and brine water to the powerhouse. The facility no longer serves its original design intent and the pumps have been removed. The facility now houses a steam line condensate pump and is used for miscellaneous storage of powerhouse supplies and some contractor supplies. The brine line for the Building 24 zeolite softening bed recharge passes through Building PH. No research, development, or production activities using radioactive or energetic materials have occurred in the building (*Mound Facility Physical Characterization*, 12-1-93).

9.23.3 Summary of Findings

On the day of the inspection appraisers noted that Building PH was not well-maintained with regards to general housekeeping. There was one issue of environmental concern noted during the walk-through.

9.23.4 Observations

9.23.4.1 Air Emissions

There are no fumehoods or other sources of air emissions. There is no evidence of fugitive dust.

9.23.4.2 Wastewater Emissions

The Mound Facility has three wastewater collection systems: a sanitary wastewater system; a storm water system; and a radioactively contaminated process wastewater system. Sanitary wastewater is treated at an onsite tertiary treatment plant and subsequently discharged by hard pipe to the Great Miami River. Storm water and any non-process wastewater, single pass cooling water, and softener backwash may be discharged directly to the Great Miami River, via the Miami-Erie Canal,* or may be diverted to a 3.1-million-gallon holding pond for settling prior to discharge. Radioactively contaminated wastewater is treated in Building WD by physical-chemical treatment. If appropriate, wastewater may be discharged by hard pipe to the Great Miami River. If concentrations of radioactive contaminants cannot be reduced to acceptable levels, wastewater is solidified and shipped to the Nevada Test Site or Envirocare for disposal. All outfalls are permitted under an active NPDES permit. Routine monitoring activities are in place. Based on NPDES monitoring report data reviewed, it appears that the facility is in compliance with qualitative and quantitative conditions of the permit.

* Subsequently, MCP effluent was re-routed around the canal via a covered pipe to the Mound Overflow Creek. SBD 11/23/04

9.23.4.2.1 Sanitary Wastewater

The facility is not serviced by a sanitary sewer line, according to the diagram of underground utility lines presented in Attachment 5 (Section 9.23.6.5).

9.23.4.2.2 Storm Wastewater

The facility is not serviced by a storm sewer according to the diagram in Attachment 5 (Section 9.23.6.5). The storm water becomes part of the surface water and is either absorbed into the ground or flows into the nearest storm drain inlet.

9.23.4.2.3 Chemicals

There are no chemicals used or stored in the facility according to the 1994 chemical inventory. There is a zeolite softening bed brine recharge process line, unrelated to Building PH operation, which passes through the facility. A substantial amount of solid precipitate was noticed around a valve fixture on this line. This indicates the brine solution was leaking out of the valve.

9.23.4.3 Potable and Service Water

The facility does not have potable or service water.

9.23.4.4 Chemical Storage and Hazardous Materials

* See Chemical List in Appendix K SBD 11/23/04

There no chemicals stored in Building PH.

A review of the Mound Active Underground Storage Tank Plan and visual inspection indicated there are no underground storage tanks in or around the building. Additionally, visual inspection

revealed there are no aboveground storage tanks * in or around the facility. There are no sumps, separators or catch basins, in or around the building. **

The building has been tested and does contain asbestos-containing building material (MD-10391, *Asbestos Program Manual*, 9-14-95). There was no evidence of friable asbestos noted during the facility walk-through.

There are no capacitors or transformers containing polychlorinated biphenyls (PCB's) located in the building (1995 PCB Annual Document Log).

9.23.4.5 Solid, Hazardous, and Radioactive Waste

There is a limited amount of paper waste (cardboard boxes, paper packaging). Solid wastes are removed by janitorial personnel to a site collection point, then shipped to a landfill by a contractor. The disposal permit is maintained by Waste Management. There is no evidence that hazardous materials or wastes are mixed with this solid waste stream.

9.23.4.5 Waste Minimization and Pollution Prevention

At Mound there is an active program to minimize waste streams in accordance with state and federal requirements and Executive Order 12856. There is a very limited amount of waste generated at the facility and little opportunity for waste minimization efforts.

9.23.5 Findings and Recommendations

Photographs were taken to document the environmental appraisal. They are included as Attachment 6 (Section 9.23.6.6). The environmental appraisal of Building PH indicates that the following action item should be planned and scheduled for accomplishment thus assuring that best management and operating practices are in place.

PH-1. It was noticed during the facility walk-through that the zeolite softening bed brine recharge line which passes through Building PH had a substantial amount of solid precipitate around a valve fixture. This indicates the brine solution is leaking out of the valve. This should be investigated.

* In the original construction, a 300,000 gallon fuel oil tank was located South of PH Building to store fuel to pump to the Power House. Tank demolished in Late 1990s.

** A Pit on the eastern end of the building contained pumps to pump brine solution to P Building. Pumps have been removed.

A Pit on the western end of the building contained piping and valving for the chlorination of the plant well water supply. The chlorinators, valving, and associated piping have been removed.

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ENVIRONMENTAL APPRAISAL CHECKLIST

Building Name PH (PUMP HOUSE)

Appraisers:

Name	Discipline
MARCIA VANNET	CHEMIST
MARK GILLIAT	ENGINEER
MINZON SMITH	ENGINEER

Building Manager: ALLEN UPSHAW

Process Manager:

Date: 1/22/96

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ENVIRONMENTAL APPRAISAL CHECKLIST

Table of Contents

Checklist	Page
Clean Water Act	1
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TSCA and NESHAP Requirements for Asbestos	13
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Low-level and Transuranic Waste	17
Waste Minimization/Pollution Prevention Activities	22

Building Name: PH Appraisers: TEAM 4 Date: 1/22/96

Clean Water Act (CWA) Screening Checklist

Question	Response	Comments
Does the outside drain spouting of the building discharge directly to a storm sewer/sanitary system?	Y (N)	If the answer to any of these questions is yes, proceed with the following checklist.
Are there sinks, toilets and floor drains in the building?	Y (N)	
Are chemicals being used in the building?	Y (N)	
Is there a process which discharges to the storm or sanitary system?	Y (N)	

CWA Checklist

Regulatory Guideline	Question	Response	Comments
40 CFR 122 Appendix D Table V	If chemicals are used/stored in the building, are they on the attached list? Are they properly contained?	Y / N Y / N	BLANK
	Is the building in operation? What are the processes and where do they discharge to?	Y / N _____ _____	
	Do the floor drains, sinks & toilets appear to be draining properly?	Y / N	
OAC 3745-33	Do the floor drains and sinks drain to a sanitary or storm sewer?	Sanitary Storm	
	Is there a sump/pit in the building? If so, what does it contain? How often is it pumped out? Does water collect in sump? Does sump have secondary containment?	Y / N _____ _____ Y / N Y / N	
	Are there any manholes, catch basins, drains, or fill pipes in or around the building? If so, are there any unusual appearances, colors, and/or odors? Describe in comment section. Can chemicals flow into the drain?	Y / N Y / N Y / N	

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Environmental Appraisal Checklist

Building Name: Appraisers: Date:

Clean Air Act (CAA) Screening Checklist

Regulatory Guideline	Question	Response	Comments
	Are there any rooms that have air emissions sources that vent to the outside of the building, e.g., fumehoods, equipment? If so, note the rooms.	Y / N	
OAC 3745-35	Using the air emissions inventory reference for this building, are there any sources in the building that are not documented?	Y / N	
	Is there evidence of fugitive dust emissions inside or outside of the building	Y / N	

CAA Checklist

BLANK

Regulatory Guideline	Question	Response	Comments
	Are there existing air permits or applications applicable to the building?	Y / N	
OAC 3745-31,35	If yes, are the terms and conditions of the permit or the information included on the application (see air emissions database) being followed? Note any differences and update the air emissions database.	Y / N	
OAC 3745-31	Are there any sources that are not included in the air emissions database? If so, note the room, hood number, active or not, POC, and applicable air emission database information on Table B.	Y / N	
OAC 3745-31-03	Are there sources which are lab equipment of lab fumeheads used exclusively for chemical or physical analyses and bench scale lab equipment? These sources do not require a permit. However, the air emissions database should be updated.	Y / N	
	Has there been any release of air contaminants from this building?	Y / N	

Building Name: PH Appraisers: Team 4 Date: 1/22/96

CAA Checklist

Comments: Note the number of sources/hoods per room, the number that are active, and the POC on the reference document.

TABLE A

Process Source	Room Number	Hood Number	In Database	Active	Chemicals Used	Quantity Used	Quantity to Waste Management	Hours/Yr. Operation	Air Emissions
			Y / N	Y / N					
			Y / N	Y / N	BLANK				
			Y / N	Y / N					
			Y / N	Y / N					
			Y / N	Y / N					

Source: _____

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Environmental Appraisal Checklist

Building Name: Appraisers: Date:

Hazardous Materials (HM) Screening Checklist

Question	Response	Comments
Are any chemicals used or stored in this building, now or in the past?	Y / N *	If the answer is yes, proceed with the following checklist.

* This building housed pumps for supplying oil the the powerhouse boilers

HM Checklist

Regulatory Guideline	Question	Response	Comments
29 CFR 1910.1200(b,f)	All containers of hazardous chemicals shall be labeled as to the identity of the chemical and the appropriate hazard warnings.	Y / N	BLANK
29 CFR 1910.1200(g)	MSDS shall be available to the employees in close proximity to the work area.	Y / N	
29 CFR 1910.22, 1910.106, 1910.176	All places of employment, passageways, storerooms and service areas shall be kept clean and orderly and in a sanitary manner. Aisles shall be unobstructed. Drums and containers are not leaking and are tightly sealed.	Y / N	
29 CFR 1910.106	Storage cabinets for flammable materials are constantly kept closed, are fire resistant and are labeled "FLAMMABLE - Keep Fire Away". Containers inside should be labeled and closed. No spills inside cabinet.	Y / N	
29 CFR 1910.106(d)(7)	Incompatible chemicals are not stored together.	Y / N	
29 CFR 1910.106(d)(4)	Inside Flammable/combustible storage rooms must meet the following: 4 in. raised sill or trench that drains to a safe area, liquid tight wall/floor joints, self-closing doors, gravity or mechanical exhaust providing 6 room changes/hr., exhaust switch located outside room, at least one 3 ft. aisle; no cracks in secondary containment.	Y / N	

Environmental Appraisal Checklist

Building Name: PH Appraisers: TEAM 4 Date: 1/22/96

HM Checklist

Regulatory Guideline	Question	Response	Comments
29 CFR 1910.106(d)(7)	All flammable/combustible storage locations have at least one 12-B portable fire extinguisher located outside and within 10 ft. of a door opening into any room for storage. No smoking signs are posted.	Y / N	
29 CFR 1910.151	Eyewashes/showers shall be provided within the work area. Ensure unit is operational.	Y / N	BLANK
CGA P-1 3.3 & 3.3.10	All gas cylinders (full or empty) shall carry a legible label or marking identifying the contents.	Y / N	
CGA P-1 3.5.3	Full and empty containers should be stored separately with the storage layout planned so that containers comprising of old stock can be removed first with a minimum handling of other containers.	Y / N	
CGA P-1 3.5.8	All compressed gas containers in service or in storage shall be stored standing upright and the container shall be secured.	Y / N	
CGA P-1 4.2.2	Oxygen cylinders shall be separated from flammable gas containers or combustible materials a minimum of 20 ft. or a noncombustible barrier 5 ft. high.	Y / N	
29 CFR 1910.104(2)(10)	Oxygen stored as a liquid shall be on a noncombustible surface. Asphalt is considered combustible. Wood and long dry grass shall be cut back 15 ft. from the container.	Y / N	
29 CFR 1910.104	Bulk oxygen storage shall be permanently placarded "OXYGEN - NO SMOKING - NO OPEN FLAMES".	Y / N	
	Is there a sign posted in each work area regarding emergency egress and emergency response action?	Y / N	
	Is there an emergency response plan available?	Y / N	

File Copy

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Environmental Appraisal Checklist

Building Name: Appraisers: Date:

HM Checklist

Regulatory Guideline	Question	Response	Comments
	Is there a process area?	Y / N	
	Does it have proper containment?	Y / N	
	Is there a liquid bulk transfer area?	Y / N	
	Is there proper containment?	Y / N	
	Is there an above ground storage tank? If so, complete Table B.	Y / N	

Above Ground Storage Tanks Inventory

TABLE B—Above Ground Storage Tanks Inventory

Building	Capacity (Gal.)	Contents	Estimated Volume	In Service	Containment	Visual Stains/ Contamination	If Empty, Flushed
				Y / N	Y / N	Y / N	Y / N
				Y / N	Y / N	Y / N	Y / N
				Y / N	Y / N	Y / N	Y / N
				Y / N	Y / N	Y / N	Y / N
				Y / N	Y / N	Y / N	Y / N
				Y / N	Y / N	Y / N	Y / N
				Y / N	Y / N	Y / N	Y / N

BLANK

Source: _____

Building Name: PH Appraisers: TEAM 4 Date: 1/22/96

Safe Drinking Water Act (SDWA) Screening Checklist

Does this facility have potable water?	Y / N	If yes, conduct the following survey.

SDWA Checklist

Regulatory Guideline	Question	Response	Comments
OAC 3745 95-02 (A)	Do actual or potential cross-connections exist between potable (light green) and service water (dark green)?	Y / N	
OAC 3745 95-04 (B)(C)	Are backflow prevention devices installed where cross connections (hoses connected to faucets, hot water tank vented directly to a drain) exist?	Y / N	BLANK
	Are sources of service water (janitorial and laboratory faucets, or outdoor spigots) posted as non-potable water sources?	Y / N	
	Does the facility contain any water coolers or fountains that are not lead free? Complete Table C.	Y / N	

TABLE C—Water Fountain Survey

Building	Location	Model #	Comments / Date of Analysis for Lead

Source: _____

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Environmental Appraisal Checklist

Building Name: Appraisers: Date:

RCRA Screening Checklist

Does this facility generate waste or use chemicals?	Y / N	If yes, conduct the following survey.

RCRA Checklist

Regulatory Guideline	Question	Response	Comments
OAC 3745 52-11	Has any material generated been characterized RCRA hazardous? Was charactarization by analysis or by process knowledge? Are lab results or documentation of process knowledge readily available? Note any uncharacterized material in comment section. Is it waste? If yes, proceed with next section	Y / N analysis / process Y / N Y / N	BLANK
OAC 3745 52-11	Are any of the materials noted RCRA hazardous waste? If no, note and stop here. If yes, note the location of the management unit, and the method of management, and proceed with the appropriate section below.	Y / N	

Building Name: PH Appraisers: Team 4 Date: 1/22/96

RCRA Checklist

Regulatory Guideline	Question	Response	Comments
I. HAZARDOUS WASTE STORED IN CONTAINERS			
	Is there an area in the building that could qualify as a Satellite Accumulation Area?	Y / N	
	Is it treated as such?	Y / N	
OAC 3475-52-34 (C)	Has any of the RCRA hazardous waste in this building been managed in Satellite Accumulation Areas?	Y / N	
	If no, proceed to the next section.		
	If yes, answer the following.		
	Are the containers marked with the words hazardous waste, or other words denoting the hazard?	Y / N	
	Are the containers in good condition?	Y / N	
	Are the waste compatible with the containers?	Y / N	
	Are containers managing ignitable hazardous waste stored at least 50 feet from the plant site boundary?	Y / N	
	Are containers kept closed and locked except during filling?	Y / N	
	Are containers moved within 3 days of being filled?	Y / N	

BLANK

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FIG 9/1

Environmental Appraisal Checklist

Building Name: Appraisers: Date:

RCRA Checklist

Regulatory Guideline	Question	Response	Comments
OAC 3745-52-11 (A)	If a Satellite accumulation area has been abandoned and/or if waste left in place, and the containers may be subject to the 90-day-storage exclusion. If this exclusion does not apply, go to the next section. If the containers have been in storage under this exclusion, answer the following:	BLANK	
	Are the containers in good condition?	Y / N	
	Are the waste compatible with the containers?	Y / N	
	Are the containers kept closed except during filling?	Y / N	
	Are the containers managed in such a way, that they are not ruptured, or leaks caused?	Y / N	
	Is the area inspected at least once weekly?	Y / N	
	Is the inspection recorded? • Where is the log? Is it properly completed, dated, and signed?	Y / N _____ Y / N	
	Are containers managing ignitable hazardous waste stored at least 50 feet from the facility boundary?	Y / N	
	Are incompatible wastes managed in such a way that they will not react with another incompatible waste?	Y / N	
OAC 3745-52-34(B)	Has any of the waste (except in Building 23, Building 72 and the Burn Area) been managed in excess of 90-days?	Y / N	
	If no go to next section.		
	If yes, note.		
	For Building 23, Building 72 & Burn Area use special checklist.		

Environmental Appraisal Checklist

Building Name: PH Appraisers: TEAM 4 Date: 1/22/96

RCRA Checklist

Regulatory Guideline	Question	Response	Comments
II. HAZARDOUS WASTE STORED IN TANKS			
OAC 3745-52-32 (B)	Has any chemical waste stored in a tank, piece of process equipment or ancillary equipment been in storage in excess of 90-days?	Y / N	
	If the answer was no, then proceed with the following:	Y / N	
	Has the tank or piece of equipment had an integrity assessment?	Y / N	
	Is there a sump?	Y / N	
	Is it dry?	Y / N	
	Does the tank or equipment have secondary containment?	Y / N	
	Does the tank or equipment have leak detection device(s)?	Y / N	
	Has spill control prevention been enacted?	Y / N	
	Has any hazardous waste stored in a tank, piece of process equipment or ancillary equipment been in storage in excess of 90-days?	Y / N	
	If the answer was no, then proceed with the following:		
	Has the tank or piece of equipment had an integrity assessment?	Y / N	
	Does the tank or equipment have secondary containment?	Y / N	
	Does the tank or equipment have leak detection device(s)?	Y / N	
	Has spill control prevention been enacted?	Y / N	
	Is there a closure plan?	Y / N	
	If yes, then note.		
OAC 3745-67	Has any of the waste been managed in a surface impoundment? If yes, then note. Go to the next section.	Y / N	

BLANK

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Environmental Appraisal Checklist

Building Name: Appraisers: Date:

RCRA Checklist

Regulatory Guideline	Question	Response	Comments
OAC 3745-68	Has any of the waste been managed in a Landfill? If yes, then note. Go to the next section.	Y / N	BLANK
OAC 3745-68	Has any of the waste been managed in an Incinerator (other than Burn area units)? If yes, then note. Go to the next section.	Y / N	
OAC 3745-68	Has any of the waste been managed in a Thermal treatment Unit (other than Burn area units)? If yes, then note. Go to the next section	Y / N	
OAC 3745-69	Has any of the waste been managed in a Miscellaneous Treatment Unit (other than Burn area units)? If yes, then not. Go to the next section.	Y / N	
OAC 3745-56	Has any of the waste been managed in a Waste Pile? If yes, then note. Go to the next section.	Y / N	

General Comments:

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Building Name: PH Appraisers: ~~1/22/96~~ TEAM 4 Date: 1/22/96

Asbestos Screening Checklist

Does this facility contain ACBM?	Y / N	If yes, conduct the following survey.

Asbestos Checklist

Note: Routinely, the asbestos standard for ACBM in schools has been applied to facilities for purpose of cleanup. In addition to AEHERA, there are additional standards in the NESHAPS that may be of importance.

Regulatory Guideline	Question	Response	Comments
ADAPTED FROM TSCA ACBM IN SCHOOLS:			
	Has this building been characterized either through process knowledge, by analyses, or by inspection to determine if it contains asbestos? If no for this building or area note this conclusion in the comment section.	Y / N	
	Is there any evidence of friable asbestos?	Y / N	
	Is the asbestos removal properly managed? (See questions listed below)	Y / N	If there is no asbestos removal, do not complete the following section.
NESHAPS FOR ASBESTOS FOR ANY ONGOING ASBESTOS REMOVAL:			
40 CFR 61.156	There are no discharges of visible emissions to the outside air from collection, processing, packaging, transporting, or deposition of ACBM during the removal.	Y / N	
40 CFR 61.152(b) (1)	ACBM is treated with water in accordance with 40 CFR 152(b)?	Y / N	
40 CFR 61.154	Is friable asbestos adequately wetted during stripping? Or, has an adequate ventilation and collection system been installed?	Y / N	
40 CFR 61.152	Is wetting continued until the waste friable asbestos is collected for disposal?	Y / N	

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Environmental Appraisal Checklist

Building Name: Appraisers: Date:

Toxic Substances and Control Act (TSCA) PCB's Screening Checklist

Does this facility potentially contain any PCB's or PCB contaminated equipment?	Y / N	If yes, are transformers labeled (Blue or Yellow stickers)? If yes, conduct the following survey.

TSCA Checklist

Regulatory Guideline	Question	Response	Comments
40 CFR 761	Has any waste generated in, or from, this building been characterized either through process knowledge or by analyses to determine if it contains PCB's ? If the answer is no, note . If the answer is yes, proceed with next section.	Y / N	
	Based on an inspection, are any of the materials or equipment potentially PCB contaminated? If no, note and stop here. If yes, note the location of the management unit, and the method of management, and proceed.	Y / N	
40 CFR 761.65 (c) (5)	Are PCB articles or containers stored in this building checked for leaks at least once every 30 days?	Y / N	
	If yes, are auditable records maintained.	Y / N	
40 CFR.30 (a) (1) (ix)	Are any PCB transformers in use, or stored for possible reuse, that contain PCB's at concentrations of 500 ppm or greater?	Y / N	
	Are they visually inspected quarterly? If yes, are auditable records maintained?	Y / N	

BLANK

Building Name: PH Appraisers: Team 4 Date: 1/22/96

TSCA Checklist

Regulatory Guideline	Question	Response	Comments
40 CFR 761.30 (a) 1,viii	Are all combustible materials (i.e., paints, solvents, plastics, paper, sawn wood, etc.) cleared from areas containing PCB transformers to a distance of five meters?	Y / N	
40 CFR 761.65 (b) (8)	Are all PCB articles and containers labeled with the date they were placed in storage?	Y / N	
	Are labeled PCB articles and containers stored so that the labels can be referenced?	Y / N	
40 CFR 761.65 (a)	Are all PCB's and PCB contaminated items at concentrations above 50 PPM, that are stored for disposal, stored no longer than one year from the date they were placed in storage?	Y / N	
40 CFR 761.62 (b) (1) (i)	Do all PCB storage areas have an adequate roof and walls to prevent rainwater from reaching the stored items?	Y / N	
40 CFR 761.62 (b) (1) (iv)	Are storage are floors curbed and constructed of continuous smooth and impervious materials?	Y / N	
40 CFR 761.62 (b) (1) (i)	Are the curbs at least 6 inches high?	Y / N	
40 CFR 761.62 (b) (1) (iii)	No drains are allowed in storage areas. Are there drains in the storage areas?	Y / N	

BLANK

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Environmental Appraisal Checklist

Building Name: Appraisers: Date:

TSCA Checklist

Regulatory Guideline	Question	Response	Comments
40 CFR 761.65 (c) (2)	Only non-leaking and undamaged large high voltage PCB's capacitators and PCB-containing electrical equipment are allowed to be stored outside of PCB storage areas, on pallets if stored outside, with containment for 10 percent of the volume of the equipment. Do all PCB's stored in this configuration conform with this requirement?	Y / N BLANK	
40 CFR 761.45 and .65	Are all PCB storage areas marked with a large PCB mark as described in 40 CFR 761.45 (a)?	Y / N	
40 CFR 761.65 (c) (5)	Have all leaking PCB articles and containers been transferred to non-leaking containers?	Y / N	
40 CFR 761.65 (c) (6)	Do all PCB storage containers for the storage of liquid and non-liquid PCB's comply with DOT shipping container specifications?	Y / N	

GENERAL COMMENTS:

Building Name: PH Appraisers: TEAM 4 Date: 1/22/96

Low-Level Waste and Transuranic Waste Screening Checklist

Does this facility contain radioactive waste ?	Y / N	If yes, conduct the following survey:

Low-Level Waste and Transuranic Waste Checklist

Regulatory Guideline	Question	Response	Comments
Low-Level Waste			
DOE Order 5820.2A Chapter III	Can any waste generated in, or from, this building be characterized either through process knowledge or by analyses to determine if it is LLW ? If the answer is no, note. If the answer is yes, proceed with next section.	Y / N BLANK	
DOE Order 5820.2A Chapter III.	Are any of the materials noted by inspection LLW? If no, The audit would stop here, because there are no LLW. If yes, note the location of the management unit, and the method of management, and proceed with the section below.	Y / N	
DOE Order 5820.2A Chapter III, 3.a.	Have the storage configurations in use in this area been taken into account for keeping external exposures to the general public below 25 mrem/yr?	Y / N	
	Is the waste stored in a configuration that protects ground-water resources?	Y / N	
DOE Order 5820.2A Chapter III, 3.b.	Has monitoring been conducted in this area in accordance with DOE Order 5820.2A in order to evaluate the area against the performance standard?	Y / N	
	Based on field data, does the monitoring conducted in this area conform to the performance standard?	Y / N	

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Environmental Appraisal Checklist

Building Name: Appraisers: Date:

Low-Level Waste and Transuranic Waste Checklist

Regulatory Guideline	Question	Response	Comments
DOE Order 5820.2A Chapter III, 3.d.	Based on field data, is the characterization of the materials in this area sufficient to assure proper segregation to assure proper segregation, treatment, storage, and disposal?	Y / N	
	Based on field data does the characterization as documented at the time of generation of the waste ensure that the actual physical and chemical characteristics, and major radionuclide content of this material are recorded and known at all stages of the waste management process?	Y / N BLANK	
	Do characterization data include the following:		
	Physical and chemical characteristics of the waste?	Y / N	
	Volume of the waste (including solidification and absorbent material)?	Y / N	
	Weight of the waste (including solidification and absorbent material)?	Y / N	
	Major radionuclides and their concentrations?	Y / N	
	Packaging date, package weight, external volume?	Y / N	
	How were the concentration of radionuclides determined? Direct methods?	_____ _____	
	How were the concentrations of radionuclides determined? Indirect methods?	_____ _____	
DOE Order 5820.2A Chapter III, 3.h	Is the storage configuration in long term storage sufficient to meet the performance standard?	Y / N	
	Are records maintained at the facility enabling this waste to be traced from its origin?	Y / N	

Building Name: PH Appraisers: Team 4 Date: 1/22/96

Low-Level Waste and Transuranic Waste Checklist

Regulatory Guideline	Question	Response	Comments
TRU WASTE			
	Can any waste generated in, or from this building be characterized either through process knowledge or by analyses to determine if it is TRU waste? If no, note and stop. If yes, proceed with the next section.	Y / N BLANK	
	Are any of the materials noted as being TRU waste during an inspection? If no, note and stop. If the answer is yes, note the location of the management unit, and the method of management and proceed with the appropriate section below.	Y / N	
DOE Order 5820.2A, Chapter II, 3.a	Was this material evaluated as soon as possible in the generating process, to determine if it is TRU (>100nCi/g), if it is recoverable, or if it is waste? (Note if the activity level is less than 100nCi/g, the waste is not TRU, and can be managed as LLW.)	Y / N	
	Did the determination of TRU radionuclide concentration include the mass of the container, including shielding? These should be included in calculating the specific activity of the waste.	Y / N	

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Environmental Appraisal Checklist

Building Name: Appraisers: Date:

Low-Level Waste and Transuranic Waste Checklist

Regulatory Guideline	Question	Response	Comments
DOE Order 5820.2A, Chapter II, 3.b	Has the TRU waste been assayed or otherwise evaluated to determine its radioactive content prior to storage?	Y / N	BLANK
	Has the TRU waste been characterized or otherwise evaluated to determine if hazardous waste is present?	Y / N	
	Has classified TRU waste been treated to destroy the classified characteristics?	Y / N	
DOE Order 5820.2A, Chapter II 3.d	Has all newly generated TRU waste been packaged in non-combustible packaging that meets DOT requirements?	Y / N	
	Have all Type A TRU waste packages been equipped with a method to prevent pressure buildup?	Y / N	
	Have all TRU packages been marked, labeled and sealed in accordance with 40 CFR 261 Subpart C and 49 CFR 172 Subparts D, E and 49 CFR 173 Subpart I?	Y / N	

Building Name: PH Appraisers: Team 4 Date: 1/22/96

Low-Level Waste and Transuranic Waste Checklist

Regulatory Guideline	Question	Response	Comments
DOE Order 5820.2A, Chapter II 3.e	Has the TRU waste been segregated in manner that will not permit commingling of TRU waste with LLW or high-level waste?	Y / N	BLANK
	Has the TRU waste been protected from unauthorized access?	Y / N	
	Has the TRU waste been monitored periodically to ensure that it is not releasing its radioactive and/or hazardous constituents?	Y / N	
	Has this TRU waste storage area been designed, constructed, maintained, and operated to minimize the possibility of fire, explosion, or accidental release of its radioactive and/or hazardous constituents?	Y / N	
	Does the facility have a contingency plan designed to minimize the adverse impacts of fire, explosion, or accidental release of its radioactive and/or hazardous constituents?	Y / N	

GENERAL COMMENTS:

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Environmental Appraisal Checklist

Building Name: Appraisers: Date:

Waste Minimization/Pollution Prevention Activities Screening Checklist

Does this facility generate waste or use chemicals? *	Y / N	If yes, conduct the following survey.

Waste Minimiaztion/Pollution Prevention Activities Checklist

Regulatory Guideline	Question	Response	Comments
	Based on available information and a walk through, are there any apparent opportunities to curtail the consumption of raw materials (including but not limited to paper, chemicals, electricity, and etc.). If yes, list candidate areas in the comment section.	Y / N	BLANK
	Are there solvent wastes?	Y / N	
	Is vehicle maintenance performed?	Y / N	
	Are oils used ?	Y / N	
	Are these corrosive wastes?	Y / N	
	Are there sludges?	Y / N	
	Are there halogenated organic (nonsolvent) wastes?	Y / N	
	Are metals recovered from wastewater?	Y / N	
	Is waste sludge generated?	Y / N	
	Are any waste minimization practices used that reduce the generation of sludge?	Y / N	
	Ion exchange process?	Y / N	
	Lead in gasoline lowered to reduce tank sludge toxicity?	Y / N	
	Storage tank agitators installed?	Y / N	
	Corrosive resistant materials used?	Y / N	
	Prevention of crude oil oxidation ?	Y / N	
	Drying?	Y / N	

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Environmental Appraisal Checklist

Building Name: PH Appraisers: TEAM 4 Date: 1/22/96

Waste Minimization/Pollution Prevention Activities Checklist

Regulatory Guideline	Question	Response	Comments
HALOGENATED ORGANIC (NONSOLVENT) WASTES			
	Are halogenated organic wastes used as fuel in cement kilns?	Y / N	
	Are baghouse filters used to collect pesticides and pesticide intermediates?	Y / N	
	Are solid wastes generated from the collection of baghouse dust?	Y / N	
	Wet instead of dry grinding used?	Y / N	
	The output spray dried?	Y / N	
	Has baghouse emptying and recycling of baghouse fines been scheduled?	Y / N	
	Have operations been evaluated to improve procedures such as handling, storage and spill prevention for increased efficiency?	Y / N	
METAL WASTES			
	Are any technologies for the recovering of metals from waste rinsewater used?	Y / N	
	Evaporation of waste rinsewater?	Y / N	
	Reverse osmosis?	Y / N	
	Ion exchange?	Y / N	
	Electrolysis?	Y / N	
	Agglomeration?	Y / N	
CORROSIVE WASTES			
	Are acidic or basic cleaning solutions used as treatment for pH adjustment chemicals?	Y / N	

BLANK

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Environmental Appraisal Checklist

Building Name: Appraisers: Date:

Waste Minimization/Pollution Prevention Activities Checklist

Regulatory Guideline	Question	Response	Comments
	Are ion exchange resins used to remove heavy metals and cyanides from acid and base solutions?	Y / N	
	Is crystallization used to remove corrosives from solution by cooling?	Y / N	BLANK
	Is the process of evaporation of liquid wastes by heating used to leave behind a more concentrated solution?	Y / N	
CYANIDE AND REACTIVE WASTES			
	Has non-cyanide or low concentration of cyanide process replaced zinc cyanide bath ?	Y / N	
	Are any of these processes used to recycle cyanide wastes?	Y / N	
	Refrigeration/crystallization?	Y / N	
	Evaporation?	Y / N	
	Ion exchange?	Y / N	
	Membrane separation which includes reverse osmosis or electrodialysis?	Y / N	
VEHICLE MAINTENANCE			
	How are auto parts cleaned?	Y / N	
	Solvent sink?	Y / N	
	Solvent dunk bucket?	Y / N	
	Solvent dip tank?	Y / N	
	Are parts cleaning solvents used for anything else besides cleaning parts?	Y / N	
	Are spills reduced by locating sinks or dunk buckets near auto service bays?	Y / N	

Environmental Appraisal Checklist

Building Name: PH Appraisers: TEAM 4 Date: 1/22/96

Waste Minimization/Pollution Prevention Activities Checklist

Regulatory Guideline	Question	Response	Comments
	Are cleaned parts drained on the sink to minimize solvent spills?	Y / N	BLANK
	Are drip tanks used to capture losses?	Y / N	
	Is a solvent sink used for mineral solvents rather than a dunk bucket or dip tank?	Y / N	
	Does a waste hauler collect solvent waste for recycling or treatment?	Y / N	
OILS			
	What kind of oils are used?		
	Hydraulic oil?	Y / N	
	Transformer oil?	Y / N	
	Metal working fluids?	Y / N	
	Spent lubricating oils?	Y / N	
	Can the process be modified or changed to use water-based fluids?	Y / N	
	Are these good housekeeping and operation practices used to minimize oil waste production?		
	Use oils not contaminated with other liquids?	Y / N	
	Oil spills prevented?	Y / N	
	Drip pans installed?	Y / N	
	Oil soaked rags laundered?	Y / N	
	Rags and absorbants used to their limit?	Y / N	

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Environmental Appraisal Checklist

Building Name: Appraisers: Date:

Waste Minimization/Pollution Prevention Activities Checklist

Regulatory Guideline	Question	Response	Comments
	Are these treatment techniques used to promote separation of oil/water wastes?		
	Reclaiming process to remove water and solvents by heat?	Y / N	BLANK
	Gravity setting?	Y / N	
	Screening?	Y / N	
	Centrifugation?	Y / N	
	Filtration?	Y / N	
SOLVENT WASTES			
	Has there been an attempt to reduce volume or toxicity by:		
	Eliminating solvents?	Y / N	
	Reducing the use of solvents?	Y / N	
	Reducing the loss of solvents?	Y / N	
	Increasing recyclability?	Y / N	
	Are solvents segregated?	Y / N	
	Are waste solvents free from water and garbage?	Y / N	
	Are recycled solvent containers labeled as such?	Y / N	
	Are containers kept closed?	Y / N	
	Free and sheltered from the elements?	Y / N	
	Are solvent tanks kept as free from contaminations as possible so that the waste can be recycled?	Y / N	
	Is a method used to minimize the use of new materials such as a countercurrent process?	Y / N	

Environmental Appraisal Checklist

Building Name: Pel Appraisers: TTT TEAM 4 Date: 1/22/96

Waste Minimization/Pollution Prevention Activities Checklist

Regulatory Guideline	Question	Response	Comments
	If there is a recycling program, what technique is used?	Y / N	BLANK.
	Distillation?	Y / N	
	Solids removal?	Y / N	
	Dispersion breaking?	Y / N	
	Dissolved and emulsified organics recovery?	Y / N	
	Are any of these housekeeping procedures used to minimize the production of solvent wastes?		
	Separators cleaned and checked?	Y / N	
	Parts not allowed to enter the degreaser while wet?	Y / N	
	Sludge from the bottom of the tank not allowed to accumulate?	Y / N	
	Lids kept on tanks?	Y / N	
	Freeboard space on tanks increased?	Y / N	
	Are better operating practices used to reduce waste?	Y / N	
	How long is solvent waste stored and where?	_____ _____	

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Building Manager's Questionnaire

Building Name: PH Building Manager: A.W. Upshaw Phone: 865-4894 Date: 12-07-95
Alternate: F. BAKER Phone: 865-3438

1. What are the access requirements (training, clearance, etc.)?

NONE

2. What protective equipment is required to enter the building?

SAFETY SHOES

3. Are there any restricted areas? Yes (No)
Where are they?

4. Provide a physical description of the building.

Building is a 646-ft² poured concrete ~~block~~ SBD 1-11-05 structure with a brick face and a BUM roof (coal tar). HVAC services are central steam and ~~roof~~ window air conditioning. Building is not contaminated with any radioactive or energetic materials.

Source: Mound Facility Physical Characterization, 12-1-93

5. Provide a drawing of the building.

Attached.

6. What is the current building use?

Power house and parts storage.
Building should be surveyed for chemical contamination prior to unrestricted use.

Source: Mound Buildings, 5-9-95

7. What is the history of building use other than that described in #6?

HOUSED FUEL OIL TRANSFER PUMPS.

Source: Mound Buildings, 5-9-95

Building Manager's Questionnaire

Building Name: PH Building Manager: A.W. Upshaw Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

8. What are ongoing operations or processes? What are the raw materials and waste streams from each process? Who is the best contact for each process?

Process(es) Housed: ~~Fuel oil pump~~ NO LONGER IN PLACE.

How Wastes Are Generated:

No wastes generated.

Contact:
Phone #:

Source: Characterization of Mound's Hazardous, Radioactive, and Mixed Wastes, (8-15-90).

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Building Manager's Questionnaire

Building Name: PH Building Manager: A.W. Upshaw Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

9. In the last six months, have any modifications been made to the building or to processes in the building? Yes No

10. Does the building have air emission sources? No

Process Source	Room Number	Hood Number	Active	Chemicals Used	Quantity Used	Quantity to Waste Management	Lbs./Yr. Operation	Air Emissions
			Y / N					
			Y / N					
			Y / N					
			Y / N					
			Y / N					

Source: Mound Air Emissions Database 11/30/95

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9.23-41

Building Name: PH Building Manager: A.W. Upshaw Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

11. Describe air pollution control equipment used to reduce emissions for each source. None Listed

Process Source	Emissions	Control Equipment	Functioning
			Y / N
			Y / N
			Y / N
			Y / N
			Y / N

Source: Air Permits 2/4/95

12. For existing permits are emissions monitored? At what frequency? Where are the records maintained? None Listed

Process Source	Permit	Log	Permit Conditions & Frequency of Monitoring
		Y / N	
		Y / N	
		Y / N	
		Y / N	
		Y / N	

Source: Air Permits 2/4/95

13. Does the building have domestic water service? Yes No
Is there bottled water? Yes No

14. Does the building discharge to the storm sewer? Yes No
Where?

15. Does the building discharge to the sanitary sewer? Yes No
Where?

16. Has an asbestos survey been conducted? Yes
What are the results? Yes

Source: Technical Manual MD-10391, Issue 3 Asbestos Program Manual 9/6/95

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Building Manager's Questionnaire

Building Name: PH Building Manager: A.W. Upshaw Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

17. Does the building contain transformers or capacitors? No

Source: PCB ANNUAL DOCUMENT LOG

18. Has the building been identified as containing PCBs? No

Source: PCB ANNUAL DOCUMENT LOG

19. What chemicals are used or stored inside or outside of the building? Include compressed gasses not in large tanks.

Chemical Name	State	Amount (MAX)
NONE		

Source: Chemical Inventory 1994

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Building Manager's Questionnaire

Building Name: PH Building Manager: A.W. Upshaw Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

20. Has there been a reported spill, leak, or other release of any chemical? Yes (No)
What, how much, and what clean-up measures were followed?

Chemical	Amount	Clean-up Measures

Source: _____

21. Where do waste chemicals go?

N/A

22. What janitorial supplies are stored inside or outside of the building?

N/A

23. Where do excess janitorial supplies go?

N/A

Source: _____

24. Are pesticides or herbicides stored or used in or around the building? Yes (No)

Chemical	Amount	Chemical	Amount

Source: _____

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9.23-44

Building Manager's Questionnaire

Building Name: PH Building Manager: A.W. Upshaw Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

25. Does the building contain active or inactive above ground storage tanks? Yes (No)
For each tank, list the content, quantity, last inspection, registration number.

NONE

26. Is there a sump or pit or underground tank in or around the building?
* Yes (No) Unknown
Is it double-walled? What does it contain? How many days per year is it filled?
Is there an emergency overflow tank? Have there been previous overflows?

Double-Walled	Contents	Days/Year in Use	Overflow Tank	Previous Overflow
Y / N			Y / N	Y / N

Source: _____

27. Does the building generate, store, or dispose of hazardous waste? Yes (No)

Materials	Amount
~~Attached~~	

Source: Characterization of Mounds Hazardous, Radioactive, and Mixed Wastes 08/15/90

* In the original construction of the building, there were two pits; one on the eastern end of the building and one on the western end of the building. The pits spanned the width of the building. In the mid-1970s, the pit on the eastern end of the building was partially filled-in with concrete.

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P2 POWER HOUSE	PCB CAPACITOR >500PPM, SN: 69082486	PCB1	75.0
P2 POWER HOUSE	PCB CAPACITOR >500PPM, SN: 69082498	PCB1	75.0
P2 POWER HOUSE	PCB DEBRIS >500PPM, FROM SN: G854169	PCB2	100.0
P2 P HOUSE	PCB OIL >500PPM, FROM SN: G854169	PCB2	714.0
P2 POWER HOUSE	PCB OIL >500PPM, FROM SN: G854169	PCB2	715.0
P2 POWER HOUSE	PCB OIL >500PPM, FROM SN: G854169	PCB2	715.0
P2 POWER HOUSE	PCB OIL >500PPM, FROM SN: G854169	PCB2	389.4
P2 POWER HOUSE	PCB OIL >500PPM, FROM SN: G854169	PCB2	715.0
P2 POWER HOUSE	PCB TRANSFORMER >500PPM, SN: G854169, OUT OF SERVICE DATE 11-18-91	PCB1	6237.0

ASSOCIATED WITH THE POWERHOUSE NOT PUMP HOUSE.

9.23-46

Building Manager's Questionnaire

Building Name: PH Building Manager: A.W. Upshaw Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

28. Does the building have abandoned process equipment such as tanks, piping, containers, etc.? Yes No

29. Is waste material stored in or around the building for more than 90 days?
Yes No

30. Has the building been identified as a 90-day waste accumulation area?
Yes No

31. Has any area in the building been identified as a satellite accumulation area?
Yes No

32. Is mixed waste generated, stored, or disposed of from the building? Yes No
Where are logs found?

Process	Waste	Stored	Disposed	Logs
		Y / N	Y / N	Y / N
		Y / N	Y / N	Y / N
		Y / N	Y / N	Y / N
		Y / N	Y / N	Y / N
		Y / N	Y / N	Y / N

Source: _____

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9.23-47

Building Name: PH Building Manager: A.W. Upshaw Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

33. Is TRU radioactive waste generated, stored, or disposed of from the building?
Yes No
Where are logs found?

Process	Waste	Stored	Disposed	Logs
		Y / N	Y / N	Y / N
		Y / N	Y / N	Y / N
		Y / N	Y / N	Y / N
		Y / N	Y / N	Y / N
		Y / N	Y / N	Y / N

Source: _____

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Building Manager's Questionnaire

Building Name: PH Building Manager: A.W. Upshaw Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

34. Is low-level radioactive waste generated, stored, or disposed of from the building? Yes No
Where are logs found?

Process	Waste	Stored	Disposed	Logs
		Y / N	Y / N	Y / N
		Y / N	Y / N	Y / N
		Y / N	Y / N	Y / N
		Y / N	Y / N	Y / N
		Y / N	Y / N	Y / N

Source: _____

35. Identify all administrative orders, temporary or permanent injunctions, civil administrative penalties, or criminal activities issued against the building.

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Building Manager's Questionnaire

Building Name: PH Building Manager: A.W. Upshaw Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

36. Is there a waste minimization program in the building? Yes No
Discuss your ideas about how to minimize waste.

37. Has a pollution prevention program been developed for the building? Yes No

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9.47 BUILDING 24

9.47.1 Scope of Building 24 Report

In late 1995 and the early months of 1996, EG&G MAT performed a review of environmental conditions at the Mound Plant. The purpose was to develop a performance baseline, and to identify areas for improvement on a building and a sitewide basis. EG&G MAT did not perform a "due diligence" or Phase I Environmental Site Assessment as specified by ASTM 1527 or ASTM 1528. The scope of the appraisal effort and a discussion of the appraisal methodology are detailed in Sections 2.0 and 5.0, found in Volume 1 of this report.

The appraisal team performed a walk-through of Building 24 on the morning of January 22, 1996. The Environmental Appraisal Checklist (EAC) was used to record findings. The EAC is found in Attachment 1 (Section 9.47.6.1). The appraisers were accompanied by the building manager. Other information was supplied by the building manager and recorded on the Building Manager's Questionnaire (BMQ), included as Attachment 2 (Section 9.47.6.2).

9.47.2 Description of Building 24

Building 24 is an 840-square-foot concrete block structure built slab-on-grade. Its location is shown in Attachment 3 (Section 9.47.6.3). The building is bounded by Building PH to the east, the Mound railroad spur of Conrail to the south, the Lower Hill access road to the north and open pavement to the west. Floor plans are presented in Attachment 4 (Section 9.47.6.4). The facility is serviced by 480V, three-phase power.

The facility was constructed in 196~~0~~5 SBD 11/23/04 for the purpose of treating raw well water. The facility contains two large-capacity (100,000-gallon) zeolite softening beds and the chemicals and injection equipment for chlorination and rust inhibition. The facility also contains two high-capacity booster pumps to distribute the treated water. The facility has been used for the same purpose since construction.

9.47.3 Summary of Findings

Building 24 is one of two domestic water softening and chlorination facilities. The building appeared to be well-maintained. Bulk chemicals used in the process were found to be properly stored. Three issues of potential environmental concern were noted during the facility walk-through.

9.47.4 Observations

9.47.4.1 Air Emissions

There are no fumehoods or air emission sources. There are no fuel-burning units in the facility. There is no evidence of fugitive dust.

9.47.4.2 Wastewater Emissions

The Mound Facility has three wastewater collection systems: a sanitary wastewater system; a storm water system; and a radioactively contaminated process wastewater system. Sanitary wastewater is treated at an onsite tertiary treatment plant and subsequently discharged by hard pipe to the Great Miami River. Storm water and any non-process wastewater, single pass cooling water, and softener backwash may be discharged directly to the Great Miami River, via the Miami-Erie Canal,* or may be diverted to a 3.1-million-gallon holding pond for settling prior to discharge. Radioactively contaminated wastewater is treated in Building WD by physical-chemical treatment. If appropriate, wastewater may be discharged by hard pipe to the Great Miami River. If concentrations of radioactive contaminants cannot be reduced to acceptable levels, wastewater is solidified and shipped to the Nevada Test Site or Envirocare for disposal. All outfalls are permitted under an active NPDES permit. Routine monitoring activities are in place. Based on NPDES monitoring report data reviewed, it appears that the facility is in compliance with qualitative and quantitative conditions of the permit.

* Subsequently, MCP effluent was re-routed around the canal via a covered pipe to the Mound Overflow Creek. SJD, 11/23/04

9.47.4.2.1 Sanitary Wastewater

The facility is not serviced by a sanitary sewer according to a diagram of underground utility lines, presented as Attachment 5 (Section 9.47.6.5).

9.47.4.2.2 Storm Wastewater

The interior floor drains are serviced by the storm sewer, according to Attachment 5 (Section 9.47.6.5). The drains were not tested to confirm that they connect to the storm sewer system. The softener blowdown is periodically discharged to the storm sewer when the zeolite beds are recharged. There is evidence on some of the interior floor drains that some type of material has been entering them. A precipitate was on the exterior of a valve connected to a water line directly above one of the floor drains.

9.47.4.2.3 Chemicals

A list of chemicals residing in Building 24 is included in the BMQ. The information was gathered as part of the chemical inventory which is conducted annually. The inventory information dates to 1994. Confirmation of the 1994 inventory was not attempted as 1995 data were being compiled at the time of the appraisal.

Storage, handling, and disposal of chemicals listed in the BMQ were reviewed to assure conformance to regulations related to 40 CFR 122, 40 CFR 261-265, 40 CFR 268, and 29 CFR 1910. None of the chemicals listed in the BMQ are Clean Water Act priority pollutants. There is no evidence that chemicals stored in the building have entered the wastewater collection system.

Sodium hypochlorite is used to chlorinate the softened water prior to distribution. The hypochlorite is stored in 55-gallon drums and injected directly into the softened water from the

drum using a small peristaltic pump. There were two drums of hypochlorite in the building. Rust inhibitor is also stored in 55-gallon drums and is injected in a similar manner. Three drums of rust inhibitor were present.

9.47.4.3 Potable and Service Water

Building 24 represents the first location of potable water at the Mound facility. There are no cross connections between service water and potable water. Only potable water leaves the building, therefore, backflow preventers are not needed within the facility. Raw well water is supplied to the facility and softened, chlorinated water is distributed for plant use as potable, fire sprinkler and service water. There are no drinking fountains within the facility.

9.47.4.4 Chemical Storage and Hazardous Materials

See Chemical List, Appendix K SBD 11/23/04

Chemicals for chlorination and rust inhibition are stored in 55-gallon bulk drums. Material Safety Data Sheets (MSDS's) were not available at the time of the inspection. The hypochlorite was stored remotely from the rust inhibitor. There was no secondary containment provided. Empty drums are removed by the vendor, according to the building manager.

A review of the Mound Active Underground Storage Tank Plan and visual inspection showed that there are no underground storage tanks in or around the building. Additionally, visual inspection revealed there are no aboveground storage tanks in or around the facility. There are no sumps, separators or catch basins, in or around the building.

The building has been tested and does not contain asbestos-containing building material (MD-10391, *Asbestos Program Manual*, 9-14-95).

There are no capacitors or transformers containing polychlorinated biphenyls (PCB's) located in the building.

No research, development, or production activities using radioactive or energetic materials have occurred in the building (*Mound Facility Physical Characterization*, 12-1-93).

9.47.4.5 Solid, Hazardous, and Radioactive Wastes

There is a limited amount of paper waste, mainly hand towels. Solid wastes are removed by janitorial personnel to a site collection point, then shipped to a landfill by a contractor. The disposal permit is maintained by Waste Management. There is no evidence that hazardous materials or wastes are mixed with this solid waste stream. According to information provided in the BMQ, no hazardous wastes are generated in Building 24.

9.47.4.6 Waste Minimization and Pollution Prevention

At Mound there is an active program to minimize waste streams in accordance with state and federal requirements and Executive Order 12856.

There is a very limited amount of waste generated at the facility and little opportunity for waste minimization efforts. Quantities of chemicals are ordered carefully so as to avoid waste.

9.47.5 Findings and Recommendations

Photographs were taken to document the environmental appraisal. They are included as Attachment 6 (Section 9.47.6.6). The environmental appraisal of Building 24 indicates that the following action items, in order of priority order, should be planned and scheduled for accomplishment thus assuring that best management and operating practices are in place.

24-1 It was noticed during the facility walk-through that there is evidence on some of the interior floor drains that some type of material has been entering them. There was evidence of precipitate on the exterior of a valve connected to a water line directly above one of the floor drains. Because the floor drains discharge to the storm sewer, the nature of the precipitate on the valve should be investigated to determine the material. If appropriate, steps should be taken to stop its entry into drain.

24-2 It was noticed during the facility walk-through that the chlorinator and rust inhibitor were both stored in 55-gallon drums on the facility floor with no secondary containment. It is unlikely there would be significant spill of either of these chemicals. However, since the open floor drains are shown to discharge into the storm sewer, either the drains should be capped or secondary containment be provided.

24-3 MSDS's should be readily available to anyone in the facility. They were not available at the time of the walk-through.

ENVIRONMENTAL APPRAISAL CHECKLIST

Building Name BUILDING 24

Appraisers:

Name	Discipline
MARCIA VANNET	CHEMIST
MARK GILLIAT	ENGINEER
MYRON SMITH	ENGINEER

Building Manager: ALLEN UPSHAW

Process Manager:

Date: 1/22/96

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ENVIRONMENTAL APPRAISAL CHECKLIST

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Environmental A... ...sal Checklist

Building Name: 24 Appraisers: TEAM 4 Date: 1/22/96

Clean Water Act (CWA) Screening Checklist

Question	Response	Comments
Does the outside drain spouting of the building discharge directly to a storm sewer/sanitary system?	(Y) / N	If the answer to any of these questions is yes, proceed with the following checklist.
Are there sinks, toilets and floor drains in the building?	(Y) / N	
Are chemicals being used in the building?	(Y) / N	
Is there a process which discharges to the storm or sanitary system?	(Y) / N	

CWA Checklist

Regulatory Guideline	Question	Response	Comments
40 CFR 122 Appendix D Table V	If chemicals are used/stored in the building, are they on the attached list? Are they properly contained?	(Y) / N (Y) / N	
	Is the building in operation? What are the processes and where do they discharge to?	(Y) / N _____ _____	SOFTENED WATER FOR DISTRIBUTION
	Do the floor drains, sinks & toilets appear to be draining properly?	Y / N	
OAC 3745-33	Do the floor drains and sinks drain to a sanitary or storm sewer?	Sanitary (Storm)	Softner recharge water goes to storm sewer
	Is there a sump/pit in the building? If so, what does it contain? How often is it pumped out? Does water collect in sump? Does sump have secondary containment?	Y / (N) _____ _____ Y / N Y / N	
	Are there any manholes, catch basins, drains, or fill pipes in or around the building? If so, are there any unusual appearances, colors, and/or odors? Describe in comment section. Can chemicals flow into the drain?	(Y) / N (Y) / N (Y) / N	ONE FLOOR DRAIN HAD SOME PRECIPITATE IN & AROUND INDICATING MATERIAL WAS OR HAD ENTERED IT — SOURCE WAS LEAKY VALVE OVER HEAD OF DRAIN ↳ VALVE HAD PRECIPITATE AROUND IT

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Environmental Appraisal Checklist

Building Name: Appraisers: Date:

Clean Air Act (CAA) Screening Checklist

Regulatory Guideline	Question	Response	Comments
	Are there any rooms that have air emissions sources that vent to the outside of the building, e.g., fumehoods, equipment? If so, note the rooms.	Y / N	
OAC 3745-35	Using the air emissions inventory reference for this building, are there any sources in the building that are not documented?	Y / N	
	Is there evidence of fugitive dust emissions inside or outside of the building	Y / N	

CAA Checklist

Regulatory Guideline	Question	Response	Comments
	Are there existing air permits or applications applicable to the building?	Y / N	BLANK
OAC 3745-31,35	If yes, are the terms and conditions of the permit or the information included on the application (see air emissions database) being followed? Note any differences and update the air emissions database.	Y / N	
OAC 3745-31	Are there any sources that are not included in the air emissions database? If so, note the room, hood number, active or not, POC, and applicable air emission database information on Table B.	Y / N	
OAC 3745-31-03	Are there sources which are lab equipment of lab fumeheads used exclusively for chemical or physical analyses and bench scale lab equipment? These sources do not require a permit. However, the air emissions database should be updated.	Y / N	
	Has there been any release of air contaminants from this building?	Y / N	

Environmental A, .raisal Checklist

Building Name: 24 Appraisers: TEAM 4 Date: 1/22/96

CAA Checklist

Comments: Note the number of sources/hoods per room, the number that are active, and the POC on the reference document.

TABLE A

Process Source	Room Number	Hood Number	In Database	Active	Chemicals Used	Quantity Used	Quantity to Waste Management	Hours/Yr. Operation	Air Emissions
			Y / N	Y / N					
			Y / N	Y / N	BLANK				
			Y / N	Y / N					
			Y / N	Y / N					
			Y / N	Y / N					

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Source:

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Environmental Appraisal Checklist

Building Name: Appraisers: Date:

Hazardous Materials (HM) Screening Checklist

Question	Response	Comments
Are any chemicals used or stored in this building, now or in the past?	Y/N	If the answer is yes, proceed with the following checklist.

HM Checklist

Regulatory Guideline	Question	Response	Comments
29 CFR 1910.1200(b,f)	All containers of hazardous chemicals shall be labeled as to the identity of the chemical and the appropriate hazard warnings.	Y/N	
29 CFR 1910.1200(g)	MSDS shall be available to the employees in close proximity to the work area.	Y/N	NON AVAILABLE
29 CFR 1910.22, 1910.106, 1910.176	All places of employment, passageways, storerooms and service areas shall be kept clean and orderly and in a sanitary manner. Aisles shall be unobstructed. Drums and containers are not leaking and are tightly sealed.	Y/N	
29 CFR 1910.106	Storage cabinets for flammable materials are constantly kept closed, are fire resistant and are labeled "FLAMMABLE - Keep Fire Away". Containers inside should be labeled and closed. No spills inside cabinet.	Y/N	N/A
29 CFR 1910.106(d)(7)	Incompatible chemicals are not stored together.	Y/N	
29 CFR 1910.106(d)(4)	Inside Flammable/combustible storage rooms must meet the following: 4 in. raised sill or trench that drains to a safe area, liquid tight wall/floor joints, self-closing doors, gravity or mechanical exhaust providing 6 room changes/hr., exhaust switch located outside room, at least one 3 ft. aisle; no cracks in secondary containment.	Y/N	N/A

Environmental Appraisal Checklist

Building Name: 24 Appraisers: TEAM 4 Date: 1/22/96

HM Checklist

Regulatory Guideline	Question	Response	Comments
29 CFR 1910.106(d)(7)	All flammable/combustible storage locations have at least one 12-B portable fire extinguisher located outside and within 10 ft. of a door opening into any room for storage. No smoking signs are posted.	Y / N	N/A
29 CFR 1910.151	Eyewashes/showers shall be provided within the work area. Ensure unit is operational.	(Y) N	
CGA P-1 3.3 & 3.3.10	All gas cylinders (full or empty) shall carry a legible label or marking identifying the contents.	Y / N	N/A
CGA P-1 3.5.3	Full and empty containers should be stored separately with the storage layout planned so that containers comprising of old stock can be removed first with a minimum handling of other containers.	Y / N	N/A
CGA P-1 3.5.8	All compressed gas containers in service or in storage shall be stored standing upright and the container shall be secured.	Y / N	N/A
CGA P-1 4.2.2	Oxygen cylinders shall be separated from flammable gas containers or combustible materials a minimum of 20 ft. or a noncombustible barrier 5 ft. high.	Y / N	N/A
29 CFR 1910.104(2)(10)	Oxygen stored as a liquid shall be on a noncombustible surface. Asphalt is considered combustible. Wood and long dry grass shall be cut back 15 ft. from the container.	Y / N	N/A
29 CFR 1910.104	Bulk oxygen storage shall be permanently placarded "OXYGEN - NO SMOKING - NO OPEN FLAMES".	Y / N	N/A
	Is there a sign posted in each work area regarding emergency egress and emergency response action?	(Y) N	
	Is there an emergency response plan available?	(Y) N	Reference Site Wide Plan

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Environmental Appraisal Checklist

Building Name: Appraisers: Date:

HM Checklist

Regulatory Guideline	Question	Response	Comments
	Is there a process area?	Y / N	
	Does it have proper containment?	Y / N	ONLY FLOOR DRAINS / NO CONTAINMENT
	Is there a liquid bulk transfer area?	Y / N	chlorinator injected into process line
	Is there proper containment?	Y / N	
	Is there an above ground storage tank? If so, complete Table B.	Y / N	

Also corrosion inhibitor (both from 55 gallon drums)

Above Ground Storage Tanks Inventory

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TABLE B—Above Ground Storage Tanks Inventory

Building	Capacity (Gal.)	Contents	Estimated Volume	In Service	Containment	Visual Stains/ Contamination	If Empty, Flushed
				Y / N	Y / N	Y / N	Y / N
				Y / N	Y / N	Y / N	Y / N
				Y / N	Y / N	Y / N	Y / N
				Y / N	Y / N	Y / N	Y / N
				Y / N	Y / N	Y / N	Y / N
				Y / N	Y / N	Y / N	Y / N
				Y / N	Y / N	Y / N	Y / N

BLANK

Source: _____

Environmental Appraisal Checklist

Building Name: 24 Appraisers: TEAM 4 Date: 1/22/96

Safe Drinking Water Act (SDWA) Screening Checklist

Does this facility have potable water?	(Y) N	If yes, conduct the following survey.

SDWA Checklist

Regulatory Guideline	Question	Response	Comments
OAC 3745 95-02 (A)	Do actual or potential cross-connections exist between potable (light green) and service water (dark green)?	Y (N)	NO SERVICE WATER
OAC 3745 95-04 (B)(C)	Are backflow prevention devices installed where cross connections (hoses connected to faucets, hot water tank vented directly to a drain) exist?	Y (N)	*
	Are sources of service water (janitorial and laboratory faucets, or outdoor spigots) posted as non-potable water sources?	Y (N)	
	Does the facility contain any water coolers or fountains that are not lead free? Complete Table C.	Y (N)	

* FIRST POINT ON PLANT FOR POTABLE WATER

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TABLE C—Water Fountain Survey

Building	Location	Model #	Comments / Date of Analysis for Lead
		BLANK	

Source: _____

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Environmental Appraisal Checklist

Building Name: Appraisers: Date:

RCRA Screening Checklist

Does this facility generate waste or use chemicals?	Y / N	If yes, conduct the following survey.

RCRA Checklist

Regulatory Guideline	Question	Response	Comments
OAC 3745 52-11	Has any material generated been characterized RCRA hazardous? Was charactarization by analysis or by process knowledge? Are lab results or documentation of process knowledge readily available? Note any uncharacterized material in comment section. Is it waste? If yes, proceed with next section.	Y / N analysis / process Y / N Y / N	*
OAC 3745 52-11	Are any of the materials noted RCRA hazardous waste? If no, note and stop here. If yes, note the location of the management unit, and the method of management, and proceed with the appropriate section below.	Y / N	

* There are no chemical wastes generated by the softening process; all chemicals ~~softner~~ (chlorinator & rust inhibitor are) are injected into the process line and enter into the water system. Vendor is responsible for empty drums.

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Environmental Appraisal Checklist

Building Name: 24 Appraisers: TEAM 4 Date: 1/22/96

RCRA Checklist

Regulatory Guideline	Question	Response	Comments
I. HAZARDOUS WASTE STORED IN CONTAINERS			
	Is there an area in the building that could qualify as a Satellite Accumulation Area?	Y / N	
	Is it treated as such?	Y / N	
OAC 3475-52-34 (C)	Has any of the RCRA hazardous waste in this building been managed in Satellite Accumulation Areas? If no, proceed to the next section. If yes, answer the following.	Y / N	
	Are the containers marked with the words hazardous waste, or other words depoting the hazard?	Y / N	
	Are the containers in good condition?	Y / N	
	Are the waste compatible with the containers?	Y / N	
	Are containers managing ignitable hazardous waste stored at least 50 feet from the plant site boundary?	Y / N	
	Are containers kept closed and locked except during filling?	Y / N	
	Are containers moved within 3 days of being filled?	Y / N	

BLANK

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Environmental Appraisal Checklist

Building Name: Appraisers: Date:

RCRA Checklist

BLANK

Regulatory Guideline	Question	Response	Comments
OAC 3745-52-11 (A)	If a Satellite accumulation area has been abandoned and/or if waste left in place, and the containers may be subject to the 90-day-storage exclusion. If this exclusion does not apply, go to the next section. If the containers have been in storage under this exclusion, answer the following:		
	Are the containers in good condition?	Y / N	
	Are the waste compatible with the containers?	Y / N	
	Are the containers kept closed except during filling?	Y / N	
	Are the containers managed in such a way, that they are not ruptured, or leaks caused?	Y / N	
	Is the area inspected at least once weekly?	Y / N	
	Is the inspection recorded? • Where is the log? Is it properly completed, dated, and signed?	Y / N _____ Y / N	
	Are containers managing ignitable hazardous waste stored at least 50 feet from the facility boundary?	Y / N	
	Are incompatible wastes managed in such a way that they will not react with another incompatible waste?	Y / N	
OAC 3745-52-34(B)	Has any of the waste (except in Building 23, Building 72 and the Burn Area) been managed in excess of 90-days?	Y / N	
	If no go to next section.		
	If yes, note.		
	For Building 23, Building 72 & Burn Area use special checklist.		

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Environmental Appraisal Checklist

Building Name: 24 Appraisers: TEAM 4 Date: 1/22/96

RCRA Checklist

Regulatory Guideline	Question	Response	Comments
II. HAZARDOUS WASTE STORED IN TANKS			
OAC 3745-52-32 (B)	Has any chemical waste stored in a tank, piece of process equipment or ancillary equipment been in storage in excess of 90-days?	Y / N	BLANK
	If the answer was no, then proceed with the following:	Y / N	
	Has the tank or piece of equipment had an integrity assessment?	Y / N	
	Is there a sump?	Y / N	
	Is it dry?	Y / N	
	Does the tank or equipment have secondary containment?	Y / N	
	Does the tank or equipment have leak detection device(s)?	Y / N	
	Has spill control prevention been enacted?	Y / N	
	Has any hazardous waste stored in a tank, piece of process equipment or ancillary equipment been in storage in excess of 90-days?	Y / N	
	If the answer was no, then proceed with the following:		
	Has the tank or piece of equipment had an integrity assessment?	Y / N	
	Does the tank or equipment have secondary containment?	Y / N	
	Does the tank or equipment have leak detection device(s)?	Y / N	
	Has spill control prevention been enacted?	Y / N	
	Is there a closure plan?	Y / N	
	If yes, then note.		
OAC 3745-67	Has any of the waste been managed in a surface impoundment? If yes, then note. Go to the next section.	Y / N	

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Environmental Appraisal Checklist

Building Name: Appraisers: Date:

RCRA Checklist

Regulatory Guideline	Question	Response	Comments
OAC 3745-68	Has any of the waste been managed in a Landfill? If yes, then note. Go to the next section.	Y / N	BLANK
OAC 3745-68	Has any of the waste been managed in an Incinerator (other than Burn area units)? If yes, then note. Go to the next section.	Y / N	
OAC 3745-68	Has any of the waste been managed in a Thermal treatment Unit (other than Burn area units)? If yes, then note. Go to the next section	Y / N	
OAC 3745-69	Has any of the waste been managed in a Miscellaneous Treatment Unit (other than Burn area units)? If yes, then not. Go to the next section.	Y / N	
OAC 3745-56	Has any of the waste been managed in a Waste Pile? If yes, then note. Go to the next section.	Y / N	

General Comments:

Environmental Appraisal Checklist

Building Name: 24 Appraisers: TEAM 4 Date: 1/22/96

Asbestos Screening Checklist

Does this facility contain ACBM?	Y / N	If yes, conduct the following survey.

Asbestos Checklist * BUILDING HAS BEEN ABATED

Note: Routinely, the asbestos standard for ACBM in schools has been applied to facilities for purpose of cleanup. In addition to AEHERA, there are additional standards in the NESHAPS that may be of importance.

Regulatory Guideline	Question	Response	Comments
ADAPTED FROM TSCA ACBM IN SCHOOLS:			
	Has this building been characterized either through process knowledge, by analyses, or by inspection to determine if it contains asbestos?	Y / N	
	If no for this building or area note this conclusion in the comment section.	BLANK	
	Is there any evidence of friable asbestos?	Y / N	
	Is the asbestos removal properly managed? (See questions listed below)	Y / N	If there is no asbestos removal, do not complete the following section.
NESHAPS FOR ASBESTOS FOR ANY ONGOING ASBESTOS REMOVAL:			
40 CFR 61.156	There are no discharges of visible emissions to the outside air from collection, processing, packaging, transporting, or deposition of ACBM during the removal.	Y / N	
40 CFR 61.152(b) (1)	ACBM is treated with water in accordance with 40 CFR 152(b)?	Y / N	
40 CFR 61.154	Is friable asbestos adequately wetted during stripping? Or, has an adequate ventilation and collection system been installed?	Y / N	
40 CFR 61.152	Is wetting continued until the waste friable asbestos is collected for disposal?	Y / N	

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Environmental Appraisal Checklist

Building Name: Appraisers: Date:

Toxic Substances and Control Act (TSCA) PCB's Screening Checklist

Does this facility potentially contain any PCB's or PCB contaminated equipment?	Y/N	If yes, are transformers labeled (Blue or Yellow stickers)? If yes, conduct the following survey.

TSCA Checklist

Regulatory Guideline	Question	Response	Comments
40 CFR 761	Has any waste generated in, or from, this building been characterized either through process knowledge or by analyses to determine if it contains PCB's ? If the answer is no, note . If the answer is yes, proceed with next section.	Y / N	BLANK
	Based on an inspection, are any of the materials or equipment potentially PCB contaminated? If no, note and stop here. If yes, note the location of the management unit, and the method of management, and proceed.	Y / N	
40 CFR 761.65 (c) (5)	Are PCB articles or containers stored in this building checked for leaks at least once every 30 days?	Y / N	
	If yes, are auditable records maintained.	Y / N	
40 CFR.30 (a) (1) (ix)	Are any PCB transformers in use, or stored for possible reuse, that contain PCB's at concentrations of 500 ppm or greater?	Y / N	
	Are they visually inspected quarterly? If yes, are auditable records maintained?	Y / N	

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Environmental Appraisal Checklist

Building Name: 24 Appraisers: TEAM 4 Date: 1/22/96

TSCA Checklist

Regulatory Guideline	Question	Response	Comments
40 CFR 761.30 (a) 1,viii	Are all combustible materials (i.e., paints, solvents, plastics, paper, sawn wood, etc.) cleared from areas containing PCB transformers to a distance of five meters?	Y / N	BLANK
40 CFR 761.65 (b) (8)	Are all PCB articles and containers labeled with the date they were placed in storage?	Y / N	
	Are labeled PCB articles and containers stored so that the labels can be referenced?	Y / N	
40 CFR 761.65 (a)	Are all PCB's and PCB contaminated items at concentrations above 50 PPM, that are stored for disposal, stored no longer than one year from the date they were placed in storage?	Y / N	
40 CFR 761.62 (b) (1) (i)	Do all PCB storage areas have an adequate roof and walls to prevent rainwater from reaching the stored items?	Y / N	
40 CFR 761.62 (b) (1) (iv)	Are storage are floors curbed and constructed of continuous smooth and impervious materials?	Y / N	
40 CFR 761.62 (b) (1) (i)	Are the curbs at least 6 inches high?	Y / N	
40 CFR 761.62 (b) (1) (iii)	No drains are allowed in storage areas. Are there drains in the storage areas?	Y / N	

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Environmental Appraisal Checklist

Building Name: Appraisers: Date:

TSCA Checklist

Regulatory Guideline	Question	Response	Comments
40 CFR 761.65 (c) (2)	Only non-leaking and undamaged large high voltage PCB's capacitators and PCB-containing electrical equipment are allowed to be stored outside of PCB storage areas, on pallets if stored outside, with containment for 10 percent of the volume of the equipment. Do all PCB's stored in this configuration conform with this requirement?	Y / N BLANK	
40 CFR 761.45 and .65	Are all PCB storage areas marked with a large PCB mark as described in 40 CFR 761.45 (a)?	Y / N	
40 CFR 761.65 (c) (5)	Have all leaking PCB articles and containers been transferred to non-leaking containers?	Y / N	
40 CFR 761.65 (c) (6)	Do all PCB storage containers for the storage of liquid and non-liquid PCB's comply with DOT shipping container specifications?	Y / N	

GENERAL COMMENTS:

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Building Name: 24 Appraisers: TEAM 4 Date: 1/22/96

Low-Level Waste and Transuranic Waste Screening Checklist

Does this facility contain radioactive waste ?	Y / N	If yes, conduct the following survey.

Low-Level Waste and Transuranic Waste Checklist

Regulatory Guideline	Question	Response	Comments
Low-Level Waste			
DOE Order 5820.2A Chapter III	Can any waste generated in, or from, this building be characterized either through process knowledge or by analyses to determine if it is LLW ? If the answer is no, note. If the answer is yes, proceed with next section.	Y / N	
DOE Order 5820.2A Chapter III.	Are any of the materials noted by inspection LLW? If no, The audit would stop here, because there are no LLW. If yes, note the location of the management unit, and the method of management, and proceed with the section below.	Y / N	
DOE Order 5820.2A Chapter III, 3.a.	Have the storage configurations in use in this area been taken into account for keeping external exposures to the general public below 25 mrem/yr?	Y / N	
	Is the waste stored in a configuration that protects ground-water resources?	Y / N	
DOE Order 5820.2A Chapter III, 3.b.	Has monitoring been conducted in this area in accordance with DOE Order 5820.2A in order to evaluate the area against the performance standard?	Y / N	
	Based on field data, does the monitoring conducted in this area conform to the performance standard?	Y / N	

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Environmental Appraisal Checklist

Building Name: Appraisers: Date:

Low-Level Waste and Transuranic Waste Checklist

Regulatory Guideline	Question	Response	Comments
DOE Order 5820.2A Chapter III, 3.d.	Based on field data, is the characterization of the materials in this area sufficient to assure proper segregation to assure proper segregation, treatment, storage, and disposal?	Y / N	
	Based on field data does the characterization as documented at the time of generation of the waste ensure that the actual physical and chemical characteristics, and major radionuclide content of this material are recorded and known at all stages of the waste management process?	Y / N BLANK	
	Do characterization data include the following:		
	Physical and chemical characteristics of the waste?	Y / N	
	Volume of the waste (including solidification and absorbent material)?	Y / N	
	Weight of the waste (including solidification and absorbent material)?	Y / N	
	Major radionuclides and their concentrations?	Y / N	
	Packaging date, package weight, external volume?	Y / N	
	How were the concentration of radionuclides determined? Direct methods?	_____ _____	
	How were the concentrations of radionuclides determined? Indirect methods?	_____ _____	
DOE Order 5820.2A Chapter III, 3.h	Is the storage configuration in long term storage sufficient to meet the performance standard?	Y / N	
	Are records maintained at the facility enabling this waste to be traced from its origin?	Y / N	

Environmental Appraisal Checklist

Building Name: 24 Appraisers: TEAM 4 Date: 1/22/96

Low-Level Waste and Transuranic Waste Checklist

Regulatory Guideline	Question	Response	Comments
TRU WASTE			
	Can any waste generated in, or from this building be characterized either through process knowledge or by analyses to determine if it is TRU waste? If no, note and stop. If yes, proceed with the next section.	Y / N BLANK	
	Are any of the materials noted as being TRU waste during an inspection? If no, note and stop. If the answer is yes, note the location of the management unit, and the method of management and proceed with the appropriate section below.	Y / N	
DOE Order 5820.2A, Chapter II, 3.a	Was this material evaluated as soon as possible in the generating process, to determine if it is TRU (>100nCi/g), if it is recoverable, or if it is waste? (Note If the activity level is less than 100nCi/g, the waste is not TRU, and can be managed as LLW.)	Y / N	
	Did the determination of TRU radionuclide concentration include the mass of the container, including shielding? These should be included in calculating the specific activity of the waste.	Y / N	

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Environmental Appraisal Checklist

Building Name: Appraisers: Date:

Low-Level Waste and Transuranic Waste Checklist

Regulatory Guideline	Question	Response	Comments
DOE Order 5820.2A, Chapter II, 3.b	Has the TRU waste been assayed or otherwise evaluated to determine its radioactive content prior to storage?	Y / N	BLANK
	Has the TRU waste been characterized or otherwise evaluated to determine if hazardous waste is present?	Y / N	
	Has classified TRU waste been treated to destroy the classified characteristics?	Y / N	
DOE Order 5820.2A, Chapter II 3.d	Has all newly generated TRU waste been packaged in non-combustible packaging that meets DOT requirements?	Y / N	
	Have all Type A TRU waste packages been equipped with a method to prevent pressure buildup?	Y / N	
	Have all TRU packages been marked, labeled and sealed in accordance with 40 CFR 261 Subpart C and 49 CFR 172 Subparts D, E and 49 CFR 173 Subpart I?	Y / N	

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Environmental Appraisal Checklist

Building Name: 74 Appraisers: TEAM 4 Date: 1/22/96

Low-Level Waste and Transuranic Waste Checklist

Regulatory Guideline	Question	Response	Comments
DOE Order 5820.2A, Chapter II 3.e	Has the TRU waste been segregated in manner that will not permit commingling of TRU waste with LLW or high-level waste?	Y / N	BLANK
	Has the TRU waste been protected from unauthorized access?	Y / N	
	Has the TRU waste been monitored periodically to ensure that it is not releasing its radioactive and/or hazardous constituents?	Y / N	
	Has this TRU waste storage area been designed, constructed, maintained, and operated to minimize the possibility of fire, explosion, or accidental release of its radioactive and/or hazardous constituents?	Y / N	
	Does the facility have a contingency plan designed to minimize the adverse impacts of fire, explosion, or accidental release of its radioactive and/or hazardous constituents?	Y / N	

GENERAL COMMENTS:

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Environmental Appraisal Checklist

Building Name: Appraisers: Date:

Waste Minimization/Pollution Prevention Activities Screening Checklist

Does this facility generate waste or use chemicals? *	Y / N	If yes, conduct the following survey.

Waste Minimlaztion/Pollution Prevention Activities Checklist

Regulatory Guideline	Question	Response	Comments
	Based on available information and a walk through, are there any apparent opportunities to curtail the consumption of raw materials (including but not limited to paper, chemicals, electricity, and etc.). If yes, list candidate areas in the comment section.	Y / N	BLANK
	Are there solvent wastes?	Y / N	
	Is vehicle maintenance performed?	Y / N	
	Are oils used ?	Y / N	
	Are these corrosive wastes?	Y / N	
	Are there sludges?	Y / N	
	Are there halogenated organic (nonsolvent) wastes?	Y / N	
	Are metals recovered from wastewater?	Y / N	
	Is waste sludge generated?	Y / N	
	Are any waste minimization practices used that reduce the generation of sludge?	Y / N	
	Ion exchange process?	Y / N	
	Lead in gasoline lowered to reduce tank sludge toxicity?	Y / N	
	Storage tank agitators installed?	Y / N	
	Corrosive resistant materials used?	Y / N	
	Prevention of crude oil oxidation ?	Y / N	
	Drying?	Y / N	

Building Name: 24 Appraisers: TEAM 4 Date: 1/22/96

Waste Minimization/Pollution Prevention Activities Checklist

Regulatory Guideline	Question	Response	Comments
HALOGENATED ORGANIC (NONSOLVENT) WASTES			
	Are halogenated organic wastes used as fuel in cement kilns?	Y / N	
	Are baghouse filters used to collect pesticides and pesticide intermediates?	Y / N	BLANK
	Are solid wastes generated from the collection of baghouse dust?	Y / N	
	Wet instead of dry grinding used?	Y / N	
	The output spray dried?	Y / N	
	Has baghouse emptying and recycling of baghouse fines been scheduled?	Y / N	
	Have operations been evaluated to improve procedures such as handling, storage and spill prevention for increased efficiency?	Y / N	
METAL WASTES			
	Are any technologies for the recovering of metals from waste rinsewater used?	Y / N	
	Evaporation of waste rinsewater?	Y / N	
	Reverse osmosis?	Y / N	
	Ion exchange?	Y / N	
	Electrolysis?	Y / N	
	Agglomeration?	Y / N	
CORROSIVE WASTES			
	Are acidic or basic cleaning solutions used as treatment for pH adjustment chemicals?	Y / N	

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Environmental Appraisal Checklist

Building Name: Appraisers: Date:

Waste Minimization/Pollution Prevention Activities Checklist

Regulatory Guideline	Question	Response	Comments
	Are ion exchange resins used to remove heavy metals and cyanides from acid and base solutions?	Y / N	
	Is crystallization used to remove corrosives from solution by cooling?	Y / N	
	Is the process of evaporation of liquid wastes by heating used to leave behind a more concentrated solution?	Y / N	
CYANIDE AND REACTIVE WASTES			
	Has non-cyanide or low concentration of cyanide process replaced zinc cyanide bath ?	Y / N	
	Are any of these processes used to recycle cyanide wastes?	Y / N	
	Refrigeration/crystallization?	Y / N	
	Evaporation?	Y / N	
	Ion exchange?	Y / N	
	Membrane separation which includes reverse osmosis or electrodialysis?	Y / N	
VEHICLE MAINTENANCE			
	How are auto parts cleaned?	Y / N	
	Solvent sink?	Y / N	
	Solvent dunk bucket?	Y / N	
	Solvent dip tank?	Y / N	
	Are parts cleaning solvents used for anything else besides cleaning parts?	Y / N	
	Are spills reduced by locating sinks or dunk buckets near auto service bays?	Y / N	

BLANK

Environmental Appraisal Checklist

Building Name: 24 Appraisers: TEAM 4 Date: 1/22/96

Waste Minimization/Pollution Prevention Activities Checklist

Regulatory Guideline	Question	Response	Comments
	Are cleaned parts drained on the sink to minimize solvent spills?	Y / N	
	Are drip tanks used to capture losses?	Y / N	BLANK
	Is a solvent sink used for mineral solvents rather than a dunk bucket or dip tank?	Y / N	
	Does a waste hauler collect solvent waste for recycling or treatment?	Y / N	
OILS			
	What kind of oils are used?		
	Hydraulic oil?	Y / N	
	Transformer oil?	Y / N	
	Metal working fluids?	Y / N	
	Spent lubricating oils?	Y / N	
	Can the process be modified or changed to use water-based fluids?	Y / N	
	Are these good housekeeping and operation practices used to minimize oil waste production?		
	Use oils not contaminated with other liquids?	Y / N	
	Oil spills prevented?	Y / N	
	Drip pans installed?	Y / N	
	Oil soaked rags laundered?	Y / N	
	Rags and absorbants used to their limit?	Y / N	

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Environmental Appraisal Checklist

Building Name: Appraisers: Date:

Waste Minimization/Pollution Prevention Activities Checklist

Regulatory Guideline	Question	Response	Comments
	Are these treatment techniques used to promote separation of oil/water wastes?		
	Reclaiming process to remove water and solvents by heat?	Y / N	BLANK
	Gravity setting?	Y / N	
	Screening?	Y / N	
	Centrifugation?	Y / N	
	Filtration?	Y / N	
SOLVENT WASTES			
	Has there been an attempt to reduce volume or toxicity by:		
	Eliminating solvents?	Y / N	
	Reducing the use of solvents?	Y / N	
	Reducing the loss of solvents?	Y / N	
	Increasing recyclability?	Y / N	
	Are solvents segregated?	Y / N	
	Are waste solvents free from water and garbage?	Y / N	
	Are recycled solvent containers labeled as such?	Y / N	
	Are containers kept closed?	Y / N	
	Free and sheltered from the elements?	Y / N	
	Are solvent tanks kept as free from contaminations as possible so that the waste can be recycled?	Y / N	
	Is a method used to minimize the use of new materials such as a countercurrent process?	Y / N	

Building Name: 24 Appraisers: TEAM 4 Date: 1/22/96

Waste Minimization/Pollution Prevention Activities Checklist

Regulatory Guideline	Question	Response	Comments
	If there is a recycling program, what technique is used?	Y / N	BLANK
	Distillation?	Y / N	
	Solids removal?	Y / N	
	Dispersion breaking?	Y / N	
	Dissolved and emulsified organics recovery?	Y / N	
	Are any of these housekeeping procedures used to minimize the production of solvent wastes?		
	Separators cleaned and checked?	Y / N	
	Parts not allowed to enter the degreaser while wet?	Y / N	
	Sludge from the bottom of the tank not allowed to accumulate?	Y / N	
	Lids kept on tanks?	Y / N	
	Freeboard space on tanks increased?	Y / N	
	Are better operating practices used to reduce waste?	Y / N	
	How long is solvent waste stored and where?	_____ _____	

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Building Manager's Questionnaire

Building Name: 24 Building Manager: A.W. Upshaw Phone: 865-4894 Date: 12-07-95
Alternate: F. BAKER Phone: 865-3438

1. What are the access requirements (training, clearance, etc.)?

NONE

2. What protective equipment is required to enter the building?

SAFETY SHOES & GLASSES

3. Are there any restricted areas? Yes (No)
Where are they?

4. Provide a physical description of the building.

Building is a concrete block structure with BUM roof (asphalt). It has central steam heat. Total area is 840 ft^2. The building is not contaminated with any radiological or energetic materials.

Source: Mound Facility Physical Characterization, 12-1-93

5. Provide a drawing of the building.

Attached.

6. What is the current building use?

Building is used for treatment of the potable water system. The building houses ~~two 100,000-gal~~ two softner tanks, ~~and two 55-gal drums~~, treatment chemicals, and two booster pumps.

Source: Mound Buildings, 5-9-95

7. What is the history of building use other than that described in #6?

NONE

Source: Mound Buildings, 5-9-95

Building Manager's Questionnaire

Building Name: 24 Building Manager: A.W. Upshaw Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

8. What are ongoing operations or processes? What are the raw materials and waste streams from each process? Who is the best contact for each process?

Process(es) Housed: Water softening & chlorination

How Wastes Are Generated:

No wastes generated.

Contact:
Phone #:

Source: Characterization of Mound's Hazardous, Radioactive, and Mixed Wastes, (8-15-90).

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Building Manager's Questionnaire

Building Name: 24 Building Manager: A.W. Upshaw Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

9. In the last six months, have any modifications ~~been~~ made to the building or to processes in the building? Yes (No)

10. Does the building have air emission sources? No

Process Source	Room Number	Hood Number	Active	Chemicals Used	Quantity Used	Quantity to Waste Management	Lbs./Yr. Operation	Air Emissions
			Y / N					
			Y / N					
			Y / N					
			Y / N					
			Y / N					

Source: Mound Air Emissions Database 11/30/95

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Building Manager's Questionnaire

Building Name: 24 Building Manager: A.W. Upshaw Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

11. Describe air pollution control equipment used to reduce emissions for each source. None Listed

Process Source	Emissions	Control Equipment	Functioning
			Y / N
			Y /N
			Y / N
			Y / N
			Y / N

Source: Air Permits 2/4/95

12. For existing permits are emissions monitored? At what frequency? Where are the records maintained?

Process Source	Permit	Log	Permit Conditions & Frequency of Monitoring
		Y / N	
		Y / N	
		Y / N	
		Y / N	
		Y / N	

Source: Air Permits 2/4/95

13. Does the building have domesti water service? Yes No
is there bottled water? NO

14. Does the building discharge to the storm sewer? Yes No
Where?

15. Does the building discharge to the sanitary sewer? Yes No
Where?

16. Has an asbestos survey been conducted? Yes
What are the results? ~~No~~ ~~[illegible]~~ No (MOH)

Source: Technical Manual MD-10391, Issue 3 Asbestos Program Manual 9/6/95

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Building Manager's Questionnaire

Building Name: 24 Building Manager: A.W. Upshaw Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

17. Does the building contain transformers or capacitors? No

Source: PCB ANNUAL DOCUMENT LOG

18. Has the building been identified as containing PCBs? No

Source: PCB ANNUAL DOCUMENT LOG

19. What chemicals are used or stored inside or outside of the building? Include compressed gasses not in large tanks.

Chemical Name	State	Amount (MAX)
~~NONE~~ ANCOL 3400 (Sodium Silicate)	LIQUID	
SPRAYLAND (SODIUM HYPOCHLORITE)	LIQUID	

Source: Chemical Inventory 1994

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Building Manager's Questionnaire

Building Name: 24 Building Manager: A.W. Upshaw Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

20. Has there been a reported spill, leak, or other release of any chemical? Yes No
What, how much, and what clean-up measures were followed?

Chemical	Amount	Clean-up Measures

Source: _____

21. Where do waste chemicals go?

N/A

22. What janitorial supplies are stored inside or outside of the building?

N/A

23. Where do excess janitorial supplies go?

N/A

Source: _____

24. Are pesticides or herbicides stored or used in or around the building? Yes No

Chemical	Amount	Chemical	Amount

Source: _____

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Building Manager's Questionnaire

Building Name: 24 Building Manager: A.W. Upshaw Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

25. Does the building contain active or inactive above ground storage tanks? Yes No
For each tank, list the content, quantity, last inspection, registration number.

MOVED

Registration Number	Content	Quantity	Last Inspection Date	Preventive Maintenance Performed	Inside Or Outside
~~7782-50-5~~	~~Chlorine~~	~~01C~~		Y/N	

Source: Emergency and Hazardous Chemical Inventory Form - Chemical Storage Tanks on EGG Mound Site Owned and Maintained by Outside Contractors 8/8/94

26. Is there a sump or pit or underground tank in or around the building?
Yes No Unknown
Is it double-walled? What does it contain? How many days per year is it filled?
Is there an emergency overflow tank? Have there been previous overflows?

Double-Walled	Contents	Days/Year in Use	Overflow Tank	Previous Overflow
Y / N			Y / N	Y / N

Source: _____

27. Does the building generate, store, or dispose of hazardous waste? Yes No

10 OIL
24

Materials	Amount
Oil Waste	173.0
Oil Waste	447.6
Oil Waste, Vacuum Pump Oil	541.9
Oil Waste	557.0
Oil Waste, Vacuum Pump Oil	643.1
Oil Waste, Trace Solvents	498.9
Oil Waste, Petroleum Naphtha	99.8
Oil Waste, Vacuum Pump Oil	284.8
Oil Waste	218.3
Oil Waste, Vacuum Pump Oil	331.6
Oil Waste, Vacuum Pump Oil	492.1
Oil Waste, Trace Solvents	473.2
Oil Waste	445.1
Oil Waste, Trace Solvents	261.5
Oil Waste, Trace Solvents	333.8
Oil Waste, Trace Solvents	281.9
Oil Waste	303.8
Oil Waste	318.3
Oil Waste, Trace Solvents	365.1

Source: Characterization of Mounds Hazardous, Radioactive, and Mixed Wastes 08/15/90

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Building Manager's Questionnaire

Building Name: 24 Building Manager: A.W. Upshaw Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

28. Does the building have abandoned process equipment such as tanks, piping, containers, etc.? Yes No

29. Is waste material stored in or around the building for more than 90 days?
Yes No

30. Has the building been identified as a 90 day waste accumulation area?
Yes No

31. Has any area in the building been identified as a satellite accumulation area? Yes No

32. Is mixed waste generated, stored, or disposed of from the building? Yes No
Where are logs found?

Process	Waste	Stored	Disposed	Logs
		Y / N	Y / N	Y / N
		Y / N	Y / N	Y / N
		Y / N	Y / N	Y / N
		Y / N	Y / N	Y / N
		Y / N	Y / N	Y / N

Source: _____

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Building Name: 24 Building Manager: A.W. Upshaw Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

33. Is TRU radioactive waste generated, stored, or disposed of from the building?
Yes No
Where are logs found?

Process	Waste	Stored	Disposed	Logs
		Y / N	Y / N	Y / N
		Y / N	Y / N	Y / N
		Y / N	Y / N	Y / N
		Y / N	Y / N	Y / N
		Y / N	Y / N	Y / N

Source: _____

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Building Manager's Questionnaire

Building Name: 24 Building Manager: A.W. Upshaw Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

34. Is low-level radioactive waste generated, stored, or disposed of from the building? Yes No
Where are logs found?

Process	Waste	Stored	Disposed	Logs
		Y / N	Y / N	Y / N
		Y / N	Y / N	Y / N
		Y / N	Y / N	Y / N
		Y / N	Y / N	Y / N
		Y / N	Y / N	Y / N

Source: _____

35. Identify all administrative orders, temporary or permanent injunctions, civil administrative penalties, or criminal activities issued against the building.

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Building Name: 24 Building Manager: A.W. Upshaw Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

36. Is there a waste minimization program in the building? Yes No
Discuss your ideas about how to minimize waste.

37. Has a pollution prevention program been developed for the building? Yes No

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Appendix G

Radiological Information

Final Status Report
For
Buildings 24 & PH

Prepared by: Robert Coblentz / RM Coblentz **Date:** 4/12/05

Reviewed by: Constance R. Kline / CRKline **Date:** 4/12/05

Approved by: A. Stephen Collas / ASCollas **Date:** 4/13/05

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1.0 Historical Review

The Mound site water system consists of three production deep wells, two treatment facilities, three water storage tanks, and a complete piping distribution network. This Final Status Report (FSR) includes the following buildings associated with the water system: Buildings 24, and PH (Pump House).

Building 24 was constructed in 1965 as the Water Treatment Plant for the purpose of treating raw well water. The facility contains two large-capacity (100,000-gallon) zeolite softening beds and the chemicals and injection equipment for chlorination and rust inhibition. The facility also contains two high-capacity booster pumps to distribute the treated water. Water from Building 24 was sent to the SM/PP water tower, which serviced the SM/PP area. The facility has been used for the same purpose since construction. A complete history of Building 24 can be found in Reference 1.

PH (Pump House) Building, adjacent to Building 24, was constructed in 1948. Building engineering information indicates that there were two 30 gallons per minute (GPM) positive displacement pumps located in the center of the east room of PH Building. These pumps were used for pumping No. 6 fuel oil from railroad-type tank cars. The tank cars were situated on the adjacent train rails. The purpose of the pumps was to pump fuel oil to four underground oil storage tanks located adjacent to P Building. These pumps were also used to pump fuel oil to an emergency aboveground fuel oil storage tank that was located in a containment "pit" across the railroad tracks from (south of) the building. PH Building was later converted to a storage area for utilities related supplies. A complete history of Building PH can be found in Reference 4.

Buildings 24, PH, and associated structures have not been used for research, development, or production activities using radioactive or energetic materials since construction.

2.0 Survey Objectives

The objective of this FSR is to demonstrate the classification of Buildings 24 and PH as non-impacted. This was accomplished by measuring the fixed and removable contamination on building surfaces and performing isotopic analysis, where appropriate. The survey data were compared to the release criteria of DOE Order 5400.5 using methods defined in Reference 2. The specific survey objectives are outlined on the Survey Plan Form (see Enclosure).

Table 1 lists the permissible surface contamination guideline values as stated in DOE Order 5400.5. These limits are the Derived Concentration Guidelines (DCGL's) for building and structure release.

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Table 1

Allowable Total Residual Surface Contamination ($dpm/100cm^2$)*				
Radionuclides*		**Average***	**Maximum***	**Removable***
Group 1	Transuranics, I-125, I129, Ra-226, Ac-227, Ra-228, Th-228, Th-230, Pa-231	100	300	20
Group 2	Th-Natural, Sr-90, I-126, I-131, I-133, Ra-223, Ra-224, U-232, Th-232	1,000	3,000	200
Group 3	U-Natural, U-235, U-238 and associated decay products, alpha emitters	5,000	15,000	1,000
Group 4	Beta-gamma emitters (Radionuclides with decay modes other than alpha emission or spontaneous fission) except for Sr-90 and others noted above	5,000	15,000	1,000
Tritium		N/A	N/A	10,000

* Note: Refer to DOE Order 5400.5, Radiation Protection of the Public and the Environment, for specific information on surface contamination guidelines and additional notes.

The average activity levels shown in Table 1 assume that the residual contamination is uniformly distributed across the survey unit and is the $DCGL_w$ for this survey. The maximum activity shown in Table 1 represents the Elevated Measurement Comparison ($DCGL_{emc}$) for small (<$100cm^2$) areas of activity that may be observed in the survey unit while scanning. Since no process activities were ever associated with Buildings 24 and PH, it is assumed that Pu-238 is the potential contaminant of concern and the Group 1 limits are appropriate for alpha measurements. Group 4 limits are used for beta measurements.

2.1 Survey Design

The characterization survey was designed to evaluate the buildings' internal and external surfaces. The buildings were divided into survey units as follows:

Survey Unit 1 – Building 24 interior surfaces

Survey Unit 2 – Building 24 exterior surfaces

Survey Unit 3 – Building PH interior surfaces

Survey Unit 4 – Building PH exterior surfaces

Judgmental - Roofs

Since the variability is expected to be small within the survey unit, the Type I error chosen is $\alpha = 0.05$ and the Type II error is $\beta = 0.01$. The number of data points is determined by calculating the relative shift (Δ/σ) from the DCGL value, the lower bound of the gray region (LBGR), and the standard deviation (σ) of the contaminant in the survey unit (Δ/σ = DCGL-LBGR/σ). For this FSR, the LBGR is set at 50% of the $DCGL_w$. The standard deviation was

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estimated to be 17dpm/100cm^2 based on survey data from similar building surfaces and the relative shift was calculated as 2.95. The required number of data points (n = 20) was obtained from Table 5.5, Reference 2.

Twenty (20) judgmental data points were selected in each survey unit. Major walkways in the buildings were scanned for alpha contamination.

Sediment smear samples were collected from floor drains, and collection pits. Direct alpha and beta readings were taken at each sediment sample location.

Loose surface contamination was measured by smearing an area of 100cm^2 at each data point. Smears were counted for gross alpha/beta activity. Removable tritium contamination was measured on interior surfaces by liquid scintillation counting of coin smears.

Replicate surveys were performed in accordance with Reference 3.

The instruments selected for this survey were the Ludlum 2350-1 data logger with a 43-68 hand-held gas flow proportional (GFP) detector for alpha/beta fixed point measurements and a 43-37 GFP large area floor probe for alpha scan measurements. Laboratory instruments used were appropriate for the analysis requested. Instrument calibration and source check data are documented in accordance with Mound procedures.

2.2 Survey Data

The gross alpha and beta fixed point measurements from each survey unit were collected and compared directly to the $DCGL_w$. All direct measurements were found to be < $DCGL_w$.

Alpha measurements on the roof were all < $DCGL_w$, with the exception of a rusty metal vent on the roof of Building PH, which measured 416 dpm/100cm^2 alpha. A coupon sample was submitted for isotopic analysis. Ninety-five percent of the activity was found to be Polonium-210, and four percent to be Plutonium-238. The remaining activity was Thorium-232. A sum-of-the-ratio analysis was performed, yielding a result of 0.2572. This analysis can be found in Enclosure 1. (See RSDS 05-TF-0163)

All other measurements were below the $DCGL_w$.

A graphical representation of the average and maximum total activity for each survey unit is shown in Attachment 1.

The following table shows the results of the maximum and average total (fixed and removable) alpha and beta activity for each area.

Total Activity Results

Area	Alpha (dpm/100cm^2)			Beta (dpm/100cm^2)		
	Max	Average	±	Max	Average	±
Survey Unit 1	64	17.4	6.8	1369	774	188
Survey Unit 2	88	43.6	11.1	340	187	51
Survey Unit 3	29	6.3	3.3	380	152	41
Survey Unit 4	56	32	6.9	852	225	87.6
Roofs	416	80.5	74.9	830	219.5	138.7

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The results of the removable alpha and beta surface activity are shown below. All results were significantly less than the $DCGL_W$.

Removable Alpha & Beta Activity Results

Area	Alpha (dpm/100cm^2)			Beta (dpm/100cm^2)		
	Max	Average	±	Max	Average	±
Survey Unit 1	1.92	0.17	0.21	5.83	0.91	0.73
Survey Unit 2	2.68	0.55	0.39	2.55	0.61	0.38
Survey Unit 3	2.02	0.35	0.26	3.15	0.59	0.34
Survey Unit 4	4.15	0.57	0.58	3.49	0.75	0.48
Roofs	3.04	0.46	0.64	4.94	0.83	0.97

The highest removable tritium activity was 49.57 dpm/100cm2 (RSDS# 05-TF-0151). The average removable tritium was 3.55 dpm/100cm^2 (± 1.68).

The major walkways of the floors were scanned for alpha activity. No activity was detected (RSDS# 05-TF-0151).

2.3 Sediment and Water Sample Data

Sediment smear samples were obtained from accessible floor drains and collection pits. The pits were pumped to allow access to lower pit surfaces. Smear samples were analyzed for gross alpha, beta, and tritium activity. The highest smearable activity was 3.04 dpm/100cm^2 alpha, and 3.77 dpm/100cm^2 beta. Direct alpha and beta measurements were taken at each sample location. The highest fixed activity observed was 40 dpm/100cm^2 alpha, and 172 dpm/100cm^2 beta (RSDS # 05-TF-0148 and 05-TF-0167). Water samples were collected from drains and brine pit. All alpha analysis results were < 0.60 dpm/ml. Initial analysis of one drain water sample showed 33.46 nCi/L, tritium. This is a false result due to chemical luminescence. A second sample was collected from the same location so that analysis could be performed, correcting for the effects of the chemical luminescence. Analysis result was 1.82 nCi/L, tritium (RSDS 05-TF-0161).

A pipe blank flange in Building 24 was breached to allow survey of internal surfaces. Direct measurements were 32 dpm/100cm^2 alpha, and no detectable beta. Smear results for alpha and beta were 0.0 dpm/100cm^2, and 3.04 dpm/100cm^2 tritium (RSDS 05-TF-0166).

2.4 Quality Control

Quality control measurements were taken to ensure the quality of the data. Sixteen data points were selected at random from the sample group of 86 data points. Replicate measurements were taken at these locations using different instruments of the same type, and performed in the same manner as the original survey. The acceptance criterion for fixed-point measurements is that the variance in the measurements of the original sample

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population is within a factor of two of the variance in the replicate samples (at 95% confidence level). The variance test does not pass; therefore, the data were evaluated per MD 80046, Operation 402. No discrepancies were found in the data collection or documentation. The data were determined to be usable, in that all of the readings were below the $DCGL_W$. The results of the replicate surveys are shown in the following table:

Replicate Analysis Results

		alpha (dpm/100cm2)			beta (dpm/100cm2)		
Location #	RSDS#	initial	2σ	replicate	initial	2σ	replicate
SU4-07QC	05-TF-0162	56	14.97	8	96	19.60	60
SU4-13QC	05-TF-0162	8	5.66	4	256	32.00	70
SU4-15QC	05-TF-0162	8	5.66	0	852	58.38	120
SU4-19QC	05-TF-0162	56	14.97	8	304	34.87	262
SU2-06QC	05-TF-0162	8	5.66	28	308	35.10	392
SU2-10QC	05-TF-0162	88	18.76	8	64	16.00	168
SU2-11QC	05-TF-0162	8	5.66	12	216	29.39	530
SU2-13QC	05-TF-0162	80	17.89	32	340	36.88	508
SU3-01QC	05-TF-0162	26	10.20	26	285	33.76	363
SU3-03QC	05-TF-0162	29	10.77	30	190	27.57	36
SU3-11QC.	05-TF-0162	3	3.46	8	162	25.46	227
SU3-04QC	05-TF-0162	3	3.46	8	257	32.06	73
SU1-04QC	05-TF-0162	4	4.00	38	333	36.50	254
SU1-08QC	05-TF-0162	64	16.00	23	1198	69.22	1279
SU1-17QC	05-TF-0162	4	4.00	23	969	62.26	844
SU1-03QC	05-TF-0162	0	0.00	15	114	21.35	200
Variance (S2) =		930.5625		133.396	110251		109463
Ratio				6.97595			1.00719
Agreement				NO			YES

Replicate analyses were not performed on smears or sediment samples. Quality control procedures, blanks, and spikes are a part of the laboratory quality control program at Mound. Since a relatively small number of samples were taken for this survey, additional replicate analysis was not required for this survey.

Field instrumentation was source checked each day prior to use and again at the completion of survey activities for that day. A known source was placed in a source holder to ensure a reproducible geometry is achieved. Acceptance criteria is ± 20% of the initial source response following calibration. Results were documented in accordance with Mound Radiological Control procedures. Laboratory instrumentation was source checked and documented in accordance with Mound Laboratory procedures.

2.5 Conclusion

The objective of the survey plan was to determine whether or not the residual radioactivity of the surfaces of building materials associated with Buildings 24 and PH satisfy the site release criteria established by DOE Order 5400.5. This was accomplished by comparing the survey data to the release criteria in accordance with the MARSSIM (Reference 2). The scanning

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survey found no elevated measurement areas above the $DCGL_w$. No activity was found above the $DCGL_w$ in sediment smear samples or in drains and pits.

All of the DQO's for this survey plan have been met and no further surveys are required. Buildings 24 an PH meet the surface release criteria established by DOE Order 5400.5.

The following table shows the maximum fixed and removable activity on the inside and outside building surfaces.

Buildings 24 and PH Max Survey Results

TYPE	RSDS	LOCATION	SURVEY RESULTS (dpm/100 cm^2)	SURFACE CONTAMINATION GUIDELINES (dpm/100 cm^2) (Note 1)
Highest Alpha Smearable Activity	05-TF-0107	PH Exterior Wall	4.15	20
Highest Group 1 Alpha Fixed Activity	05-TF-0110	24 Exterior Wall	88	100
Highest Group 3 Alpha Fixed Activity	05-TF-0163	PH Roof	416	5,000
Highest Beta Smearable Activity	05-TF-0159	24 Interior Wall	5.83	1,000
Highest Beta Fixed Activity	05-TF-0159	24 Interior Wall	1,369	5,000
Highest Tritium Smearable Activity	05-TF-0151	PH Interior Wall	49.57	10,000
Note 1: DOE Order 5400.5 (DCGLw)				

3.0 Attachments and Enclosures

Attachment 1 – Buildings 24 and PH Average and Maximum Total Alpha and Beta Activity Graphs (2 pages)

Attachment 2 – Summary of Attached Radiological Survey Data Sheets

Enclosure 1 – Survey Data Analysis Worksheets

Enclosure 2 – Survey Plan Form (SPF) #24-01

4.0 References

1. CH2MHILL Mound, Inc., EC&AS Department, White Paper: Building 24 Structural History and Process History Summary Background Document, December 2003
2. NUREG 1575, Rev 1, Aug 2000, *Multi-Agency Radiation Survey and Site Investigation Manual*, (MARSSIM)
3. MARSSIM Implementing Procedures, *Field Quality Control for Building Contamination Surveys*, MD-80046, Op. 402
4. DOE Mound Facility Miamisburg, Ohio, PH Building, General Support Function Documentation Package, September, 2002

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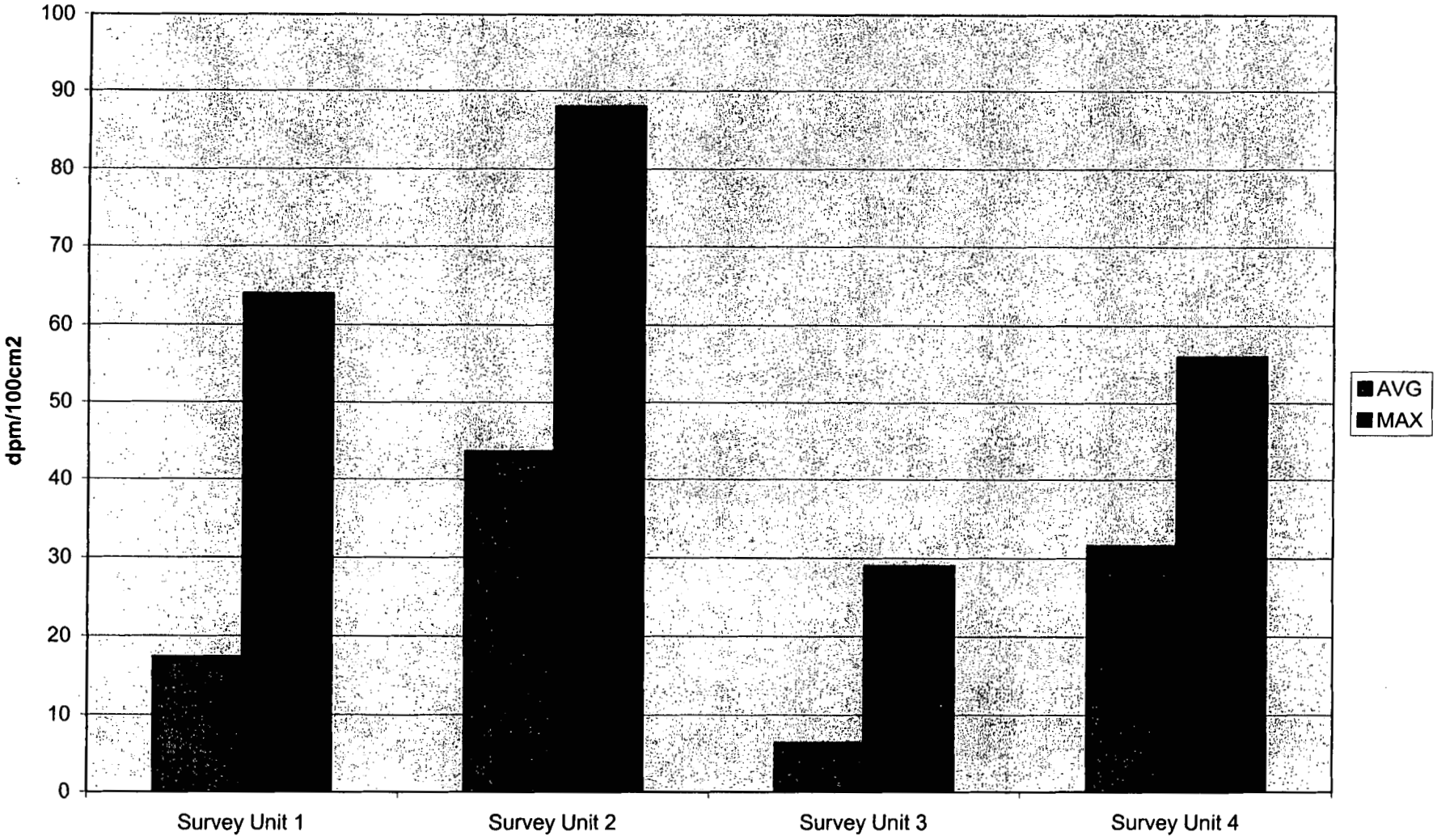
Attachment 1
Buildings 24 and PH Average & Maximum Total Alpha



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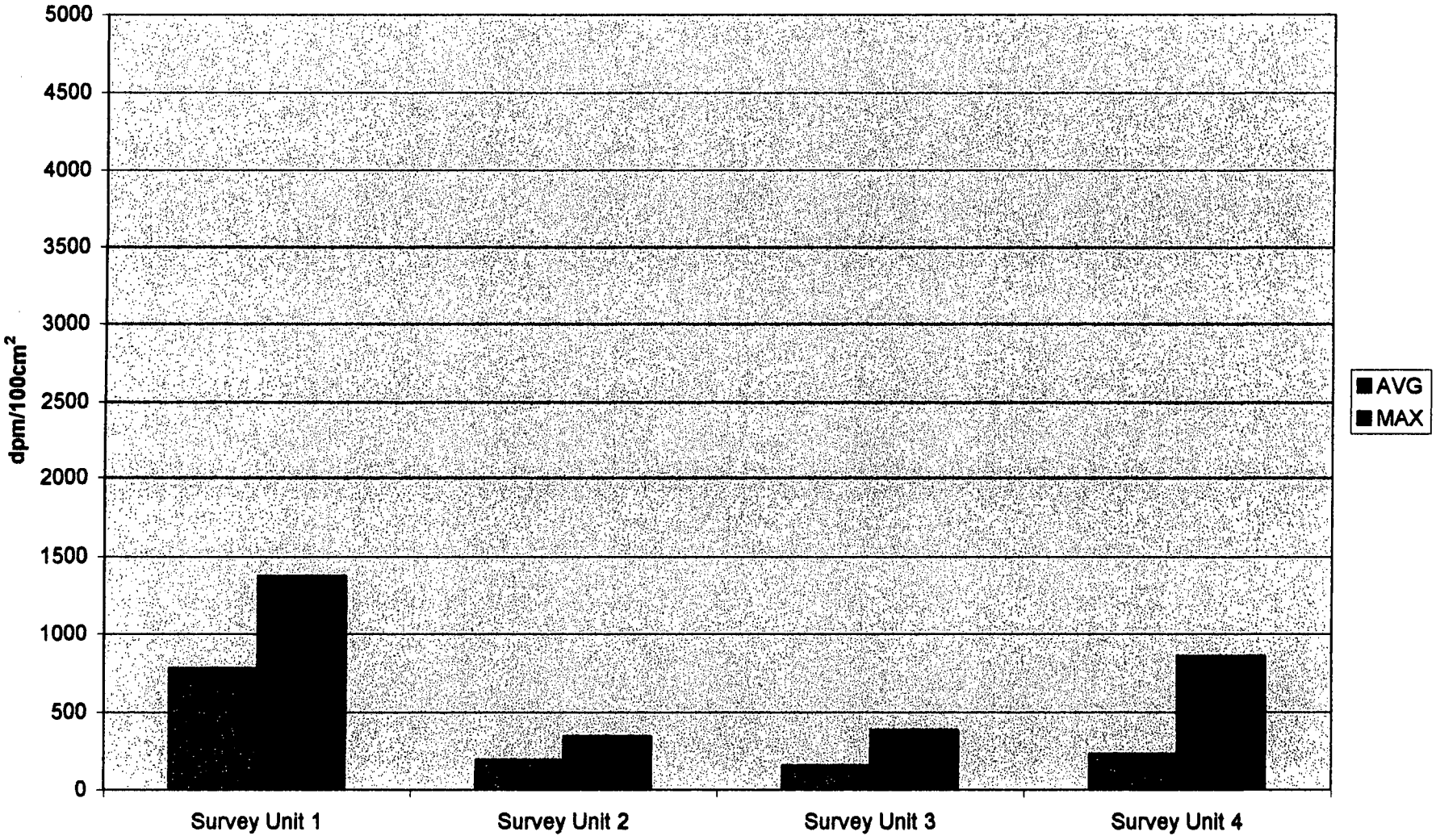
Attachment 1
Buildings 24 and PH Average and Maximum Total Beta Activity



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Attachment 2

Buildings 24 and PH Final Status Report
Summary of Attached Radiological Survey Data Sheets

RSDS #	Survey Unit	Description
05-TF-0107	4	PH - Ext walls
05-TF-0110	2	24 - Ext walls
05-TF-0148	Judgmental	PH - drains and pits
05-TF-0151	3	PH - Floors, walls, ceilings
05-TF-0159	1	24 - Floors, walls, ceilings
05-TF-0161	Judgmental	24 – Drains and horizontal
05-TF-0162	1, 2, 3, 4 QC	QC
05-TF-0163	Judgmental	Roofs
05-TF-0166	Judgmental	24 – Pipe internals
05-TF-0167	Judgmental	PH – West pit contam survey

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Building 24 Survey Data Analysis Worksheets

All measurements dpm/100cm2

		Smearable			Fixed	
Location	**RSDS#**	α	β	H^3	α	β
SU1-01	05-TF-0159	1.92	0	0	23	200
SU1-02	05-TF-0159	0	0.54	1.51	0	266
SU1-03	05-TF-0159	0	0.48	0	0	114
SU1-04	05-TF-0159	0	1.15	2.66	4	333
SU1-05	05-TF-0159	0	0	0	19	371
SU1-06	05-TF-0159	0	0	0	23	162
SU1-07	05-TF-0159	0	3.77	0	11	1131
SU1-08	05-TF-0159	0	0.43	0	64	1198
SU1-09	05-TF-0159	0	0	0	0	1302
SU1-10	05-TF-0159	0.95	0	0	26	**1369**
SU1-11	05-TF-0159	0	0	0.44	30	1188
SU1-12	05-TF-0159	0	1.24	3.28	15	1150
SU1-13	05-TF-0159	0.54	**5.83**	3.38	15	950
SU1-14	05-TF-0159	0	0.01	2.49	0	1046
SU1-15	05-TF-0159	0	4.19	7.56	19	1198
SU1-16	05-TF-0159	0	0.63	2.54	30	865
SU1-17	05-TF-0159	0	0	0.45	4	969
SU1-18	05-TF-0159	0	0	2.08	11	561
SU1-19	05-TF-0159	0	0	5.42	19	456
SU1-20	05-TF-0159	0	0	3.11	34	656
SU2-01	05-TF-0110	0	0	0	48	240
SU2-02	05-TF-0110	1.74	0	0	24	0
SU2-03	05-TF-0110	0	0.48	3.36	64	316
SU2-04	05-TF-0110	0	0	0.26	24	176
SU2-05	05-TF-0110	0	0.97	0	40	212
SU2-06	05-TF-0110	1.49	0	0	8	308
SU2-07	05-TF-0110	0	2.55	0	72	288
SU2-08	05-TF-0110	0	0	4.45	32	0
SU2-09	05-TF-0110	0	0.5	0.26	40	156
SU2-10	05-TF-0110	0	0.97	0	**88**	64
SU2-11	05-TF-0110	0	0.22	0	8	216
SU2-12	05-TF-0110	1.51	2.33	3.56	56	0
SU2-13	05-TF-0110	0	0	3.41	80	340
SU2-14	05-TF-0110	0	1.26	0	48	228
SU2-15	05-TF-0110	1.62	0	0	24	224
SU2-16	05-TF-0110	2.68	0	0	24	152
SU2-17	05-TF-0110	1.92	0	6.91	24	220
SU2-18	05-TF-0110	0	0	0	80	308
SU2-19	05-TF-0110	0	0.48	0	16	0
SU2-20	05-TF-0110	0	2.38	0	72	296
SU3-01	05-TF-0151	0	0	7.63	26	285
SU3-02	05-TF-0151	0	0.54	0	3	162
SU3-03	05-TF-0151	0	0.48	0	29	190
SU3-04	05-TF-0151	1.4	0	0	3	257
SU3-05	05-TF-0151	0	0.97	1.08	0	0
SU3-06	05-TF-0151	0	0	0	0	0
SU3-07	05-TF-0151	0	0.1	8.62	11	67
SU3-08	05-TF-0151	0	0.43	8.67	0	190
SU3-09	05-TF-0151	0	0	12.8	0	10
SU3-10	05-TF-0151	0	0	17.97	7	67
SU3-11	05-TF-0151	1.75	0	22.62	3	162
SU3-12	05-TF-0151	0	2.49	0	7	143
SU3-13	05-TF-0151	0	3.15	0	14	200
SU3-14	05-TF-0151	2.02	0	3.28	0	0
SU3-15	05-TF-0151	1.45	0	5.34	7	162
SU3-16	05-TF-0151	0	0	0	11	232
SU3-17	05-TF-0151	0	0	26.31	0	67
SU3-18	05-TF-0151	0	1.79	12.81	0	190

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Building 24 Survey Data Analysis Worksheets
Enclosure 1

		Smearable			Fixed	
Location	RSDS#	α	β	H^3	α	β
SU3-19	05-TF-0151	0	0	0	0	76
SU3-20	05-TF-0151	0	1.15	0	0	86
SU3-21	05-TF-0151	0	0.997	**49.57**	0	95
SU3-22	05-TF-0151	1.49	0	0	0	333
SU3-23	05-TF-0151	0	1.32	0	0	200
SU3-24	05-TF-0151	0	0	0	22	105
SU3-25	05-TF-0151	0	1.84	37.11	11	304
SU3-26	05-TF-0151	0.95	0	12.63	11	380
SU4-01	05-TF-0107	0	2.23	2.57	32	92
SU4-02	05-TF-0107	1.73	2.88	0	32	144
SU4-03	05-TF-0107	0	0	0	24	56
SU4-04	05-TF-0107	0	0	1.46	24	188
SU4-05	05-TF-0107	0	0.97	0	32	112
SU4-06	05-TF-0107	0	0	0	40	124
SU4-07	05-TF-0107	0	1.32	0	56	96
SU4-08	05-TF-0107	1.48	0	4.44	24	40
SU4-09	05-TF-0107	4.12	0.13	0	40	120
SU4-10	05-TF-0107	0	0.97	0	48	156
SU4-11	05-TF-0107	0	0	0	56	184
SU4-12	05-TF-0107	0	0	6.68	24	200
SU4-13	05-TF-0107	0	0	0.33	8	256
SU4-14	05-TF-0107	**4.15**	0	0	32	144
SU4-15	05-TF-0107	0	1.37	0	8	852
SU4-16	05-TF-0107	0	0	3.02	8	248
SU4-17	05-TF-0107	0	3.49	2.09	16	664
SU4-18	05-TF-0107	0	0	1.07	24	196
SU4-19	05-TF-0107	0	1.7	0	56	304
SU4-20	05-TF-0107	0	0	0	48	332

	Avg	0.40593	0.706128	3.549186	23.44186	322.093
	SD	0.877421	1.142493	7.933259	21.98106	346.1018
SU's	Max	4.15	5.83	49.57	88	1369
	#	86	86	86	86	86
	+/-	0.185441	0.241464	1.676679	4.645655	73.14795

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Building PH Roof Acid Etch Data Analysis

Group 3 (5000 dpm)		Group 2 (1000 dpm)		Group 1 (100 dpm)	
Po-210 U-238	113.25	Th-232	0.47	Pu-238	5.03
Total:	113.25	Total:	0.47	Total:	5.03
Fraction of Total Sample:	0.95368421	Fraction of Total	0.003958	Fraction of Total	0.042358

a Measurement:	416	dpm/100cm2
Group 1 Contribution:	18	dpm/100cm2
Group 2 Contribution:	2	dpm/100cm2
Group 3 Contribution:	397	dpm/100cm2

$$\frac{18}{100} + \frac{2}{1000} + \frac{397}{5000} = 0.2572$$

sum of the ratios of 0.2572 is < 1.0, therefore acceptable for release

Roof Survey Data

All measurements dpm/100cm2

		Smearable			Fixed	
Location	RSDS#	α	β	H^3	α	β
SU1-01	05-TF-0163	0	0	0	66	160
SU1-02	05-TF-0163	0	0	0	11	178
SU1-03	05-TF-0163	0	1.7	0.77	86	115
SU1-04	05-TF-0163	0	1.15	0	21	183
SU1-05	05-TF-0163	0	0	0	76	10
SU1-06	05-TF-0163	0	0	0	26	103
SU1-07	05-TF-0163	1.51	0	6.31	21	163
SU1-08	05-TF-0163	0	4.94	0	56	223
SU1-09	05-TF-0163	0	0.5	0	26	230
SU1-10	05-TF-0163	3.04	0	7.98	**416**	830

Roofs	Avg	0.455	0.829	1.506	80.5	219.5
	SD	1.024774	1.563248	3.007565	120.7718	223.8557
	Max	3.04	4.94	7.98	416	830
	#	10	10	10	10	10
	+/-	0.635149	0.968892	1.864071	74.85367	138.7445

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	Survey Unit 1				
	Smearable			Fixed	
	α	β	H^3	α	β
Number	20	20	20	20	20
Avg	0.1705	0.9135	1.746	17.35	774.25
SD	0.475676527	1.6706799	2.10443742	15.5132371	429.12627
Max	1.92	5.83	7.56	64	1369
+/-	0.20847443	0.73220775	0.92231036	6.79897594	188.07288
	Survey Unit 2				
Number	20	20	20	20	20
Avg	0.548	0.607	1.1105	43.6	187.2
SD	0.888965099	0.87224514	2.03408967	25.361388	116.33418
Max	2.68	2.55	6.91	88	340
+/-	0.389606133	0.38227829	0.8914791	11.1151184	50.985704
	Survey Unit 3				
Number	26	26	26	26	26
Avg	0.348461538	0.58680769	8.70923077	6.34615385	152.42308
SD	0.668459078	0.88263433	12.8446157	8.50384528	105.64475
Max	2.02	3.15	49.57	29	380
+/-	0.256947397	0.33927371	4.9373113	3.26877289	40.608536
	Survey Unit 4				
Number	20	20	20	20	20
Avg	0.574	0.753	1.083	31.6	225.4
SD	1.313706688	1.08858237	1.84043788	15.67566	199.80738
Max	4.15	3.49	6.68	56	852
+/-	0.575757342	0.47709226	0.80660746	6.8701609	87.569446

	Instrument Data				α Bkg	β Bkg
	Inst	SN	CDD	RSDS	(cpm)	(cpm)
SU-1	2350/43-68	5854/5861	7/20/2005	05-TF-0159	2	125
SU-2	2360/43-89	5691/5811	8/4/2005	05-TF-0110	1	199
SU-3	2350/43-68	5854/5861	7/20/2005	05-TF-0151	2.6	130
SU-4	2360/43-89	5691/5811	8/4/2005	05-TF-0107	1	140
QC SU-1 & 3	2350/43-68	5904/5905	2/22/2006	05-TF-0162	0	109
QC SU-2 & 4	2360/43-89	5691/5811	8/4/2005	05-TF-0162	4	145

Graph Data Alpha

	Survey Unit 1	Survey Unit 2	Survey Unit 3	Survey Unit 4
AVG	17.35	43.6	6.35	31.60
MAX	64	88	29	56

Graph Data Beta

	Survey Unit 1	Survey Unit 2	Survey Unit 3	Survey Unit 4
AVG	774.25	187.20	152.42	225.40
MAX	1369	340	380	852

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Replicate Fixed Point QC

			alpha (dpm/100cm2)			beta (dpm/100cm2)		
	Location #	RSDS#	initial	2s	replicate	initial	2s	replicate
1	SU4-07QC	05-TF-0162	56	14.97	8	96	19.60	60
2	SU4-13QC	05-TF-0162	8	5.66	4	256	32.00	70
3	SU4-15QC	05-TF-0162	8	5.66	0	852	58.38	120
4	SU4-19QC	05-TF-0162	56	14.97	8	304	34.87	262
5	SU2-06QC	05-TF-0162	8	5.66	28	308	35.10	392
6	SU2-10QC	05-TF-0162	88	18.76	8	64	16.00	168
7	SU2-11QC	05-TF-0162	8	5.66	12	216	29.39	530
8	SU2-13QC	05-TF-0162	80	17.89	32	340	36.88	508
9	SU3-01QC	05-TF-0162	26	10.20	26	285	33.76	363
10	SU3-03QC	05-TF-0162	29	10.77	30	190	27.57	36
11	SU3-11QC.	05-TF-0162	3	3.46	8	162	25.46	227
12	SU3-04QC	05-TF-0162	3	3.46	8	257	32.06	73
13	SU1-04QC	05-TF-0162	4	4.00	38	333	36.50	254
14	SU1-08QC	05-TF-0162	64	16.00	23	1198	69.22	1279
15	SU1-17QC	05-TF-0162	4	4.00	23	969	62.26	844
16	SU1-03QC	05-TF-0162	0	0.00	15	114	21.35	200
	Variance (S2) =		930.5625		133.39583	110250.7		109463.32
	Ratio				6.9759488			1.0071928
	Agreement				NO			YES

QC Measurements

	Location	RSDS#	α	β
1	SU4-07QC	05-TF-0162	8	60
2	SU4-13QC	05-TF-0162	4	70
3	SU4-15QC	05-TF-0162	0	120
4	SU4-19QC	05-TF-0162	8	262
5	SU2-06QC	05-TF-0162	28	392
6	SU2-10QC	05-TF-0162	8	168
7	SU2-11QC	05-TF-0162	12	530
8	SU2-13QC	05-TF-0162	32	508
9	SU3-01QC	05-TF-0162	26	363
10	SU3-03QC	05-TF-0162	30	36
11	SU3-11QC.	05-TF-0162	8	227
12	SU3-04QC	05-TF-0162	8	73
13	SU1-04QC	05-TF-0162	38	254
14	SU1-08QC	05-TF-0162	23	1279
15	SU1-17QC	05-TF-0162	23	844
16	SU1-03QC	05-TF-0162	15	200

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SURVEY PLAN FORM

SP NUMBER	24-01	**DATE OF REQUEST**	December 15, 2004
TYPE OF SP	☐ FSS ☒ CHARACTERIZATION ☐ REFERENCE ☐ OTHER:		
AREA/LOCATION	Buildings 24 and PH		
PURPOSE	The purpose of this SP is to characterize Buildings 24 and PH to support decisions on final disposition.		
SURVEY UNIT # 1	Bldg. 24 Interior Surfaces	**SURVEY UNIT # 4**	Bldg. PH Exterior Surfaces
SURVEY UNIT # 2	Bldg. 24 Exterior Surfaces	**Judgmental**	Roofs
SURVEY UNIT # 3	Bldg. PH Interior Surfaces	**N/A**	

SAMPLE TYPE

☐ **SURFACE SOIL SAMPLE:**

☒ **SEDIMENT SAMPLE:** See specific sediment sampling instructions on page 3.

☐ **OTHER:**

SURVEY TYPE

SURFACE SCAN	☐ BETA ☐ GAMMA ☒ ALPHA	**INST. TYPE**	L-2350	**SCAN RATE & DETECTOR DISTANCE FROM SURFACE**	Scan surface at a rate of 1" per second at a distance of not more than ¼" from surface
		PROBE TYPE	43-37 Floor Probe or 43-68 Hand Probe		
STATIC MEASURE-MENT	☒ BETA ☐ GAMMA ☒ ALPHA	**INST. TYPE**	L-2350	**COUNT TIME & DETECTOR DISTANCE FROM SURFACE**	Perform 2 minute alpha count and 1 minute beta count at specified locations not more than ¼" from surface
		PROBE TYPE	43-68 Hand Probe		
STATIC MEASURE-MENT	☐ BETA ☐ GAMMA ☐ ALPHA	**INST. TYPE**		**COUNT TIME & DETECTOR DISTANCE FROM SURFACE**	
		PROBE TYPE			
DOSE RATE MEASURE-MENT	☐ BETA ☐ GAMMA ☐ ALPHA	**INST. TYPE**		**DETECTOR DISTANCE FROM SURFACE**	
		PROBE TYPE			

OTHER SURVEY TYPES OR COMMENTS

All surveys shall be performed and documented in accordance with Mound Radiological Control procedures.

Static measurements on exterior surfaces may be performed using a L 2360 with 43-93 alpha/beta probe in accordance with MD 80036, Op 30031

Rad Con shall document all discrepancies from the above sampling and surveying instructions on the Radiological Survey Data Sheet (RSDS).

Ensure the surfaces of interest in the survey unit are dry and free of loose debris or other material that may obscure alpha measurement.

Additional Surveys

Perform a confirmatory surface contamination survey of building interior and exterior surfaces immediately prior to demolition, to demonstrate that building surfaces have not been contaminated by rail spur soil staging/loading activities.

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SP NUMBER	24-01	DATE OF REQUEST	December 15, 2004

SPECIFIC SAMPLING / SURVEY INSTRUCTIONS

Safety Considerations

1. Obtain assistance from the responsible building custodian for access to upper walls, ceilings, roof, etc. Exercise extreme caution when performing surveys from ladders or scaffolds. Follow appropriate site safety procedures when accessing areas requiring fall protection measures.
2. Ensure ventilation units are de-energized prior to attempting to collect a sample. Obtain approval and assistance from the responsible building custodian to dismantle any equipment for sample collection.

Floor Scan Measurements using a Ludlum 2350 with 43-37 alpha probe

1. Set the Ludlum 2350-1 datalogger to alarm at 75dpm/100cm^2 in the ratemeter mode.
2. Perform a floor scan of major walkways throughout each building.
3. Perform a 30 second integrated count at every location where an alarm is obtained. In addition, obtain a 30 second integrated count at any point where an audible or visual indication of elevated activity is observed at twice the background rate.
4. Record the location of the area scanned on the RSDS map and document the results of any integrated counts.

Sediment Samples

1. Collect approximately 250ml of debris from each accessible ventilation unit opening, floor drain, and any other accessible area where debris has accumulated. Collect at least 1 sediment sample from the bottom of the water tank.
2. Document sample information and description of material on Attachment 1.
3. Label sample container with sample number, date and time of collection, and location in accordance with Mound procedures.
4. Perform a static alpha and beta measurement at each sediment sample location. Obtain a representative smear of each sample location.
5. Show sample location and static measurement results on the RSDS map.
6. Submit sediment samples to laboratory for gamma spectroscopy analysis. Submit smears for gross alpha and beta analysis.
7. Additional intrusive samples may be collected in areas of elevated activity as determined by the MARSSIM Engineer.

Static Measurements Using L 2350 with 43-68 alpha/beta probe (or equivalent)

1. Perform an alpha and beta count on at least twenty (20) data points in each survey unit. Data points are selected by the surveyor and should be broadly representative of the entire survey unit.
2. Record location, material type, and results on RSDS map in accordance with Mound Rad Con procedures.
3. Document gross activity for each location (No "<" values). Record instrument background at survey location.

Loose Surface Contamination

1. Obtain a smear of 100cm^2 at each survey point identified above.
2. Count each smear for alpha, beta, and H^3. H^3 analysis is not required for building external surfaces.
3. Record location and results on RSDS map in accordance with Mound Rad Con procedures.

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Specific Survey and Sampling Instructions (continued)

Quality Control

1. QC measurements will be performed by re-surveying 16 data points using the same instrument as the original measurement. Data points selected for resurvey should be representative of the entire data set and include the highest and lowest readings.
2. Sediment samples or smears with measured activity above the MDA may be resubmitted for replicate analysis. Ensure alpha and beta smear results are obtained before performing H^3 analysis.
3. Record location, material, and results on RSDS in accordance with Mound Rad Con procedures.

APPROVAL SIGNATURES

MARSSIM Engineer	Robert Coblentz	**DATE**	December 15, 2004
Technical Reviewer	Stephen E. Lehrer	**DATE**	12/15/04
Rad Con Manager	A. Stephen Collas	**DATE**	12/15/04

SP CLOSE-OUT SIGNATURES

MARSSIM Engineer	RMCoblentz	**DATE**	04/12/05
Technical Reviewer	CLline	**DATE**	4/12/05
Rad Con Manager	ASCollas	**DATE**	4/13/05

COMMENTS

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Sample Data Collection Sheet
Attachment 1

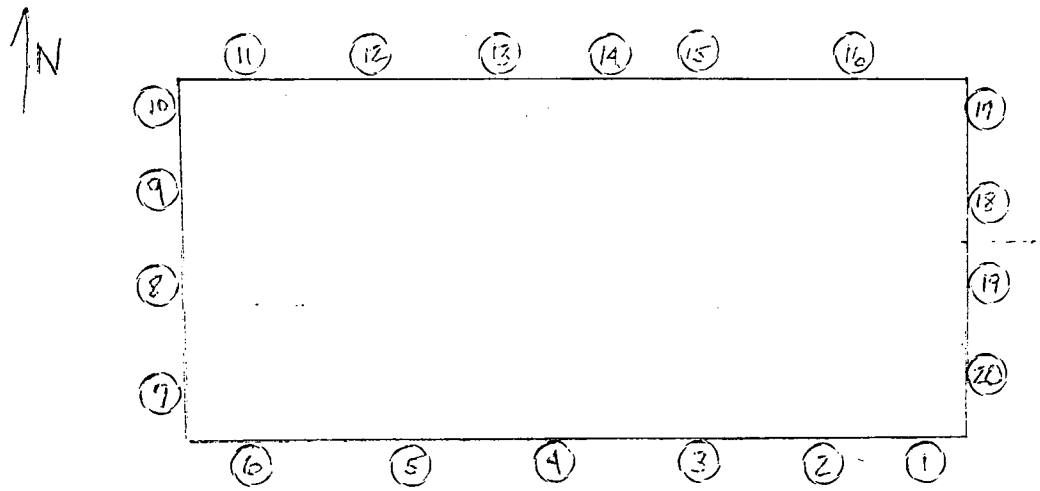
Sample Number	Sample Date	Sample Time	Sample Volume /Weight	Sample Description	Sampled By	Chain of Custody Relinquished to Lab			
						Date	Time	Initials	Rec'd By
24-01-									
24-01-									
24-01-									
24-01-									
24-01-									
24-01-									
24-01-									
24-01-									
24-01-									
24-01-									
24-01-									
24-01-									
24-01-									

RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG./AREA/ROOM) PH Bldg.	SURVEY NO. 05-TF-0107
PURPOSE: Pre-demo survey - Unit 4 Exterior walls	RWP NO N/A
	DATE: 3-14-05
	TIME: 1630

MAP / DRAWING

TOP VIEW OF PH



See attached for smear results and integrated counts

Bkgd 1 cpm α
140 cpm β-

D.L. 1.4 dpm α
30 dpm β-

LEGEND:

- # = mrem/hr (γ) whole body
- #E = mrem/hr (β+η+γ) extremity on contact
- K = factor of 1000
- —·—·—·· = radiological boundary
- # - mrem/hr neutron
- # - air sample number
- # - swipe number
- #α or /β - direct contamination measurement in dpm/100cm²

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
2360-89	5691/5811	8-4-05
2360-89	5755/5723	1-31-06
	A	
	N	

[redacted]	HP# 7836/7244	Date: 3/16/05
[redacted]		
Counted by: (Signature) See Attached	HP#	Date:
Counted by: (Printed Name)		
Reviewed/A[redacted]	HP# 7707	Date: 3/21/05
Reviewed/Approved by: (Print Name) [redacted]		

ML-9620 (2-98)

G 20/72

Survey No. 05-TF-0107

RADIOLOGICAL SURVEY DATA SHEET

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
1	See Attached			SU-4/exterior walls
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
		NFE		

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
		NFE		

COMMENTS: SU ⇒ survey unit NFE ⇒ No Further Entries
All smears field checked with 2360 prior to submitting to count lab.

NOTES:
1. See MD-80036 10002 for calculations of WB, extremity and skin dose rates.
2. To request RO Count Room analysis for β/γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout c results are attached, write "see attached" in column.
3. Annotate special sample type (e.g., soil, water), special identifiers or otherwise in Comments. If needed, mark N/A.

G-21/7

Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Aqua
Data file name: SMEAR078
Batch Ended: 3/15/05 9:27

Crosstalk correction performed.

Recalibration Date: 11/03/05
Serial Number: 26966-1

Batch ID: 05-TF-0107 OFFFNER 03/15/05 TAS

Detector ID	Sample ID	Alpha Activity DPM	Alpha Activity σ	Alpha Activity flags	Beta Activity DPM	Beta Activity σ	Beta Activity flags
A1	1	0.00	2.21		2.23	2.56	
A2	2	1.73	2.24		2.88	2.54	
A3	3	0.00	2.16		0.00	1.27	
A4	4	0.00	2.04		0.00	1.78	
B1	5	0.00	1.97		0.97	2.28	
B2	6	0.00	2.05		0.00	1.72	
B3	7	0.00	1.96		1.32	2.50	
B4	8	1.48	1.89		0.00	1.65	
C1	9	4.12	3.30		0.13	2.73	
C2	10	0.00	2.20		0.97	2.72	
C3	11	0.00	2.10		0.00	1.90	
C4	12	0.00	2.07		0.00	2.23	
D1	13	0.00	2.20		0.00	2.08	
D2	14	4.15	3.04		0.00	1.30	
D3	15	0.00	1.96		1.37	2.48	
D4	16	0.00	2.16		0.00	1.98	
A1	17	0.00	2.22		3.49	2.86	
A2	18	0.00	2.20		0.00	1.30	
A3	19	0.00	2.20		1.70	2.15	
A4	20	0.00	2.03		0.00	1.29	

JC JC

G-22/72

JC 3/15/05 Page 1 of 1

Page 3 of 6

15 Mar 2005 13:14 ALPHA/BETA - 1.09 ~~Page #1~~
Protocol #: 2 PW H3 #403727 User : 2

Time: 2.00
Data Mode: DPM Nuclide: SMGLS02 Quench Set: SMGLS02
Background Subtract: 1st Vial

	LL	UL	LCR	2S%	BKG
Region A:	0.5	- 18.6	0	0.0	7.49
Region B:	2.0	- 18.6	0	0.0	6.87
Region C:	40.0	- 2000	0	0.0	11.70

Quench Indicator: tSIE/AEC
Ext Std Terminator: Count
05-TF-0107 L. OEFFNER (20) AG
Coincidence Time(ns): 18
Delay Before Burst(ns): Normal
Protocol Data Filename: C:\DATA\PROT2.DAT
Count Data Filename: C:\DATA\SDATA2.DAT

S#	TIME	CPMA	CPMB	LUM	FLAG	tSIE	DPM1	2SIGMA	CPMC
-1	10.00	7.49	6.87	7	B	627.41		0.00	11.70
0	2.00	596.22	571.87	1		610.18	1243.85	116.44	0.00
1	2.00	1.25	1.55	0		622.75	2.57	9.34	0.00
2	2.00	0.00	0.00	0		602.74	0.00	0.00	0.00
3	2.00	0.00	0.00	13		568.81	0.00	0.00	0.00
4	2.00	0.67	0.90	0		553.93	1.46	9.64	0.80
5	2.00	0.00	0.00	0		557.04	0.00	0.00	0.00
6	2.00	0.00	0.00	11		514.49	0.00	0.00	0.00
7	2.00	0.00	0.00	8		550.44	0.00	0.00	0.00
8	2.00	2.01	1.95	5		548.50	4.44	10.34	0.00
9	2.00	0.00	0.00	0		575.91	0.00	0.00	0.00
10	2.00	0.00	0.00	17		492.80	0.00	0.00	0.00
11	2.00	0.00	0.00	0		573.72	0.00	0.00	0.00
12	2.00	3.03	3.47	14		550.65	6.68	10.80	2.30
13	2.00	0.14	0.69	13		467.52	0.33	10.33	0.00
14	2.00	0.00	0.00	0		600.80	0.00	0.00	0.30
15	2.00	0.00	0.00	8		597.51	0.00	0.00	0.00
16	2.00	1.48	0.40	6		636.67	3.02	9.33	0.00
17	2.00	1.01	0.49	0		624.17	2.09	9.22	0.00
18	2.00	0.51	0.56	0		605.37	1.07	9.13	0.80
19	2.00	0.00	0.00	0		602.38	0.00	0.00	0.00
20	2.00	0.00	0.00	7		620.22	0.00	0.00	0.00

JC

PH-Bldg. Pre-Demo Survey-Unit 4 (exterior walls)

RSDS#: 05-TF-0107 RCT: MO RCT: SMC

43-89 ALPHA BKG:	1	Factor	8	PROBE AREA:	100	cm2	Surface Eff:	1	ALPHA
43-89 BETA BKG:	140	Factor	4	PROBE AREA:	100	cm2	Surface Eff:	1	BETA

LOCATION	2360#	RCT ID	PROBE	RAD TYPE	ITEM #	10:00	TIME	CNTS	CT TIME (sec)	dpm/100cm2
3 ft.	5755	7836	5723	ALPHA	1	3/14/05	11:00	5	60	32
4 ft.	5755	7836	5723	ALPHA	2	3/14/05	11:00	5	60	32
6 ft.	5755	7836	5723	ALPHA	3	3/14/05	11:00	4	60	24
2 ft.	5755	7836	5723	ALPHA	4	3/14/05	11:00	4	60	24
6 ft.	5755	7836	5723	ALPHA	5	3/14/05	11:00	5	60	32
3 ft.	5755	7836	5723	ALPHA	6	3/14/05	11:00	6	60	40
5 ft.	5755	7836	5723	ALPHA	7	3/14/05	11:00	8	60	56
2 ft.	5755	7836	5723	ALPHA	8	3/14/05	11:00	4	60	24
6 ft.	5755	7836	5723	ALPHA	9	3/14/05	11:00	6	60	40
3 ft.	5755	7836	5723	ALPHA	10	3/14/05	11:00	7	60	48
6 ft.	5755	7836	5723	ALPHA	11	3/14/05	11:00	8	60	56
2 ft.	5755	7836	5723	ALPHA	12	3/14/05	11:00	4	60	24
5 ft.	5755	7836	5723	ALPHA	13	3/14/05	11:00	2	60	8
2 ft.	5755	7836	5723	ALPHA	14	3/14/05	11:00	5	60	32
3 ft.	5755	7836	5723	ALPHA	15	3/14/05	11:00	2	60	8
3 ft.	5755	7836	5723	ALPHA	16	3/14/05	11:00	2	60	8
6 ft.	5755	7836	5723	ALPHA	17	3/14/05	11:00	3	60	16
1 ft.	5755	7836	5723	ALPHA	18	3/14/05	11:00	4	60	24
5 ft.	5755	7836	5723	ALPHA	19	3/14/05	11:00	8	60	56
3 ft.	5755	7836	5723	ALPHA	20	3/14/05	11:00	7	60	48
3 ft.	5755	7836	5723	BETA	1	3/14/05	11:00	163	60	92
4 ft.	5755	7836	5723	BETA	2	3/14/05	11:00	176	60	144
6 ft.	5755	7836	5723	BETA	3	3/14/05	11:00	154	60	56
2 ft.	5755	7836	5723	BETA	4	3/14/05	11:00	187	60	188
6 ft.	5755	7836	5723	BETA	5	3/14/05	11:00	168	60	112
3 ft.	5755	7836	5723	BETA	6	3/14/05	11:00	171	60	124
5 ft.	5755	7836	5723	BETA	7	3/14/05	11:00	164	60	96
2 ft.	5755	7836	5723	BETA	8	3/14/05	11:00	150	60	40
6 ft.	5755	7836	5723	BETA	9	3/14/05	11:00	170	60	120

05-TF-0107

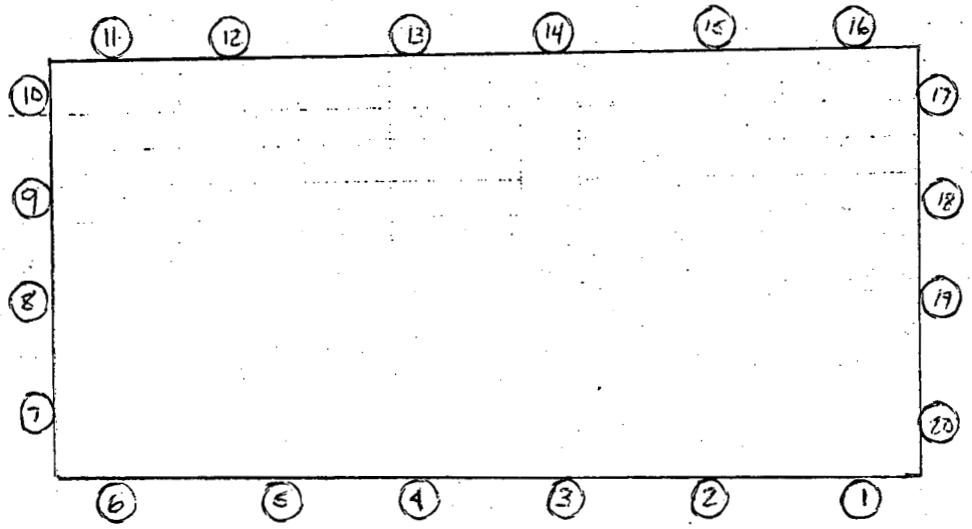
LOCATION	2360#	RCT ID	PROBE	RAD TYPE	ITEM #	10:00	TIME	CNTS	CT TIME (sec)	dpm/100cm2
3 ft.	5755	7836	5723	BETA	10	3/14/05	11:00	179	60	156
6 ft.	5755	7836	5723	BETA	11	3/14/05	11:00	186	60	184
2 ft.	5755	7836	5723	BETA	12	3/14/05	11:00	190	60	200
5 ft.	5755	7836	5723	BETA	13	3/14/05	11:00	204	60	256
2 ft.	5755	7836	5723	BETA	14	3/14/05	11:00	176	60	144
3 ft.	5755	7836	5723	BETA	15	3/14/05	11:00	353	60	852
3 ft.	5755	7836	5723	BETA	16	3/14/05	11:00	202	60	248
6 ft.	5755	7836	5723	BETA	17	3/14/05	11:00	306	60	664
1 ft.	5755	7836	5723	BETA	18	3/14/05	11:00	189	60	196
5 ft.	5755	7836	5723	BETA	19	3/14/05	11:00	216	60	304
3 ft.	5755	7836	5723	BETA	20	3/14/05	11:00	223	60	332

RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG./AREA/ROOM) Bldg 24	SURVEY NO. 05-TF-0110
PURPOSE: Pre-Demo Survey: Exterior Walls Survey Unit 2	RWP NO. N/A
	DATE: 3-16-05
	TIME: 1100

MAP / DRAWING

TOP VIEW OF BLDG 24



LEGEND: # = mrem/hr (γ) whole body
#E = mrem/hr (β+η+γ) extremity on contact
K = factor of 1000
—·—·— = radiological boundary

= mrem/hr neutron

= swipe number

= air sample number

#/α or /β = direct contamination measurement in dpm/100 cm²

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
Lud 2360/4389	5691/5811	8-4-05 ~~8-16-05~~ 4-7-05
	A	
	N	

[redacted]	# 7836 7244	Date: 3-17-05
Counted by: (Signature) See Attached	HP#	Date:
Counted by: (Print Name) ↓		
Revie[redacted]	HP# 7707	Date: 4-5-05
Reviewed/Approved by: (Print N[redacted]		

G 26/72

Survey No. 05 - TF - 0110

RADIOLOGICAL SURVEY DATA SHEET

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
1	See Attached			exterior walls
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
		NFE		

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
		NFE		

COMMENTS: NFE = No Further Entries

All smears field checked with 2360 prior to submitting to count lab.

NOTES:
1. See MD-80036 10002 for calculations of WB, extremity and skin dose rates.
2. To request RO Count Room analysis for β/γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout of results are attached, write "see attached" in column.
3. Annotate special sample type (e.g., soil, water), special identifiers or otherwise in Comments. If needed, mark N/A.

ML-9620A (4-98)

E 27/72

Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Aqua
Data file name: SMEAR106
Batch Ended: 3/16/05 14:23

Crosstalk correction performed.

Recalibration Date: 11/03/05
Serial Number: 26966-1

Batch ID: 05-TF-0110 OEFFNER (20) AG

Detector ID	Sample ID	Alpha Activity DPM	Alpha Activity σ	Alpha Activity flags	Beta Activity DPM	Beta Activity σ	Beta Activity flags
A1	1	0.00	2.16		0.00	1.33	
A2	2	1.74	2.20		0.00	1.31	
A3	3	0.00	2.18		0.48	1.76	
A4	4	0.00	2.03		0.00	1.29	
B1	5	0.00	1.97		0.97	2.28	
B2	6	1.49	2.02		0.00	1.26	
B3	7	0.00	1.98		2.55	2.78	
B4	8	0.00	1.89		0.00	1.65	
C1	9	0.00	2.37		0.50	2.73	
C2	10	0.00	2.20		0.97	2.72	
C3	11	0.00	2.11		0.22	2.31	
C4	12	1.51	2.10		2.33	2.86	
D1	13	0.00	2.20		0.00	2.08	
D2	14	0.00	2.23		1.26	2.19	
D3	15	1.62	1.94		0.00	1.48	
D4	16	2.68	3.01		0.00	1.44	
A1	17	1.92	2.16		0.00	1.33	
A2	18	0.00	2.20		0.00	1.30	
A3	19	0.00	2.18		0.48	1.76	
A4	20	0.00	2.07		2.38	2.49	

JC JC

JC 3/17/05 ~~Page 1 of 1~~ Page 3 of 6

28/72

16 Mar 2005 16:43 ALPHA/BETA - 1.09 Page #1
Protocol #: 2 PW H3 #403727 User : 21

Time: 2.00
Data Mode: DPM Nuclide: SMGLS02 Quench Set: SMGLS02
Background Subtract: 1st Vial

	LL	UL	LCR	2S%	BKG
Region A:	0.5	- 18.6	0	0.0	7.87
Region B:	2.0	- 18.6	0	0.0	7.71
Region C:	40.0	- 2000	0	0.0	13.33

Quench Indicator: tSIE/AEC
~~Ext Std~~ Terminator: Count
05-TF-0110 DEFFNER (20) AG
Coincidence Time(ns): 18
Delay Before Burst(ns): Normal
Protocol Data Filename: C:\DATA\PROT2.DAT
Count Data Filename: C:\DATA\SDATA2.DAT

S#	TIME	CPMA	CPMB	LUM	FLAG	tSIE	DPM1	2SIGMA	CPMC
-1	10.00	7.87	7.71	8	B	626.00		0.00	13.33
0	2.00	591.99	571.61	0		601.40	1244.50	116.68	0.00
1	2.00	0.00	0.00	0		550.19	0.00	0.00	0.00
2	2.00	0.00	0.00	0		598.08	0.00	0.00	0.00
3	2.00	1.63	1.79	0		623.11	3.36	9.71	0.00
4	2.00	0.13	0.00	6		614.06	0.26	9.10	0.00
5	2.00	0.00	0.00	0		606.46	0.00	0.00	0.00
6	2.00	0.00	0.00	0		618.72	0.00	0.00	0.00
7	2.00	0.00	0.00	0		566.14	0.00	0.00	0.41
8	2.00	2.13	2.01	0		606.50	4.45	10.08	0.00
9	2.00	0.13	0.29	0		629.19	0.26	8.98	0.00
10	2.00	0.00	0.00	0		646.05	0.00	0.00	0.00
11	2.00	0.00	0.00	0		611.86	0.00	0.00	0.00
12	2.00	1.62	1.28	0		549.00	3.56	10.37	0.00
13	2.00	1.63	1.22	0		605.11	3.41	9.86	0.00
14	2.00	0.00	0.00	0		607.95	0.00	0.00	0.00
15	2.00	0.00	0.00	0		613.44	0.00	0.00	0.00
16	2.00	0.00	0.00	0		630.35	0.00	0.00	0.00
17	2.00	3.33	3.19	0		614.82	6.91	10.51	0.00
18	2.00	0.00	0.00	0		598.19	0.00	0.00	0.00
19	2.00	0.00	0.05	0		594.56	0.00	0.00	0.00
20	2.00	0.00	0.00	0		548.79	0.00	0.00	0.00

G-29/72

Bldg. 24 Pre-Demo Survey-Unit 2 (exterior walls)

RSDS#: 05-TF-0110 RCT: MD RCT: JMC

43-89 ALPHA BKG:	1	Factor	8	PROBE AREA:	100	cm2	Surface Eff:	1	ALPHA
43-89 BETA BKG:	199	Factor	4	PROBE AREA:	100	cm2	Surface Eff:	1	BETA

LOCATION	2360#	RCT ID	PROBE	RAD TYPE	ITEM #	10:00	TIME	CNTS	CT TIME (sec)	dpm/100cm2
7 ft.	5691	7836	5811	ALPHA	1	3/16/05	10:00	7	60	48
2 ft.	5691	7836	5811	ALPHA	2	3/16/05	10:00	4	60	24
4 ft.	5691	7836	5811	ALPHA	3	3/16/05	10:00	9	60	64
1 ft.	5691	7836	5811	ALPHA	4	3/16/05	10:00	4	60	24
6 ft.	5691	7836	5811	ALPHA	5	3/16/05	10:00	6	60	40
3 ft.	5691	7836	5811	ALPHA	6	3/16/05	10:00	2	60	8
6 ft.	5691	7836	5811	ALPHA	7	3/16/05	10:00	10	60	72
2 ft.	5691	7836	5811	ALPHA	8	3/16/05	10:00	5	60	32
5 ft.	5691	7836	5811	ALPHA	9	3/16/05	10:00	6	60	40
1 ft.	5691	7836	5811	ALPHA	10	3/16/05	10:00	12	60	88
6 ft.	5691	7836	5811	ALPHA	11	3/16/05	10:00	2	60	8
1 ft.	5691	7836	5811	ALPHA	12	3/16/05	10:00	8	60	56
5 ft.	5691	7836	5811	ALPHA	13	3/16/05	10:00	11	60	80
3 ft.	5691	7836	5811	ALPHA	14	3/16/05	10:00	7	60	48
4 ft.	5691	7836	5811	ALPHA	15	3/16/05	10:00	4	60	24
2 ft.	5691	7836	5811	ALPHA	16	3/16/05	10:00	4	60	24
5 ft.	5691	7836	5811	ALPHA	17	3/16/05	10:00	4	60	24
6 ft.	5691	7836	5811	ALPHA	18	3/16/05	10:00	11	60	80
1 ft.	5691	7836	5811	ALPHA	19	3/16/05	10:00	3	60	16
4 ft.	5691	7836	5811	ALPHA	20	3/16/05	10:00	10	60	72
7 ft.	5691	7836	5811	BETA	1	3/16/05	10:00	259	60	240
2 ft.	5691	7836	5811	BETA	2	3/16/05	10:00	184	60	0
4 ft.	5691	7836	5811	BETA	3	3/16/05	10:00	278	60	316
1 ft.	5691	7836	5811	BETA	4	3/16/05	10:00	243	60	176
6 ft.	5691	7836	5811	BETA	5	3/16/05	10:00	252	60	212
3 ft.	5691	7836	5811	BETA	6	3/16/05	10:00	276	60	308
6 ft.	5691	7836	5811	BETA	7	3/16/05	10:00	271	60	288
2 ft.	5691	7836	5811	BETA	8	3/16/05	10:00	254	60	0
5 ft.	5691	7836	5811	BETA	9	3/16/05	10:00	238	60	156

05-TF-0110

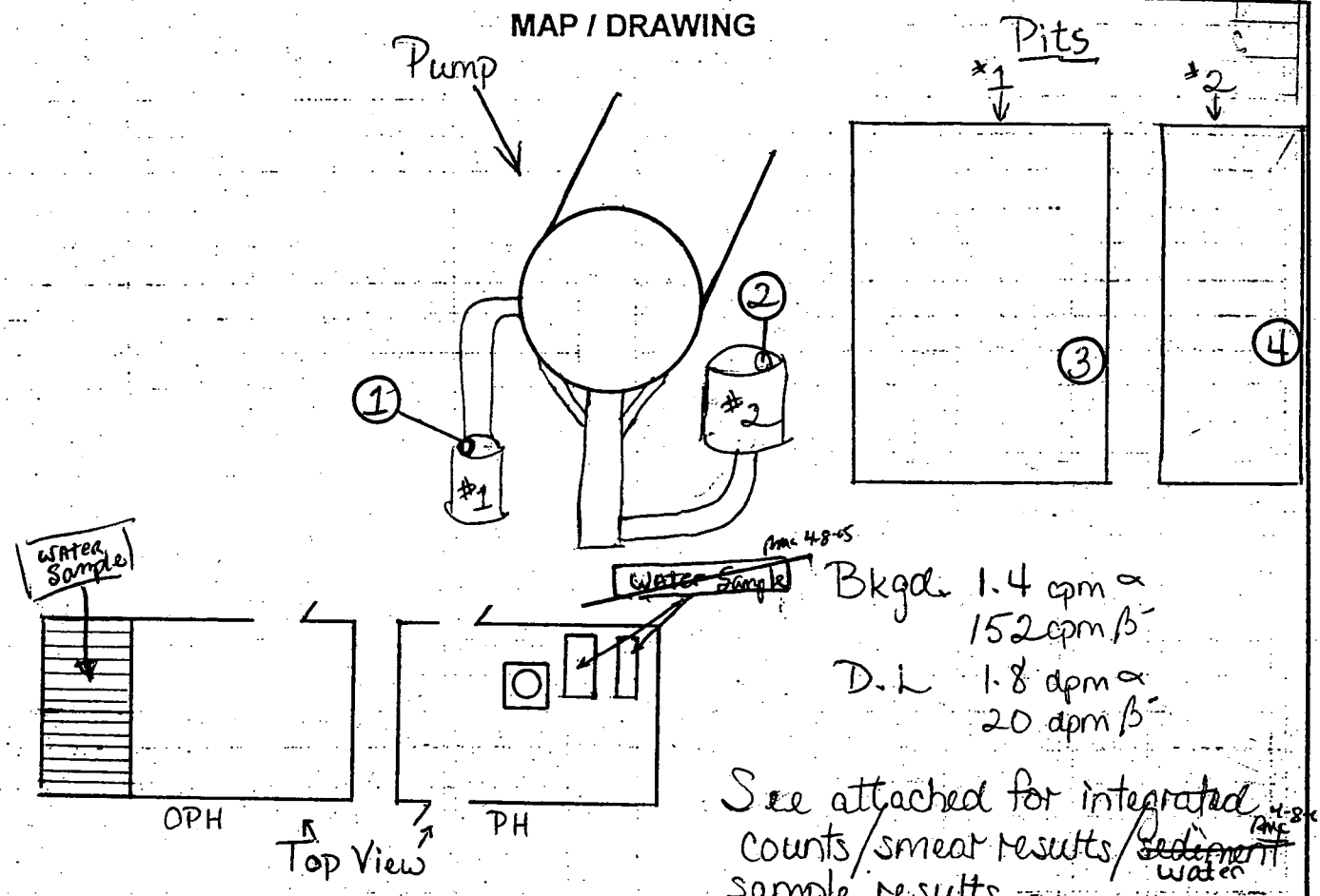
LOCATION	2360#	RCT ID	PROBE	RAD TYPE	ITEM #	10:00	TIME	CNTS	CT TIME (sec)	dpm/100cm2
1 ft.	5691	7836	5811	BETA	10	3/16/05	10:00	215	60	64
6 ft.	5691	7836	5811	BETA	11	3/16/05	10:00	253	60	216
1 ft.	5691	7836	5811	BETA	12	3/16/05	10:00	188	60	0
5 ft.	5691	7836	5811	BETA	13	3/16/05	10:00	284	60	340
3 ft.	5691	7836	5811	BETA	14	3/16/05	10:00	256	60	228
4 ft.	5691	7836	5811	BETA	15	3/16/05	10:00	255	60	224
2 ft.	5691	7836	5811	BETA	16	3/16/05	10:00	237	60	152
5 ft.	5691	7836	5811	BETA	17	3/16/05	10:00	254	60	220
6 ft.	5691	7836	5811	BETA	18	3/16/05	10:00	276	60	308
1 ft.	5691	7836	5811	BETA	19	3/16/05	10:00	192	60	0
4 ft.	5691	7836	5811	BETA	20	3/16/05	10:00	273	60	296

G-31/72

RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG/AREA/ROOM) ~~OH~~ Pump House	SURVEY NO. 05-07-0148
PURPOSE: Characterization pre-demo survey of drains & pits	RWP NO. N/A
	DATE: 3-30-05
	TIME: 1630

MAP / DRAWING



Bkgd. 1.4 cpm α
152 cpm β⁻
D.L 1.8 dpm α
20 dpm β⁻

See attached for integrated counts/smear results/~~sediment~~ water sample results

LEGEND: # = mrem/hr (γ) whole body
#E = mrem/hr (β+η+γ) extremity on contact
K = factor of 1000
= radiological boundary
= mrem/hr neutron
= air sample number
= swipe number
#/α or /β = direct contamination measurement in dpm/100 cm²

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
2360-89	5691/5811	8-4-05
	N A	

[redacted]	HP# 7244/7176	Date: 4/6/05
[redacted]		
Counted by: (Signature) See Attached	HP#	Date:
Counted by: (Print Name)		
Reviewed [redacted]	HP# 7707	Date: 4-8-05
Reviewed/Approved by: (Print Name) [redacted]		

Survey No.
05-TF-0148

RADIOLOGICAL SURVEY DATA SHEET

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
1	See Attached			I/s reservoir *1
2	↓	↓	↓	↓ *2
3				I/s pit *1
4	↓	↓	↓	↓ *2

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments

COMMENTS: I/s → inside; NFE → No Further Entries
All smears field checked with 2360 prior to submitting to count lab.

NOTES:
1. See MD-80036 10002 for calculations of WB, extremity and skin dose rates.
2. To request RO Count Room analysis for β/γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout of results are attached, write "see attached" in column.
3. Annotate special sample type (e.g., soil, water), special identifiers or otherwise in Comments. If needed, mark N/A.

G-33/74

ML-9620A (4-98)

Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Aqua
Data file name: SMEAR126
Batch Ended: 4/5/05 11:27

Crosstalk correction performed.

Recalibration Date: 11/03/05
Serial Number: 26966-1

Batch ID: 05-TF-0148 COLLINS (4) AG

Detector ID	Sample ID	Alpha Activity DPM	Alpha Activity σ	Alpha Activity flags	Beta Activity DPM	Beta Activity σ	Beta Activity flags
B1	1	1.69	1.95		0.00	1.98	
B2	2	0.00	2.07		0.00	2.08	
B3	3	0.00	1.99		3.77	3.04	
B4	4	0.00	1.89		0.00	1.65	

gc gc

G-34/72

gc 4/8/05 ~~Page 1 of 1~~

gc

Page 4

05 Apr 2005 14:50 ALPHA/BETA - 1.09 ~~Page #1~~
Protocol #: 6 PW H3 #403728 User : 2138

Time: 2.00
Data Mode: DPM Nuclide: SMGL02 Quench Set: SMGL02
Background Subtract: 1st Vial

	LL	UL	LCR	2S%	BKG
Region A:	0.5	- 18.6	0	0.0	8.23
Region B:	2.0	- 18.6	0	0.0	7.92
Region C:	40.0	- 2000	0	0.0	12.68

Quench Indicator: tSIE/AEC
~~Ext Std~~ Terminator: Count
05-TF-0148 J COLLINS (4) AG
~~Luminescence~~ Correction On
Coincidence Time(ns): 18
Delay Before Burst(ns): Normal
Protocol Data Filename: c:\data\prot1.dat
Count Data Filename: c:\data\SDATA6.DAT
Spectrum Data Drive & Path: c:\data

S#	TIME	CPMA	CPMB	LUM	FLAG	tSIE	DPM1	2Sigma	CPMC
-1	10.00	8.23	7.92	9	B	617.62		0.00	12.68
0	2.00	588.24	556.47	0		622.70	1070.40	90.00	0.00
1	2.00	0.21	0.52	0		399.41	0.50	10.57	0.00
2	2.00	0.00	0.00	0		460.63	0.00	0.00	0.00
3	2.00	0.00	0.00	0		381.86	0.00	0.00	0.00
4	2.00	0.00	0.00	0		476.98	0.00	0.00	0.00

JG

G-35/72

PH/OPH Bldg. Pre-Demo Survey (pits and reserviors)

RSDS#: 05-TF-0148 RCT: JMC RCT: JW

43-89 ALPHA BKG:	1.4	Factor	8	PROBE AREA:	100	cm2	Surface Eff:	1	ALPHA
43-89 BETA BKG:	152	Factor	4	PROBE AREA:	100	cm2	Surface Eff:	1	BETA

LOCATION	2360#	RCT ID	PROBE	RAD TYPE	ITEM #	10:00	TIME	CNTS	CT TIME (sec)	dpm/100cm2
reservoir #1	5691	7244	5811	ALPHA	1	4/4/05	11:00	6	120	13
reservoir #2	5691	7244	5811	ALPHA	2	4/4/05	11:00	6	120	13
* pit #1	5691	7244	5811	ALPHA	3	4/4/05	11:00	2	120	0
* pit #2	5691	7244	5811	ALPHA	4	4/4/05	11:00	4	120	5
reservoir #1	5691	7244	5811	BETA	1	4/4/05	11:00	224	120	0
reservoir #2	5691	7244	5811	BETA	2	4/4/05	11:00	190	120	0
* pit #1	5691	7244	5811	BETA	3	4/4/05	11:00	390	120	172
* pit #2	5691	7244	5811	BETA	4	4/4/05	11:00	294	120	0

* Intergrates and smears in pit 1,2 were taken just above water on walls / Insufficient sediment material for analysis, therefore smears & integrates only.

BWXT of Ohio, Inc.

ANALYTICAL SERVICES REQUEST FOR ANALYSIS

DATE SUBMITTED:	SAMPLE TYPE:	COLLECTED BY:	NUMBER OF SAMPLES
3-30-05	H2O	JW 7176	1

PROJECT/FUNCTION:	PRIMARY CONTACT/PHONE NO.:	MAIL STOP:
BOSS	Robert Coblentz	

CHARGE NUMBER:	DATE(S) COLLECTED:	RSDS# (if applicable):	ATTACHMENTS (list):
		05-JF-0148.	

ANALYSES REQUESTED (check):

- [x] ^3H
- [ ] Characterize/Approve for Sanitary or Storm Discharge. Estimate of Total Volume for Release_____ Approved_____
- [x] Gross Alpha
- [ ] Air Filter – Isotopic Analysis
- [ ] Characterization per MD-80036, Operation #10015
- [ ] Isotopic Analysis: Pu____ U____ Th____ Am____ Other____
- [ ] Other _____

ADDITIONAL INFORMATION:

NOTE: Attach additional information (e.g. RSDS, screening results, collection data, and gamma spec. results) if applicable

LAB IDENTIFICATION	SAMPLE LOCATION	SAMPLE NUMBER	RESULTS 3H uCi/L	RESULTS Gross Alpha DPM/mL
051941	oil pumphouse	1	1.50	<0.6

COMMENTS:

ANALYZED BY: R. Shedlak

DATE: 3-31-05

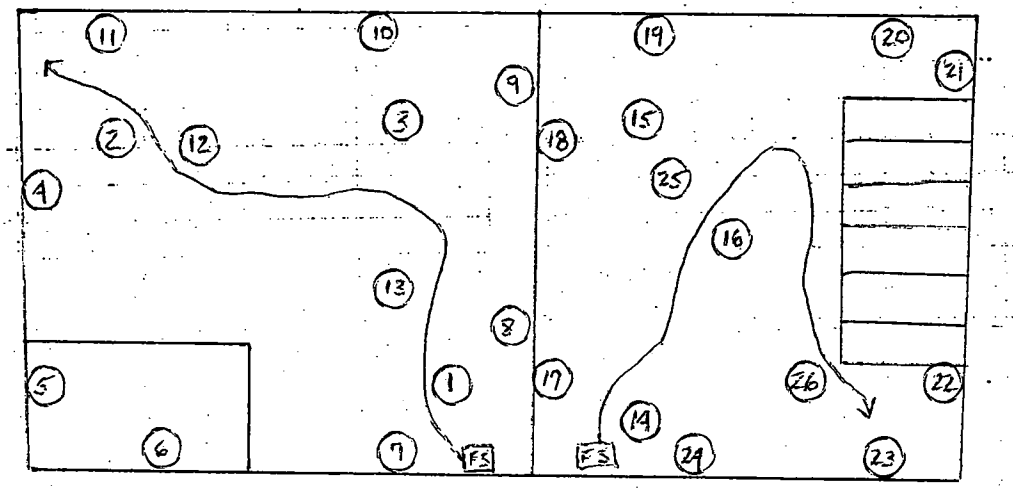
ML-5222 (1-01)

G-37/72

RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG/AREA/ROOM) Pumphouse	SURVEY NO. 05-TF-0151
PURPOSE: Pre - Demo Survey: S.U.-#3 Floors, walls, ceilings	RWP NO. N/A
	DATE: 3-31-05
	TIME: 1300

MAP / DRAWING



Pumphouse Top View

FS = indicates floor scan path

* No Alarms or elevated activity during floor scans, no intergrates performed

LEGEND: # = mrem/hr (γ) whole body
#E = mrem/hr (β+η+γ) extremity on contact
K = factor of 1000
— · — · — = radiological boundary
△# = mrem/hr neutron
= air sample number
(#) = swipe number
(#/α) or /β = direct contamination measurement in dpm/100 cm²

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
Lud 2350	5854 / 5861	7-20-05
Lud 2360 / 4389	5691 / 5811	8-4-05
	A	
	N	

[redacted]	HP# 7836 7544	Date: 4-4-05
[redacted]		
Counted by: (Signature) See Attached	HP#	Date:
Counted by: (Print Name)		
Review [redacted]	HP# 7707	Date: 4-5-05
Reviewed/Approved by: (Print Na [redacted]		

Survey No. 05-TF-0151

RADIOLOGICAL SURVEY DATA SHEET

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
1	See Attached			Floor
2				
3				
4				* wall 3ft
5				1ft
6				6ft
7				4ft
8				1ft
9				6ft
10				4.0ft
11				3ft
12				ceiling
13				
14				Floor
15				
16				
17				*wall 6ft
18				3ft
19				4ft
20				3ft
21				5ft
22				3ft
23				1ft
24				6ft
25				ceiling
26				
		N		A

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
		N	A	

COMMENTS: All smears field counted prior to count room submittal; all < 1Kdpm/100cm² α, β⁻ * Indicates height from floor

NOTES:
1. See MD-80036 10002 for calculations of WB, extremity and skin dose rates.
2. To request RO Count Room analysis for β/γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout of results are attached, write "see attached" in column.
3. Annotate special sample type (e.g., soil, water), special identifiers or otherwise in Comments. If needed, mark N/A.

G 39/72

ML-9620A (4-98)

Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Aqua
Data file name: SMEAR103
Batch Ended: 4/1/05 9:22

Crosstalk correction performed.

Recalibration Date: 11/03/05
Serial Number: 26966-1

Batch ID: 05-TF-0151 LOEFFNER (26) AG

Detector ID	Sample ID	Alpha Activity DPM	Alpha Activity σ	Alpha Activity flags	Beta Activity DPM	Beta Activity σ	Beta Activity flags
A1	1	0.00	2.16		0.00	1.34	
A2	2	0.00	2.21		0.54	1.81	
A3	3	0.00	2.18		0.48	1.76	
A4	4	1.40	2.04		0.00	1.78	
B1	5	0.00	1.97		0.97	2.28	
B2	6	0.00	2.05		0.00	1.72	
B3	7	0.00	1.95		0.10	2.17	
B4	8	0.00	1.90		0.43	2.00	
C1	9	0.00	2.34		0.00	1.97	
C2	10	0.00	2.18		0.00	2.37	
C3	11	1.75	2.10		0.00	1.90	
C4	12	0.00	2.10		2.49	2.86	
D1	13	0.00	2.23		3.15	3.23	
D2	14	2.02	2.17		0.00	1.30	
D3	15	1.45	1.95		0.00	2.04	
D4	16	0.00	2.16		0.00	1.98	
A1	17	0.00	2.16		0.00	1.33	
A2	18	0.00	2.23		1.79	2.20	
A3	19	0.00	2.16		0.00	1.27	
A4	20	0.00	2.05		1.15	2.16	
B1	21	0.00	1.97		0.97	2.28	
B2	22	1.49	2.07		0.00	2.08	
B3	23	0.00	1.96		1.32	2.50	
B4	24	0.00	1.87		0.00	1.20	
C1	25	0.00	2.39		1.84	3.04	
C2	26	0.95	2.16		0.00	1.96	

NO NO

G 40/74

3 of 6

AQ

01 Apr 2005 12:41 ALPHA/BETA - 1.09 Page #1
Protocol #: 4 PW H3 #410462 User : 2138

Time: 2.00
Data Mode: DPM Nuclide: SMGLS02 Quench Set: SMGLS02
Background Subtract: 1st Vial

	LL	UL	LCR	2S%	BKG
Region A:	0.5 -	18.6	0	0.0	13.40
Region B:	2.0 -	18.6	0	0.0	10.58
Region C:	40.0 -	2000	0	0.0	10.60

Quench Indicator: tSIE/AEC
Ext Std Terminator: Count
05-TF-0151 L.O. (26) AG
Luminescence Correction On
Coincidence Time(ns): 18
Delay Before Burst(ns): Normal
Protocol Data Filename: C:\DATA\PROT4.DAT
Count Data Filename: C:\DATA\SDATA4.DAT
Spectrum Data Drive & Path: C:\DATA

S#	TIME	CPMA	CPMB	LUM	FLAG	tSIE	DPM1	2Sigma	CPMC
-1	10.00	13.40	10.58	0	B	623.04		0.00	10.60
0	2.00	631.51	585.65	0		627.55	1153.36	90.55	0.00
1	2.00	4.10	2.43	3		606.03	7.63	11.82	0.00
2	2.00	0.00	0.00	0		572.24	0.00	0.00	0.00
3	2.00	0.00	0.43	0		583.50	0.00	0.00	0.00
4	2.00	0.00	0.00	15		622.50	0.00	0.00	0.00
5	2.00	0.60	1.45	4		652.06	1.08	10.34	0.40
6	2.00	0.00	0.00	7		634.66	0.00	0.00	0.00
7	2.00	4.77	2.19	5		639.70	8.62	11.69	0.00
8	2.00	4.77	2.23	3		633.99	8.67	11.74	0.00
9	2.00	6.95	1.98	5		617.45	12.80	12.52	0.00
10	2.00	10.10	7.61	6		660.95	17.97	13.38	0.00
11	2.00	12.60	9.78	0		649.27	22.62	13.65	0.00
12	2.00	0.00	0.00	17		600.34	0.00	0.00	0.00
13	2.00	0.00	0.00	0		599.88	0.00	0.00	0.90
14	2.00	1.78	0.00	6		615.07	3.28	11.03	0.00
15	2.00	2.80	0.38	0		573.71	5.34	11.74	0.00
16	2.00	0.00	0.00	4		563.15	0.00	0.00	0.00
17	2.00	13.96	7.01	0		589.26	26.31	14.68	0.00
18	2.00	7.10	1.03	2		643.71	12.81	12.29	0.40
19	2.00	0.00	0.00	0		636.06	0.00	0.00	0.90
20	2.00	0.00	0.00	0		604.56	0.00	0.00	0.00
21	2.00	26.78	15.53	1		611.25	49.57	17.34	0.00
22	2.00	0.00	0.00	0		645.66	0.00	0.00	0.00
23	2.00	0.00	0.00	0		576.06	0.00	0.00	0.00
24	2.00	0.00	0.00	0		575.22	0.00	0.00	0.00
25	2.00	20.76	12.46	0		654.28	37.11	15.47	0.00
26	2.00	7.10	4.29	0		661.73	12.63	12.12	0.00

/140

G-41/7A

PH Bldg. Pre-Demo Survey Unit 3 (floors, walls &ceiling)

RSDS# 05-TF-0151 *RCT:* MO *RCT:* _____

Alpha	43-68 BKG:	2.6	EFF:	0.21	PROBE AREA:	126	cm^2	Surface Eff:		0.5	Detector # : 1
Beta	43-68 BKG:	130	EFF:	0.167	PROBE AREA:	126	cm^2	Surface Eff:		0.5	Detector # : 2
Alpha Scan	43-37 BKG:	4.5	EFF:	0.226	PROBE AREA:	584	cm^2	Surface Eff:		0.5	Detector # : 3
Beta Scan	43-37 BKG:	0	EFF:	0.17	PROBE AREA:	584	cm^2	Surface Eff:		0.5	Detector # : 4
TYPE	LOCATION	2350#	RCT ID	PROBE	DET #		DATE	TIME	CNTS	CT TIME	dpm/100cm2
ALPHA	SU-3 1	5854	7836	5861	1	1	3/31/05	12:56	12	120	26
ALPHA	SU-3 2	5854	7836	5861	1	2	3/31/05	12:59	6	120	3
ALPHA	SU-3 3	5854	7836	5861	1	3	3/31/05	13:03	13	120	29
ALPHA	SU-3 4	5854	7836	5861	1	4	3/31/05	13:09	6	120	3
ALPHA	SU-3 5	5854	7836	5861	1	5	3/31/05	13:15	3	120	0
ALPHA	SU-3 6	5854	7836	5861	1	6	3/31/05	13:18	3	120	0
ALPHA	SU-3 7	5854	7836	5861	1	7	3/31/05	13:22	8	120	11
ALPHA	SU-3 8	5854	7836	5861	1	8	3/31/05	13:26	5	120	0
ALPHA	SU-3 9	5854	7836	5861	1	9	3/31/05	13:30	1	120	0
ALPHA	SU-3 10	5854	7836	5861	1	10	3/31/05	13:33	7	120	7
ALPHA	SU-3 11	5854	7836	5861	1	11	3/31/05	13:37	6	120	3
ALPHA	SU-3 12	5854	7836	5861	1	12	3/31/05	13:40	7	120	7
ALPHA	SU-3 13	5854	7836	5861	1	13	3/31/05	13:46	9	120	14
ALPHA	SU-3 14	5854	7836	5861	1	14	3/31/05	13:52	5	120	0
ALPHA	SU-3 15	5854	7836	5861	1	15	3/31/05	13:56	7	120	7
ALPHA	SU-3 16	5854	7836	5861	1	16	3/31/05	14:00	8	120	11
ALPHA	SU-3 17	5854	7836	5861	1	17	3/31/05	14:04	4	120	0
ALPHA	SU-3 18	5854	7836	5861	1	18	3/31/05	14:07	5	120	0
ALPHA	SU-3 19	5854	7836	5861	1	19	3/31/05	14:11	3	120	0
ALPHA	SU-3 20	5854	7836	5861	1	20	3/31/05	14:15	5	120	0
ALPHA	SU-3 21	5854	7836	5861	1	21	3/31/05	14:19	4	120	0
ALPHA	SU-3 22	5854	7836	5861	1	22	3/31/05	14:22	3	120	0
ALPHA	SU-3 23	5854	7836	5861	1	23	3/31/05	14:26	5	120	0
ALPHA	SU-3 24	5854	7836	5861	1	24	3/31/05	14:31	11	120	22
ALPHA	SU-3 25	5854	7836	5861	1	25	3/31/05	14:36	8	120	11
ALPHA	SU-3 26	5854	7836	5861	1	26	3/31/05	14:40	8	120	11
BETA	SU-3 1	5854	7836	5861	2	1	3/31/05	12:57	160	60	285
BETA	SU-3 2	5854	7836	5861	2	2	3/31/05	13:00	147	60	162
BETA	SU-3 3	5854	7836	5861	2	3	3/31/05	13:04	150	60	190
BETA	SU-3 4	5854	7836	5861	2	4	3/31/05	13:10	157	60	257
BETA	SU-3 5	5854	7836	5861	2	5	3/31/05	13:16	119	60	0
BETA	SU-3 6	5854	7836	5861	2	6	3/31/05	13:19	126	60	0
BETA	SU-3 7	5854	7836	5861	2	7	3/31/05	13:23	137	60	67
BETA	SU-3 8	5854	7836	5861	2	8	3/31/05	13:27	150	60	190
BETA	SU-3 9	5854	7836	5861	2	9	3/31/05	13:31	131	60	10
BETA	SU-3 10	5854	7836	5861	2	10	3/31/05	13:34	137	60	67
BETA	SU-3 11	5854	7836	5861	2	11	3/31/05	13:38	147	60	162
BETA	SU-3 12	5854	7836	5861	2	12	3/31/05	13:41	145	60	143
BETA	SU-3 13	5854	7836	5861	2	13	3/31/05	13:47	151	60	200
BETA	SU-3 14	5854	7836	5861	2	14	3/31/05	13:53	125	60	0
BETA	SU-3 15	5854	7836	5861	2	15	3/31/05	13:57	147	60	162

G-42/72

PH Bldg. Pre-Demo Survey Unit 3 (floors, walls &ceiling)

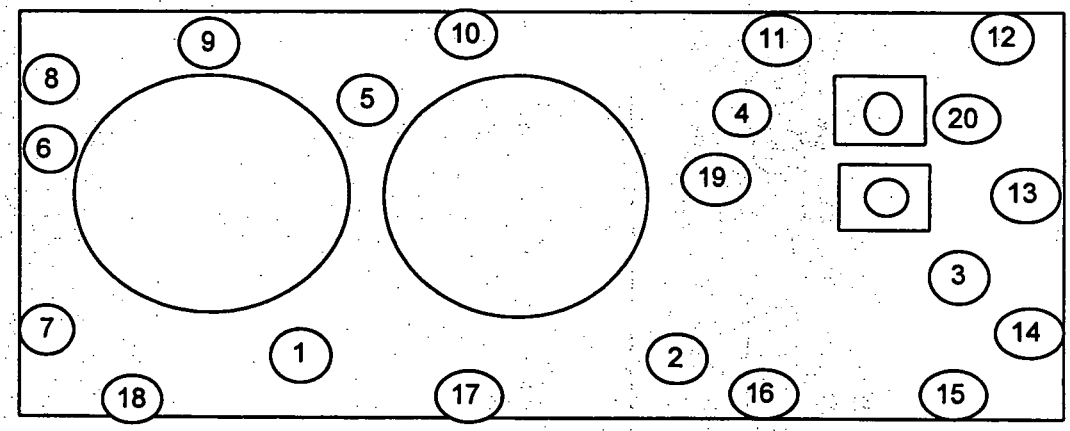
RSDS# 05-TF-0151 *RCT:* NAD *RCT:* _____

Alpha	43-68 BKG:	2.6	EFF:	0.21	PROBE AREA:	126	cm^2	Surface Eff:		0.5	Detector # :
Beta	43-68 BKG:	130	EFF:	0.167	PROBE AREA:	126	cm^2	Surface Eff:		0.5	Detector # :
Alpha Scan	43-37 BKG:	4.5	EFF:	0.226	PROBE AREA:	584	cm^2	Surface Eff:		0.5	Detector # :
Beta Scan	43-37 BKG:	0	EFF:	0.17	PROBE AREA:	584	cm^2	Surface Eff:		0.5	Detector # :
TYPE	LOCATION	2350#	RCT ID	PROBE	DET #		DATE	TIME	CNTS	CT TIME	dpm/100cm
BETA	SU-3 16	5854	7836	5861	2	16	3/31/05	14:01	164	60	323
BETA	SU-3 17	5854	7836	5861	2	17	3/31/05	14:05	137	60	67
BETA	SU-3 18	5854	7836	5861	2	18	3/31/05	14:09	150	60	190
BETA	SU-3 19	5854	7836	5861	2	19	3/31/05	14:12	138	60	76
BETA	SU-3 20	5854	7836	5861	2	20	3/31/05	14:16	139	60	86
BETA	SU-3 21	5854	7836	5861	2	21	3/31/05	14:20	140	60	95
BETA	SU-3 22	5854	7836	5861	2	22	3/31/05	14:23	165	60	333
BETA	SU-3 23	5854	7836	5861	2	23	3/31/05	14:27	151	60	200
BETA	SU-3 24	5854	7836	5861	2	24	3/31/05	14:32	141	60	105
BETA	SU-3 25	5854	7836	5861	2	25	3/31/05	14:37	162	60	304
BETA	SU-3 26	5854	7836	5861	2	26	3/31/05	14:41	170	60	380

RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG./AREA/ROOM) Bldg. 24	SURVEY NO. 05-TF-0159
PURPOSE: Pre-demo Survey: S.U. # 1(floors,walls,ceiling)	RWP NO. N/A
	DATE: 4/5/05
	TIME: 15:00

MAP / DRAWING



LEGEND:

- # = mrem/hr (γ) whole body
- #E = mrem/hr (β+η+γ) extremity on contact
- K = factor of 1000
- — · — · — · · = radiological boundary

- # - mrem/hr neutron
- # - swipe number
- # - air sample number
- #/α or /β - direct contamination measurement in dpm/100cm²

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
Lud 2350	5854/5861	7/20/05
	NA	

[redacted]	7836/7244	4/5/05
[redacted]		
Counted by: (Signature) See Attached	HP#	Date:
Counted by: (Printed Name)		
Review [redacted]	HP# 7707	Date: 4-6-05
Reviewed/Approved by: (Print [redacted]		

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Survey No.

05-TF-0159

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Removable Contamination				
Swipes (dpm/100cm^2)				
Sample #	β/γ	Alpha	Tritium	Comments
1	SEE ATTACHED SHEET			floor
2				floor
3				floor
4				floor
5				floor
6				floor
7				wall 4 ft.
8				1 ft.
9				5 ft.
10				3 ft.
11				2 ft.
12				4 ft.
13				6 ft.
14				3 ft.
15				4 ft.
16				2 ft.
17				5 ft.
18				1 ft.
19				ceiling
20				ceiling
		N/A		

Removable Contamination				
Swipes (dpm/100cm^2)				
Sample #	β/γ	Alpha	Tritium	Comments
		N/A		

COMMENTS: None

NOTES:

1. See MD-80036 10002 for calculations of WB, extremity and skin dose rates.
2. To request RO Count Room analysis for β/γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout of results are attached, write "see attached" in column.
3. Annotate special sample type (e.g., soil, water), special identifiers or otherwise in Comments. If not needed, mark N/A. G 45/72

Building 24 Pre-Demo Survey: S.U. # 1(floor,walls,ceiling)

RSDS# 05-TF-0159 *RCT:* MO *RCT:* JMC

Alpha	43-68 BKG:	2	EFF:	0.21	PROBE AREA:	126	Surface Eff:		0.5	Detector # : 1
Beta	43-68 BKG:	125	EFF:	0.167	PROBE AREA:	126	Surface Eff:		0.5	Detector # : 2
Alpha Scan	43-37 BKG:	0	EFF:	0.22	PROBE AREA:	584	Surface Eff:		0.5	Detector # : 3
Beta Scan	43-37 BKG:	0	EFF:	0.22	PROBE AREA:	584	Surface Eff:		0.5	Detector # : 4
TYPE	LOCATION	2350#	RCT ID	PROBE	DET #		TIME	CNTS	CT TIME	dpm/100cm2
ALPHA	SU-1 1	5854	7836	5861	1	1	11:59	10	120	23
ALPHA	SU-1 2	5854	7836	5861	1	2	12:03	3	120	0
ALPHA	SU-1 3	5854	7836	5861	1	3	12:07	1	120	0
ALPHA	SU-1 4	5854	7836	5861	1	4	12:10	5	120	4
ALPHA	SU-1 5	5854	7836	5861	1	5	12:15	9	120	19
ALPHA	SU-1 6	5854	7836	5861	1	6	12:19	10	120	23
ALPHA	SU-1 7	5854	7836	5861	1	7	12:22	7	120	11
ALPHA	SU-1 8	5854	7836	5861	1	8	12:26	21	120	64
ALPHA	SU-1 9	5854	7836	5861	1	9	12:30	4	120	0
ALPHA	SU-1 10	5854	7836	5861	1	10	12:34	11	120	26
ALPHA	SU-1 11	5854	7836	5861	1	11	12:38	12	120	30
ALPHA	SU-1 12	5854	7836	5861	1	12	12:43	8	120	15
ALPHA	SU-1 13	5854	7836	5861	1	13	12:47	8	120	15
ALPHA	SU-1 14	5854	7836	5861	1	14	12:51	4	120	0
ALPHA	SU-1 15	5854	7836	5861	1	15	12:55	9	120	19
ALPHA	SU-1 16	5854	7836	5861	1	16	12:58	12	120	30
ALPHA	SU-1 17	5854	7836	5861	1	17	13:02	5	120	4
ALPHA	SU-1 18	5854	7836	5861	1	18	13:06	7	120	11
ALPHA	SU-1 19	5854	7836	5861	1	19	13:11	9	120	19
ALPHA	SU-1 20	5854	7836	5861	1	20	13:15	13	120	34
BETA	SU-1 1	5854	7836	5861	2	1	12:01	146	60	200
BETA	SU-1 2	5854	7836	5861	2	2	12:04	153	60	266
BETA	SU-1 3	5854	7836	5861	2	3	12:08	137	60	114
BETA	SU-1 4	5854	7836	5861	2	4	12:11	160	60	333
BETA	SU-1 5	5854	7836	5861	2	5	12:16	164	60	371
BETA	SU-1 6	5854	7836	5861	2	6	12:20	142	60	162
BETA	SU-1 7	5854	7836	5861	2	7	12:23	244	60	1131
BETA	SU-1 8	5854	7836	5861	2	8	12:27	251	60	1198
BETA	SU-1 9	5854	7836	5861	2	9	12:31	262	60	1302
BETA	SU-1 10	5854	7836	5861	2	10	12:35	269	60	1369
BETA	SU-1 11	5854	7836	5861	2	11	12:39	250	60	1188
BETA	SU-1 12	5854	7836	5861	2	12	12:44	246	60	1150
BETA	SU-1 13	5854	7836	5861	2	13	12:48	225	60	950
BETA	SU-1 14	5854	7836	5861	2	14	12:52	235	60	1046
BETA	SU-1 15	5854	7836	5861	2	15	12:56	251	60	1198
BETA	SU-1 16	5854	7836	5861	2	16	12:59	216	60	865
BETA	SU-1 17	5854	7836	5861	2	17	13:03	227	60	969
BETA	SU-1 18	5854	7836	5861	2	18	13:07	184	60	561
BETA	SU-1 19	5854	7836	5861	2	19	13:12	173	60	456
BETA	SU-1 20	5854	7836	5861	2	20	13:16	194	60	656

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Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Aqua
Data file name: SMEAR128
Batch Ended: 4/5/05 12:34

Crosstalk correction performed.

Recalibration Date: 11/03/05
Serial Number: 26966-1

Batch ID: 05-TF-0159 J. COLLINS (20) AG

Detector ID	Sample ID	Alpha Activity DPM	Alpha Activity σ	Alpha Activity flags	Beta Activity DPM	Beta Activity σ	Beta Activity flags
A1	1	1.92	2.16		0.00	1.34	
A2	2	0.00	2.21		0.54	1.81	
A3	3	0.00	2.18		0.48	1.76	
A4	4	0.00	2.05		1.15	2.16	
B1	5	0.00	1.94		0.00	1.98	
B2	6	0.00	2.02		0.00	1.26	
B3	7	0.00	1.99		3.77	3.04	
B4	8	0.00	1.90		0.43	2.00	
C1	9	0.00	2.36		0.00	2.38	
C2	10	0.95	2.16		0.00	1.96	
C3	11	0.00	2.10		0.00	1.90	
C4	12	0.00	2.09		1.24	2.57	
D1	13	0.54	2.26		5.83	3.81	
D2	14	0.00	2.20		0.01	1.80	
D3	15	0.00	1.97		4.19	3.19	
D4	16	0.00	2.16		0.63	2.39	
A1	17	0.00	2.16		0.00	1.34	
A2	18	0.00	2.20		0.00	1.30	
A3	19	0.00	2.16		0.00	1.27	
A4	20	0.00	2.03		0.00	1.29	

J.C J.C

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JC 11/05 ~~Page 1 of 1~~

TB 1.0

05 Apr 2005 14:12 ALPHA/BETA - 1.09 ~~Page #1~~
Protocol #: 1 PW H3 403727 User : 2138

Time: 2.00
Data Mode: DPM Nuclide: SMGLS02 Quench Set: SMGLS02
Background Subtract: 1st Vial

	LL	UL	LCR	2S%	BKG
Region A:	0.5 -	18.6	0	0.0	7.29
Region B:	2.0 -	18.6	0	0.0	7.33
Region C:	40.0 -	2000	0	0.0	11.50

Quench Indicator: tSIE/AEC
Ext Std Terminator: Count
05-TF-0159 J. COLLINS (20) AG
Luminescence Correction On
Coincidence Time(ns): 18
Delay Before Burst(ns): Normal
Protocol Data Filename: C:\DATA\PROT1.DAT
Count Data Filename: C:\DATA\SDATA1.DAT

S#	TIME	CPMA	CPMB	CPMC	tSIE	LUM	FLAG	DPM1	2SIGMA
-1	10.00	7.29	7.33	11.50	617.56	8	B		0.00
0	2.00	528.58	513.78	2.00	606.95	0		1105.88	106.18
1	2.00	0.00	0.00	0.00	564.70	15		0.00	0.00
2	2.00	0.71	0.14	0.00	595.02	0		1.51	9.23
3	2.00	0.00	0.00	0.00	612.33	7		0.00	0.00
4	2.00	1.21	0.99	0.00	552.42	0		2.66	9.84
5	2.00	0.00	0.00	0.50	546.44	7		0.00	0.00
6	2.00	0.00	0.00	0.00	594.16	0		0.00	0.00
7	2.00	0.00	0.00	0.00	601.46	8		0.00	0.00
8	2.00	0.00	0.00	0.00	596.59	0		0.00	0.00
9	2.00	0.00	0.00	0.00	631.25	0		0.00	0.00
10	2.00	0.00	0.00	1.50	629.35	0		0.00	0.00
11	2.00	0.21	0.00	0.00	627.58	7		0.44	8.74
12	2.00	1.56	1.52	0.00	599.85	0		3.28	9.60
13	2.00	1.61	1.57	0.00	602.93	0		3.38	9.59
14	2.00	1.21	0.35	0.00	627.14	0		2.49	9.21
15	2.00	3.71	3.33	2.50	637.88	0		7.56	10.22
16	2.00	1.21	1.17	0.00	606.76	0		2.54	9.38
17	2.00	0.21	0.00	0.00	597.33	7		0.45	8.97
18	2.00	1.01	0.97	0.00	626.65	0		2.08	9.12
19	2.00	2.71	2.29	1.50	662.27	0		5.42	9.60
20	2.00	1.56	0.76	1.50	658.78	0		3.11	9.12

JC

C-48/72

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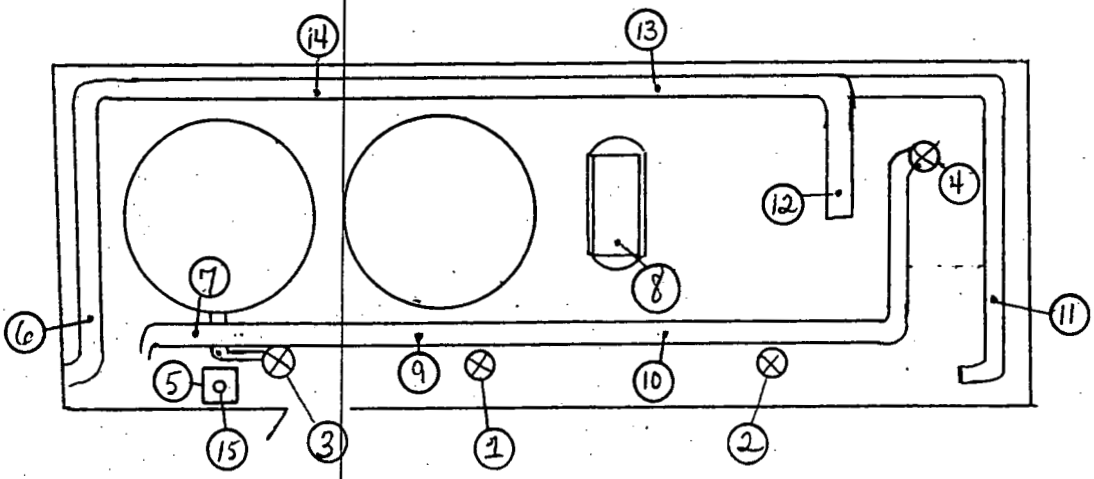
RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG./AREA/ROOM) Bldg. 24	SURVEY NO. 05-TF-0161
PURPOSE: Pre-demo survey of drains and horizontal surfaces	RWP NO N/A
	DATE. 4-6-05
	TIME: 1600

MAP / DRAWING



NOTE: Water Sample #4 had initial analysis of 33 nCi/L, tritium this is due to chemical luminescence. A follow up sample was collected at the same location and analyzed with chem luminescence correction applied. See page 7. for results

LEGEND:

- # = mrem/hr (γ) whole body
- #E = mrem/hr (β+η+γ) extremity on contact
- K = factor of 1000
- — · — · — · · = radiological boundary
- ⊗ - drain
- # - mrem/hr neutron
- # - air sample number
- # - swipe number
- #/α or /β - direct contamination measurement in dpm/100cm²

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
2350-1	5854/5861	7-20-05
2360-89	5691/5811	8-4-05
	A	
	N	

[redacted]	HP# 7244/7836	Date: 4-7-05
Counted by: (Signature) See Attached	HP#	Date:
Counted by: (Printed Name)		
Reviewed/Approved by: [redacted]	HP# 7707	Date: 4-11-05
Reviewed/Approved by: (Print Name) [redacted]		

ML-9620 (2-98)

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Survey No. 05-TF-0161

4-12-05 MAC

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
1	See Attached			drain
2				
3				
4				
5				sink
6				horizontal surfaces
7				
8				
9				
10				
11				
12				
13				
14				
15				sink
16				water container
17				
18				
19				
		NFE		

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
		NFE		

COMMENTS: NFE = No Further Entries. Drains contained water, no sediment samples taken. All smears field checked with 2360 prior to submitting to count lab.

NOTES:
1. See MD-80036 10002 for calculations of WB, extremity and skin dose rates.
2. To request RO Count Room analysis for β/γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout of results are attached, write "see attached" in column.
3. Annotate special sample type (e.g., soil, water), special identifiers or otherwise in Comments. If needed, mark N/A.

ML-9620A (4-98)

Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Aqua
Data file name: SMEAR155
Batch Ended: 4/6/05 16:09

Crosstalk correction performed.

Recalibration Date: 11/03/05
Serial Number: 26966-1

Batch ID: 05-TF-0161 WORLEY [19] GWD

Detector ID	Sample ID	Alpha Activity DPM	Alpha Activity σ	Alpha Activity flags	Beta Activity DPM	Beta Activity σ	Beta Activity flags
A1	1	1.92	2.19		0.79	2.23	
A2	2	0.00	2.23		1.79	2.20	
A3	3	0.00	2.22		2.92	2.47	
A4	4	1.40	2.07		2.21	2.48	
B1	5	0.00	1.99		2.09	2.54	
B2	6	1.49	2.09		0.90	2.39	
B3	7	0.00	1.98		2.55	2.78	
B4	8	1.47	1.93		2.52	2.56	
C1	9	1.84	2.33		0.00	1.46	
C2	10	3.04	3.03		0.00	2.37	
C3	11	0.00	2.10		0.00	1.90	
C4	12	0.00	2.09		1.24	2.57	
D1	13	0.00	2.22		1.72	2.90	
D2	14	0.00	2.17		0.00	1.30	
D3	15	1.36	1.96		1.25	2.48	
D4	16	0.00	2.17		1.98	2.75	
A1	17	0.00	2.22		3.49	2.86	
A2	18	0.00	2.21		0.54	1.81	
A3	19	0.00	2.20		1.70	2.15	

MO MO

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Time: 2.00
Data Mode: DPM Nuclide: SMGL02 Quench Set: SMGL02
Background Subtract: 1st Vial

	LL	UL	LCR	2S%	BKG
Region A:	0.5 -	18.6	0	0.0	8.38
Region B:	2.0 -	18.6	0	0.0	8.22
Region C:	40.0 -	2000	0	0.0	13.30

Quench Indicator: tSIE/AEC
Ext Std Terminator: Count
05-TF-0161 WORLEY (19) 04/06/05 TAS
Luminescence Correction On
Coincidence Time(ns): 18
Delay Before Burst(ns): Normal
Protocol Data Filename: c:\data\proti.dat
Count Data Filename: c:\data\SDATA6.DAT
Spectrum Data Drive & Path: c:\data

S#	TIME	CPMA	CPMB	LUM	FLAG	tSIE	DPM1	2Sigma	CPMC
-1	10.00	8.38	8.22	9	B	626.22		0.00	13.30
0	2.00	576.56	548.27	0		621.70	1050.01	88.77	0.00
1	2.00	0.00	0.00	0		638.16	0.00	0.00	0.00
2	2.00	0.21	0.00	0		670.67	0.37	7.98	0.00
3	2.00	0.00	0.00	0		663.79	0.00	0.00	0.00
4	2.00	0.00	0.00	8		250.13	0.00	0.00	0.00
5	2.00	0.00	0.00	10		443.66	0.00	0.00	0.00
6	2.00	0.00	0.00	8		562.00	0.00	0.00	0.00
7	2.00	0.00	0.11	6		479.74	0.00	0.00	0.00
8	2.00	3.03	1.91	0		662.59	5.34	9.06	0.00
9	2.00	1.12	1.10	5		498.00	2.29	9.66	0.00
10	2.00	0.00	0.00	9		512.34	0.00	0.00	0.00
11	2.00	0.00	0.00	0		580.56	0.00	0.00	0.00
12	2.00	0.62	0.69	0		499.03	1.27	9.43	0.00
13	2.00	0.00	0.00	6		616.39	0.00	0.00	0.00
14	2.00	0.00	0.00	0		583.87	0.00	0.00	0.00
15	2.00	0.00	0.00	7		556.67	0.00	0.00	0.00
16	2.00	0.00	0.00	8		680.84	0.00	0.00	0.00
17	2.00	0.00	0.00	0		685.34	0.00	0.00	2.20
18	2.00	3.49	2.39	4		678.71	6.07	9.10	0.00
19	2.00	0.00	0.00	0		661.49	0.00	0.00	0.00

MO

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4/6/05 ~~OPII~~ Bldg. Drains and Horizontal Surfaces

5 of 87

RSDS# 05-TF-0161 RCT: RCT:

Alpha	43-68 BKG:	1.8	EFF:	0.21	PROBE AREA:	126	cm^2	Surface Eff:		0.5	Detector #: 1
Beta	43-68 BKG:	118	EFF:	0.167	PROBE AREA:	126	cm^2	Surface Eff:		0.5	Detector #: 2
Alpha Scan	43-37 BKG:	0	EFF:	0.22	PROBE AREA:	584	cm^2	Surface Eff:		0.5	Detector #: 3
Beta Scan	43-37 BKG:	0	EFF:	0.22	PROBE AREA:	584	cm^2	Surface Eff:		0.5	Detector #: 4
TYPE	LOCATION	2350#	RCT ID	PROBE	DET #		DATE	TIME	CNTS	CT TIME	dpm/100cm2
ALPHA	DRAIN 1	5854	7244	5861	1	1	4/6/05	12:11	16	120	47
ALPHA	DRAIN 2	5854	7244	5861	1	2	4/6/05	12:16	8	120	17
ALPHA	DRAIN 3	5854	7244	5861	1	3	4/6/05	12:22	7	120	13
ALPHA	DRAIN 4	5854	7244	5861	1	4	4/6/05	12:27	4	120	2
ALPHA	DRAIN 5	5854	7244	5861	1	5	4/6/05	12:32	5	120	5
ALPHA	HORIZ 6	5854	7244	5861	1	6	4/6/05	12:39	2	120	0
ALPHA	HORIZ 7	5854	7244	5861	1	7	4/6/05	12:43	1	120	0
ALPHA	HORIZ 8	5854	7244	5861	1	8	4/6/05	12:48	5	120	5
ALPHA	HORIZ 9	5854	7244	5861	1	9	4/6/05	12:51	7	120	13
ALPHA	HORIZ 10	5854	7244	5861	1	10	4/6/05	12:55	4	120	2
ALPHA	HORIZ 11	5854	7244	5861	1	11	4/6/05	13:01	3	120	0
ALPHA	HORIZ 12	5854	7244	5861	1	12	4/6/05	13:07	2	120	0
ALPHA	HORIZ 13	5854	7244	5861	1	13	4/6/05	13:12	5	120	5
ALPHA	HORIZ 14	5854	7244	5861	1	14	4/6/05	13:16	9	120	20
ALPHA	SINK	5854	7244	5861	1	15	4/6/05	13:21	12	120	32
BETA	DRAIN 1	5854	7244	5861	2	1	4/6/05	12:12	238	60	1141
BETA	DRAIN 2	5854	7244	5861	2	2	4/6/05	12:17	119	60	10
BETA	DRAIN 3	5854	7244	5861	2	3	4/6/05	12:23	143	60	238
BETA	DRAIN 4	5854	7244	5861	2	4	4/6/05	12:29	140	60	209
BETA	DRAIN 5	5854	7244	5861	2	5	4/6/05	12:33	131	60	124
BETA	HORIZ 6	5854	7244	5861	2	6	4/6/05	12:40	140	60	209
BETA	HORIZ 7	5854	7244	5861	2	7	4/6/05	12:44	130	60	114
BETA	HORIZ 8	5854	7244	5861	2	8	4/6/05	12:49	109	60	0
BETA	HORIZ 9	5854	7244	5861	2	9	4/6/05	12:52	139	60	200
BETA	HORIZ 10	5854	7244	5861	2	10	4/6/05	12:56	117	60	0
BETA	HORIZ 11	5854	7244	5861	2	11	4/6/05	13:02	157	60	371
BETA	HORIZ 12	5854	7244	5861	2	12	4/6/05	13:08	144	60	247
BETA	HORIZ 13	5854	7244	5861	2	13	4/6/05	13:13	160	60	399
BETA	HORIZ 14	5854	7244	5861	2	14	4/6/05	13:17	130	60	114
BETA	SINK	5854	7244	5861	2	15	4/6/05	13:22	375	60	2443

BWXT of Ohio, Inc.

6 of 67
RMC 4-12-05

ANALYTICAL SERVICES REQUEST FOR ANALYSIS

DATE SUBMITTED:	SAMPLE TYPE:	COLLECTED BY:	NUMBER OF SAMPLES
4-6-05	H2O	Joe Worley	4

PROJECT/FUNCTION:	PRIMARY CONTACT/PHONE NO.:	MAIL STOP:
BOSS	BOB COBERT 2	

CHARGE NUMBER:	DATE(S) COLLECTED:	RSDS# (if applicable):	ATTACHMENTS (list):
	4-6-05	05-TF-0161.	

ANALYSES REQUESTED (check):

- ☑ ^3H
- ☐ Characterize/Approve for Sanitary or Storm Discharge. Estimate of Total Volume for Release_____ Approved_____
- ☑ Gross Alpha
- ☐ Air Filter – Isotopic Analysis
- ☐ Characterization per MD-80036, Operation #10015
- ☐ Isotopic Analysis: Pu____ U____ Th____ Am____ Other____
- ☐ Other _____

ADDITIONAL INFORMATION:

NOTE: Attach additional information (e.g. RSDS, screening results, collection data, and gamma spec. results) if applicable

LAB IDENTIFICATION	SAMPLE LOCATION	SAMPLE NUMBER	RESULTS 3H pCi/L	RESULTS GROSS ALPHA Dpm/mL
2145	~~7~~ Bldg 74	1	1.13	<0.6
2146	~~72~~	2	2.61	<0.6
2147		3	3.14	<0.6
2148		4	33.46	<0.6

COMMENTS:

ANALYZED BY: Ray Shulak

DATE: 4-6-05

ML-5222 (1-01)

G-54/72

BWXT of Ohio, Inc.

RSDS 05-TF-0161
Page 7 of 7

ANALYTICAL SERVICES REQUEST FOR ANALYSIS

DATE SUBMITTED:	SAMPLE TYPE:	COLLECTED BY:	NUMBER OF SAMPLES
4-12-05	H_2O	Oeffner	1
PROJECT/FUNCTION:	**PRIMARY CONTACT/PHONE NO.:**		**MAIL STOP:**
Boss	Coblentz 608 8206		
CHARGE NUMBER:	**DATE(S) COLLECTED:**	**RSDS# (if applicable):**	**ATTACHMENTS (list):**
EEO SWJ	4-12-05	N/A	N/A

ANALYSES REQUESTED (check):

- [x] ^3H
- [ ] Characterize/Approve for Sanitary or Storm Discharge. Estimate of Total Volume for Release_____ Approved_____
- [x] Gross Alpha
- [ ] Air Filter – Isotopic Analysis
- [ ] Characterization per MD-80036, Operation #10015
- [ ] Isotopic Analysis: Pu____ U____ Th____ Am____ Other____
- [ ] Other _____

ADDITIONAL INFORMATION:

NOTE: Attach additional information (e.g. RSDS, screening results, collection data, and gamma spec. results) if applicable

LAB IDENTIFICATION	SAMPLE LOCATION	SAMPLE NUMBER	RESULTS ^3H	RESULTS Gross Alpha
02280	Bldg 24	1	1.82 nci/l	10.60 Dpm/ml

COMMENTS:

ANALYZED BY: Lowell C. Sipki

DATE: 4-12-05

ML-5222 (1-01)

G-55/72

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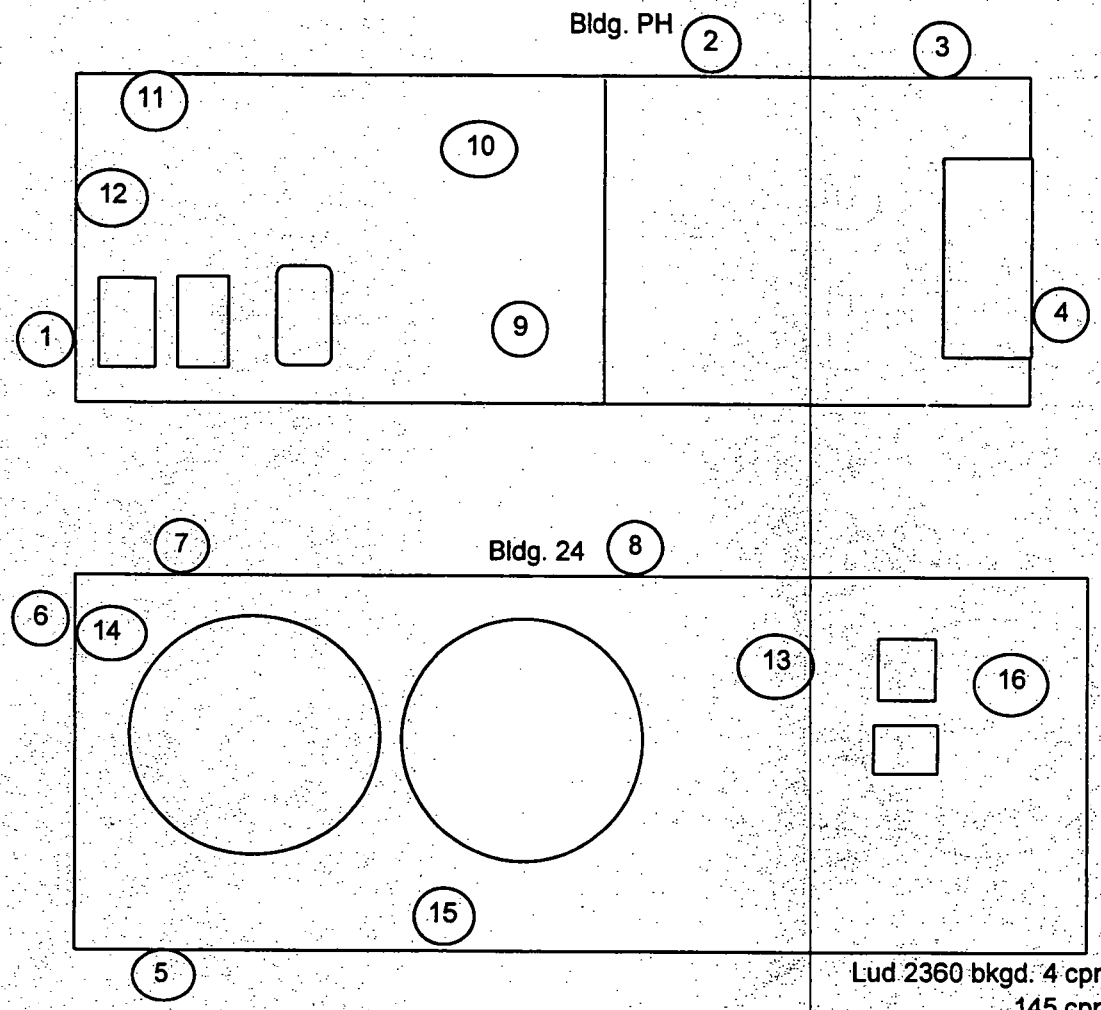
RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG./AREA/ROOM) Bldg. 24 and PH	SURVEY NO. 05-TF-~~0553~~ 0162 (RC 4-8-05)
PURPOSE: Pre-Demo Survey: QC's of S.U. #1-4	RWP NO. N/A
	DATE: 4/7/05
	TIME: 14:30

MAP / DRAWING



Lud 2360 bkgd. 4 cpm alpha
145 cpm beta

LEGEND:
- # = mrem/hr (γ) whole body
- #E = mrem/hr (β+η+γ) extremity on contact
- K = factor of 1000
- — · — · — · · = radiological boundary

- # - mrem/hr neutron
- # - swipe number
- # - air sample number
- #/α or /β - direct contamination measurement in dpm/100cm²

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
Lud 2360/4389	5691/5811	8/4/05
Lud 2350/~~4B~~ 66	5904/5905	2-22-06
	NA	

[redacted] 7836/7707		Date: 4-8-05
Counted by: (Signature) N	HP#	Date:
Counted by: (Printed Name)		
Review [redacted]	HP# 5281	Date: 4/11/05
Reviewed/Approved by: (Print Nam [redacted]		

G-56/72

BLDG 24 & OPH QC REPLICATE SURVEY

RSDS#: 05-TF-0162 RCT: Oeffner RCT: N/A

43-89 ALPHA BKG:	4	Factor	8	PROBE AREA:	100	cm2	Surface Eff:	1	ALPHA
43-89 BETA BKG:	145	Factor	4	PROBE AREA:	100	cm2	Surface Eff:	1	BETA

LOCATION	2360#	RCT ID	PROBE	RAD TYPE	ITEM #	DATE	TIME	CNTS	CT TIME (sec)	dpm/100cm2
SU4-07QC	5691	7836	5811	ALPHA	1	4/7/2005	14:30	10	120	8
SU4-13QC	5691	7836	5811	ALPHA	2	4/8/2005	14:30	9	120	4
SU4-15QC	5691	7836	5811	ALPHA	3	4/9/2005	14:30	8	120	0
SU4-19QC	5691	7836	5811	ALPHA	4	4/10/2005	14:30	10	120	8
SU2-06QC	5691	7836	5811	ALPHA	5	4/11/2005	14:30	15	120	28
SU2-10QC	5691	7836	5811	ALPHA	6	4/12/2005	14:30	10	120	8
SU2-11QC	5691	7836	5811	ALPHA	7	4/13/2005	14:30	11	120	12
SU2-13QC	5691	7836	5811	ALPHA	8	4/14/2005	14:30	16	120	32
SU4-07QC	5691	7836	5811	BETA	1	4/16/2005	14:30	320	120	60
SU4-13QC	5691	7836	5811	BETA	2	4/17/2005	14:30	325	120	70
SU4-15QC	5691	7836	5811	BETA	3	4/18/2005	14:30	350	120	120
SU4-19QC	5691	7836	5811	BETA	4	4/19/2005	14:30	421	120	262
SU2-06QC	5691	7836	5811	BETA	5	4/20/2005	14:30	486	120	392
SU2-10QC	5691	7836	5811	BETA	6	4/21/2005	14:30	374	120	168
SU2-11QC	5691	7836	5811	BETA	7	4/22/2005	14:30	555	120	530
SU2-13QC	5691	7836	5811	BETA	8	4/23/2005	14:30	544	120	508

G-57/72

24 & PH-Building Pre-demolition Survey - QC Replicates

RSDS# 05-TF-0162 *RCT:* Coblentz *RCT:* N/A

Alpha	43-68 BKG:	0	EFF:	0.21	PROBE AREA:	126	cm^2	Surface Eff:		0.5	Detector #: 1
Beta	43-68 BKG:	109	EFF:	0.175	PROBE AREA:	126	cm^2	Surface Eff:		0.5	Detector #: 2
Scan	43-37 BKG:	0	EFF:	0.22	PROBE AREA:	584	cm^2	Surface Eff:		0.5	Detector #: 3
TYPE	LOCATION	2350#	RCT ID	PROBE	DET #	ITEM #	DATE	TIME	CNTS	CT TIME	dpm/100cm2
ALPHA	SU3-01QC	5904	7707	5905	1	1	4/8/2005	9:00	7	120	26
ALPHA	SU3-03QC	5904	7707	5905	1	2	4/8/2005	9:05	8	120	30
ALPHA	SU3-11QC	5904	7707	5905	1	3	4/8/2005	9:10	2	120	8
ALPHA	SU3-04QC	5904	7707	5905	1	4	4/8/2005	9:14	2	120	8
ALPHA	SU1-04QC	5904	7707	5905	1	5	4/8/2005	9:20	10	120	38
ALPHA	SU1-08QC	5904	7707	5905	1	6	4/8/2005	9:24	6	120	23
ALPHA	SU1-17QC	5904	7707	5905	1	7	4/8/2005	9:32	6	120	23
ALPHA	SU1-03QC	5904	7707	5905	1	8	4/8/2005	9:38	4	120	15
BETA	SU3-01QC	5904	7707	5905	2	9	4/8/2005	9:02	149	60	363
BETA	SU3-03QC	5904	7707	5905	2	10	4/8/2005	9:06	113	60	36
BETA	SU3-11QC	5904	7707	5905	2	11	4/8/2005	9:11	134	60	227
BETA	SU3-04QC	5904	7707	5905	2	12	4/8/2005	9:15	117	60	73
BETA	SU1-04QC	5904	7707	5905	2	13	4/8/2005	9:21	137	60	254
BETA	SU1-08QC	5904	7707	5905	2	14	4/8/2005	9:26	250	60	1279
BETA	SU1-17QC	5904	7707	5905	2	15	4/8/2005	9:33	202	60	844
BETA	SU1-03QC	5904	7707	5905	2	16	4/8/2005	9:39	131	60	200

G-58/72

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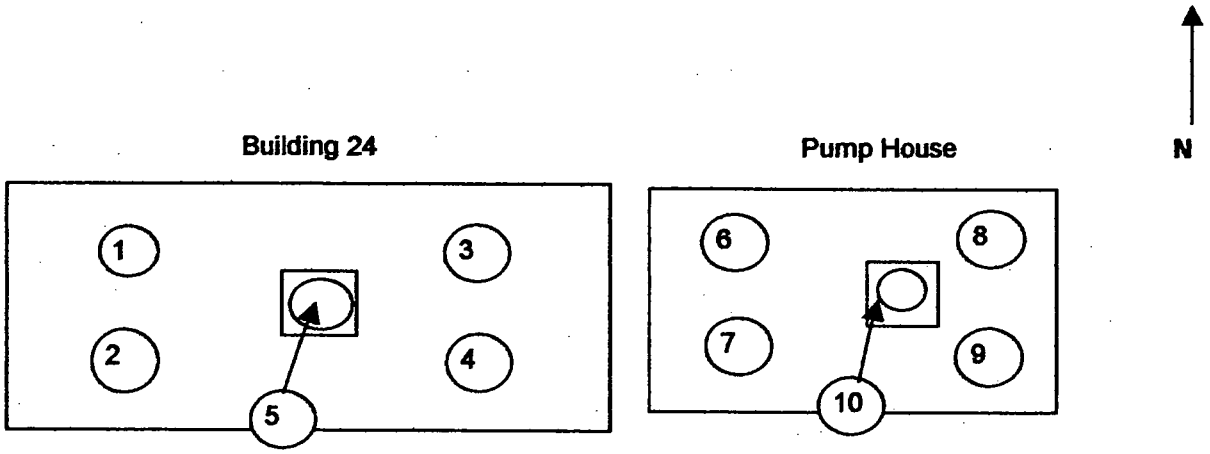
RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG./AREA/ROOM) Building 24 and Pump House	SURVEY NO. 05-TF-0163
PURPOSE: Pre-Demolition Survey - Judgmental Survey of Roofs	RWP NO. N/A
	DATE: 4/8/2005
	TIME: 10:00

MAP / DRAWING



Sample coupon collected from location #10
See attached for laboratory analysis

LEGEND:
- # = mrem/hr (γ) whole body
- #E = mrem/hr (β+η+γ) extremity on contact
- K = factor of 1000
- — · — · — · · = radiological boundary

- # - mrem/hr neutron
- # - swipe number
- # - air sample number
- #/α or /β - direct contamination measurement in dpm/100cm²

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
L2360/43-93	5908/5918	3/24/2006
	NA	

Completed by: (Signatur[redacted]	HP# 7707	Date: 4-11-05
Completed by: (Printed Name) [redacted]		
Counted by: (Signature) See attached	HP# →	Date: →
Counted b[redacted]		
Reviewed[redacted]	HP# 7248	Date: 4/11/05
Reviewed/[redacted]		

G-59/72

Survey No.
05-TF-0163

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Removable Contamination				
Swipes (dpm/100cm^2)				
Sample #	β/γ	Alpha	Tritium	Comments
1	SEE ATTACHED SHEET			roof
2				roof
3				roof
4				roof
5				vent
6				roof
7				roof
8				roof
9				roof
10				vent
		N	A	

Removable Contamination				
Swipes (dpm/100cm^2)				
Sample #	β/γ	Alpha	Tritium	Comments
		N	A	

COMMENTS: None

NOTES:

1. See MD-80036 10002 for calculations of WB, extremity and skin dose rates.
2. To request RO Count Room analysis for β/γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout of results are attached, write "see attached" in column.
3. Annotate special sample type (e.g., soil, water), special identifiers or otherwise in Comments. If not needed, mark N/A.

ML-9620A (4-98)

G-60/72

Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Aqua
Data file name: SMEAR004
Batch Ended: 4/8/05 14:52

Crosstalk correction performed.

Recalibration Date: 11/03/05
Serial Number: 26966-1

Batch ID: 05-TF-0163 COBLENTZ (10) AG

Detector ID	Sample ID	Alpha Activity			Beta Activity		
		DPM	σ	flags	DPM	σ	flags
A1	1	0.00	2.16		0.00	1.33	
A2	2	0.00	2.20		0.00	1.30	
A3	3	0.00	2.20		1.70	2.15	
A4	4	0.00	2.05		1.15	2.16	
B1	5	0.00	1.90		0.00	1.20	
B2	6	0.00	2.05		0.00	1.72	
B3	7	1.51	1.94		0.00	1.80	
B4	8	0.00	1.96		4.94	3.02	
C1	9	0.00	2.37		0.50	2.73	
C2	10	3.04	3.00		0.00	1.45	

G 61/72

08 Apr 2005 17:46 ALPHA/BETA - 1.09 Page #1
Protocol #: 4 PW H3 #410462 User : 2138

Time: 2.00
Data Mode: DPM Nuclide: SMGLS02 Quench Set: SMGLS02
Background Subtract: 1st Vial

	LL	UL	LCR	2S%	BKG
Region A:	0.5	- 18.6	0	0.0	8.70
Region B:	2.0	- 18.6	0	0.0	8.03
Region C:	40.0	- 2000	0	0.0	10.00

Quench Indicator: tSIE/AEC
Ext Std Terminator: Count
05-TF-0163 COBLETZ (10) AG
Luminescence Correction On
Coincidence Time(ns): 18
Delay Before Burst(ns): Normal
Protocol Data Filename: C:\DATA\PROT4.DAT
Count Data Filename: C:\DATA\SDATA4.DAT
Spectrum Data Drive & Path: C:\DATA

S#	TIME	CPMA	CPMB	LUM	FLAG	tSIE	DPM1	2Sigma	CPMC
-1	10.00	8.70	8.03	1	B	618.64		0.00	10.00
0	2.00	623.78	580.40	0		616.36	1149.62	90.35	0.00
1	2.00	0.00	0.00	14		404.40	0.00	0.00	0.00
2	2.00	0.00	0.00	19		381.72	0.00	0.00	0.43
3	2.00	0.30	0.97	11		362.43	0.77	11.82	0.00
4	2.00	0.00	0.00	40		373.31	0.00	0.00	0.00
5	2.00	0.00	0.00	0		626.73	0.00	0.00	0.00
6	2.00	0.00	0.23	0		581.85	0.00	0.00	0.00
7	2.00	3.22	1.37	0		544.66	6.31	10.24	2.50
8	2.00	0.00	0.00	0		602.24	0.00	0.00	0.00
9	2.00	0.00	0.00	0		593.63	0.00	0.00	0.00
10	2.00	3.30	3.20	0		386.68	7.98	12.68	1.00

PW

BLDG 24 & PH CHARACTERIZATION SURVEY

RSDS#: 05-TF-0163 RCT: RMC RCT:

43-89 ALPHA BKG:	0.4	Factor	10	PROBE AREA:	100	cm2	Surface Eff:	1	ALPHA
43-89 BETA BKG:	116	Factor	5	PROBE AREA:	100	cm2	Surface Eff:	1	BETA

LOCATION	2360#	RCT ID	PROBE	RAD TYPE	ITEM #	DATE	TIME	CNTS	CT TIME (sec)	dpm/100cm2
Bldg 24 Roof	5908	7707	5918	ALPHA	1	4/8/2005	13:00	14	120	66
Bldg 24 Roof	5908	7707	5918	ALPHA	2	4/8/2005	13:00	3	120	11
Bldg 24 Roof	5908	7707	5918	ALPHA	3	4/8/2005	13:00	18	120	86
Bldg 24 Roof	5908	7707	5918	ALPHA	4	4/8/2005	13:00	5	120	21
Bldg 24 Roof	5908	7707	5918	ALPHA	5	4/8/2005	13:00	16	120	76
Bldg PH Roof	5908	7707	5918	ALPHA	6	4/8/2005	13:00	6	120	26
Bldg PH Roof	5908	7707	5918	ALPHA	7	4/8/2005	13:00	5	120	21
Bldg PH Roof	5908	7707	5918	ALPHA	8	4/8/2005	13:00	12	120	56
Bldg PH Roof	5908	7707	5918	ALPHA	9	4/8/2005	13:00	6	120	26
Bldg PH Roof	5908	7707	5918	ALPHA	10	4/8/2005	13:00	84	120	416
Bldg 24 Roof	5908	7707	5918	BETA	1	4/8/2005	13:00	296	120	160
Bldg 24 Roof	5908	7707	5918	BETA	2	4/8/2005	13:00	303	120	178
Bldg 24 Roof	5908	7707	5918	BETA	3	4/8/2005	13:00	278	120	115
Bldg 24 Roof	5908	7707	5918	BETA	4	4/8/2005	13:00	305	120	183
Bldg 24 Roof	5908	7707	5918	BETA	5	4/8/2005	13:00	236	120	10
Bldg PH Roof	5908	7707	5918	BETA	6	4/8/2005	13:00	273	120	103
Bldg PH Roof	5908	7707	5918	BETA	7	4/8/2005	13:00	297	120	163
Bldg PH Roof	5908	7707	5918	BETA	8	4/8/2005	13:00	321	120	223
Bldg PH Roof	5908	7707	5918	BETA	9	4/8/2005	13:00	324	120	230
Bldg PH Roof	5908	7707	5918	BETA	10	4/8/2005	13:00	564	120	830

Laboratory ID#: 0502236
Project/function: Boss
Submitted: Apr 8, 2005
Submitted by: B. Coblentz
Point of Contact: B. Coblentz 608-8206
RSDS#: ~~N/A~~ 05-TF-0163
Date: Apr 11, 2005

Lab ID	0502236		
Sample Location	PH Metal Coupon		
Isotope	dpm/Sample	Uncertainty +/-	LDL
Pu-238	5.03	0.83	0.79
Pu-239/240	<LDL	<LDL	0.29
Th-227	<LDL	<LDL	1.09
Th-228	<LDL	<LDL	0.86
Th-230	<LDL	<LDL	1.41
Th-232	0.47	0.24	0.32
U-233/234	<LDL	<LDL	1.41
U-235	<LDL	<LDL	3.84
U-238	<LDL	<LDL	1.41
Po-210	113.25	8.95	1.38

[redacted]

1585 4-11-5
HP# Date

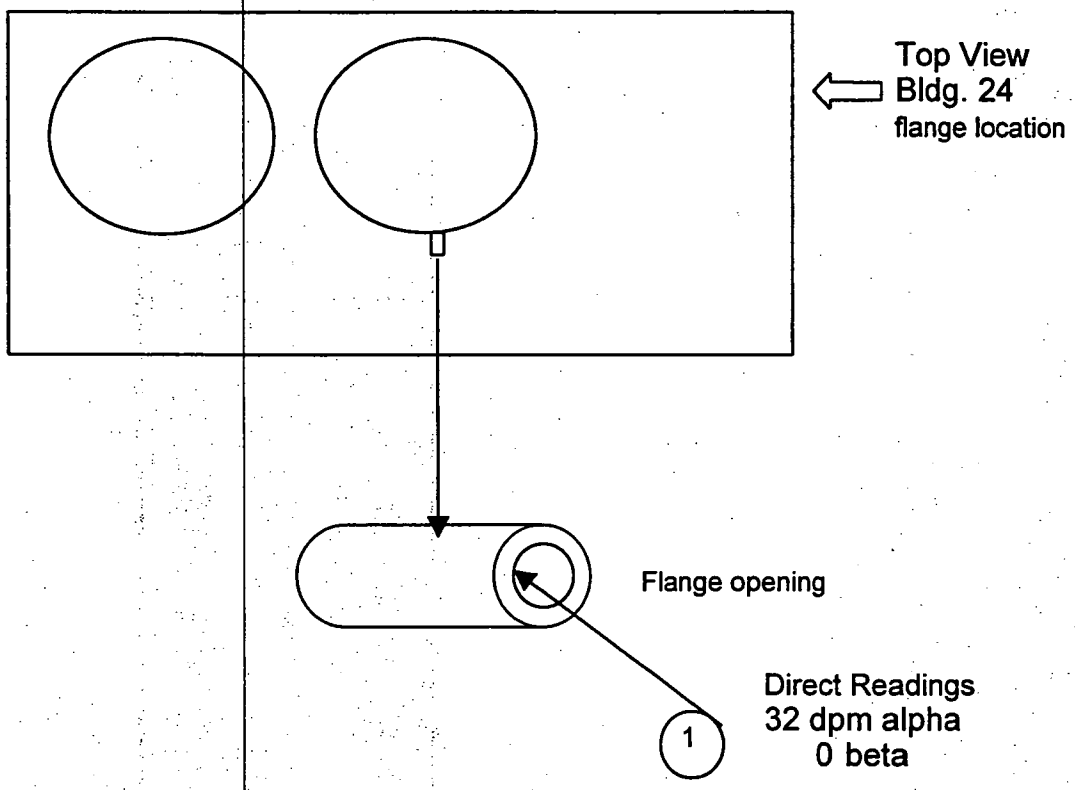
7783 4.11.5
HP# Date

G-64/72

RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG./AREA/ROOM) Bldg. 24	SURVEY NO. 05-TF-0166
PURPOSE: Pre-Demo Survey: Suvey inside of flange	RWP NO. N/A
	DATE: 4/11/05
	TIME: 13:00

MAP / DRAWING



2360 Bkgd. 2 cpm Alpha
170 cpm Beta
DL= 1.8 alpha
20 beta

LEGEND:
- # = mrem/hr (γ) whole body
- #E = mrem/hr (β+η+γ) extremity on contact
- K = factor of 1000
- —·—·—·· = radiological boundary

- # - mrem/hr neutron
- # - swipe number
- # - air sample number
- #/α or /β - direct contamination measurement in dpm/100cm²

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
Lud 2360/4389	5691/5811	8/4/05
	NA	

Complete [redacted]	7836	4/11/05
[redacted]		
Counted by: (Signature) See Attached	HP#	Date:
Counted by: (Printed Name)		
Review[redacted]	HP# 7707	Date: 4-12-05
Reviewed/Approved by: (Print Name) [redacted]		

G-65/7

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Removable Contamination				
Swipes (dpm/100cm^2)				
Sample #	β/γ	Alpha	Tritium	Comments
1	SEE ATTACHED SHEET ↓	↓	↓	inside flange
N/A				

Removable Contamination				
Swipes (dpm/100cm^2)				
Sample #	β/γ	Alpha	Tritium	Comments
N/A				

COMMENTS: None

NOTES:

1. See MD-80036 10002 for calculations of WB, extremity and skin dose rates.
2. To request RO Count Room analysis for β/γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout of results are attached, write "see attached" in column.
3. Annotate special sample type (e.g., soil, water), special identifiers or otherwise in Comments. If not needed, mark N/A.

ML-9620A (4-98)

G-66/72

Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Green
Data file name: SMEAR005
Batch Ended: 4/11/05 13:34
Cal. Due Date: 11/17/05
Serial Number: 26966-3

Batch ID: 05-TF-0166 OFFNER [1] GWD

Detector ID	Sample ID	Alpha Activity			Beta Activity		
		DPM	σ	flags	DPM	σ	flags
A1	1	0.00	2.18		0.00	1.33	

MO MO

G 67/74

GWD

3 of 4

Time: 2.00
Data Mode: DPM Nuclide: SMGL02 Quench Set: SMGL02
Background Subtract: 1st Vial

	LL	UL	LCR	2S%	BKG
Region A:	0.5	- 18.6	0	0.0	6.60
Region B:	2.0	- 18.6	0	0.0	6.96
Region C:	40.0	- 2000	0	0.0	10.06

Quench Indicator: tSIE/AEC
Ext Std Terminator: Count
05-TF-0166 OFFNER [1] GWD
Luminescence Correction On
Coincidence Time(ns): 18
Delay Before Burst(ns): Normal
Protocol Data Filename: c:\data\prot1.dat
Count Data Filename: c:\data\SDATA4.DAT
Spectrum Data Drive & Path: c:\data

S#	TIME	CPMA	CPMB	CPMC	LUM	tSIE	DPM1	2Sigma	FLAG
-1	10.00	6.60	6.96	10.06	12	623.63		0.00	B
0	2.00	627.66	597.93	0.00	0	629.78	1135.56	93.93	
1	2.00	1.40	1.02	2.44	0	450.07	3.04	9.45	

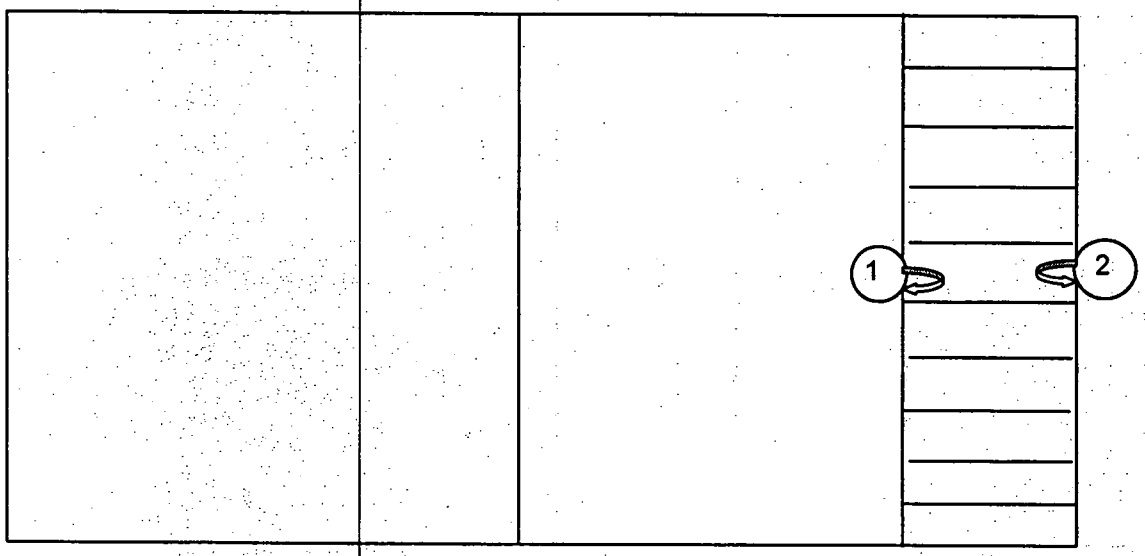
G-68/72

RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG./AREA/ROOM) Pumphouse	SURVEY NO. 05-TF-167
PURPOSE: Pre-Demo survey: pit under grating	RWP NO. N/A
	DATE: 4/11/05
	TIME: 8:00

MAP / DRAWING

Pumphouse top view



LEGEND:

- # = mrem/hr (γ) whole body
- #E = mrem/hr (β+η+γ) extremity on contact
- K = factor of 1000
- —·—·—·— = radiological boundary

- # - mrem/hr neutron
- # - swipe number
- # - air sample number
- #/α or /β - direct contamination measurement in dpm/100cm²

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
Lud 2360/4389	5794/5809	10/28/05
	NA	

[redacted]	P# 7836 7176	Date 4/12/05	
Completed by: (Printed)	[redacted]		
Counted by: (Signature)	See attached	HP#	Date
Counted by: (Printed Name)			
Reviewed [redacted]	HP# 7707	Date 4-12-05	
Reviewed/Approved by: (Print Nar [redacted]			

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Survey No.
05-TF-167

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Ludlum 2360 Integrated Measurement Results							
		Alpha			Beta		
		BKGD	1	cpm	BKGD	144	cpm
		DL	1.4	Net cpm	DL	30	Net cpm
No.	Item/Location Description	Gross (cpm)	CF	Results (dpm/100cm2 or Sample)	Gross (cpm)	CF	Results (dpm/100cm2 or Sample)
1	wall above waterline	3	8	16	163	4	76
2	wall above waterline	6	8	40	138	4	0
3							
4							
5							
6							
7							
8							
9							
10							
11	N	A					
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							

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Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Aqua
Data file name: SMEAR024
Batch Ended: 4/12/05 8:08

Crosstalk correction performed.

Recalibration Date: 11/03/05
Serial Number: 26966-1

Batch ID: 05-TF-0167 L. OEFFNER (2) AG

Detector ID	Sample ID	Alpha Activity DPM	Alpha Activity σ	Alpha Activity flags	Beta Activity DPM	Beta Activity σ	Beta Activity flags
C1	1	0.00	2.34		0.00	1.97	
C2	2	3.04	3.04		0.58	2.72	

ND ND

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~~Page 1 of 1~~ ND 4-12-05

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Ave

Time: 2.00
Data Mode: DPM Nuclide: SM6LS02 Quench Set: SM6LS02
Background Subtract: 1st Vial

	LL	UL	LCR	2SI	BKG
Region A:	0.5 -	18.6	0	0.0	8.72
Region B:	2.0 -	18.6	0	0.0	8.72
Region C:	40.0 -	2000	0	0.0	12.45

Quench Indicator: tSIE/AEC
Ext Std Terminator: Count
05-TF-0167 L. OEFFNER (2) AG
Luminescence Correction On
Coincidence Time(ns): 18
Delay Before Burst(ns): Normal
Protocol Data Filename: C:\DATA\PROT6.dat
Count Data Filename: C:\DATA\SDATA6.DAT

S#	TIME	CPMA	CPMB	CPMC	tSIE	LUM	FLAG	DPM1	2SIGMA
-1	10.00	8.72	8.72	12.45	621.11	8	B		0.00
0	2.00	554.96	534.32	0.00	612.56	0		1155.46	109.92
1	2.00	0.00	0.00	0.00	602.34	0		0.00	0.00
2	2.00	0.00	0.00	0.00	650.40	0		0.00	0.00

G-72/72

Appendix H

Radon Information

Radon level is not applicable for open air demolitions.

Appendix I

Asbestos Information

For Buildings PH & 24 and associated structures asbestos and lead paint concerns, the following is provided for your use:

Asbestos

Previous asbestos survey reports for Buildings PH & 24 were located and reviewed; these reports were summaries of surveys conducted by PEI Associates in 1989 and Barge-Waggoner-Sumner-Cannon in 1993. Mr. Chris Ahlquist, an Industrial Hygienist with CH2M Hill Mound, performed a walk-through survey of the accessible areas of the buildings during October of 2004 in order to identify any existing or potential asbestos hazards and collect additional samples of suspect materials for verification of asbestos content. Mr. Ahlquist is an Ohio Department of Health Certified Asbestos Hazard Evaluation Specialist as required by State regulations for individuals assessing asbestos-containing materials. Concerning Building PH, four (4) materials were found to be asbestos-containing and one (1) was assumed to contain asbestos. Other than roofing materials, no asbestos-containing materials were found within Building 24. The asphalt roofing located on the buildings is assumed to contain asbestos and is a Nonfriable Category I material in accordance with the EPA's NESHAP.

With the exception of the roofing materials, these materials will be removed and packaged by an Ohio Department of Health Licensed Asbestos Abatement Contractor or other properly trained and certified personnel when PH Building has been place in a "cold and dark" configuration with respect to utilities. The asbestos materials will be removed in accordance with NESHAP requirements and placed into an approved waste container for disposal by the Mound Waste Management Group. The asphalt roofing material is a Nonfriable Category I material in accordance with NESHAP and may remain in place during demolition.

Lead

No previous lead surveys or sampling data were found for Buildings PH & 24. Mr. Chris Ahlquist, an Industrial Hygienist with CH2M Hill Mound, performed a walk-through survey of the accessible areas of the referenced buildings during October of 2004 in order to identify any existing or potential lead paint hazards. The paint coatings present were observed to be largely intact and no potential hazards observed. Untested paint should be assumed to contain lead until such time that testing proves otherwise.

Since the buildings are scheduled for imminent demolition, painted surfaces will be tested for lead content as planned work indicates the need for such testing in order to avoid worker exposure to lead. This restriction will be incorporated into work plans for which disturbance of paint is a possibility.

These determinations were made by Mr. Christopher Ahlquist who is an Ohio Department of Health Licensed Lead Risk Assessor.

Chris Ahlquist

Date: October 14, 2004

From: Christopher Ahlquist
MCP Safety & Health

To: Mark Schmidt
BOSS Project Team, Engineering

Re: Buildings PH & 24: Asbestos-Containing Materials

During October of 2004, Mr. Christopher Ahlquist, an Industrial Hygienist with CH2M Hill Mound, Inc. (CH2M), completed a survey of Buildings PH & 24 at the Mound site in Miamisburg, Ohio for purpose of identifying asbestos-containing materials contained therein. Mr. Ahlquist is an Ohio Department of Health Certified Asbestos Hazard Evaluation Specialist as required by Ohio Department of Health regulations. During the course of the survey, Mr. Ahlquist reviewed previous survey reports and sampling data and collected additional bulk samples of materials found within Buildings PH & 24 as necessary in order to determine the asbestos content of said materials. A room-by-room inspection of all accessible spaces was then conducted in order to prepare an inventory of the location and approximate quantities of identified asbestos-containing materials. Four (4) distinct types of materials were found to contain greater than one percent (>1%) asbestos content which defines a material as asbestos-containing by EPA and OSHA regulations. Additionally, explosion-proof light fixture gaskets were assumed to contain asbestos. No asphalt roofing materials were sampled during the course of this or previous referenced surveys, and all such materials should be assumed to contain asbestos until analysis indicates otherwise.

Sample Method

During CH2M's survey bulk samples were collected utilizing sampling methods and protocol specified in the EPA's Asbestos Hazard Emergency Response Act (AHERA). Each sample was collected and placed in a clean, sealable hard-shell container and labeled with a unique sample identification number. Pertinent information was recorded on a Bulk Sample Data Sheet including sample identification number, date of inspection, name of inspector, building name, a brief description and location of the sample, and the type of material sampled (e.g., preformed-block pipe insulation, aircell-paper pipe insulation, etc.).

Analysis of Samples

The samples were submitted to DataChem Laboratories of Cincinnati, Ohio and analyzed for asbestos content by PLM and dispersion staining (Method Reference: 40 CFR Part 763, Volume 47, No. 103, May 27, 1982 pg. 23376). This analytical method, which the EPA currently recommends for the determination of asbestos in bulk samples of suspect

materials, can be used for qualitative identification of six morphologically different types of asbestos fibers: chrysotile, amosite, crocidolite, anthophyllite, tremolite, and actinolite asbestos. The method specifies that the asbestos content in a bulk sample shall be estimated and reported as a finite percentage (rounded to the nearest percentage) within the range of 0 to 100. The result of the bulk sample analysis is reported in a standard written laboratory report. This report includes the client name, the project number, the laboratory identification number, the sample number assigned to the bulk sample upon receipt at the laboratory, and the field number assigned to the bulk sample upon collection at the site. If the bulk sample contains more than one distinct layer of material, each layer is analyzed separately. The composition of the bulk sample is reported in percentages of asbestos (i.e., cellulose, fiberglass, or other) components. The results of the sample analyses can be found on the laboratory reports.

The analyzing laboratory is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP). NVLAP is the agency sponsored by the National Institute of Standards and Technology providing EPA accreditation of laboratories analyzing bulk samples for asbestos content.

Conclusions

The locations of asbestos-containing materials identified, material descriptions, quantities, and other pertinent information can be found on *Table: Inventory of Asbestos-Containing Materials* attached with this report. Five (5) different materials (each represented by a unique assigned homogeneous area number) were identified through analysis or assumption to be asbestos-containing (>1%) per EPA and OSHA definition. Since the building is scheduled for demolition, the EPA regulates activities related to asbestos-containing materials identified within or on the structure. The EPA will have to be notified in writing on the proper forms and all asbestos-containing materials (with the possible exception of Category I nonfriable roofing) removed before demolition can occur. Removal activities must be accomplished by properly trained individuals employing appropriate work methods and engineering controls.

Please call with any questions or concerns.

Respectfully,

Christopher Ahlquist
Industrial Hygienist

TABLE: INVENTORY OF ASBESTOS-CONTAINING MATERIALS
BUILDING PH
OCTOBER 14, 2004

Location of ACM	Material Description	Homo-geneous Area No.	Type ACM	Material Quantity (approx.)
The following materials were located in the Oil Pump House West Room:				
Pipes	Preformed-block pipe insulation	1	TSI	15 lf
Explosion-proof light fixtures	Explosion-proof light fixture gasket	5*	Misc.	4 count
The following materials were located in the Oil Pump House East Room:				
Pipes	Preformed-block pipe insulation	1	TSI	12 lf
Pipe fittings	Cementitious fitting insulation between sections of fiberglass pipe insulation	2	TSI	25 ftgs
Explosion-proof light fixtures	Explosion-proof light fixture gasket	5*	Misc.	4 count
The following materials were located outside between Buildings PH and 24:				
Pipes	Preformed-block pipe insulation covered with tar felt jacket	1/3	TSI	12 lf
The following materials were located outside on the south side of Building PH:				
Abandoned oil lines	Grey/brown felt and black tar	4^	TSI	25 sf

Notes:

TSI = Thermal Systems Insulation
Misc. = Miscellaneous Material
lf = Linear feet
sf = Square feet
ftg = Fitting

^ Refers to material that was currently above grade and exposed.
*This material was assumed to contain asbestos.

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Appendix J

Lead Information

For Buildings PH & 24 and associated structures asbestos and lead paint concerns, the following is provided for your use:

Asbestos

Previous asbestos survey reports for Buildings PH & 24 were located and reviewed; these reports were summaries of surveys conducted by PEI Associates in 1989 and Barge-Waggoner-Sumner-Cannon in 1993. Mr. Chris Ahlquist, an Industrial Hygienist with CH2M Hill Mound, performed a walk-through survey of the accessible areas of the buildings during October of 2004 in order to identify any existing or potential asbestos hazards and collect additional samples of suspect materials for verification of asbestos content. Mr. Ahlquist is an Ohio Department of Health Certified Asbestos Hazard Evaluation Specialist as required by State regulations for individuals assessing asbestos-containing materials. Concerning Building PH, four (4) materials were found to be asbestos-containing and one (1) was assumed to contain asbestos. Other than roofing materials, no asbestos-containing materials were found within Building 24. The asphalt roofing located on the buildings is assumed to contain asbestos and is a Nonfriable Category I material in accordance with the EPA's NESHAP.

With the exception of the roofing materials, these materials will be removed and packaged by an Ohio Department of Health Licensed Asbestos Abatement Contractor or other properly trained and certified personnel when PH Building has been place in a "cold and dark" configuration with respect to utilities. The asbestos materials will be removed in accordance with NESHAP requirements and placed into an approved waste container for disposal by the Mound Waste Management Group. The asphalt roofing material is a Nonfriable Category I material in accordance with NESHAP and may remain in place during demolition.

Lead

No previous lead surveys or sampling data were found for Buildings PH & 24. Mr. Chris Ahlquist, an Industrial Hygienist with CH2M Hill Mound, performed a walk-through survey of the accessible areas of the referenced buildings during October of 2004 in order to identify any existing or potential lead paint hazards. The paint coatings present were observed to be largely intact and no potential hazards observed. Untested paint should be assumed to contain lead until such time that testing proves otherwise.

Since the buildings are scheduled for imminent demolition, painted surfaces will be tested for lead content as planned work indicates the need for such testing in order to avoid worker exposure to lead. This restriction will be incorporated into work plans for which disturbance of paint is a possibility.

These determinations were made by Mr. Christopher Ahlquist who is an Ohio Department of Health Licensed Lead Risk Assessor.

Chris Ahlquist

Appendix K

Chemical Information

A list of chemicals known to have been in Buildings PH and 24 is provided.

Chemicals and Products Used or Stored in Building PH

Chlorodifluoromethane (HCFC-22)
Cytotech CF& Liquid De-Icer
Duo-Seal Pump Oil
Ethylene Glycol
Mercury (switches, heater controls)
No. 6 Fuel oil
No. 2 Fuel oil
Oil Waste, Duo-Seal Pump Oil
Paint, Acrylic
Paint, Latex
Plastic Pipe Primer/Cement
Zeolite (Aluminosilicate)

Chemicals and Products Used or Stored in Building 24

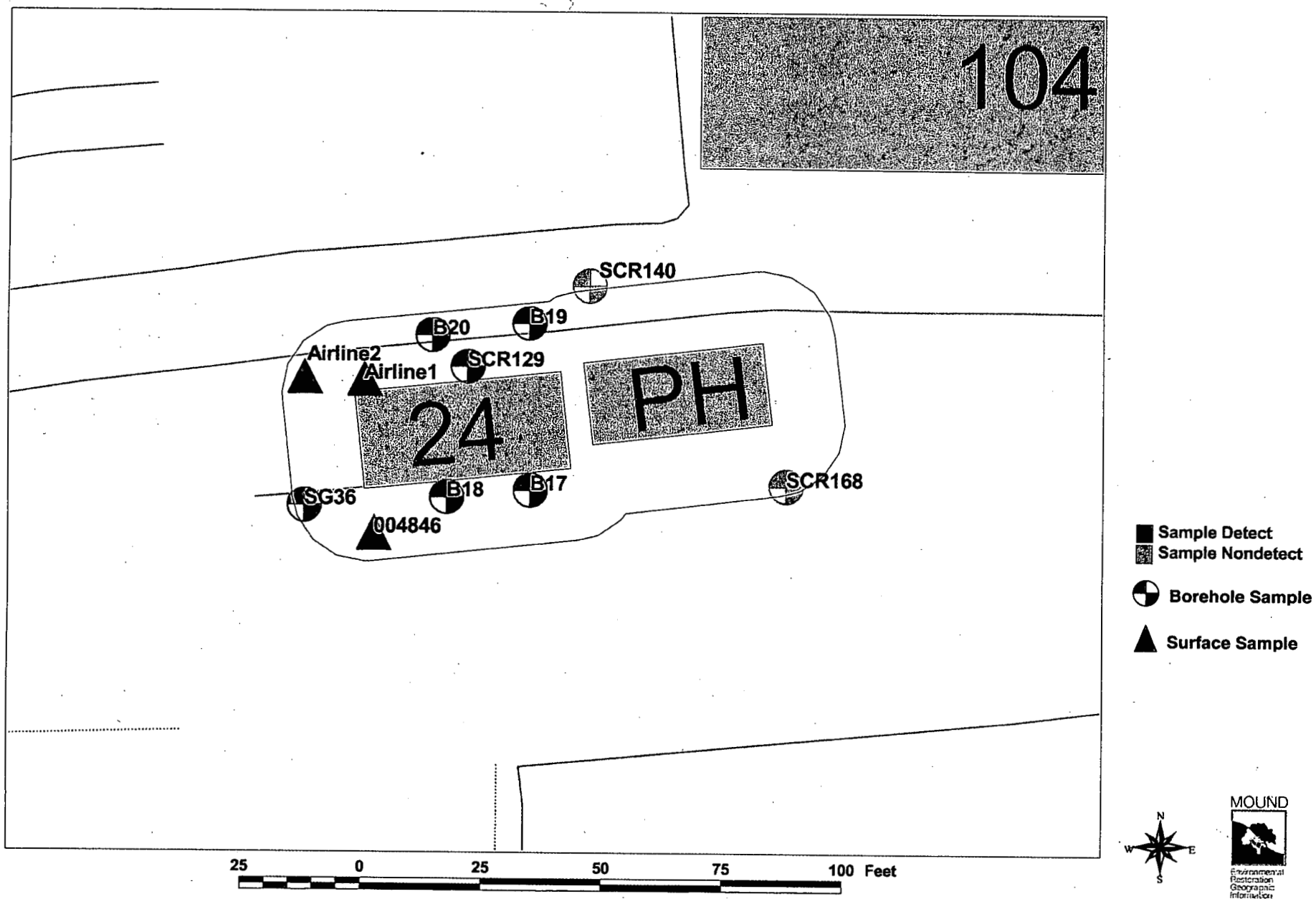
Amberlite (Quat amine divinylbenzene/styrene copolymer)
Calci-Solve
Chlorodifluoromethane
Dichlorodifluoromethane
Duo-Seal Pump Oil
Ethylene Glycol
Mercury (Mercury vapor lights, switches, heater controls)
Rinse Water
Rust Inhibitor
Sodium Hypochlorite
Sodium Silicate (Ancool 3400)
Zeolite (Aluminosilicate)

Appendix L

Soil Sampling, Vicinity

Soil contamination at soil sample locations O04846, SCR129, and B18 are included in PRS 441 (Reference "Historic Sample Locations within 15 feet of Building PH and 24" map, Page L1 of 59, of this appendix).

Historic Sample Locations within 15 feet of Building 24 & PH



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Buildings PH and 24 Detects

Location_ name	Sample_id	Collection _date	Value_name	Measured_ value	Value_ units	Detection _limit	Chem_ class	Start_ depth	End_ depth	CAS_number	Lab	Data	Project_ code	Media	Comments
B18	B18001	19940808	2-Methylnaphthalene	970.000	UG/KG		ORSVO	0.00	0.50	91-57-6	J	J	2680	Soil	0
B20	B20001	19940809	2-Methylnaphthalene	190.000	UG/KG		ORSVO	0.50	1.00	91-57-6	J	J	2680	Soil	0
B17	B17001	19940808	2-Methylnaphthalene	110.000	UG/KG		ORSVO	0.00	0.50	91-57-6	J	J	2680	Soil	0
B17	B17002	19940808	2-Methylnaphthalene	86.000	UG/KG		ORSVO	3.00	4.00	91-57-6	J	J	2680	Soil	0
B19	B19002	19940809	4,4'-DDE	0.550	UG/KG		ORPPB	3.50	4.00	72-55-9	JP	J	2680	Soil	0
B18	B18001	19940808	Acenaphthene	5500.000	UG/KG		ORSVO	0.00	0.50	83-32-9			2680	Soil	0
B17	B17001	19940808	Acenaphthene	340.000	UG/KG		ORSVO	0.00	0.50	83-32-9	J	J	2680	Soil	0
B17	B17001	19940808	Acenaphthylene	62.000	UG/KG		ORSVO	0.00	0.50	208-96-8	J	J	2680	Soil	See Note
B20	B20002	19940809	Aldrin	1.400	UG/KG		ORPPB	3.00	4.00	309-00-2	J	J	2680	Soil	0
B20	B20001	19940809	Aldrin	1.200	UG/KG		ORPPB	0.50	1.00	309-00-2	JP	J	2680	Soil	0
B19	B19002	19940809	Aldrin	0.800	UG/KG		ORPPB	3.50	4.00	309-00-2	JP	J	2680	Soil	0
B18	B18002	19940808	Aluminum	12700.000	MG/KG		INORG	3.50	4.50	7429-90-5			2680	Soil	0
B17	B17002	19940808	Aluminum	9050.000	MG/KG		INORG	3.00	4.00	7429-90-5			2680	Soil	0
B20	B20002	19940809	Aluminum	5160.000	MG/KG		INORG	3.00	4.00	7429-90-5			2680	Soil	0
B19	B19002	19940809	Aluminum	4970.000	MG/KG		INORG	3.50	4.00	7429-90-5			2680	Soil	0
B18	B18001	19940808	Aluminum	3760.000	MG/KG		INORG	0.00	0.50	7429-90-5			2680	Soil	0
B17	B17001	19940808	Aluminum	3700.000	MG/KG		INORG	0.00	0.50	7429-90-5			2680	Soil	0
B19	B19001	19940809	Aluminum	2950.000	MG/KG		INORG	0.70	1.50	7429-90-5			2680	Soil	0
B20	B20001	19940809	Aluminum	1100.000	MG/KG		INORG	0.50	1.00	7429-90-5			2680	Soil	0
B18	B18001	19940808	Anthracene	5600.000	UG/KG		ORSVO	0.00	0.50	120-12-7			2680	Soil	0
B17	B17001	19940808	Anthracene	370.000	UG/KG		ORSVO	0.00	0.50	120-12-7			2680	Soil	0
B17	B17001	19940808	Aroclor-1248	720.000	UG/KG		ORPPB	0.00	0.50	12672-29-6	Y	J	2680	Soil	0
B17	B17002	19940808	Aroclor-1248	220.000	UG/KG		ORPPB	3.00	4.00	12672-29-6			2680	Soil	0
B17	B17001	19940808	Aroclor-1254	830.000	UG/KG		ORPPB	0.00	0.50	11097-69-1	Y	J	2680	Soil	9
B17	B17002	19940808	Aroclor-1254	200.000	UG/KG		ORPPB	3.00	4.00	11097-69-1			2680	Soil	0
B18	B18001	19940808	Arsenic	6.500	MG/KG		INORG	0.00	0.50	7440-38-2			2680	Soil	19
B17	B17002	19940808	Arsenic	5.000	MG/KG		INORG	3.00	4.00	7440-38-2			2680	Soil	1
B18	B18002	19940808	Arsenic	4.300	MG/KG		INORG	3.50	4.50	7440-38-2			2680	Soil	1
B17	B17001	19940808	Arsenic	3.800	MG/KG		INORG	0.00	0.50	7440-38-2			2680	Soil	1
B20	B20002	19940809	Arsenic	2.900	MG/KG		INORG	3.00	4.00	7440-38-2			2680	Soil	1
B19	B19002	19940809	Arsenic	2.600	MG/KG		INORG	3.50	4.00	7440-38-2			2680	Soil	1
B20	B20001	19940809	Arsenic	1.900	MG/KG		INORG	0.50	1.00	7440-38-2	B		2680	Soil	0
B20	B20002	19940809	Barium	59.800	MG/KG		INORG	3.00	4.00	7440-39-3			2680	Soil	0
B18	B18001	19940808	Barium	52.300	MG/KG		INORG	0.00	0.50	7440-39-3			2680	Soil	0
B19	B19002	19940809	Barium	37.600	MG/KG		INORG	3.50	4.00	7440-39-3	B		2680	Soil	0
B18	B18002	19940808	Barium	36.900	MG/KG		INORG	3.50	4.50	7440-39-3	B		2680	Soil	0
B17	B17002	19940808	Barium	36.400	MG/KG		INORG	3.00	4.00	7440-39-3	B		2680	Soil	0
B19	B19001	19940809	Barium	34.000	MG/KG		INORG	0.70	1.50	7440-39-3	B		2680	Soil	0
B17	B17001	19940808	Barium	29.000	MG/KG		INORG	0.00	0.50	7440-39-3	B		2680	Soil	0
B20	B20001	19940809	Barium	10.200	MG/KG		INORG	0.50	1.00	7440-39-3	B		2680	Soil	0
B18	B18001	19940808	Benzo(a)anthracene	10000.000	UG/KG		ORSVO	0.00	0.50	56-55-3			2680	Soil	13
B17	B17001	19940808	Benzo(a)anthracene	1400.000	UG/KG		ORSVO	0.00	0.50	56-55-3			2680	Soil	0
B17	B17002	19940808	Benzo(a)anthracene	330.000	UG/KG		ORSVO	3.00	4.00	56-55-3	J	J	2680	Soil	0
B18	B18001	19940808	Benzo(a)pyrene	9100.000	UG/KG		ORSVO	0.00	0.50	50-32-8			2680	Soil	134

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B17	B17001	19940808	Benzo(a)pyrene	1200.000	UG/KG		ORSVO	0.00	0.50	50-32-8			2680	Soil	13
B17	B17002	19940808	Benzo(a)pyrene	260.000	UG/KG		ORSVO	3.00	4.00	50-32-8	J	J	2680	Soil	0
B20	B20001	19940809	Benzo(a)pyrene	72.000	UG/KG		ORSVO	0.50	1.00	50-32-8	J	J	2680	Soil	0
B19	B19001	19940809	Benzo(a)pyrene	55.000	UG/KG		ORSVO	0.70	1.50	50-32-8	J	J	2680	Soil	0
B18	B18001	19940808	Benzo(b)fluoranthene	16000.000	UG/KG		ORSVO	0.00	0.50	205-99-2	X		2680	Soil	13
B17	B17001	19940808	Benzo(b)fluoranthene	2600.000	UG/KG		ORSVO	0.00	0.50	205-99-2	X		2680	Soil	0
B17	B17002	19940808	Benzo(b)fluoranthene	560.000	UG/KG		ORSVO	3.00	4.00	205-99-2	X		2680	Soil	0
B20	B20001	19940809	Benzo(b)fluoranthene	130.000	UG/KG		ORSVO	0.50	1.00	205-99-2	XJ	J	2680	Soil	0
B20	B20002	19940809	Benzo(b)fluoranthene	52.000	UG/KG		ORSVO	3.00	4.00	205-99-2	J	J	2680	Soil	0
B18	B18001	19940808	Benzo(g,h,i)perylene	5800.000	UG/KG		ORSVO	0.00	0.50	191-24-2			2680	Soil	See Note
B17	B17002	19940808	Benzo(g,h,i)perylene	210.000	UG/KG		ORSVO	3.00	4.00	191-24-2	J	J	2680	Soil	See Note
B17	B17001	19940808	Benzo(g,h,i)perylene	200.000	UG/KG		ORSVO	0.00	0.50	191-24-2			2680	Soil	See Note
B18	B18001	19940808	Benzo(k)fluoranthene	27000.000	UG/KG		ORSVO	0.00	0.50	207-08-9	X		2680	Soil	0
B17	B17001	19940808	Benzo(k)fluoranthene	3900.000	UG/KG		ORSVO	0.00	0.50	207-08-9	XE		2680	Soil	0
B17	B17002	19940808	Benzo(k)fluoranthene	860.000	UG/KG		ORSVO	3.00	4.00	207-08-9	X		2680	Soil	0
B19	B19002	19940809	Benzo(k)fluoranthene	240.000	UG/KG		ORSVO	3.50	4.00	207-08-9	J	J	2680	Soil	0
B20	B20001	19940809	Benzo(k)fluoranthene	210.000	UG/KG		ORSVO	0.50	1.00	207-08-9	XJ	J	2680	Soil	0
B20	B20002	19940809	Benzo(k)fluoranthene	85.000	UG/KG		ORSVO	3.00	4.00	207-08-9	J	J	2680	Soil	0
B20	B20002	19940809	Benzoic Acid	39.000	UG/KG		ORSVO	3.00	4.00	65-85-0	J	J	2680	Soil	0
B18	B18002	19940808	Beryllium	0.630	MG/KG		INORG	3.50	4.50	7440-41-7	B		2680	Soil	0
B17	B17002	19940808	Beryllium	0.450	MG/KG		INORG	3.00	4.00	7440-41-7	B		2680	Soil	0
B18	B18001	19940808	Beryllium	0.250	MG/KG		INORG	0.00	0.50	7440-41-7	B		2680	Soil	0
B18	B18001	19940808	Bis(2-ethylhexyl)phthalate	530.000	UG/KG		ORSVO	0.00	0.50	117-81-7	J	J	2680	Soil	0
B17	B17001	19940808	Bis(2-ethylhexyl)phthalate	480.000	UG/KG		ORSVO	0.00	0.50	117-81-7			2680	Soil	0
B17	B17002	19940808	Bis(2-ethylhexyl)phthalate	170.000	UG/KG		ORSVO	3.00	4.00	117-81-7	J	J	2680	Soil	0
B20	B20001	19940809	Bis(2-ethylhexyl)phthalate	82.000	UG/KG		ORSVO	0.50	1.00	117-81-7	J	J	2680	Soil	0
B20	B20002	19940809	Bismuth	73.500	MG/KG		INORG	3.00	4.00	7440-69-9			2680	Soil	See Note
B20	B20001	19940809	Bismuth	69.100	MG/KG		INORG	0.50	1.00	7440-69-9			2680	Soil	See Note
B19	B19002	19940809	Bismuth	66.400	MG/KG		INORG	3.50	4.00	7440-69-9			2680	Soil	See Note
B17	B17001	19940808	Bismuth	65.200	MG/KG		INORG	0.00	0.50	7440-69-9			2680	Soil	See Note
B18	B18001	19940808	Bismuth	63.800	MG/KG		INORG	0.00	0.50	7440-69-9			2680	Soil	See Note
B19	B19001	19940809	Bismuth	62.000	MG/KG		INORG	0.70	1.50	7440-69-9			2680	Soil	See Note
B17	B17002	19940808	Bismuth	56.800	MG/KG		INORG	3.00	4.00	7440-69-9			2680	Soil	See Note
B18	B18002	19940808	Bismuth	38.700	MG/KG		INORG	3.50	4.50	7440-69-9			2680	Soil	See Note
B20	B20001	19940809	Butyl Benzyl Phthalate	670.000	UG/KG		ORSVO	0.50	1.00	85-68-7	JB	BJ	2680	Soil	0
B18	B18001	19940808	Cadmium	0.630	MG/KG		INORG	0.00	0.50	7440-43-9	B		2680	Soil	0
B17	B17001	19940808	Cadmium	0.460	MG/KG		INORG	0.00	0.50	7440-43-9	B		2680	Soil	0
B17	B17002	19940808	Cadmium	0.250	MG/KG		INORG	3.00	4.00	7440-43-9	B		2680	Soil	0
B19	B19001	19940809	Calcium	345000.000	MG/KG		INORG	0.70	1.50	7440-70-2	E	J	2680	Soil	2
B20	B20002	19940809	Calcium	116000.000	MG/KG		INORG	3.00	4.00	7440-70-2	E	J	2680	Soil	0
B20	B20001	19940809	Calcium	107000.000	MG/KG		INORG	0.50	1.00	7440-70-2	E	J	2680	Soil	0
B19	B19002	19940809	Calcium	105000.000	MG/KG		INORG	3.50	4.00	7440-70-2	E	J	2680	Soil	0
B18	B18001	19940808	Calcium	95500.000	MG/KG		INORG	0.00	0.50	7440-70-2	E	J	2680	Soil	0
B17	B17002	19940808	Calcium	91200.000	MG/KG		INORG	3.00	4.00	7440-70-2	E	J	2680	Soil	0
B17	B17001	19940808	Calcium	89600.000	MG/KG		INORG	0.00	0.50	7440-70-2	E	J	2680	Soil	0
B18	B18002	19940808	Calcium	75000.000	MG/KG		INORG	3.50	4.50	7440-70-2	E	J	2680	Soil	0
B18	B18001	19940808	Carbazole	4000.000	UG/KG		ORSVO	0.00	0.50	86-74-8			2680	Soil	0
B17	B17001	19940808	Carbazole	300.000	UG/KG		ORSVO	0.00	0.50	86-74-8	J	J	2680	Soil	0

B18	B18002	19940808	Cerium	30.400	MG/KG		INORG	3.50	4.50	7440-45-1	B		2680	Soil	See Note
B18	B18001	19940808	Cerium	17.400	MG/KG		INORG	0.00	0.50	7440-45-1	B		2680	Soil	See Note
B17	B17001	19940808	Cerium	16.000	MG/KG		INORG	0.00	0.50	7440-45-1	B		2680	Soil	See Note
B17	B17002	19940808	Cerium	15.900	MG/KG		INORG	3.00	4.00	7440-45-1	B		2680	Soil	See Note
B19	B19002	19940809	Chloride	345.000	MG/KG		ANION	3.50	4.00	16887-00-6		J	2680	Soil	See Note
B20	B20002	19940809	Chloride	124.000	MG/KG		ANION	3.00	4.00	16887-00-6		J	2680	Soil	See Note
B18	B18001	19940808	Chloride	105.000	MG/KG		ANION	0.00	0.50	16887-00-6		J	2680	Soil	See Note
B18	B18002	19940808	Chloride	100.000	MG/KG		ANION	3.50	4.50	16887-00-6		J	2680	Soil	See Note
B17	B17001	19940808	Chloride	61.800	MG/KG		ANION	0.00	0.50	16887-00-6		J	2680	Soil	See Note
B20	B20001	19940809	Chloride	56.700	MG/KG		ANION	0.50	1.00	16887-00-6		J	2680	Soil	See Note
B19	B19001	19940809	Chloride	44.600	MG/KG		ANION	0.70	1.50	16887-00-6		J	2680	Soil	See Note
B18	B18002	19940808	Chromium	16.800	MG/KG		INORG	3.50	4.50	7440-47-3	*		2680	Soil	0
B17	B17002	19940808	Chromium	13.000	MG/KG		INORG	3.00	4.00	7440-47-3	*		2680	Soil	0
B17	B17001	19940808	Chromium	12.800	MG/KG		INORG	0.00	0.50	7440-47-3	*		2680	Soil	0
B18	B18001	19940808	Chromium	9.500	MG/KG		INORG	0.00	0.50	7440-47-3	*		2680	Soil	0
B19	B19001	19940809	Chromium	9.100	MG/KG		INORG	0.70	1.50	7440-47-3	B*		2680	Soil	0
B20	B20002	19940809	Chromium	7.500	MG/KG		INORG	3.00	4.00	7440-47-3	*		2680	Soil	0
B19	B19002	19940809	Chromium	6.600	MG/KG		INORG	3.50	4.00	7440-47-3	*		2680	Soil	0
B20	B20001	19940809	Chromium	2.700	MG/KG		INORG	0.50	1.00	7440-47-3	*		2680	Soil	0
B18	B18001	19940808	Chrysene	11000.000	UG/KG		ORSVO	0.00	0.50	218-01-9			2680	Soil	0
B17	B17001	19940808	Chrysene	1600.000	UG/KG		ORSVO	0.00	0.50	218-01-9			2680	Soil	0
B17	B17002	19940808	Chrysene	310.000	UG/KG		ORSVO	3.00	4.00	218-01-9	J	J	2680	Soil	0
B20	B20001	19940809	Chrysene	180.000	UG/KG		ORSVO	0.50	1.00	218-01-9	J	J	2680	Soil	0
B20	B20002	19940809	Chrysene	42.000	UG/KG		ORSVO	3.00	4.00	218-01-9	J	J	2680	Soil	0
B18	B18002	19940808	Cobalt	11.800	MG/KG		INORG	3.50	4.50	7440-48-4	B		2680	Soil	0
B17	B17002	19940808	Cobalt	8.400	MG/KG		INORG	3.00	4.00	7440-48-4	B		2680	Soil	0
B19	B19001	19940809	Cobalt	5.400	MG/KG		INORG	0.70	1.50	7440-48-4	B		2680	Soil	0
B18	B18001	19940808	Cobalt	4.300	MG/KG		INORG	0.00	0.50	7440-48-4	B		2680	Soil	0
B17	B17001	19940808	Cobalt	4.200	MG/KG		INORG	0.00	0.50	7440-48-4	B		2680	Soil	0
B20	B20002	19940809	Cobalt	3.200	MG/KG		INORG	3.00	4.00	7440-48-4	B		2680	Soil	0
B19	B19002	19940809	Cobalt	2.900	MG/KG		INORG	3.50	4.00	7440-48-4	B		2680	Soil	0
B20	B20001	19940809	Cobalt	1.000	MG/KG		INORG	0.50	1.00	7440-48-4	B		2680	Soil	0
B18	B18001	19940808	Copper	33.900	MG/KG		INORG	0.00	0.50	7440-50-8			2680	Soil	2
B17	B17001	19940808	Copper	26.500	MG/KG		INORG	0.00	0.50	7440-50-8			2680	Soil	2
B17	B17002	19940808	Copper	22.400	MG/KG		INORG	3.00	4.00	7440-50-8			2680	Soil	0
B18	B18002	19940808	Copper	19.700	MG/KG		INORG	3.50	4.50	7440-50-8			2680	Soil	0
B19	B19001	19940809	Copper	11.600	MG/KG		INORG	0.70	1.50	7440-50-8	B		2680	Soil	0
B20	B20002	19940809	Copper	7.700	MG/KG		INORG	3.00	4.00	7440-50-8			2680	Soil	0
B19	B19002	19940809	Copper	6.900	MG/KG		INORG	3.50	4.00	7440-50-8			2680	Soil	0
B20	B20001	19940809	Copper	3.900	MG/KG		INORG	0.50	1.00	7440-50-8	B		2680	Soil	0
B18	B18001	19940808	Dibenz(a,h)anthracene	930.000	UG/KG		ORSVO	0.00	0.50	53-70-3	J	J	2680	Soil	13
B17	B17001	19940808	Dibenz(a,h)anthracene	260.000	UG/KG		ORSVO	0.00	0.50	53-70-3	J		2680	Soil	0
B18	B18001	19940808	Dibenzofuran	2600.000	UG/KG		ORSVO	0.00	0.50	132-64-9	J	J	2680	Soil	0
B17	B17001	19940808	Dibenzofuran	160.000	UG/KG		ORSVO	0.00	0.50	132-64-9	J	J	2680	Soil	0
B20	B20002	19940809	Dieldrin	0.520	UG/KG		ORPPB	3.00	4.00	60-57-1	JP	J	2680	Soil	0
B20	B20001	19940809	Di-n-butyl Phthalate	670.000	UG/KG		ORSVO	0.50	1.00	84-74-2	JB	BJ	2680	Soil	0
B18	B18001	19940808	Di-n-butyl Phthalate	480.000	UG/KG		ORSVO	0.00	0.50	84-74-2	J	J	2680	Soil	0
B18	B18002	19940808	Di-n-butyl Phthalate	98.000	UG/KG		ORSVO	3.50	4.50	84-74-2	J	J	2680	Soil	0

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B17	B17002	19940808	Di-n-butyl Phthalate	67.000	UG/KG		ORSVO	3.00	4.00	84-74-2	J	J	2680	Soil	0
B17	B17001	19940808	Di-n-butyl Phthalate	58.000	UG/KG		ORSVO	0.00	0.50	84-74-2	J	J	2680	Soil	0
B18	B18002	19940808	Dypsprosium	4.600	MG/KG		INORG	3.50	4.50	7429-91-6	B		2680	Soil	See Note
B20	B20002	19940809	Endosulfan Sulfate	0.700	UG/KG		ORPPB	3.00	4.00	1031-07-8	JP	J	2680	Soil	See Note
B19	B19001	19940809	Endosulfan Sulfate	0.390	UG/KG		ORPPB	0.70	1.50	1031-07-8	JP	J	2680	Soil	See Note
B18	B18002	19940808	Endrin	0.700	UG/KG		ORPPB	3.50	4.50	72-20-8	J	J	2680	Soil	0
B18	B18001	19940808	Fluoranthene	23000.000	UG/KG		ORSVO	0.00	0.50	206-44-0			2680	Soil	0
B17	B17001	19940808	Fluoranthene	3200.000	UG/KG		ORSVO	0.00	0.50	206-44-0			2680	Soil	0
B17	B17002	19940808	Fluoranthene	510.000	UG/KG		ORSVO	3.00	4.00	206-44-0			2680	Soil	0
B20	B20002	19940809	Fluoranthene	58.000	UG/KG		ORSVO	3.00	4.00	206-44-0	J	J	2680	Soil	0
B18	B18001	19940808	Fluorene	4000.000	UG/KG		ORSVO	0.00	0.50	86-73-7			2680	Soil	0
B17	B17001	19940808	Fluorene	250.000	UG/KG		ORSVO	0.00	0.50	86-73-7	J	J	2680	Soil	0
B18	B18001	19940808	Fluoride	6.160	MG/KG		ANION	0.00	0.50	16984-48-8		J	2680	Soil	See Note
B18	B18002	19940808	Fluoride	3.370	MG/KG		ANION	3.50	4.50	16984-48-8		J	2680	Soil	See Note
B17	B17001	19940808	Fluoride	2.830	MG/KG		ANION	0.00	0.50	16984-48-8		J	2680	Soil	See Note
B17	B17002	19940808	Fluoride	1.960	MG/KG		ANION	3.00	4.00	16984-48-8		J	2680	Soil	See Note
B20	B20002	19940809	Gadolinium	90.000	MG/KG		INORG	3.00	4.00	7440-54-2	N*	J	2680	Soil	See Note
B17	B17001	19940808	Gadolinium	64.100	MG/KG		INORG	0.00	0.50	7440-54-2	N*	J	2680	Soil	See Note
B18	B18002	19940808	Gadolinium	55.500	MG/KG		INORG	3.50	4.50	7440-54-2	N*	J	2680	Soil	See Note
B18	B18001	19940808	Gadolinium	11.200	MG/KG		INORG	0.00	0.50	7440-54-2	BN*	J	2680	Soil	See Note
B18	B18001	19940808	Indeno(1,2,3-cd)pyrene	5400.000	UG/KG		ORSVO	0.00	0.50	193-39-5			2680	Soil	13
B17	B17001	19940808	Indeno(1,2,3-cd)pyrene	1000.000	UG/KG		ORSVO	0.00	0.50	193-39-5			2680	Soil	0
B17	B17002	19940808	Indeno(1,2,3-cd)pyrene	140.000	UG/KG		ORSVO	3.00	4.00	193-39-5	J	J	2680	Soil	0
B18	B18002	19940808	Iron	27200.000	MG/KG		INORG	3.50	4.50	7439-89-6			2680	Soil	0
B17	B17002	19940808	Iron	18800.000	MG/KG		INORG	3.00	4.00	7439-89-6			2680	Soil	0
B18	B18001	19940808	Iron	11000.000	MG/KG		INORG	0.00	0.50	7439-89-6			2680	Soil	0
B17	B17001	19940808	Iron	10300.000	MG/KG		INORG	0.00	0.50	7439-89-6			2680	Soil	0
B19	B19001	19940809	Iron	10100.000	MG/KG		INORG	0.70	1.50	7439-89-6			2680	Soil	0
B20	B20002	19940809	Iron	7930.000	MG/KG		INORG	3.00	4.00	7439-89-6			2680	Soil	0
B19	B19002	19940809	Iron	6870.000	MG/KG		INORG	3.50	4.00	7439-89-6			2680	Soil	0
B20	B20001	19940809	Iron	3310.000	MG/KG		INORG	0.50	1.00	7439-89-6			2680	Soil	0
B18	B18002	19940808	Lanthanum	10.400	MG/KG		INORG	3.50	4.50	7439-91-0	B		2680	Soil	See Note
B18	B18001	19940808	Lanthanum	9.800	MG/KG		INORG	0.00	0.50	7439-91-0	B		2680	Soil	See Note
B17	B17002	19940808	Lanthanum	9.100	MG/KG		INORG	3.00	4.00	7439-91-0	B		2680	Soil	See Note
B19	B19002	19940809	Lanthanum	6.300	MG/KG		INORG	3.50	4.00	7439-91-0	B		2680	Soil	See Note
B17	B17001	19940808	Lanthanum	5.200	MG/KG		INORG	0.00	0.50	7439-91-0	B		2680	Soil	See Note
B20	B20002	19940809	Lanthanum	4.900	MG/KG		INORG	3.00	4.00	7439-91-0	B		2680	Soil	See Note
B19	B19001	19940809	Lanthanum	4.600	MG/KG		INORG	0.70	1.50	7439-91-0	B		2680	Soil	See Note
B18	B18001	19940808	Lead	53.700	MG/KG		INORG	0.00	0.50	7439-92-1			2680	Soil	2
B17	B17001	19940808	Lead	20.000	MG/KG		INORG	0.00	0.50	7439-92-1			2680	Soil	0
B18	B18002	19940808	Lead	11.400	MG/KG		INORG	3.50	4.50	7439-92-1			2680	Soil	0
B17	B17002	19940808	Lead	11.300	MG/KG		INORG	3.00	4.00	7439-92-1			2680	Soil	0
B19	B19001	19940809	Lead	8.000	MG/KG		INORG	0.70	1.50	7439-92-1	B		2680	Soil	0
B19	B19002	19940809	Lead	7.200	MG/KG		INORG	3.50	4.00	7439-92-1			2680	Soil	0
B20	B20002	19940809	Lead	6.900	MG/KG		INORG	3.00	4.00	7439-92-1			2680	Soil	0
B20	B20001	19940809	Lead	2.900	MG/KG		INORG	0.50	1.00	7439-92-1			2680	Soil	0
Airline1	AIRLINE1	20010625	Lead-210	0.350	PCI/G	0.200	RAD	0.00	0.00	14255-04-0			AIRLINE01	Soil	0
Airline2	AIRLINE2	20010625	Lead-210	0.300	PCI/G	0.270	RAD	0.00	0.00	14255-04-0			AIRLINE01	Soil	0

B18	B18002	19940808	Lithium	26.200	MG/KG		INORG	3.50	4.50	7439-93-2		J	2680	Soil	2
B17	B17002	19940808	Lithium	16.600	MG/KG		INORG	3.00	4.00	7439-93-2	B	J	2680	Soil	0
B20	B20002	19940809	Lithium	7.100	MG/KG		INORG	3.00	4.00	7439-93-2	B	J	2680	Soil	0
B18	B18001	19940808	Lithium	5.100	MG/KG		INORG	0.00	0.50	7439-93-2	B	J	2680	Soil	0
B19	B19002	19940809	Lithium	4.700	MG/KG		INORG	3.50	4.00	7439-93-2	B	J	2680	Soil	0
B17	B17001	19940808	Lithium	3.800	MG/KG		INORG	0.00	0.50	7439-93-2	B	J	2680	Soil	0
B19	B19001	19940809	Lithium	1.800	MG/KG		INORG	0.70	1.50	7439-93-2	B	J	2680	Soil	0
B20	B20001	19940809	Lithium	1.700	MG/KG		INORG	0.50	1.00	7439-93-2	B	J	2680	Soil	0
B18	B18002	19940808	Lutetium	0.900	MG/KG		INORG	3.50	4.50	7439-94-3	B		2680	Soil	See Note
B19	B19001	19940809	Magnesium	73600.000	MG/KG		INORG	0.70	1.50	7439-95-4			2680	Soil	2
B20	B20001	19940809	Magnesium	56900.000	MG/KG		INORG	0.50	1.00	7439-95-4			2680	Soil	2
B20	B20002	19940809	Magnesium	43500.000	MG/KG		INORG	3.00	4.00	7439-95-4			2680	Soil	2
B19	B19002	19940809	Magnesium	40600.000	MG/KG		INORG	3.50	4.00	7439-95-4			2680	Soil	2
B17	B17001	19940808	Magnesium	40300.000	MG/KG		INORG	0.00	0.50	7439-95-4			2680	Soil	2
B18	B18001	19940808	Magnesium	36000.000	MG/KG		INORG	0.00	0.50	7439-95-4			2680	Soil	0
B17	B17002	19940808	Magnesium	25400.000	MG/KG		INORG	3.00	4.00	7439-95-4			2680	Soil	0
B18	B18002	19940808	Magnesium	13800.000	MG/KG		INORG	3.50	4.50	7439-95-4			2680	Soil	0
B19	B19001	19940809	Manganese	615.000	MG/KG		INORG	0.70	1.50	7439-96-5	N	J	2680	Soil	0
B18	B18002	19940808	Manganese	549.000	MG/KG		INORG	3.50	4.50	7439-96-5	N	J	2680	Soil	0
B17	B17002	19940808	Manganese	512.000	MG/KG		INORG	3.00	4.00	7439-96-5	N	J	2680	Soil	0
B18	B18001	19940808	Manganese	300.000	MG/KG		INORG	0.00	0.50	7439-96-5	N	J	2680	Soil	0
B20	B20002	19940809	Manganese	277.000	MG/KG		INORG	3.00	4.00	7439-96-5	N	J	2680	Soil	0
B17	B17001	19940808	Manganese	249.000	MG/KG		INORG	0.00	0.50	7439-96-5	N	J	2680	Soil	0
B19	B19002	19940809	Manganese	238.000	MG/KG		INORG	3.50	4.00	7439-96-5	N	J	2680	Soil	0
B20	B20001	19940809	Manganese	134.000	MG/KG		INORG	0.50	1.00	7439-96-5	N	J	2680	Soil	0
B18	B18001	19940808	Mercury	0.500	MG/KG		INORG	0.00	0.50	7439-97-6	N		2680	Soil	0
B18	B18001	19940808	Naphthalene	2200.000	UG/KG		ORSVO	0.00	0.50	91-20-3	J	J	2680	Soil	0
B17	B17001	19940808	Naphthalene	190.000	UG/KG		ORSVO	0.00	0.50	91-20-3	J	J	2680	Soil	0
B17	B17002	19940808	Naphthalene	65.000	UG/KG		ORSVO	3.00	4.00	91-20-3	J	J	2680	Soil	0
B20	B20002	19940809	Naphthalene	39.000	UG/KG		ORSVO	3.00	4.00	91-20-3	J	J	2680	Soil	0
B18	B18002	19940808	Nickel	24.400	MG/KG		INORG	3.50	4.50	7440-02-0			2680	Soil	0
B17	B17002	19940808	Nickel	17.700	MG/KG		INORG	3.00	4.00	7440-02-0			2680	Soil	0
B17	B17001	19940808	Nickel	15.100	MG/KG		INORG	0.00	0.50	7440-02-0			2680	Soil	0
B19	B19001	19940809	Nickel	12.400	MG/KG		INORG	0.70	1.50	7440-02-0	B		2680	Soil	0
B18	B18001	19940808	Nickel	10.100	MG/KG		INORG	0.00	0.50	7440-02-0			2680	Soil	0
B20	B20002	19940809	Nickel	7.700	MG/KG		INORG	3.00	4.00	7440-02-0	B		2680	Soil	0
B19	B19002	19940809	Nickel	7.100	MG/KG		INORG	3.50	4.00	7440-02-0	B		2680	Soil	0
B20	B20001	19940809	Nickel	4.100	MG/KG		INORG	0.50	1.00	7440-02-0	B		2680	Soil	0
B20	B20002	19940809	Nitrate/Nitrite	7.620	MG/KG		ANION	3.00	4.00	1497-55-8			2680	Soil	See Note
B19	B19002	19940809	Nitrate/Nitrite	6.950	MG/KG		ANION	3.50	4.00	1497-55-8			2680	Soil	See Note
B18	B18001	19940808	Nitrate/Nitrite	5.790	MG/KG		ANION	0.00	0.50	1497-55-8			2680	Soil	See Note
B17	B17001	19940808	Nitrate/Nitrite	4.220	MG/KG		ANION	0.00	0.50	1497-55-8			2680	Soil	See Note
B20	B20001	19940809	Nitrate/Nitrite	2.660	MG/KG		ANION	0.50	1.00	1497-55-8			2680	Soil	See Note
B17	B17002	19940808	Nitrate/Nitrite	1.910	MG/KG		ANION	3.00	4.00	1497-55-8			2680	Soil	See Note
B19	B19001	19940809	Nitrate/Nitrite	1.760	MG/KG		ANION	0.70	1.50	1497-55-8			2680	Soil	See Note
B18	B18002	19940808	Nitrate/Nitrite	1.050	MG/KG		ANION	3.50	4.50	1497-55-8			2680	Soil	See Note
B20	B20001	19940809	Organic Carbon	85100.000	MG/KG		GENERA	0.50	1.00	TOC		J	2680	Soil	See Note
B19	B19001	19940809	Organic Carbon	28000.000	MG/KG		GENERA	0.70	1.50	TOC		J	2680	Soil	See Note

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B19	B19002	19940809	Organic Carbon	16800.000	MG/KG		GENERA	3.50	4.00	TOC		J	2680	Soil	See Note
B17	B17002	19940808	Organic Carbon	15300.000	MG/KG		GENERA	3.00	4.00	TOC		J	2680	Soil	See Note
B20	B20002	19940809	Organic Carbon	14800.000	MG/KG		GENERA	3.00	4.00	TOC		J	2680	Soil	See Note
B18	B18001	19940808	Organic Carbon	14400.000	MG/KG		GENERA	0.00	0.50	TOC		J	2680	Soil	See Note
B17	B17001	19940808	Organic Carbon	9460.000	MG/KG		GENERA	0.00	0.50	TOC		J	2680	Soil	See Note
B18	B18002	19940808	Organic Carbon	4800.000	MG/KG		GENERA	3.50	4.50	TOC		J	2680	Soil	See Note
B18	B18001	19940808	Phenanthrene	22000.000	UG/KG		ORSVO	0.00	0.50	85-01-8			2680	Soil	See Note
B17	B17001	19940808	Phenanthrene	2800.000	UG/KG		ORSVO	0.00	0.50	85-01-8	E		2680	Soil	See Note
B17	B17002	19940808	Phenanthrene	290.000	UG/KG		ORSVO	3.00	4.00	85-01-8	J	J	2680	Soil	See Note
B20	B20001	19940809	Phenanthrene	150.000	UG/KG		ORSVO	0.50	1.00	85-01-8	J	J	2680	Soil	See Note
B20	B20002	19940809	Phenanthrene	43.000	UG/KG		ORSVO	3.00	4.00	85-01-8	J	J	2680	Soil	See Note
B18	B18001	19940808	Plutonium-238	38.000	PCI/G		RAD	0.00	0.50	13981-16-3			2680	Soil	12
B17	B17001	19940808	Plutonium-238	9.000	PCI/G		RAD	0.00	0.50	13981-16-3			2680	Soil	12
B20	B20001	19940809	Plutonium-238	2.000	PCI/G		RAD	0.50	1.00	13981-16-3			2680	Soil	2
B17	B17002	19940808	Plutonium-238	0.670	PCI/G		RAD	3.00	4.00	13981-16-3		J	2680	Soil	2
B18	B18001	19940808	Plutonium-238	0.310	PCI/G		RAD	0.00	0.50	13981-16-3		J	2680	Soil	2
B17	B17001	19940808	Plutonium-238	0.250	PCI/G		RAD	0.00	0.50	13981-16-3		J	2680	Soil	2
B18	B18002	19940808	Potassium	3620.000	MG/KG		INORG	3.50	4.50	7440-09-7			2680	Soil	2
B17	B17002	19940808	Potassium	2980.000	MG/KG		INORG	3.00	4.00	7440-09-7			2680	Soil	2
B20	B20002	19940809	Potassium	1480.000	MG/KG		INORG	3.00	4.00	7440-09-7			2680	Soil	0
B19	B19002	19940809	Potassium	1220.000	MG/KG		INORG	3.50	4.00	7440-09-7			2680	Soil	0
B19	B19001	19940809	Potassium	1210.000	MG/KG		INORG	0.70	1.50	7440-09-7	B		2680	Soil	0
B18	B18001	19940808	Potassium	1130.000	MG/KG		INORG	0.00	0.50	7440-09-7			2680	Soil	0
B17	B17001	19940808	Potassium	1130.000	MG/KG		INORG	0.00	0.50	7440-09-7			2680	Soil	0
B20	B20001	19940809	Potassium	641.000	MG/KG		INORG	0.50	1.00	7440-09-7	B		2680	Soil	0
B18	B18002	19940808	Potassium-40	25.620	PCI/G		RAD	3.50	4.50	13966-00-2			2680	Soil	1
B18	B18102	19940808	Potassium-40	25.020	PCI/G		RAD	3.50	4.50	13966-00-2			2680	Soil	1
B17	B17002	19940808	Potassium-40	19.200	PCI/G		RAD	3.00	4.00	13966-00-2			2680	Soil	1
B18	B18001	19940808	Praseodym	36.100	MG/KG		INORG	0.00	0.50	7440-10-0	B		2680	Soil	See Note
B17	B17001	19940808	Praseodym	35.400	MG/KG		INORG	0.00	0.50	7440-10-0	B		2680	Soil	See Note
B20	B20002	19940809	Praseodym	10.700	MG/KG		INORG	3.00	4.00	7440-10-0	B		2680	Soil	See Note
B18	B18001	19940808	Pyrene	25000.000	UG/KG		ORSVO	0.00	0.50	129-00-0			2680	Soil	0
B17	B17001	19940808	Pyrene	3000.000	UG/KG		ORSVO	0.00	0.50	129-00-0			2680	Soil	0
B17	B17002	19940808	Pyrene	580.000	UG/KG		ORSVO	3.00	4.00	129-00-0			2680	Soil	0
B20	B20001	19940809	Pyrene	190.000	UG/KG		ORSVO	0.50	1.00	129-00-0	J	J	2680	Soil	0
B20	B20002	19940809	Pyrene	55.000	UG/KG		ORSVO	3.00	4.00	129-00-0	J	J	2680	Soil	0
Airline2	AIRLINE2	20010625	Radium-226	1.160	PCI/G	0.270	RAD	0.00	0.00	13982-63-3			AIRLINE01	Soil	11
Airline1	AIRLINE1	20010625	Radium-226	1.020	PCI/G	0.230	RAD	0.00	0.00	13982-63-3			AIRLINE01	Soil	11
B18	B18102	19940808	Radium-226	0.840	PCI/G		RAD	3.50	4.50	13982-63-3		J	2680	Soil	11
B17	B17002	19940808	Radium-226	0.750	PCI/G		RAD	3.00	4.00	13982-63-3		J	2680	Soil	11
B18	B18001	19940808	Radium-226	0.650	PCI/G		RAD	0.00	0.50	13982-63-3		J	2680	Soil	11
B17	B17001	19940808	Radium-226	0.650	PCI/G		RAD	0.00	0.50	13982-63-3		J	2680	Soil	11
B19	B19002	19940809	Radium-226	0.530	PCI/G		RAD	3.50	4.00	13982-63-3			2680	Soil	11
B20	B20002	19940809	Radium-226	0.520	PCI/G		RAD	3.00	4.00	13982-63-3			2680	Soil	11
B20	B20001	19940809	Radium-226	0.410	PCI/G		RAD	0.50	1.00	13982-63-3			2680	Soil	11
B19	B19001	19940809	Radium-226	0.360	PCI/G		RAD	0.70	1.50	13982-63-3			2680	Soil	11
B20	B20002	19940809	Samarium	53.100	MG/KG		INORG	3.00	4.00	7440-19-9			2680	Soil	See Note
B18	B18001	19940808	Silver	0.740	MG/KG		INORG	0.00	0.50	7440-22-4	B		2680	Soil	0

B19	B19002	19940809	Sodium	1020.000	MG/KG		INORG	3.50	4.00	7440-23-5	B		2680	Soil	2
B19	B19001	19940809	Sodium	980.000	MG/KG		INORG	0.70	1.50	7440-23-5	B		2680	Soil	2
B20	B20002	19940809	Sodium	933.000	MG/KG		INORG	3.00	4.00	7440-23-5	B		2680	Soil	2
B18	B18002	19940808	Sodium	544.000	MG/KG		INORG	3.50	4.50	7440-23-5	B		2680	Soil	2
B20	B20001	19940809	Sodium	405.000	MG/KG		INORG	0.50	1.00	7440-23-5	B		2680	Soil	2
B17	B17002	19940808	Sodium	394.000	MG/KG		INORG	3.00	4.00	7440-23-5	B		2680	Soil	2
B17	B17002	19940808	Sulfate	492.000	MG/KG		ANION	3.00	4.00	14808-79-8		J	2680	Soil	See Note
B18	B18002	19940808	Sulfate	427.000	MG/KG		ANION	3.50	4.50	14808-79-8		J	2680	Soil	See Note
B18	B18001	19940808	Sulfate	303.000	MG/KG		ANION	0.00	0.50	14808-79-8		J	2680	Soil	See Note
B17	B17001	19940808	Sulfate	178.000	MG/KG		ANION	0.00	0.50	14808-79-8		J	2680	Soil	See Note
B20	B20002	19940809	Sulfate	148.000	MG/KG		ANION	3.00	4.00	14808-79-8		J	2680	Soil	See Note
B19	B19001	19940809	Sulfate	108.000	MG/KG		ANION	0.70	1.50	14808-79-8		J	2680	Soil	See Note
B19	B19002	19940809	Sulfate	53.300	MG/KG		ANION	3.50	4.00	14808-79-8		J	2680	Soil	See Note
B20	B20001	19940809	Sulfate	24.700	MG/KG		ANION	0.50	1.00	14808-79-8		J	2680	Soil	See Note
B18	B18002	19940808	Thorium-228	1.410	PCI/G		RAD	3.50	4.50	14274-82-9		J	2680	Soil	11
B17	B17002	19940808	Thorium-230	1.750	PCI/G		RAD	3.00	4.00	14269-63-7		J	2680	Soil	1
B18	B18002	19940808	Thorium-230	1.360	PCI/G		RAD	3.50	4.50	14269-63-7		J	2680	Soil	1
B18	B18102	19940808	Thorium-230	1.110	PCI/G		RAD	3.50	4.50	14269-63-7		J	2680	Soil	1
B20	B20001	19940809	Thorium-230	0.640	PCI/G		RAD	0.50	1.00	14269-63-7		J	2680	Soil	1
004846	004846	20020910	Thorium-232	34.320	PCI/G	0.590	RAD	0.00	1.00	7440-29-1			SPUR2002	Soil	1122233447
B18	B18001	19940808	Thorium-232	6.700	PCI/G		RAD	0.00	0.50	7440-29-1			2680	Soil	12223447
SCR129	91092322	19910923	Thorium-232	3.700	PCI/G		RAD	3.00	4.00	7440-29-1			SCRDATA	Soil	12223447
SCR129	91092319	19910923	Thorium-232	2.700	PCI/G		RAD	0.00	1.00	7440-29-1			SCRDATA	Soil	1222344
SCR129	91092326	19910923	Thorium-232	2.500	PCI/G		RAD	2.00	3.00	7440-29-1			SCRDATA	Soil	1222344
B17	B17001	19940808	Thorium-232	1.200	PCI/G		RAD	0.00	0.50	7440-29-1			2680	Soil	1
B18	B18002	19940808	Thorium-232	0.800	PCI/G		RAD	3.50	4.50	7440-29-1		J	2680	Soil	1
Airline1	AIRLINE1	20010625	Thorium-232	0.670	PCI/G	0.030	RAD	0.00	0.00	7440-29-1			AIRLINE01	Soil	1
B17	B17002	19940808	Thorium-232	0.640	PCI/G		RAD	3.00	4.00	7440-29-1		J	2680	Soil	1
B18	B18102	19940808	Thorium-232	0.590	PCI/G		RAD	3.50	4.50	7440-29-1		J	2680	Soil	1
Airline2	AIRLINE2	20010625	Thorium-232	0.440	PCI/G	0.030	RAD	0.00	0.00	7440-29-1			AIRLINE01	Soil	1
B18	B18001	19940808	Thorium-232	0.340	PCI/G		RAD	0.00	0.50	7440-29-1		J	2680	Soil	1
B20	B20001	19940809	Thorium-232	0.240	PCI/G		RAD	0.50	1.00	7440-29-1		J	2680	Soil	1
B19	B19001	19940809	Thorium-232	0.110	PCI/G		RAD	0.70	1.50	7440-29-1		J	2680	Soil	1
B17	B17001	19940808	Thorium-232	0.080	PCI/G		RAD	0.00	0.50	7440-29-1		J	2680	Soil	1
B18	B18001	19940808	Uranium-234	1.640	PCI/G		RAD	0.00	0.50	13966-29-5		J	2680	Soil	223
B18	B18102	19940808	Uranium-234	0.900	PCI/G		RAD	3.50	4.50	13966-29-5			2680	Soil	0
B17	B17002	19940808	Uranium-234	0.840	PCI/G		RAD	3.00	4.00	13966-29-5		J	2680	Soil	0
B18	B18002	19940808	Uranium-234	0.740	PCI/G		RAD	3.50	4.50	13966-29-5		J	2680	Soil	0
B19	B19001	19940809	Uranium-234	0.620	PCI/G		RAD	0.70	1.50	13966-29-5		J	2680	Soil	0
B17	B17001	19940808	Uranium-234	0.510	PCI/G		RAD	0.00	0.50	13966-29-5		J	2680	Soil	0
B19	B19002	19940809	Uranium-234	0.500	PCI/G		RAD	3.50	4.00	13966-29-5		J	2680	Soil	0
B20	B20002	19940809	Uranium-234	0.360	PCI/G		RAD	3.00	4.00	13966-29-5		J	2680	Soil	0
B20	B20001	19940809	Uranium-234	0.310	PCI/G		RAD	0.50	1.00	13966-29-5		J	2680	Soil	0
B18	B18001	19940808	Uranium-235	0.100	PCI/G		RAD	0.00	0.50	15117-96-1		J	2680	Soil	0
B17	B17002	19940808	Uranium-235	0.080	PCI/G		RAD	3.00	4.00	15117-96-1		J	2680	Soil	0
B19	B19002	19940809	Uranium-235	0.060	PCI/G		RAD	3.50	4.00	15117-96-1		J	2680	Soil	0
B18	B18001	19940808	Uranium-238	1.310	PCI/G		RAD	0.00	0.50	7440-61-1		J	2680	Soil	12223
B18	B18102	19940808	Uranium-238	0.900	PCI/G		RAD	3.50	4.50	7440-61-1			2680	Soil	1

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B18	B18002	19940808	Uranium-238	0.800	PCI/G		RAD	3.50	4.50	7440-61-1		J	2680	Soil	1
B17	B17002	19940808	Uranium-238	0.690	PCI/G		RAD	3.00	4.00	7440-61-1		J	2680	Soil	1
B20	B20002	19940809	Uranium-238	0.550	PCI/G		RAD	3.00	4.00	7440-61-1		J	2680	Soil	1
B19	B19002	19940809	Uranium-238	0.500	PCI/G		RAD	3.50	4.00	7440-61-1		J	2680	Soil	1
B17	B17001	19940808	Uranium-238	0.460	PCI/G		RAD	0.00	0.50	7440-61-1		J	2680	Soil	1
B20	B20001	19940809	Uranium-238	0.430	PCI/G		RAD	0.50	1.00	7440-61-1		J	2680	Soil	1
B19	B19001	19940809	Uranium-238	0.410	PCI/G		RAD	0.70	1.50	7440-61-1		J	2680	Soil	1
B18	B18002	19940808	Vanadium	20.100	MG/KG		INORG	3.50	4.50	7440-62-2			2680	Soil	0
B17	B17002	19940808	Vanadium	16.600	MG/KG		INORG	3.00	4.00	7440-62-2			2680	Soil	0
B19	B19001	19940809	Vanadium	13.400	MG/KG		INORG	0.70	1.50	7440-62-2	B		2680	Soil	0
B20	B20002	19940809	Vanadium	10.400	MG/KG		INORG	3.00	4.00	7440-62-2	B		2680	Soil	0
B17	B17001	19940808	Vanadium	10.100	MG/KG		INORG	0.00	0.50	7440-62-2	B		2680	Soil	0
B18	B18001	19940808	Vanadium	9.800	MG/KG		INORG	0.00	0.50	7440-62-2	B		2680	Soil	0
B19	B19002	19940809	Vanadium	9.700	MG/KG		INORG	3.50	4.00	7440-62-2	B		2680	Soil	0
B20	B20001	19940809	Vanadium	9.700	MG/KG		INORG	0.50	1.00	7440-62-2	B		2680	Soil	0
B18	B18001	19940808	Zinc	95.300	MG/KG		INORG	0.00	0.50	7440-66-6	*		2680	Soil	0
B18	B18002	19940808	Zinc	52.500	MG/KG		INORG	3.50	4.50	7440-66-6	*		2680	Soil	0
B17	B17001	19940808	Zinc	51.700	MG/KG		INORG	0.00	0.50	7440-66-6	*		2680	Soil	0
B17	B17002	19940808	Zinc	45.300	MG/KG		INORG	3.00	4.00	7440-66-6	*		2680	Soil	0
B19	B19001	19940809	Zinc	27.200	MG/KG		INORG	0.70	1.50	7440-66-6	B*		2680	Soil	0
B19	B19002	19940809	Zinc	20.800	MG/KG		INORG	3.50	4.00	7440-66-6	*		2680	Soil	0
B20	B20002	19940809	Zinc	19.200	MG/KG		INORG	3.00	4.00	7440-66-6	*		2680	Soil	0
B20	B20001	19940809	Zinc	9.400	MG/KG		INORG	0.50	1.00	7440-66-6	*		2680	Soil	0

(Blank) No criteria checked
0 Value is less than criteria checked in file "Final RBGVs Constr Worker-Site Employee_Rev8.xls"
1 Value is greater than 10-6 Risk-Based Guideline Value
2 Value is greater than the OU9 Soil Background Value
3 Value is greater than the Screening Value (10-6 RBGV + background or as agreed)
4 Value is greater than the Cleanup Objective (10-5 RBGV + background or as agreed)
5 Value is greater than the MCL
6 Value is greater than the Guide Value based on the Hazard Index = 1
7 Value is greater than the Hot Spot Criteria (3x10-5 + background or as agreed)
8 Value is greater than the Guide Value based on the Hazard Index = 1 + background
9 Value is greater than the Guide Value based on the Hazard Index = .1 + background
* Duplicate analysis not within control limits.

Duplicate entries in the Comment column indicate values for RAD daughters and long lived decay.

Lab and data qualifiers are defined on the pages immediately following the non-detects table in this appendix.

Common nutrients (such as calcium, iron, potassium, and sodium) are not considered in MCP risk assessment and therefore are not evaluated further herein.

Note: Analytes such as Acenaphthylene, Benzo(g,h,i)perylene, Bismuth, Cerium, Chloride, Dypsprosium, Endosulfan Sulfate, Gadolinium, Lanthanum, Lutetium, Nitrate/Nitrite, Organic Carbon, Phenanthrene, Praseodym, Samarium, and Sulfate do not have EPA sanctioned slope factors. RBGVs can not be calculated for these analytes.

Comparison values for results with comments are provided on the "Comparison for Soil Analytical Results" table at the end of this appendix.

Buildings PH and 24 Non-Detects

Location_name	Sample_id	Collection_date	Value_name	Measured_value	Value_units	Detection_limit	Chem_class	Start_depth	End_depth	Lab	Data	Project_code	Media
B19	B19002	19940809	1,1,1-Trichloroethane	6.000	UG/KG	6.000	ORVOA	3.50	4.00	U	U	2680	Soil
B18	B18002	19940808	1,1,1-Trichloroethane	6.000	UG/KG	6.000	ORVOA	3.50	4.50	U	U	2680	Soil
B18	B18102	19940808	1,1,1-Trichloroethane	6.000	UG/KG	6.000	ORVOA	3.50	4.50	U	U	2680	Soil
B17	B17002	19940808	1,1,1-Trichloroethane	6.000	UG/KG	6.000	ORVOA	3.00	4.00	U	U	2680	Soil
B20	B20002	19940809	1,1,1-Trichloroethane	6.000	UG/KG	6.000	ORVOA	3.00	4.00	U	U	2680	Soil
B19	B19001	19940809	1,1,1-Trichloroethane	5.000	UG/KG	5.000	ORVOA	0.70	1.50	U	U	2680	Soil
B18	B18001	19940808	1,1,1-Trichloroethane	5.000	UG/KG	5.000	ORVOA	0.00	0.50	U	U	2680	Soil
B17	B17001	19940808	1,1,1-Trichloroethane	5.000	UG/KG	5.000	ORVOA	0.00	0.50	U	U	2680	Soil
B20	B20001	19940809	1,1,1-Trichloroethane	5.000	UG/KG	5.000	ORVOA	0.50	1.00	U	U	2680	Soil
B19	B19002	19940809	1,1,2,2-Tetrachloroethane	6.000	UG/KG	6.000	ORVOA	3.50	4.00	U	U	2680	Soil
B18	B18002	19940808	1,1,2,2-Tetrachloroethane	6.000	UG/KG	6.000	ORVOA	3.50	4.50	U	U	2680	Soil
B18	B18102	19940808	1,1,2,2-Tetrachloroethane	6.000	UG/KG	6.000	ORVOA	3.50	4.50	U	U	2680	Soil
B17	B17002	19940808	1,1,2,2-Tetrachloroethane	6.000	UG/KG	6.000	ORVOA	3.00	4.00	U	U	2680	Soil
B20	B20002	19940809	1,1,2,2-Tetrachloroethane	6.000	UG/KG	6.000	ORVOA	3.00	4.00	U	U	2680	Soil
B19	B19001	19940809	1,1,2,2-Tetrachloroethane	5.000	UG/KG	5.000	ORVOA	0.70	1.50	U	U	2680	Soil
B18	B18001	19940808	1,1,2,2-Tetrachloroethane	5.000	UG/KG	5.000	ORVOA	0.00	0.50	U	U	2680	Soil
B17	B17001	19940808	1,1,2,2-Tetrachloroethane	5.000	UG/KG	5.000	ORVOA	0.00	0.50	U	U	2680	Soil
B20	B20001	19940809	1,1,2,2-Tetrachloroethane	5.000	UG/KG	5.000	ORVOA	0.50	1.00	U	U	2680	Soil
B19	B19002	19940809	1,1,2-Trichloroethane	6.000	UG/KG	6.000	ORVOA	3.50	4.00	U	U	2680	Soil
B18	B18002	19940808	1,1,2-Trichloroethane	6.000	UG/KG	6.000	ORVOA	3.50	4.50	U	U	2680	Soil
B18	B18102	19940808	1,1,2-Trichloroethane	6.000	UG/KG	6.000	ORVOA	3.50	4.50	U	U	2680	Soil
B17	B17002	19940808	1,1,2-Trichloroethane	6.000	UG/KG	6.000	ORVOA	3.00	4.00	U	U	2680	Soil
B20	B20002	19940809	1,1,2-Trichloroethane	6.000	UG/KG	6.000	ORVOA	3.00	4.00	U	U	2680	Soil
B19	B19001	19940809	1,1,2-Trichloroethane	5.000	UG/KG	5.000	ORVOA	0.70	1.50	U	U	2680	Soil
B18	B18001	19940808	1,1,2-Trichloroethane	5.000	UG/KG	5.000	ORVOA	0.00	0.50	U	U	2680	Soil
B17	B17001	19940808	1,1,2-Trichloroethane	5.000	UG/KG	5.000	ORVOA	0.00	0.50	U	U	2680	Soil
B20	B20001	19940809	1,1,2-Trichloroethane	5.000	UG/KG	5.000	ORVOA	0.50	1.00	U	U	2680	Soil
B19	B19002	19940809	1,1-Dichloroethane	6.000	UG/KG	6.000	ORVOA	3.50	4.00	U	U	2680	Soil
B18	B18002	19940808	1,1-Dichloroethane	6.000	UG/KG	6.000	ORVOA	3.50	4.50	U	U	2680	Soil
B18	B18102	19940808	1,1-Dichloroethane	6.000	UG/KG	6.000	ORVOA	3.50	4.50	U	U	2680	Soil
B17	B17002	19940808	1,1-Dichloroethane	6.000	UG/KG	6.000	ORVOA	3.00	4.00	U	U	2680	Soil

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B20	B20002	19940809	1,1-Dichloroethane	6.000	UG/KG	6.000	ORVOA	3.00	4.00	U	U	2680	Soil
B19	B19001	19940809	1,1-Dichloroethane	5.000	UG/KG	5.000	ORVOA	0.70	1.50	U	U	2680	Soil
B18	B18001	19940808	1,1-Dichloroethane	5.000	UG/KG	5.000	ORVOA	0.00	0.50	U	U	2680	Soil
B17	B17001	19940808	1,1-Dichloroethane	5.000	UG/KG	5.000	ORVOA	0.00	0.50	U	U	2680	Soil
B20	B20001	19940809	1,1-Dichloroethane	5.000	UG/KG	5.000	ORVOA	0.50	1.00	U	U	2680	Soil
B19	B19002	19940809	1,1-Dichloroethene	6.000	UG/KG	6.000	ORVOA	3.50	4.00	U	U	2680	Soil
B18	B18002	19940808	1,1-Dichloroethene	6.000	UG/KG	6.000	ORVOA	3.50	4.50	U	U	2680	Soil
B18	B18102	19940808	1,1-Dichloroethene	6.000	UG/KG	6.000	ORVOA	3.50	4.50	U	U	2680	Soil
B17	B17002	19940808	1,1-Dichloroethene	6.000	UG/KG	6.000	ORVOA	3.00	4.00	U	U	2680	Soil
B20	B20002	19940809	1,1-Dichloroethene	6.000	UG/KG	6.000	ORVOA	3.00	4.00	U	U	2680	Soil
B19	B19001	19940809	1,1-Dichloroethene	5.000	UG/KG	5.000	ORVOA	0.70	1.50	U	U	2680	Soil
B18	B18001	19940808	1,1-Dichloroethene	5.000	UG/KG	5.000	ORVOA	0.00	0.50	U	U	2680	Soil
B17	B17001	19940808	1,1-Dichloroethene	5.000	UG/KG	5.000	ORVOA	0.00	0.50	U	U	2680	Soil
B20	B20001	19940809	1,1-Dichloroethene	5.000	UG/KG	5.000	ORVOA	0.50	1.00	U	U	2680	Soil
B18	B18001	19940808	1,2,4-Trichlorobenzene	3500.000	UG/KG	3500.000	ORSVO	0.00	0.50	U	U	2680	Soil
B19	B19002	19940809	1,2,4-Trichlorobenzene	1900.000	UG/KG	1900.000	ORSVO	3.50	4.00	U	U	2680	Soil
B20	B20001	19940809	1,2,4-Trichlorobenzene	670.000	UG/KG	670.000	ORSVO	0.50	1.00	U	U	2680	Soil
B18	B18002	19940808	1,2,4-Trichlorobenzene	400.000	UG/KG	400.000	ORSVO	3.50	4.50	U	U	2680	Soil
B17	B17002	19940808	1,2,4-Trichlorobenzene	380.000	UG/KG	380.000	ORSVO	3.00	4.00	U	U	2680	Soil
B20	B20002	19940809	1,2,4-Trichlorobenzene	370.000	UG/KG	370.000	ORSVO	3.00	4.00	U	U	2680	Soil
B17	B17001	19940808	1,2,4-Trichlorobenzene	350.000	UG/KG	350.000	ORSVO	0.00	0.50	U	U	2680	Soil
B19	B19001	19940809	1,2,4-Trichlorobenzene	340.000	UG/KG	340.000	ORSVO	0.70	1.50	U	UJ	2680	Soil
B18	B18001	19940808	1,2-Dichlorobenzene	3500.000	UG/KG	3500.000	ORSVO	0.00	0.50	U	U	2680	Soil
B19	B19002	19940809	1,2-Dichlorobenzene	1900.000	UG/KG	1900.000	ORSVO	3.50	4.00	U	U	2680	Soil
B20	B20001	19940809	1,2-Dichlorobenzene	670.000	UG/KG	670.000	ORSVO	0.50	1.00	U	U	2680	Soil
B18	B18002	19940808	1,2-Dichlorobenzene	400.000	UG/KG	400.000	ORSVO	3.50	4.50	U	U	2680	Soil
B17	B17002	19940808	1,2-Dichlorobenzene	380.000	UG/KG	380.000	ORSVO	3.00	4.00	U	U	2680	Soil
B20	B20002	19940809	1,2-Dichlorobenzene	370.000	UG/KG	370.000	ORSVO	3.00	4.00	U	U	2680	Soil
B17	B17001	19940808	1,2-Dichlorobenzene	350.000	UG/KG	350.000	ORSVO	0.00	0.50	U	U	2680	Soil
B19	B19001	19940809	1,2-Dichlorobenzene	340.000	UG/KG	340.000	ORSVO	0.70	1.50	U	UJ	2680	Soil
B19	B19002	19940809	1,2-Dichloroethane	6.000	UG/KG	6.000	ORVOA	3.50	4.00	U	U	2680	Soil
B18	B18002	19940808	1,2-Dichloroethane	6.000	UG/KG	6.000	ORVOA	3.50	4.50	U	U	2680	Soil
B18	B18102	19940808	1,2-Dichloroethane	6.000	UG/KG	6.000	ORVOA	3.50	4.50	U	U	2680	Soil
B17	B17002	19940808	1,2-Dichloroethane	6.000	UG/KG	6.000	ORVOA	3.00	4.00	U	U	2680	Soil
B20	B20002	19940809	1,2-Dichloroethane	6.000	UG/KG	6.000	ORVOA	3.00	4.00	U	U	2680	Soil
B19	B19001	19940809	1,2-Dichloroethane	5.000	UG/KG	5.000	ORVOA	0.70	1.50	U	U	2680	Soil
B18	B18001	19940808	1,2-Dichloroethane	5.000	UG/KG	5.000	ORVOA	0.00	0.50	U	U	2680	Soil

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B17	B17001	19940808	1,2-Dichloroethane	5.000	UG/KG	5.000	ORVOA	0.00	0.50	U	U	2680	Soil
B20	B20001	19940809	1,2-Dichloroethane	5.000	UG/KG	5.000	ORVOA	0.50	1.00	U	U	2680	Soil
B19	B19002	19940809	1,2-Dichloroethene	6.000	UG/KG	6.000	ORVOA	3.50	4.00	U	U	2680	Soil
B18	B18002	19940808	1,2-Dichloroethene	6.000	UG/KG	6.000	ORVOA	3.50	4.50	U	U	2680	Soil
B18	B18102	19940808	1,2-Dichloroethene	6.000	UG/KG	6.000	ORVOA	3.50	4.50	U	U	2680	Soil
B17	B17002	19940808	1,2-Dichloroethene	6.000	UG/KG	6.000	ORVOA	3.00	4.00	U	U	2680	Soil
B20	B20002	19940809	1,2-Dichloroethene	6.000	UG/KG	6.000	ORVOA	3.00	4.00	U	U	2680	Soil
B19	B19001	19940809	1,2-Dichloroethene	5.000	UG/KG	5.000	ORVOA	0.70	1.50	U	U	2680	Soil
B18	B18001	19940808	1,2-Dichloroethene	5.000	UG/KG	5.000	ORVOA	0.00	0.50	U	U	2680	Soil
B17	B17001	19940808	1,2-Dichloroethene	5.000	UG/KG	5.000	ORVOA	0.00	0.50	U	U	2680	Soil
B20	B20001	19940809	1,2-Dichloroethene	5.000	UG/KG	5.000	ORVOA	0.50	1.00	U	U	2680	Soil
B19	B19002	19940809	1,2-Dichloropropane	6.000	UG/KG	6.000	ORVOA	3.50	4.00	U	U	2680	Soil
B18	B18002	19940808	1,2-Dichloropropane	6.000	UG/KG	6.000	ORVOA	3.50	4.50	U	U	2680	Soil
B18	B18102	19940808	1,2-Dichloropropane	6.000	UG/KG	6.000	ORVOA	3.50	4.50	U	U	2680	Soil
B17	B17002	19940808	1,2-Dichloropropane	6.000	UG/KG	6.000	ORVOA	3.00	4.00	U	U	2680	Soil
B20	B20002	19940809	1,2-Dichloropropane	6.000	UG/KG	6.000	ORVOA	3.00	4.00	U	U	2680	Soil
B19	B19001	19940809	1,2-Dichloropropane	5.000	UG/KG	5.000	ORVOA	0.70	1.50	U	U	2680	Soil
B18	B18001	19940808	1,2-Dichloropropane	5.000	UG/KG	5.000	ORVOA	0.00	0.50	U	U	2680	Soil
B17	B17001	19940808	1,2-Dichloropropane	5.000	UG/KG	5.000	ORVOA	0.00	0.50	U	U	2680	Soil
B20	B20001	19940809	1,2-Dichloropropane	5.000	UG/KG	5.000	ORVOA	0.50	1.00	U	U	2680	Soil
B18	B18102	19940808	1,2-Diethylbenzene	25.000	UG/KG	25.000	ORVOA	3.50	4.50	U	U	2680	Soil
B18	B18002	19940808	1,2-Diethylbenzene	24.000	UG/KG	24.000	ORVOA	3.50	4.50	U	U	2680	Soil
B17	B17002	19940808	1,2-Diethylbenzene	24.000	UG/KG	24.000	ORVOA	3.00	4.00	U	U	2680	Soil
B19	B19002	19940809	1,2-Diethylbenzene	23.000	UG/KG	23.000	ORVOA	3.50	4.00	U	U	2680	Soil
B18	B18001	19940808	1,2-Diethylbenzene	22.000	UG/KG	22.000	ORVOA	0.00	0.50	U	U	2680	Soil
B20	B20002	19940809	1,2-Diethylbenzene	22.000	UG/KG	22.000	ORVOA	3.00	4.00	U	U	2680	Soil
B17	B17001	19940808	1,2-Diethylbenzene	21.000	UG/KG	21.000	ORVOA	0.00	0.50	U	U	2680	Soil
B19	B19001	19940809	1,2-Diethylbenzene	20.000	UG/KG	20.000	ORVOA	0.70	1.50	U	U	2680	Soil
B20	B20001	19940809	1,2-Diethylbenzene	20.000	UG/KG	20.000	ORVOA	0.50	1.00	U	U	2680	Soil
B19	B19002	19940809	1,3,5-Trinitrobenzene	1.500	MG/KG	1.500	OREXP	3.50	4.00	U	U	2680	Soil
B19	B19001	19940809	1,3,5-Trinitrobenzene	1.500	MG/KG	1.500	OREXP	0.70	1.50	U	U	2680	Soil
B18	B18002	19940808	1,3,5-Trinitrobenzene	1.500	MG/KG	1.500	OREXP	3.50	4.50	U	U	2680	Soil
B18	B18001	19940808	1,3,5-Trinitrobenzene	1.500	MG/KG	1.500	OREXP	0.00	0.50	U	U	2680	Soil
B17	B17002	19940808	1,3,5-Trinitrobenzene	1.500	MG/KG	1.500	OREXP	3.00	4.00	U	U	2680	Soil
B17	B17001	19940808	1,3,5-Trinitrobenzene	1.500	MG/KG	1.500	OREXP	0.00	0.50	U	U	2680	Soil
B20	B20002	19940809	1,3,5-Trinitrobenzene	1.500	MG/KG	1.500	OREXP	3.00	4.00	U	U	2680	Soil
B20	B20001	19940809	1,3,5-Trinitrobenzene	1.500	MG/KG	1.500	OREXP	0.50	1.00	U	U	2680	Soil

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B19	B19002	19940809	1,3-cis-Dichloropropene	6.000	UG/KG	6.000	ORVOA	3.50	4.00	U	U	2680	Soil
B18	B18002	19940808	1,3-cis-Dichloropropene	6.000	UG/KG	6.000	ORVOA	3.50	4.50	U	U	2680	Soil
B18	B18102	19940808	1,3-cis-Dichloropropene	6.000	UG/KG	6.000	ORVOA	3.50	4.50	U	U	2680	Soil
B17	B17002	19940808	1,3-cis-Dichloropropene	6.000	UG/KG	6.000	ORVOA	3.00	4.00	U	U	2680	Soil
B20	B20002	19940809	1,3-cis-Dichloropropene	6.000	UG/KG	6.000	ORVOA	3.00	4.00	U	U	2680	Soil
B19	B19001	19940809	1,3-cis-Dichloropropene	5.000	UG/KG	5.000	ORVOA	0.70	1.50	U	U	2680	Soil
B18	B18001	19940808	1,3-cis-Dichloropropene	5.000	UG/KG	5.000	ORVOA	0.00	0.50	U	U	2680	Soil
B17	B17001	19940808	1,3-cis-Dichloropropene	5.000	UG/KG	5.000	ORVOA	0.00	0.50	U	U	2680	Soil
B20	B20001	19940809	1,3-cis-Dichloropropene	5.000	UG/KG	5.000	ORVOA	0.50	1.00	U	U	2680	Soil
B18	B18001	19940808	1,3-Dichlorobenzene	3500.000	UG/KG	3500.000	ORSVO	0.00	0.50	U	U	2680	Soil
B19	B19002	19940809	1,3-Dichlorobenzene	1900.000	UG/KG	1900.000	ORSVO	3.50	4.00	U	U	2680	Soil
B20	B20001	19940809	1,3-Dichlorobenzene	670.000	UG/KG	670.000	ORSVO	0.50	1.00	U	U	2680	Soil
B18	B18002	19940808	1,3-Dichlorobenzene	400.000	UG/KG	400.000	ORSVO	3.50	4.50	U	U	2680	Soil
B17	B17002	19940808	1,3-Dichlorobenzene	380.000	UG/KG	380.000	ORSVO	3.00	4.00	U	U	2680	Soil
B20	B20002	19940809	1,3-Dichlorobenzene	370.000	UG/KG	370.000	ORSVO	3.00	4.00	U	U	2680	Soil
B17	B17001	19940808	1,3-Dichlorobenzene	350.000	UG/KG	350.000	ORSVO	0.00	0.50	U	U	2680	Soil
B19	B19001	19940809	1,3-Dichlorobenzene	340.000	UG/KG	340.000	ORSVO	0.70	1.50	U	UJ	2680	Soil
B19	B19002	19940809	1,3-Dinitrobenzene	1.500	MG/KG	1.500	OREXP	3.50	4.00	U	U	2680	Soil
B19	B19001	19940809	1,3-Dinitrobenzene	1.500	MG/KG	1.500	OREXP	0.70	1.50	U	U	2680	Soil
B18	B18002	19940808	1,3-Dinitrobenzene	1.500	MG/KG	1.500	OREXP	3.50	4.50	U	U	2680	Soil
B18	B18001	19940808	1,3-Dinitrobenzene	1.500	MG/KG	1.500	OREXP	0.00	0.50	U	U	2680	Soil
B17	B17002	19940808	1,3-Dinitrobenzene	1.500	MG/KG	1.500	OREXP	3.00	4.00	U	U	2680	Soil
B17	B17001	19940808	1,3-Dinitrobenzene	1.500	MG/KG	1.500	OREXP	0.00	0.50	U	U	2680	Soil
B20	B20002	19940809	1,3-Dinitrobenzene	1.500	MG/KG	1.500	OREXP	3.00	4.00	U	U	2680	Soil
B20	B20001	19940809	1,3-Dinitrobenzene	1.500	MG/KG	1.500	OREXP	0.50	1.00	U	U	2680	Soil
B19	B19002	19940809	1,3-trans-Dichloropropene	6.000	UG/KG	6.000	ORVOA	3.50	4.00	U	U	2680	Soil
B18	B18002	19940808	1,3-trans-Dichloropropene	6.000	UG/KG	6.000	ORVOA	3.50	4.50	U	U	2680	Soil
B18	B18102	19940808	1,3-trans-Dichloropropene	6.000	UG/KG	6.000	ORVOA	3.50	4.50	U	U	2680	Soil
B17	B17002	19940808	1,3-trans-Dichloropropene	6.000	UG/KG	6.000	ORVOA	3.00	4.00	U	U	2680	Soil
B20	B20002	19940809	1,3-trans-Dichloropropene	6.000	UG/KG	6.000	ORVOA	3.00	4.00	U	U	2680	Soil
B19	B19001	19940809	1,3-trans-Dichloropropene	5.000	UG/KG	5.000	ORVOA	0.70	1.50	U	U	2680	Soil
B18	B18001	19940808	1,3-trans-Dichloropropene	5.000	UG/KG	5.000	ORVOA	0.00	0.50	U	U	2680	Soil
B17	B17001	19940808	1,3-trans-Dichloropropene	5.000	UG/KG	5.000	ORVOA	0.00	0.50	U	U	2680	Soil
B20	B20001	19940809	1,3-trans-Dichloropropene	5.000	UG/KG	5.000	ORVOA	0.50	1.00	U	U	2680	Soil
B18	B18001	19940808	1,4-Dichlorobenzene	3500.000	UG/KG	3500.000	ORSVO	0.00	0.50	U	U	2680	Soil
B19	B19002	19940809	1,4-Dichlorobenzene	1900.000	UG/KG	1900.000	ORSVO	3.50	4.00	U	U	2680	Soil
B20	B20001	19940809	1,4-Dichlorobenzene	670.000	UG/KG	670.000	ORSVO	0.50	1.00	U	U	2680	Soil

B18	B18002	19940808	1,4-Dichlorobenzene	400.000	UG/KG	400.000	ORSVO	3.50	4.50	U	U	2680	Soil
B17	B17002	19940808	1,4-Dichlorobenzene	380.000	UG/KG	380.000	ORSVO	3.00	4.00	U	U	2680	Soil
B20	B20002	19940809	1,4-Dichlorobenzene	370.000	UG/KG	370.000	ORSVO	3.00	4.00	U	U	2680	Soil
B17	B17001	19940808	1,4-Dichlorobenzene	350.000	UG/KG	350.000	ORSVO	0.00	0.50	U	U	2680	Soil
B19	B19001	19940809	1,4-Dichlorobenzene	340.000	UG/KG	340.000	ORSVO	0.70	1.50	U	UJ	2680	Soil
B18	B18001	19940808	1-chloro-4-phenoxybenzene	3500.000	UG/KG	3500.000	ORSVO	0.00	0.50	U	U	2680	Soil
B19	B19002	19940809	1-chloro-4-phenoxybenzene	1900.000	UG/KG	1900.000	ORSVO	3.50	4.00	U	U	2680	Soil
B20	B20001	19940809	1-chloro-4-phenoxybenzene	670.000	UG/KG	670.000	ORSVO	0.50	1.00	U	U	2680	Soil
B18	B18002	19940808	1-chloro-4-phenoxybenzene	400.000	UG/KG	400.000	ORSVO	3.50	4.50	U	U	2680	Soil
B17	B17002	19940808	1-chloro-4-phenoxybenzene	380.000	UG/KG	380.000	ORSVO	3.00	4.00	U	U	2680	Soil
B20	B20002	19940809	1-chloro-4-phenoxybenzene	370.000	UG/KG	370.000	ORSVO	3.00	4.00	U	U	2680	Soil
B17	B17001	19940808	1-chloro-4-phenoxybenzene	350.000	UG/KG	350.000	ORSVO	0.00	0.50	U	U	2680	Soil
B19	B19001	19940809	1-chloro-4-phenoxybenzene	340.000	UG/KG	340.000	ORSVO	0.70	1.50	U	UJ	2680	Soil
B18	B18001	19940808	2,2'-oxybis(1-chloropropane)	3500.000	UG/KG	3500.000	ORSVO	0.00	0.50	U	U	2680	Soil
B19	B19002	19940809	2,2'-oxybis(1-chloropropane)	1900.000	UG/KG	1900.000	ORSVO	3.50	4.00	U	U	2680	Soil
B20	B20001	19940809	2,2'-oxybis(1-chloropropane)	670.000	UG/KG	670.000	ORSVO	0.50	1.00	U	U	2680	Soil
B18	B18002	19940808	2,2'-oxybis(1-chloropropane)	400.000	UG/KG	400.000	ORSVO	3.50	4.50	U	U	2680	Soil
B17	B17002	19940808	2,2'-oxybis(1-chloropropane)	380.000	UG/KG	380.000	ORSVO	3.00	4.00	U	U	2680	Soil
B20	B20002	19940809	2,2'-oxybis(1-chloropropane)	370.000	UG/KG	370.000	ORSVO	3.00	4.00	U	U	2680	Soil
B17	B17001	19940808	2,2'-oxybis(1-chloropropane)	350.000	UG/KG	350.000	ORSVO	0.00	0.50	U	U	2680	Soil
B19	B19001	19940809	2,2'-oxybis(1-chloropropane)	340.000	UG/KG	340.000	ORSVO	0.70	1.50	U	UJ	2680	Soil
B18	B18001	19940808	2,4,5-Trichlorophenol	17000.000	UG/KG	17000.000	ORSVO	0.00	0.50	U	U	2680	Soil
B19	B19002	19940809	2,4,5-Trichlorophenol	9100.000	UG/KG	9100.000	ORSVO	3.50	4.00	U	U	2680	Soil
B20	B20001	19940809	2,4,5-Trichlorophenol	3200.000	UG/KG	3200.000	ORSVO	0.50	1.00	U	U	2680	Soil
B18	B18002	19940808	2,4,5-Trichlorophenol	2000.000	UG/KG	2000.000	ORSVO	3.50	4.50	U	U	2680	Soil
B17	B17002	19940808	2,4,5-Trichlorophenol	1900.000	UG/KG	1900.000	ORSVO	3.00	4.00	U	U	2680	Soil
B20	B20002	19940809	2,4,5-Trichlorophenol	1800.000	UG/KG	1800.000	ORSVO	3.00	4.00	U	UJ	2680	Soil
B17	B17001	19940808	2,4,5-Trichlorophenol	1700.000	UG/KG	1700.000	ORSVO	0.00	0.50	U	U	2680	Soil
B19	B19001	19940809	2,4,5-Trichlorophenol	1600.000	UG/KG	1600.000	ORSVO	0.70	1.50	U	UJ	2680	Soil
B18	B18001	19940808	2,4,6-Trichlorophenol	3500.000	UG/KG	3500.000	ORSVO	0.00	0.50	U	U	2680	Soil
B19	B19002	19940809	2,4,6-Trichlorophenol	1900.000	UG/KG	1900.000	ORSVO	3.50	4.00	U	U	2680	Soil
B20	B20001	19940809	2,4,6-Trichlorophenol	670.000	UG/KG	670.000	ORSVO	0.50	1.00	U	U	2680	Soil
B18	B18002	19940808	2,4,6-Trichlorophenol	400.000	UG/KG	400.000	ORSVO	3.50	4.50	U	U	2680	Soil
B17	B17002	19940808	2,4,6-Trichlorophenol	380.000	UG/KG	380.000	ORSVO	3.00	4.00	U	U	2680	Soil
B20	B20002	19940809	2,4,6-Trichlorophenol	370.000	UG/KG	370.000	ORSVO	3.00	4.00	U	UJ	2680	Soil
B17	B17001	19940808	2,4,6-Trichlorophenol	350.000	UG/KG	350.000	ORSVO	0.00	0.50	U	U	2680	Soil
B19	B19001	19940809	2,4,6-Trichlorophenol	340.000	UG/KG	340.000	ORSVO	0.70	1.50	U	UJ	2680	Soil

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B19	B19002	19940809	2,4,6-Trinitrotoluene	1.500	MG/KG	1.500	OREXP	3.50	4.00	U	U	2680	Soil
B19	B19001	19940809	2,4,6-Trinitrotoluene	1.500	MG/KG	1.500	OREXP	0.70	1.50	U	U	2680	Soil
B18	B18002	19940808	2,4,6-Trinitrotoluene	1.500	MG/KG	1.500	OREXP	3.50	4.50	U	U	2680	Soil
B18	B18001	19940808	2,4,6-Trinitrotoluene	1.500	MG/KG	1.500	OREXP	0.00	0.50	U	U	2680	Soil
B17	B17002	19940808	2,4,6-Trinitrotoluene	1.500	MG/KG	1.500	OREXP	3.00	4.00	U	U	2680	Soil
B17	B17001	19940808	2,4,6-Trinitrotoluene	1.500	MG/KG	1.500	OREXP	0.00	0.50	U	U	2680	Soil
B20	B20002	19940809	2,4,6-Trinitrotoluene	1.500	MG/KG	1.500	OREXP	3.00	4.00	U	U	2680	Soil
B20	B20001	19940809	2,4,6-Trinitrotoluene	1.500	MG/KG	1.500	OREXP	0.50	1.00	U	U	2680	Soil
B18	B18001	19940808	2,4-Dichlorophenol	3500.000	UG/KG	3500.000	ORSVO	0.00	0.50	U	U	2680	Soil
B19	B19002	19940809	2,4-Dichlorophenol	1900.000	UG/KG	1900.000	ORSVO	3.50	4.00	U	U	2680	Soil
B20	B20001	19940809	2,4-Dichlorophenol	670.000	UG/KG	670.000	ORSVO	0.50	1.00	U	U	2680	Soil
B18	B18002	19940808	2,4-Dichlorophenol	400.000	UG/KG	400.000	ORSVO	3.50	4.50	U	U	2680	Soil
B17	B17002	19940808	2,4-Dichlorophenol	380.000	UG/KG	380.000	ORSVO	3.00	4.00	U	U	2680	Soil
B20	B20002	19940809	2,4-Dichlorophenol	370.000	UG/KG	370.000	ORSVO	3.00	4.00	U	UJ	2680	Soil
B17	B17001	19940808	2,4-Dichlorophenol	350.000	UG/KG	350.000	ORSVO	0.00	0.50	U	U	2680	Soil
B19	B19001	19940809	2,4-Dichlorophenol	340.000	UG/KG	340.000	ORSVO	0.70	1.50	U	UJ	2680	Soil
B18	B18001	19940808	2,4-Dimethylphenol	3500.000	UG/KG	3500.000	ORSVO	0.00	0.50	U	U	2680	Soil
B19	B19002	19940809	2,4-Dimethylphenol	1900.000	UG/KG	1900.000	ORSVO	3.50	4.00	U	U	2680	Soil
B20	B20001	19940809	2,4-Dimethylphenol	670.000	UG/KG	670.000	ORSVO	0.50	1.00	U	U	2680	Soil
B18	B18002	19940808	2,4-Dimethylphenol	400.000	UG/KG	400.000	ORSVO	3.50	4.50	U	U	2680	Soil
B17	B17002	19940808	2,4-Dimethylphenol	380.000	UG/KG	380.000	ORSVO	3.00	4.00	U	U	2680	Soil
B20	B20002	19940809	2,4-Dimethylphenol	370.000	UG/KG	370.000	ORSVO	3.00	4.00	U	UJ	2680	Soil
B17	B17001	19940808	2,4-Dimethylphenol	350.000	UG/KG	350.000	ORSVO	0.00	0.50	U	U	2680	Soil
B19	B19001	19940809	2,4-Dimethylphenol	340.000	UG/KG	340.000	ORSVO	0.70	1.50	U	UJ	2680	Soil
B18	B18001	19940808	2,4-Dinitrophenol	17000.000	UG/KG	17000.000	ORSVO	0.00	0.50	U	U	2680	Soil
B19	B19002	19940809	2,4-Dinitrophenol	9100.000	UG/KG	9100.000	ORSVO	3.50	4.00	U	U	2680	Soil
B20	B20001	19940809	2,4-Dinitrophenol	3200.000	UG/KG	3200.000	ORSVO	0.50	1.00	U	U	2680	Soil
B18	B18002	19940808	2,4-Dinitrophenol	2000.000	UG/KG	2000.000	ORSVO	3.50	4.50	U	U	2680	Soil
B17	B17002	19940808	2,4-Dinitrophenol	1900.000	UG/KG	1900.000	ORSVO	3.00	4.00	U	U	2680	Soil
B20	B20002	19940809	2,4-Dinitrophenol	1800.000	UG/KG	1800.000	ORSVO	3.00	4.00	U	UJ	2680	Soil
B17	B17001	19940808	2,4-Dinitrophenol	1700.000	UG/KG	1700.000	ORSVO	0.00	0.50	U	U	2680	Soil
B19	B19001	19940809	2,4-Dinitrophenol	1600.000	UG/KG	1600.000	ORSVO	0.70	1.50	U	UJ	2680	Soil
B18	B18001	19940808	2,4-Dinitrotoluene	3500.000	UG/KG	3500.000	ORSVO	0.00	0.50	U	U	2680	Soil
B19	B19002	19940809	2,4-Dinitrotoluene	1900.000	UG/KG	1900.000	ORSVO	3.50	4.00	U	U	2680	Soil
B20	B20001	19940809	2,4-Dinitrotoluene	670.000	UG/KG	670.000	ORSVO	0.50	1.00	U	U	2680	Soil
B18	B18002	19940808	2,4-Dinitrotoluene	400.000	UG/KG	400.000	ORSVO	3.50	4.50	U	U	2680	Soil
B17	B17002	19940808	2,4-Dinitrotoluene	380.000	UG/KG	380.000	ORSVO	3.00	4.00	U	U	2680	Soil

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B20	B20002	19940809	2,4-Dinitrotoluene	370.000	UG/KG	370.000	ORSVO	3.00	4.00	U	U	2680	Soil
B17	B17001	19940808	2,4-Dinitrotoluene	350.000	UG/KG	350.000	ORSVO	0.00	0.50	U	U	2680	Soil
B19	B19001	19940809	2,4-Dinitrotoluene	340.000	UG/KG	340.000	ORSVO	0.70	1.50	U	UJ	2680	Soil
B19	B19002	19940809	2,4-Dinitrotoluene	0.500	MG/KG	0.500	OREXP	3.50	4.00	U	U	2680	Soil
B19	B19001	19940809	2,4-Dinitrotoluene	0.500	MG/KG	0.500	OREXP	0.70	1.50	U	U	2680	Soil
B18	B18002	19940808	2,4-Dinitrotoluene	0.500	MG/KG	0.500	OREXP	3.50	4.50	U	U	2680	Soil
B18	B18001	19940808	2,4-Dinitrotoluene	0.500	MG/KG	0.500	OREXP	0.00	0.50	U	U	2680	Soil
B17	B17002	19940808	2,4-Dinitrotoluene	0.500	MG/KG	0.500	OREXP	3.00	4.00	U	U	2680	Soil
B17	B17001	19940808	2,4-Dinitrotoluene	0.500	MG/KG	0.500	OREXP	0.00	0.50	U	U	2680	Soil
B20	B20002	19940809	2,4-Dinitrotoluene	0.500	MG/KG	0.500	OREXP	3.00	4.00	U	U	2680	Soil
B20	B20001	19940809	2,4-Dinitrotoluene	0.500	MG/KG	0.500	OREXP	0.50	1.00	U	U	2680	Soil
B18	B18001	19940808	2,6-Dinitrotoluene	3500.000	UG/KG	3500.000	ORSVO	0.00	0.50	U	U	2680	Soil
B19	B19002	19940809	2,6-Dinitrotoluene	1900.000	UG/KG	1900.000	ORSVO	3.50	4.00	U	U	2680	Soil
B20	B20001	19940809	2,6-Dinitrotoluene	670.000	UG/KG	670.000	ORSVO	0.50	1.00	U	U	2680	Soil
B18	B18002	19940808	2,6-Dinitrotoluene	400.000	UG/KG	400.000	ORSVO	3.50	4.50	U	U	2680	Soil
B17	B17002	19940808	2,6-Dinitrotoluene	380.000	UG/KG	380.000	ORSVO	3.00	4.00	U	U	2680	Soil
B20	B20002	19940809	2,6-Dinitrotoluene	370.000	UG/KG	370.000	ORSVO	3.00	4.00	U	U	2680	Soil
B17	B17001	19940808	2,6-Dinitrotoluene	350.000	UG/KG	350.000	ORSVO	0.00	0.50	U	U	2680	Soil
B19	B19001	19940809	2,6-Dinitrotoluene	340.000	UG/KG	340.000	ORSVO	0.70	1.50	U	UJ	2680	Soil
B19	B19002	19940809	2,6-Dinitrotoluene	1.500	MG/KG	1.500	OREXP	3.50	4.00	U	U	2680	Soil
B19	B19001	19940809	2,6-Dinitrotoluene	1.500	MG/KG	1.500	OREXP	0.70	1.50	U	U	2680	Soil
B18	B18002	19940808	2,6-Dinitrotoluene	1.500	MG/KG	1.500	OREXP	3.50	4.50	U	U	2680	Soil
B18	B18001	19940808	2,6-Dinitrotoluene	1.500	MG/KG	1.500	OREXP	0.00	0.50	U	U	2680	Soil
B17	B17002	19940808	2,6-Dinitrotoluene	1.500	MG/KG	1.500	OREXP	3.00	4.00	U	U	2680	Soil
B17	B17001	19940808	2,6-Dinitrotoluene	1.500	MG/KG	1.500	OREXP	0.00	0.50	U	U	2680	Soil
B20	B20002	19940809	2,6-Dinitrotoluene	1.500	MG/KG	1.500	OREXP	3.00	4.00	U	U	2680	Soil
B20	B20001	19940809	2,6-Dinitrotoluene	1.500	MG/KG	1.500	OREXP	0.50	1.00	U	U	2680	Soil
B19	B19002	19940809	2-Amino-4,6-Dinitrotoluene	1.500	MG/KG	1.500	OREXP	3.50	4.00	U	U	2680	Soil
B19	B19001	19940809	2-Amino-4,6-Dinitrotoluene	1.500	MG/KG	1.500	OREXP	0.70	1.50	U	U	2680	Soil
B18	B18002	19940808	2-Amino-4,6-Dinitrotoluene	1.500	MG/KG	1.500	OREXP	3.50	4.50	U	U	2680	Soil
B18	B18001	19940808	2-Amino-4,6-Dinitrotoluene	1.500	MG/KG	1.500	OREXP	0.00	0.50	U	U	2680	Soil
B17	B17002	19940808	2-Amino-4,6-Dinitrotoluene	1.500	MG/KG	1.500	OREXP	3.00	4.00	U	U	2680	Soil
B17	B17001	19940808	2-Amino-4,6-Dinitrotoluene	1.500	MG/KG	1.500	OREXP	0.00	0.50	U	U	2680	Soil
B20	B20002	19940809	2-Amino-4,6-Dinitrotoluene	1.500	MG/KG	1.500	OREXP	3.00	4.00	U	U	2680	Soil
B20	B20001	19940809	2-Amino-4,6-Dinitrotoluene	1.500	MG/KG	1.500	OREXP	0.50	1.00	U	U	2680	Soil
B18	B18001	19940808	2-Benzyl-4-Chlorophenol	3500.000	UG/KG	3500.000	ORSVO	0.00	0.50	U	U	2680	Soil
B19	B19002	19940809	2-Benzyl-4-Chlorophenol	1900.000	UG/KG	1900.000	ORSVO	3.50	4.00	U	U	2680	Soil

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B20	B20001	19940809	2-Benzyl-4-Chlorophenol	670.000	UG/KG	670.000	ORSVO	0.50	1.00	U	U	2680	Soil
B18	B18002	19940808	2-Benzyl-4-Chlorophenol	400.000	UG/KG	400.000	ORSVO	3.50	4.50	U	U	2680	Soil
B17	B17002	19940808	2-Benzyl-4-Chlorophenol	380.000	UG/KG	380.000	ORSVO	3.00	4.00	U	U	2680	Soil
B20	B20002	19940809	2-Benzyl-4-Chlorophenol	370.000	UG/KG	370.000	ORSVO	3.00	4.00	U	UJ	2680	Soil
B17	B17001	19940808	2-Benzyl-4-Chlorophenol	350.000	UG/KG	350.000	ORSVO	0.00	0.50	U	U	2680	Soil
B19	B19001	19940809	2-Benzyl-4-Chlorophenol	340.000	UG/KG	340.000	ORSVO	0.70	1.50	U	UJ	2680	Soil
B18	B18002	19940808	2-Butanone	12.000	UG/KG	12.000	ORVOA	3.50	4.50	U	U	2680	Soil
B18	B18102	19940808	2-Butanone	12.000	UG/KG	12.000	ORVOA	3.50	4.50	U	U	2680	Soil
B17	B17002	19940808	2-Butanone	12.000	UG/KG	12.000	ORVOA	3.00	4.00	U	U	2680	Soil
B19	B19002	19940809	2-Butanone	11.000	UG/KG	11.000	ORVOA	3.50	4.00	U	U	2680	Soil
B18	B18001	19940808	2-Butanone	11.000	UG/KG	11.000	ORVOA	0.00	0.50	U	U	2680	Soil
B17	B17001	19940808	2-Butanone	11.000	UG/KG	11.000	ORVOA	0.00	0.50	U	U	2680	Soil
B20	B20002	19940809	2-Butanone	11.000	UG/KG	11.000	ORVOA	3.00	4.00	U	U	2680	Soil
B19	B19001	19940809	2-Butanone	10.000	UG/KG	10.000	ORVOA	0.70	1.50	U	U	2680	Soil
B20	B20001	19940809	2-Butanone	10.000	UG/KG	10.000	ORVOA	0.50	1.00	U	U	2680	Soil
B18	B18001	19940808	2-Chloronaphthalene	3500.000	UG/KG	3500.000	ORSVO	0.00	0.50	U	U	2680	Soil
B19	B19002	19940809	2-Chloronaphthalene	1900.000	UG/KG	1900.000	ORSVO	3.50	4.00	U	U	2680	Soil
B20	B20001	19940809	2-Chloronaphthalene	670.000	UG/KG	670.000	ORSVO	0.50	1.00	U	U	2680	Soil
B18	B18002	19940808	2-Chloronaphthalene	400.000	UG/KG	400.000	ORSVO	3.50	4.50	U	U	2680	Soil
B17	B17002	19940808	2-Chloronaphthalene	380.000	UG/KG	380.000	ORSVO	3.00	4.00	U	U	2680	Soil
B20	B20002	19940809	2-Chloronaphthalene	370.000	UG/KG	370.000	ORSVO	3.00	4.00	U	U	2680	Soil
B17	B17001	19940808	2-Chloronaphthalene	350.000	UG/KG	350.000	ORSVO	0.00	0.50	U	U	2680	Soil
B19	B19001	19940809	2-Chloronaphthalene	340.000	UG/KG	340.000	ORSVO	0.70	1.50	U	UJ	2680	Soil
B18	B18001	19940808	2-Chlorophenol	3500.000	UG/KG	3500.000	ORSVO	0.00	0.50	U	U	2680	Soil
B19	B19002	19940809	2-Chlorophenol	1900.000	UG/KG	1900.000	ORSVO	3.50	4.00	U	U	2680	Soil
B20	B20001	19940809	2-Chlorophenol	670.000	UG/KG	670.000	ORSVO	0.50	1.00	U	U	2680	Soil
B18	B18002	19940808	2-Chlorophenol	400.000	UG/KG	400.000	ORSVO	3.50	4.50	U	U	2680	Soil
B17	B17002	19940808	2-Chlorophenol	380.000	UG/KG	380.000	ORSVO	3.00	4.00	U	U	2680	Soil
B20	B20002	19940809	2-Chlorophenol	370.000	UG/KG	370.000	ORSVO	3.00	4.00	U	UJ	2680	Soil
B17	B17001	19940808	2-Chlorophenol	350.000	UG/KG	350.000	ORSVO	0.00	0.50	U	U	2680	Soil
B19	B19001	19940809	2-Chlorophenol	340.000	UG/KG	340.000	ORSVO	0.70	1.50	U	UJ	2680	Soil
B18	B18002	19940808	2-Hexanone	12.000	UG/KG	12.000	ORVOA	3.50	4.50	U	U	2680	Soil
B18	B18102	19940808	2-Hexanone	12.000	UG/KG	12.000	ORVOA	3.50	4.50	U	U	2680	Soil
B17	B17002	19940808	2-Hexanone	12.000	UG/KG	12.000	ORVOA	3.00	4.00	U	U	2680	Soil
B19	B19002	19940809	2-Hexanone	11.000	UG/KG	11.000	ORVOA	3.50	4.00	U	U	2680	Soil
B18	B18001	19940808	2-Hexanone	11.000	UG/KG	11.000	ORVOA	0.00	0.50	U	U	2680	Soil
B17	B17001	19940808	2-Hexanone	11.000	UG/KG	11.000	ORVOA	0.00	0.50	U	U	2680	Soil

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B20	B20002	19940809	2-Hexanone	11.000	UG/KG	11.000	ORVOA	3.00	4.00	U	U	2680	Soil
B19	B19001	19940809	2-Hexanone	10.000	UG/KG	10.000	ORVOA	0.70	1.50	U	U	2680	Soil
B20	B20001	19940809	2-Hexanone	10.000	UG/KG	10.000	ORVOA	0.50	1.00	U	U	2680	Soil
B19	B19002	19940809	2-Methylnaphthalene	1900.000	UG/KG	1900.000	ORSVO	3.50	4.00	U	U	2680	Soil
B18	B18002	19940808	2-Methylnaphthalene	400.000	UG/KG	400.000	ORSVO	3.50	4.50	U	U	2680	Soil
B20	B20002	19940809	2-Methylnaphthalene	370.000	UG/KG	370.000	ORSVO	3.00	4.00	U	U	2680	Soil
B19	B19001	19940809	2-Methylnaphthalene	340.000	UG/KG	340.000	ORSVO	0.70	1.50	U	UJ	2680	Soil
B18	B18001	19940808	2-Methylphenol	3500.000	UG/KG	3500.000	ORSVO	0.00	0.50	U	U	2680	Soil
B19	B19002	19940809	2-Methylphenol	1900.000	UG/KG	1900.000	ORSVO	3.50	4.00	U	U	2680	Soil
B20	B20001	19940809	2-Methylphenol	670.000	UG/KG	670.000	ORSVO	0.50	1.00	U	U	2680	Soil
B18	B18002	19940808	2-Methylphenol	400.000	UG/KG	400.000	ORSVO	3.50	4.50	U	U	2680	Soil
B17	B17002	19940808	2-Methylphenol	380.000	UG/KG	380.000	ORSVO	3.00	4.00	U	U	2680	Soil
B20	B20002	19940809	2-Methylphenol	370.000	UG/KG	370.000	ORSVO	3.00	4.00	U	UJ	2680	Soil
B17	B17001	19940808	2-Methylphenol	350.000	UG/KG	350.000	ORSVO	0.00	0.50	U	U	2680	Soil
B19	B19001	19940809	2-Methylphenol	340.000	UG/KG	340.000	ORSVO	0.70	1.50	U	UJ	2680	Soil
B18	B18001	19940808	2-Nitroaniline	17000.000	UG/KG	17000.000	ORSVO	0.00	0.50	U	U	2680	Soil
B19	B19002	19940809	2-Nitroaniline	9100.000	UG/KG	9100.000	ORSVO	3.50	4.00	U	U	2680	Soil
B20	B20001	19940809	2-Nitroaniline	3200.000	UG/KG	3200.000	ORSVO	0.50	1.00	U	U	2680	Soil
B18	B18002	19940808	2-Nitroaniline	2000.000	UG/KG	2000.000	ORSVO	3.50	4.50	U	U	2680	Soil
B17	B17002	19940808	2-Nitroaniline	1900.000	UG/KG	1900.000	ORSVO	3.00	4.00	U	U	2680	Soil
B20	B20002	19940809	2-Nitroaniline	1800.000	UG/KG	1800.000	ORSVO	3.00	4.00	U	U	2680	Soil
B17	B17001	19940808	2-Nitroaniline	1700.000	UG/KG	1700.000	ORSVO	0.00	0.50	U	U	2680	Soil
B19	B19001	19940809	2-Nitroaniline	1600.000	UG/KG	1600.000	ORSVO	0.70	1.50	U	UJ	2680	Soil
B18	B18001	19940808	2-Nitrophenol	3500.000	UG/KG	3500.000	ORSVO	0.00	0.50	U	U	2680	Soil
B19	B19002	19940809	2-Nitrophenol	1900.000	UG/KG	1900.000	ORSVO	3.50	4.00	U	U	2680	Soil
B20	B20001	19940809	2-Nitrophenol	670.000	UG/KG	670.000	ORSVO	0.50	1.00	U	U	2680	Soil
B18	B18002	19940808	2-Nitrophenol	400.000	UG/KG	400.000	ORSVO	3.50	4.50	U	U	2680	Soil
B17	B17002	19940808	2-Nitrophenol	380.000	UG/KG	380.000	ORSVO	3.00	4.00	U	U	2680	Soil
B20	B20002	19940809	2-Nitrophenol	370.000	UG/KG	370.000	ORSVO	3.00	4.00	U	UJ	2680	Soil
B17	B17001	19940808	2-Nitrophenol	350.000	UG/KG	350.000	ORSVO	0.00	0.50	U	U	2680	Soil
B19	B19001	19940809	2-Nitrophenol	340.000	UG/KG	340.000	ORSVO	0.70	1.50	U	UJ	2680	Soil
B18	B18001	19940808	3,3'-Dichlorobenzidine	7000.000	UG/KG	7000.000	ORSVO	0.00	0.50	U	U	2680	Soil
B19	B19002	19940809	3,3'-Dichlorobenzidine	3800.000	UG/KG	3800.000	ORSVO	3.50	4.00	U	U	2680	Soil
B20	B20001	19940809	3,3'-Dichlorobenzidine	1300.000	UG/KG	1300.000	ORSVO	0.50	1.00	U	U	2680	Soil
B18	B18002	19940808	3,3'-Dichlorobenzidine	800.000	UG/KG	800.000	ORSVO	3.50	4.50	U	U	2680	Soil
B17	B17002	19940808	3,3'-Dichlorobenzidine	770.000	UG/KG	770.000	ORSVO	3.00	4.00	U	U	2680	Soil
B20	B20002	19940809	3,3'-Dichlorobenzidine	740.000	UG/KG	740.000	ORSVO	3.00	4.00	U	U	2680	Soil

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B17	B17001	19940808	3,3'-Dichlorobenzidine	690.000	UG/KG	690.000	ORSVO	0.00	0.50	U	U	2680	Soil
B19	B19001	19940809	3,3'-Dichlorobenzidine	670.000	UG/KG	670.000	ORSVO	0.70	1.50	U	UJ	2680	Soil
B18	B18001	19940808	3-Nitroaniline	17000.000	UG/KG	17000.000	ORSVO	0.00	0.50	U	U	2680	Soil
B19	B19002	19940809	3-Nitroaniline	9100.000	UG/KG	9100.000	ORSVO	3.50	4.00	U	U	2680	Soil
B20	B20001	19940809	3-Nitroaniline	3200.000	UG/KG	3200.000	ORSVO	0.50	1.00	U	U	2680	Soil
B18	B18002	19940808	3-Nitroaniline	2000.000	UG/KG	2000.000	ORSVO	3.50	4.50	U	U	2680	Soil
B17	B17002	19940808	3-Nitroaniline	1900.000	UG/KG	1900.000	ORSVO	3.00	4.00	U	U	2680	Soil
B20	B20002	19940809	3-Nitroaniline	1800.000	UG/KG	1800.000	ORSVO	3.00	4.00	U	U	2680	Soil
B17	B17001	19940808	3-Nitroaniline	1700.000	UG/KG	1700.000	ORSVO	0.00	0.50	U	U	2680	Soil
B19	B19001	19940809	3-Nitroaniline	1600.000	UG/KG	1600.000	ORSVO	0.70	1.50	U	UJ	2680	Soil
B18	B18002	19940808	4,4'-DDD	4.000	UG/KG	4.000	ORPPB	3.50	4.50	U	UJ	2680	Soil
B17	B17002	19940808	4,4'-DDD	3.900	UG/KG	3.900	ORPPB	3.00	4.00	U	U	2680	Soil
B19	B19002	19940809	4,4'-DDD	3.800	UG/KG	3.800	ORPPB	3.50	4.00	U	UJ	2680	Soil
B20	B20002	19940809	4,4'-DDD	3.700	UG/KG	3.700	ORPPB	3.00	4.00	U	UJ	2680	Soil
B18	B18001	19940808	4,4'-DDD	3.500	UG/KG	3.500	ORPPB	0.00	0.50	U	U	2680	Soil
B17	B17001	19940808	4,4'-DDD	3.500	UG/KG	3.500	ORPPB	0.00	0.50	U	U	2680	Soil
B19	B19001	19940809	4,4'-DDD	3.400	UG/KG	3.400	ORPPB	0.70	1.50	U	UJ	2680	Soil
B20	B20001	19940809	4,4'-DDD	3.300	UG/KG	3.300	ORPPB	0.50	1.00	U	UJ	2680	Soil
B18	B18002	19940808	4,4'-DDE	4.000	UG/KG	4.000	ORPPB	3.50	4.50	U	UJ	2680	Soil
B17	B17002	19940808	4,4'-DDE	3.900	UG/KG	3.900	ORPPB	3.00	4.00	U	U	2680	Soil
B20	B20002	19940809	4,4'-DDE	3.700	UG/KG	3.700	ORPPB	3.00	4.00	U	UJ	2680	Soil
B18	B18001	19940808	4,4'-DDE	3.500	UG/KG	3.500	ORPPB	0.00	0.50	U	U	2680	Soil
B17	B17001	19940808	4,4'-DDE	3.500	UG/KG	3.500	ORPPB	0.00	0.50	U	U	2680	Soil
B19	B19001	19940809	4,4'-DDE	3.400	UG/KG	3.400	ORPPB	0.70	1.50	U	UJ	2680	Soil
B20	B20001	19940809	4,4'-DDE	3.300	UG/KG	3.300	ORPPB	0.50	1.00	U	UJ	2680	Soil
B18	B18002	19940808	4,4'-DDT	4.000	UG/KG	4.000	ORPPB	3.50	4.50	U	UJ	2680	Soil
B19	B19002	19940809	4,4'-DDT	3.800	UG/KG	3.800	ORPPB	3.50	4.00	U	UJ	2680	Soil
B20	B20002	19940809	4,4'-DDT	3.700	UG/KG	3.700	ORPPB	3.00	4.00	U	UJ	2680	Soil
B18	B18001	19940808	4,4'-DDT	3.500	UG/KG	3.500	ORPPB	0.00	0.50	U	U	2680	Soil
B17	B17001	19940808	4,4'-DDT	3.500	UG/KG	3.500	ORPPB	0.00	0.50	U	U	2680	Soil
B19	B19001	19940809	4,4'-DDT	3.400	UG/KG	3.400	ORPPB	0.70	1.50	U	UJ	2680	Soil
B20	B20001	19940809	4,4'-DDT	3.300	UG/KG	3.300	ORPPB	0.50	1.00	U	UJ	2680	Soil
B17	B17002	19940808	4,4'-DDT	0.220	UG/KG	0.220	ORPPB	3.00	4.00	JP	U	2680	Soil
B18	B18001	19940808	4,6-Dinitro-o-Cresol	17000.000	UG/KG	17000.000	ORSVO	0.00	0.50	U	U	2680	Soil
B19	B19002	19940809	4,6-Dinitro-o-Cresol	9100.000	UG/KG	9100.000	ORSVO	3.50	4.00	U	U	2680	Soil
B20	B20001	19940809	4,6-Dinitro-o-Cresol	3200.000	UG/KG	3200.000	ORSVO	0.50	1.00	U	U	2680	Soil
B18	B18002	19940808	4,6-Dinitro-o-Cresol	2000.000	UG/KG	2000.000	ORSVO	3.50	4.50	U	U	2680	Soil

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B17	B17002	19940808	4,6-Dinitro-o-Cresol	1900.000	UG/KG	1900.000	ORSVO	3.00	4.00	U	U	2680	Soil
B20	B20002	19940809	4,6-Dinitro-o-Cresol	1800.000	UG/KG	1800.000	ORSVO	3.00	4.00	U	UJ	2680	Soil
B17	B17001	19940808	4,6-Dinitro-o-Cresol	1700.000	UG/KG	1700.000	ORSVO	0.00	0.50	U	U	2680	Soil
B19	B19001	19940809	4,6-Dinitro-o-Cresol	1600.000	UG/KG	1600.000	ORSVO	0.70	1.50	U	UJ	2680	Soil
B18	B18001	19940808	4-Bromophenyl-phenyl Ether	3500.000	UG/KG	3500.000	ORSVO	0.00	0.50	U	U	2680	Soil
B19	B19002	19940809	4-Bromophenyl-phenyl Ether	1900.000	UG/KG	1900.000	ORSVO	3.50	4.00	U	U	2680	Soil
B20	B20001	19940809	4-Bromophenyl-phenyl Ether	670.000	UG/KG	670.000	ORSVO	0.50	1.00	U	U	2680	Soil
B18	B18002	19940808	4-Bromophenyl-phenyl Ether	400.000	UG/KG	400.000	ORSVO	3.50	4.50	U	U	2680	Soil
B17	B17002	19940808	4-Bromophenyl-phenyl Ether	380.000	UG/KG	380.000	ORSVO	3.00	4.00	U	U	2680	Soil
B20	B20002	19940809	4-Bromophenyl-phenyl Ether	370.000	UG/KG	370.000	ORSVO	3.00	4.00	U	U	2680	Soil
B17	B17001	19940808	4-Bromophenyl-phenyl Ether	350.000	UG/KG	350.000	ORSVO	0.00	0.50	U	U	2680	Soil
B19	B19001	19940809	4-Bromophenyl-phenyl Ether	340.000	UG/KG	340.000	ORSVO	0.70	1.50	U	UJ	2680	Soil
B18	B18001	19940808	4-Chloro-3-methylphenol	3500.000	UG/KG	3500.000	ORSVO	0.00	0.50	U	U	2680	Soil
B19	B19002	19940809	4-Chloro-3-methylphenol	1900.000	UG/KG	1900.000	ORSVO	3.50	4.00	U	U	2680	Soil
B20	B20001	19940809	4-Chloro-3-methylphenol	670.000	UG/KG	670.000	ORSVO	0.50	1.00	U	U	2680	Soil
B18	B18002	19940808	4-Chloro-3-methylphenol	400.000	UG/KG	400.000	ORSVO	3.50	4.50	U	U	2680	Soil
B17	B17002	19940808	4-Chloro-3-methylphenol	380.000	UG/KG	380.000	ORSVO	3.00	4.00	U	U	2680	Soil
B20	B20002	19940809	4-Chloro-3-methylphenol	370.000	UG/KG	370.000	ORSVO	3.00	4.00	U	UJ	2680	Soil
B17	B17001	19940808	4-Chloro-3-methylphenol	350.000	UG/KG	350.000	ORSVO	0.00	0.50	U	U	2680	Soil
B19	B19001	19940809	4-Chloro-3-methylphenol	340.000	UG/KG	340.000	ORSVO	0.70	1.50	U	UJ	2680	Soil
B18	B18001	19940808	4-Chloroaniline	3500.000	UG/KG	3500.000	ORSVO	0.00	0.50	U	UJ	2680	Soil
B19	B19002	19940809	4-Chloroaniline	1900.000	UG/KG	1900.000	ORSVO	3.50	4.00	U	U	2680	Soil
B20	B20001	19940809	4-Chloroaniline	670.000	UG/KG	670.000	ORSVO	0.50	1.00	U	UJ	2680	Soil
B18	B18002	19940808	4-Chloroaniline	400.000	UG/KG	400.000	ORSVO	3.50	4.50	U	U	2680	Soil
B17	B17002	19940808	4-Chloroaniline	380.000	UG/KG	380.000	ORSVO	3.00	4.00	U	U	2680	Soil
B20	B20002	19940809	4-Chloroaniline	370.000	UG/KG	370.000	ORSVO	3.00	4.00	U	UJ	2680	Soil
B17	B17001	19940808	4-Chloroaniline	350.000	UG/KG	350.000	ORSVO	0.00	0.50	U	U	2680	Soil
B19	B19001	19940809	4-Chloroaniline	340.000	UG/KG	340.000	ORSVO	0.70	1.50	U	UJ	2680	Soil
B18	B18002	19940808	4-Methyl-2-pentanone	12.000	UG/KG	12.000	ORVOA	3.50	4.50	U	U	2680	Soil
B18	B18102	19940808	4-Methyl-2-pentanone	12.000	UG/KG	12.000	ORVOA	3.50	4.50	U	U	2680	Soil
B17	B17002	19940808	4-Methyl-2-pentanone	12.000	UG/KG	12.000	ORVOA	3.00	4.00	U	U	2680	Soil
B19	B19002	19940809	4-Methyl-2-pentanone	11.000	UG/KG	11.000	ORVOA	3.50	4.00	U	U	2680	Soil
B18	B18001	19940808	4-Methyl-2-pentanone	11.000	UG/KG	11.000	ORVOA	0.00	0.50	U	U	2680	Soil
B17	B17001	19940808	4-Methyl-2-pentanone	11.000	UG/KG	11.000	ORVOA	0.00	0.50	U	U	2680	Soil
B20	B20002	19940809	4-Methyl-2-pentanone	11.000	UG/KG	11.000	ORVOA	3.00	4.00	U	U	2680	Soil
B19	B19001	19940809	4-Methyl-2-pentanone	10.000	UG/KG	10.000	ORVOA	0.70	1.50	U	U	2680	Soil
B20	B20001	19940809	4-Methyl-2-pentanone	10.000	UG/KG	10.000	ORVOA	0.50	1.00	U	U	2680	Soil

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B18	B18001	19940808	4-Methylphenol	3500.000	UG/KG	3500.000	ORSVO	0.00	0.50	U	U	2680	Soil
B19	B19002	19940809	4-Methylphenol	1900.000	UG/KG	1900.000	ORSVO	3.50	4.00	U	U	2680	Soil
B20	B20001	19940809	4-Methylphenol	670.000	UG/KG	670.000	ORSVO	0.50	1.00	U	U	2680	Soil
B18	B18002	19940808	4-Methylphenol	400.000	UG/KG	400.000	ORSVO	3.50	4.50	U	U	2680	Soil
B17	B17002	19940808	4-Methylphenol	380.000	UG/KG	380.000	ORSVO	3.00	4.00	U	U	2680	Soil
B20	B20002	19940809	4-Methylphenol	370.000	UG/KG	370.000	ORSVO	3.00	4.00	U	UJ	2680	Soil
B17	B17001	19940808	4-Methylphenol	350.000	UG/KG	350.000	ORSVO	0.00	0.50	U	U	2680	Soil
B19	B19001	19940809	4-Methylphenol	340.000	UG/KG	340.000	ORSVO	0.70	1.50	U	UJ	2680	Soil
B18	B18001	19940808	4-Nitroaniline	17000.000	UG/KG	17000.000	ORSVO	0.00	0.50	U	U	2680	Soil
B19	B19002	19940809	4-Nitroaniline	9100.000	UG/KG	9100.000	ORSVO	3.50	4.00	U	U	2680	Soil
B20	B20001	19940809	4-Nitroaniline	3200.000	UG/KG	3200.000	ORSVO	0.50	1.00	U	U	2680	Soil
B18	B18002	19940808	4-Nitroaniline	2000.000	UG/KG	2000.000	ORSVO	3.50	4.50	U	U	2680	Soil
B17	B17002	19940808	4-Nitroaniline	1900.000	UG/KG	1900.000	ORSVO	3.00	4.00	U	U	2680	Soil
B20	B20002	19940809	4-Nitroaniline	1800.000	UG/KG	1800.000	ORSVO	3.00	4.00	U	U	2680	Soil
B17	B17001	19940808	4-Nitroaniline	1700.000	UG/KG	1700.000	ORSVO	0.00	0.50	U	U	2680	Soil
B19	B19001	19940809	4-Nitroaniline	1600.000	UG/KG	1600.000	ORSVO	0.70	1.50	U	UJ	2680	Soil
B18	B18001	19940808	4-Nitrophenol	17000.000	UG/KG	17000.000	ORSVO	0.00	0.50	U	U	2680	Soil
B19	B19002	19940809	4-Nitrophenol	9100.000	UG/KG	9100.000	ORSVO	3.50	4.00	U	U	2680	Soil
B20	B20001	19940809	4-Nitrophenol	3200.000	UG/KG	3200.000	ORSVO	0.50	1.00	U	U	2680	Soil
B18	B18002	19940808	4-Nitrophenol	2000.000	UG/KG	2000.000	ORSVO	3.50	4.50	U	U	2680	Soil
B17	B17002	19940808	4-Nitrophenol	1900.000	UG/KG	1900.000	ORSVO	3.00	4.00	U	U	2680	Soil
B20	B20002	19940809	4-Nitrophenol	1800.000	UG/KG	1800.000	ORSVO	3.00	4.00	U	UJ	2680	Soil
B17	B17001	19940808	4-Nitrophenol	1700.000	UG/KG	1700.000	ORSVO	0.00	0.50	U	U	2680	Soil
B19	B19001	19940809	4-Nitrophenol	1600.000	UG/KG	1600.000	ORSVO	0.70	1.50	U	UJ	2680	Soil
B19	B19002	19940809	Acenaphthene	1900.000	UG/KG	1900.000	ORSVO	3.50	4.00	U	U	2680	Soil
B20	B20001	19940809	Acenaphthene	670.000	UG/KG	670.000	ORSVO	0.50	1.00	U	U	2680	Soil
B18	B18002	19940808	Acenaphthene	400.000	UG/KG	400.000	ORSVO	3.50	4.50	U	U	2680	Soil
B17	B17002	19940808	Acenaphthene	380.000	UG/KG	380.000	ORSVO	3.00	4.00	U	U	2680	Soil
B20	B20002	19940809	Acenaphthene	370.000	UG/KG	370.000	ORSVO	3.00	4.00	U	U	2680	Soil
B19	B19001	19940809	Acenaphthene	340.000	UG/KG	340.000	ORSVO	0.70	1.50	U	UJ	2680	Soil
B18	B18001	19940808	Acenaphthylene	3500.000	UG/KG	3500.000	ORSVO	0.00	0.50	U	U	2680	Soil
B19	B19002	19940809	Acenaphthylene	1900.000	UG/KG	1900.000	ORSVO	3.50	4.00	U	U	2680	Soil
B20	B20001	19940809	Acenaphthylene	670.000	UG/KG	670.000	ORSVO	0.50	1.00	U	U	2680	Soil
B18	B18002	19940808	Acenaphthylene	400.000	UG/KG	400.000	ORSVO	3.50	4.50	U	U	2680	Soil
B20	B20002	19940809	Acenaphthylene	370.000	UG/KG	370.000	ORSVO	3.00	4.00	U	U	2680	Soil
B19	B19001	19940809	Acenaphthylene	340.000	UG/KG	340.000	ORSVO	0.70	1.50	U	UJ	2680	Soil
B17	B17002	19940808	Acenaphthylene	62.000	UG/KG	62.000	ORSVO	3.00	4.00	J	U	2680	Soil

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B18	B18102	19940808	Acetone	32.000	UG/KG	32.000	ORVOA	3.50	4.50	B	U	2680	Soil
B18	B18002	19940808	Acetone	30.000	UG/KG	30.000	ORVOA	3.50	4.50	B	U	2680	Soil
B19	B19002	19940809	Acetone	23.000	UG/KG	23.000	ORVOA	3.50	4.00	B	U	2680	Soil
B20	B20002	19940809	Acetone	21.000	UG/KG	21.000	ORVOA	3.00	4.00	B	U	2680	Soil
B20	B20001	19940809	Acetone	19.000	UG/KG	19.000	ORVOA	0.50	1.00	B	U	2680	Soil
B17	B17002	19940808	Acetone	16.000	UG/KG	16.000	ORVOA	3.00	4.00	B	U	2680	Soil
B17	B17001	19940808	Acetone	16.000	UG/KG	16.000	ORVOA	0.00	0.50	B	U	2680	Soil
B19	B19001	19940809	Acetone	12.000	UG/KG	12.000	ORVOA	0.70	1.50	B	U	2680	Soil
B18	B18001	19940808	Acetone	11.000	UG/KG	11.000	ORVOA	0.00	0.50	JB	U	2680	Soil
B18	B18002	19940808	Acetonitrile	120.000	UG/KG	120.000	ORVOA	3.50	4.50	U	U	2680	Soil
B18	B18102	19940808	Acetonitrile	120.000	UG/KG	120.000	ORVOA	3.50	4.50	U	U	2680	Soil
B17	B17002	19940808	Acetonitrile	120.000	UG/KG	120.000	ORVOA	3.00	4.00	U	U	2680	Soil
B19	B19002	19940809	Acetonitrile	110.000	UG/KG	110.000	ORVOA	3.50	4.00	U	U	2680	Soil
B18	B18001	19940808	Acetonitrile	110.000	UG/KG	110.000	ORVOA	0.00	0.50	U	U	2680	Soil
B17	B17001	19940808	Acetonitrile	110.000	UG/KG	110.000	ORVOA	0.00	0.50	U	U	2680	Soil
B20	B20002	19940809	Acetonitrile	110.000	UG/KG	110.000	ORVOA	3.00	4.00	U	U	2680	Soil
B19	B19001	19940809	Acetonitrile	100.000	UG/KG	100.000	ORVOA	0.70	1.50	U	U	2680	Soil
B20	B20001	19940809	Acetonitrile	100.000	UG/KG	100.000	ORVOA	0.50	1.00	U	U	2680	Soil
B18	B18002	19940808	Acrylonitrile	120.000	UG/KG	120.000	ORVOA	3.50	4.50	U	U	2680	Soil
B18	B18102	19940808	Acrylonitrile	120.000	UG/KG	120.000	ORVOA	3.50	4.50	U	U	2680	Soil
B17	B17002	19940808	Acrylonitrile	120.000	UG/KG	120.000	ORVOA	3.00	4.00	U	U	2680	Soil
B19	B19002	19940809	Acrylonitrile	110.000	UG/KG	110.000	ORVOA	3.50	4.00	U	U	2680	Soil
B18	B18001	19940808	Acrylonitrile	110.000	UG/KG	110.000	ORVOA	0.00	0.50	U	U	2680	Soil
B17	B17001	19940808	Acrylonitrile	110.000	UG/KG	110.000	ORVOA	0.00	0.50	U	U	2680	Soil
B20	B20002	19940809	Acrylonitrile	110.000	UG/KG	110.000	ORVOA	3.00	4.00	U	U	2680	Soil
B19	B19001	19940809	Acrylonitrile	100.000	UG/KG	100.000	ORVOA	0.70	1.50	U	U	2680	Soil
B20	B20001	19940809	Acrylonitrile	100.000	UG/KG	100.000	ORVOA	0.50	1.00	U	U	2680	Soil
B18	B18001	19940808	Actinium	0.680	PCI/G	0.680	RAD	0.00	0.50	U	U	2680	Soil
B17	B17002	19940808	Actinium	0.440	PCI/G	0.440	RAD	3.00	4.00	U	U	2680	Soil
B18	B18102	19940808	Actinium	0.430	PCI/G	0.430	RAD	3.50	4.50	U	U	2680	Soil
B18	B18002	19940808	Actinium	0.380	PCI/G	0.380	RAD	3.50	4.50	U	U	2680	Soil
B19	B19002	19940809	Actinium	0.310	PCI/G	0.310	RAD	3.50	4.00	U	U	2680	Soil
B17	B17001	19940808	Actinium	0.310	PCI/G	0.310	RAD	0.00	0.50	U	U	2680	Soil
B20	B20001	19940809	Actinium	0.250	PCI/G	0.250	RAD	0.50	1.00	U	U	2680	Soil
B20	B20002	19940809	Actinium	0.240	PCI/G	0.240	RAD	3.00	4.00	U	U	2680	Soil
B19	B19001	19940809	Actinium	0.190	PCI/G	0.190	RAD	0.70	1.50	U	U	2680	Soil
004846	004846	20020910	Actinium-227	0.990	PCI/G	0.990	RAD	0.00	1.00	U		SPUR2002	Soil

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Airline2	AIRLINE2	20010625	Actinium-227	0.120	PCI/G	0.120	RAD	0.00	0.00	U		AIRLINE01	Soil
Airline1	AIRLINE1	20010625	Actinium-227	0.110	PCI/G	0.110	RAD	0.00	0.00	U		AIRLINE01	Soil
B18	B18002	19940808	Aldrin	2.100	UG/KG	2.100	ORPPB	3.50	4.50	U	UJ	2680	Soil
B17	B17002	19940808	Aldrin	2.000	UG/KG	2.000	ORPPB	3.00	4.00	U	U	2680	Soil
B18	B18001	19940808	Aldrin	1.800	UG/KG	1.800	ORPPB	0.00	0.50	U	U	2680	Soil
B17	B17001	19940808	Aldrin	1.800	UG/KG	1.800	ORPPB	0.00	0.50	U	U	2680	Soil
B19	B19001	19940809	Aldrin	1.700	UG/KG	1.700	ORPPB	0.70	1.50	U	UJ	2680	Soil
B18	B18002	19940808	Alpha Chlordane	2.100	UG/KG	2.100	ORPPB	3.50	4.50	U	UJ	2680	Soil
B17	B17002	19940808	Alpha Chlordane	2.000	UG/KG	2.000	ORPPB	3.00	4.00	U	U	2680	Soil
B18	B18001	19940808	Alpha Chlordane	1.800	UG/KG	1.800	ORPPB	0.00	0.50	U	U	2680	Soil
B17	B17001	19940808	Alpha Chlordane	1.800	UG/KG	1.800	ORPPB	0.00	0.50	U	U	2680	Soil
B20	B20001	19940809	Alpha Chlordane	1.700	UG/KG	1.700	ORPPB	0.50	1.00	U	UJ	2680	Soil
B19	B19002	19940809	Alpha Chlordane	0.670	UG/KG		ORPPB	3.50	4.00	JP	R	2680	Soil
B20	B20002	19940809	Alpha Chlordane	0.250	UG/KG	0.250	ORPPB	3.00	4.00	JP	U	2680	Soil
B19	B19001	19940809	Alpha Chlordane	0.110	UG/KG	0.110	ORPPB	0.70	1.50	JP	U	2680	Soil
B18	B18002	19940808	Alpha-BHC	2.100	UG/KG	2.100	ORPPB	3.50	4.50	U	UJ	2680	Soil
B17	B17002	19940808	Alpha-BHC	2.000	UG/KG	2.000	ORPPB	3.00	4.00	U	U	2680	Soil
B19	B19002	19940809	Alpha-BHC	1.900	UG/KG	1.900	ORPPB	3.50	4.00	U	UJ	2680	Soil
B20	B20002	19940809	Alpha-BHC	1.900	UG/KG	1.900	ORPPB	3.00	4.00	U	UJ	2680	Soil
B18	B18001	19940808	Alpha-BHC	1.800	UG/KG	1.800	ORPPB	0.00	0.50	U	U	2680	Soil
B17	B17001	19940808	Alpha-BHC	1.800	UG/KG	1.800	ORPPB	0.00	0.50	U	U	2680	Soil
B19	B19001	19940809	Alpha-BHC	1.700	UG/KG	1.700	ORPPB	0.70	1.50	U	UJ	2680	Soil
B20	B20001	19940809	Alpha-BHC	1.700	UG/KG	1.700	ORPPB	0.50	1.00	U	UJ	2680	Soil
B18	B18001	19940808	Americium-241	0.820	PCI/G	0.820	RAD	0.00	0.50	U	U	2680	Soil
B18	B18102	19940808	Americium-241	0.570	PCI/G	0.570	RAD	3.50	4.50	U	U	2680	Soil
B17	B17002	19940808	Americium-241	0.540	PCI/G	0.540	RAD	3.00	4.00	U	U	2680	Soil
B18	B18002	19940808	Americium-241	0.500	PCI/G	0.500	RAD	3.50	4.50	U	U	2680	Soil
B20	B20002	19940809	Americium-241	0.350	PCI/G	0.350	RAD	3.00	4.00	U	U	2680	Soil
B17	B17001	19940808	Americium-241	0.320	PCI/G	0.320	RAD	0.00	0.50	U	U	2680	Soil
B19	B19002	19940809	Americium-241	0.310	PCI/G	0.310	RAD	3.50	4.00	U	U	2680	Soil
004846	004846	20020910	Americium-241	0.300	PCI/G	0.300	RAD	0.00	1.00	U		SPUR2002	Soil
B19	B19001	19940809	Americium-241	0.250	PCI/G	0.250	RAD	0.70	1.50	U	U	2680	Soil
B20	B20001	19940809	Americium-241	0.250	PCI/G	0.250	RAD	0.50	1.00	U	U	2680	Soil
Airline2	AIRLINE2	20010625	Americium-241	0.030	PCI/G	0.030	RAD	0.00	0.00	U		AIRLINE01	Soil
Airline1	AIRLINE1	20010625	Americium-241	0.020	PCI/G	0.020	RAD	0.00	0.00	U		AIRLINE01	Soil
B19	B19002	19940809	Anthracene	1900.000	UG/KG	1900.000	ORSVO	3.50	4.00	U	U	2680	Soil
B20	B20001	19940809	Anthracene	670.000	UG/KG	670.000	ORSVO	0.50	1.00	U	U	2680	Soil

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B18	B18002	19940808	Anthracene	400.000	UG/KG	400.000	ORSVO	3.50	4.50	U	U	2680	Soil
B17	B17002	19940808	Anthracene	380.000	UG/KG	380.000	ORSVO	3.00	4.00	U	U	2680	Soil
B20	B20002	19940809	Anthracene	370.000	UG/KG	370.000	ORSVO	3.00	4.00	U	U	2680	Soil
B19	B19001	19940809	Anthracene	340.000	UG/KG	340.000	ORSVO	0.70	1.50	U	UJ	2680	Soil
B19	B19001	19940809	Antimony	2.000	MG/KG	2.000	INORG	0.70	1.50	UN	UJ	2680	Soil
B18	B18001	19940808	Antimony	0.570	MG/KG	0.570	INORG	0.00	0.50	BN	U	2680	Soil
B18	B18002	19940808	Antimony	0.240	MG/KG	0.240	INORG	3.50	4.50	UN	UJ	2680	Soil
B19	B19002	19940809	Antimony	0.230	MG/KG	0.230	INORG	3.50	4.00	UN	UJ	2680	Soil
B17	B17002	19940808	Antimony	0.230	MG/KG	0.230	INORG	3.00	4.00	UN	UJ	2680	Soil
B20	B20002	19940809	Antimony	0.230	MG/KG	0.230	INORG	3.00	4.00	UN	UJ	2680	Soil
B17	B17001	19940808	Antimony	0.210	MG/KG	0.210	INORG	0.00	0.50	U	UJ	2680	Soil
B20	B20001	19940809	Antimony	0.200	MG/KG	0.200	INORG	0.50	1.00	UN	UJ	2680	Soil
B18	B18002	19940808	Aroclor-1016	40.000	UG/KG	40.000	ORPPB	3.50	4.50	U	UJ	2680	Soil
B17	B17002	19940808	Aroclor-1016	39.000	UG/KG	39.000	ORPPB	3.00	4.00	U	U	2680	Soil
B19	B19002	19940809	Aroclor-1016	38.000	UG/KG	38.000	ORPPB	3.50	4.00	U	UJ	2680	Soil
B20	B20002	19940809	Aroclor-1016	37.000	UG/KG	37.000	ORPPB	3.00	4.00	U	UJ	2680	Soil
B18	B18001	19940808	Aroclor-1016	35.000	UG/KG	35.000	ORPPB	0.00	0.50	U	U	2680	Soil
B17	B17001	19940808	Aroclor-1016	35.000	UG/KG	35.000	ORPPB	0.00	0.50	U	U	2680	Soil
B19	B19001	19940809	Aroclor-1016	34.000	UG/KG	34.000	ORPPB	0.70	1.50	U	UJ	2680	Soil
B20	B20001	19940809	Aroclor-1016	33.000	UG/KG	33.000	ORPPB	0.50	1.00	U	UJ	2680	Soil
B18	B18002	19940808	Aroclor-1221	81.000	UG/KG	81.000	ORPPB	3.50	4.50	U	UJ	2680	Soil
B17	B17002	19940808	Aroclor-1221	79.000	UG/KG	79.000	ORPPB	3.00	4.00	U	U	2680	Soil
B19	B19002	19940809	Aroclor-1221	76.000	UG/KG	76.000	ORPPB	3.50	4.00	U	UJ	2680	Soil
B20	B20002	19940809	Aroclor-1221	75.000	UG/KG	75.000	ORPPB	3.00	4.00	U	UJ	2680	Soil
B18	B18001	19940808	Aroclor-1221	71.000	UG/KG	71.000	ORPPB	0.00	0.50	U	U	2680	Soil
B17	B17001	19940808	Aroclor-1221	70.000	UG/KG	70.000	ORPPB	0.00	0.50	U	U	2680	Soil
B19	B19001	19940809	Aroclor-1221	68.000	UG/KG	68.000	ORPPB	0.70	1.50	U	UJ	2680	Soil
B20	B20001	19940809	Aroclor-1221	68.000	UG/KG	68.000	ORPPB	0.50	1.00	U	UJ	2680	Soil
B18	B18002	19940808	Aroclor-1232	40.000	UG/KG	40.000	ORPPB	3.50	4.50	U	UJ	2680	Soil
B17	B17002	19940808	Aroclor-1232	39.000	UG/KG	39.000	ORPPB	3.00	4.00	U	U	2680	Soil
B19	B19002	19940809	Aroclor-1232	38.000	UG/KG	38.000	ORPPB	3.50	4.00	U	UJ	2680	Soil
B20	B20002	19940809	Aroclor-1232	37.000	UG/KG	37.000	ORPPB	3.00	4.00	U	UJ	2680	Soil
B18	B18001	19940808	Aroclor-1232	35.000	UG/KG	35.000	ORPPB	0.00	0.50	U	U	2680	Soil
B17	B17001	19940808	Aroclor-1232	35.000	UG/KG	35.000	ORPPB	0.00	0.50	U	U	2680	Soil
B19	B19001	19940809	Aroclor-1232	34.000	UG/KG	34.000	ORPPB	0.70	1.50	U	UJ	2680	Soil
B20	B20001	19940809	Aroclor-1232	33.000	UG/KG	33.000	ORPPB	0.50	1.00	U	UJ	2680	Soil
B18	B18002	19940808	Aroclor-1242	40.000	UG/KG	40.000	ORPPB	3.50	4.50	U	UJ	2680	Soil

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B17	B17002	19940808	Aroclor-1242	39.000	UG/KG	39.000	ORPPB	3.00	4.00	U	U	2680	Soil
B19	B19002	19940809	Aroclor-1242	38.000	UG/KG	38.000	ORPPB	3.50	4.00	U	UJ	2680	Soil
B20	B20002	19940809	Aroclor-1242	37.000	UG/KG	37.000	ORPPB	3.00	4.00	U	UJ	2680	Soil
B18	B18001	19940808	Aroclor-1242	35.000	UG/KG	35.000	ORPPB	0.00	0.50	U	U	2680	Soil
B17	B17001	19940808	Aroclor-1242	35.000	UG/KG	35.000	ORPPB	0.00	0.50	U	U	2680	Soil
B19	B19001	19940809	Aroclor-1242	34.000	UG/KG	34.000	ORPPB	0.70	1.50	U	UJ	2680	Soil
B20	B20001	19940809	Aroclor-1242	33.000	UG/KG	33.000	ORPPB	0.50	1.00	U	UJ	2680	Soil
B18	B18002	19940808	Aroclor-1248	40.000	UG/KG	40.000	ORPPB	3.50	4.50	U	UJ	2680	Soil
B19	B19002	19940809	Aroclor-1248	38.000	UG/KG	38.000	ORPPB	3.50	4.00	U	UJ	2680	Soil
B20	B20002	19940809	Aroclor-1248	37.000	UG/KG	37.000	ORPPB	3.00	4.00	U	UJ	2680	Soil
B18	B18001	19940808	Aroclor-1248	35.000	UG/KG	35.000	ORPPB	0.00	0.50	U	U	2680	Soil
B19	B19001	19940809	Aroclor-1248	34.000	UG/KG	34.000	ORPPB	0.70	1.50	U	UJ	2680	Soil
B20	B20001	19940809	Aroclor-1248	33.000	UG/KG	33.000	ORPPB	0.50	1.00	U	UJ	2680	Soil
B18	B18002	19940808	Aroclor-1254	40.000	UG/KG	40.000	ORPPB	3.50	4.50	U	UJ	2680	Soil
B19	B19002	19940809	Aroclor-1254	38.000	UG/KG	38.000	ORPPB	3.50	4.00	U	UJ	2680	Soil
B20	B20002	19940809	Aroclor-1254	37.000	UG/KG	37.000	ORPPB	3.00	4.00	U	UJ	2680	Soil
B18	B18001	19940808	Aroclor-1254	35.000	UG/KG	35.000	ORPPB	0.00	0.50	U	U	2680	Soil
B19	B19001	19940809	Aroclor-1254	34.000	UG/KG	34.000	ORPPB	0.70	1.50	U	UJ	2680	Soil
B20	B20001	19940809	Aroclor-1254	33.000	UG/KG	33.000	ORPPB	0.50	1.00	U	UJ	2680	Soil
B18	B18002	19940808	Aroclor-1260	40.000	UG/KG	40.000	ORPPB	3.50	4.50	U	UJ	2680	Soil
B17	B17002	19940808	Aroclor-1260	39.000	UG/KG	39.000	ORPPB	3.00	4.00	U	U	2680	Soil
B19	B19002	19940809	Aroclor-1260	38.000	UG/KG	38.000	ORPPB	3.50	4.00	U	UJ	2680	Soil
B20	B20002	19940809	Aroclor-1260	37.000	UG/KG	37.000	ORPPB	3.00	4.00	U	UJ	2680	Soil
B18	B18001	19940808	Aroclor-1260	35.000	UG/KG	35.000	ORPPB	0.00	0.50	U	U	2680	Soil
B17	B17001	19940808	Aroclor-1260	35.000	UG/KG	35.000	ORPPB	0.00	0.50	U	U	2680	Soil
B19	B19001	19940809	Aroclor-1260	34.000	UG/KG	34.000	ORPPB	0.70	1.50	U	UJ	2680	Soil
B20	B20001	19940809	Aroclor-1260	33.000	UG/KG	33.000	ORPPB	0.50	1.00	U	UJ	2680	Soil
B19	B19001	19940809	Arsenic	4.100	MG/KG	4.100	INORG	0.70	1.50	U	U	2680	Soil
B19	B19002	19940809	Benzene	6.000	UG/KG	6.000	ORVOA	3.50	4.00	U	U	2680	Soil
B18	B18002	19940808	Benzene	6.000	UG/KG	6.000	ORVOA	3.50	4.50	U	U	2680	Soil
B18	B18102	19940808	Benzene	6.000	UG/KG	6.000	ORVOA	3.50	4.50	U	U	2680	Soil
B17	B17002	19940808	Benzene	6.000	UG/KG	6.000	ORVOA	3.00	4.00	U	U	2680	Soil
B20	B20002	19940809	Benzene	6.000	UG/KG	6.000	ORVOA	3.00	4.00	U	U	2680	Soil
B19	B19001	19940809	Benzene	5.000	UG/KG	5.000	ORVOA	0.70	1.50	U	U	2680	Soil
B18	B18001	19940808	Benzene	5.000	UG/KG	5.000	ORVOA	0.00	0.50	U	U	2680	Soil
B17	B17001	19940808	Benzene	5.000	UG/KG	5.000	ORVOA	0.00	0.50	U	U	2680	Soil
B20	B20001	19940809	Benzene	5.000	UG/KG	5.000	ORVOA	0.50	1.00	U	U	2680	Soil

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B19	B19002	19940809	Benzo(a)anthracene	1900.000	UG/KG	1900.000	ORSVO	3.50	4.00	U	U	2680	Soil
B20	B20001	19940809	Benzo(a)anthracene	670.000	UG/KG	670.000	ORSVO	0.50	1.00	U	U	2680	Soil
B18	B18002	19940808	Benzo(a)anthracene	400.000	UG/KG	400.000	ORSVO	3.50	4.50	U	U	2680	Soil
B20	B20002	19940809	Benzo(a)anthracene	370.000	UG/KG	370.000	ORSVO	3.00	4.00	U	U	2680	Soil
B19	B19001	19940809	Benzo(a)anthracene	340.000	UG/KG	340.000	ORSVO	0.70	1.50	U	UJ	2680	Soil
B19	B19002	19940809	Benzo(a)pyrene	1900.000	UG/KG	1900.000	ORSVO	3.50	4.00	U	U	2680	Soil
B18	B18002	19940808	Benzo(a)pyrene	400.000	UG/KG	400.000	ORSVO	3.50	4.50	U	U	2680	Soil
B20	B20002	19940809	Benzo(a)pyrene	370.000	UG/KG	370.000	ORSVO	3.00	4.00	U	U	2680	Soil
B19	B19002	19940809	Benzo(b)fluoranthene	1900.000	UG/KG	1900.000	ORSVO	3.50	4.00	U	U	2680	Soil
B18	B18002	19940808	Benzo(b)fluoranthene	400.000	UG/KG	400.000	ORSVO	3.50	4.50	U	U	2680	Soil
B19	B19001	19940809	Benzo(b)fluoranthene	340.000	UG/KG	340.000	ORSVO	0.70	1.50	U	UJ	2680	Soil
B19	B19002	19940809	Benzo(g,h,i)perylene	1900.000	UG/KG	1900.000	ORSVO	3.50	4.00	U	U	2680	Soil
B20	B20001	19940809	Benzo(g,h,i)perylene	670.000	UG/KG	670.000	ORSVO	0.50	1.00	U	U	2680	Soil
B18	B18002	19940808	Benzo(g,h,i)perylene	400.000	UG/KG	400.000	ORSVO	3.50	4.50	U	U	2680	Soil
B20	B20002	19940809	Benzo(g,h,i)perylene	370.000	UG/KG	370.000	ORSVO	3.00	4.00	U	U	2680	Soil
B19	B19001	19940809	Benzo(g,h,i)perylene	340.000	UG/KG	340.000	ORSVO	0.70	1.50	U	UJ	2680	Soil
B18	B18002	19940808	Benzo(k)fluoranthene	400.000	UG/KG	400.000	ORSVO	3.50	4.50	U	U	2680	Soil
B19	B19001	19940809	Benzo(k)fluoranthene	340.000	UG/KG	340.000	ORSVO	0.70	1.50	U	UJ	2680	Soil
B18	B18001	19940808	Benzoic Acid	17000.000	UG/KG	17000.000	ORSVO	0.00	0.50	U	U	2680	Soil
B19	B19002	19940809	Benzoic Acid	9100.000	UG/KG	9100.000	ORSVO	3.50	4.00	U	U	2680	Soil
B20	B20001	19940809	Benzoic Acid	3200.000	UG/KG	3200.000	ORSVO	0.50	1.00	U	U	2680	Soil
B18	B18002	19940808	Benzoic Acid	2000.000	UG/KG	2000.000	ORSVO	3.50	4.50	U	U	2680	Soil
B17	B17002	19940808	Benzoic Acid	1900.000	UG/KG	1900.000	ORSVO	3.00	4.00	U	U	2680	Soil
B17	B17001	19940808	Benzoic Acid	1700.000	UG/KG	1700.000	ORSVO	0.00	0.50	U	U	2680	Soil
B19	B19001	19940809	Benzoic Acid	1600.000	UG/KG	1600.000	ORSVO	0.70	1.50	U	UJ	2680	Soil
B18	B18001	19940808	Benzyl Alcohol	3500.000	UG/KG	3500.000	ORSVO	0.00	0.50	U	U	2680	Soil
B19	B19002	19940809	Benzyl Alcohol	1900.000	UG/KG	1900.000	ORSVO	3.50	4.00	U	U	2680	Soil
B20	B20001	19940809	Benzyl Alcohol	670.000	UG/KG	670.000	ORSVO	0.50	1.00	U	U	2680	Soil
B18	B18002	19940808	Benzyl Alcohol	400.000	UG/KG	400.000	ORSVO	3.50	4.50	U	U	2680	Soil
B17	B17002	19940808	Benzyl Alcohol	380.000	UG/KG	380.000	ORSVO	3.00	4.00	U	U	2680	Soil
B20	B20002	19940809	Benzyl Alcohol	370.000	UG/KG	370.000	ORSVO	3.00	4.00	U	UJ	2680	Soil
B17	B17001	19940808	Benzyl Alcohol	350.000	UG/KG	350.000	ORSVO	0.00	0.50	U	U	2680	Soil
B19	B19001	19940809	Benzyl Alcohol	340.000	UG/KG	340.000	ORSVO	0.70	1.50	U	UJ	2680	Soil
B19	B19001	19940809	Beryllium	2.000	MG/KG	2.000	INORG	0.70	1.50	U	U	2680	Soil
B19	B19002	19940809	Beryllium	0.230	MG/KG	0.230	INORG	3.50	4.00	U	U	2680	Soil
B20	B20002	19940809	Beryllium	0.230	MG/KG	0.230	INORG	3.00	4.00	U	U	2680	Soil
B17	B17001	19940808	Beryllium	0.210	MG/KG	0.210	INORG	0.00	0.50	U	U	2680	Soil

B20	B20001	19940809	Beryllium	0.200	MG/KG	0.200	INORG	0.50	1.00	U	U	2680	Soil
B18	B18002	19940808	Beta-BHC	2.100	UG/KG	2.100	ORPPB	3.50	4.50	U	UJ	2680	Soil
B17	B17002	19940808	Beta-BHC	2.000	UG/KG	2.000	ORPPB	3.00	4.00	U	U	2680	Soil
B19	B19002	19940809	Beta-BHC	1.900	UG/KG	1.900	ORPPB	3.50	4.00	U	UJ	2680	Soil
B20	B20002	19940809	Beta-BHC	1.900	UG/KG	1.900	ORPPB	3.00	4.00	U	UJ	2680	Soil
B18	B18001	19940808	Beta-BHC	1.800	UG/KG	1.800	ORPPB	0.00	0.50	U	U	2680	Soil
B17	B17001	19940808	Beta-BHC	1.800	UG/KG	1.800	ORPPB	0.00	0.50	U	U	2680	Soil
B19	B19001	19940809	Beta-BHC	1.700	UG/KG	1.700	ORPPB	0.70	1.50	U	UJ	2680	Soil
B20	B20001	19940809	Beta-BHC	1.700	UG/KG	1.700	ORPPB	0.50	1.00	U	UJ	2680	Soil
B18	B18001	19940808	Bis(2-chloroethoxy)methane	3500.000	UG/KG	3500.000	ORSVO	0.00	0.50	U	U	2680	Soil
B19	B19002	19940809	Bis(2-chloroethoxy)methane	1900.000	UG/KG	1900.000	ORSVO	3.50	4.00	U	U	2680	Soil
B20	B20001	19940809	Bis(2-chloroethoxy)methane	670.000	UG/KG	670.000	ORSVO	0.50	1.00	U	U	2680	Soil
B18	B18002	19940808	Bis(2-chloroethoxy)methane	400.000	UG/KG	400.000	ORSVO	3.50	4.50	U	U	2680	Soil
B17	B17002	19940808	Bis(2-chloroethoxy)methane	380.000	UG/KG	380.000	ORSVO	3.00	4.00	U	U	2680	Soil
B20	B20002	19940809	Bis(2-chloroethoxy)methane	370.000	UG/KG	370.000	ORSVO	3.00	4.00	U	U	2680	Soil
B17	B17001	19940808	Bis(2-chloroethoxy)methane	350.000	UG/KG	350.000	ORSVO	0.00	0.50	U	U	2680	Soil
B19	B19001	19940809	Bis(2-chloroethoxy)methane	340.000	UG/KG	340.000	ORSVO	0.70	1.50	U	UJ	2680	Soil
B18	B18001	19940808	Bis(2-chloroethyl)ether	3500.000	UG/KG	3500.000	ORSVO	0.00	0.50	U	U	2680	Soil
B19	B19002	19940809	Bis(2-chloroethyl)ether	1900.000	UG/KG	1900.000	ORSVO	3.50	4.00	U	U	2680	Soil
B20	B20001	19940809	Bis(2-chloroethyl)ether	670.000	UG/KG	670.000	ORSVO	0.50	1.00	U	U	2680	Soil
B18	B18002	19940808	Bis(2-chloroethyl)ether	400.000	UG/KG	400.000	ORSVO	3.50	4.50	U	U	2680	Soil
B17	B17002	19940808	Bis(2-chloroethyl)ether	380.000	UG/KG	380.000	ORSVO	3.00	4.00	U	U	2680	Soil
B20	B20002	19940809	Bis(2-chloroethyl)ether	370.000	UG/KG	370.000	ORSVO	3.00	4.00	U	U	2680	Soil
B17	B17001	19940808	Bis(2-chloroethyl)ether	350.000	UG/KG	350.000	ORSVO	0.00	0.50	U	U	2680	Soil
B19	B19001	19940809	Bis(2-chloroethyl)ether	340.000	UG/KG	340.000	ORSVO	0.70	1.50	U	UJ	2680	Soil
B19	B19002	19940809	Bis(2-ethylhexyl)phthalate	1900.000	UG/KG	1900.000	ORSVO	3.50	4.00	U	U	2680	Soil
B18	B18002	19940808	Bis(2-ethylhexyl)phthalate	400.000	UG/KG	400.000	ORSVO	3.50	4.50	U	U	2680	Soil
B20	B20002	19940809	Bis(2-ethylhexyl)phthalate	370.000	UG/KG	370.000	ORSVO	3.00	4.00	U	U	2680	Soil
B19	B19001	19940809	Bis(2-ethylhexyl)phthalate	340.000	UG/KG	340.000	ORSVO	0.70	1.50	U	UJ	2680	Soil
B18	B18001	19940808	Bismuth-207	0.080	PCI/G	0.080	RAD	0.00	0.50	U	U	2680	Soil
B18	B18102	19940808	Bismuth-207	0.070	PCI/G	0.070	RAD	3.50	4.50	U	U	2680	Soil
B18	B18002	19940808	Bismuth-207	0.060	PCI/G	0.060	RAD	3.50	4.50	U	U	2680	Soil
B17	B17002	19940808	Bismuth-207	0.060	PCI/G	0.060	RAD	3.00	4.00	U	U	2680	Soil
B19	B19002	19940809	Bismuth-207	0.040	PCI/G	0.040	RAD	3.50	4.00	U	U	2680	Soil
B17	B17001	19940808	Bismuth-207	0.040	PCI/G	0.040	RAD	0.00	0.50	U	U	2680	Soil
B20	B20002	19940809	Bismuth-207	0.040	PCI/G	0.040	RAD	3.00	4.00	U	U	2680	Soil
B20	B20001	19940809	Bismuth-207	0.040	PCI/G	0.040	RAD	0.50	1.00	U	U	2680	Soil

B19	B19001	19940809	Bismuth-207	0.030	PCI/G	0.030	RAD	0.70	1.50	U	U	2680	Soil
B18	B18001	19940808	Bismuth-210	0.120	PCI/G	0.120	RAD	0.00	0.50	U	U	2680	Soil
B18	B18102	19940808	Bismuth-210	0.100	PCI/G	0.100	RAD	3.50	4.50	U	U	2680	Soil
B17	B17002	19940808	Bismuth-210	0.100	PCI/G	0.100	RAD	3.00	4.00	U	U	2680	Soil
B18	B18002	19940808	Bismuth-210	0.090	PCI/G	0.090	RAD	3.50	4.50	U	U	2680	Soil
B19	B19002	19940809	Bismuth-210	0.070	PCI/G	0.070	RAD	3.50	4.00	U	U	2680	Soil
B17	B17001	19940808	Bismuth-210	0.070	PCI/G	0.070	RAD	0.00	0.50	U	U	2680	Soil
B20	B20002	19940809	Bismuth-210	0.060	PCI/G	0.060	RAD	3.00	4.00	U	U	2680	Soil
B20	B20001	19940809	Bismuth-210	0.060	PCI/G	0.060	RAD	0.50	1.00	U	U	2680	Soil
B19	B19001	19940809	Bismuth-210	0.050	PCI/G	0.050	RAD	0.70	1.50	U	U	2680	Soil
B19	B19002	19940809	Bromodichloromethane	6.000	UG/KG	6.000	ORVOA	3.50	4.00	U	U	2680	Soil
B18	B18002	19940808	Bromodichloromethane	6.000	UG/KG	6.000	ORVOA	3.50	4.50	U	U	2680	Soil
B18	B18102	19940808	Bromodichloromethane	6.000	UG/KG	6.000	ORVOA	3.50	4.50	U	U	2680	Soil
B17	B17002	19940808	Bromodichloromethane	6.000	UG/KG	6.000	ORVOA	3.00	4.00	U	U	2680	Soil
B20	B20002	19940809	Bromodichloromethane	6.000	UG/KG	6.000	ORVOA	3.00	4.00	U	U	2680	Soil
B19	B19001	19940809	Bromodichloromethane	5.000	UG/KG	5.000	ORVOA	0.70	1.50	U	U	2680	Soil
B18	B18001	19940808	Bromodichloromethane	5.000	UG/KG	5.000	ORVOA	0.00	0.50	U	U	2680	Soil
B17	B17001	19940808	Bromodichloromethane	5.000	UG/KG	5.000	ORVOA	0.00	0.50	U	U	2680	Soil
B20	B20001	19940809	Bromodichloromethane	5.000	UG/KG	5.000	ORVOA	0.50	1.00	U	U	2680	Soil
B19	B19002	19940809	Bromoform	6.000	UG/KG	6.000	ORVOA	3.50	4.00	U	U	2680	Soil
B18	B18002	19940808	Bromoform	6.000	UG/KG	6.000	ORVOA	3.50	4.50	U	U	2680	Soil
B18	B18102	19940808	Bromoform	6.000	UG/KG	6.000	ORVOA	3.50	4.50	U	U	2680	Soil
B17	B17002	19940808	Bromoform	6.000	UG/KG	6.000	ORVOA	3.00	4.00	U	U	2680	Soil
B20	B20002	19940809	Bromoform	6.000	UG/KG	6.000	ORVOA	3.00	4.00	U	U	2680	Soil
B19	B19001	19940809	Bromoform	5.000	UG/KG	5.000	ORVOA	0.70	1.50	U	U	2680	Soil
B18	B18001	19940808	Bromoform	5.000	UG/KG	5.000	ORVOA	0.00	0.50	U	U	2680	Soil
B17	B17001	19940808	Bromoform	5.000	UG/KG	5.000	ORVOA	0.00	0.50	U	U	2680	Soil
B20	B20001	19940809	Bromoform	5.000	UG/KG	5.000	ORVOA	0.50	1.00	U	U	2680	Soil
B18	B18002	19940808	Bromomethane	12.000	UG/KG	12.000	ORVOA	3.50	4.50	U	U	2680	Soil
B18	B18102	19940808	Bromomethane	12.000	UG/KG	12.000	ORVOA	3.50	4.50	U	U	2680	Soil
B17	B17002	19940808	Bromomethane	12.000	UG/KG	12.000	ORVOA	3.00	4.00	U	U	2680	Soil
B19	B19002	19940809	Bromomethane	11.000	UG/KG	11.000	ORVOA	3.50	4.00	U	U	2680	Soil
B18	B18001	19940808	Bromomethane	11.000	UG/KG	11.000	ORVOA	0.00	0.50	U	U	2680	Soil
B17	B17001	19940808	Bromomethane	11.000	UG/KG	11.000	ORVOA	0.00	0.50	U	U	2680	Soil
B20	B20002	19940809	Bromomethane	11.000	UG/KG	11.000	ORVOA	3.00	4.00	U	U	2680	Soil
B19	B19001	19940809	Bromomethane	10.000	UG/KG	10.000	ORVOA	0.70	1.50	U	U	2680	Soil
B20	B20001	19940809	Bromomethane	10.000	UG/KG	10.000	ORVOA	0.50	1.00	U	U	2680	Soil

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B18	B18001	19940808	Butyl Benzyl Phthalate	3500.000	UG/KG	3500.000	ORSVO	0.00	0.50	U	U	2680	Soil
B19	B19002	19940809	Butyl Benzyl Phthalate	1900.000	UG/KG	1900.000	ORSVO	3.50	4.00	U	U	2680	Soil
B18	B18002	19940808	Butyl Benzyl Phthalate	400.000	UG/KG	400.000	ORSVO	3.50	4.50	U	U	2680	Soil
B17	B17002	19940808	Butyl Benzyl Phthalate	380.000	UG/KG	380.000	ORSVO	3.00	4.00	U	U	2680	Soil
B20	B20002	19940809	Butyl Benzyl Phthalate	370.000	UG/KG	370.000	ORSVO	3.00	4.00	JB	U	2680	Soil
B17	B17001	19940808	Butyl Benzyl Phthalate	350.000	UG/KG	350.000	ORSVO	0.00	0.50	U	U	2680	Soil
B19	B19001	19940809	Butyl Benzyl Phthalate	340.000	UG/KG	340.000	ORSVO	0.70	1.50	JB	U	2680	Soil
B19	B19001	19940809	Cadmium	2.000	MG/KG	2.000	INORG	0.70	1.50	U	U	2680	Soil
B18	B18002	19940808	Cadmium	0.240	MG/KG	0.240	INORG	3.50	4.50	U	U	2680	Soil
B19	B19002	19940809	Cadmium	0.230	MG/KG	0.230	INORG	3.50	4.00	U	U	2680	Soil
B20	B20002	19940809	Cadmium	0.230	MG/KG	0.230	INORG	3.00	4.00	U	U	2680	Soil
B20	B20001	19940809	Cadmium	0.200	MG/KG	0.200	INORG	0.50	1.00	U	U	2680	Soil
B19	B19002	19940809	Carbazole	1900.000	UG/KG	1900.000	ORSVO	3.50	4.00	U	U	2680	Soil
B20	B20001	19940809	Carbazole	670.000	UG/KG	670.000	ORSVO	0.50	1.00	U	U	2680	Soil
B18	B18002	19940808	Carbazole	400.000	UG/KG	400.000	ORSVO	3.50	4.50	U	U	2680	Soil
B17	B17002	19940808	Carbazole	380.000	UG/KG	380.000	ORSVO	3.00	4.00	U	U	2680	Soil
B20	B20002	19940809	Carbazole	370.000	UG/KG	370.000	ORSVO	3.00	4.00	U	U	2680	Soil
B19	B19001	19940809	Carbazole	340.000	UG/KG	340.000	ORSVO	0.70	1.50	U	UJ	2680	Soil
B19	B19002	19940809	Carbon Disulfide	6.000	UG/KG	6.000	ORVOA	3.50	4.00	U	U	2680	Soil
B18	B18002	19940808	Carbon Disulfide	6.000	UG/KG	6.000	ORVOA	3.50	4.50	U	U	2680	Soil
B18	B18102	19940808	Carbon Disulfide	6.000	UG/KG	6.000	ORVOA	3.50	4.50	U	U	2680	Soil
B17	B17002	19940808	Carbon Disulfide	6.000	UG/KG	6.000	ORVOA	3.00	4.00	U	U	2680	Soil
B20	B20002	19940809	Carbon Disulfide	6.000	UG/KG	6.000	ORVOA	3.00	4.00	U	U	2680	Soil
B19	B19001	19940809	Carbon Disulfide	5.000	UG/KG	5.000	ORVOA	0.70	1.50	U	U	2680	Soil
B18	B18001	19940808	Carbon Disulfide	5.000	UG/KG	5.000	ORVOA	0.00	0.50	U	U	2680	Soil
B17	B17001	19940808	Carbon Disulfide	5.000	UG/KG	5.000	ORVOA	0.00	0.50	U	U	2680	Soil
B20	B20001	19940809	Carbon Disulfide	5.000	UG/KG	5.000	ORVOA	0.50	1.00	U	U	2680	Soil
B19	B19002	19940809	Carbon Tetrachloride	6.000	UG/KG	6.000	ORVOA	3.50	4.00	U	U	2680	Soil
B18	B18002	19940808	Carbon Tetrachloride	6.000	UG/KG	6.000	ORVOA	3.50	4.50	U	U	2680	Soil
B18	B18102	19940808	Carbon Tetrachloride	6.000	UG/KG	6.000	ORVOA	3.50	4.50	U	U	2680	Soil
B17	B17002	19940808	Carbon Tetrachloride	6.000	UG/KG	6.000	ORVOA	3.00	4.00	U	U	2680	Soil
B20	B20002	19940809	Carbon Tetrachloride	6.000	UG/KG	6.000	ORVOA	3.00	4.00	U	U	2680	Soil
B19	B19001	19940809	Carbon Tetrachloride	5.000	UG/KG	5.000	ORVOA	0.70	1.50	U	U	2680	Soil
B18	B18001	19940808	Carbon Tetrachloride	5.000	UG/KG	5.000	ORVOA	0.00	0.50	U	U	2680	Soil
B17	B17001	19940808	Carbon Tetrachloride	5.000	UG/KG	5.000	ORVOA	0.00	0.50	U	U	2680	Soil
B20	B20001	19940809	Carbon Tetrachloride	5.000	UG/KG	5.000	ORVOA	0.50	1.00	U	U	2680	Soil
B19	B19002	19940809	Cerium	11.800	MG/KG	11.800	INORG	3.50	4.00	U	U	2680	Soil

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B20	B20002	19940809	Cerium	11.700	MG/KG	11.700	INORG	3.00	4.00	U	U	2680	Soil
B19	B19001	19940809	Cerium	10.600	MG/KG	10.600	INORG	0.70	1.50	U	U	2680	Soil
B20	B20001	19940809	Cerium	10.500	MG/KG	10.500	INORG	0.50	1.00	U	U	2680	Soil
B18	B18001	19940808	Cesium-137	0.410	PCI/G	0.410	RAD	0.00	0.50		U	2680	Soil
004846	004846	20020910	Cesium-137	0.220	PCI/G	0.220	RAD	0.00	1.00	U		SPUR2002	Soil
B17	B17001	19940808	Cesium-137	0.160	PCI/G	0.160	RAD	0.00	0.50		U	2680	Soil
B17	B17002	19940808	Cesium-137	0.080	PCI/G	0.080	RAD	3.00	4.00	U	U	2680	Soil
B18	B18102	19940808	Cesium-137	0.070	PCI/G	0.070	RAD	3.50	4.50	U	U	2680	Soil
B18	B18002	19940808	Cesium-137	0.060	PCI/G	0.060	RAD	3.50	4.50	U	U	2680	Soil
B19	B19002	19940809	Cesium-137	0.050	PCI/G	0.050	RAD	3.50	4.00	U	U	2680	Soil
B20	B20002	19940809	Cesium-137	0.050	PCI/G	0.050	RAD	3.00	4.00	U	U	2680	Soil
B20	B20001	19940809	Cesium-137	0.040	PCI/G	0.040	RAD	0.50	1.00	U	U	2680	Soil
B19	B19001	19940809	Cesium-137	0.030	PCI/G	0.030	RAD	0.70	1.50	U	U	2680	Soil
Airline2	AIRLINE2	20010625	Cesium-137	0.010	PCI/G	0.010	RAD	0.00	0.00	U		AIRLINE01	Soil
Airline1	AIRLINE1	20010625	Cesium-137	0.010	PCI/G	0.010	RAD	0.00	0.00	U		AIRLINE01	Soil
B17	B17002	19940808	Chloride	3.000	MG/KG	3.000	ANION	3.00	4.00	U	UJ	2680	Soil
B19	B19002	19940809	Chlorobenzene	6.000	UG/KG	6.000	ORVOA	3.50	4.00	U	U	2680	Soil
B18	B18002	19940808	Chlorobenzene	6.000	UG/KG	6.000	ORVOA	3.50	4.50	U	U	2680	Soil
B18	B18102	19940808	Chlorobenzene	6.000	UG/KG	6.000	ORVOA	3.50	4.50	U	U	2680	Soil
B17	B17002	19940808	Chlorobenzene	6.000	UG/KG	6.000	ORVOA	3.00	4.00	U	U	2680	Soil
B20	B20002	19940809	Chlorobenzene	6.000	UG/KG	6.000	ORVOA	3.00	4.00	U	U	2680	Soil
B19	B19001	19940809	Chlorobenzene	5.000	UG/KG	5.000	ORVOA	0.70	1.50	U	U	2680	Soil
B18	B18001	19940808	Chlorobenzene	5.000	UG/KG	5.000	ORVOA	0.00	0.50	U	U	2680	Soil
B17	B17001	19940808	Chlorobenzene	5.000	UG/KG	5.000	ORVOA	0.00	0.50	U	U	2680	Soil
B20	B20001	19940809	Chlorobenzene	5.000	UG/KG	5.000	ORVOA	0.50	1.00	U	U	2680	Soil
B18	B18002	19940808	Chloroethane	12.000	UG/KG	12.000	ORVOA	3.50	4.50	U	U	2680	Soil
B18	B18102	19940808	Chloroethane	12.000	UG/KG	12.000	ORVOA	3.50	4.50	U	U	2680	Soil
B17	B17002	19940808	Chloroethane	12.000	UG/KG	12.000	ORVOA	3.00	4.00	U	U	2680	Soil
B19	B19002	19940809	Chloroethane	11.000	UG/KG	11.000	ORVOA	3.50	4.00	U	U	2680	Soil
B18	B18001	19940808	Chloroethane	11.000	UG/KG	11.000	ORVOA	0.00	0.50	U	U	2680	Soil
B17	B17001	19940808	Chloroethane	11.000	UG/KG	11.000	ORVOA	0.00	0.50	U	U	2680	Soil
B20	B20002	19940809	Chloroethane	11.000	UG/KG	11.000	ORVOA	3.00	4.00	U	U	2680	Soil
B19	B19001	19940809	Chloroethane	10.000	UG/KG	10.000	ORVOA	0.70	1.50	U	U	2680	Soil
B20	B20001	19940809	Chloroethane	10.000	UG/KG	10.000	ORVOA	0.50	1.00	U	U	2680	Soil
B18	B18002	19940808	Chloromethane	12.000	UG/KG	12.000	ORVOA	3.50	4.50	U	U	2680	Soil
B18	B18102	19940808	Chloromethane	12.000	UG/KG	12.000	ORVOA	3.50	4.50	U	U	2680	Soil
B17	B17002	19940808	Chloromethane	12.000	UG/KG	12.000	ORVOA	3.00	4.00	U	U	2680	Soil

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B19	B19002	19940809	Chloromethane	11.000	UG/KG	11.000	ORVOA	3.50	4.00	U	U	2680	Soil
B18	B18001	19940808	Chloromethane	11.000	UG/KG	11.000	ORVOA	0.00	0.50	U	U	2680	Soil
B17	B17001	19940808	Chloromethane	11.000	UG/KG	11.000	ORVOA	0.00	0.50	U	U	2680	Soil
B20	B20002	19940809	Chloromethane	11.000	UG/KG	11.000	ORVOA	3.00	4.00	U	U	2680	Soil
B19	B19001	19940809	Chloromethane	10.000	UG/KG	10.000	ORVOA	0.70	1.50	U	U	2680	Soil
B20	B20001	19940809	Chloromethane	10.000	UG/KG	10.000	ORVOA	0.50	1.00	U	U	2680	Soil
B19	B19002	19940809	Chrysene	1900.000	UG/KG	1900.000	ORSVO	3.50	4.00	U	U	2680	Soil
B18	B18002	19940808	Chrysene	400.000	UG/KG	400.000	ORSVO	3.50	4.50	U	U	2680	Soil
B19	B19001	19940809	Chrysene	340.000	UG/KG	340.000	ORSVO	0.70	1.50	U	UJ	2680	Soil
004846	004846	20020910	Cobalt-60	0.210	PCI/G	0.210	RAD	0.00	1.00	U		SPUR2002	Soil
B18	B18102	19940808	Cobalt-60	0.080	PCI/G	0.080	RAD	3.50	4.50	U	U	2680	Soil
B18	B18001	19940808	Cobalt-60	0.080	PCI/G	0.080	RAD	0.00	0.50	U	U	2680	Soil
B18	B18002	19940808	Cobalt-60	0.070	PCI/G	0.070	RAD	3.50	4.50	U	U	2680	Soil
B17	B17002	19940808	Cobalt-60	0.070	PCI/G	0.070	RAD	3.00	4.00	U	U	2680	Soil
B19	B19002	19940809	Cobalt-60	0.040	PCI/G	0.040	RAD	3.50	4.00	U	U	2680	Soil
B17	B17001	19940808	Cobalt-60	0.040	PCI/G	0.040	RAD	0.00	0.50	U	U	2680	Soil
B20	B20002	19940809	Cobalt-60	0.040	PCI/G	0.040	RAD	3.00	4.00	U	U	2680	Soil
B19	B19001	19940809	Cobalt-60	0.030	PCI/G	0.030	RAD	0.70	1.50	U	U	2680	Soil
B20	B20001	19940809	Cobalt-60	0.030	PCI/G	0.030	RAD	0.50	1.00	U	U	2680	Soil
Airline2	AIRLINE2	20010625	Cobalt-60	0.010	PCI/G	0.010	RAD	0.00	0.00	U		AIRLINE01	Soil
Airline1	AIRLINE1	20010625	Cobalt-60	0.010	PCI/G	0.010	RAD	0.00	0.00	U		AIRLINE01	Soil
B18	B18002	19940808	Cyanide	0.610	MG/KG	0.610	INORG	3.50	4.50	U	U	2680	Soil
B17	B17002	19940808	Cyanide	0.580	MG/KG	0.580	INORG	3.00	4.00	U	U	2680	Soil
B19	B19002	19940809	Cyanide	0.570	MG/KG	0.570	INORG	3.50	4.00	U	U	2680	Soil
B20	B20002	19940809	Cyanide	0.560	MG/KG	0.560	INORG	3.00	4.00	U	U	2680	Soil
B18	B18001	19940808	Cyanide	0.540	MG/KG	0.540	INORG	0.00	0.50	U	U	2680	Soil
B17	B17001	19940808	Cyanide	0.520	MG/KG	0.520	INORG	0.00	0.50	U	U	2680	Soil
B19	B19001	19940809	Cyanide	0.510	MG/KG	0.510	INORG	0.70	1.50	U	U	2680	Soil
B20	B20001	19940809	Cyanide	0.500	MG/KG	0.500	INORG	0.50	1.00	U	U	2680	Soil
B18	B18002	19940808	Delta-BHC	2.100	UG/KG	2.100	ORPPB	3.50	4.50	U	UJ	2680	Soil
B17	B17002	19940808	Delta-BHC	2.000	UG/KG	2.000	ORPPB	3.00	4.00	U	U	2680	Soil
B19	B19002	19940809	Delta-BHC	1.900	UG/KG	1.900	ORPPB	3.50	4.00	U	UJ	2680	Soil
B20	B20002	19940809	Delta-BHC	1.900	UG/KG	1.900	ORPPB	3.00	4.00	U	UJ	2680	Soil
B18	B18001	19940808	Delta-BHC	1.800	UG/KG	1.800	ORPPB	0.00	0.50	U	U	2680	Soil
B17	B17001	19940808	Delta-BHC	1.800	UG/KG	1.800	ORPPB	0.00	0.50	U	U	2680	Soil
B19	B19001	19940809	Delta-BHC	1.700	UG/KG	1.700	ORPPB	0.70	1.50	U	UJ	2680	Soil
B20	B20001	19940809	Delta-BHC	1.700	UG/KG	1.700	ORPPB	0.50	1.00	U	UJ	2680	Soil

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B19	B19002	19940809	Dibenz(a,h)anthracene	1900.000	UG/KG	1900.000	ORSVO	3.50	4.00	U	U	2680	Soil
B20	B20001	19940809	Dibenz(a,h)anthracene	670.000	UG/KG	670.000	ORSVO	0.50	1.00	U	U	2680	Soil
B18	B18002	19940808	Dibenz(a,h)anthracene	400.000	UG/KG	400.000	ORSVO	3.50	4.50	U	U	2680	Soil
B17	B17002	19940808	Dibenz(a,h)anthracene	380.000	UG/KG	380.000	ORSVO	3.00	4.00	U	U	2680	Soil
B20	B20002	19940809	Dibenz(a,h)anthracene	370.000	UG/KG	370.000	ORSVO	3.00	4.00	U	U	2680	Soil
B19	B19001	19940809	Dibenz(a,h)anthracene	340.000	UG/KG	340.000	ORSVO	0.70	1.50	U	UJ	2680	Soil
B19	B19002	19940809	Dibenzofuran	1900.000	UG/KG	1900.000	ORSVO	3.50	4.00	U	U	2680	Soil
B20	B20001	19940809	Dibenzofuran	670.000	UG/KG	670.000	ORSVO	0.50	1.00	U	U	2680	Soil
B18	B18002	19940808	Dibenzofuran	400.000	UG/KG	400.000	ORSVO	3.50	4.50	U	U	2680	Soil
B20	B20002	19940809	Dibenzofuran	370.000	UG/KG	370.000	ORSVO	3.00	4.00	U	U	2680	Soil
B19	B19001	19940809	Dibenzofuran	340.000	UG/KG	340.000	ORSVO	0.70	1.50	U	UJ	2680	Soil
B17	B17002	19940808	Dibenzofuran	160.000	UG/KG	160.000	ORSVO	3.00	4.00	J	U	2680	Soil
B19	B19002	19940809	Dibromochloromethane	6.000	UG/KG	6.000	ORVOA	3.50	4.00	U	U	2680	Soil
B18	B18002	19940808	Dibromochloromethane	6.000	UG/KG	6.000	ORVOA	3.50	4.50	U	U	2680	Soil
B18	B18102	19940808	Dibromochloromethane	6.000	UG/KG	6.000	ORVOA	3.50	4.50	U	U	2680	Soil
B17	B17002	19940808	Dibromochloromethane	6.000	UG/KG	6.000	ORVOA	3.00	4.00	U	U	2680	Soil
B20	B20002	19940809	Dibromochloromethane	6.000	UG/KG	6.000	ORVOA	3.00	4.00	U	U	2680	Soil
B19	B19001	19940809	Dibromochloromethane	5.000	UG/KG	5.000	ORVOA	0.70	1.50	U	U	2680	Soil
B18	B18001	19940808	Dibromochloromethane	5.000	UG/KG	5.000	ORVOA	0.00	0.50	U	U	2680	Soil
B17	B17001	19940808	Dibromochloromethane	5.000	UG/KG	5.000	ORVOA	0.00	0.50	U	U	2680	Soil
B20	B20001	19940809	Dibromochloromethane	5.000	UG/KG	5.000	ORVOA	0.50	1.00	U	U	2680	Soil
B19	B19001	19940809	Dichloromethane (Methylene Chloride)	14.000	UG/KG	14.000	ORVOA	0.70	1.50	B	U	2680	Soil
B17	B17002	19940808	Dichloromethane (Methylene Chloride)	14.000	UG/KG	14.000	ORVOA	3.00	4.00	B	U	2680	Soil
B20	B20001	19940809	Dichloromethane (Methylene Chloride)	14.000	UG/KG	14.000	ORVOA	0.50	1.00	B	U	2680	Soil
B19	B19002	19940809	Dichloromethane (Methylene Chloride)	13.000	UG/KG	13.000	ORVOA	3.50	4.00	B	U	2680	Soil
B18	B18002	19940808	Dichloromethane (Methylene Chloride)	13.000	UG/KG	13.000	ORVOA	3.50	4.50	B	U	2680	Soil
B18	B18102	19940808	Dichloromethane (Methylene Chloride)	12.000	UG/KG	12.000	ORVOA	3.50	4.50	B	U	2680	Soil
B20	B20002	19940809	Dichloromethane (Methylene Chloride)	11.000	UG/KG	11.000	ORVOA	3.00	4.00	B	U	2680	Soil
B17	B17001	19940808	Dichloromethane (Methylene Chloride)	9.000	UG/KG	9.000	ORVOA	0.00	0.50	B	U	2680	Soil

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B18	B18001	19940808	Dichloromethane (Methylene Chloride)	8.000	UG/KG	8.000	ORVOA	0.00	0.50	B	U	2680	Soil
B18	B18002	19940808	Dieldrin	4.000	UG/KG	4.000	ORPPB	3.50	4.50	U	UJ	2680	Soil
B17	B17002	19940808	Dieldrin	3.900	UG/KG	3.900	ORPPB	3.00	4.00	U	U	2680	Soil
B19	B19002	19940809	Dieldrin	3.800	UG/KG	3.800	ORPPB	3.50	4.00	U	UJ	2680	Soil
B18	B18001	19940808	Dieldrin	3.500	UG/KG	3.500	ORPPB	0.00	0.50	U	U	2680	Soil
B17	B17001	19940808	Dieldrin	3.500	UG/KG	3.500	ORPPB	0.00	0.50	U	U	2680	Soil
B19	B19001	19940809	Dieldrin	3.400	UG/KG	3.400	ORPPB	0.70	1.50	U	UJ	2680	Soil
B20	B20001	19940809	Dieldrin	0.570	UG/KG	0.570	ORPPB	0.50	1.00	JP	U	2680	Soil
B18	B18001	19940808	Diethyl Phthalate	3500.000	UG/KG	3500.000	ORSVO	0.00	0.50	U	U	2680	Soil
B19	B19002	19940809	Diethyl Phthalate	1900.000	UG/KG	1900.000	ORSVO	3.50	4.00	U	U	2680	Soil
B20	B20001	19940809	Diethyl Phthalate	670.000	UG/KG	670.000	ORSVO	0.50	1.00	U	U	2680	Soil
B18	B18002	19940808	Diethyl Phthalate	400.000	UG/KG	400.000	ORSVO	3.50	4.50	U	U	2680	Soil
B17	B17002	19940808	Diethyl Phthalate	380.000	UG/KG	380.000	ORSVO	3.00	4.00	U	U	2680	Soil
B20	B20002	19940809	Diethyl Phthalate	370.000	UG/KG	370.000	ORSVO	3.00	4.00	U	U	2680	Soil
B17	B17001	19940808	Diethyl Phthalate	350.000	UG/KG	350.000	ORSVO	0.00	0.50	U	U	2680	Soil
B19	B19001	19940809	Diethyl Phthalate	340.000	UG/KG	340.000	ORSVO	0.70	1.50	U	UJ	2680	Soil
B18	B18001	19940808	Dimethyl Phthalate	3500.000	UG/KG	3500.000	ORSVO	0.00	0.50	U	U	2680	Soil
B19	B19002	19940809	Dimethyl Phthalate	1900.000	UG/KG	1900.000	ORSVO	3.50	4.00	U	U	2680	Soil
B20	B20001	19940809	Dimethyl Phthalate	670.000	UG/KG	670.000	ORSVO	0.50	1.00	U	U	2680	Soil
B18	B18002	19940808	Dimethyl Phthalate	400.000	UG/KG	400.000	ORSVO	3.50	4.50	U	U	2680	Soil
B17	B17002	19940808	Dimethyl Phthalate	380.000	UG/KG	380.000	ORSVO	3.00	4.00	U	U	2680	Soil
B20	B20002	19940809	Dimethyl Phthalate	370.000	UG/KG	370.000	ORSVO	3.00	4.00	U	U	2680	Soil
B17	B17001	19940808	Dimethyl Phthalate	350.000	UG/KG	350.000	ORSVO	0.00	0.50	U	U	2680	Soil
B19	B19001	19940809	Dimethyl Phthalate	340.000	UG/KG	340.000	ORSVO	0.70	1.50	U	UJ	2680	Soil
B19	B19002	19940809	Di-n-butyl Phthalate	1900.000	UG/KG	1900.000	ORSVO	3.50	4.00	JB	U	2680	Soil
B20	B20002	19940809	Di-n-butyl Phthalate	370.000	UG/KG	370.000	ORSVO	3.00	4.00	JB	U	2680	Soil
B19	B19001	19940809	Di-n-butyl Phthalate	340.000	UG/KG	340.000	ORSVO	0.70	1.50	JB	U	2680	Soil
B18	B18001	19940808	Di-n-octyl Phthalate	3500.000	UG/KG	3500.000	ORSVO	0.00	0.50	U	U	2680	Soil
B19	B19002	19940809	Di-n-octyl Phthalate	1900.000	UG/KG	1900.000	ORSVO	3.50	4.00	U	U	2680	Soil
B20	B20001	19940809	Di-n-octyl Phthalate	670.000	UG/KG	670.000	ORSVO	0.50	1.00	U	U	2680	Soil
B18	B18002	19940808	Di-n-octyl Phthalate	400.000	UG/KG	400.000	ORSVO	3.50	4.50	U	U	2680	Soil
B20	B20002	19940809	Di-n-octyl Phthalate	370.000	UG/KG	370.000	ORSVO	3.00	4.00	U	U	2680	Soil
B17	B17002	19940808	Di-n-octyl Phthalate	350.000	UG/KG	350.000	ORSVO	3.00	4.00	U	U	2680	Soil
B17	B17001	19940808	Di-n-octyl Phthalate	350.000	UG/KG	350.000	ORSVO	0.00	0.50	U	U	2680	Soil
B19	B19001	19940809	Di-n-octyl Phthalate	340.000	UG/KG	340.000	ORSVO	0.70	1.50	U	UJ	2680	Soil
B19	B19002	19940809	Dypsprosium	2.500	MG/KG	2.500	INORG	3.50	4.00	U	U	2680	Soil

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B17	B17002	19940808	Dypsprosium	2.500	MG/KG	2.500	INORG	3.00	4.00	U	U	2680	Soil
B20	B20002	19940809	Dypsprosium	2.500	MG/KG	2.500	INORG	3.00	4.00	U	U	2680	Soil
B18	B18001	19940808	Dypsprosium	2.400	MG/KG	2.400	INORG	0.00	0.50	U	U	2680	Soil
B17	B17001	19940808	Dypsprosium	2.300	MG/KG	2.300	INORG	0.00	0.50	U	U	2680	Soil
B19	B19001	19940809	Dypsprosium	2.200	MG/KG	2.200	INORG	0.70	1.50	U	U	2680	Soil
B20	B20001	19940809	Dypsprosium	2.200	MG/KG	2.200	INORG	0.50	1.00	U	U	2680	Soil
B18	B18002	19940808	Endosulfan I	2.100	UG/KG	2.100	ORPPB	3.50	4.50	U	UJ	2680	Soil
B17	B17002	19940808	Endosulfan I	2.000	UG/KG	2.000	ORPPB	3.00	4.00	U	U	2680	Soil
B19	B19002	19940809	Endosulfan I	1.900	UG/KG	1.900	ORPPB	3.50	4.00	U	UJ	2680	Soil
B20	B20002	19940809	Endosulfan I	1.900	UG/KG	1.900	ORPPB	3.00	4.00	U	UJ	2680	Soil
B18	B18001	19940808	Endosulfan I	1.800	UG/KG	1.800	ORPPB	0.00	0.50	U	U	2680	Soil
B17	B17001	19940808	Endosulfan I	1.800	UG/KG	1.800	ORPPB	0.00	0.50	U	U	2680	Soil
B19	B19001	19940809	Endosulfan I	1.700	UG/KG	1.700	ORPPB	0.70	1.50	U	UJ	2680	Soil
B20	B20001	19940809	Endosulfan I	1.700	UG/KG	1.700	ORPPB	0.50	1.00	U	UJ	2680	Soil
B18	B18002	19940808	Endosulfan II	4.000	UG/KG	4.000	ORPPB	3.50	4.50	U	UJ	2680	Soil
B17	B17002	19940808	Endosulfan II	3.900	UG/KG	3.900	ORPPB	3.00	4.00	U	U	2680	Soil
B19	B19002	19940809	Endosulfan II	3.800	UG/KG	3.800	ORPPB	3.50	4.00	U	UJ	2680	Soil
B20	B20002	19940809	Endosulfan II	3.700	UG/KG	3.700	ORPPB	3.00	4.00	U	UJ	2680	Soil
B18	B18001	19940808	Endosulfan II	3.500	UG/KG	3.500	ORPPB	0.00	0.50	U	U	2680	Soil
B17	B17001	19940808	Endosulfan II	3.500	UG/KG	3.500	ORPPB	0.00	0.50	U	U	2680	Soil
B20	B20001	19940809	Endosulfan II	3.300	UG/KG	3.300	ORPPB	0.50	1.00	U	UJ	2680	Soil
B19	B19001	19940809	Endosulfan II	0.370	UG/KG	0.370	ORPPB	0.70	1.50	JP	U	2680	Soil
B18	B18002	19940808	Endosulfan Sulfate	4.000	UG/KG	4.000	ORPPB	3.50	4.50	U	UJ	2680	Soil
B17	B17002	19940808	Endosulfan Sulfate	3.900	UG/KG	3.900	ORPPB	3.00	4.00	U	U	2680	Soil
B19	B19002	19940809	Endosulfan Sulfate	3.800	UG/KG	3.800	ORPPB	3.50	4.00	U	UJ	2680	Soil
B18	B18001	19940808	Endosulfan Sulfate	3.500	UG/KG	3.500	ORPPB	0.00	0.50	U	U	2680	Soil
B17	B17001	19940808	Endosulfan Sulfate	3.500	UG/KG	3.500	ORPPB	0.00	0.50	U	U	2680	Soil
B20	B20001	19940809	Endosulfan Sulfate	0.540	UG/KG	0.540	ORPPB	0.50	1.00	JP	U	2680	Soil
B17	B17002	19940808	Endrin	3.900	UG/KG	3.900	ORPPB	3.00	4.00	U	U	2680	Soil
B19	B19002	19940809	Endrin	3.800	UG/KG	3.800	ORPPB	3.50	4.00	U	UJ	2680	Soil
B20	B20002	19940809	Endrin	3.700	UG/KG	3.700	ORPPB	3.00	4.00	U	UJ	2680	Soil
B18	B18001	19940808	Endrin	3.500	UG/KG	3.500	ORPPB	0.00	0.50	U	U	2680	Soil
B17	B17001	19940808	Endrin	3.500	UG/KG	3.500	ORPPB	0.00	0.50	U	U	2680	Soil
B19	B19001	19940809	Endrin	3.400	UG/KG	3.400	ORPPB	0.70	1.50	U	UJ	2680	Soil
B20	B20001	19940809	Endrin	0.450	UG/KG	0.450	ORPPB	0.50	1.00	JP	U	2680	Soil
B17	B17001	19940808	Endrin Aldehyde	9.000	UG/KG		ORPPB	0.00	0.50	P	R	2680	Soil
B18	B18002	19940808	Endrin Aldehyde	4.000	UG/KG	4.000	ORPPB	3.50	4.50	U	UJ	2680	Soil

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B19	B19002	19940809	Endrin Aldehyde	3.800	UG/KG	3.800	ORPPB	3.50	4.00	U	UJ	2680	Soil
B20	B20002	19940809	Endrin Aldehyde	3.700	UG/KG	3.700	ORPPB	3.00	4.00	U	UJ	2680	Soil
B18	B18001	19940808	Endrin Aldehyde	3.500	UG/KG	3.500	ORPPB	0.00	0.50	U	U	2680	Soil
B19	B19001	19940809	Endrin Aldehyde	3.400	UG/KG	3.400	ORPPB	0.70	1.50	U	UJ	2680	Soil
B20	B20001	19940809	Endrin Aldehyde	3.300	UG/KG	3.300	ORPPB	0.50	1.00	U	UJ	2680	Soil
B17	B17002	19940808	Endrin Aldehyde	1.900	UG/KG		ORPPB	3.00	4.00	JP	R	2680	Soil
B18	B18002	19940808	Endrin Ketone	4.000	UG/KG	4.000	ORPPB	3.50	4.50	U	UJ	2680	Soil
B19	B19002	19940809	Endrin Ketone	3.800	UG/KG	3.800	ORPPB	3.50	4.00	U	UJ	2680	Soil
B20	B20002	19940809	Endrin Ketone	3.700	UG/KG	3.700	ORPPB	3.00	4.00	U	UJ	2680	Soil
B18	B18001	19940808	Endrin Ketone	3.500	UG/KG	3.500	ORPPB	0.00	0.50	U	U	2680	Soil
B17	B17001	19940808	Endrin Ketone	3.500	UG/KG	3.500	ORPPB	0.00	0.50	U	U	2680	Soil
B19	B19001	19940809	Endrin Ketone	3.400	UG/KG	3.400	ORPPB	0.70	1.50	U	UJ	2680	Soil
B17	B17002	19940808	Endrin Ketone	0.330	UG/KG	0.330	ORPPB	3.00	4.00	JP	U	2680	Soil
B20	B20001	19940809	Endrin Ketone	0.320	UG/KG	0.320	ORPPB	0.50	1.00	JP	U	2680	Soil
B18	B18002	19940808	Erbium	7.300	MG/KG	7.300	INORG	3.50	4.50	U	U	2680	Soil
B17	B17002	19940808	Erbium	6.900	MG/KG	6.900	INORG	3.00	4.00	U	U	2680	Soil
B19	B19002	19940809	Erbium	6.800	MG/KG	6.800	INORG	3.50	4.00	U	U	2680	Soil
B20	B20002	19940809	Erbium	6.800	MG/KG	6.800	INORG	3.00	4.00	U	U	2680	Soil
B18	B18001	19940808	Erbium	6.400	MG/KG	6.400	INORG	0.00	0.50	U	U	2680	Soil
B17	B17001	19940808	Erbium	6.300	MG/KG	6.300	INORG	0.00	0.50	U	U	2680	Soil
B19	B19001	19940809	Erbium	6.100	MG/KG	6.100	INORG	0.70	1.50	U	U	2680	Soil
B20	B20001	19940809	Erbium	6.000	MG/KG	6.000	INORG	0.50	1.00	U	U	2680	Soil
B19	B19002	19940809	Ethylbenzene	6.000	UG/KG	6.000	ORVOA	3.50	4.00	U	U	2680	Soil
B18	B18002	19940808	Ethylbenzene	6.000	UG/KG	6.000	ORVOA	3.50	4.50	U	U	2680	Soil
B18	B18102	19940808	Ethylbenzene	6.000	UG/KG	6.000	ORVOA	3.50	4.50	U	U	2680	Soil
B17	B17002	19940808	Ethylbenzene	6.000	UG/KG	6.000	ORVOA	3.00	4.00	U	U	2680	Soil
B20	B20002	19940809	Ethylbenzene	6.000	UG/KG	6.000	ORVOA	3.00	4.00	U	U	2680	Soil
B19	B19001	19940809	Ethylbenzene	5.000	UG/KG	5.000	ORVOA	0.70	1.50	U	U	2680	Soil
B18	B18001	19940808	Ethylbenzene	5.000	UG/KG	5.000	ORVOA	0.00	0.50	U	U	2680	Soil
B17	B17001	19940808	Ethylbenzene	5.000	UG/KG	5.000	ORVOA	0.00	0.50	U	U	2680	Soil
B20	B20001	19940809	Ethylbenzene	5.000	UG/KG	5.000	ORVOA	0.50	1.00	U	U	2680	Soil
B18	B18002	19940808	Europium	0.970	MG/KG	0.970	INORG	3.50	4.50	U	U	2680	Soil
B17	B17002	19940808	Europium	0.920	MG/KG	0.920	INORG	3.00	4.00	U	U	2680	Soil
B19	B19002	19940809	Europium	0.900	MG/KG	0.900	INORG	3.50	4.00	U	U	2680	Soil
B20	B20002	19940809	Europium	0.900	MG/KG	0.900	INORG	3.00	4.00	U	U	2680	Soil
B18	B18001	19940808	Europium	0.860	MG/KG	0.860	INORG	0.00	0.50	U	U	2680	Soil
B17	B17001	19940808	Europium	0.840	MG/KG	0.840	INORG	0.00	0.50	U	U	2680	Soil

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B19	B19001	19940809	Europium	0.810	MG/KG	0.810	INORG	0.70	1.50	U	U	2680	Soil
B20	B20001	19940809	Europium	0.800	MG/KG	0.800	INORG	0.50	1.00	U	U	2680	Soil
B19	B19002	19940809	Fluoranthene	1900.000	UG/KG	1900.000	ORSVO	3.50	4.00	U	U	2680	Soil
B20	B20001	19940809	Fluoranthene	670.000	UG/KG	670.000	ORSVO	0.50	1.00	U	U	2680	Soil
B18	B18002	19940808	Fluoranthene	400.000	UG/KG	400.000	ORSVO	3.50	4.50	U	U	2680	Soil
B19	B19001	19940809	Fluoranthene	340.000	UG/KG	340.000	ORSVO	0.70	1.50	U	UJ	2680	Soil
B19	B19002	19940809	Fluorene	1900.000	UG/KG	1900.000	ORSVO	3.50	4.00	U	U	2680	Soil
B20	B20001	19940809	Fluorene	670.000	UG/KG	670.000	ORSVO	0.50	1.00	U	U	2680	Soil
B18	B18002	19940808	Fluorene	400.000	UG/KG	400.000	ORSVO	3.50	4.50	U	U	2680	Soil
B17	B17002	19940808	Fluorene	380.000	UG/KG	380.000	ORSVO	3.00	4.00	U	U	2680	Soil
B20	B20002	19940809	Fluorene	370.000	UG/KG	370.000	ORSVO	3.00	4.00	U	U	2680	Soil
B19	B19001	19940809	Fluorene	340.000	UG/KG	340.000	ORSVO	0.70	1.50	U	UJ	2680	Soil
B19	B19002	19940809	Fluoride	0.100	MG/KG	0.100	ANION	3.50	4.00	U	UJ	2680	Soil
B19	B19001	19940809	Fluoride	0.100	MG/KG	0.100	ANION	0.70	1.50	U	UJ	2680	Soil
B20	B20002	19940809	Fluoride	0.100	MG/KG	0.100	ANION	3.00	4.00	U	UJ	2680	Soil
B20	B20001	19940809	Fluoride	0.100	MG/KG	0.100	ANION	0.50	1.00	U	UJ	2680	Soil
B18	B18002	19940808	FREON-113	12.000	UG/KG	12.000	ORVOA	3.50	4.50	U	U	2680	Soil
B18	B18102	19940808	FREON-113	12.000	UG/KG	12.000	ORVOA	3.50	4.50	U	U	2680	Soil
B17	B17002	19940808	FREON-113	12.000	UG/KG	12.000	ORVOA	3.00	4.00	U	U	2680	Soil
B19	B19002	19940809	FREON-113	11.000	UG/KG	11.000	ORVOA	3.50	4.00	U	U	2680	Soil
B18	B18001	19940808	FREON-113	11.000	UG/KG	11.000	ORVOA	0.00	0.50	U	U	2680	Soil
B17	B17001	19940808	FREON-113	11.000	UG/KG	11.000	ORVOA	0.00	0.50	U	U	2680	Soil
B20	B20002	19940809	FREON-113	11.000	UG/KG	11.000	ORVOA	3.00	4.00	U	U	2680	Soil
B19	B19001	19940809	FREON-113	10.000	UG/KG	10.000	ORVOA	0.70	1.50	U	U	2680	Soil
B20	B20001	19940809	FREON-113	10.000	UG/KG	10.000	ORVOA	0.50	1.00	U	U	2680	Soil
B17	B17002	19940808	Gadolinium	7.200	MG/KG	7.200	INORG	3.00	4.00	UN	R	2680	Soil
B19	B19002	19940809	Gadolinium	7.000	MG/KG	7.000	INORG	3.50	4.00	UN	R	2680	Soil
B19	B19001	19940809	Gadolinium	6.300	MG/KG	6.300	INORG	0.70	1.50	UN	R	2680	Soil
B20	B20001	19940809	Gadolinium	6.200	MG/KG	6.200	INORG	0.50	1.00	UN	R	2680	Soil
B18	B18002	19940808	Gamma Chlordane	2.100	UG/KG	2.100	ORPPB	3.50	4.50	U	UJ	2680	Soil
B17	B17002	19940808	Gamma Chlordane	2.000	UG/KG	2.000	ORPPB	3.00	4.00	U	U	2680	Soil
B19	B19002	19940809	Gamma Chlordane	1.900	UG/KG	1.900	ORPPB	3.50	4.00	U	UJ	2680	Soil
B18	B18001	19940808	Gamma Chlordane	1.800	UG/KG	1.800	ORPPB	0.00	0.50	U	U	2680	Soil
B17	B17001	19940808	Gamma Chlordane	1.800	UG/KG	1.800	ORPPB	0.00	0.50	U	U	2680	Soil
B19	B19001	19940809	Gamma Chlordane	1.700	UG/KG	1.700	ORPPB	0.70	1.50	U	UJ	2680	Soil
B20	B20001	19940809	Gamma Chlordane	0.240	UG/KG	0.240	ORPPB	0.50	1.00	JP	U	2680	Soil
B20	B20002	19940809	Gamma Chlordane	0.087	UG/KG	0.087	ORPPB	3.00	4.00	JP	U	2680	Soil

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B18	B18002	19940808	Gamma-BHC (Lindane)	2.100	UG/KG	2.100	ORPPB	3.50	4.50	U	UJ	2680	Soil
B17	B17002	19940808	Gamma-BHC (Lindane)	2.000	UG/KG	2.000	ORPPB	3.00	4.00	U	U	2680	Soil
B19	B19002	19940809	Gamma-BHC (Lindane)	1.900	UG/KG	1.900	ORPPB	3.50	4.00	U	UJ	2680	Soil
B20	B20002	19940809	Gamma-BHC (Lindane)	1.900	UG/KG	1.900	ORPPB	3.00	4.00	U	UJ	2680	Soil
B18	B18001	19940808	Gamma-BHC (Lindane)	1.800	UG/KG	1.800	ORPPB	0.00	0.50	U	U	2680	Soil
B17	B17001	19940808	Gamma-BHC (Lindane)	1.800	UG/KG	1.800	ORPPB	0.00	0.50	U	U	2680	Soil
B19	B19001	19940809	Gamma-BHC (Lindane)	1.700	UG/KG	1.700	ORPPB	0.70	1.50	U	UJ	2680	Soil
B20	B20001	19940809	Gamma-BHC (Lindane)	1.700	UG/KG	1.700	ORPPB	0.50	1.00	U	UJ	2680	Soil
B18	B18002	19940808	Heptachlor	2.100	UG/KG	2.100	ORPPB	3.50	4.50	U	UJ	2680	Soil
B17	B17002	19940808	Heptachlor	2.000	UG/KG	2.000	ORPPB	3.00	4.00	U	U	2680	Soil
B19	B19002	19940809	Heptachlor	1.900	UG/KG	1.900	ORPPB	3.50	4.00	U	UJ	2680	Soil
B20	B20002	19940809	Heptachlor	1.900	UG/KG	1.900	ORPPB	3.00	4.00	U	UJ	2680	Soil
B18	B18001	19940808	Heptachlor	1.800	UG/KG	1.800	ORPPB	0.00	0.50	U	U	2680	Soil
B17	B17001	19940808	Heptachlor	1.800	UG/KG	1.800	ORPPB	0.00	0.50	U	U	2680	Soil
B19	B19001	19940809	Heptachlor	1.700	UG/KG	1.700	ORPPB	0.70	1.50	U	UJ	2680	Soil
B20	B20001	19940809	Heptachlor	1.700	UG/KG	1.700	ORPPB	0.50	1.00	U	UJ	2680	Soil
B18	B18002	19940808	Heptachlor Epoxide	2.100	UG/KG	2.100	ORPPB	3.50	4.50	U	UJ	2680	Soil
B17	B17002	19940808	Heptachlor Epoxide	2.000	UG/KG	2.000	ORPPB	3.00	4.00	U	U	2680	Soil
B19	B19002	19940809	Heptachlor Epoxide	1.900	UG/KG	1.900	ORPPB	3.50	4.00	U	UJ	2680	Soil
B20	B20002	19940809	Heptachlor Epoxide	1.900	UG/KG	1.900	ORPPB	3.00	4.00	U	UJ	2680	Soil
B18	B18001	19940808	Heptachlor Epoxide	1.800	UG/KG	1.800	ORPPB	0.00	0.50	U	U	2680	Soil
B17	B17001	19940808	Heptachlor Epoxide	1.800	UG/KG	1.800	ORPPB	0.00	0.50	U	U	2680	Soil
B19	B19001	19940809	Heptachlor Epoxide	1.700	UG/KG	1.700	ORPPB	0.70	1.50	U	UJ	2680	Soil
B20	B20001	19940809	Heptachlor Epoxide	1.700	UG/KG	1.700	ORPPB	0.50	1.00	U	UJ	2680	Soil
B18	B18001	19940808	Hexachlorobenzene	3500.000	UG/KG	3500.000	ORSVO	0.00	0.50	U	U	2680	Soil
B19	B19002	19940809	Hexachlorobenzene	1900.000	UG/KG	1900.000	ORSVO	3.50	4.00	U	U	2680	Soil
B20	B20001	19940809	Hexachlorobenzene	670.000	UG/KG	670.000	ORSVO	0.50	1.00	U	U	2680	Soil
B18	B18002	19940808	Hexachlorobenzene	400.000	UG/KG	400.000	ORSVO	3.50	4.50	U	U	2680	Soil
B17	B17002	19940808	Hexachlorobenzene	380.000	UG/KG	380.000	ORSVO	3.00	4.00	U	U	2680	Soil
B20	B20002	19940809	Hexachlorobenzene	370.000	UG/KG	370.000	ORSVO	3.00	4.00	U	U	2680	Soil
B17	B17001	19940808	Hexachlorobenzene	350.000	UG/KG	350.000	ORSVO	0.00	0.50	U	U	2680	Soil
B19	B19001	19940809	Hexachlorobenzene	340.000	UG/KG	340.000	ORSVO	0.70	1.50	U	UJ	2680	Soil
B18	B18001	19940808	Hexachlorobutadiene	3500.000	UG/KG	3500.000	ORSVO	0.00	0.50	U	U	2680	Soil
B19	B19002	19940809	Hexachlorobutadiene	1900.000	UG/KG	1900.000	ORSVO	3.50	4.00	U	U	2680	Soil
B20	B20001	19940809	Hexachlorobutadiene	670.000	UG/KG	670.000	ORSVO	0.50	1.00	U	U	2680	Soil
B18	B18002	19940808	Hexachlorobutadiene	400.000	UG/KG	400.000	ORSVO	3.50	4.50	U	U	2680	Soil
B17	B17002	19940808	Hexachlorobutadiene	380.000	UG/KG	380.000	ORSVO	3.00	4.00	U	U	2680	Soil

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B20	B20002	19940809	Hexachlorobutadiene	370.000	UG/KG	370.000	ORSVO	3.00	4.00	U	U	2680	Soil
B17	B17001	19940808	Hexachlorobutadiene	350.000	UG/KG	350.000	ORSVO	0.00	0.50	U	U	2680	Soil
B19	B19001	19940809	Hexachlorobutadiene	340.000	UG/KG	340.000	ORSVO	0.70	1.50	U	UJ	2680	Soil
B18	B18001	19940808	Hexachlorocyclopentadiene	3500.000	UG/KG	3500.000	ORSVO	0.00	0.50	U	UJ	2680	Soil
B19	B19002	19940809	Hexachlorocyclopentadiene	1900.000	UG/KG	1900.000	ORSVO	3.50	4.00	U	U	2680	Soil
B20	B20001	19940809	Hexachlorocyclopentadiene	670.000	UG/KG	670.000	ORSVO	0.50	1.00	U	UJ	2680	Soil
B18	B18002	19940808	Hexachlorocyclopentadiene	400.000	UG/KG	400.000	ORSVO	3.50	4.50	U	U	2680	Soil
B17	B17002	19940808	Hexachlorocyclopentadiene	380.000	UG/KG	380.000	ORSVO	3.00	4.00	U	U	2680	Soil
B20	B20002	19940809	Hexachlorocyclopentadiene	370.000	UG/KG	370.000	ORSVO	3.00	4.00	U	UJ	2680	Soil
B17	B17001	19940808	Hexachlorocyclopentadiene	350.000	UG/KG	350.000	ORSVO	0.00	0.50	U	U	2680	Soil
B19	B19001	19940809	Hexachlorocyclopentadiene	340.000	UG/KG	340.000	ORSVO	0.70	1.50	U	UJ	2680	Soil
B18	B18001	19940808	Hexachloroethane	3500.000	UG/KG	3500.000	ORSVO	0.00	0.50	U	U	2680	Soil
B19	B19002	19940809	Hexachloroethane	1900.000	UG/KG	1900.000	ORSVO	3.50	4.00	U	U	2680	Soil
B20	B20001	19940809	Hexachloroethane	670.000	UG/KG	670.000	ORSVO	0.50	1.00	U	U	2680	Soil
B18	B18002	19940808	Hexachloroethane	400.000	UG/KG	400.000	ORSVO	3.50	4.50	U	U	2680	Soil
B17	B17002	19940808	Hexachloroethane	380.000	UG/KG	380.000	ORSVO	3.00	4.00	U	U	2680	Soil
B20	B20002	19940809	Hexachloroethane	370.000	UG/KG	370.000	ORSVO	3.00	4.00	U	U	2680	Soil
B17	B17001	19940808	Hexachloroethane	350.000	UG/KG	350.000	ORSVO	0.00	0.50	U	U	2680	Soil
B19	B19001	19940809	Hexachloroethane	340.000	UG/KG	340.000	ORSVO	0.70	1.50	U	UJ	2680	Soil
B18	B18002	19940808	Hexane	12.000	UG/KG	12.000	ORVOA	3.50	4.50	U	U	2680	Soil
B18	B18102	19940808	Hexane	12.000	UG/KG	12.000	ORVOA	3.50	4.50	U	U	2680	Soil
B17	B17002	19940808	Hexane	12.000	UG/KG	12.000	ORVOA	3.00	4.00	U	U	2680	Soil
B19	B19002	19940809	Hexane	11.000	UG/KG	11.000	ORVOA	3.50	4.00	U	U	2680	Soil
B18	B18001	19940808	Hexane	11.000	UG/KG	11.000	ORVOA	0.00	0.50	U	U	2680	Soil
B17	B17001	19940808	Hexane	11.000	UG/KG	11.000	ORVOA	0.00	0.50	U	U	2680	Soil
B20	B20002	19940809	Hexane	11.000	UG/KG	11.000	ORVOA	3.00	4.00	U	U	2680	Soil
B19	B19001	19940809	Hexane	10.000	UG/KG	10.000	ORVOA	0.70	1.50	U	U	2680	Soil
B20	B20001	19940809	Hexane	10.000	UG/KG	10.000	ORVOA	0.50	1.00	U	U	2680	Soil
B19	B19002	19940809	HMX	3.000	MG/KG	3.000	OREXP	3.50	4.00	U	U	2680	Soil
B19	B19001	19940809	HMX	3.000	MG/KG	3.000	OREXP	0.70	1.50	U	U	2680	Soil
B18	B18002	19940808	HMX	3.000	MG/KG	3.000	OREXP	3.50	4.50	U	U	2680	Soil
B18	B18001	19940808	HMX	3.000	MG/KG	3.000	OREXP	0.00	0.50	U	U	2680	Soil
B17	B17002	19940808	HMX	3.000	MG/KG	3.000	OREXP	3.00	4.00	U	U	2680	Soil
B17	B17001	19940808	HMX	3.000	MG/KG	3.000	OREXP	0.00	0.50	U	U	2680	Soil
B20	B20002	19940809	HMX	3.000	MG/KG	3.000	OREXP	3.00	4.00	U	U	2680	Soil
B20	B20001	19940809	HMX	3.000	MG/KG	3.000	OREXP	0.50	1.00	U	U	2680	Soil
B18	B18002	19940808	Holmium	2.200	MG/KG	2.200	INORG	3.50	4.50	U	U	2680	Soil

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B17	B17002	19940808	Holmium	2.100	MG/KG	2.100	INORG	3.00	4.00	U	U	2680	Soil
B19	B19002	19940809	Holmium	2.000	MG/KG	2.000	INORG	3.50	4.00	U	U	2680	Soil
B20	B20002	19940809	Holmium	2.000	MG/KG	2.000	INORG	3.00	4.00	U	U	2680	Soil
B18	B18001	19940808	Holmium	1.900	MG/KG	1.900	INORG	0.00	0.50	U	U	2680	Soil
B17	B17001	19940808	Holmium	1.900	MG/KG	1.900	INORG	0.00	0.50	U	U	2680	Soil
B19	B19001	19940809	Holmium	1.800	MG/KG	1.800	INORG	0.70	1.50	U	U	2680	Soil
B20	B20001	19940809	Holmium	1.800	MG/KG	1.800	INORG	0.50	1.00	U	U	2680	Soil
B19	B19002	19940809	Indeno(1,2,3-cd)pyrene	1900.000	UG/KG	1900.000	ORSVO	3.50	4.00	U	U	2680	Soil
B20	B20001	19940809	Indeno(1,2,3-cd)pyrene	670.000	UG/KG	670.000	ORSVO	0.50	1.00	U	U	2680	Soil
B18	B18002	19940808	Indeno(1,2,3-cd)pyrene	400.000	UG/KG	400.000	ORSVO	3.50	4.50	U	U	2680	Soil
B20	B20002	19940809	Indeno(1,2,3-cd)pyrene	370.000	UG/KG	370.000	ORSVO	3.00	4.00	U	U	2680	Soil
B19	B19001	19940809	Indeno(1,2,3-cd)pyrene	340.000	UG/KG	340.000	ORSVO	0.70	1.50	U	UJ	2680	Soil
B18	B18002	19940808	Iodomethane	12.000	UG/KG	12.000	ORVOA	3.50	4.50	U	U	2680	Soil
B18	B18102	19940808	Iodomethane	12.000	UG/KG	12.000	ORVOA	3.50	4.50	U	U	2680	Soil
B17	B17002	19940808	Iodomethane	12.000	UG/KG	12.000	ORVOA	3.00	4.00	U	U	2680	Soil
B19	B19002	19940809	Iodomethane	11.000	UG/KG	11.000	ORVOA	3.50	4.00	U	U	2680	Soil
B18	B18001	19940808	Iodomethane	11.000	UG/KG	11.000	ORVOA	0.00	0.50	U	U	2680	Soil
B17	B17001	19940808	Iodomethane	11.000	UG/KG	11.000	ORVOA	0.00	0.50	U	U	2680	Soil
B20	B20002	19940809	Iodomethane	11.000	UG/KG	11.000	ORVOA	3.00	4.00	U	U	2680	Soil
B19	B19001	19940809	Iodomethane	10.000	UG/KG	10.000	ORVOA	0.70	1.50	U	U	2680	Soil
B20	B20001	19940809	Iodomethane	10.000	UG/KG	10.000	ORVOA	0.50	1.00	U	U	2680	Soil
B18	B18001	19940808	Isophorone	3500.000	UG/KG	3500.000	ORSVO	0.00	0.50	U	U	2680	Soil
B19	B19002	19940809	Isophorone	1900.000	UG/KG	1900.000	ORSVO	3.50	4.00	U	U	2680	Soil
B20	B20001	19940809	Isophorone	670.000	UG/KG	670.000	ORSVO	0.50	1.00	U	U	2680	Soil
B18	B18002	19940808	Isophorone	400.000	UG/KG	400.000	ORSVO	3.50	4.50	U	U	2680	Soil
B17	B17002	19940808	Isophorone	380.000	UG/KG	380.000	ORSVO	3.00	4.00	U	U	2680	Soil
B20	B20002	19940809	Isophorone	370.000	UG/KG	370.000	ORSVO	3.00	4.00	U	U	2680	Soil
B17	B17001	19940808	Isophorone	350.000	UG/KG	350.000	ORSVO	0.00	0.50	U	U	2680	Soil
B19	B19001	19940809	Isophorone	340.000	UG/KG	340.000	ORSVO	0.70	1.50	U	UJ	2680	Soil
B20	B20001	19940809	Lanthanum	3.400	MG/KG	3.400	INORG	0.50	1.00	U	U	2680	Soil
004846	004846	20020910	Lead-210	2.700	PCI/G	2.700	RAD	0.00	1.00	U		SPUR2002	Soil
B17	B17002	19940808	Lutetium	0.460	MG/KG	0.460	INORG	3.00	4.00	U	U	2680	Soil
B19	B19002	19940809	Lutetium	0.450	MG/KG	0.450	INORG	3.50	4.00	U	U	2680	Soil
B20	B20002	19940809	Lutetium	0.450	MG/KG	0.450	INORG	3.00	4.00	U	U	2680	Soil
B18	B18001	19940808	Lutetium	0.430	MG/KG	0.430	INORG	0.00	0.50	U	U	2680	Soil
B17	B17001	19940808	Lutetium	0.420	MG/KG	0.420	INORG	0.00	0.50	U	U	2680	Soil
B19	B19001	19940809	Lutetium	0.410	MG/KG	0.410	INORG	0.70	1.50	U	U	2680	Soil

B20	B20001	19940809	Lutetium	0.400	MG/KG	0.400	INORG	0.50	1.00	U	U	2680	Soil
B18	B18002	19940808	Mercury	0.120	MG/KG	0.120	INORG	3.50	4.50	UN	U	2680	Soil
B17	B17002	19940808	Mercury	0.120	MG/KG	0.120	INORG	3.00	4.00	UN	U	2680	Soil
B19	B19002	19940809	Mercury	0.110	MG/KG	0.110	INORG	3.50	4.00	UN	U	2680	Soil
B20	B20002	19940809	Mercury	0.110	MG/KG	0.110	INORG	3.00	4.00	UN	U	2680	Soil
B19	B19001	19940809	Mercury	0.100	MG/KG	0.100	INORG	0.70	1.50	UN	U	2680	Soil
B17	B17001	19940808	Mercury	0.100	MG/KG	0.100	INORG	0.00	0.50	UN	U	2680	Soil
B20	B20001	19940809	Mercury	0.100	MG/KG	0.100	INORG	0.50	1.00	UN	U	2680	Soil
B18	B18002	19940808	Methoxychlor	21.000	UG/KG	21.000	ORPPB	3.50	4.50	U	UJ	2680	Soil
B19	B19002	19940809	Methoxychlor	19.000	UG/KG	19.000	ORPPB	3.50	4.00	U	UJ	2680	Soil
B20	B20002	19940809	Methoxychlor	19.000	UG/KG	19.000	ORPPB	3.00	4.00	U	UJ	2680	Soil
B18	B18001	19940808	Methoxychlor	18.000	UG/KG	18.000	ORPPB	0.00	0.50	U	U	2680	Soil
B17	B17001	19940808	Methoxychlor	18.000	UG/KG	18.000	ORPPB	0.00	0.50	U	U	2680	Soil
B19	B19001	19940809	Methoxychlor	17.000	UG/KG	17.000	ORPPB	0.70	1.50	U	UJ	2680	Soil
B20	B20001	19940809	Methoxychlor	17.000	UG/KG	17.000	ORPPB	0.50	1.00	JPB	U	2680	Soil
B17	B17002	19940808	Methoxychlor	0.870	UG/KG	0.870	ORPPB	3.00	4.00	JP	U	2680	Soil
B19	B19001	19940809	Molybdenum	42.800	MG/KG	42.800	INORG	0.70	1.50	U	U	2680	Soil
B18	B18002	19940808	Molybdenum	5.100	MG/KG	5.100	INORG	3.50	4.50	U	U	2680	Soil
B19	B19002	19940809	Molybdenum	4.800	MG/KG	4.800	INORG	3.50	4.00	U	U	2680	Soil
B17	B17002	19940808	Molybdenum	4.800	MG/KG	4.800	INORG	3.00	4.00	U	U	2680	Soil
B20	B20002	19940809	Molybdenum	4.700	MG/KG	4.700	INORG	3.00	4.00	U	U	2680	Soil
B18	B18001	19940808	Molybdenum	4.500	MG/KG	4.500	INORG	0.00	0.50	U	U	2680	Soil
B17	B17001	19940808	Molybdenum	4.400	MG/KG	4.400	INORG	0.00	0.50	U	U	2680	Soil
B20	B20001	19940809	Molybdenum	4.200	MG/KG	4.200	INORG	0.50	1.00	U	U	2680	Soil
B19	B19002	19940809	Naphthalene	1900.000	UG/KG	1900.000	ORSVO	3.50	4.00	U	U	2680	Soil
B20	B20001	19940809	Naphthalene	670.000	UG/KG	670.000	ORSVO	0.50	1.00	U	U	2680	Soil
B18	B18002	19940808	Naphthalene	400.000	UG/KG	400.000	ORSVO	3.50	4.50	U	U	2680	Soil
B19	B19001	19940809	Naphthalene	340.000	UG/KG	340.000	ORSVO	0.70	1.50	U	UJ	2680	Soil
B18	B18002	19940808	Neodymium	22.600	MG/KG	22.600	INORG	3.50	4.50	B	U	2680	Soil
B19	B19001	19940809	Neodymium	15.900	MG/KG	15.900	INORG	0.70	1.50	B	U	2680	Soil
B18	B18001	19940808	Neodymium	15.700	MG/KG	15.700	INORG	0.00	0.50	B	U	2680	Soil
B19	B19002	19940809	Neodymium	14.800	MG/KG	14.800	INORG	3.50	4.00	B	U	2680	Soil
B17	B17002	19940808	Neodymium	13.400	MG/KG	13.400	INORG	3.00	4.00	B	U	2680	Soil
B20	B20002	19940809	Neodymium	13.300	MG/KG	13.300	INORG	3.00	4.00	B	U	2680	Soil
B17	B17001	19940808	Neodymium	11.900	MG/KG	11.900	INORG	0.00	0.50	B	U	2680	Soil
B20	B20001	19940809	Neodymium	10.100	MG/KG	10.100	INORG	0.50	1.00	U	U	2680	Soil
B18	B18001	19940808	Nitrobenzene	3500.000	UG/KG	3500.000	ORSVO	0.00	0.50	U	U	2680	Soil

B19	B19002	19940809	Nitrobenzene	1900.000	UG/KG	1900.000	ORSVO	3.50	4.00	U	U	2680	Soil
B20	B20001	19940809	Nitrobenzene	670.000	UG/KG	670.000	ORSVO	0.50	1.00	U	U	2680	Soil
B18	B18002	19940808	Nitrobenzene	400.000	UG/KG	400.000	ORSVO	3.50	4.50	U	U	2680	Soil
B17	B17002	19940808	Nitrobenzene	380.000	UG/KG	380.000	ORSVO	3.00	4.00	U	U	2680	Soil
B20	B20002	19940809	Nitrobenzene	370.000	UG/KG	370.000	ORSVO	3.00	4.00	U	U	2680	Soil
B17	B17001	19940808	Nitrobenzene	350.000	UG/KG	350.000	ORSVO	0.00	0.50	U	U	2680	Soil
B19	B19001	19940809	Nitrobenzene	340.000	UG/KG	340.000	ORSVO	0.70	1.50	U	UJ	2680	Soil
B19	B19002	19940809	Nitrobenzene	1.500	MG/KG	1.500	OREXP	3.50	4.00	U	U	2680	Soil
B19	B19001	19940809	Nitrobenzene	1.500	MG/KG	1.500	OREXP	0.70	1.50	U	U	2680	Soil
B18	B18002	19940808	Nitrobenzene	1.500	MG/KG	1.500	OREXP	3.50	4.50	U	U	2680	Soil
B18	B18001	19940808	Nitrobenzene	1.500	MG/KG	1.500	OREXP	0.00	0.50	U	U	2680	Soil
B17	B17002	19940808	Nitrobenzene	1.500	MG/KG	1.500	OREXP	3.00	4.00	U	U	2680	Soil
B17	B17001	19940808	Nitrobenzene	1.500	MG/KG	1.500	OREXP	0.00	0.50	U	U	2680	Soil
B20	B20002	19940809	Nitrobenzene	1.500	MG/KG	1.500	OREXP	3.00	4.00	U	U	2680	Soil
B20	B20001	19940809	Nitrobenzene	1.500	MG/KG	1.500	OREXP	0.50	1.00	U	U	2680	Soil
B18	B18001	19940808	N-Nitroso-di-n-propylamine	3500.000	UG/KG	3500.000	ORSVO	0.00	0.50	U	U	2680	Soil
B19	B19002	19940809	N-Nitroso-di-n-propylamine	1900.000	UG/KG	1900.000	ORSVO	3.50	4.00	U	U	2680	Soil
B20	B20001	19940809	N-Nitroso-di-n-propylamine	670.000	UG/KG	670.000	ORSVO	0.50	1.00	U	U	2680	Soil
B18	B18002	19940808	N-Nitroso-di-n-propylamine	400.000	UG/KG	400.000	ORSVO	3.50	4.50	U	U	2680	Soil
B17	B17002	19940808	N-Nitroso-di-n-propylamine	380.000	UG/KG	380.000	ORSVO	3.00	4.00	U	U	2680	Soil
B20	B20002	19940809	N-Nitroso-di-n-propylamine	370.000	UG/KG	370.000	ORSVO	3.00	4.00	U	U	2680	Soil
B17	B17001	19940808	N-Nitroso-di-n-propylamine	350.000	UG/KG	350.000	ORSVO	0.00	0.50	U	U	2680	Soil
B19	B19001	19940809	N-Nitroso-di-n-propylamine	340.000	UG/KG	340.000	ORSVO	0.70	1.50	U	UJ	2680	Soil
B18	B18001	19940808	N-Nitrosodiphenylamine	3500.000	UG/KG	3500.000	ORSVO	0.00	0.50	U	U	2680	Soil
B19	B19002	19940809	N-Nitrosodiphenylamine	1900.000	UG/KG	1900.000	ORSVO	3.50	4.00	U	U	2680	Soil
B20	B20001	19940809	N-Nitrosodiphenylamine	670.000	UG/KG	670.000	ORSVO	0.50	1.00	U	U	2680	Soil
B18	B18002	19940808	N-Nitrosodiphenylamine	400.000	UG/KG	400.000	ORSVO	3.50	4.50	U	U	2680	Soil
B17	B17002	19940808	N-Nitrosodiphenylamine	380.000	UG/KG	380.000	ORSVO	3.00	4.00	U	U	2680	Soil
B20	B20002	19940809	N-Nitrosodiphenylamine	370.000	UG/KG	370.000	ORSVO	3.00	4.00	U	U	2680	Soil
B17	B17001	19940808	N-Nitrosodiphenylamine	350.000	UG/KG	350.000	ORSVO	0.00	0.50	U	U	2680	Soil
B19	B19001	19940809	N-Nitrosodiphenylamine	340.000	UG/KG	340.000	ORSVO	0.70	1.50	U	UJ	2680	Soil
B18	B18001	19940808	Pentachlorophenol	8500.000	UG/KG	8500.000	ORSVO	0.00	0.50	U	U	2680	Soil
B19	B19002	19940809	Pentachlorophenol	4500.000	UG/KG	4500.000	ORSVO	3.50	4.00	U	U	2680	Soil
B19	B19001	19940809	Pentachlorophenol	1600.000	UG/KG	1600.000	ORSVO	0.70	1.50	U	UJ	2680	Soil
B20	B20001	19940809	Pentachlorophenol	1600.000	UG/KG	1600.000	ORSVO	0.50	1.00	U	U	2680	Soil
B18	B18002	19940808	Pentachlorophenol	980.000	UG/KG	980.000	ORSVO	3.50	4.50	U	U	2680	Soil
B17	B17002	19940808	Pentachlorophenol	930.000	UG/KG	930.000	ORSVO	3.00	4.00	U	U	2680	Soil

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B20	B20002	19940809	Pentachlorophenol	900.000	UG/KG	900.000	ORSVO	3.00	4.00	U	UJ	2680	Soil
B17	B17001	19940808	Pentachlorophenol	840.000	UG/KG	840.000	ORSVO	0.00	0.50	U	U	2680	Soil
B19	B19002	19940809	PETN	1.000	MG/KG	1.000	OREXP	3.50	4.00	U	R	2680	Soil
B19	B19001	19940809	PETN	1.000	MG/KG	1.000	OREXP	0.70	1.50	U	R	2680	Soil
B18	B18002	19940808	PETN	1.000	MG/KG	1.000	OREXP	3.50	4.50	U	R	2680	Soil
B18	B18001	19940808	PETN	1.000	MG/KG	1.000	OREXP	0.00	0.50	U	R	2680	Soil
B17	B17002	19940808	PETN	1.000	MG/KG	1.000	OREXP	3.00	4.00	U	R	2680	Soil
B17	B17001	19940808	PETN	1.000	MG/KG	1.000	OREXP	0.00	0.50	U	R	2680	Soil
B20	B20002	19940809	PETN	1.000	MG/KG	1.000	OREXP	3.00	4.00	U	R	2680	Soil
B20	B20001	19940809	PETN	1.000	MG/KG	1.000	OREXP	0.50	1.00	U	R	2680	Soil
B19	B19002	19940809	Phenanthrene	1900.000	UG/KG	1900.000	ORSVO	3.50	4.00	U	U	2680	Soil
B18	B18002	19940808	Phenanthrene	400.000	UG/KG	400.000	ORSVO	3.50	4.50	U	U	2680	Soil
B19	B19001	19940809	Phenanthrene	340.000	UG/KG	340.000	ORSVO	0.70	1.50	U	UJ	2680	Soil
B18	B18001	19940808	Phenol	3500.000	UG/KG	3500.000	ORSVO	0.00	0.50	U	U	2680	Soil
B19	B19002	19940809	Phenol	1900.000	UG/KG	1900.000	ORSVO	3.50	4.00	U	U	2680	Soil
B20	B20001	19940809	Phenol	670.000	UG/KG	670.000	ORSVO	0.50	1.00	U	U	2680	Soil
B18	B18002	19940808	Phenol	400.000	UG/KG	400.000	ORSVO	3.50	4.50	U	U	2680	Soil
B17	B17002	19940808	Phenol	380.000	UG/KG	380.000	ORSVO	3.00	4.00	U	U	2680	Soil
B20	B20002	19940809	Phenol	370.000	UG/KG	370.000	ORSVO	3.00	4.00	U	UJ	2680	Soil
B17	B17001	19940808	Phenol	350.000	UG/KG	350.000	ORSVO	0.00	0.50	U	U	2680	Soil
B19	B19001	19940809	Phenol	340.000	UG/KG	340.000	ORSVO	0.70	1.50	U	UJ	2680	Soil
004846	004846	20020910	Plutonium-238	63.590	PCI/G	63.590	RAD	0.00	1.00	U		SPUR2002	Soil
B18	B18002	19940808	Plutonium-238	18.000	PCI/G	18.000	RAD	3.50	4.50	U	U	2680	Soil
Airline1	AIRLINE1	20010625	Plutonium-238	16.630	PCI/G	16.630	RAD	0.00	0.00	U		AIRLINE01	Soil
B17	B17002	19940808	Plutonium-238	15.000	PCI/G	15.000	RAD	3.00	4.00	U	U	2680	Soil
SCR168	91052174	19910520	Plutonium-238	13.000	PCI/G		RAD	5.00	6.00	U		SCRDATA	Soil
SCR168	91052171	19910520	Plutonium-238	12.000	PCI/G		RAD	2.00	3.00	U		SCRDATA	Soil
B20	B20002	19940809	Plutonium-238	11.000	PCI/G		RAD	3.00	4.00	U		2680	Soil
SCR129	91092325	19910923	Plutonium-238	11.000	PCI/G		RAD	1.00	2.00	U		SCRDATA	Soil
SCR129	91092328	19910923	Plutonium-238	10.000	PCI/G		RAD	4.00	5.00	U		SCRDATA	Soil
SCR168	9203314	19920331	Plutonium-238	9.000	PCI/G		RAD	0.00	0.00	U		SCRDATA	Soil
SCR168	9203316	19920331	Plutonium-238	9.000	PCI/G		RAD	0.00	0.00	U		SCRDATA	Soil
Airline2	AIRLINE2	20010625	Plutonium-238	8.100	PCI/G	8.100	RAD	0.00	0.00	U		AIRLINE01	Soil
SCR168	91052170	19910520	Plutonium-238	8.000	PCI/G		RAD	1.00	2.00	U		SCRDATA	Soil
SCR129	91092320	19910923	Plutonium-238	7.000	PCI/G		RAD	1.00	2.00	U		SCRDATA	Soil
SCR168	9203315	19920331	Plutonium-238	7.000	PCI/G		RAD	0.00	0.00	U		SCRDATA	Soil
B19	B19001	19940809	Plutonium-238	6.000	PCI/G		RAD	0.70	1.50	U		2680	Soil

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SCR129	91092327	19910923	Plutonium-238	6.000	PCI/G		RAD	3.00	4.00	U		SCRDATA	Soil
SCR140	8903093	19890308	Plutonium-238	5.000	PCI/G		RAD	0.00	0.00	U		SCRDATA	Soil
SCR129	91092322	19910923	Plutonium-238	3.000	PCI/G		RAD	3.00	4.00	U		SCRDATA	Soil
SCR168	91052172	19910520	Plutonium-238	2.000	PCI/G		RAD	3.00	4.00	U		SCRDATA	Soil
SCR129	91092323	19910923	Plutonium-238	1.000	PCI/G		RAD	4.00	5.00	U		SCRDATA	Soil
B20	B20001	19940809	Plutonium-238	0.050	PCI/G	0.050	RAD	0.50	1.00	U	UJ	2680	Soil
B19	B19002	19940809	Plutonium-238	0.020	PCI/G	0.020	RAD	3.50	4.00	U	UJ	2680	Soil
B19	B19001	19940809	Plutonium-238	0.010	PCI/G	0.010	RAD	0.70	1.50	U	UJ	2680	Soil
B18	B18102	19940808	Plutonium-238	0.010	PCI/G	0.010	RAD	3.50	4.50	U	UJ	2680	Soil
B19	B19002	19940809	Plutonium-238	0.000	PCI/G		RAD	3.50	4.00	U		2680	Soil
SCR129	91092326	19910923	Plutonium-238	0.000	PCI/G		RAD	2.00	3.00	U		SCRDATA	Soil
SCR129	91092324	19910923	Plutonium-238	0.000	PCI/G		RAD	0.00	1.00	U		SCRDATA	Soil
SCR129	91092319	19910923	Plutonium-238	0.000	PCI/G		RAD	0.00	1.00	U		SCRDATA	Soil
SCR129	91092321	19910923	Plutonium-238	0.000	PCI/G		RAD	2.00	3.00	U		SCRDATA	Soil
SCR168	91052173	19910520	Plutonium-238	0.000	PCI/G		RAD	4.00	5.00	U		SCRDATA	Soil
SCR168	91052169	19910520	Plutonium-238	0.000	PCI/G		RAD	0.00	1.00	U		SCRDATA	Soil
B18	B18002	19940808	Plutonium-238	-0.030	PCI/G	-0.030	RAD	3.50	4.50	U	UJ	2680	Soil
B20	B20002	19940809	Plutonium-238	-0.030	PCI/G	-0.030	RAD	3.00	4.00	U	UJ	2680	Soil
B17	B17001	19940808	Plutonium-239/240	0.080	PCI/G	0.080	RAD	0.00	0.50	U	UJ	2680	Soil
B19	B19002	19940809	Plutonium-239/240	0.030	PCI/G	0.030	RAD	3.50	4.00	U	UJ	2680	Soil
B18	B18001	19940808	Plutonium-239/240	0.030	PCI/G	0.030	RAD	0.00	0.50	U	UJ	2680	Soil
B18	B18002	19940808	Plutonium-239/240	0.020	PCI/G	0.020	RAD	3.50	4.50	U	UJ	2680	Soil
B20	B20001	19940809	Plutonium-239/240	0.020	PCI/G	0.020	RAD	0.50	1.00	U	UJ	2680	Soil
B18	B18102	19940808	Plutonium-239/240	0.010	PCI/G	0.010	RAD	3.50	4.50	U	UJ	2680	Soil
B20	B20002	19940809	Plutonium-239/240	0.010	PCI/G	0.010	RAD	3.00	4.00	U	UJ	2680	Soil
B19	B19001	19940809	Plutonium-239/240	0.000	PCI/G	0.000	RAD	0.70	1.50	U	UJ	2680	Soil
B17	B17002	19940808	Plutonium-239/240	0.000	PCI/G	0.000	RAD	3.00	4.00	U	UJ	2680	Soil
B18	B18001	19940808	Potassium-40	7.530	PCI/G	7.530	RAD	0.00	0.50		U	2680	Soil
B17	B17001	19940808	Potassium-40	6.610	PCI/G	6.610	RAD	0.00	0.50		U	2680	Soil
B20	B20002	19940809	Potassium-40	5.740	PCI/G	5.740	RAD	3.00	4.00		U	2680	Soil
B19	B19002	19940809	Potassium-40	5.410	PCI/G	5.410	RAD	3.50	4.00		U	2680	Soil
B20	B20001	19940809	Potassium-40	3.850	PCI/G	3.850	RAD	0.50	1.00		U	2680	Soil
B19	B19001	19940809	Potassium-40	3.400	PCI/G	3.400	RAD	0.70	1.50		U	2680	Soil
B18	B18002	19940808	Praseodym	7.700	MG/KG	7.700	INORG	3.50	4.50	U	U	2680	Soil
B17	B17002	19940808	Praseodym	7.400	MG/KG	7.400	INORG	3.00	4.00	U	U	2680	Soil
B19	B19002	19940809	Praseodym	7.200	MG/KG	7.200	INORG	3.50	4.00	U	U	2680	Soil
B19	B19001	19940809	Praseodym	6.500	MG/KG	6.500	INORG	0.70	1.50	U	U	2680	Soil

B20	B20001	19940809	Praseodym	6.400	MG/KG	6.400	INORG	0.50	1.00	U	U	2680	Soil
B19	B19002	19940809	Pyrene	1900.000	UG/KG	1900.000	ORSVO	3.50	4.00	U	U	2680	Soil
B18	B18002	19940808	Pyrene	400.000	UG/KG	400.000	ORSVO	3.50	4.50	U	U	2680	Soil
B19	B19001	19940809	Pyrene	340.000	UG/KG	340.000	ORSVO	0.70	1.50	U	UJ	2680	Soil
B18	B18002	19940808	Radium-226	0.250	PCI/G	0.250	RAD	3.50	4.50	U	UJ	2680	Soil
B19	B19002	19940809	RDX	2.500	MG/KG	2.500	OREXP	3.50	4.00	U	U	2680	Soil
B19	B19001	19940809	RDX	2.500	MG/KG	2.500	OREXP	0.70	1.50	U	U	2680	Soil
B18	B18002	19940808	RDX	2.500	MG/KG	2.500	OREXP	3.50	4.50	U	U	2680	Soil
B18	B18001	19940808	RDX	2.500	MG/KG	2.500	OREXP	0.00	0.50	U	U	2680	Soil
B17	B17002	19940808	RDX	2.500	MG/KG	2.500	OREXP	3.00	4.00	U	U	2680	Soil
B17	B17001	19940808	RDX	2.500	MG/KG	2.500	OREXP	0.00	0.50	U	U	2680	Soil
B20	B20002	19940809	RDX	2.500	MG/KG	2.500	OREXP	3.00	4.00	U	U	2680	Soil
B20	B20001	19940809	RDX	2.500	MG/KG	2.500	OREXP	0.50	1.00	U	U	2680	Soil
B18	B18002	19940808	Samarium	19.900	MG/KG	19.900	INORG	3.50	4.50	U	U	2680	Soil
B17	B17002	19940808	Samarium	18.900	MG/KG	18.900	INORG	3.00	4.00	U	U	2680	Soil
B19	B19002	19940809	Samarium	18.600	MG/KG	18.600	INORG	3.50	4.00	U	U	2680	Soil
B18	B18001	19940808	Samarium	17.600	MG/KG	17.600	INORG	0.00	0.50	U	U	2680	Soil
B17	B17001	19940808	Samarium	17.200	MG/KG	17.200	INORG	0.00	0.50	U	U	2680	Soil
B19	B19001	19940809	Samarium	16.700	MG/KG	16.700	INORG	0.70	1.50	U	U	2680	Soil
B20	B20001	19940809	Samarium	16.500	MG/KG	16.500	INORG	0.50	1.00	U	U	2680	Soil
B19	B19001	19940809	Selenium	6.100	MG/KG	6.100	INORG	0.70	1.50	U	U	2680	Soil
B18	B18002	19940808	Selenium	0.730	MG/KG	0.730	INORG	3.50	4.50	U	U	2680	Soil
B17	B17002	19940808	Selenium	0.690	MG/KG	0.690	INORG	3.00	4.00	U	U	2680	Soil
B19	B19002	19940809	Selenium	0.680	MG/KG	0.680	INORG	3.50	4.00	U	U	2680	Soil
B20	B20002	19940809	Selenium	0.680	MG/KG	0.680	INORG	3.00	4.00	U	U	2680	Soil
B18	B18001	19940808	Selenium	0.640	MG/KG	0.640	INORG	0.00	0.50	U	U	2680	Soil
B17	B17001	19940808	Selenium	0.630	MG/KG	0.630	INORG	0.00	0.50	U	U	2680	Soil
B20	B20001	19940809	Selenium	0.600	MG/KG	0.600	INORG	0.50	1.00	U	U	2680	Soil
B19	B19001	19940809	Silver	2.000	MG/KG	2.000	INORG	0.70	1.50	U	U	2680	Soil
B18	B18002	19940808	Silver	0.240	MG/KG	0.240	INORG	3.50	4.50	U	U	2680	Soil
B19	B19002	19940809	Silver	0.230	MG/KG	0.230	INORG	3.50	4.00	U	U	2680	Soil
B17	B17002	19940808	Silver	0.230	MG/KG	0.230	INORG	3.00	4.00	U	U	2680	Soil
B20	B20002	19940809	Silver	0.230	MG/KG	0.230	INORG	3.00	4.00	U	U	2680	Soil
B17	B17001	19940808	Silver	0.210	MG/KG	0.210	INORG	0.00	0.50	U	U	2680	Soil
B20	B20001	19940809	Silver	0.200	MG/KG	0.200	INORG	0.50	1.00	U	U	2680	Soil
B18	B18001	19940808	Sodium	329.000	MG/KG	329.000	INORG	0.00	0.50	B	U	2680	Soil
B17	B17001	19940808	Sodium	272.000	MG/KG	272.000	INORG	0.00	0.50	B	U	2680	Soil

B18	B18002	19940808	Strontium-90	0.430	PCI/G	0.430	RAD	3.50	4.50	U	U	2680	Soil
B17	B17002	19940808	Strontium-90	0.410	PCI/G	0.410	RAD	3.00	4.00	U	U	2680	Soil
B19	B19001	19940809	Strontium-90	-0.020	PCI/G	-0.020	RAD	0.70	1.50	U	U	2680	Soil
B20	B20002	19940809	Strontium-90	-0.160	PCI/G	-0.160	RAD	3.00	4.00	U	U	2680	Soil
B18	B18102	19940808	Strontium-90	-0.260	PCI/G	-0.260	RAD	3.50	4.50	U	U	2680	Soil
B20	B20001	19940809	Strontium-90	-0.630	PCI/G	-0.630	RAD	0.50	1.00	U	U	2680	Soil
B17	B17001	19940808	Strontium-90	-0.860	PCI/G	-0.860	RAD	0.00	0.50	U	U	2680	Soil
B19	B19002	19940809	Strontium-90	-1.800	PCI/G	-1.800	RAD	3.50	4.00	U	U	2680	Soil
B18	B18001	19940808	Strontium-90	-2.090	PCI/G	-2.090	RAD	0.00	0.50	U	U	2680	Soil
B19	B19002	19940809	Styrene	6.000	UG/KG	6.000	ORVOA	3.50	4.00	U	U	2680	Soil
B18	B18002	19940808	Styrene	6.000	UG/KG	6.000	ORVOA	3.50	4.50	U	U	2680	Soil
B18	B18102	19940808	Styrene	6.000	UG/KG	6.000	ORVOA	3.50	4.50	U	U	2680	Soil
B17	B17002	19940808	Styrene	6.000	UG/KG	6.000	ORVOA	3.00	4.00	U	U	2680	Soil
B20	B20002	19940809	Styrene	6.000	UG/KG	6.000	ORVOA	3.00	4.00	U	U	2680	Soil
B19	B19001	19940809	Styrene	5.000	UG/KG	5.000	ORVOA	0.70	1.50	U	U	2680	Soil
B18	B18001	19940808	Styrene	5.000	UG/KG	5.000	ORVOA	0.00	0.50	U	U	2680	Soil
B17	B17001	19940808	Styrene	5.000	UG/KG	5.000	ORVOA	0.00	0.50	U	U	2680	Soil
B20	B20001	19940809	Styrene	5.000	UG/KG	5.000	ORVOA	0.50	1.00	U	U	2680	Soil
B18	B18002	19940808	Terbium	14.500	MG/KG	14.500	INORG	3.50	4.50	U	U	2680	Soil
B17	B17002	19940808	Terbium	13.900	MG/KG	13.900	INORG	3.00	4.00	U	U	2680	Soil
B19	B19002	19940809	Terbium	13.600	MG/KG	13.600	INORG	3.50	4.00	U	U	2680	Soil
B20	B20002	19940809	Terbium	13.500	MG/KG	13.500	INORG	3.00	4.00	U	U	2680	Soil
B18	B18001	19940808	Terbium	12.900	MG/KG	12.900	INORG	0.00	0.50	U	U	2680	Soil
B17	B17001	19940808	Terbium	12.600	MG/KG	12.600	INORG	0.00	0.50	U	U	2680	Soil
B19	B19001	19940809	Terbium	12.200	MG/KG	12.200	INORG	0.70	1.50	U	U	2680	Soil
B20	B20001	19940809	Terbium	12.100	MG/KG	12.100	INORG	0.50	1.00	U	U	2680	Soil
B19	B19002	19940809	Tetrachloroethene	6.000	UG/KG	6.000	ORVOA	3.50	4.00	U	U	2680	Soil
B18	B18002	19940808	Tetrachloroethene	6.000	UG/KG	6.000	ORVOA	3.50	4.50	U	U	2680	Soil
B18	B18102	19940808	Tetrachloroethene	6.000	UG/KG	6.000	ORVOA	3.50	4.50	U	U	2680	Soil
B17	B17002	19940808	Tetrachloroethene	6.000	UG/KG	6.000	ORVOA	3.00	4.00	U	U	2680	Soil
B20	B20002	19940809	Tetrachloroethene	6.000	UG/KG	6.000	ORVOA	3.00	4.00	U	U	2680	Soil
B19	B19001	19940809	Tetrachloroethene	5.000	UG/KG	5.000	ORVOA	0.70	1.50	U	U	2680	Soil
B18	B18001	19940808	Tetrachloroethene	5.000	UG/KG	5.000	ORVOA	0.00	0.50	U	U	2680	Soil
B17	B17001	19940808	Tetrachloroethene	5.000	UG/KG	5.000	ORVOA	0.00	0.50	U	U	2680	Soil
B20	B20001	19940809	Tetrachloroethene	5.000	UG/KG	5.000	ORVOA	0.50	1.00	U	U	2680	Soil
B19	B19002	19940809	Tetryl	2.500	MG/KG	2.500	OREXP	3.50	4.00	U	U	2680	Soil
B19	B19001	19940809	Tetryl	2.500	MG/KG	2.500	OREXP	0.70	1.50	U	U	2680	Soil

B18	B18002	19940808	Tetryl	2.500	MG/KG	2.500	OREXP	3.50	4.50	U	U	2680	Soil
B18	B18001	19940808	Tetryl	2.500	MG/KG	2.500	OREXP	0.00	0.50	U	U	2680	Soil
B17	B17002	19940808	Tetryl	2.500	MG/KG	2.500	OREXP	3.00	4.00	U	U	2680	Soil
B17	B17001	19940808	Tetryl	2.500	MG/KG	2.500	OREXP	0.00	0.50	U	U	2680	Soil
B20	B20002	19940809	Tetryl	2.500	MG/KG	2.500	OREXP	3.00	4.00	U	U	2680	Soil
B20	B20001	19940809	Tetryl	2.500	MG/KG	2.500	OREXP	0.50	1.00	U	U	2680	Soil
B19	B19001	19940809	Thallium	6.100	MG/KG	6.100	INORG	0.70	1.50	U	U	2680	Soil
B18	B18002	19940808	Thallium	0.730	MG/KG	0.730	INORG	3.50	4.50	U	U	2680	Soil
B17	B17002	19940808	Thallium	0.690	MG/KG	0.690	INORG	3.00	4.00	U	U	2680	Soil
B19	B19002	19940809	Thallium	0.680	MG/KG	0.680	INORG	3.50	4.00	U	U	2680	Soil
B20	B20002	19940809	Thallium	0.680	MG/KG	0.680	INORG	3.00	4.00	U	U	2680	Soil
B18	B18001	19940808	Thallium	0.640	MG/KG	0.640	INORG	0.00	0.50	U	U	2680	Soil
B17	B17001	19940808	Thallium	0.630	MG/KG	0.630	INORG	0.00	0.50	U	U	2680	Soil
B20	B20001	19940809	Thallium	0.600	MG/KG	0.600	INORG	0.50	1.00	U	U	2680	Soil
B17	B17002	19940808	Thorium-228	1.340	PCI/G	1.340	RAD	3.00	4.00		UJ	2680	Soil
B18	B18102	19940808	Thorium-228	1.180	PCI/G	1.180	RAD	3.50	4.50		UJ	2680	Soil
B18	B18001	19940808	Thorium-228	1.040	PCI/G	1.040	RAD	0.00	0.50		UJ	2680	Soil
B17	B17001	19940808	Thorium-228	0.620	PCI/G	0.620	RAD	0.00	0.50		UJ	2680	Soil
B19	B19001	19940809	Thorium-228	0.600	PCI/G	0.600	RAD	0.70	1.50		UJ	2680	Soil
B20	B20002	19940809	Thorium-228	0.510	PCI/G	0.510	RAD	3.00	4.00		UJ	2680	Soil
B19	B19002	19940809	Thorium-228	0.470	PCI/G	0.470	RAD	3.50	4.00		UJ	2680	Soil
B20	B20001	19940809	Thorium-228	0.460	PCI/G	0.460	RAD	0.50	1.00		UJ	2680	Soil
004846	004846	20020910	Thorium-230	29.070	PCI/G	29.070	RAD	0.00	1.00	U		SPUR2002	Soil
Airline2	AIRLINE2	20010625	Thorium-230	2.620	PCI/G	2.620	RAD	0.00	0.00	U		AIRLINE01	Soil
Airline1	AIRLINE1	20010625	Thorium-230	2.410	PCI/G	2.410	RAD	0.00	0.00	U		AIRLINE01	Soil
B18	B18001	19940808	Thorium-230	0.600	PCI/G	0.600	RAD	0.00	0.50		UJ	2680	Soil
B19	B19001	19940809	Thorium-230	0.450	PCI/G	0.450	RAD	0.70	1.50		UJ	2680	Soil
B20	B20002	19940809	Thorium-230	0.440	PCI/G	0.440	RAD	3.00	4.00		UJ	2680	Soil
B19	B19002	19940809	Thorium-230	0.420	PCI/G	0.420	RAD	3.50	4.00		UJ	2680	Soil
B17	B17001	19940808	Thorium-230	0.190	PCI/G	0.190	RAD	0.00	0.50		UJ	2680	Soil
SCR129	91092327	19910923	Thorium-232	1.500	PCI/G		RAD	3.00	4.00	U		SCRDATA	Soil
B18	B18002	19940808	Thorium-232	1.300	PCI/G	1.300	RAD	3.50	4.50	U	U	2680	Soil
SCR129	91092328	19910923	Thorium-232	1.300	PCI/G		RAD	4.00	5.00	U		SCRDATA	Soil
SCR129	91092323	19910923	Thorium-232	1.300	PCI/G		RAD	4.00	5.00	U		SCRDATA	Soil
SCR140	8903093	19890308	Thorium-232	1.300	PCI/G		RAD	0.00	0.00	U		SCRDATA	Soil
B17	B17002	19940808	Thorium-232	1.100	PCI/G	1.100	RAD	3.00	4.00	U	U	2680	Soil
SCR129	91092325	19910923	Thorium-232	1.000	PCI/G		RAD	1.00	2.00	U		SCRDATA	Soil

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SCR168	91052172	19910520	Thorium-232	1.000	PCI/G		RAD	3.00	4.00	U		SCRDATA	Soil
SCR168	91052173	19910520	Thorium-232	1.000	PCI/G		RAD	4.00	5.00	U		SCRDATA	Soil
SCR168	91052171	19910520	Thorium-232	0.900	PCI/G		RAD	2.00	3.00	U		SCRDATA	Soil
SCR168	91052174	19910520	Thorium-232	0.900	PCI/G		RAD	5.00	6.00	U		SCRDATA	Soil
SCR129	91092320	19910923	Thorium-232	0.600	PCI/G		RAD	1.00	2.00	U		SCRDATA	Soil
SCR129	91092321	19910923	Thorium-232	0.600	PCI/G		RAD	2.00	3.00	U		SCRDATA	Soil
SCR168	9203316	19920331	Thorium-232	0.600	PCI/G		RAD	0.00	0.00	U		SCRDATA	Soil
B20	B20002	19940809	Thorium-232	0.500	PCI/G		RAD	3.00	4.00	U		2680	Soil
SCR129	91092324	19910923	Thorium-232	0.500	PCI/G		RAD	0.00	1.00	U		SCRDATA	Soil
SCR168	9203314	19920331	Thorium-232	0.500	PCI/G		RAD	0.00	0.00	U		SCRDATA	Soil
B19	B19001	19940809	Thorium-232	0.400	PCI/G		RAD	0.70	1.50	U		2680	Soil
SCR168	91052170	19910520	Thorium-232	0.400	PCI/G		RAD	1.00	2.00	U		SCRDATA	Soil
B19	B19002	19940809	Thorium-232	0.300	PCI/G		RAD	3.50	4.00	U		2680	Soil
B20	B20001	19940809	Thorium-232	0.300	PCI/G		RAD	0.50	1.00	U		2680	Soil
SCR168	9203315	19920331	Thorium-232	0.300	PCI/G		RAD	0.00	0.00	U		SCRDATA	Soil
SCR168	91052169	19910520	Thorium-232	0.300	PCI/G		RAD	0.00	1.00	U		SCRDATA	Soil
B20	B20002	19940809	Thorium-232	0.020	PCI/G	0.020	RAD	3.00	4.00	U	UJ	2680	Soil
B19	B19002	19940809	Thorium-232	0.010	PCI/G	0.010	RAD	3.50	4.00	U	UJ	2680	Soil
B18	B18002	19940808	Thulium	2.400	MG/KG	2.400	INORG	3.50	4.50	U	U	2680	Soil
B19	B19002	19940809	Thulium	2.300	MG/KG	2.300	INORG	3.50	4.00	U	U	2680	Soil
B17	B17002	19940808	Thulium	2.300	MG/KG	2.300	INORG	3.00	4.00	U	U	2680	Soil
B20	B20002	19940809	Thulium	2.300	MG/KG	2.300	INORG	3.00	4.00	U	U	2680	Soil
B18	B18001	19940808	Thulium	2.100	MG/KG	2.100	INORG	0.00	0.50	U	U	2680	Soil
B17	B17001	19940808	Thulium	2.100	MG/KG	2.100	INORG	0.00	0.50	U	U	2680	Soil
B19	B19001	19940809	Thulium	2.000	MG/KG	2.000	INORG	0.70	1.50	U	U	2680	Soil
B20	B20001	19940809	Thulium	2.000	MG/KG	2.000	INORG	0.50	1.00	U	U	2680	Soil
B18	B18002	19940808	Tin	11.400	MG/KG	11.400	INORG	3.50	4.50	U	U	2680	Soil
B17	B17002	19940808	Tin	10.900	MG/KG	10.900	INORG	3.00	4.00	U	U	2680	Soil
B19	B19002	19940809	Tin	10.600	MG/KG	10.600	INORG	3.50	4.00	U	U	2680	Soil
B20	B20002	19940809	Tin	10.600	MG/KG	10.600	INORG	3.00	4.00	U	U	2680	Soil
B18	B18001	19940808	Tin	10.100	MG/KG	10.100	INORG	0.00	0.50	U	U	2680	Soil
B17	B17001	19940808	Tin	9.800	MG/KG	9.800	INORG	0.00	0.50	U	U	2680	Soil
B19	B19001	19940809	Tin	9.600	MG/KG	9.600	INORG	0.70	1.50	U	U	2680	Soil
B20	B20001	19940809	Tin	9.500	MG/KG	9.500	INORG	0.50	1.00	U	U	2680	Soil
B19	B19002	19940809	Toluene	6.000	UG/KG	6.000	ORVOA	3.50	4.00	U	U	2680	Soil
B18	B18002	19940808	Toluene	6.000	UG/KG	6.000	ORVOA	3.50	4.50	U	U	2680	Soil
B18	B18102	19940808	Toluene	6.000	UG/KG	6.000	ORVOA	3.50	4.50	U	U	2680	Soil

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B17	B17002	19940808	Toluene	6.000	UG/KG	6.000	ORVOA	3.00	4.00	U	U	2680	Soil
B20	B20002	19940809	Toluene	6.000	UG/KG	6.000	ORVOA	3.00	4.00	U	U	2680	Soil
B19	B19001	19940809	Toluene	5.000	UG/KG	5.000	ORVOA	0.70	1.50	U	U	2680	Soil
B18	B18001	19940808	Toluene	5.000	UG/KG	5.000	ORVOA	0.00	0.50	U	U	2680	Soil
B17	B17001	19940808	Toluene	5.000	UG/KG	5.000	ORVOA	0.00	0.50	U	U	2680	Soil
B20	B20001	19940809	Toluene	5.000	UG/KG	5.000	ORVOA	0.50	1.00	U	U	2680	Soil
B18	B18002	19940808	Toxaphene	210.000	UG/KG	210.000	ORPPB	3.50	4.50	U	UJ	2680	Soil
B17	B17002	19940808	Toxaphene	200.000	UG/KG	200.000	ORPPB	3.00	4.00	U	U	2680	Soil
B19	B19002	19940809	Toxaphene	190.000	UG/KG	190.000	ORPPB	3.50	4.00	U	UJ	2680	Soil
B20	B20002	19940809	Toxaphene	190.000	UG/KG	190.000	ORPPB	3.00	4.00	U	UJ	2680	Soil
B18	B18001	19940808	Toxaphene	180.000	UG/KG	180.000	ORPPB	0.00	0.50	U	U	2680	Soil
B17	B17001	19940808	Toxaphene	180.000	UG/KG	180.000	ORPPB	0.00	0.50	U	U	2680	Soil
B19	B19001	19940809	Toxaphene	170.000	UG/KG	170.000	ORPPB	0.70	1.50	U	UJ	2680	Soil
B20	B20001	19940809	Toxaphene	170.000	UG/KG	170.000	ORPPB	0.50	1.00	U	UJ	2680	Soil
B19	B19002	19940809	Trichloroethylene (TCE)	6.000	UG/KG	6.000	ORVOA	3.50	4.00	U	U	2680	Soil
B18	B18002	19940808	Trichloroethylene (TCE)	6.000	UG/KG	6.000	ORVOA	3.50	4.50	U	U	2680	Soil
B18	B18102	19940808	Trichloroethylene (TCE)	6.000	UG/KG	6.000	ORVOA	3.50	4.50	U	U	2680	Soil
B17	B17002	19940808	Trichloroethylene (TCE)	6.000	UG/KG	6.000	ORVOA	3.00	4.00	U	U	2680	Soil
B20	B20002	19940809	Trichloroethylene (TCE)	6.000	UG/KG	6.000	ORVOA	3.00	4.00	U	U	2680	Soil
B19	B19001	19940809	Trichloroethylene (TCE)	5.000	UG/KG	5.000	ORVOA	0.70	1.50	U	U	2680	Soil
B18	B18001	19940808	Trichloroethylene (TCE)	5.000	UG/KG	5.000	ORVOA	0.00	0.50	U	U	2680	Soil
B17	B17001	19940808	Trichloroethylene (TCE)	5.000	UG/KG	5.000	ORVOA	0.00	0.50	U	U	2680	Soil
B20	B20001	19940809	Trichloroethylene (TCE)	5.000	UG/KG	5.000	ORVOA	0.50	1.00	U	U	2680	Soil
B19	B19002	19940809	Trichloromethane	6.000	UG/KG	6.000	ORVOA	3.50	4.00	U	U	2680	Soil
B18	B18002	19940808	Trichloromethane	6.000	UG/KG	6.000	ORVOA	3.50	4.50	U	U	2680	Soil
B18	B18102	19940808	Trichloromethane	6.000	UG/KG	6.000	ORVOA	3.50	4.50	U	U	2680	Soil
B17	B17002	19940808	Trichloromethane	6.000	UG/KG	6.000	ORVOA	3.00	4.00	U	U	2680	Soil
B20	B20002	19940809	Trichloromethane	6.000	UG/KG	6.000	ORVOA	3.00	4.00	U	U	2680	Soil
B19	B19001	19940809	Trichloromethane	5.000	UG/KG	5.000	ORVOA	0.70	1.50	U	U	2680	Soil
B18	B18001	19940808	Trichloromethane	5.000	UG/KG	5.000	ORVOA	0.00	0.50	U	U	2680	Soil
B17	B17001	19940808	Trichloromethane	5.000	UG/KG	5.000	ORVOA	0.00	0.50	U	U	2680	Soil
B20	B20001	19940809	Trichloromethane	5.000	UG/KG	5.000	ORVOA	0.50	1.00	U	U	2680	Soil
B17	B17002	19940808	Tritium	0.900	PCI/G	0.900	RAD	3.00	4.00	U	U	2680	Soil
B17	B17001	19940808	Tritium	0.900	PCI/G	0.900	RAD	0.00	0.50	U	U	2680	Soil
B19	B19001	19940809	Tritium	0.600	PCI/G	0.600	RAD	0.70	1.50	U	U	2680	Soil
B18	B18102	19940808	Tritium	0.400	PCI/G	0.400	RAD	3.50	4.50	U	U	2680	Soil
B18	B18001	19940808	Tritium	-0.600	PCI/G	-0.600	RAD	0.00	0.50	U	U	2680	Soil

B19	B19002	19940809	Tritium	-0.900	PCI/G	-0.900	RAD	3.50	4.00	U	U	2680	Soil
B20	B20001	19940809	Tritium	-1.400	PCI/G	-1.400	RAD	0.50	1.00	U	U	2680	Soil
B18	B18002	19940808	Tritium	-1.600	PCI/G	-1.600	RAD	3.50	4.50	U	U	2680	Soil
B20	B20002	19940809	Tritium	-1.800	PCI/G	-1.800	RAD	3.00	4.00	U	U	2680	Soil
B19	B19001	19940809	Uranium-235	0.050	PCI/G	0.050	RAD	0.70	1.50	U	UJ	2680	Soil
B18	B18002	19940808	Uranium-235	0.010	PCI/G	0.010	RAD	3.50	4.50	U	UJ	2680	Soil
B20	B20002	19940809	Uranium-235	0.010	PCI/G	0.010	RAD	3.00	4.00	U	UJ	2680	Soil
B17	B17001	19940808	Uranium-235	0.000	PCI/G	0.000	RAD	0.00	0.50	U	UJ	2680	Soil
B20	B20001	19940809	Uranium-235	0.000	PCI/G	0.000	RAD	0.50	1.00	U	UJ	2680	Soil
B18	B18102	19940808	Uranium-235	-0.010	PCI/G	-0.010	RAD	3.50	4.50	U	U	2680	Soil
B18	B18002	19940808	Vinyl Acetate	12.000	UG/KG	12.000	ORVOA	3.50	4.50	U	U	2680	Soil
B18	B18102	19940808	Vinyl Acetate	12.000	UG/KG	12.000	ORVOA	3.50	4.50	U	U	2680	Soil
B17	B17002	19940808	Vinyl Acetate	12.000	UG/KG	12.000	ORVOA	3.00	4.00	U	U	2680	Soil
B19	B19002	19940809	Vinyl Acetate	11.000	UG/KG	11.000	ORVOA	3.50	4.00	U	U	2680	Soil
B18	B18001	19940808	Vinyl Acetate	11.000	UG/KG	11.000	ORVOA	0.00	0.50	U	U	2680	Soil
B17	B17001	19940808	Vinyl Acetate	11.000	UG/KG	11.000	ORVOA	0.00	0.50	U	U	2680	Soil
B20	B20002	19940809	Vinyl Acetate	11.000	UG/KG	11.000	ORVOA	3.00	4.00	U	U	2680	Soil
B19	B19001	19940809	Vinyl Acetate	10.000	UG/KG	10.000	ORVOA	0.70	1.50	U	U	2680	Soil
B20	B20001	19940809	Vinyl Acetate	10.000	UG/KG	10.000	ORVOA	0.50	1.00	U	U	2680	Soil
B18	B18002	19940808	Vinyl Chloride	12.000	UG/KG	12.000	ORVOA	3.50	4.50	U	U	2680	Soil
B18	B18102	19940808	Vinyl Chloride	12.000	UG/KG	12.000	ORVOA	3.50	4.50	U	U	2680	Soil
B17	B17002	19940808	Vinyl Chloride	12.000	UG/KG	12.000	ORVOA	3.00	4.00	U	U	2680	Soil
B19	B19002	19940809	Vinyl Chloride	11.000	UG/KG	11.000	ORVOA	3.50	4.00	U	U	2680	Soil
B18	B18001	19940808	Vinyl Chloride	11.000	UG/KG	11.000	ORVOA	0.00	0.50	U	U	2680	Soil
B17	B17001	19940808	Vinyl Chloride	11.000	UG/KG	11.000	ORVOA	0.00	0.50	U	U	2680	Soil
B20	B20002	19940809	Vinyl Chloride	11.000	UG/KG	11.000	ORVOA	3.00	4.00	U	U	2680	Soil
B19	B19001	19940809	Vinyl Chloride	10.000	UG/KG	10.000	ORVOA	0.70	1.50	U	U	2680	Soil
B20	B20001	19940809	Vinyl Chloride	10.000	UG/KG	10.000	ORVOA	0.50	1.00	U	U	2680	Soil
B19	B19002	19940809	Xylenes, Total	6.000	UG/KG	6.000	ORVOA	3.50	4.00	U	U	2680	Soil
B18	B18002	19940808	Xylenes, Total	6.000	UG/KG	6.000	ORVOA	3.50	4.50	U	U	2680	Soil
B18	B18102	19940808	Xylenes, Total	6.000	UG/KG	6.000	ORVOA	3.50	4.50	U	U	2680	Soil
B17	B17002	19940808	Xylenes, Total	6.000	UG/KG	6.000	ORVOA	3.00	4.00	U	U	2680	Soil
B20	B20002	19940809	Xylenes, Total	6.000	UG/KG	6.000	ORVOA	3.00	4.00	U	U	2680	Soil
B19	B19001	19940809	Xylenes, Total	5.000	UG/KG	5.000	ORVOA	0.70	1.50	U	U	2680	Soil
B18	B18001	19940808	Xylenes, Total	5.000	UG/KG	5.000	ORVOA	0.00	0.50	U	U	2680	Soil
B17	B17001	19940808	Xylenes, Total	5.000	UG/KG	5.000	ORVOA	0.00	0.50	U	U	2680	Soil
B20	B20001	19940809	Xylenes, Total	5.000	UG/KG	5.000	ORVOA	0.50	1.00	U	U	2680	Soil

B18	B18002	19940808	Ytterbium	3.600	MG/KG	3.600	INORG	3.50	4.50	U	U	2680	Soil
B17	B17002	19940808	Ytterbium	3.500	MG/KG	3.500	INORG	3.00	4.00	U	U	2680	Soil
B19	B19002	19940809	Ytterbium	3.400	MG/KG	3.400	INORG	3.50	4.00	U	U	2680	Soil
B20	B20002	19940809	Ytterbium	3.400	MG/KG	3.400	INORG	3.00	4.00	U	U	2680	Soil
B18	B18001	19940808	Ytterbium	3.200	MG/KG	3.200	INORG	0.00	0.50	U	U	2680	Soil
B19	B19001	19940809	Ytterbium	3.100	MG/KG	3.100	INORG	0.70	1.50	U	U	2680	Soil
B17	B17001	19940808	Ytterbium	3.100	MG/KG	3.100	INORG	0.00	0.50	U	U	2680	Soil
B20	B20001	19940809	Ytterbium	3.000	MG/KG	3.000	INORG	0.50	1.00	U	U	2680	Soil

Lab and data qualifiers are defined on pages L53 and L54 of this appendix

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LABORATORY DATA QUALIFIERS (LABQUAL)

The following qualifiers will be applied to the organic analysis results by the laboratory in accordance with CLP SOW direction:

ORGANICS

U	Indicates compound was analyzed for but not detected. The associated sample quantitation limit will be the CRQL, corrected for dilution and for percent moisture.
J	Indicates an estimated value. This flag is used under the following circumstances: 1) when estimating a concentration for tentatively identified compounds (TICs) assuming a 1:1 response, 2) when the qualitative data indicated the presence of a compound that meets the volatile, semivolatile, and pesticide/Aroclor identification criteria, and the result is less than the CRQL but greater than zero.
N	Indicates presumptive evidence of a compound. This flag is used only for tentatively identified compounds, where identification is based on a mass spectral library search.
P	Used for pesticide/Aroclor target analyte when there is greater than 25% difference for detected concentrations between the two GC columns.
C	Applies to pesticide results where the identification has been confirmed by GC/MS.
B	Used when the analyte is found in the associated blank as well as in the sample. This flag must be used for a TIC as well as for a positively identified target compound.
E	Identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis.
D	Identifies all compounds identified in an analysis at a secondary dilution factor.
A	Indicates that a TIC is a suspected aldol-condensation product.

INORGANICS

B	Indicates that the reported value was obtained from a reading that was less than the CRDL but greater than or equal to the Instrument Detection Limit (IDL).
U	Indicates that the analyte was analyzed for but not detected.
E	Indicates the reported value is estimated because of the presence of interferences.
M	Duplicate injection precision was not met.
N	Spiked sample recovery not within control limits.
S	Reported value was determined by the Method of Standard Additions (MSA).
W	Post-digestion spike for Furnace AA analysis is out of control limits, while sample absorbency is less than 50% of spike absorbency.
*	Duplicate analysis not within control limits.
+	Correlation coefficient for the MSA is less than 0.995.

DATA QUALIFIER CODES (DATAQUAL)

ORGANICS AND INORGANICS

U	The material was analyzed for, but was not detected. The associated numerical value is the sample quantitation limit.
J	The associated numerical value is an estimated quantity.
R	The data are unusable (compound may or may not be present). Resampling and reanalysis is necessary for verification.
N	Presumptive evidence of the presence of the material.
NJ	Presumptive evidence of the presence of the material at an estimated quantity.
UJ	The material was analyzed for, but was not detected. The sample quantitation limit is an estimated quantity.

SUB-QUALIFIER CODES

ORGANICS

D	Duplicates
B	Qualified due to blank
C	Qualified due to calibration
H	Holding time exceeded
K	Qualified due to surrogate recovery
L	Qualified due to Laboratory Control Sample
S	Qualified due to matrix spike recovery
I	Qualified due to internal standard
N	Tentative identification (only for TICs)
P	Pesticide/PCB results have >25 percent difference on two different columns
+	Positive bias (added after subqualifier)
-	Negative bias (added after subqualifier)

INORGANICS

D	Duplicates
B	Qualified due to blank
C	Qualified due to calibration
H	Holding time exceeded
L	Qualified due to Laboratory Control Sample
S	Qualified due to matrix spike recovery
I	Qualified due to interference
+	Positive bias (added after subqualifier)
-	Negative bias (added after subqualifier)
Examples of final qualification might be J-C, UJ-S(+), UJ-BC(-), etc.	

The subqualifiers have been included to clarify any reports you may use. The subqualifiers have been captured when it was included in the electronic data submitted by the contractor. Most of the data in MEIMS does not include them.

The above data was extracted from the OU9 Site Wide Quality Assurance Project Plan, pages 9-16 and Appendix H page 3-1. It was updated from the Methods Compendium.

Comparison for Soil Analytical Results

		Screening Level (RBGV 10-6 + background, or as agreed)	
7440-38-2	Arsenic	1.06E+01	MG/KG
7440-41-7	Beryllium	2.25E+03	MG/KG
7440-43-9	Cadmium	3.00E+03	MG/KG
18540-29-9	Chromium VI	4.50E+02	MG/KG
7440-02-0	Nickel	1.13E+04	MG/KG
55684-94-1	1,2,3,6,7,8-HxCDF	1.99E-04	MG/KG
19408-74-3	1,2,3,7,8,9-HxCDD	4.81E-04	MG/KG
57117-41-6	1,2,3,7,8-PeCDF	3.97E-05	MG/KG
57117-31-4	2,3,4,7,8-PeCDF	3.97E-04	MG/KG
1746-01-6	2,3,7,8-TCDD	1.99E-05	MG/KG
51207-31-9	2,3,7,8-TCDF	1.99E-04	MG/KG
37871-00-4	HpCDD	1.99E-03	MG/KG
38998-75-3	HpCDF	1.99E-03	MG/KG
34465-46-8	HxCDD	1.99E-04	MG/KG
3268-87-9	OCDD	1.99E-02	MG/KG
39001-02-0	OCDF	1.99E-02	MG/KG
36088-22-9	PeCDD	3.97E-05	MG/KG
118-96-7	2,4,6-Trinitrotoluene	9.94E+01	MG/KG
121-82-4	RDX	2.71E+01	MG/KG
72-54-8	4,4'-DDD	1.66E+01	MG/KG
72-55-9	4,4'-DDE	1.31E+01	MG/KG
50-29-3	4,4'-DDT	2.18E+01	MG/KG
309-00-2	Aldrin	1.75E-01	MG/KG
319-84-6	Alpha-BHC	4.73E-01	MG/KG
12674-11-2	Aroclor-1016	1.49E+00	MG/KG
11104-28-2	Aroclor-1221	1.49E+00	MG/KG
11141-16-5	Aroclor-1232	1.49E+00	MG/KG
53469-21-9	Aroclor-1242	1.49E+00	MG/KG
12672-29-6	Aroclor-1248	1.49E+00	MG/KG
11097-69-1	Aroclor-1254	5.95E+01	MG/KG
11096-82-5	Aroclor-1260	1.49E+00	MG/KG
319-85-7	Beta-BHC	1.66E+00	MG/KG
60-57-1	Dieldrin	1.86E-01	MG/KG
58-89-9	Gamma-BHC (Lindane)	2.29E+00	MG/KG
76-44-8	Heptachlor	6.62E-01	MG/KG
1024-57-3	Heptachlor Epoxide	3.28E-01	MG/KG
1336-36-3	Polychlorinated Biphenyls (PCBs)	1.49E+00	MG/KG
8001-35-2	Toxaphene	2.71E+00	MG/KG
122-66-7	1,2-Diphenylhydrazine	3.73E+00	MG/KG
106-46-7	1,4-Dichlorobenzene	1.24E+02	MG/KG
108-60-1	2,2'-oxybis(1-chloropropane)	4.26E+01	MG/KG
88-06-2	2,4,6-Trichlorophenol	2.71E+02	MG/KG
121-14-2	2,4-Dinitrotoluene	4.38E+00	MG/KG
606-20-2	2,6-Dinitrotoluene	4.38E+00	MG/KG
91-94-1	3,3'-Dichlorobenzidine	6.62E+00	MG/KG
99-09-2	3-Nitroaniline	7.84E+01	MG/KG
100-01-6	4-Nitroaniline	7.84E+01	MG/KG

92-87-5	Benzidine	1.30E-02	MG/KG
56-55-3	Benzo(a)anthracene	4.08E+00	MG/KG
50-32-8	Benzo(a)pyrene	4.08E-01	MG/KG
205-99-2	Benzo(b)fluoranthene	4.08E+00	MG/KG
207-08-9	Benzo(k)fluoranthene	4.08E+01	MG/KG
111-44-4	Bis(2-chloroethyl)ether	2.71E+00	MG/KG
117-81-7	Bis(2-ethylhexyl)phthalate	2.13E+02	MG/KG
86-74-8	Carbazole	1.49E+02	MG/KG
218-01-9	Chrysene	4.08E+02	MG/KG
53-70-3	Dibenz(a,h)anthracene	4.08E-01	MG/KG
118-74-1	Hexachlorobenzene	1.86E+00	MG/KG
87-68-3	Hexachlorobutadiene	3.82E+01	MG/KG
67-72-1	Hexachloroethane	2.13E+02	MG/KG
193-39-5	Indeno(1,2,3-cd)pyrene	4.08E+00	MG/KG
78-59-1	Isophorone	3.14E+03	MG/KG
621-64-7	N-Nitroso-di-n-propylamine	4.26E-01	MG/KG
62-75-9	N-Nitrosodimethylamine	5.84E-02	MG/KG
86-30-6	N-Nitrosodiphenylamine	6.08E+02	MG/KG
87-86-5	Pentachlorophenol	2.48E+01	MG/KG
630-20-6	1,1,1,2-Tetrachloroethane	6.95E+00	MG/KG
79-34-5	1,1,2,2-Tetrachloroethane	8.88E-01	MG/KG
79-00-5	1,1,2-Trichloroethane	1.90E+00	MG/KG
96-18-4	1,2,3-Trichloropropane	4.26E-01	MG/KG
96-12-8	1,2-Dibromo-3-Chloropropane	2.12E+00	MG/KG
107-06-2	1,2-Dichloroethane	7.61E-01	MG/KG
78-87-5	1,2-Dichloropropane	4.38E+01	MG/KG
107-13-1	Acrylonitrile	5.15E-01	MG/KG
71-43-2	Benzene	5.42E+01	MG/KG
100-44-7	Benzyl Chloride	1.75E+01	MG/KG
75-27-4	Bromodichloromethane	4.81E+01	MG/KG
75-25-2	Bromoform	3.77E+02	MG/KG
56-23-5	Carbon Tetrachloride	5.38E-01	MG/KG
67-66-3	Chloroform (Trichloromethane)	5.15E-01	MG/KG
74-87-3	Chloromethane	2.71E+00	MG/KG
124-48-1	Dibromochloromethane	3.55E+01	MG/KG
75-09-2	Dichloromethane (Methylene Chloride)	2.03E+01	MG/KG
106-93-4	Ethylene Dibromide (1,2-Dibromoethane)	3.37E-02	MG/KG
127-18-4	Tetrachloroethene	1.87E+01	MG/KG
79-01-6	Trichloroethene	5.25E+00	MG/KG
75-01-4	Vinyl Chloride	4.14E-01	MG/KG
14952-40-0	Actinium-227	4.48E+00	PCI/G
14952-40-0	Actinium-227+D	5.63E-01	PCI/G
14952-40-0	Actinium-227 long lived decay	5.63E-01	PCI/G
14331-83-0	Actinium-228	1.93E-01	PCI/G
14596-10-2	Americium-241	6.31E+00	PCI/G
14683-10-4	Antimony-124	9.84E-02	PCI/G
14234-35-6	Antimony-125	4.83E-01	PCI/G
14234-35-6	Antimony-125+D	4.83E-01	PCI/G
13981-41-4	Barium-133	6.07E-01	PCI/G
13981-41-4	Barium-133m	4.41E+00	PCI/G
14798-08-4	Barium-140	1.13E+00	PCI/G
13966-02-4	Beryllium-7	4.11E+00	PCI/G

13982-38-2	Bismuth-207	1.75E-01	PCI/G
14331-79-4	Bismuth-210	5.51E+01	PCI/G
14331-79-4	Bismuth-210m	1.00E+00	PCI/G
15229-37-5	Bismuth-211	4.66E+00	PCI/G
14913-49-6	Bismuth-212	9.87E-01	PCI/G
14733-03-0	Bismuth-214	1.17E-01	PCI/G
13967-74-3	Cerium-141	3.80E+00	PCI/G
14762-78-8	Cerium-144	8.87E+00	PCI/G
14762-78-8	Cerium-144+D	3.21E+00	PCI/G
13967-70-9	Cesium-134	1.23E-01	PCI/G
13967-70-9	Cesium-134m	1.74E+01	PCI/G
10045-97-3	Cesium-137	3.81E+01	PCI/G
10045-97-3	Cesium-137 +D	7.62E-01	PCI/G
10045-97-3	Cesium-137 long lived decay	7.62E-01	PCI/G
14392-02-0	Chromium-51	6.89E+00	PCI/G
13981-50-5	Cobalt-57	2.46E+00	PCI/G
13981-38-9	Cobalt-58	1.95E-01	PCI/G
13981-38-9	Cobalt-58m	4.78E+03	PCI/G
10198-40-0	Cobalt-60	7.06E-02	PCI/G
10198-40-0	Cobalt-60m	4.71E+01	PCI/G
13981-15-2	Curium-244	9.20E+00	PCI/G
14683-23-9	Europium-152	1.65E-01	PCI/G
14683-23-9	Europium-152m	6.57E-01	PCI/G
15585-10-1	Europium-154	1.50E-01	PCI/G
14391-16-3	Europium-155	6.98E+00	PCI/G
14596-12-4	Iron-59	1.50E-01	PCI/G
13981-28-7	Lanthanum-140	7.61E-02	PCI/G
14255-04-0	Lead-210	2.10E+00	PCI/G
14255-04-0	Lead-210+D	1.80E+00	PCI/G
14255-04-0	Lead-210 long lived decay	1.82E+00	PCI/G
15092-94-1	Lead-212	1.66E+00	PCI/G
15067-28-4	Lead-214	8.92E-01	PCI/G
13966-31-9	Manganese-54	2.25E-01	PCI/G
13982-78-0	Mercury-203	9.47E-01	PCI/G
13994-20-2	Neptunium-237	7.01E+00	PCI/G
13994-20-2	Neptunium-237+D	1.04E+00	PCI/G
13967-76-5	Niobium-95	2.48E-01	PCI/G
13967-76-5	Niobium-95m	3.73E+00	PCI/G
13981-16-3	Plutonium-238	5.50E+01	PCI/G
PU-238/239	Plutonium-238/239	6.21E+00	PCI/G
15117-48-3	Plutonium-239	6.21E+00	PCI/G
PU-239/240	Plutonium-239/240	6.21E+00	PCI/G
14119-32-5	Plutonium-241	5.06E+02	PCI/G
13982-10-0	Plutonium-242	6.33E+00	PCI/G
13981-52-7	Polonium-210	2.09E+00	PCI/G
13966-00-2	Potassium-40	3.81E+01	PCI/G
14331-85-2	Protactinium-231	2.83E+00	PCI/G
14331-85-2	Protactinium-231+D	4.00E+00	PCI/G
14331-85-2	Protactinium-231 long lived decay	1.28E+00	PCI/G
13981-14-1	Protactinium-233	1.01E-01	PCI/G
15100-28-4	Protactinium-234	1.27E+01	PCI/G
15100-28-4	Protactinium-234m	1.20E+00	PCI/G

15623-45-7	Radium-223	3.24E+00	PCI/G
13233-32-4	Radium-224	5.91E+00	PCI/G
13981-53-8	Radium-225	2.17E+00	PCI/G
13982-63-3	Radium-226	2.10E+00	PCI/G
13982-63-3	Radium-226+D	2.09E+00	PCI/G
13982-63-3	Radium-226 long lived decay	2.73E+00	PCI/G
15262-20-1	Radium-228	1.47E+00	PCI/G
15262-20-1	Radium-228+D	1.47E+00	PCI/G
15262-20-1	Radium-228 long lived decay	1.83E+00	PCI/G
13968-53-1	Ruthenium-103	1.40E+01	PCI/G
13967-48-1	Ruthenium-106	8.77E-01	PCI/G
13967-48-1	Ruthenium-106+D	9.09E-02	PCI/G
13967-63-0	Scandium-46	1.22E-01	PCI/G
14391-65-2	Silver-108m	1.14E+02	PCI/G
14378-38-2	Silver-109m	8.50E-02	PCI/G
13966-32-0	Sodium-22	3.98E-01	PCI/G
13967-73-2	Strontium-85	1.07E+00	PCI/G
13967-73-2	Strontium-85m	3.55E+01	PCI/G
14158-27-1	Strontium-89	1.80E+01	PCI/G
10098-97-2	Strontium-90	1.01E+01	PCI/G
10098-97-2	Strontium-90+D	7.70E-01	PCI/G
14133-76-7	Technetium-99	2.14E+02	PCI/G
14913-50-9	Thallium-208	4.98E-02	PCI/G
15623-47-9	Thorium-227	2.09E+00	PCI/G
14274-82-9	Thorium-228	7.08E+00	PCI/G
14274-82-9	Thorium-228+D	1.61E+00	PCI/G
14274-82-9	Thorium-228 long lived decay	1.61E+00	PCI/G
15594-54-4	Thorium-229	1.89E+00	PCI/G
15594-54-4	Thorium-229+D	5.06E-01	PCI/G
15594-54-4	Thorium-229 long lived decay	5.06E-01	PCI/G
14269-63-7	Thorium-230	1.01E+01	PCI/G
14269-63-7	Thorium-230+D	2.00E+00	PCI/G
14269-63-7	Thorium-230 long lived decay	1.99E+00	PCI/G
7440-29-1	Thorium-232	8.60E+00	PCI/G
7440-29-1	Thorium-232+D	1.47E+00	PCI/G
15065-10-8	Thorium-234	1.76E+01	PCI/G
13966-06-8	Tin-113	3.56E+01	PCI/G
15832-50-5	Tin-126	6.91E+00	PCI/G
10028-17-8	Tritium	7.58E+03	PCI/G
14158-29-3	Uranium-232	2.90E+00	PCI/G
13968-55-3	Uranium-233	1.03E+01	PCI/G
13968-55-3	Uranium-233+D	4.80E-01	PCI/G
13968-55-3	Uranium-233 long lived decay	4.82E-01	PCI/G
U-233/234	Uranium-233/234	4.82E-01	PCI/G
13966-29-5	Uranium-234	1.16E+01	PCI/G
13966-29-5	Uranium-234+D	1.20E+00	PCI/G
15117-96-1	Uranium-235	1.67E+00	PCI/G
15117-96-1	Uranium-235+D	1.60E+00	PCI/G
15117-96-1	Uranium-235 long lived decay	4.20E-01	PCI/G
U-235/236	Uranium-235/236	3.10E-01	PCI/G
7440-61-1	Uranium-238	1.28E+01	PCI/G
7440-61-1	Uranium-238+D	5.31E+00	PCI/G

7440-61-1	Uranium-238 long lived decay	1.29E+00	PCI/G
13982-39-3	Zinc-65	3.11E-01	PCI/G
13967-71-0	Zirconium-95	2.57E-01	PCI/G

Appendix M

Occurrence Reports

Building PH

A search of the occurrence reporting system revealed three reports for Building PH, all of which were minor and without environmental impact (copies are not included as part of this appendix):

- April 1997 NPDES Exceedance (May 1997).
- Plant Outfall 001 & 601 National Pollution Elimination Discharge System Permit Exceedance (ROLL-UP) (October 1997).
- Exceedance of NPDES Permit for Carbonaceous Biological Oxygen Demand (CBOD) (June 2002).

Building 24

A search of the occurrence reporting system revealed no occurrence reports for Building 24.

Appendix N

PRS Information

Recommendation pages are not generated for PRSs that require Further Assessment (FA) or that are unbinned. Accordingly, no recommendation sheet for PRS 441 is provided.

MOUND PLANT
PRS 59
WASTE STORAGE SITE-SOIL BOXES STAGED SOUTH OF WD BUILDING

RECOMMENDATION:

PRS 59 was identified as a storage area for boxes containing plutonium contaminated soil during a US EPA 1988 Preliminary Review/Visual Site Inspection. Procedures were in place to prevent the transfer of contamination from the immediate work site to storage areas. In 1984 plutonium was detected at 133.9 pCi/g at one location in Area 14 near PRS 59. In 1994 four locations were sampled in the area of PRS 59 as part of the cleanup verification at Area 14. No plutonium was detected above the guideline criteria of 25 pCi/g. In addition, all thorium results were below the regulatory limits of 5/15 pCi/g.

Therefore, NO FURTHER ASSESSMENT is recommended for PRS 59.

CONCURRENCE:

DOE/MEMP: Arthur W. Kleinrath 5/13/97
Arthur W. Kleinrath, Remedial Project Manager (date)

USEPA: Timothy J. Fischer 5/13/97
Timothy J. Fischer, Remedial Project Manager (date)

OEPA: Brian K. Nickel 5/13/97
Brian K. Nickel, Project Manager (date)

SUMMARY OF COMMENTS AND RESPONSES:

Comment period from 7/15/97 to 8/17/97

☐ No comments were received during the comment period.

☒ Comment responses can be found on page 1, 2 of this package.

MOUND PLANT
PRS 176/177/178/300
WASTE TRANSFER SYSTEM LINE, TANKS AND SOIL

RECOMMENDATION:

These Potential Release Sites (PRSs) deal with the transfer of plutonium-238 contaminated waste solutions via the Waste Transfer System (PRS 300) to the Waste Disposal Building (WD) and to two underground storage tanks in Building 41 (PRSs 177 and 178). The PRSs were created as a result of historical knowledge of leaks in the underground Waste Transfer System (WTS).

The WTS was built in 1967 and remained in operation until 1974 when repeated leaks in the WTS lines forced the WTS to be abandoned. In 1974, the soils associated with the WTS leaks (PRS 176) were remediated. In the mid 1980s, the WTS line, the two holding tanks, and Building 43 were removed. Post removal sampling results obtained from the November 1993 *OU6, Area 19 and Area 14 Verification Report* indicated all concentrations of VOCs, SVOCs, pesticides/PCBs and inorganics, in the soil, were below their 10^{-6} Risk Based guideline values. Additionally, the *OU6, Area 19 and Area 14 Verification* sampling showed, within the 95% upper confidence level (UCL), plutonium-238 and thorium soil concentrations were below their respective guideline criteria of 25 pCi/g (Mound ALARA goal for plutonium) and 15 pCi/g (regulatory guideline criteria for subsurface thorium). No other contaminants were detected above guideline criteria.

Therefore, NO FURTHER ASSESSMENT is recommended for PRSs 176, 177, 178, and 300.

CONCURRENCE:

DOE/MB: Arthur W Kleinrath — 11/26/96
Arthur W. Kleinrath, Remedial Project Manager (date)

USEPA: Timothy J. Fischer — 12/3/96
Timothy J. Fischer, Remedial Project Manager (date)

OEPA: Brian Nickel — 12/12/96
Brian K. Nickel, Project Manager (date)

SUMMARY OF COMMENTS AND RESPONSES:

Comment period from 1/9/97 to 2/13/97

☒ No comments were received during the comment period.

☐ Comment responses can be found on page _____ of this package.

N 2 of 3

MOUND PLANT
PRS 358
SOIL CONTAMINATION

RECOMMENDATION:

PRS 358 was identified due to elevated levels of organic chemicals detected by the qualitative PETREX survey during the **OU5, Non-AOC Investigation**. A subsequent quantitative analysis showed that there were no analytes measured in excess of the guideline criteria. The only other chemical data from the area are those from soil samples taken at the base of Building 24, located across the railroad tracks from PRS 358. These will be addressed as part of the Building 24 decontamination and decommissioning evaluation process. Therefore, NO FURTHER ASSESSMENT is recommended for PRS 358.

CONCURRENCE:

DOE/MB: _____ 12/18/96
Arthur W. Kleinrath, Remedial Project Manager (date)

USEPA: _____ 12/18/96
Timothy J. Fischer, Remedial Project Manager (date)

OEPA: _____ 12/18/96
Brian K. Nickel, Project Manager (date)

SUMMARY OF COMMENTS AND RESPONSES:

Comment period from 2/27/97 to 4/3/97

☒ No comments were received during the comment period.

☐ Comment responses can be found on page _____ of this package.

N 3 of 3

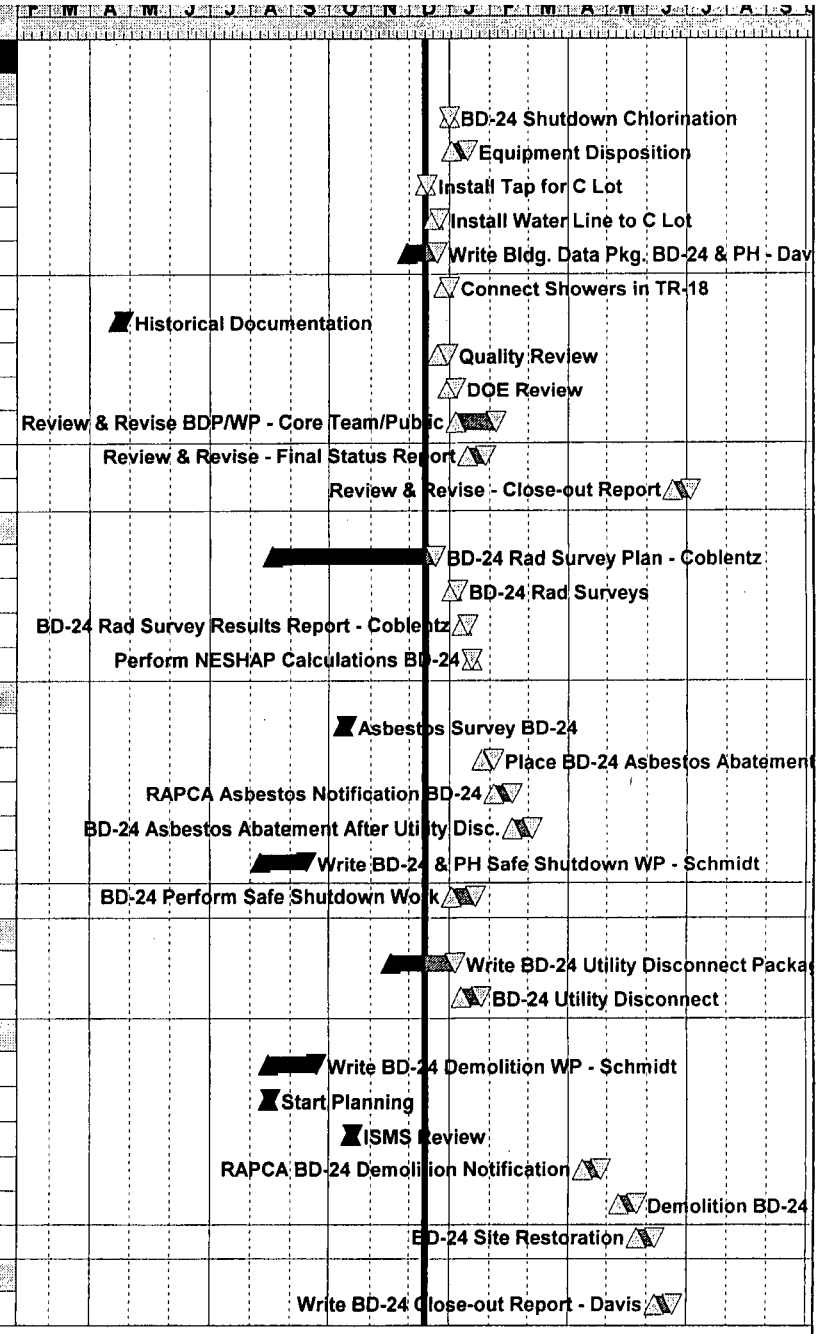
Appendix O

Work Plan

The drawings listed on the flysheet for Appendix C of the Work Plan are oversized and therefore are not included in the Work Plan in this appendix (Appendix O). However, the oversized drawings are included in field and record copies of the Work Plan.

Copies of the oversized drawings are available upon request.

ID	Description	Dur	Dur	ID		Start	Finish	
Bldg. 24								
Regulatory								
BD024095	BD-24 Shutdown Chlorination	1	1	3	0	31DEC04*	31DEC04	4.1.7.10.13
BD024100	Equipment Disposition	8	8	1	0	03JAN05	13JAN05	4.1.7.10.13
BD024105	Install Tap for C Lot	2	2	3	0	13DEC04*	14DEC04	4.1.7.10.13
BD024115	Install Water Line to C Lot	4	4	1	0	20DEC04	23DEC04	4.1.7.10.13
BD024125	Write Bldg. Data Pkg. BD-24 & PH - Davis	8	7	1	50	29NOV04A	22DEC04	4.1.7.10.13
BD024135	Connect Showers in TR-18	4	4	1	0	27DEC04	30DEC04	4.1.7.10.13
BD024150	Historical Documentation	4	0	1	100	22APR04A	26APR04A	4.1.7.10.13
BD024175	Quality Review	4	4	1	0	23DEC04	29DEC04	4.1.7.10.13
BD024225	DOE Review	5	5	3	0	30DEC04	05JAN05	4.1.7.10.13
BD024250	Review & Revise BDP/WP - Core	30	30	2	0	06JAN05	04FEB05	4.1.7.10.13
BD024300	Review & Revise - Final Status Report	14	14	2	0	14JAN05	27JAN05	4.1.7.10.13
BD024335	Review & Revise - Close-out Report	14	14	2	0	21JUN05	04JUL05	4.1.7.10.13
Radiological								
BD024350	BD-24 Rad Survey Plan - Coblentz	12	5	1	58	18AUG04A	20DEC04	4.1.7.10.13
BD024375	BD-24 Rad Surveys	4	4	1	0	03JAN05	06JAN05	4.1.7.10.13
BD024400	BD-24 Rad Survey Results Report - Coblentz	4	4	1	0	10JAN05	13JAN05	4.1.7.10.13
BD024450	Perform NESHAP Calculations BD-24	1	1	1	0	17JAN05	17JAN05	4.1.7.10.13
Safe Shutdown								
BD024475	Asbestos Survey BD-24	4	0	1	100	11OCT04A	14OCT04A	4.1.7.10.13
BD024500	Place BD-24 Asbestos Abatement	5	5	1	0	26JAN05	02FEB05	4.1.7.10.13
BD024525	RAPCA Asbestos Notification BD-24	10	10	3	0	03FEB05	16FEB05	4.1.7.10.13
BD024550	BD-24 Asbestos Abatement After Utility Disc.	12	12	3	0	17FEB05	04MAR05	4.1.7.10.13
BD024575	Write BD-24 & PH Safe Shutdown WP -	12	0	1	100	09AUG04A	13SEP04A	4.1.7.10.13
BD024600	BD-24 Perform Safe Shutdown Work	12	12	1	0	03JAN05	20JAN05	4.1.7.10.13
Utilities								
BD024635	Write BD-24 Utility Disconnect Package	15	15	1	0	17NOV04A	05JAN05	4.1.7.10.13
BD024650	BD-24 Utility Disconnect	10	10	1	0	10JAN05	25JAN05	4.1.7.10.13
Demolition								
BD024900	Write BD-24 Demolition WP - Schmidt	16	0	1	100	16AUG04A	20SEP04A	4.1.7.10.13
BD024910	Start Planning	1	0	1	100	16AUG04A	16AUG04A	4.1.7.10.13
BD024920	ISMS Review	4	0	1	100	18OCT04A	18OCT04A	4.1.7.10.13
BD024925	RAPCA BD-24 Demolition Notification	10	10	3	0	12APR05	25APR05	4.1.7.10.13
BD024950	Demolition BD-24	8	8	1	0	10MAY05	23MAY05	4.1.7.10.13
BD024975	BD-24 Site Restoration	8	8	1	0	24MAY05	06JUN05	4.1.7.10.13
Closeout								
BD024325	Write BD-24 Close-out Report - Davis	8	8	1	0	07JUN05	20JUN05	4.1.7.10.13



Start Date	05FEB04
Finish Date	24APR06
Data Date	13DEC04
Run Date	16DEC04 14:49

Early Bar
Progress Bar
Critical Activity

ERST

Sheet 51 of 56

CH2MHILL

Integrated Status Schedule

BOSS Only - w/Page Breaks

Date	Revision	Checked	Approved

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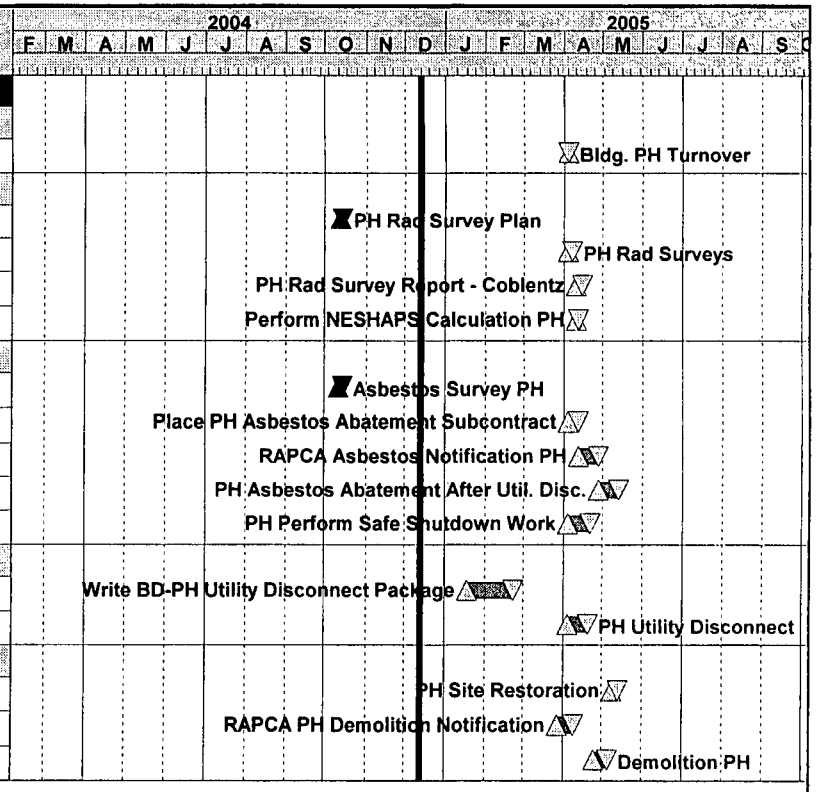
Activity ID	Activity Description	Orig Dur	Rem Dur	Cal ID	%	Early Start	Early Finish	WBS
PH - Pump House								
Regulatory								
BD0PH105	Bldg. PH Turnover	1	1	1	0	04APR05	04APR05	4.1.7.10.13
Radiological								
BD0PH435	PH Rad Survey Plan	1	0	1	100	13OCT04A	14OCT04A	4.1.7.10.13
BD0PH440	PH Rad Surveys	4	4	1	0	04APR05	07APR05	4.1.7.10.13
BD0PH460	PH Rad Survey Report - Coblentz	4	4	1	0	11APR05	14APR05	4.1.7.10.13
BD0PH480	Perform NESHAPS Calculation PH	1	1	1	0	11APR05	11APR05	4.1.7.10.13
Safe Shutdown								
BD0PH485	Asbestos Survey PH	4	0	1	100	11OCT04A	14OCT04A	4.1.7.10.13
BD0PH510	Place PH Asbestos Abatement Subcontract	5	5	1	0	05APR05	12APR05	4.1.7.10.13
BD0PH535	RAPCA Asbestos Notification PH	10	10	3	0	13APR05	26APR05	4.1.7.10.13
BD0PH560	PH Asbestos Abatement After Util. Disc.	12	12	3	0	27APR05	12MAY05	4.1.7.10.13
BD0PH610	PH Perform Safe Shutdown Work	12	12	1	0	04APR05	21APR05	4.1.7.10.13
Utilities								
BD0PH645	Write BD-PH Utility Disconnect Package	20	20	1	0	18JAN05	21FEB05	4.1.7.10.13
BD0PH660	PH Utility Disconnect	10	10	1	0	04APR05	19APR05	4.1.7.10.13
Demolition								
BD0PH015	PH Site Restoration	4	4	1	0	09MAY05	12MAY05	4.1.7.10.13
BD0PH935	RAPCA PH Demolition Notification	10	10	3	0	28MAR05	08APR05	4.1.7.10.13
BD0PH970	Demolition PH	8	8	1	0	25APR05	05MAY05	4.1.7.10.13



Start Date	05FEB04	Early Bar	
Finish Date	24APR06	Progress Bar	
Data Date	13DEC04	Critical Activity	
Run Date	16DEC04 14:49		

ERST

CH2MHILL

Integrated Status Schedule

Date	Revision	Checked	Approved

Standard

WORK PLAN

In accordance with Mound 2000

Demolition of Building 24 and PH

January 2005

Includes

PRSs:	PRS 441: The boundary for PRS 441 has yet to be determined; it may include soil near and below Buildings 24 and PH.
Buildings:	Buildings 24 and PH
Parcels:	8
Other:	na

Revisions to the Final (if any) are inserted behind this cover

Rev. 0
09/14/04

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	Pages
Work Plan	5-22
Appendix A PHA & JSHA	
Appendix B Pre-Job Briefing and Job Status Log	
Appendix C Drawings/Sketches	
Appendix D Miscellaneous (USQ, RWP, etc.)	
Appendix E Post-Job Conference/Lessons Learned	

Work Plan Policy - Attachment 1

The following table captures all of the work planning/execution requirements of Mound 2000[1] and identifies where in the work plan each is addressed.

Mound 2000 excerpt	Pg	Where addressed
Develop implementation procedures for resolving the site problem	4-11	PP-1059A[2], Appendix A, Work Pkg/PHA
...procedures to implement the response action *described in the action memo...*	4-11	PP-1059A, Appendix A, Work Pkg/PHA. An introduction/ background paragraph shall be included in the work plan (somewhere) to bridge the Action Memo to the tasks being specified in the work plan.
QA/QC	4-11	Work to be performed per QAPP, PP-1060A[3]
Verification procedures	4-11	Per VSAP (attached to or referenced in Work Plan)
Schedule	4-11	Include appropriate excerpt from ER/Integration Schedule
H&S	4-11	PHA & JSHA
...final work plan presents rationale and [technical] approach for implementing the response action and provides detailed guidance for [implementation]...	4-11	PP-1059A, Appendix A, Work Pkg/PHA
...work plan implementation until the response objectives have been reached.	4-11	PP-1059A, Appendix A, Work Pkg/PHA
...field activities typically described:	5-4	PP-1059A, Appendix A, Work Pkg/PHA, Section 7
Excavation/demolition	5-4	PP-1059A, Appendix A, Work Pkg/PHA, Section 7
Transportation of waste Waste characterization Waste reduction Waste treatment	5-4	standard text on waste management
Media sampling Field screening/analysis	5-5	Verification sampling will be via the VSAP. All other sampling (including sampling to guide the dig, characterize the soil for waste mgmt purposes, base confirmation prior to verification, post-remedial action, etc.) required to support the project will be conducted via the Work Plan. RadCon sampling will include (per the RWP) air, soil (walkovers and soil samples), collected runoff and discharge, and removable contamination (swipes) monitoring per MD-80036[4] and MD-80043[5].
Geology/hydro investigations	5-5	If needed for characterization
Site survey/topo map	5-5	PP-1059A, page 19 of 43, "Use of Graphics"
Site restoration	5-5	In accordance with the Stormwater Pollution Prevention Plan (SWP3)[6], to include a graphic (with runoff directional arrows) and a backfill/seeding plan
Task mgmt & QC	5-5	PP-1059A, Appendix A, Work Pkg/PHA
Verification sampling	5-5	Per VSAP (attached to or referenced in Work Plan)
HASP considerations	5-5	PHA & JSHA
...work plans for...response actions...*approved* by the Core Team	5-5	Written concurrence (either email or letter) will be obtained prior to commencement of work and will be available in the field as documentation.

REFERENCES

1: Work Plan for Environmental Restoration of the DOE Mound Site, The Mound 2000 Approach, February 1999, Final, Revision 0
2: PP-1059A, Issue 11, Integrated Work Control Program
3: PP-1060A, Issue 5, Quality Assurance Program Plan
4: MD-80036, Issue 36, Radiological Operations Procedures
5: MD-80043, Issue 14, Radiological Work Requirements
6: Miamisburg Environmental Management Project, Storm Water Pollution Prevention Plan, OPA980099, Issue 0, December 1, 1998

Standard text for Waste Management:

Based on a review of the work to be performed, the Waste Generator and Waste Coordinator determine types (sanitary, hazardous, LLW, LLMW, TRU) and estimated amounts of waste prior to generation. An evaluation of the physical, radiological and chemical properties is made to determine a disposal path for each type of waste. The proposed disposal facility, waste profile, and knowledge of the waste generating process will determine the characterization methodology required for each waste type.

Process knowledge will generally be sufficient to characterize sanitary and hazardous waste for disposal. Sampling and analysis for radiological characterization of radioactive waste will be determined based on process knowledge of the source of the waste. Analytical methods employed include surface contamination measurements, air concentration measurements, and alpha spectroscopy and gamma spectroscopy. All characterization determinations are documented and peer reviewed prior to waste shipment. Material Safety Data Sheets (MSDS) are used to supplement process knowledge of chemical properties of the waste. Where process knowledge is not sufficient to provide a RCRA determination, analysis of waste will be accomplished through the Toxicity Characteristic Leaching Procedure (TCLP) performed by an offsite laboratory.

Procedures controlling waste characterization are contained in Mound Technical Manuals MD-10167, Radioactive Waste Procedures, Operations 420: Waste Stream Characterization and 428: Waste Radionuclide Identification and Quantification, and M
D-70523, Management of Hazardous Waste, Trash, and Recyclable Materials, Operation 001: Waste Verification Sampling and Analysis. Additional direction is contained in these manuals in operations specific to the waste type and container being used.

REFERENCES

1: Work Plan for Environmental Restoration of the DOE Mound Site, The Mound 2000 Approach, February 1999, Final, Revision 0
2: PP-1059A, Issue 11, Integrated Work Control Program
3: PP-1060A, Issue 5, Quality Assurance Program Plan
4: MD-80036, Issue 36, Radiological Operations Procedures
5: MD-80043, Issue 14, Radiological Work Requirements
6: Miamisburg Environmental Management Project, Storm Water Pollution Prevention Plan, OPA980099, Issue 0, December 1, 1998
7: MD-10167, Issue 23, Radioactive Waste Procedures
8: MD-70523, Issue 11, Management of Hazardous Waste, Trash, and Recyclable Materials

WORK PACKAGE / PRELIMINARY HAZARD ANALYSIS

☐ **Office Master Copy** (Original Approval Signatures) ☐ **Field Working Copy** (Original Field Sign -Offs) ☐ **Review Copy** [Note: Mark this section in color] ☐ **Other Copy**

Note: The Project Engineer is responsible for completing Sections 1 through 10.

1. WORK PACKAGE TITLE: **Demolition of Building 24 and PH**

2. WORK PACKAGE NUMBER: **BOSS-40391 – 00** **Requestor: Mark J. Schmidt**

3. WORK PACKAGE SCOPE:

The purpose of this project is the demolition and disposal of Building 24 (water treatment plant) superstructure & floor slab, PH (pump house) superstructure & floor slab, pipe stanchions associated with PH building, and obsolete utility poles. Heavy-duty equipment will be used to demolish the building superstructures (including slab), remove and dispose of the debris. Site restoration, grading, and erosion mitigation will be performed as part of the PRS remediation activities.

Per the predemolition radiological scoping surveys, no areas within the buildings are presently contaminated; thus this is a non-radiological demolition project and no RWP is required.

All Safe Shutdown, Utility Isolation, and Asbestos Abatement activities will have been completed before initiation of this project.

4. WORK LOCATION: **Building 24 and PH**

5. WORK PACKAGE PHASES:

1. Site Information
2. Site Preparation & Mobilization
3. Building, Demolition and Sequence of Work
4. Site Remediation & Demobilization

LIST OF APPENDIXES:

A – PHA/JSHA

B – Pre-Job Briefing/Job Status Log

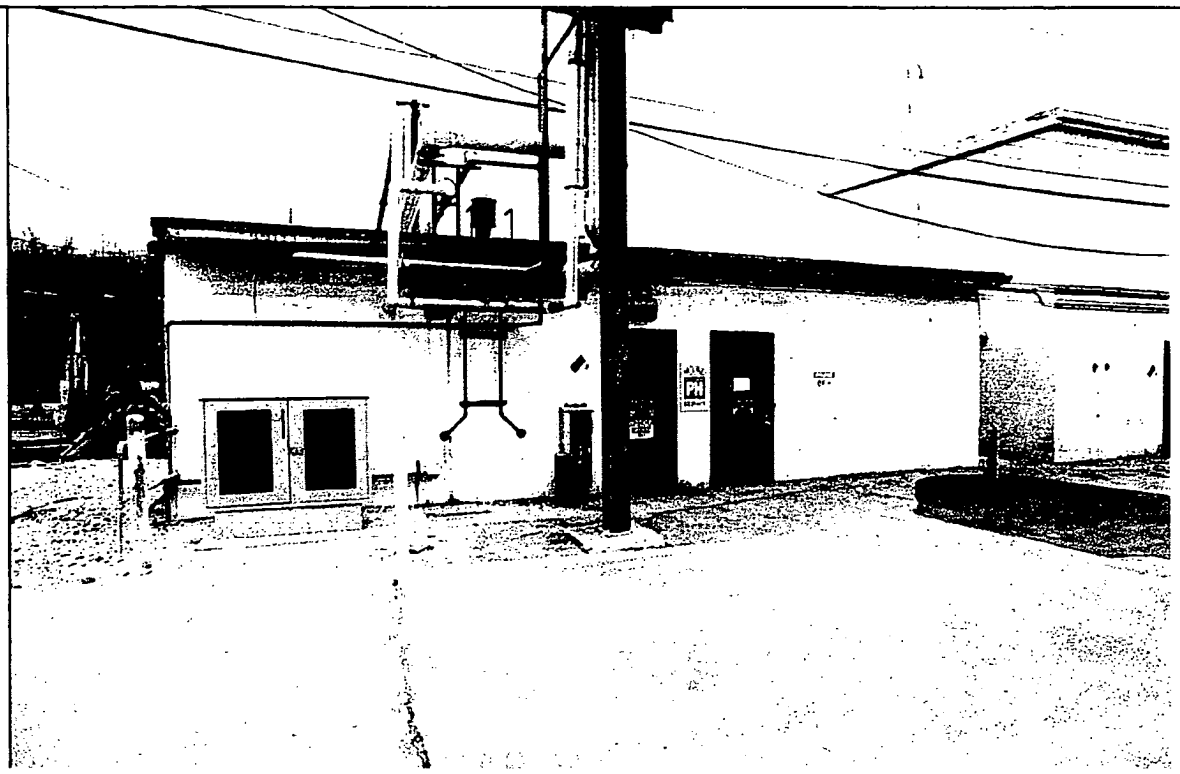
C – Drawings/Sketches/Photographs

D – Miscellaneous (RWP, USQ, etc.)

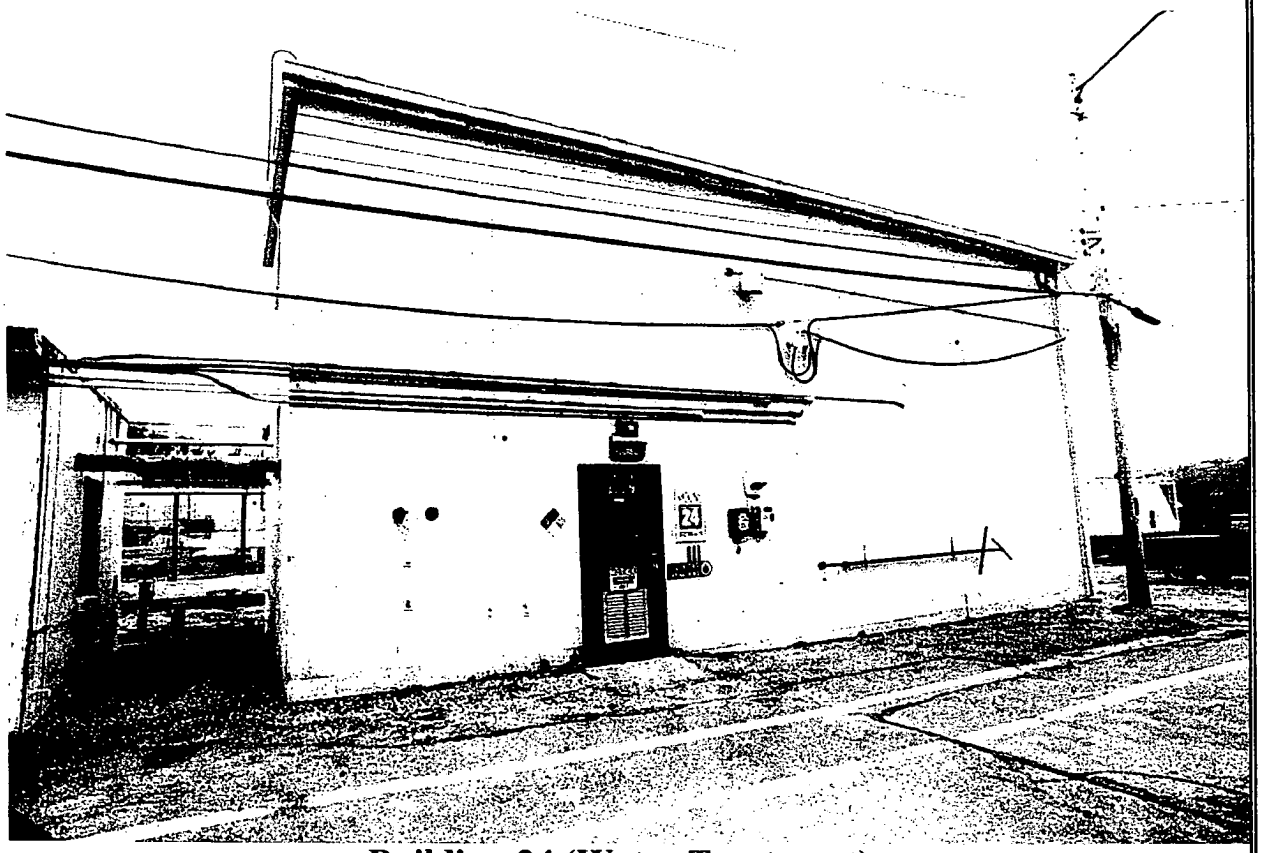
E – Post-Job Conference/Lessons Learned

6. SPECIAL MATERIALS AND EQUIPMENT:

1. Tracked excavator with shear, grapple, hoe ram, concrete cracker/pulverizer, or bucket attachment
2. Rubber tired and tracked front-end loaders
3. Transport equipment for debris as required
4. Fog Cannon
5. Torch Equipment
6. Volvo Dump Truck



PH (Pump House)



Building 24 (Water Treatment)

060677

7.0 DETAILED WORK STEPS:

7.1 SITE INFORMATION:

Building 24 Construction:
Building 24 was constructed in 1965, under the name "Water Treatment Plant." (Ref: drawing 3024400-01001 thru 302400-05001). Building 24 is single story, 840 square foot (42 feet long by 20 feet wide by 20 feet high) building.

Structurally, the building has remained as constructed. The roof is 8" cored, precast concrete slabs with a built up membrane roof. The foundations are set on 5' deep concrete footers reinforced with #4 rebar at 12" each way and each face. The base of the wall footer is reinforced concrete with two #6 reinforcing bars. The floor slab is 8" thick concrete reinforced with #3 rebar on 12" centers lain each way. The walls are 12" concrete block, with joint reinforcing on 16" centers. (Ref: drawing 302400-02001)

There are 2 each large water softener tanks in the building. Each tank contains gravel and approximately 350 cubic feet of resin material from Rohm and Haas Company, Amerlite IR120 NA Resin. The resin material is non hazardous and will become part of the building debris (see MSDS in appendix D).

PH Building Construction:
PH building was one of the original buildings constructed at Mound in 1948 and is located just east of Building 24. Originally, PH building housed, in the east room, the fuel oil pumps that unloaded the rail tank cars to the four underground oil storage tanks located adjacent to P building via an overhead pipe on the pipe stanchions. The pumps were also used to pump fuel oil to the aboveground fuel oil storage tank that was locate in a containment "pit" located across the railroad tracks south of PH building. Also, originally PH building housed, in the east room, the brine pumps that were used to regenerate the water softeners in P building. The west room once housed the chlorination equipment to chlorinate the plant water supply. PH building was later converted to a storage area for utilities related supplies. PH building is a single story, 610 square foot, two room building (37 feet long by 16 feet wide x 10 feet high). (Ref: drawings 351200-04001, 352000-04019, 351200-03001)

Structurally, the building has remained as constructed except the brine pump pit in the east room has been partially filled in with concrete. PH building is a concrete reinforced building. The walls are 8" thick reinforced with #3 rebar on 12" centers, each way, and on each face. The floor slab is 5" thick concrete reinforced with #3 rebar on 12" centers each way. The ceiling is 4" thick concrete reinforced with #3 rebar on 6" centers. There are 2 each concrete beams (1'0" x 1'2") that run north and south that support the ceiling. The concrete beams are reinforced with 2 each #8 rebar and 1 ea. #6 rebar. (Ref: drawing 351200-03001)

7.2 NATIONAL HISTORIC PRESERVATION ACT (NHPA)
PH Building is one of Mound Facility's' original structures built to support the polonium processing and research mission. Consequently, the Ohio Historic Preservation Office (OHPO) has determined PH Building to be a historic building based upon its role in the polonium mission. Accordingly, the demolition of this structure was determined to be an adverse impact upon a historic structure. Consistent with guidelines established by OHPO in a Memorandum Of Understanding (MOU) between DOE and the Advisory Council on Historic Preservation, a documentation package was prepared to mitigate the adverse impact. The mitigative documentation package has been completed and the demolition of this structure can proceed without the need for any additional evaluations of the activities to affect or impact cultural resources or historic property.

Building 24 is not listed as a historic structure with the Ohio Historic Preservation Office (OHPO). No mitigative documentation package is required.

IMPORTANT: However, if any items or artifacts are discovered as this project progresses, the Cultural Resource Representative will be notified at extension 4080. Work will be temporarily suspended until which time the items or artifacts have been recovered.

IMPORTANT NOTE: All workers have Stop Work Authority. Situations where stop work authority is to be exercised are:

- To stop unsafe work.
- To stop unauthorized work, for example, work outside the scope of this work package.

7.3 SITE PREPARATION & MOBILIZATION

7.3.1 Site Access Control

NOTE: Coordinate set up of work zone boundary with personnel in Building 104 and trailers west of Building 104 and with work activities around the rail spur.

Access to the work zone boundary will be controlled using fencing and/or with barricade tape as directed by the Project Foreman. Proper signage will be placed at all access points to the work zone.

The work zone is not to be entered by anyone not directly involved with the demolition unless they have contacted the Project Construction Manager or Project Foreman in advance.

7.3.2 Sediment/Storm Water Control

7.3.2.1 Cover field grates with covers/sheeting for silt protection sewer gratings (See maps Appendix C) and install sediment/storm water control silt fences around designated construction area, as needed. Protect Sanitary Sewer and utility access manholes with steel plates, as needed. Reference OPA980099, Storm Water Pollution Prevention Plan (latest issue). Coordinate and evaluate effectiveness of controls periodically throughout demolition activities with Environmental Compliance PoC.

7.3.2.2 Ensure spill kit is in area and available and adequate to prevent any liquid contaminants from entering storm drains or drainage ditch. Employees shall report any observed spills or releases to a Site Supervisor by dialing 608-8293 or 608-8294 or via NEXTEL phone at Site Sup1 or Site Sup2 or AASecurity.

7.3.3 Clear Area and Mark/Protect Utility Equipment and Monitoring Wells

7.3.3.1 The area around the buildings will be cleared of obstacles as appropriate. Coordinate with site Safety and Health and Environmental Compliance.

7.3.3.2 Mark (with visible stakes), construct barriers to protect structures/utility equipment, or remove as needed:

NOTE: The Vista Maps may be incomplete. Walk down the area inside the demolition zone to verify that all of the following structures are adequately protected from damage.

- Fire line Post Indicating Valve (PIV).
- Domestic Water Post Indicating Valve (PIV).
- Monitoring wells within construction area. (See Vista Maps in Appendix C)
- Telephone cabinet by PH building
- Abandoned fuel oil valves (2 ea.) South of PH building
- Light and power poles.
- Manhole and Storm sewers

7.3.4 Temporary Utilities

The only temporary utility that may be required is water. If domestic water is utilized, ensure backflow prevention is present. Coordinate with site Safety and Health and Environmental Compliance PoCs. Water will be used to control dust emissions. Coordinate with Utilities Group/Utilities Package for services needed.

7.3.5 Temporary Facilities

This project will use the existing BOSS project trailer complex located in the existing Mound "C" parking lot.

7.3.6 Temporary Communications

Temporary communications are required (cell phone, radios) as equipment for hearing plant announcements and emergency notifications have been removed prior to demolition.

7.3.7 Staging Areas

The project site is of sufficient size to be used as a staging area for materials needed / generated.

7.3.8 Erosion/Dust Control Measures

Control measures will be instituted to mitigate effects of excess storm water run-on/ run-off and the effects of erosion. The site Storm Water Pollution Prevention Plan, OPA980099 (latest issue) is written to comply with the site National Pollutant Discharge System (NPDES) Permit {OAC 3435-33}. The requirements of OPA 980014 Section 2.11, Fugitive Dust Control will be followed in this work package (Reference Table 1).

7.3.8.1 Installation of Silt Fence

In order to prevent excess debris, soils, silt or other harmful materials from entering surface streams or the storm sewer system a retention barrier will be erected where appropriate. This barrier will consist of industry standard "silt fence." Where silt fence installation is impractical, straw bales will be used. Periodic inspections will be made by the project Superintendent or designee to ensure the fence is functioning properly. If, in the opinion of the Job Superintentent, the fence is not functioning properly, steps will be taken to re-enforce or alter the configuration until satisfactory results are achieved.

7.3.8.2 Installation of Fugitive Emissions Controls

The goal of fugitive emission controls is no visible dust/emissions. Best available technology (BAT) determination for the demolition of Building 24 and PH is reasonably available control measures (RACM). Reasonably available control measures (RACM) will be employed to maintain fugitive particulate emissions as low as reasonably achievable. Visual particulate emissions shall not exceed 20% opacity as a three-minute average for building demolition. Mitigating controls to be employed include, but are not limited to:

- Use of fixatives on internal and external surfaces, removal of loose paint and decontamination prior to demolition.
- Use of fixatives in-situ during work or prior to pauses in work (i.e. weekends and holidays)
- Controlled water misting of the building demolition area and common waste zone by misters installed on equipment, portable towers or operated by trained personnel.

The intent will be to add enough water to control fugitive emissions without over-saturating the area and creating undesirable run-off. Periodic inspections will be made by the Job Superintendant or designee to assure fugitive emissions controls are achieving the desired effect and meeting acceptable standards. Reference Table 1, Airborne Contamination Protection Methods, below.

Table 1 Airborne Contaminant Protection Methods

Dust Generating Activities	Administrative and Engineering Dust Control Measures
Building Demolition	• Applying dust control materials such as water and surfactants
Hauling Material and Equipment	• Reducing vehicle speeds (<20 mph) • Covering truck beds when transporting materials • Keeping soil levels in vehicles below the vehicle sides • Wetting roads used for transport • Wet sweeping or otherwise removing soil and mud deposits from paved roadways and parking areas
Vehicle and Equipment Traffic	• Reducing vehicle speeds (<20 mph) • Covering truck beds when transporting materials • Wetting roads used for transport • Minimizing unnecessary traffic on roadways, parking areas, and areas around field activities
Excavation	• Applying dust control materials water and surfactants • Covering storage piles with a tarpaulin, plastic, etc. • Keeping soil levels in vehicles below the vehicle sides • Minimizing the material drop height during excavation and loading operations • Compacting soils in work areas and in stockpiles at the end of each workday • Changing excavation and transportation method(s) when feasible • Applying vegetative cover or asphalt to project work area at completion of project • Sealing off work areas, stockpiles, etc., before the workday and during lunch breaks
Trenching	• Applying dust control materials water and surfactants • Covering storage piles with a tarpaulin, plastic, etc. • Keeping soil levels in vehicles below the vehicle sides • Minimizing the material drop height during excavation and loading operations • Compacting soils in work areas and in stockpiles at the end of each workday • Changing excavation and transportation method(s) when feasible • Applying vegetative cover or asphalt to project work area at completion of project • Sealing off work areas, stockpiles, etc., before the workday and during lunch breaks

Table 1 Airborne Contaminant Protection Methods (continued)

Dust Generating Activities	Administrative and Engineering Dust Control Measures
Material Loading and Unloading	• Reducing vehicle speeds (<20 mph) • Covering truck beds when transporting materials • Keeping soil levels in vehicles below the vehicle sides • Wetting roads used for transport • Wet sweeping or otherwise removing soil and mud deposits from paved roadways and parking areas
Storage Piles	• Compacting soils in work areas and in stockpiles at the end of each workday • Sealing off work areas, stockpiles, etc., before the workday and during lunch breaks • Covering storage piles with a tarpaulin, plastic, etc. • Applying vegetative cover to storage pile areas at completion of project
Wind Erosion from Work Sites	• Compacting soils in work areas and in stockpiles at the end of each workday • Sealing off work areas, stockpiles, etc., before the workday and during lunch breaks • Covering storage piles with a tarpaulin, plastic, etc. • Applying vegetative cover or asphalt to project work area at completion of project

7.3.9 Permits

The following permits may be applicable to perform this work:

- Penetration Permits
- Hot Work or Burning Permit
- Excavation Permits
- Lock Out Tag Out Permits
- Radiological Work Permits (RWP)
- Certification of equipment
- Sling Inspection

7.3.10 Chemicals/Hazardous Materials

All known sources of chemicals of concern and Asbestos Containing Material will have been removed from the building prior to demolition. Regulated Asbestos Containing Material will have been abated in Building 24 and PH prior to the start of demolition by a licensed asbestos abatement subcontractor or asbestos worker trained Mound personnel.

Material, equipment, and debris (except hazardous material) associated with this project will be evaluated for feasibility to be free-released. When surveys are below release limits, and debris can be protected from being contaminated during demolition, the debris will be free-released. The remainder of the debris will be treated as low-level radioactive waste unless radiological surveys determine waste exceeds 100 nCi/g. Any waste determined to exceed TRU levels will be segregated and packaged accordingly.

Mixed wastes may be encountered during the structure demolition activities. Any hazardous waste material (i.e. Asbestos Containing Material, lead and mercury) encountered during demolition will be abated (as practical) and disposed of according to CH2M Hill Waste Management requirements.

Silica/nuisance dust and lead paint may be encountered during demolition. Engineering/administrative controls (such as water misting) will be used to mitigate the potential hazard to workers and the environment. No torch cutting of painted surfaces will be permitted unless MCP Safety and Health has tested affected paints and found them free of lead. MCP Safety and Health may conduct air monitoring as necessary to maintain applicable annual exposure assessments and compliance with occupational exposure standards.

7.3.11 NESHAPS

The offsite estimated effective dose equivalent (EDE) for the demolition of the Building 24 and PH is less than the 0.1 mrem/year threshold. Therefore USEPA approval is not required for this project. This work plan will contain methods/requirements to mitigate any potential dose that would exceed the threshold level.

7.3.12 Material Disposition

Based on a review of the work to be performed, the Waste Generator and Waste Coordinator determine types (sanitary, hazardous, LLW, LLMW, TRU) and estimated amounts of waste prior to generation. An evaluation of the physical, radiological and chemical properties is made to determine a disposal path for each type of waste. The proposed disposal facility, waste profile, and knowledge of the waste generating process will determine the characterization methodology required for each waste type.

Process knowledge will generally be sufficient to characterize sanitary and hazardous waste for disposal. Sampling and analysis for radiological characterization of radioactive waste will be determined based on process knowledge of the source of the waste. Analytical methods employed include surface contamination measurements, air concentration measurements, alpha spectroscopy, and gamma spectroscopy. All characterization determinations are documented and peer reviewed prior to waste shipment. Material Safety Data Sheets (MSDS) are used to supplement process knowledge of chemical properties of the waste. Where process knowledge is not sufficient to provide a RCRA determination, analysis of waste will be accomplished through the Toxicity Characteristic Leaching Procedure (TCLP) performed by an offsite laboratory.

Procedures controlling waste characterization are contained in Mound Technical Manuals MD-10167, *Radioactive Waste Procedures,* Operations 420: *Waste Stream Characterization* and 428: *Waste Radionuclide Identification and Quantification*, and MD-70523, *Management of Hazardous Waste, Trash, and Recyclable Materials*, Operation 001: *Waste Verification Sampling and Analysis*. Additional direction is contained in these manuals in operations specific to the waste type and container being used.

7.4 PRELIMINARY ACTIVITIES AND VERIFICATIONS

IMPORTANT

7.4.1 Verify all Safe Shutdown Activities Building 24 and PH completed per work package BOSS-40389.

Verified by _____ date: _____
Bill Wahler or designee/email

7.4.2 **NOTE: Electric for Building 104 and Trailer #4 if fed from PH building. The electrical isolation package for Building 24 and PH will address the re-routing of electrical power to Building 104 and Trailer #4 if needed.**

Verify all Mechanical and Electrical Utility Isolation Activities for Building 24, PH, 104, and trailer #4 have been completed per work packages FTS-40393 and FTS-40392, respectively.

Verified by _____ date: _____
Allen Upshaw or designee/email

7.4.3 Contact Robert Coblentz (608-8206) to ascertain if any area in Building 24 and PH constitutes a Rad hazard. If any area constitutes a Rad hazard, coordinate with Rad Controls for RWP/PPE/work controls and revise Demolition Work Package to address Rad hazard. If there is not any Rad hazard, continue with this work package.

HOLD POINT: Radiological Final Status Survey Report complete verification:

Verified by_____ date _____
Rad PoC or email

HOLD POINT: Confirmatory surveys confirm structures not radiologically contaminated and demolition can proceed as planned:

Verified by_____ date _____
Rad PoC or email

7.4.4 The *Pre-Job Briefing Record* must be completed and signed.

Verified by _____ date: _____
Mike Stromberg or designee/email

7.4.5 The Job Specific Hazards Analysis (JSHA) must be reviewed.

Verified by _____ date: _____
Mike Stromberg or designee/email

7.4.6 Notify Gary Weidenbach, Bldg. Mgr., (608-8207) of demolition schedule, potential traffic pattern delays, and building access/egress coordination.

Verified by _____ date: _____
Mike Stromberg or designee/email

IMPORTANT NOTE: During demolition activities, when Buildings 24 and PH are being collapsed, access to roadway north and rail spur south of buildings (as conditions warrant) may be restricted. Complete *Road Closure Form* (See Appendix D) prior to closing road.

7.5 BUILDING DEMOLITION SEQUENCE OF WORK

CAUTION HAZARD: Amberlite zeolite resin in Bldg. 24 water processing tanks is caustic has the potential to burn exposed skin with prolonged exposure. Workers must wear Level D PPE. Review MSDS for in Appendix D.

CAUTION HAZARD: Vehicle traffic hazard. Control traffic flow as necessary. Project Engineering will coordinate the posting of notice on GroupWise/Mound News, several days in advance and during ongoing demolition work, that traffic routes around the demolition area may be interrupted or diverted. Notify the following organizations/personnel that traffic patterns may be disrupted: Jeff Lentz 865-4047 or 608-8293, and the Building Manager, Gary Weidenbach, 608-8207.

CAUTION CONTAMINATES SPILL HAZARD: Ensure spill kit is available to prevent any liquid contaminant from entering storm drains, drainage ditch, or deep wells. Employees shall report any observed spills or releases to a Site Supervisor by dialing 608-8293 or 608-8294 or via NEXTEL phone at Site Sup1 or Site Sup2 or AASecurity.

WARNING HAZARD: Dust Control – Utilize misting & fogging during demolition & road wetting during waste hauling. The goal is no visible dust emissions. Periodically evaluate control methods to determine their effectiveness.

CAUTION HAZARD: If any part of heavy-duty equipment has the potential to come with 10 feet of the power and light poles along the north and east side of PH/24, follow OHSA 29 CFR 1910.333(c)(3)(iii)(A)(2), installing insulating barriers, if feed can not be shutdown and LOTO'd. (See attached Lessons Learned).

CAUTION HAZARD: Struck by flying debris. Establish construction boundary. Wear hardhat, safety glasses, safety shoes, (Level D PPE) and reflective vest inside construction area.

CAUTION HAZARD: Struck by moving equipment.

- Maintain the following distances from operating equipment:
- Shear – 75 feet
- Hoe Ram – 50 feet
- Other heavy duty equipment – 30 feet
- Bobcat – 15 feet

WARNING NOISE HAZARD: Wear hearing protection while running heavy-duty equipment. Follow the requirements of MD-10286 D9.

CAUTION HAZARD: Heat/Cold Stress. Follow the requirements of MD-10286 D13/D16

CAUTION HAZARD: A Hot Work Permit will be required if a torch is used for cutting. Coordinate with site Safety and Health for PPE/work controls before torch cutting due to possible toxic/hazardous fumes (i.e., lead paint/galvanized/stainless steel). Obtain and follow Hot Work permit per MD-10286 O2

Notification of Demolition and Renovation form must be filed with the Regional Air Pollution Control Agency (RAPCA) at least **10 <u>business</u> days before planned demolition of Building 24 and PH.**

HOLD POINT: RAPCA Notification verification

Environmental Compliance PoC_____ Date to Proceed with Demo_____

HOLD POINT: Regulatory requirements met.

Verified by:_____ Date and Time_____
Robert Ransbottom or designee

HOLD POINT: 'COLD & DARK' Review Team Walk-down Completed &Project Manager Authorizes Work to Start:

Project Manager:_____ Date and Time:_____

IMPORTANT NOTE: All workers have Stop Work Authority. Situations where stop work authority is to be exercised are:

To stop unsafe work.
To stop unauthorized work, i.e., work outside the scope of this workpackage.

NOTE: The progression of the building demolition and selection/sizing of demolition equipment will ultimately be determined in the field. However, when a decision is made in the field to deviate from the work plan, the deviation will be discussed with and approved by the Job Supervisor and the Job Status Log will be filled out to document the change. Changes will be evaluated for any increased collapse potential.

NOTE: Demolition preparation is defined in 29CFR1926.850. Workers not familiar with construction standards must meet with Project Supervision and/or Project Health and Safety personnel.

NOTE: Based on radiological screening results, Buildings 24 and PH are not radiological contaminated and will be disposed as non-Rad waste, unless debris pile surveys indicate otherwise.

NOTE: Waste debris created during demolition will be staged as much as possible within the footprint of buildings. After appropriate surveys, it will then be loaded directly into the appropriate packaging or haulers. All waste will be packaged and disposed per CH2M Hill Waste Management requirements.

NOTE: Wind direction must be taken into account when pre-placing personnel operated and/or portable water misting equipment. Place personnel and misting equipment upwind to allow easy water application.

NOTE: Buildings 24 and PH can be demolished in any order.

7.5.1 Structural Demolition

CAUTION HAZARD: Two utility pits exist within the main portion of PH Building. One is on the west side and the other is located on the east side. The east pit has been partially filled in with concrete in the past. Building debris should be utilized to fill these areas to prevent demolition equipment from dropping into these utility pits.

7.5.1.1 Demolish and dispose of stanchion lines north of PH Building. Dismantle stanchion lines connected from PH building structure to west side of Building 104 across road.

7.5.1.2 Use the existing Building 24 and PH slab for load out surface for loading debris and placing into appropriate hauling containers or trucks.

7.5.1.3 Obtain "Excavation / Soil Disturbance" and remove any obsolete utility poles. Contact Allen Upshaw 865-4894 or Nextel 673-2874 to verify all conductors on the utility poles are disconnected / air gapped/ removed. Using heavy duty equipment, remove the designated pole

NOTE: Soil sample locations (within a 15 ft. perimeter around the building), O04846 (Surface Sample), B17, B18, and SCR129 (Boreholes), have soil sample results above screening criteria. These sample locations will be included in PRS 441. Sample locations B17, B18, and SCR129 are in an URMA (along south sides of Buildings PH and 24). Three of the sample locations, O04846, B18, and SCR129 show Thorium 232 results above Cleanup Objective and Hot Spot Criteria. The digitized coordinates of the surface sample and boreholes are as follows:

Sample Location	Easting	Northing
O04846	1464603.340	598120.171
B17	1464635.700	598129.140
B18	1464618.400	598127.700
SCR129	1464622.700	598155.040

7.5.1.4 The location of these sample locations will be marked to prevent them from being disturbed during slab and foundation demolition activities.

7.5.2 Slab and Foundation Demolition

CAUTION HAZARD: Strike underground utilities. Obtain Excavation permit and follow its requirements per MD-10286 O5

CAUTION HAZARD: If any part of heavy-duty equipment has the potential to come with 10 feet of the power and light poles along the west ends of WH-1,2,3, follow OHSA 29 CFR 1910.333(c)(3)(iii)(A)(2), installing insulating barriers, if feed can not be shutdown and LOTO'd. (See attached Lessons Learned)

WARNING HAZARD: Dust Control – Utilize misting & fogging during demolition & road wetting during waste hauling. The Goal is no visible dust emissions.

WARNING NOISE HAZARD: Wear hearing protection while running heavy-duty equipment. Follow the requirements of MD-10286 D9.

CAUTION HAZARD: Struck by flying debris. Establish construction boundary. Wear hardhat, safety glasses, safety shoes, and high visibility clothing (i.e.; highway reflective vests; fluorescent shirts) inside construction area.

CAUTION HAZARD: A Hot Work Permit will be required if a torch is used for cutting. Coordinate with site Safety and Health for PPE/work controls before torch cutting due to possible toxic/hazardous fumes (i.e., lead paint/galvanized/stainless steel).

CAUTION HAZARD: Struck by moving equipment.

- Maintain the following distances from operating equipment:
- Shear – 75 feet
- Hoe Ram – 50 feet
- Other heavy duty equipment – 30 feet
- Bobcat – 15 feet
-

CAUTION HAZARD: Burns/fire. Utilize Burn Permit, fire protection, and wear appropriate PPE

CAUTION HAZARD: Heat/Cold Stress. Follow the requirements of MD-10286 D13/D16

NOTE: The progression of the building demolition and selection/sizing of demolition equipment will ultimately be determined in the field. However, when a decision is made in the field to deviate

from the work plan, the deviation will be discussed with and approved by the Job Supervisor and the Job Status Log will be filled out to document the change. Changes will be evaluated for any increased collapse potential.

NOTE: The area bordering south of Building 24/PH is an URMA. Coordinate demolition activities with Environmental Restoration group (James Fontaine 608-8220 and/or Monte Williams 865-4543 or 608-8005) and Environmental Compliance (Ron Paulick 865-4080 or 608-8227).

NOTE: If soil staining or unusual fumes/odors are noted during slab/foundation excavations, contact IH (Chris Ahlquist 608-8203) or Safety (Doug Hanson or 608-8008) and Environmental Compliance (Ron Paulick 865-4080 or 608-8227).

IMPORTANT: Exercise caution when demolishing and removing slab and foundation/footers to not damage underground utilities, historical underground fuel oil piping around PH Building. Be alert to and reference Underground Utilities Vista Maps in Appendix C and referenced drawings for the following utility system lines running near the foundations/slabs of Building 24 and PH. **Excavation permit required for these activities.**

- Do not disturb, abandoned underground 6" oil pipe/1 ¼" steam pipe enclosed in metal conduit south of PH Building to railroad tracks. NOTE: Suspect ACM insulation in conduit and residual oil in line. (Ref: 351200-04001)
- Do not disturb, abandoned underground 6" oil pipe/4" steam pipe enclosed in metal conduit exiting S.E corner of PH Building to old above ground storage tank. NOTE: Suspect ACM insulation in conduit and residual oil in line. (ref: 351200-04001 and 352000-04019)
- Abandoned underground 8", water pipe, running thru PH Building west utility pit, can be abandoned in place.
- Abandoned 3" brine and 2" water pipe, running from east side of PH Building, can be abandoned in place.
- Underground water and fire water piping around Building 24, can be abandoned in place
- Underground electrical on south end and N.E. corner of PH building. Communication conduit on N.E. corner of PH building can be abandoned in place.
- Remove storm sewer piping associated with Building 24 floor slab.

7.5.2.1 Using heavy equipment, for Building 24 and PH building, break apart the concrete slabs and Building 24 and PH building foundation walls/footers to 3 feet below grade, torch cut the rebar if required (Hot Work Permit is required) to support demolition and downsizing. During the concrete demolition, use heavy equipment flip concrete slabs to assist radiological control personnel to perform radiological screening of ground contact concrete surfaces. Based on radiological screening results, transport to designated disposal area as directed by Waste Management PoC. Debris will be sized and placed into appropriate hauling containers or trucks.

7.6 Site Remediation & demobilization

CAUTION HAZARD: Heat/Cold Stress. Follow the requirements of MD-10286 D13/D16

CAUTION FALLING HAZARD: Utilize fall protection, barricades, or man-lifts

CAUTION HAZARD: Struck by moving equipment.

- Maintain the following distances from operating equipment:
- Shear – 75 feet
- Hoe Ram – 50 feet
- Other heavy duty equipment – 30 feet
- Bobcat – 15 feet

7.6.1 Grading, Seeding, & Mulching

7.6.1.1 Erect any additional erosion control/protection fencing or other materials as needed in compliance with Environmental Compliance group PoC (Ron Paulick, 865-4080 or 608-8227) instructions. Remove debris/rubble/rock as necessary to provide smooth continuous grade and restore the area by grading and filling with appropriate amount of gravel/soil to grade to drain. Coordinate and institute erosion control/protection in accordance with Environmental Compliance PoC instructions

7.6.1.2 Soil sample locations will be remediated as part of the PRS 441 remediation activities. Final site restoration will be performed as part of the PRS 441 remediation activities by the Environmental Restoration group.

7.6.1.3 Remove any temporary protection/structures used to protect Building 24 and PH utility equipment/stanchions, PIVs, sanitary/storm sewer grates/manholes, and utility access manholes.

7.6.1.4 Remove silt protection covers from field grates and any remaining sediment/storm water control fences, straw bales and sand bags, unless it is beneficial to keep silt/sediment control devices in-place for further demolition/remediation work.

7.6.1.5 Remove sediment and debris that has collected at the storm sewer gratings and along roadways and curbing.

7.6.2 Demobilize Construction Equipment

CAUTION FALLING HAZARD: Utilize fall protection, barricades, or man-lifts

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Remove dust control water distribution system, temporary power (if used), fencing and any traffic control. Scan equipment for radiological contamination prior to leaving area, as required, dependent upon in-process Rad surveys.

Note: Insert the activities to be performed during the job. Describe the specific methods of accomplishing these activities and appropriate level of detail based on the complexity, hazard, and skill of the craft. Activities listed must be grouped under the Work Package phases listed in item 5.

9. REVIEW SIGNATURES:

Written by: Mark J Schmitt — Date: 9/14/04 Phone: 608-8284

Superintendent: M.M. Schmitt — Date: 9/15/04 Phone: 608-8202

Foreman: M.M. Schmitt — Date: 9/15/04 Phone: 608-8202

Project Eng. Mgr: R.C. Rowlettom — Date: 9/15/04 Phone: 608-8201

Industrial Safety & Hygiene: [illegible] — Date: 9/14/04 Phone: 608-8008 608-8203

Rad. Controls: [illegible] — Date: 9/14/04 Phone: 0754578

ES&C: Ronald Paulick — Date: 9/15/04 Phone: 608-8227

Waste Mgmt: Dan Kyle — Date: 09/14/04 Phone: 673-8384

Bldg. Mgmt: Gary L. Weidenbach — Date: 09/16/04 Phone: 608-8207

Classification: : ____ N/A ____ Date: / / Phone:

Other: ____ Date: / / Phone:

Note: Project Manager has the authority to N/A signatures if review is not applicable.

10. USQ SCREEN / DETERMINATION REQUIRED? ~~YES~~ X NO DJW 9/16/04

Brief Explanation_ Shutdown of Building 24 and PH does not effect any nuclear facility

USQ Trained Person: Gary L. Weidenbach — Date: 09/16/04 Phone: 608-8207

11. AUTHORIZATION SIGNATURE:

Project Manager: [illegible] — Date: 9/16/04 Phone: 608-8207

12. WORK PACKAGE CLOSURE:

Job Supervisor: ____ Date: / / Phone:

Project Manager: ____ Date: / / Phone:

RETURN PHA TO IS&H AT JOB COMPLETION.

APPROVAL CONTINUATION SHEET

Reviews:

Name	Signature	Date	Department

Reference Drawings	Rev.	Reference Procedures	Rev.

WORK PLAN REVISION SHEET

1. WORK PACKAGE TITLE: Demolition of Buildings 24 and PH
2. WORK PACKAGE NUMBER: BOSS-40391 - 00.

[Note: Mark this section in color]

☐ Office Master Copy (Original Approval Signatures) ☐ Field Working Copy (Original Field Sign -Offs) ☐ Review Copy ☐ Other Copy

Revision Description: (attach page revisions to form)

Reviewed by:	Name	Signature	Date
Project Engineering:			
Project Superintendent/Foreman:			
Radiological Operations:			
Industrial Safety & Hygiene:			
Waste Management:			
Environmental Safeguards & Compliance:			
Building Manager:			
Other:			

Approved by:

CH2M Hill Project Manager

Name Signature

Date

REVISION LOG

1. WORK PACKAGE TITLE: Demolition of Buildings 24 and PH

2. WORK PACKAGE NUMBER. BOSS-40391 - 00.

Revision	Reason	By	Dat

Appendix A

Preliminary Hazards Analysis (PHA)

Job Safety & Health Analysis (JSHA)

APPENDIX A

Preliminary Hazard Analysis (PHA)For Work Package Activities

SECTION A, INDUSTRIAL SAFETY - TO BE COMPLETED BY THE INDUSTRIAL SAFETY AND HEALTH REPRESENTATIVE
Identify engineering/administrative controls or PPE as required, keyed to the following checklist items. Insert any required and/or other special actions to be taken because of the particular hazard (i.e. lead compliance plans, confined space plans, hearing conservation programs, etc.), Including any notations for future Hazard Analyses. Additionally, identify any activities which DOE prescribed Occupational Safety and Health standards, that require protective measures be designed, inspected, or approved by a professional engineer or other competent person. (Use Section F if additional space is needed.)

Item	Exist	Work Package Phase	Comments, Controls, Methods of Compliance
Access/Blockage:			
Blockage of exits or means of egress	No	N/A	
Blockages/obstructions (Identify)	Yes	3	Coordinate road blockages around Building 24 and PH with points of contact listed in work package and road closure form (see Appendix D)
Confined space entry **(permit)**	No	N/A	
Emergency alarms or evacuation plans required	Yes	All	Cell phones will be used as the main line of communicating alarms to personnel.
Obstruction of fire protection equipment (pull boxes, hydrants, fire department connections, control panels. fire extinguishers, etc.)	Yes	All	Fire hydrant will be protected, but still available for emergency use.
Traffic control/flagman	Yes	All	Provide sufficient flagmen and signage to ensure safe traffic control
Flammable/Explosive:			
Burning, welding, hot-work (Fire Watch) **(permit)**	Yes	2 & 3	Obtain & follow Hot Work Permit per MD-10286 operation O2, Hot Work Permit Procedures. Paint may contain lead, do not torch cut painted surfaces without verification by IH or Safety PoC.
Chemical compatibility of corrosives/flammables	No	N/A	
Explosive/flammable atmosphere	No	N/A	
Explosives	No	N/A	
Fire protection system/equipment outage	No	N/A	
Fire Hazards Analysis/Fire Engineer Approval	No	N/A	
Flammable liquids/gases	Yes	2 & 3	Acetylene & oxygen – Utilize proper tank restraints. Follow Mound Procedure MD-10286, H1.
Powder-actuated tools **(permit)**	No	N/A	
Special Fire Protection Equipment Required	No	N/A	
Chemicals:			
Chemical process safety	No	N/A	
Compressed gas cylinders	Yes	2 & 3	Follow Mound Procedure MD-10286, operation H1, Use of Compressed Gas Cylinders, Manifolds, and Regulators, when handling oxygen and acetylene gas cylinders.
Emergency eyewash/shower available	No	N/A	
Elevated/Aerial Work:			
Crane operations, overhead or mobile	No	N/A	
Critical lifts (heavy or high value loads)	No	N/A	
Elevated work/fall protection	Yes	All	Follow Mound Procedure MD-10286, operation M8, Fall Protection / Elevated Work Surface.
Forklifts, aerial lifts or material handling equipment	Yes	All	Follow Mound Procedure MD-10286, operation M8, Fall Protection / Elevated Work Surface.
Hoisting and rigging	No	N/A	
Overhead utilities (Identify)	Yes	All	LOTO overhead utilities per MD-10444, Lockout / Tag Out Procedure. If LOTO not feasible, follow MD-10395 electrical safety manual to work within 10 feet any overhead energized.

APPENDIX A

Preliminary Hazard Analysis (PHA)For Work Package Activities (Continued)

SECTION A, INDUSTRIAL SAFETY - TO BE COMPLETED BY THE SAFETY AND HEALTH REPRESENTATIVE
Identify engineering/administrative controls or PPE as required, keyed to the following checklist items. Insert any required and/or other special actions to be taken because of the particular hazard (i.e. lead compliance plans, confined space plans, hearing conservation programs, etc.), Including any notations for future Job Safety and Health Analysis(JSHA). Additionally, identify any activities which DOE prescribed Occupational Safety and Health standards that require protective measures be designed, inspected, or approved by a professional engineer or other competent person. (Use Section F if additional space is needed.)

Item	Exist	Work Package Phase	Comments, Controls, Methods of Compliance
***Lockout/tagout, outages, disconnects* (permit)**			
• Electrical	Yes	All	Electrical isolation of the facility is accomplished during Utilities Isolation Activities. LOTO overhead utilities per MD-10444, Lockout / Tag Out Procedure as needed. If LOTO not feasible, follow MD-10395 electrical safety manual to work within 10 feet any overhead energized lines
• Mechanical (steam, hydraulic, pneumatic, gravity)	No	N/A	
• Interlocks	No	N/A	
• Chemical	No	N/A	
• Radiological	No	N/A	
Outages of the plant public announcement (PA) system or the emergency notification system	Yes	All	Plant PA system out of service. Use cell phones and air horns for emergency notifications.
Building Systems Alarms - Ensure systems are not functional by contacting: Fire Department Security Facilities Services.	No	N/A	
Alarm Disable/Disconnect	No	N/A	
Structure Related:			
Modification to Fire Wall/Door	No	N/A	
Penetrations into walls, floors, etc. **(permit)**	No	N/A	
Plastic sheeting or wood framing/enclosures	No	N/A	
Structural Modification	Yes	All	Building Structural Engineering Survey per OSHA 29 CFR 1926.850 (see Appendix D). Demolish building per work package.
Work impacting adjacent normally occupied areas	Yes	All	Coordinate PH and 24 Building demolitions work zone boundaries with personnel in Building 104, trailers west of Building 104, and rail spur activities.
Temporary Requirements:			
Temporary heating facilities	No	N/A	
Temporary/portable buildings or structures	No	N/A	
Temporary service hook-ups (Identify)	Yes	All	Water hydrant for misting, including backflow prevention, if required or fog cannon & self contained water tanks
Public utilities (Identify)	No	N/A	
Lighting/illumination/adequacy	No	N/A	
Miscellaneous:			
Machine guards	No	N/A	
Off-shift work	Yes	All	As determined by Project Manager
Repetitive work	No	N/A	
Other (Specify)	None	N/A	
Work in attics, ceilings, chases, or crawlspaces	No	N/A	
Work Requiring Scaffolding **(inspection required)**	No	N/A	
Electrical:			
Electrical hazards	Yes	All	Electrical isolation of the facility is accomplished during Utilities Isolation Activities. LOTO overhead utilities per MD-10444, Lockout / Tag Out Procedure as needed. If LOTO not feasible, follow MD-10395 electrical safety manual to work within 10 feet any overhead energized lines.

APPENDIX A

Preliminary Hazard Analysis (PHA)For Work Package Activities (Continued)

SECTION A, INDUSTRIAL SAFETY - TO BE COMPLETED BY THE SAFETY AND HEALTH REPRESENTATIVE
Identify engineering/administrative controls or PPE as required, keyed to the following checklist items. Insert any required and/or other special actions to be taken because of the particular hazard (i.e. lead compliance plans, confined space plans, hearing conservation programs, etc.), Including any notations for future Job Safety and Health Analysis(JSHA). Additionally, identify any activities which DOE prescribed Occupational Safety and Health standards that require protective measures be designed, inspected, or approved by a professional engineer or other competent person. (Use Section F if additional space is needed.)

Item	Exist	Work Package Phase	Comments, Controls, Methods of Compliance
Grounding of electrical equipment	No	N/A	
Soils/Excavation:			
Underground utilities (Identify)	Yes	3 & 4	Utilize Excavation/Soil Disturbance Permit, MD-10286, O5 before slab demolition
Trenching/Shoring (permit)	No	N/A	
Hazards due to condition of facility or terrain (Identify)	No	N/A	
Any soil disturbance	Yes	3 & 4	(Note: Check for URMAs, historical underground oil pipe around PH) Obtain & follow Excavation/Soil Disturbance Permit, MD_10286, O5 before slab demolition and utility pole removal. Mark known soil contamination locations. Soil contamination locations within the 15 ft. perimeter of the buildings will be included in PRS 441.

SECTION B, INDUSTRIAL HYGIENE - TO BE COMPLETED BY INDUSTRIAL HYGIENE REPRESENTATIVE
Identify engineering/administrative controls or PPE as required, keyed to the following checklist items. Insert any required and/or other special actions to be taken because of the particular hazard (i.e. lead compliance plans, confined space plans, hearing conservation programs, etc.), Including any notations for future Job Safety and Health Analysis (JSHA) . Additionally, identify any activities which DOE prescribed Occupational Safety and Health standards that require protective measures be designed, inspected, or approved by a professional engineer or other competent person. (Use Section F if additional space is needed.)

Item	Exist	Work Package Phase	Comments, Controls, Methods of Compliance
Asbestos/Fibers:			
Asbestos	Yes	3	Do not disturb potential ACM insulation around historical underground oil lines around PH Building.
Removal of ceiling tiles*	No	N/A	
Insulation/man-made mineral fibers (☐ MSDS available)*	No	N/A	
Hazardous Materials:			
Beryllium	No	N/A	
Cadmium	No	N/A	
Chlorofluorcarbon (CFC)	No	N/A	
Coal, tar or asphalt products	Yes	3	Dispose of roofing material, containing tar and asphalt products, as construction debris.
Lead	Yes	All	Exposure to airborne lead during torch cutting. Contact Industrial Hygiene to verify absence of lead in paint or remove paint prior to torch cutting
Mercury	No	N/A	
Polychlorinated biphenyls (PCBs)	No	N/A	
Carcinogens (☐ MSDS available)*	No	N/A	
Chemical/Corrosives:			
Chemicals/solvents (☐ MSDS available)*	No	N/A	
Corrosives/acids/caustics (☐ MSDS available)*	No	N/A	Amberlite zeolite resin in Bldg. 24 water processing tanks is caustic has the potential to burn exposed skin with prolonged exposure. Workers must wear Level D PPE. Review MSDS for in Appendix D.

***NOTE:** Requires a description of the materials involved which present a hazard. Identify the physical location of the MSDS.

APPENDIX A

Preliminary Hazard Analysis (PHA)For Work Package Activities (Continued)

SECTION B, INDUSTRIAL HYGIENE - TO BE COMPLETED BY INDUSTRIAL HYGIENE REPRESENTATIVE
Identify engineering/administrative controls or PPE as required, keyed to the following checklist items. Insert any required and/or other special actions to be taken because of the particular hazard (i.e. lead compliance plans, confined space plans, hearing conservation programs, etc.), Including any notations for future Job Safety and Health Analysis (JSHA) . Additionally, identify any activities which DOE prescribed Occupational Safety and Health standards that require protective measures be designed, inspected, or approved by a professional engineer or other competent person. (Use Section F if additional space is needed.)

Item	Exist	Work Package Phase	Comments, Controls, Methods of Compliance
Ventilation/Air:			
Abrasive blast (☐ MSDS available)*	No	N/A	
Coating/painting (☐ MSDS available)*	No	N/A	
Dusty operations	Yes	3 & 4	Utilize dust control measures as appropriate from Table 1 (OPA980014).
Foam in Place Operations	No	N/A	
Spraying/generation of mists*	Yes	3 & 4	Demolition dust control water misting during demolition and road wetting during waste hauling. Control misting water run-off in accordance with OPA 980099, Storm Water Pollution Prevention Plan (latest issue).
Ventilation or Air Monitoring requirements	Yes	3 & 4	Air monitoring for potential silica during demolition activities wil be performed as needed for annual site assessment.
Miscellaneous:			
High Pressure systems	No	N/A	
Lasers	No	N/A	
Noise in excess of 85 dBA	Yes	3	Hearing protection required during noise hazard activities. Follow requirements of MD-10286, D9.
Blood-borne pathogens*	No	N/A	
Temperature extremes (heat or cold stress)	Yes	All	Discuss in daily pre-job briefings & monitor per MD-10286 Operations D13/D16
Welding, brazing, or thermal cutting operations **(permit)**	Yes	2, 3,& 4	Hot Work Permit Required. Paint may contain lead, do not torch cut painted surfaces without verification by IH.
Hazardous Waste Operations (HAZWOPER)*	No	N/A	
Other (specify)	None	N/A	

***NOTE:** Requires a description of the materials involved which present a hazard. Identify the physical location of the MSDS.

Preliminary Hazard Analysis (PHA)For Work Package Activities (Continued)

SECTION C, RADIOLOGICAL PROTECTION - TO BE COMPLETED BY RADIOLOGICAL CONTROLS REPRESENTATIVE
Identify engineering/administrative controls or PPE as required, keyed to the following checklist items. Insert any required and/or other special actions to be taken because of the particular hazard (i.e. RWP, ALARA Plan, etc.), Additionally, identify any activities which DOE prescribed Occupational Safety and Health standards that require protective measures be designed, inspected, or approved by a professional engineer or other competent person. (Use Section F if additional space is needed.)

Item		Exist	Work Package Phase	Comments, Controls, Methods of Compliance
Location:	Controlled Areas (Specify)			
•	Radiologically Fixed Contaminated Areas (FCAs)	No	N/A	
•	One Radiological Contamination Area (CA)	No	N/A	
•	One Radiological Materials Management Area (RMMA)	No	N/A	
	Other (Specify)	None	N/A	
Activities:	Digging/Soil Removal (permit)	Yes	3 & 4	Survey concrete (soil contact side) following slab removal. Excavation permit required for slab/foundation removal and site remediation activities. Mark known soil contamination locations so they will not be disturbed during demolition activities. Soil contamination locations within the 15 ft. perimeter of the buildings will be included in PRS 441.
	• URMA	Yes	All	Demolition Site is located near URMA. Do not disturb URMAs southern sides of building 24 and PH.
	Welding, burning, grinding, hammering, chipping, or scraping of contaminated materials	No	N/A	
	Decontamination	No	N/A	
	- Site Remediation	No	N/A	
	Waste Disposal	No	N/A	
	Other (Specify) – Radiological Survey, Evaluation & Posted	No	N/A	
Sources:	X-Ray equipment, sealed, or unsealed sources	No	N/A	
Controls:	Radiological Work Permit	No	N/A	
	ALARA Plan	No	N/A	
	Other	None	N/A	

APPENDIX A

Preliminary Hazard Analysis (PHA)For Work Package Activities (Continued)

SECTION D, ENVIRONMENTAL COMPLIANCE- TO BE COMPLETED BY ENVIRONMENTAL COMPLIANCE REPRESENTATIVE
Identify engineering/administrative controls as required, keyed to the following checklist items. Insert any required and/or other special actions to be taken because of the particular hazard. Additionally, identify any activities which are DOE or EPA prescribed protective requirements. (Use Section F if additional space is needed.)

		Exist	Work Package Phase	Comments, Controls, Methods of Compliance
Conditions:	Fugitive Dust **(refer to Table 1 below)**	Yes	All	OPA 980014 Section 2.11. Use water misting during demolition & road wetting during waste hauling.
	Storm Water Runoff	Yes	All	Install sediment/storm water protective "slip cover" around storm drain grating & silt fencing. Referenc OPA 980099, Install sand bags/silt fences as needed.
	Erosion Control	Yes	All	Coordinate erosion control methods with Environmental Compliance (Ron Paulick, 608-8227). Final site restoration will be performed as part of PRS 441 restoration.
	NESHAPS Calculation	Yes	All	Emission Levels determined to be below requirement. No US EPA approval required for these buildings.
	National Historic Preservation	No	N/A	Building 24 is not listed as a historic structure with the Ohio Historic Preservation Office (OHPO). Mitigative documentation package has been completed for PH Building.
	• Artifacts found	Yes	All	If any items or artifacts are discovered as this project progresses, the Cultural Resource Representative will be notified @ extension 4080. Work will be temporarily suspended until which time the items or artifacts have been recovered.
	Safe Drinking Water Act	No	N/A	All Utilities were isolated with Utility Isolation Work Package
	• Potable water	Yes	All	The potable water system will be used for dust suppression, otherwise the building was disconnected from the potable water system during Utilities Isolation Work Package.
	• Backflow preventers for misting	Yes	All	Install backflow prevention for water misting source as directed by Environmental Compliance PoC
	Emergency Spill Response Materials (Confirm process lines are drained)	Yes	All	Ensure spill kits are available. Employees shall report any observed spills or releases to a Site Supervisor by dialing 608-8293 or 608-8294 or via NEXTEL phone at Site Sup1 or Site Sup2 or AASecurity.
	Locate Monitoring Wells	No	N/A	No monitoring wells within project site boundary
Notifications:	RAPCA Notification for Asbestos	No	N/A	All regulated asbestos material was removed during a previous phase of this project
	RAPCA Notification for Demolition	Yes	3	Required 10 business days before beginning demolition activity
	Emergency Spill Response Notification	Yes	All	Employees shall report any observed spills or releases to a Site Supervisor by dialing 608-8293 or 608-8294 or via NEXTEL phone at Site Sup1 or Site Sup2 or AASecurity.
	Other	None		

Preliminary Hazard Analysis (PHA)For Work Package Activities (Continued)

SECTION E, WASTE MANAGEMENT- TO BE COMPLETED BY WASTE MANAGEMENT REPRESENTATIVE *Include any required and/or other special actions to be taken because of the particular hazard. Additionally, identify any activities which are required by DOE, Nevada Test Site, Envirocare or other waste site.* (Use Section F if additional space is needed.)

	Quantity Expected Cu. Ft.	Work Package Phase	Radiological Characterization	Packaging Requirements	Mode of Disposal
Types:					
Sanitary Landfill Waste: • Concrete • Steel & Copper Piping • Metal Roofing • PVC • Electrical Wiring • Fiberglass Insulation • Wood	15,500	3	No elevated radioactivity levels	Trucks, rolloffs	Trucks to sanitary landfill.
Hazardous Waste: • RCRA Hazardous Waste • Asbestos • Other	None				
Mixed Waste	None				
Low Level Radiological Waste: • Building Debris • Below grade	None				
Transuranic (TRU) Waste	None				
NOTE: 1. Sealed pressure vessels will need to be at <1.5 atmosphere if present. 2. Any items not previously evaluated are to be set aside for evaluation by Waste Management prior to disposal.					
Other:					
Material sent off-site Fill out MD-200180 Attachment 1 (see below)	None				
Material sent to concrete crusher Fill out MD-200180 Attachments 1 & 2 (see below)	None				

SECTION F - OTHER CONDITIONS, CONCERNS, OR SUPPLEMENTAL INFORMATION FROM SECTIONS A THROUGH C INCLUDING APPLICABLE LESSONS LEARNED:

EMERGENCY PREPAREDNESS

- Site Notification Procedures
  Use **911** for all emergency services onsite. This is the first response for any emergency. If using a cell phone, dial **AAA911** (NEXTEL). Any injury, no matter how minor, shall be reported immediately to the Medical Department for evaluation and treatment. The injured employee shall report any injury to the supervisor in charge or designee.

  Employees will be notified of emergency or abnormal conditions by the project two-way radios. Additionally, unique sheltering and evacuation signals are available should site-wide protective actions be necessary.
  Evacuation: Continuous air horn blasts
  Take Shelter: Two air horn blasts – pause – two air horn blasts

- Evacuation Route/Assembly Areas
  Assembly area for 24/PH is the north roadway outside of the safe shutdown boundary (see Site Map in Appendix C).

- Take Shelter Area
  Be aware of threatening weather and take shelter when life-threatening storms are imminent.
  The take shelter area is Building 104. If Building 104 is not available the alternate take shelter area is in COS, Room 120 and common hallways on 1st floor. (see Site Map in Appendix C).

APPLICABLE LESSONS LEARNED – See Appendix E

JOB SAFETY & HEALTH ANALYSIS

JSHA MASTER DOCUMENT CONTROL NO:
BOSS – # 40391

SIGNATURES

ORIGINATOR: 9-14-04
REVIEW/REV: 9-14-04
REVIEW/REV:
REVIEW/REV:
APPROVED: 9/14/04

DATE: 04/26/04	_X_ NEW ___ REV	**BUILDING:** 24,PH	**JOB:** Demolish Building 24, PH
DEPARTMENT/COMPANY: BOSS Project/CH2M Hill Mound, Inc.			**SECTION:** N/A

OCCUPATIONS: : Heavy Duty Operators, Demolition Tech's, Demolition Crafts, & Electricians.
Supported by Project Personnel e.g.. Supervision, Engineering, Building/Facility Manager, RAD Control, Ind. Hygiene, and Safety

REQUIRED PERSONAL PROTECTIVE EQUIPMENT:
Hard Hat, Safety Glasses with side shields, safety shoes, safety vest

MSDS(s)/CHEMICALS ASSOCIATED WITH THE JOB:

BASIC JOB STEPS	POTENTIAL ACCIDENT/ILLNESSES OR KNOWN HAZARDS	SAFE JOB PROCEDURES
Break the job down into basic steps that tell what is done first, what is done next, and so on. Record the job steps in their normal order of occurrence. Describe what is done, not the details of how it is done. Usually, three orfour words are sufficient to describe each job step. For example, the job of "replacing a light bulb" may break down into basic steps as follows: 1. Bring and set up ladder 2. Ascend ladder 3. Remove light globe & bulb 4. Replace light bulb 5. Replace light globe 6. Descend ladder 7. Remove and store ladder	Ask yourself for each job what accidents/illnesses could occur to the employee doing the job. Record potential accidents/illnesses by combining one of the abbreviations below with the agent of contact. For example, "struck by a crane hook" is recorded "SB-crane hook." Number each potential accident. SB - Struck by CB - Contacted by SA - Struck against CW - Contact with CI - Caught in CO - Caught on IB - Caught between F - Fall SO - Strain-overexertion* E - Exposure (occ. illness) *Show ergonomic stresses as SO (repetitive trauma, single event strain, or awkward position)	For each potential accident/illness, ask yourself exactly what the employee should do or not do to avoid the accident/illness. Describe specific precautions in detail. Give each precaution the same number given in the potential accident (center column) to which it applies. Avoid generalities such as "Be alert," "Be careful," and "Take caution." Use simple do or don't statements; e.g., "Lock out main power switch," "Stand clear of lift before signaling," or "Check wrench grip before exerting full force." If necessary, explain how, as well as what, to do. Amount of detail is a matter of judgment. Describe ergonomic solutions (job redesign, new tools, worker lift assistance, etc.)
General Safety Note	A wide variety of incidents occur on a regular basis that potentially could result in injury or illness	-Be cognizant of your own safe work practices as well as those of your co-workers -Review any related safety procedures of which you are unsure -Utilize STOP WORK Authority as necessary
Pre-job meeting with involved personnel to discuss the work plan and safety requirements. This meeting is conducted daily.	N/A	-This project engages in Enhanced Work Planning(EWP), an ISM process that evaluates and improves the approach by which work is identified, planned, approved, controlled, and executed.
1. Site Preparation & Mobilization	Standard construction hazards.	-Demolition preparation is defined by 29CFR1926.850; workers, unfamiliar with construction standards must notify the project supervision and/or project health and safety personnel.
1a. Site Access Control	Struck by equipment, debris	-Once the work area is defined, only authorized personnel are permitted in the construction perimeter. -Unescorted, Non-project and Non-emergency personnel must have acceptance of the BOSS Project Project Manager for entry. -Emergency access to the work zone will be maintained to the extent possible.
1b. Clear Area and Mark/Protect Utility Equipment	Running into fire hydrants, manhole covers, or grates over field drains.	-Mark/protect hydrant and other utility equipment with wooden boxes, visible stakes, and/or colored flags. -Cover field grates to protect

JOB SAFETY AND HEALTH ANALYSIS FORM
(CONTINUATION SHEET)

BASIC JOB STEPS	POTENTIAL ACCIDENT/ILLNESSES OR KNOWN HAZARDS	SAFE JOB PROCEDURES
2 Building Demolition &Debris Disposition	Vehicle Traffic Hazard	-Control traffic with flagmen and signage as necessary
2a. Demolish building usng excavator mounted shear, hoe ram, grapple, loader, and bobcat	Struck by flying debris Struck by moving equipment Noise Hazard	-Establish construction boundary. -Wear hard hat, safety glasses, safety shoes, and reflective vest inside construction area. Make eye contact with operator when working around equipment. Use hand signals to communicate intent. -Maintain the following distances from operating equipment: Shear – 75 feet Hoe Ram – 50 feet Other heavy duty equipment – 30 feet Bobcat – 15 feet -Make sure equipment is in safe working order. Use spotter if vision is obstructed. -Install traffic control with sufficient flagmen -Wear hearing protection while running heavy duty equipment Follow the requirements of MD-10286 D9
2b. Torch cut rebar or to weaken structural members	Burns, fire Potential lead paint fume exposure Compressed Gas Cylinders (CGCs)	-Obtain and follow Hot Work permit per MD-10286 O2. Wear proper PPE, have fire extinguishers in the construction zone. -Test for lead paint; do not torch cut lead paint. -Follow Mound Procedure MD-10286, H1
2c. Working in excessiveheat/cold	Heat Stress/Cold Stress	-Follow the requirements of MD-10286 D13/D16 and discuss in daily pre-job briefings
2d. Debris Characterization & Disposal	Radiological Contamination	-RCTs to conduct surveys as needed. -Follow any RWP requirements if contamination is found
2e. Slab & Foundation Demolition & Removal	Underground Utility Contact – Electrical/Water Pressure Exposure Radiological Contamination	-Evaluate & Mark area per Excavation/Soil Disturbance Permit, MD_10286, O5 for Underground Utilities. -Follow any RWP requirements if contamination is found. -Have RCTs survey bottom of slab before disposal
3a. Rough grading	Equipment/ personnel mixture	-Stay clear of operating heavy equipment

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JOB SAFETY AND HEALTH ANALYSIS FORM
(CONTINUATION SHEET)

BASIC JOB STEPS	POTENTIAL ACCIDENT/ILLNESSES OR KNOWN HAZARDS	SAFE JOB PROCEDURES
3b. Erosion control installation	Slip – Trip – Fall Lifting /twisting strain	-Uneven walking and/or working surfaces –use extra caution. -Follow accepted practices
3c. Demobilize Constructon Equipment Remove dust control water distribution system Remove temporary power Remove fencing	Equipment/ personnel mixture Cuts and abrasions Lifting /twisting strain Radiological contamination of equipment if required by in-process surveys	-Be cognizant of your own safe work practices as well as those of your co-workers -Review any related safety procedures of which you are unsure -Utilize STOP WORK Authority as necessary -Coordinate in-process Rad Surveys with Rad Techs

Appendix B

Pre-Job Briefings/Job Status Log

PRE-JOB BRIEFING RECORD

MSR/PROCEDURE (if applicable):	JOB SUPERVISOR:

A. Time, Date and Location of PJB: _____

B. Applicable Procedure Number: _____

C. Job Description: _____

D. Personnel Attending:

HP#	SIGNATURE	HP#	SIGNATURE

BRIEFING CHECK OFF LIST

JOB SUPERVISOR:	**Check When Completed***
1. Scope of work reviewed:	
a. The assignments and responsibilities of each individual were specifically identified.	Done ☐ N/A☐
b. The current facility conditions, tagouts, valve lineups, and work permits relating to this job have been discussed.	Done ☐ N/A☐
c. The precautions, limitations, initial conditions, and prerequisites were adequately reviewed.	Done ☐ N/A☐
d. Potential hazards associated with the job have been discussed (JSHA).	Done ☐ N/A☐
e. Specific work covered by RWP (any limitations).	Done ☐ N/A☐
2. All necessary safety equipment and PPE is available.	Done ☐ N/A☐
3. All required personnel have satisfied initial and continuing training requirements to perform the job including training specified on the RWP.	Done ☐ N/A☐
4. All required personnel have reviewed the applicable documentation listed in B above as it applied to their part of the job.	Done ☐ N/A☐
5. Reliable and adequate communications are available.	Done ☐ N/A☐
6. The required tools and equipment are available.	Done ☐ N/A☐
7. Appropriate lob sheets, material transfer, and data recording forms are available.	Done ☐ N/A☐
8. All required documents available at the PJB are approved and current.	Done ☐ N/A☐

*For items not applicable, write in N/A.

PRE-JOB BRIEFING RECORD (Page 2)

9. Related past problems, unusual events, and occurrences were discussed. Done ☐ N/A☐
10. All personnel understand egress procedures and egress areas. Done ☐ N/A☐
11. RWP requirements:
    a. Radiological conditions of the workplace. This should include a review of the most recent survey of the area. It is important to ensure that the survey is specific to the work area. In cases where a system of unquantified activity will be breached, discuss the "anticipated activity" to be expected after the breech. Done ☐ N/A☐
    b. Dosimetry requirements. Done ☐ N/A☐
    c. Protective clothing and respiratory protection requirements (cite location of doffing instructions). Done ☐ N/A☐
    d. Job coverage requirements (continuous vs. intermittent). Explain that continuous means "within line of sight and field of control of RCT at all times." Done ☐ N/A☐
    e. Stop Work Levels (SWLs) and other applicable limitations. Done ☐ N/A☐
    f. POC's/RCT's must discuss the type of radiological monitoring to be employed at the job site during and subsequent to the work. Personnel assigned to do the work MUST EXPRESS THEIR FULL UNDERSTANDING of the monitoring to be employed and of the alarm signals if applicable. Workers MUST CONCUR in the type and scope of monitoring planned at the job site before work can begin. Done ☐ N/A☐
    g. Dose reduction/contamination control techniques (e.g., use of; shielding, capture velocity, containment devices). Done ☐ N/A☐
    h. Personnel and equipment monitoring requirements (including control point locations). Done ☐ N/A☐
    i. Bioassay requirements. Discuss; isotopes to be encountered, proper use of the bioassay information form, use of nosewipes as appropriate (and disposition of nosewipe results), and bioassay frequency if this will be a long term task. Done ☐ N/A☐
    j. Effective date and expiration date of RWP reviewed. Done ☐ N/A☐
    k. Briefly cover WORKER RESPONSIBILITIES (Article 123 of the DOE RADCON MANUAL) Done ☐ N/A☐
12. Necessary instrumentation is adequately tested and calibrated. Done ☐ N/A☐
13. Key task steps in which radiological conditions may change and where the RCT will perform in-process surveys to assess radiological conditions. Done ☐ N/A☐
14. If an ALARA Job Review was required, then this would be an appropriate time for the review. Done ☐ N/A☐
15. Radiological hold points, if any. Done ☐ N/A☐
16. Discuss any appropriate response actions to emergencies, such as CAM, alarms, criticality alarms, or increasing radiation levels. Done ☐ N/A☐
17. When nonradiological health monitoring (e.g. asbestos) is to be employed at the job site during and subsequent to the work, the personnel assigned to do the work MUST EXPRESS THEIR FULL UNDERSTANDING of the monitoring to be employed and of the alarm signals if applicable. Workers MUST CONCUR in the type and scope of the monitoring planned at the job site before work can begin. Done ☐ N/A☐
18. Communications and coordination with other groups. Done ☐ N/A☐
19. Provisions for waste management and job cleanup. Done ☐ N/A☐
20. Open floor to questions. Done ☐ N/A☐

The above minimum requirements have been met; this PJB has been conducted in sufficient detai to ensure save conduct of the job.

_____

Job Supervisor/Foreman Date

NOTE: Completed pre-job briefing sheet must be retained with the work package or maintained in your record file.

CAUTION: Working on or Near Live. Active Lines/Utilities
Consider Alternative Means of Protection (Blocking, Shielding, etc.)
And Alternative Manual Methods for Removal

PRE-JOB UPDATE RECORD

MSR/PROCEDURE (if applicable):	JOB SUPERVISOR:

A	Time, Date and Location of PJU:
B	Applicable Procedure Number:
C	Job Description:
D	Personnel Attending:

HP#	SIGNATURE	HP#	SIGNATURE

JOB SUPERVISOR – This is a reminder checklist for the update. The supervisor need only discuss and note changes from the previous day's briefing or update. (Use NC for No Change).

1. Any changes/revisions to safety envelope for work:
a. New/added assignments and responsibilities of any individual
b. Changes in facility conditions, tagouts, valve lineups
c. New or changed precautions/hazards
d. Valid RWP or other required work permits still in effect
2. Adequate supply of PPE
3. New Training, any training coming up on expiration
4. New changes to relevant Category "A" or Category "B" procedures
5. Equipment and tools calibrations in effect
6. Relevant lessons learned, critique reports
7. RWP revisions:
a. Changes to radiological conditions of the workplace, particularly with respect to postings
b. Change in scope, especially if it is a reduction in scope or Stop Work Levels
8. Changes to radiological and/or health monitoring
9. Open floor to questions

The above minimum requirements have been met; this PJU has been conducted in sufficient detail to maximize continued safe conduct of the job, and all personnel have been through a previous Pre-Job Brief.

Job Supervisor/Foreman _____ Date _____

NOTE: Completed pre-job update sheet must be retained with the work package or maintained in your record file.
CAUTION: Working on or Near Live, Active Lines/Utilities
Consider Alternative Means of Protection (Blocking, Shielding, etc.)And Alternative Manual Methods for Removal

JOB STATUS LOG

1. WORK PACKAGE TITLE: Demolition of Building 24 and PH

2. WORK PACKAGE NUMBER: BOSS-40391 - 00

DATE	TIME	WORK PKG. SECTION	% Complete	BY	STATUS

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Appendix C

Drawings/Sketches/Photographs

Drawings

NOTE: The following drawings detail the structural construction of the building structures and are only included in the field working copies of the work package. Drawings are available by contacting Steve Davis at 608-8204.

- **Building 24 Drawings, 302400-01001 thru 302400-05001 (1965)**
- **PH Building Structural Drawing, 351200-03001 (1948)**
- **Underground Fuel Line from PH Building To Above Ground Storage Tank, Drawing 352000-04019 (1948)**
- **PH Building Equipment Layout and Underground Piping Drawing, 351200-04001 (1948)**
- **Isolation of Underground Oil Line from PH to Above Ground Storage Tank, Drawing 4-5371(1965)**

Vista Maps

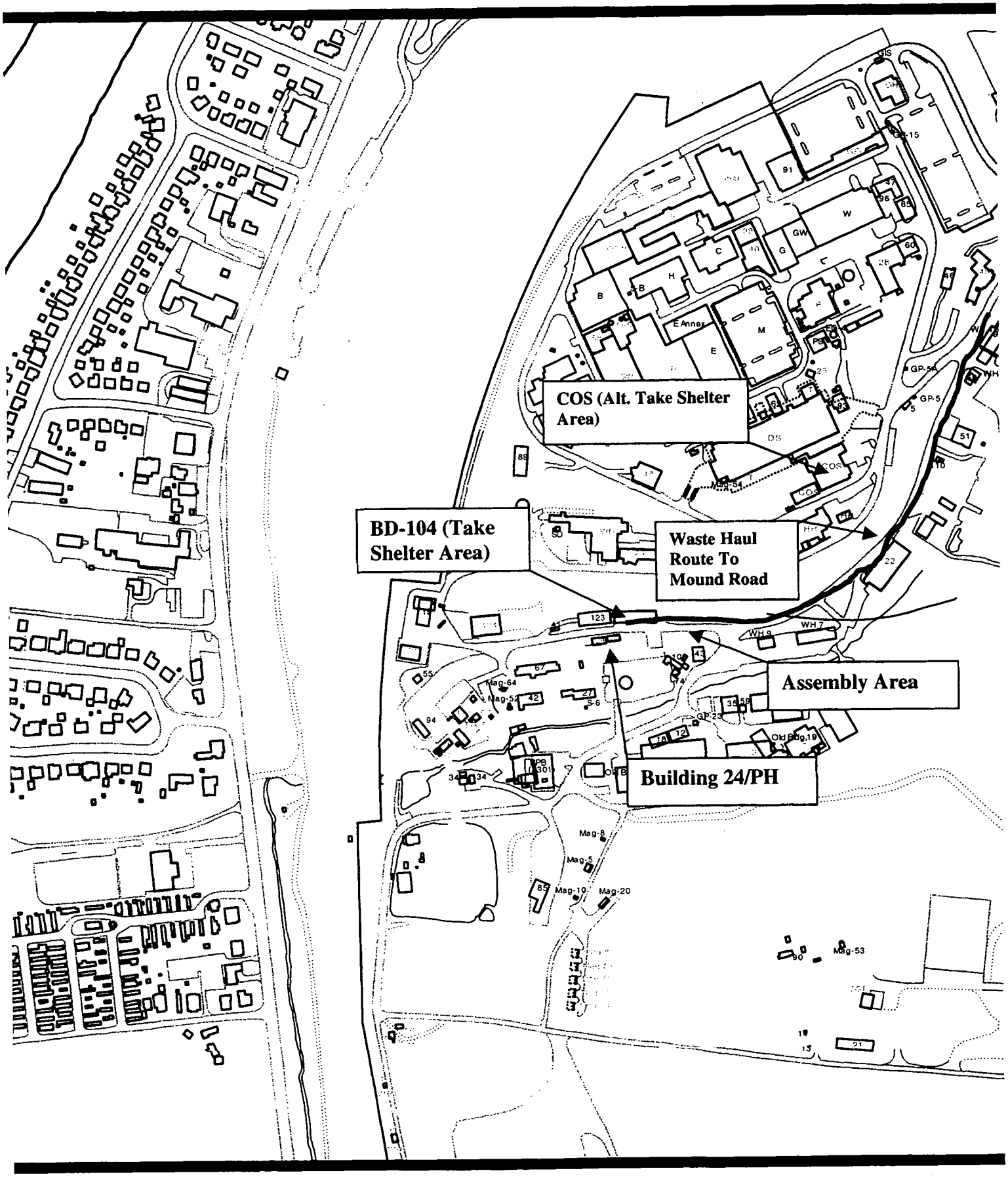
Site Map

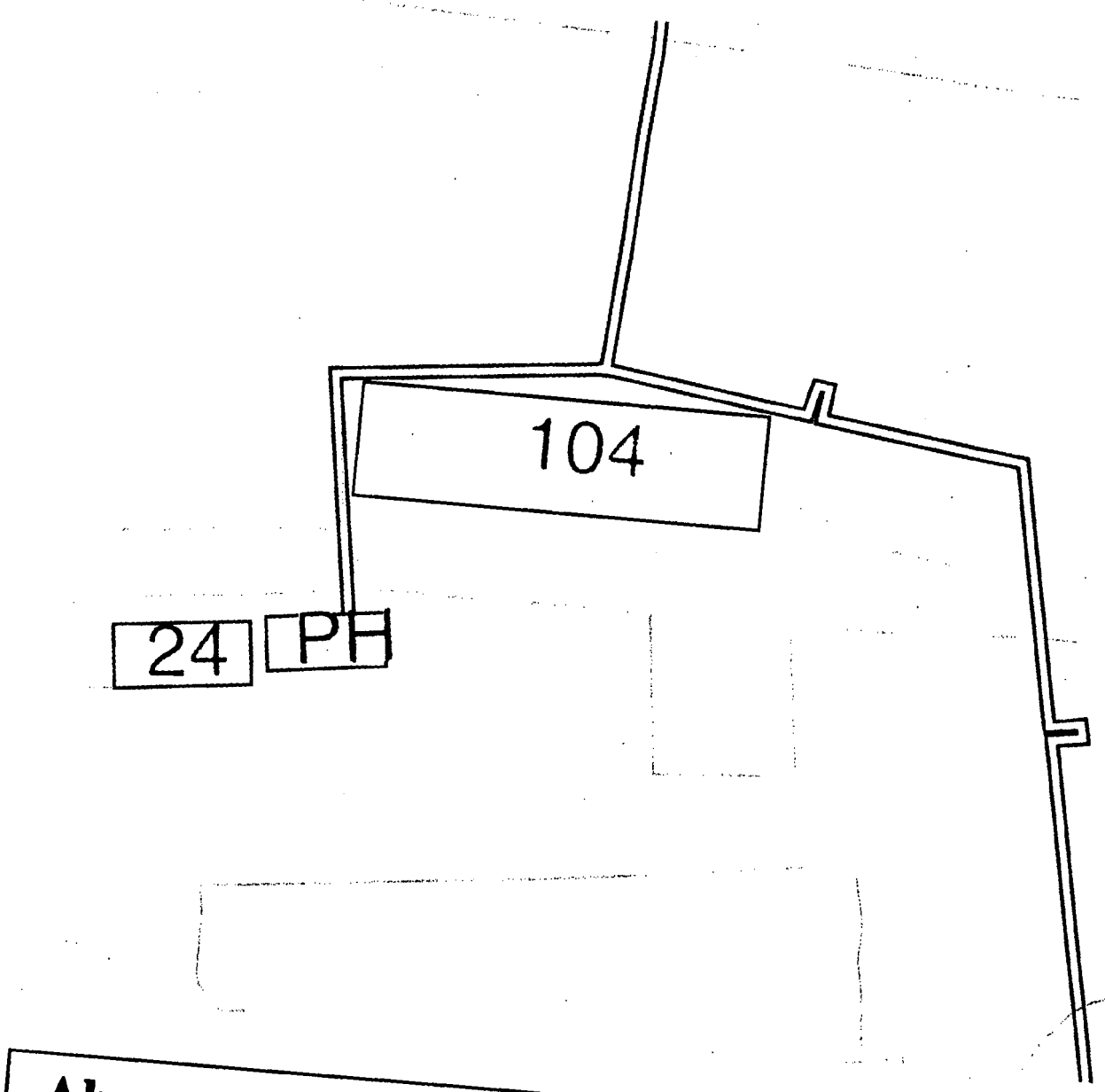
Building 24/PH

- **Above Ground Stanchions**
- **Monitoring Wells**
- **Underground Utilities (wide view)**
- **Underground Utilities (close view)**
- **Underground Supply, Domestic, and Fire Water**
- **Underground Sanitary and Storm Sewer**
- **Underground Electrical, Communications, Signal and Grounding Systems**

- **Gas Line and Fuel Oil Lines**
- **Steam and Condensate, Chilled Water, Cooling Water, and Compressed Air**
- **PRSs**
- **URMAs**
- **Contour Lines**
- **Power and Light Poles**
- **Tanks**
- **Aerial Photos**
- **Historic Sample Locations Within 15 ft. of Buildings PH and 24**

- **Site Map**


COS (Alt. Take Shelter Area)
BD-104 (Take Shelter Area)
Waste Haul Route To Mound Road
Assembly Area
Building 24/PH



Aboveground Lines (Stanchions)

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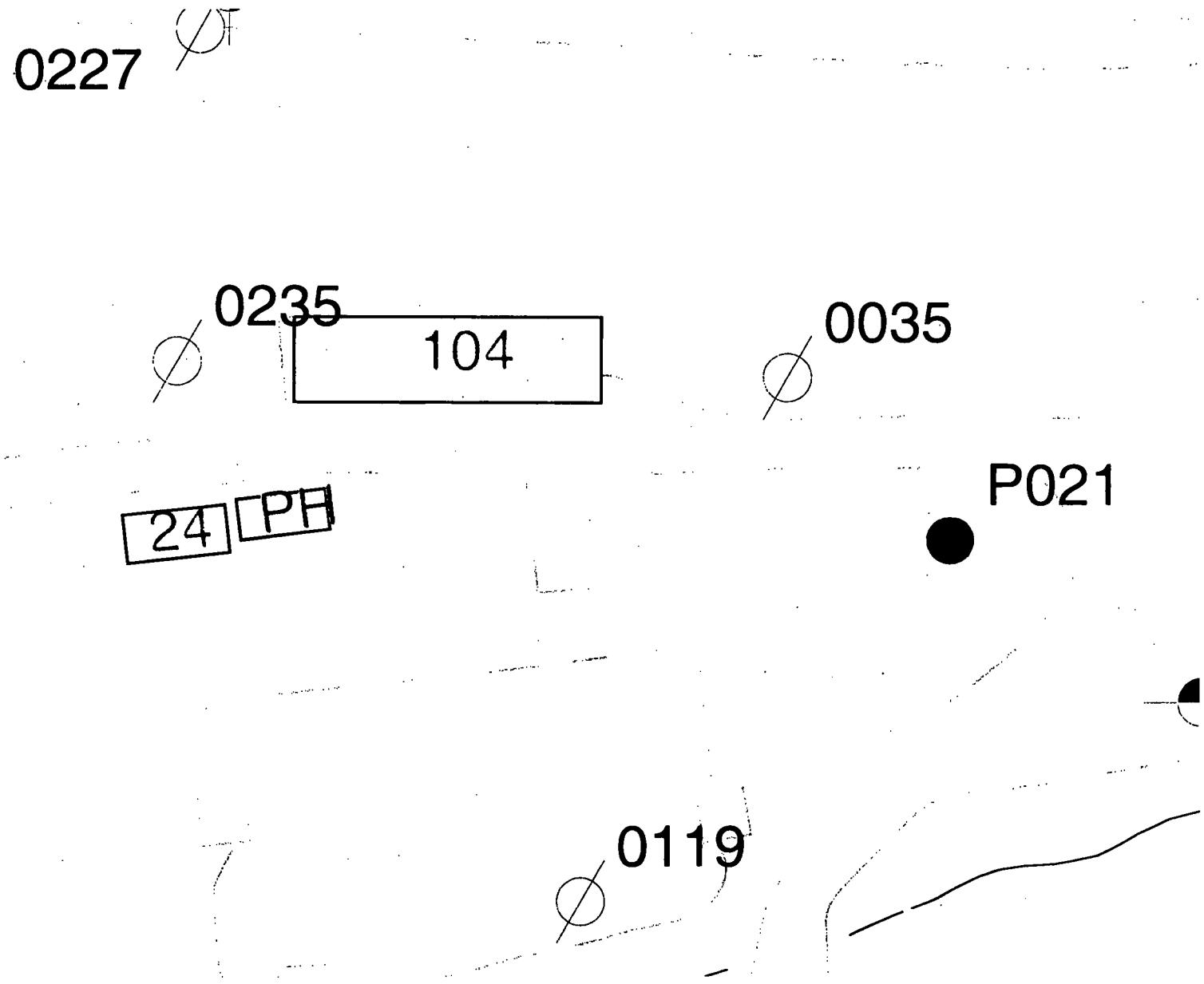
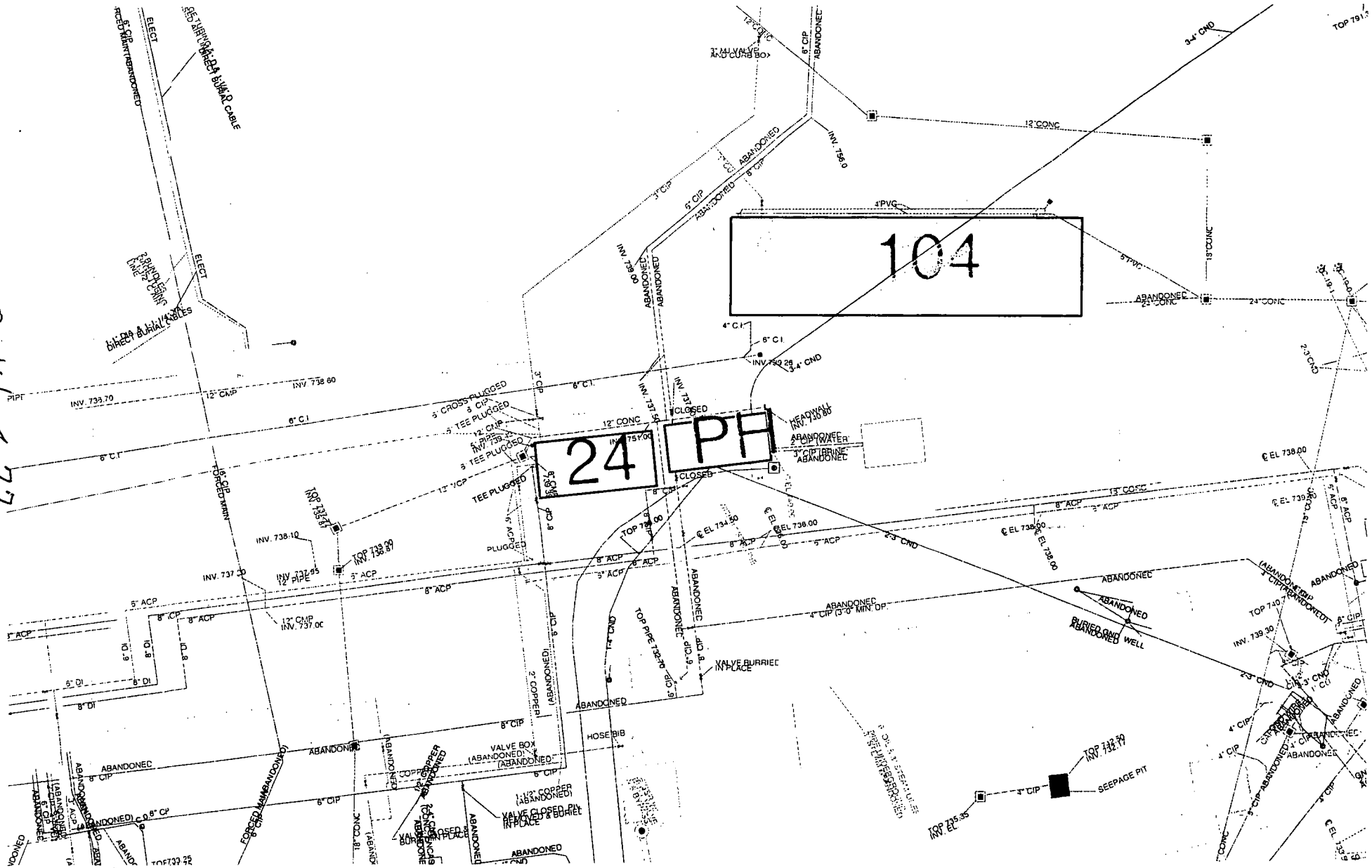
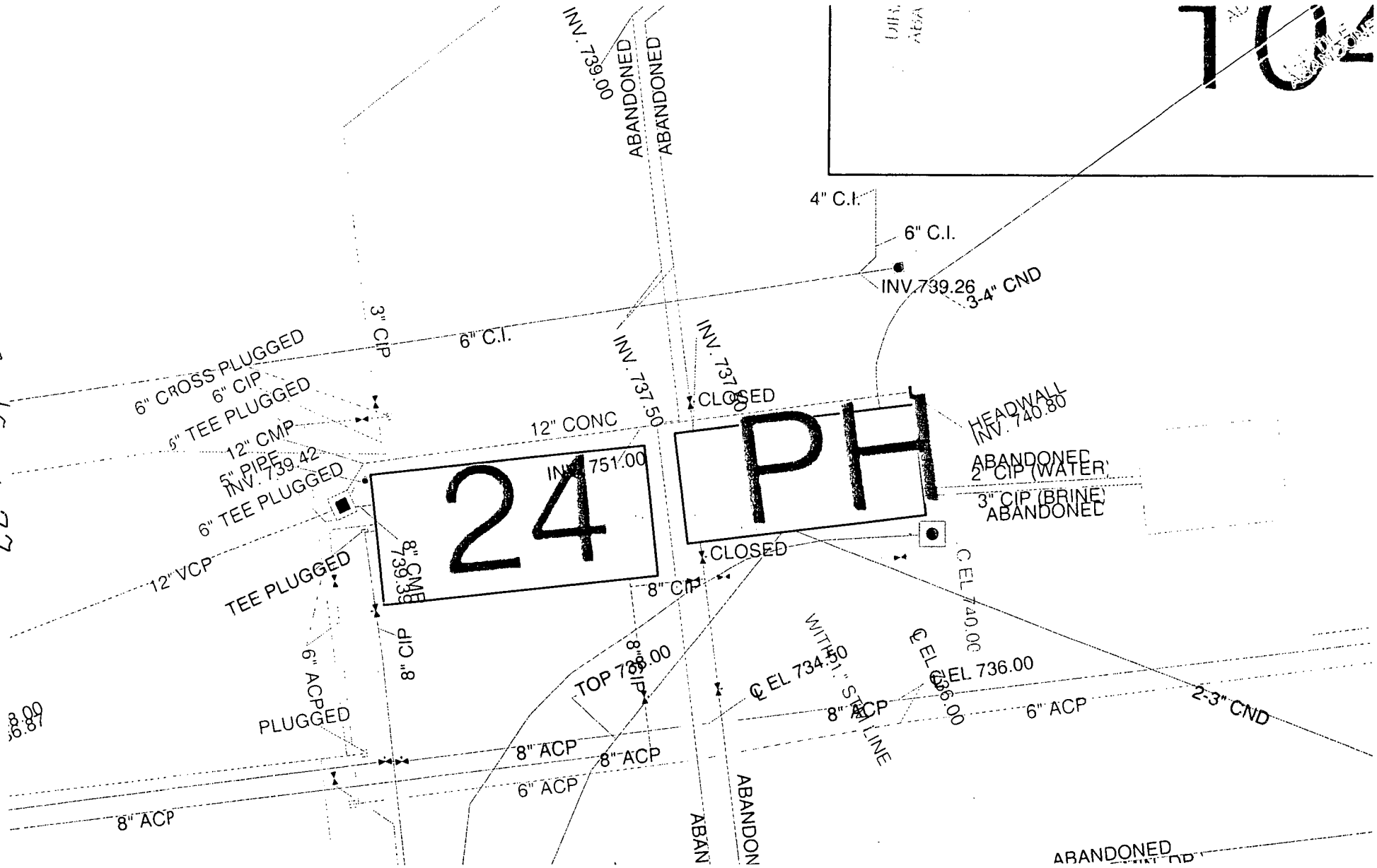


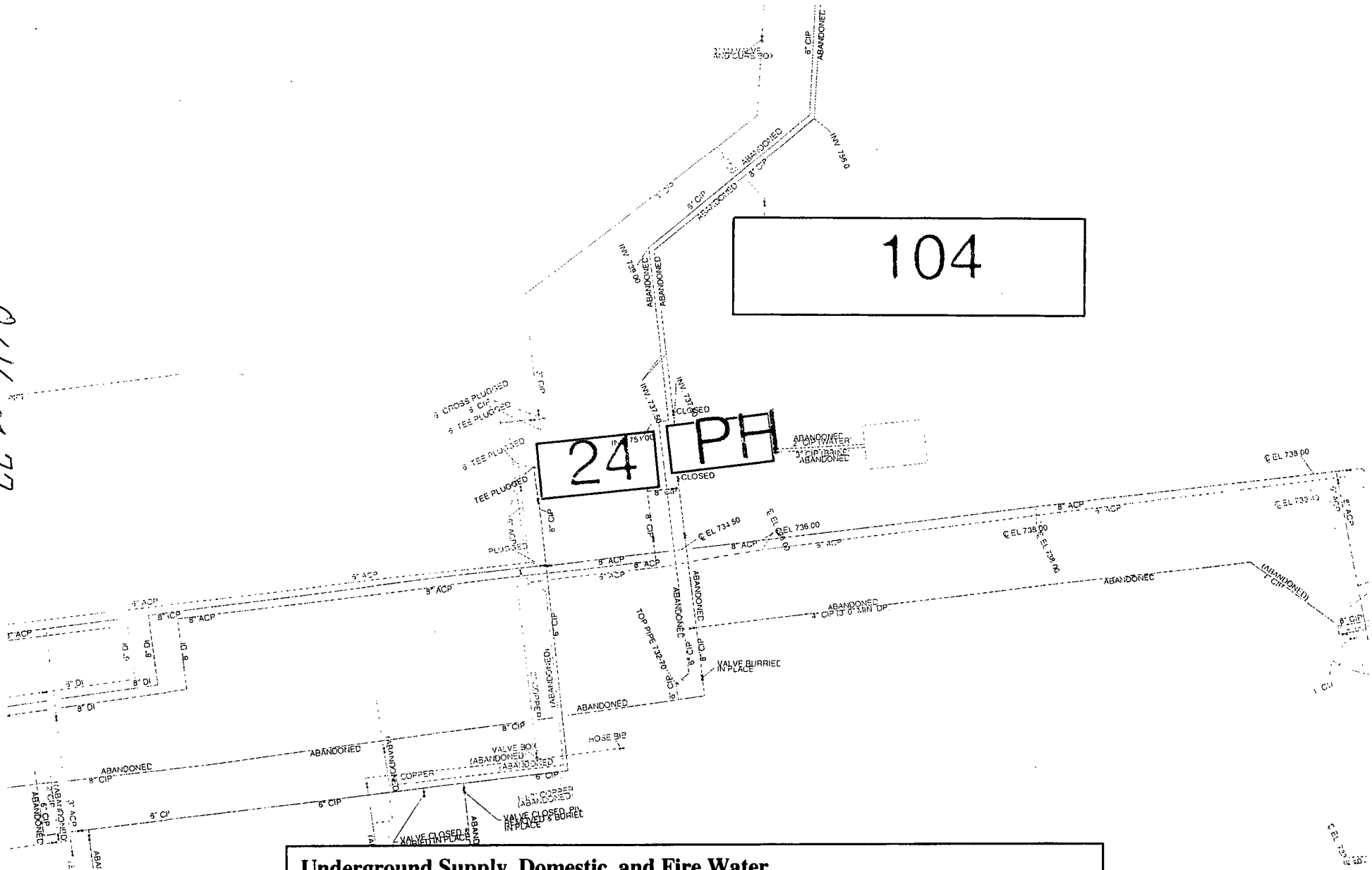
Monitoring Wells



Underground Utilities (Wide View)



Underground Utilities (Close View)



Underground Supply, Domestic, and Fire Water

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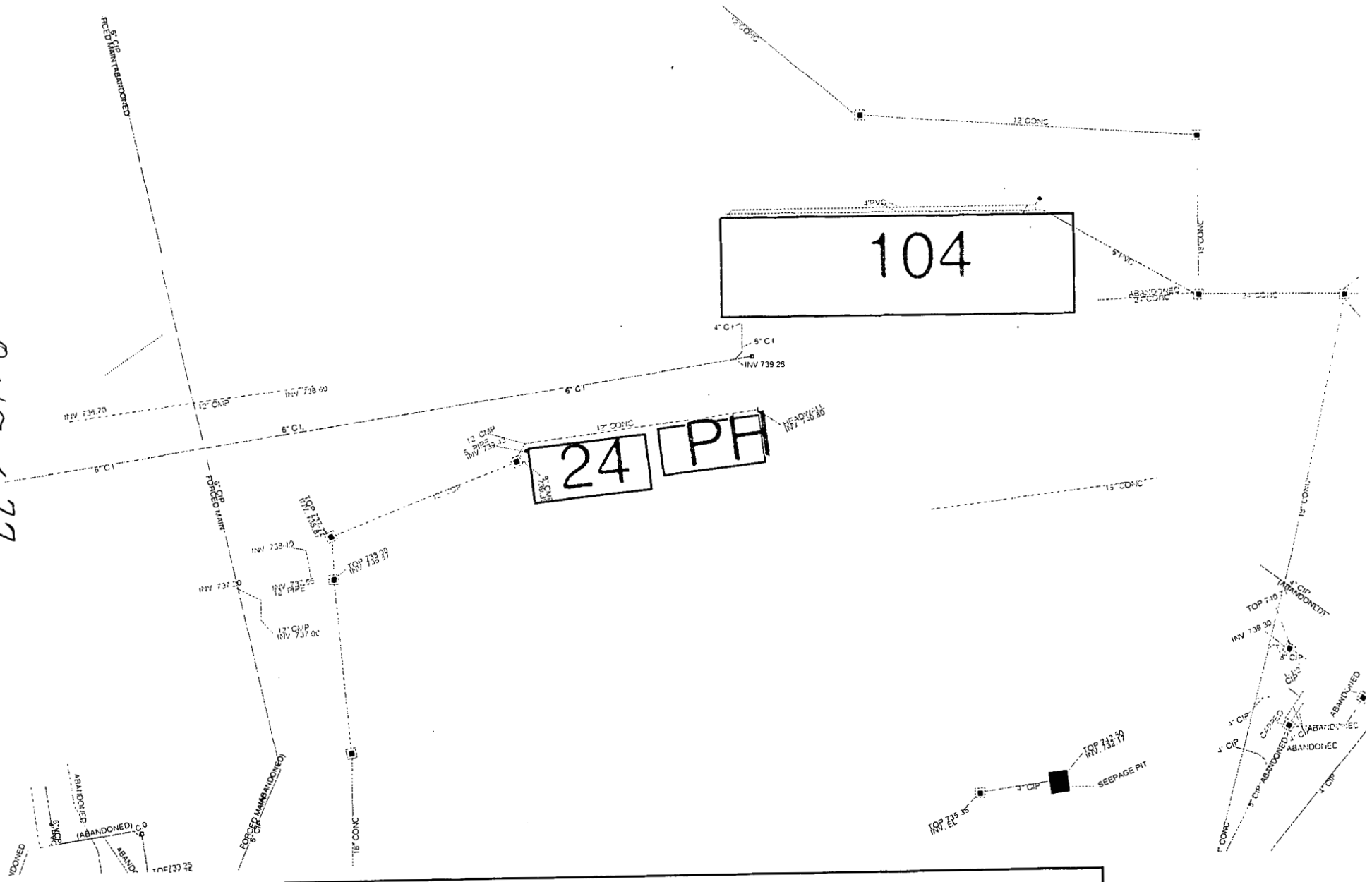

Underground Sanitary and Storm Sewer Systems

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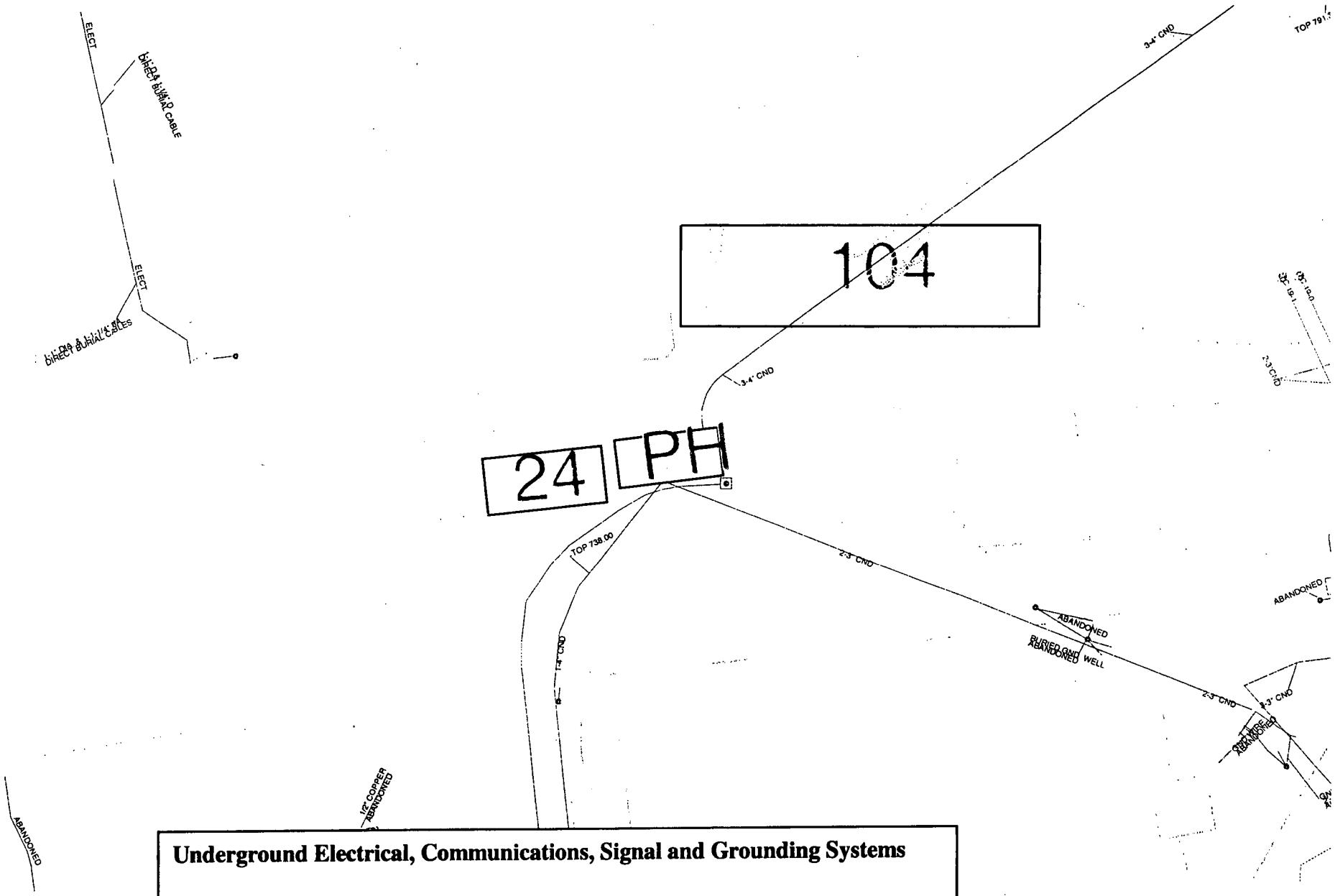
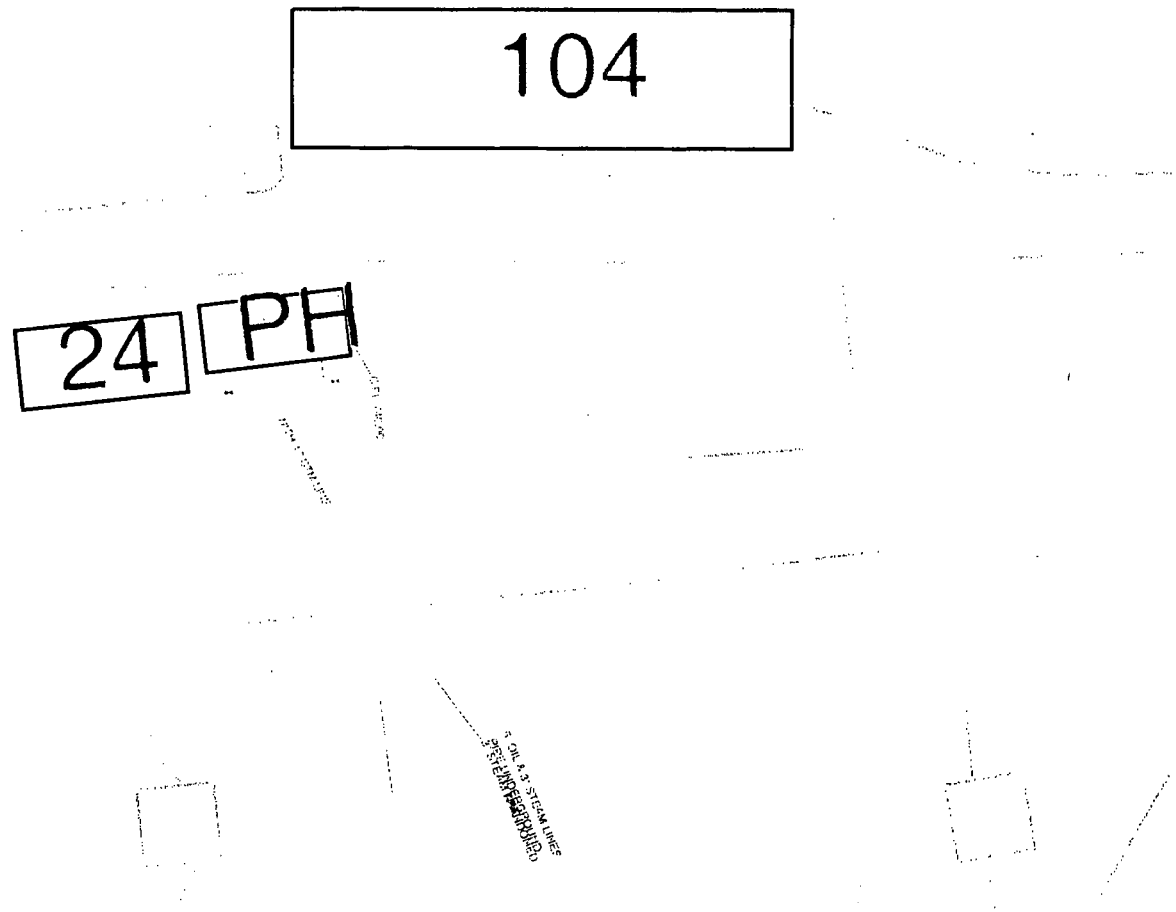


Underground Electrical, Communications, Signal and Grounding Systems



Gas Line and Fuel Oil Lines

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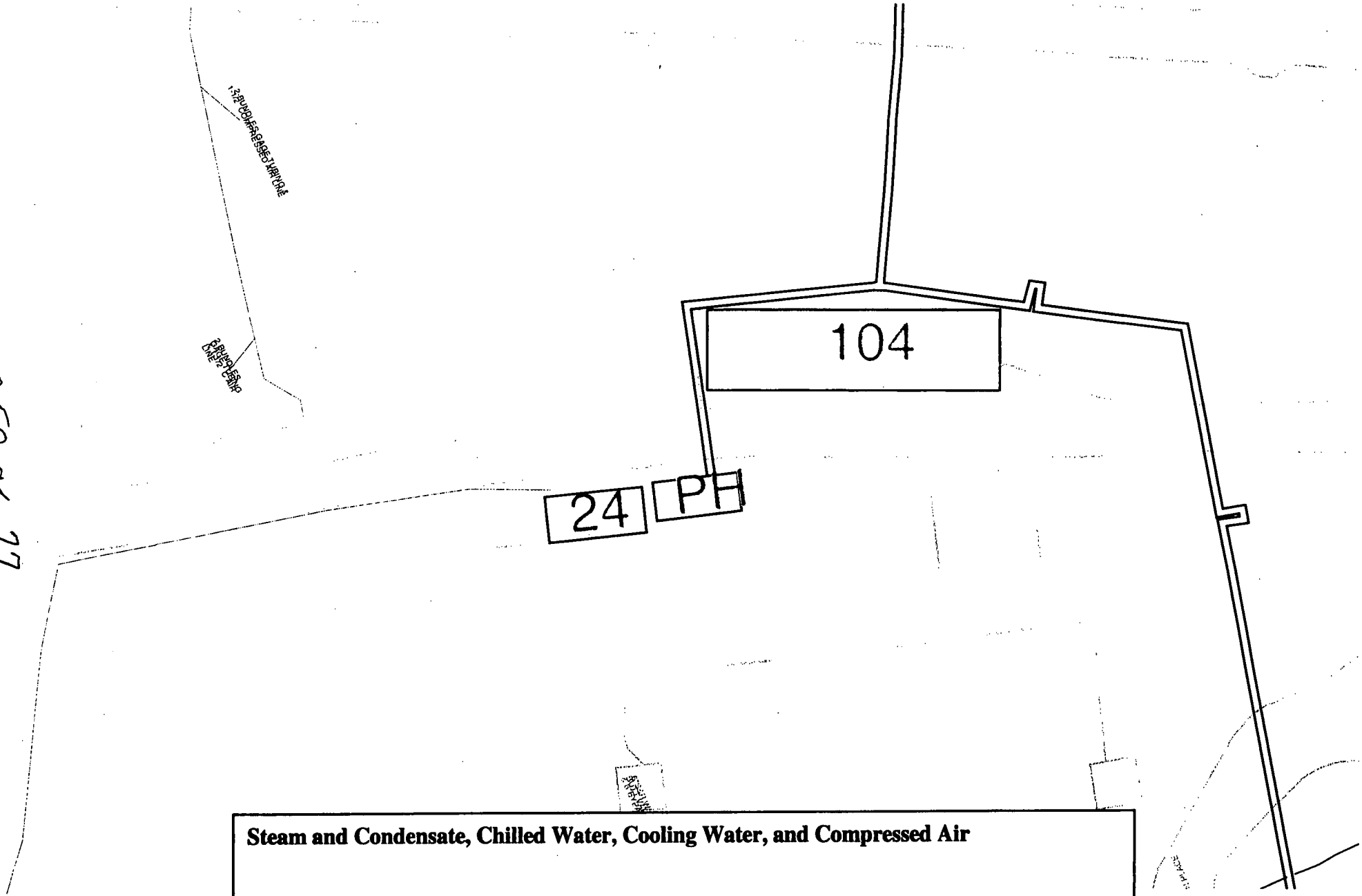

Steam and Condensate, Chilled Water, Cooling Water, and Compressed Air

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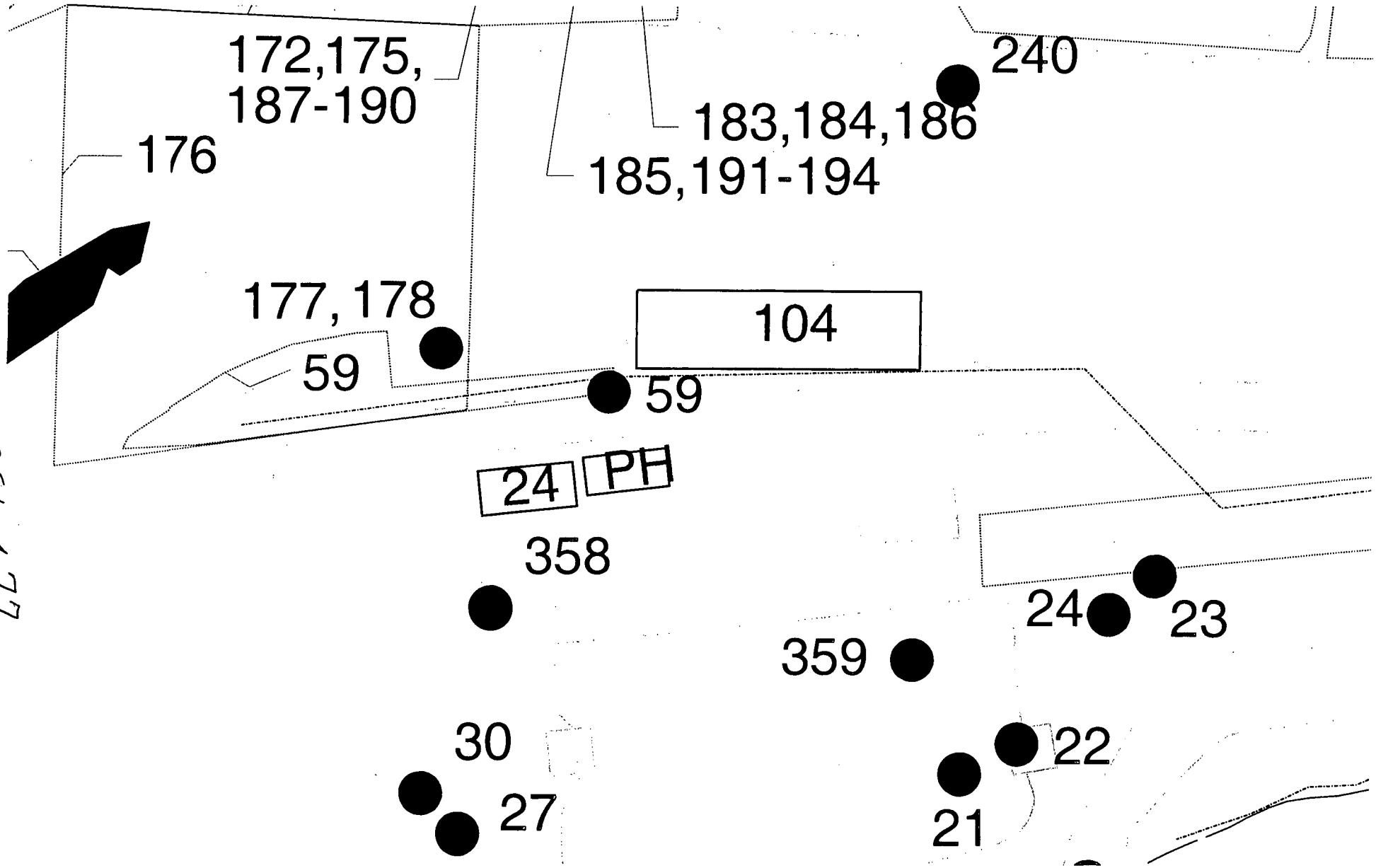
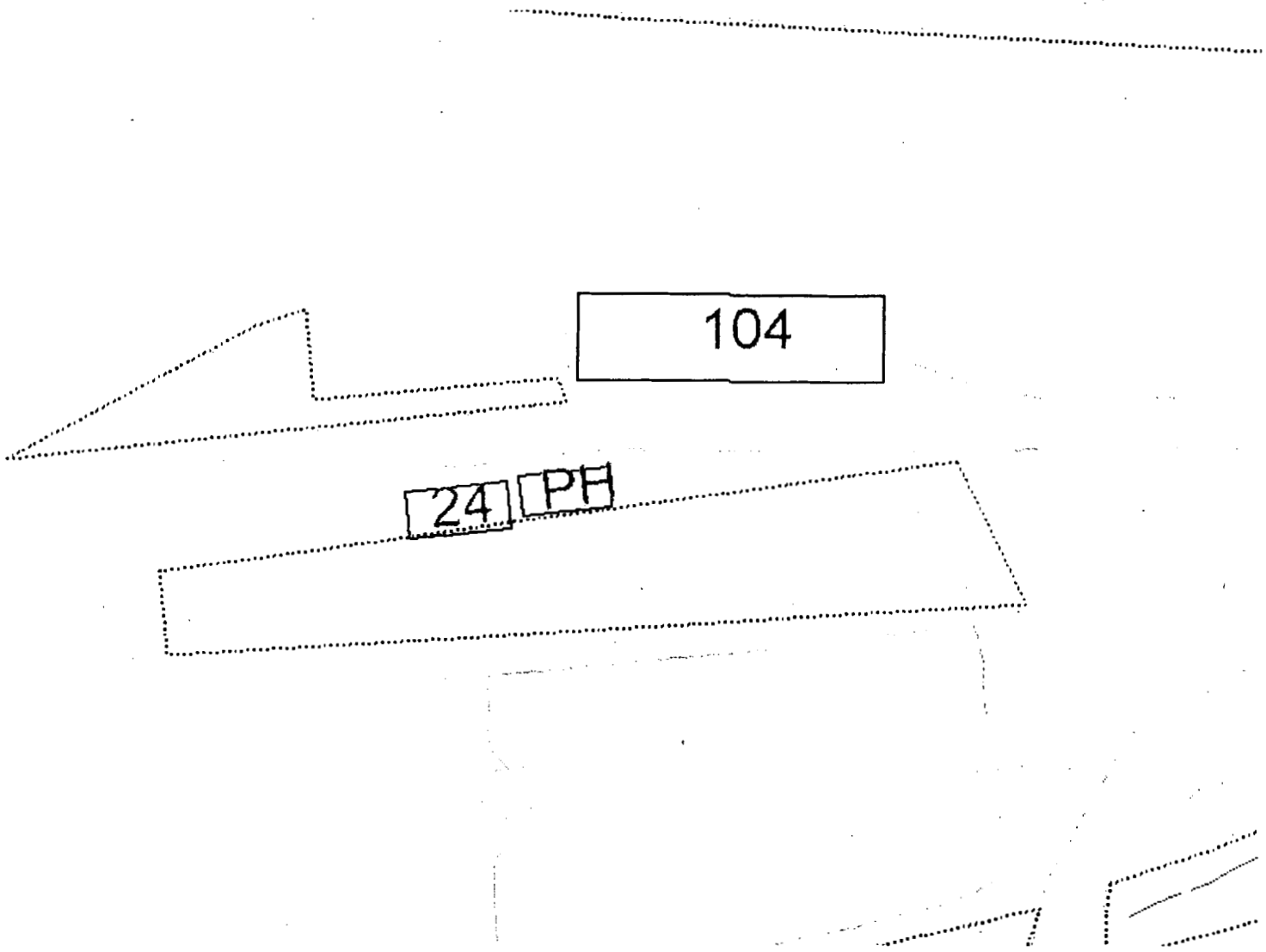


PRSs (PRS 441 is newly determined and its boundary has not yet been determined; thus PRS 441 is not shown on this PRS map).

LL 20 150



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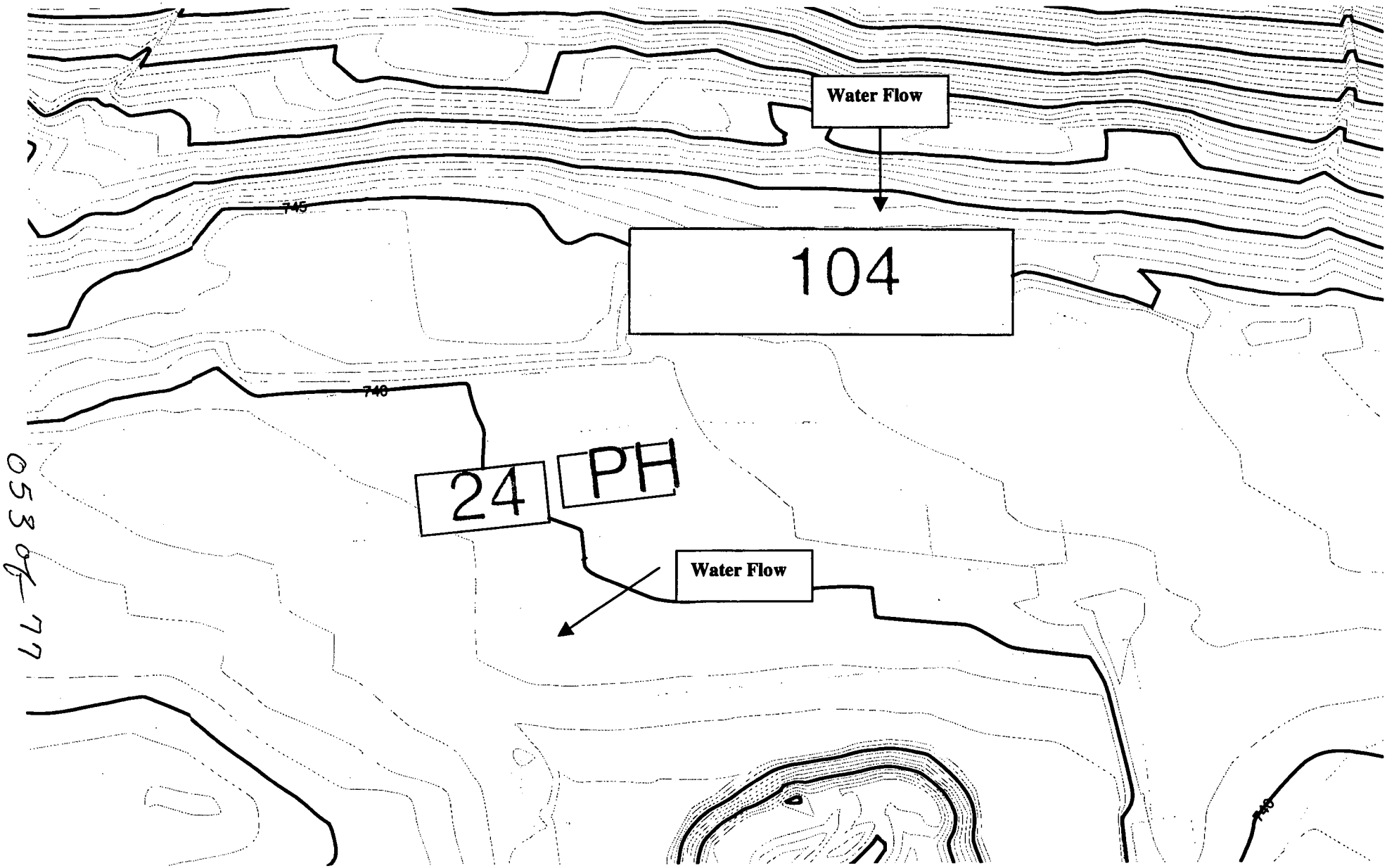

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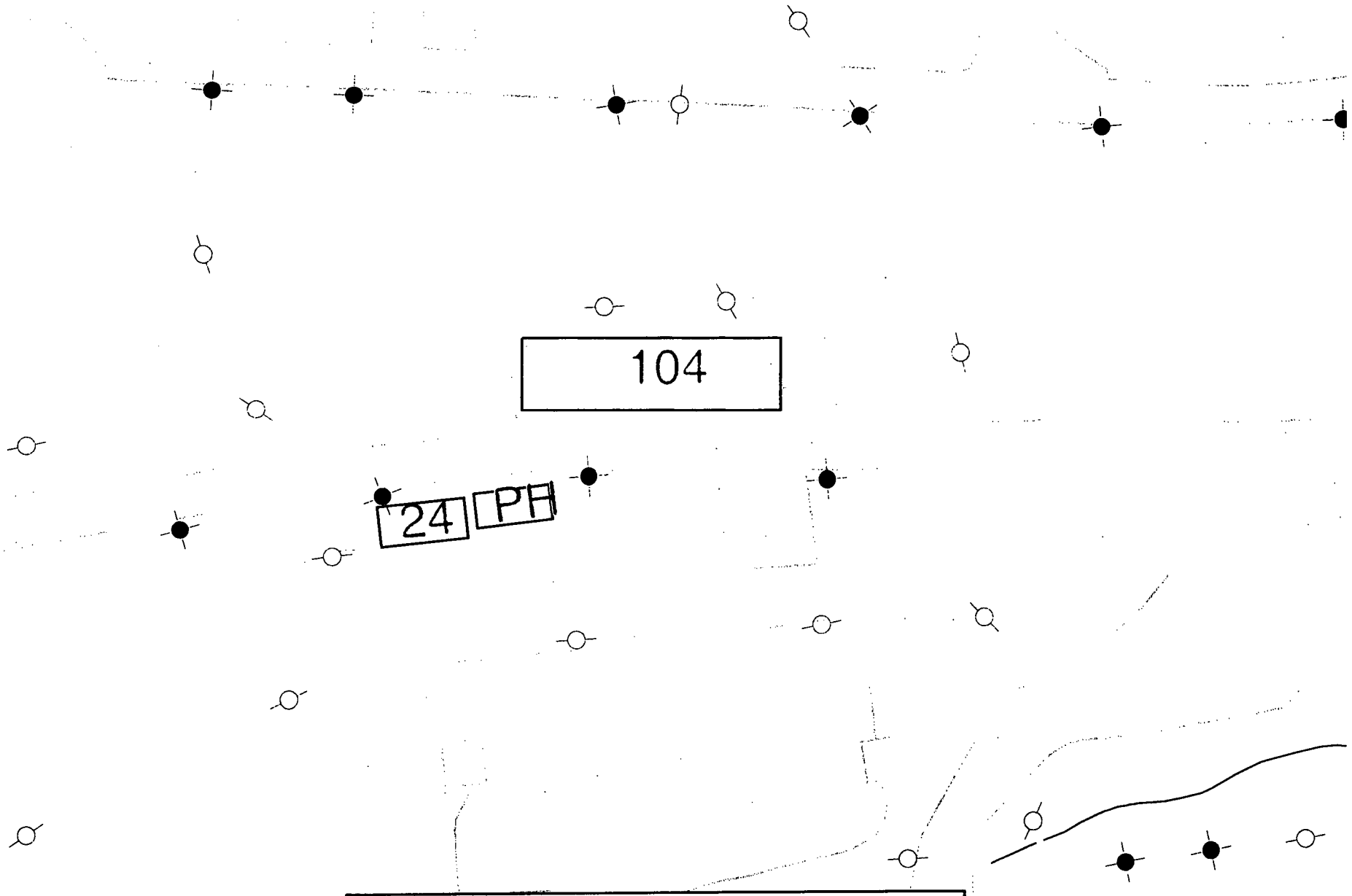
Contour Lines



Power & Light Poles

104

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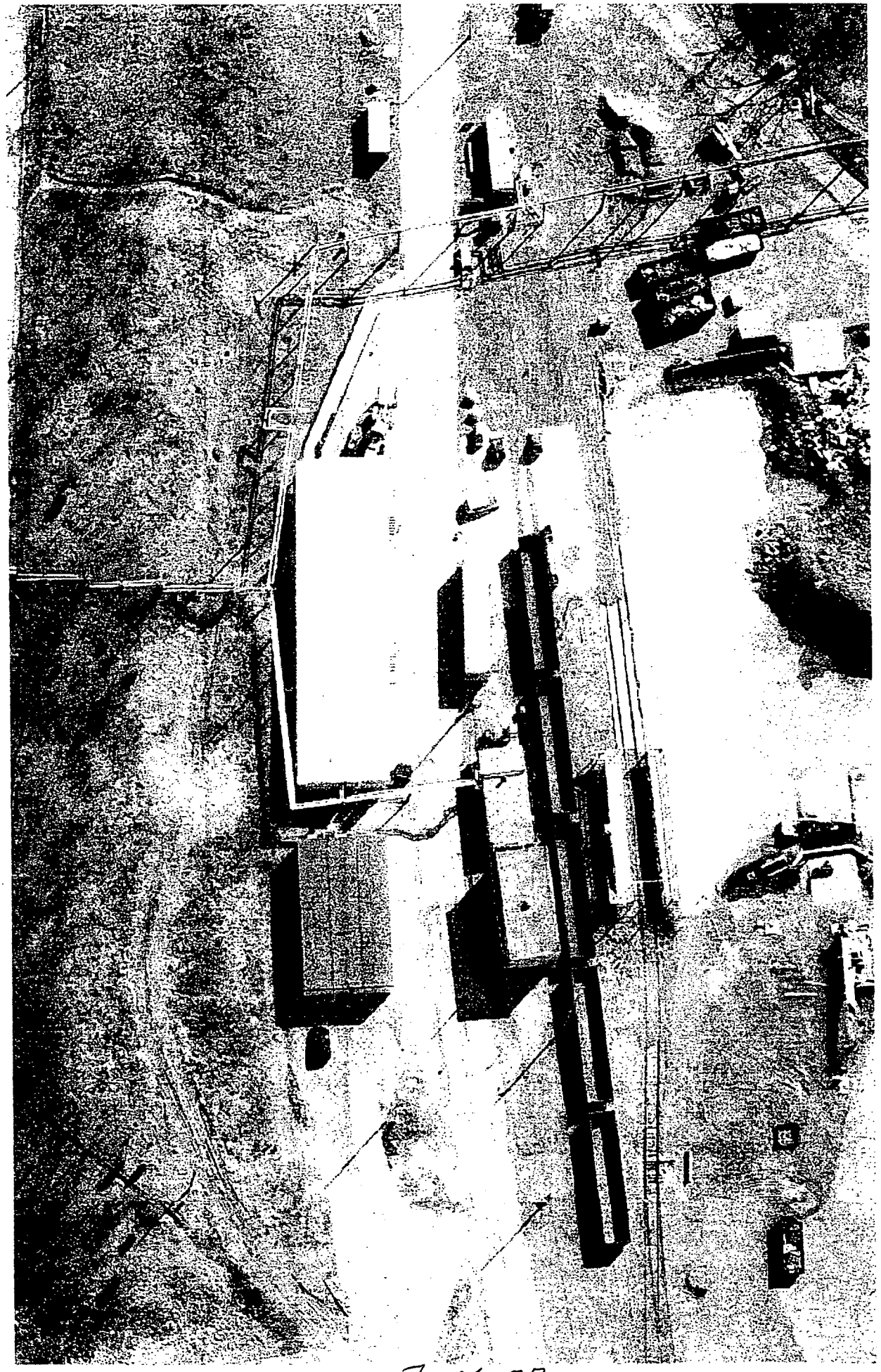
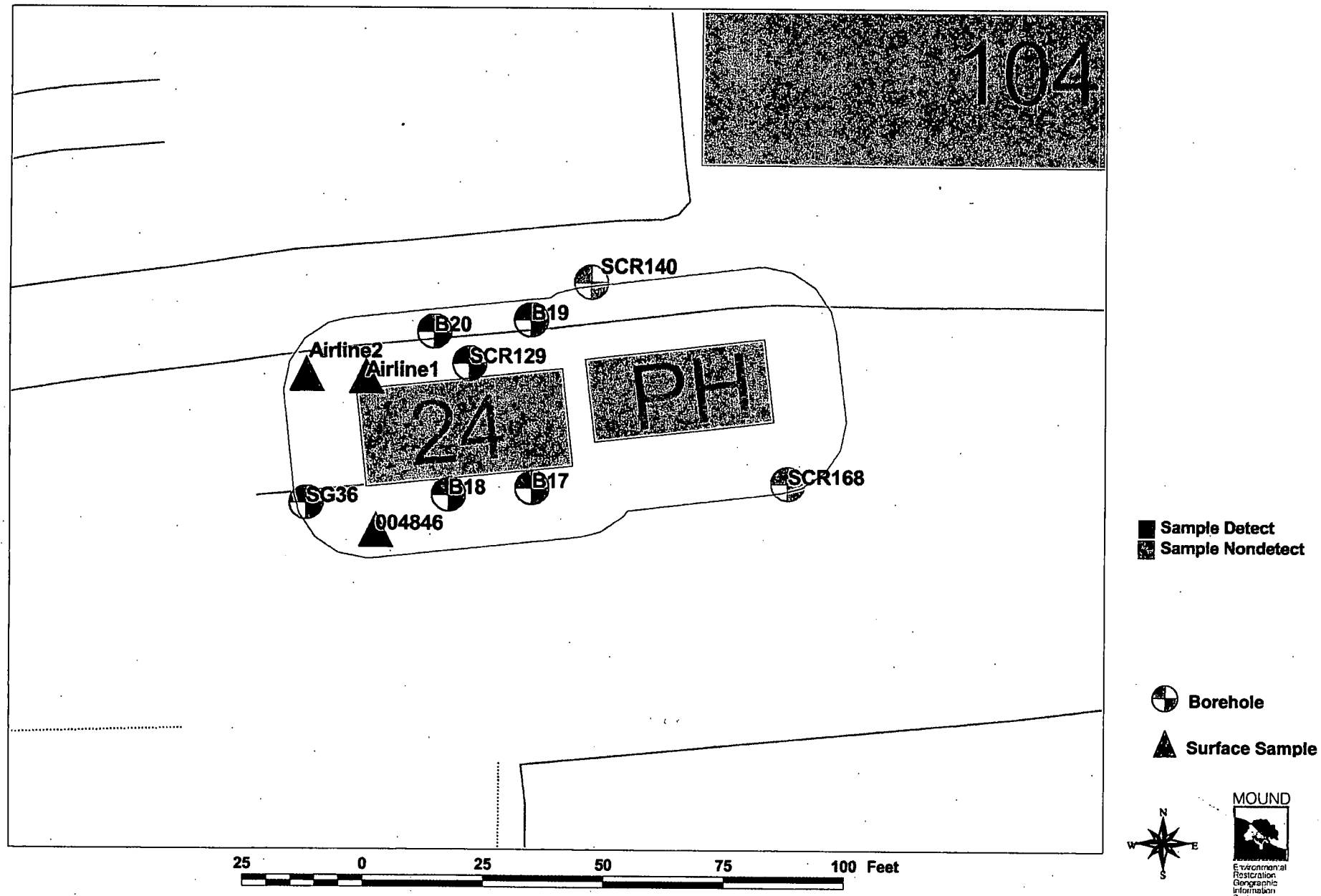
24 PH

Tanks



Historic Sample Locations within 15 feet of Building 24 & PH



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Appendix D

Miscellaneous

- No USQ required for this Work Package
- No RWP required for this Work Package
- MSDS for Rohm & Haas, Amerlite IR120 NA Resin
- Solid Waste Debris/Rolloff Release form.
- PRSs around BD-24 and PH
- Work Package Material List
- Structural Engineering Survey Letter per 29 CFR 1926.850
- Road Closure Form

MATERIAL SAFETY DATA SHEET
Rohm and Haas Company

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

AMBERLITE® IR120 NA Resin

Product Code	:	63318	MSDS Date	:	03/08/94
Key	:	882511-3			

Product as supplied is a strongly acidic cation exchange resin, sodium ion form.

COMPANY IDENTIFICATION
Rohm and Haas Company
100 Independence Mall West
Philadelphia, PA 19106-2399

EMERGENCY TELEPHONE NUMBERS

HEALTH EMERGENCY	: 215-592-3000
SPILL EMERGENCY	: 215-592-3000
CHEMTREC	: 800-424-9300

AMBERLITE® is a trademark of Rohm and Haas Company or one of its subsidiaries or affiliates.

2. COMPOSITION/INFORMATION ON INGREDIENTS

No.		CAS REG NO.	WEIGHT(%)
1	Sulfonated divinylbenzene/styrene copolymer, Na ion form	68441-33-8	44 - 49
2	Water	7732-18-5	51 - 56

See SECTION 8, Exposure Controls / Personal Protection

3. HAZARDS IDENTIFICATION

Primary Routes of Exposure

Eye Contact
Skin Contact

Eye Contact

Material can cause the following:
- irritation

Skin Contact

Prolonged or repeated skin contact can cause the following:
- slight skin irritation

4. FIRST AID MEASURES

Eye Contact

Flush eyes with a large amount of water for at least 15 minutes. Consult a physician if irritation persists.

CONTINUED

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CONTINUATION

Skin Contact

Wash affected skin areas thoroughly with soap and water.

5. FIRE FIGHTING MEASURES

Flash Point	Not Applicable
Auto-ignition Temperature	400°C/752°F
Lower Explosive Limit	Not Applicable
Upper Explosive Limit	Not Applicable

Unusual Hazards

Combustion generates toxic fumes of the following:
- sulfur oxides

Extinguishing Agents

Use the following extinguishing media when fighting fires involving this material:
- carbon dioxide - dry chemical - water spray

Personal Protective Equipment

Wear self-contained breathing apparatus (pressure-demand MSHA/NIOSH approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal Protection

Wear gloves made of the following material:
- natufal rubber

Additional personal protective equipment should include the following:
- safety glasses (ANSI Z87.1 or approved equivalent)

Procedures

Floor may be slippery; use care to avoid falling. Transfer spilled material to suitable containers for recovery or disposal.

7. HANDLING AND STORAGE

Storage Conditions

The minimum recommended storage temperature for this material is 0C/32F. The maximum recommended storage temperature for this material is 60C/140F. Keep from freezing; material stability may be affected.

Handling Procedures

The maximum recommended operating temperature for this material is 150C/300F. Properly designed equipment is vital if these resins are to be used in conjunction

CONTINUATION

with strong oxidizing agents such as nitric acid to prevent a rapid build-up of pressure and possible explosion. Consult a source knowledgeable in the handling of these materials before proceeding. Do not pack column with dry ion exchange resins. Dry beads expand when wetted; this expansion can cause glass columns to shatter.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Limit Information

No.		CAS REG NO.	WEIGHT(%)
1	Sulfonated divinylbenzene/styrene copolymer, Na ion form	68441-33-8	44 - 49
2	Water	7732-18-5	51 - 56

Component		ROHM AND HAAS		OSHA		ACGIH	
No.	Units	TWA	STEL	TWA	STEL	TWA	STEL
1		None	None	None	None	None	None
2		None	None	None	None	None	None

Respiratory Protection

A respiratory protection program meeting OSHA 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use. None required under normal operating conditions.

Eye Protection

Use safety glasses (ANSI Z87.1 or approved equivalent).

Hand Protection

Avoid skin contact. When using this substance, use skin protection.
- Natural rubber

Gloves should be removed and replaced immediately if there is any indication of degradation or chemical breakthrough.

Engineering Controls (Ventilation)

The ventilation system employed is dependent on the user's specific application of this material. Refer to the current edition of Industrial Ventilation: A Manual of Recommended Practice published by the American Conference of Governmental Industrial Hygienists for information on the design, installation, use, and maintenance of exhaust systems. None required under normal operating conditions.

Other Protective Equipment

Facilities storing or utilizing this material should be equipped with an eyewash facility.

FORM 30848-109 REV. 5/90 Recycled and Recyclable!

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9. PHYSICAL AND CHEMICAL PROPERTIES

Color	Yellow
State	Beads
pH	8 to 10 Aqueous slurry
Viscosity	Not Applicable
Specific Gravity (Water = 1)	1.28
Vapor Density (Air = 1)	< 1
Vapor Pressure	17 mm Hg @ 20°C/68°F Water
Melting Point	0°C/32°F Water
Boiling Point	100°C/212°F Water
Solubility in Water	Practically Insoluble
Percent Volatility	51-58 % Water
Evaporation Rate (BAc = 1)	< 1

See SECTION 5, Fire Fighting Measures

10. STABILITY AND REACTIVITY

Instability

This material is considered stable under specified conditions of storage, shipment and/or use. See SECTION 7, Handling And Storage, for specified conditions. However, avoid temperatures above 200C/392F.

Hazardous Decomposition Products

Thermal decomposition may yield the following:
- monomer vapors - sulfur oxides

Hazardous Polymerization

Product will not undergo polymerization.

Incompatibility

Avoid contact with strong oxidizing agents, particularly concentrated nitric acid.

11. TOXICOLOGICAL INFORMATION

Acute Data

Toxicity data for a compositionally similar material are listed below.

Oral LD50 - rat: >5000 mg/kg

12. ECOLOGICAL INFORMATION

No Applicable Data

13. DISPOSAL CONSIDERATIONS

Procedure

Unused resin may be incinerated or landfilled in facilities meeting local, state, and federal regulations. For contaminated resin, the user must determine the hazard and use an appropriate disposal method.

14. TRANSPORT INFORMATION

US DOT Hazard Class . . . . . NONREGULATED

15. REGULATORY INFORMATION

Workplace Classification

This product is considered non-hazardous under the OSHA Hazard Communication Standard (29CFR 1910.1200).

This product is not a 'controlled product' under the Canadian Workplace Hazardous Materials Information System (WHMIS).

SARA TITLE 3: Section 311/312 Categorizations (40CFR 370)

This product is not a hazardous chemical under 29CFR 1910.1200, and therefore is not covered by Title III of SARA.

SARA TITLE 3: Section 313 Information (40CFR 372)

This product does not contain a chemical which is listed in Section 313 at or above de minimis concentrations.

CERCLA Information(40CFR 302.4)

Releases of this material to air, land, or water are not reportable to the National Response Center under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) or to state and local emergency planning committees under the Superfund Amendments and Reauthorization Act (SARA) Title III Section 304.

Waste Classification

When a decision is made to discard this material as supplied, it does not meet RCRA's characteristic definition of ignitability, corrosivity, or reactivity, and is not listed in 40 CFR 261.33. The toxicity characteristic (TC), however, has not been evaluated by the Toxicity Characteristic Leaching Procedure (TCLP).

United States (TSCA)

All components of this product are listed or are excluded from listing on the U.S. Toxic Substances Control Act (TSCA) Chemical Substance Inventory.

Recycled and Recyclable!

16. OTHER INFORMATION

Rohm and Haas Hazard Rating		Scale
Toxicity	1	4=EXTREME 3=HIGH 2=MODERATE 1=SLIGHT 0=INSIGNIFICANT
Fire	1	
Reactivity	0	
Special	-	

Ratings are based on Rohm and Haas guidelines, and are intended for internal use.

ABBREVIATIONS:

ACGIH = American Conference of Governmental Industrial Hygienists
OSHA = Occupational Safety and Health Administration
TLV = Threshold Limit Value
PEL = Permissible Exposure Limit
TWA = Time Weighted Average
STEL = Short-Term Exposure Limit
BAc = Butyl acetate
▌ Bar denotes a revision from previous MSDS in this area.

The information contained herein relates only to the specific material identified. Rohm and Haas Company believes that such information is accurate and reliable as of the date of this material safety data sheet, but no representation, guarantee or warranty, express or implied, is made as to the accuracy, reliability, or completeness of the information. Rohm and Haas Company urges persons receiving this information to make their own determination as to the information's suitability and completeness for their particular application.

97.00940308

Attachment 1, (Example) Solid Waste Debris/Roll-off Release – ML9901 (10/02)

SOLID WATE ROLL-OFF RELEASE

ROLL-OFF NUMBER: _____ **WASTE GENERATED:** _____

BUILDING/AREA	Buildings with no Rad History		**Buildings/Rooms with Rad History**	
	ANNUAL SURVEY (DATE/NO.)	**ROLL-OFF/ DEBRIS PILE SURVEY (DATE/NO.)**	**ITEM/AREA PRE-DEMOLITION/TRANSITION SURVEY or MARSSIM METHODOLOGY\ (DATE/NO.)**	**COMMENTS**

The demolition/solid waste being disposed of from the Mound Location identified above meets the standards established by the Mound Guidance for Disposal of Solid Waste in agreement with the Ohio Environmental Protection Agency and the Department of Health Bureau of Radiological Protection. The Mound Guidance for Disposal of Solid Waste establishes standards for the survey of demolition debris and solid waste. The radiological surveys of the demolition debris/solid waste comprising this shipment were conducted in accordance with approved procedures and the use of best available technology as described in the Mound Guidance for Disposal of Solid Waste.

_____ Date_____

Waste Operations Manager or Designated Representative

ML-9901 (10/02).

065 of 77

Attachment 2 – FREE RELEASE SURVEY FOR WASTE DISPOSED OF IN ROLL-OFFS TO LOCAL LANDFILL

I. **BUILDINGS WITH NO RAD HISTORY** (MARSSIM NON-IMPACTED AREAS)	II **BUILDINGS/ROOMS WITH RAD HISTORY** (MARSSIM CAT,. 1, 2, & 3)	
ANNUAL SURVEY	PRE-DEMOLITION/TRANSITION SURVEY OR	
AND	MARRSIM methodology for unrestricted release of building structure. Equipment/furniture left in the building for D&D or that is part of a clean-out will have a representative survey of horizontal surfaces. OR	NOTES: Structural materials or specific item identified as contaminated above the limits in MD-80043, OP 400 may be decontaminated and resurveyed to determine if it meets release survey criteria
ROLL-OFF/DEBRIS PILE SURVEY	Item Specific free release requires a survey/ evaluation in accordance with MD-80043, OP 400 or OP 500, as appropriate.	

PRSs in Proximity to Building 24 and PH

PRS	CERCLA or Bldg. Related	Binning Status	Comments
59	CERCLA	NFA	Contaminated Soil Box Storage Area
176	CERCLA	NFA	Area 14, Radioactive Waste Line break
177	CERCLA	NFA	Building 41Alpha Wastewater Tank (Tank 208)
178	CERCLA	NFA	Building 41Alpha Wastewater Tank (Tank 209)
300	CERCLA	NFA	Area 19, Underground Waste Transfer Line
358	CERCLA	NFA	Elevated Soil Gas Location
441	CERCLA	Unbinned	Soil Staging Area. Includes contaminated soil locations from PRS 358 and Buildings PH and 24.

WORK PACKAGE MATERIAL LIST

Work Package # **Demolition of Building 24 and PH** Page ___ of ____

Work Package Description **BOSS-40391-00**

Item #	Qty.	Units	Material Description	Used For	Suggested Supplier
1		ea	Check spill kits	Spills	

(937) 259-5000 tel • LJB Inc. • (937) 259-5100 fax • ljbinc.com
1100 Research Blvd. • P.O. Box 20246 • Dayton, OH 45420-0246

September 27, 2004

Mr. Gary Weidenbach
CH2M Hill Mound
Miamisburg, Ohio

Re: Structural review of work package for the demolition of buildings 24, PH, WH-1, WH-2, WH-3

Dear Gary:

We have reviewed the demolition work plan for the referenced structures and have found them to be acceptable in reference to the OSHA requirements.

Please feel free to contact me at (937) 259-5039 if you need any additional information.

Sincerely,

LJB Inc.

Kevin E. Wilcox

Kevin E. Wilcox, P.E., C.S.P.
Principal

STATE OF OHIO
KEVIN E. WILCOX
E-61059
REGISTERED PROFESSIONAL ENGINEER

cc: File

W:\CH2M Hill\22269\sup\L22269d - building 24.doc

Road Closure/Blockage Checklist
(COMPLETE PRIOR TO CLOSING ROAD)

	Yes	N/A
1. Determine location and length of time for road closure.		
2. Notify Security for possible site access changes as needed and for emergency access.		
3. Inspect re-route traffic pattern for overhead obstacles, pavement condition and narrow passageway.		
4. Determine one-way or two-way traffic pattern, assign flag personnel, utilize cones, barricades and appropriate signage.		
5. Assure clear distance from permanent structures (sidewalks, fences, building, stanchions, etc.).		
6. Issue plant notification (include subcontractors, MMCIC, etc.) and include location, length of closure, alternate route, identify clearances, blind spots and remind site supervision to discuss in daily briefings.		
7. List and notify Buildings/Projects Impacted:		
8. Notify MMCIC.		

Project Safety POC Review _____ Date _____

Project Manager Approval _____ Date _____

Appendix E

LESSONS LEARNED/ POST-JOB CONFERENCE

EVENTS

1. EXCAVATOR BOOM CONTACTS OVERHEAD 13.8 KILOVOLT POWER LINE

On April 22, 2002, at the Rocky Flats Environmental Technology Site, the boom of an excavator contacted an overhead 13.8 kilovolt high-voltage power line, causing a visible electrical arc and tripping a substation circuit breaker. The excavator was being used to dismantle a building using mechanical shears attached to the boom for breaking up concrete. The line was checked for damage and it was returned to service a short time later. There were no injuries to the operator or equipment damage. (ORPS Report RFO--KHLL-NONPUOPS3-2002-0002)

The equipment operator was moving the excavator to position it out of the work area by extending the boom to assist in turning (see Figure 1). During one of these maneuvers, the boom contacted the power line, which was approximately 23 feet above the ground. A spotter was not used because the excavator was not expected to operate near the overhead lines.

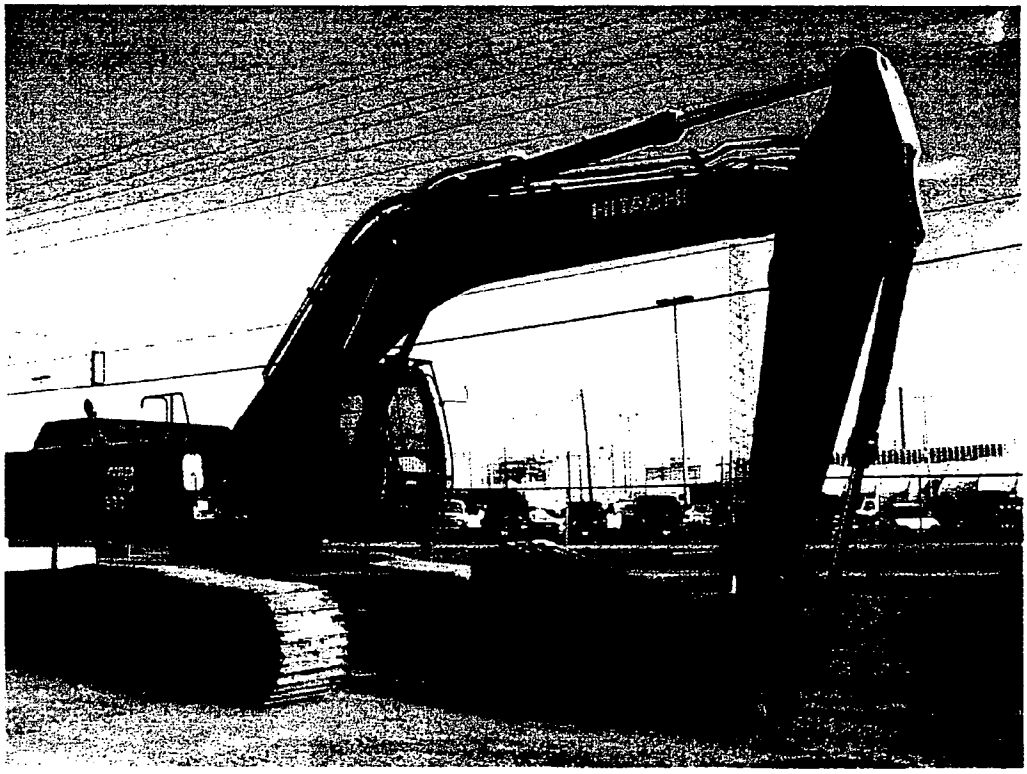

Figure 1. Excavator with boom positioned on the ground

A similar incident was reported in Operating Experience Summary 2000-09, in which a mobile television crew was injured when their transmission antenna contacted an overhead power line. The television crew was extending the antenna mast from their truck to transmit a live broadcast when the mast contacted an overhead power line and caused a small electrical fire and explosion inside their van. A camera operator outside the truck and an operator inside the truck were taken by helicopter to a hospital for treatment of burns.

The Occupational Safety and Health Administration regulation 29 CFR 1910.333(c)(3)(iii)(A), *Vehicular and Mechanical Equipment*, states that any vehicle or mechanical equipment capable of having parts of its structure elevated near energized overhead lines shall be operated so that a clearance of 10 feet is maintained.

This event demonstrates the importance of exercising extreme caution when operating excavators, cranes, front-end loaders, forklifts, and other vehicles in the vicinity of power lines. Pre-job briefings, facility procedures, and training programs should emphasize the dangers associated with these types of operations. Many events have occurred because equipment operators were not aware of potential hazards around and above them. The use of a spotter in this circumstance might have prevented this occurrence.

KEYWORDS: *Electric line, excavator, overhead line, electrical safety*

ISM CORE FUNCTIONS: *Develop and Implement Hazard Controls, Perform Work within Controls*

2. INADEQUATE EQUIPMENT GROUNDING RESULTS IN ELECTRICAL SHOCK

On January 29, 2002 at the Savannah River Site, a cafeteria services worker received a shock to his right hand while attempting to turn off an electric kitchen stove. The worker had seen electrical sparks underneath the 208-volt stove and decided to turn the stove control to the "off" position. Investigators later determined that the stove housing was inadequately grounded to prevent a shock. The worker did not require medical attention, but the shock to his right hand resulted in a near-miss occurrence. (ORPS Report SR--WSRC-FSSDGEN-2002-0001; final report filed March 25, 2002)

A critique of the event revealed that the stove was a replacement unit that had been installed in 2000, without upgrading the existing wiring and without verifying that the grounding was adequate after installation was complete. The electrical junction box for the replacement stove was located at the bottom of the unit and the power supply wires, inside a flexible conduit, rested against the sheet metal of the junction box.

The direct cause was a defective or failed part because the insulation on one of the power supply conductors touching the junction box had melted, causing an electrical short. Because of this short and the inadequate grounding of the stove, the worker received a shock. Daily use of the stove had generated high levels of heat for prolonged periods of time. Some of this heat apparently transferred to the junction box through conduction and melted the insulation.

The contributing cause was the electrician's failure to verify that the stove had been properly grounded after he installed it.

The root cause of this event was an inadequate or defective design. Maintenance personnel assumed that installation of the new stove was a direct replacement of the old one. The electrician failed to consider that the existing wiring would need to be upgraded, and used the same flexible conduit and wiring that was used for the old stove.

The following corrective actions have been implemented or are underway:

- Submit a lessons-learned document to the division lessons learned coordinator for review and sitewide distribution on the necessity of conducting a design review before replacing installed industrial-class electrical equipment.
- Ensure that all industrial-class equipment in the facility is properly grounded and that circuit breaker protection is adequately rated.
- Ensure that the new stove is grounded correctly and that it has effective circuit breaker protection.

Transporting Portable Fuel Tanks

(L03-012)

Lessons Learned Statement:

When moving portable fuel tanks, care should be taken to adjust lifting forks to the proper width required by the item being lifted. Setting of the forks into available lifting slots should be verified and spill kits should be readily available at the job site where portable fuel tanks are being used.

Discussion:

Oh March 26, 2003, a Heavy Duty operator attempted to lift a 550 gallon portable diesel fuel day tank, with a John Deere 644G loader equipped with forks. The tank assembly was equipped with two lifting slots; however the operator did not take time to adjust the loader forks to match their spacing. He attempted to pick up the tank by engaging only one lifting slot (a common practice) and placing the other fork under the lower tank support rails. In his haste to complete the job, the operator proceeded to lift the tank without first verifying that the fork had engaged the slot; the fork had missed the intended slot. As the tank was lifted it became unstable, rolled off of the forks, and tipped onto its end. At this point, diesel fuel began to pour out of the vent pipe. After three attempts, the operator was able to right the tank and stop the spill. Immediately, the Fire Department was called and several people in the area began to take measures to contain the spill. Through teamwork by the involved organizations, the spill was prevented from flowing into the adjacent stream. A total of approximately 24 gallons of fuel spilled from the tank onto a paved parking lot.

Analysis:

Failure to take the time necessary to adjust the loader forks and to verify that they were set into the tank lifting slots prior to lifting resulted in the spill of diesel fuel. Contributing to the event was the common practice of transporting the tank with only one fork set in the lifting slot. Additionally, work plans did not consider special precautions though the tank was being manipulated while in close proximity to a body of water.

Recommended Actions:

1. Operators must take the required time to adjust lifting forks to the proper width required by the item being lifted. The practice of moving the portable tanks with only one fork set into the lifting slots should be discontinued. Further, setting of the forks into both lifting slots must be verified prior to beginning the lift.

2. Spill kits should be located at the job site where portable fuel tanks are being used.

3. Work plans should provide special precautions when using or transporting portable fuel tanks near bodies of water.

POST JOB CONFERENCE

1. WORK PACKAGE TITLE: Demolition of Building 24 and PH
2. WORK PACKAGE NUMBER. BOSS-40391 - 00.

What went well?

What could be improved?

Other Comments:

Items Requiring Further Action:

POST-JOB CONFERENCE ATTENDEES

NAME	HP	NAME	HP

LESSONS LEARNED INPUT FORM

Title: (This is a brief descriptive title)

Lessons Learned Statement: (This is a brief, two or three sentence, summary of the lesson that was learned)

Discussion: (This is background and detail of what happened)

Analysis: (Discussion of what went wrong, or right and what should be done in the future)

Recommended Actions: (Identify specific corrective actions)

Submitted by: _____ Date: _____

OPTIONAL

Mail to: Lessons Learned Program Manager, or appropriate Project or Functional Manager

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