3001 0406090010

**BWX Technologies, Inc.**
a McDermott company

**BWXT of Ohio, Inc.**
1 Mound Road
P.O. Box 3030
Miamisburg, Ohio 45343-3030
(937) 865-4020

ER-317/02
November 13, 2002

Mr. Richard B. Provencher, Director
Miamisburg Closure Project
U. S. Department of Energy
P. O. Box 66
Miamisburg, OH 45343-0066

ATTENTION: Robert S. Rothman

SUBJECT: Contract No. DE-AC24-97OH20044
**VARIOUS DOCUMENTS**

REFERENCE: Statement of Work Requirement C.7.1e - Regulator Reports

Dear Mr. Provencher:

Rob Rothman from your office has approved the release of the following document to the regulators and the public for their review:

- PRS 423-428 Package – Public Review Draft
- PRS 437-439 Package – Public Review Draft
- PRS 440 - Public Review Draft

The public review period will be from November 13 until December 13, 2002 and BWXTO will respond to any comments received and incorporate the responses into the final document.

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

Sincerely,

Monte A. Williams
Project Manager, Environmental Restoration

MAW/DAR:jdg

Enclosures

cc: Tim Fischer, USEPA, (2) w/attachments
Brian Nickel, OEPA, (4) w/attachments
Ruth Vandegrift, ODH, (1) w/attachments
Paul Lucas, DOE/MCP, (1) w/attachments
Randy Tormey, DOE/OH, (1) w/attachments
Dann Bird, MMCIC, (3) w/attachments
J. D. Bonfiglio, MESH, (1) w/attachments
Craig Hansen, BWXT of Ohio, (1) w/attachments
Public Reading Room, (4) w/attachments
DCC

MOUND

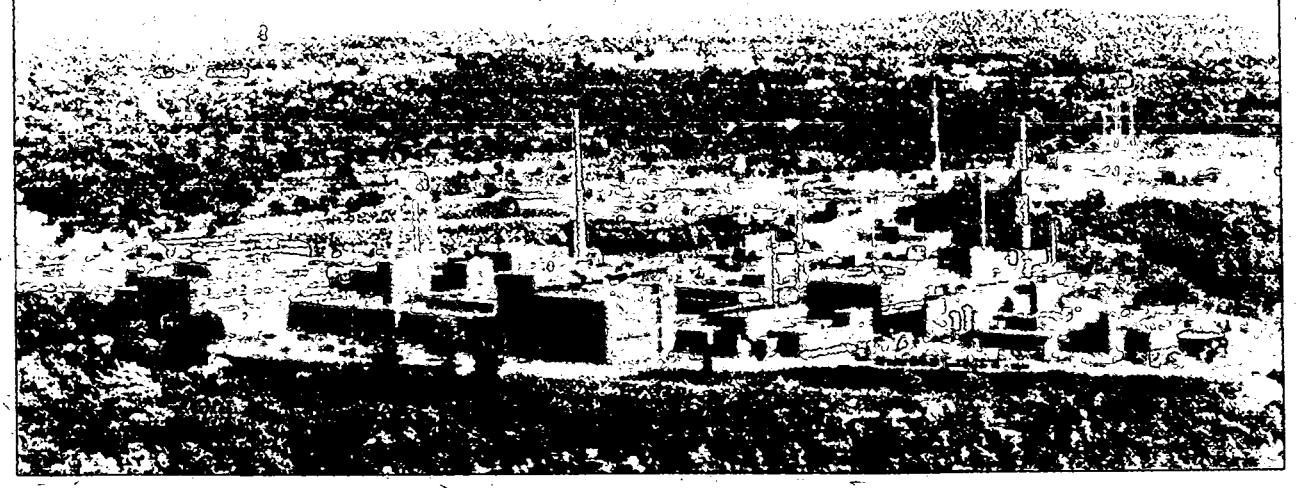
Environmental
Restoration
Program

# MOUND PLANT

## Potential Release Site Package

## PRS #440

PUBLIC REVIEW DRAFT
NOVEMBER 2002



PRS 440

| REV | DESCRIPTION | DATE |
|---|---|---|
| WORKING DRAFT | | 1 May 2001 |
| DRAFT | DOE review on 29 May 2001. Adjustments incorporated. Distribute for Core Team Review for July binning. | 30 May 2001 |
| DRAFT PROPOSED FINAL | Revised per OEPA comments of July 2001 | October 2002 |
| PUBLIC REVIEW DRAFT | No changes from Draft Proposed FInal | November 2002 |
| FINAL | | |

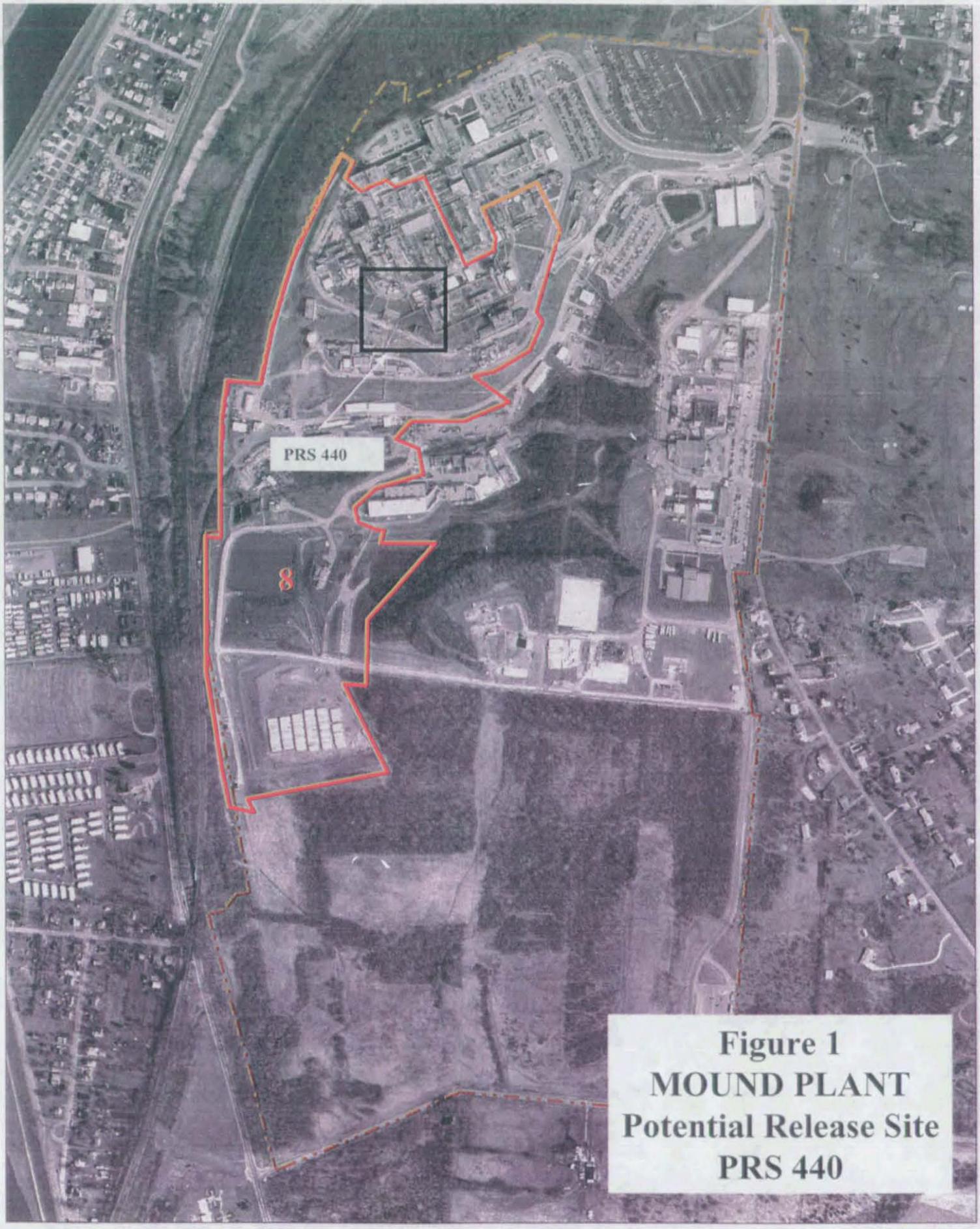
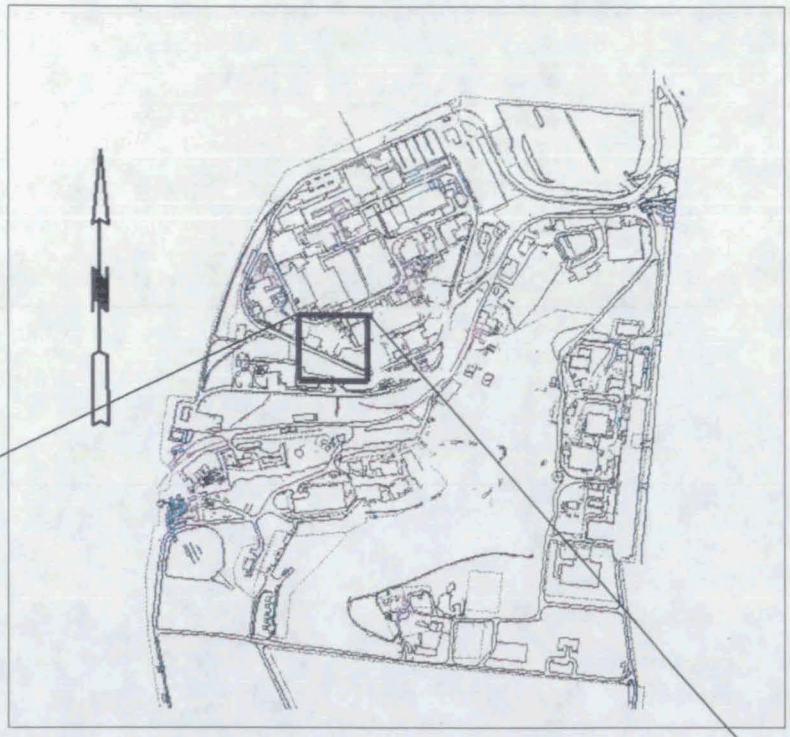
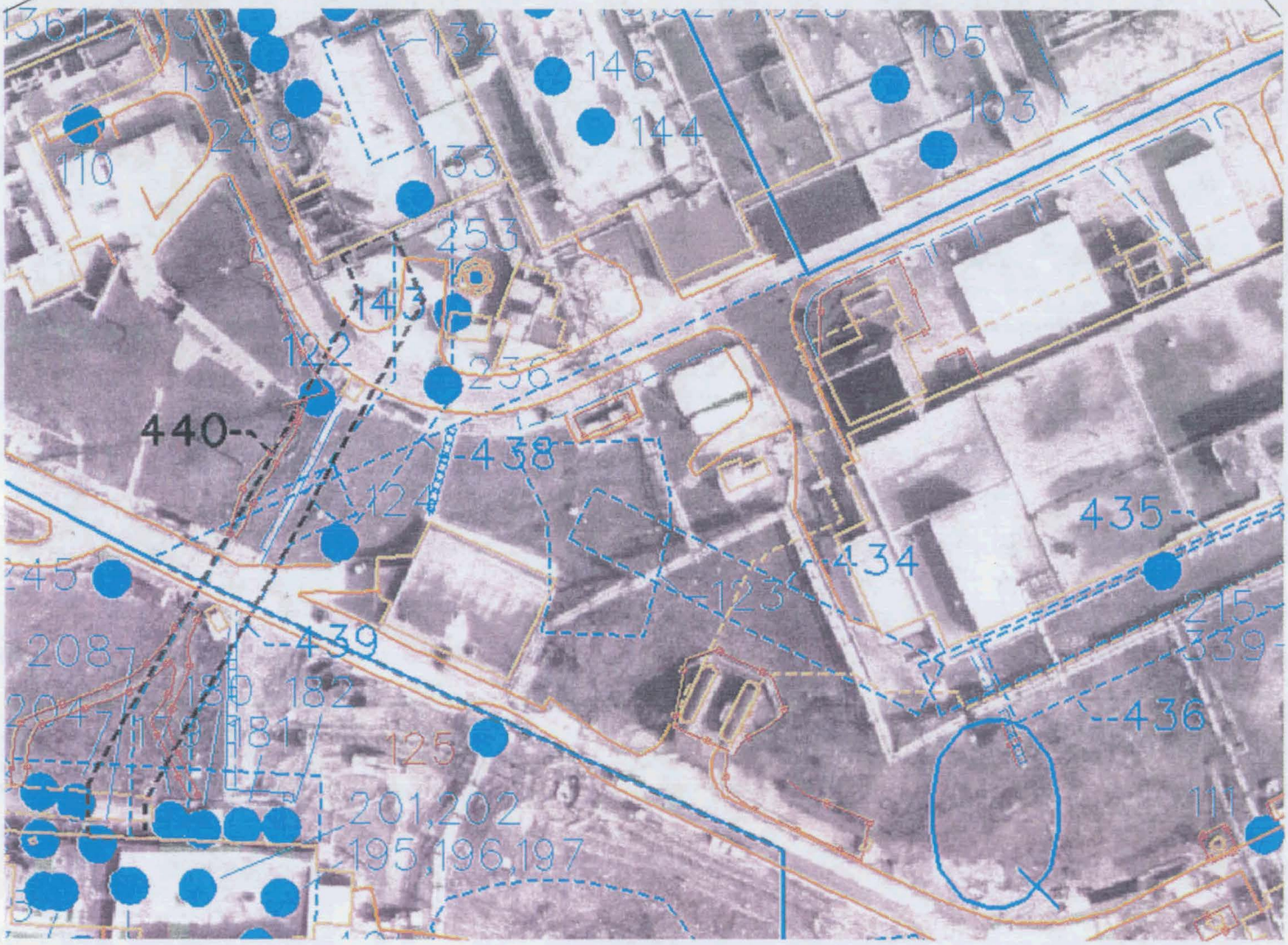



**Figure 1**
**MOUND PLANT**
**Potential Release Site**
**PRS 440**

# Figure 2.
# Mound Plant
## PRS 440
## Main Hill Underground Lines:
### Bldg. SW to Bldg. WD

On the map below:
- PRS number and location shown in black
- Fencing shown in red
- Elevation contours shown in brown
- Other PRS's shown in blue





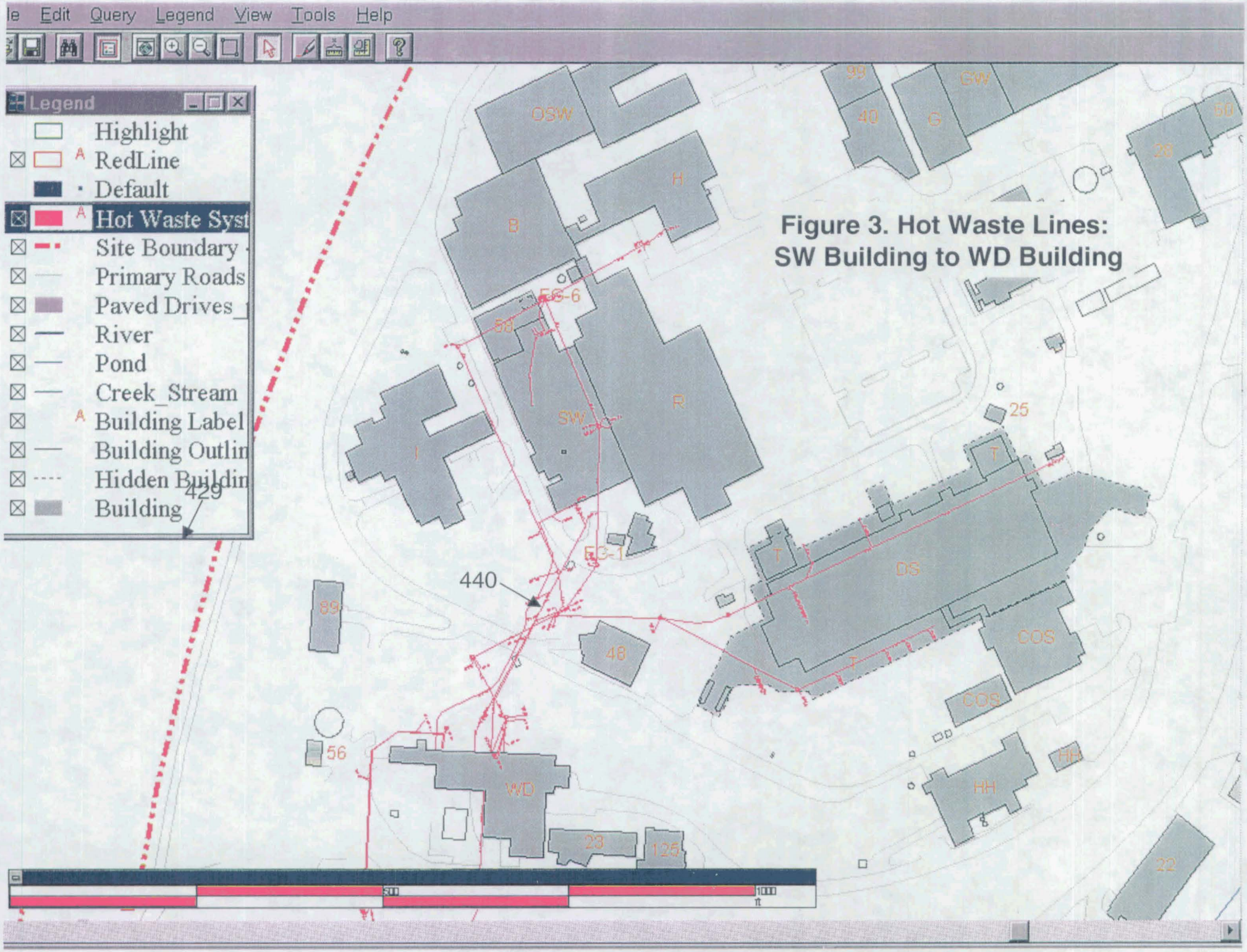



Figure 3. Hot Waste Lines: SW Building to WD Building

# PRS 440

## Main Hill Underground Lines

## SW Building to WD Building

**PRS HISTORY:**

The majority of Mound Plant Main Hill Underground Waste Lines (Underground Lines/UGLys) were originally grouped as one Potential Release Site (PRS), PRS 122. The document, *Operable Unit 9 Site Scoping Report: Volume 12 - Site Summary Report*, (Reference A), defines PRS 122 to include waste lines from B, H, R, and SW Buildings.

In preparation for review and binning of PRS 122, it became obvious that the grouping of almost 4,000 feet of such line under one PRS was not the most opportune position from which to begin the evaluation process. It was decided that the UGLys could be better studied and recommendation decisions made if the lines were defined to exist in segments. PRS 122 was segmented into PRSs 423 through 440.

PRS 440 identifies one UGLy segment associated with SW Building operations. PRS 440 addresses approximately 350 linear feet of waste line.

**BACKGROUND:**

Potential Release Site 440 identified the underground line segment that served to carry radioactively contaminated wastes from SW Building (Operations Labs/Tritium Development/Surveillance) operations enroute to the Waste Disposal (WD) Building. Note Figures 2 and 3. Wastes from operations in SW Building were discharged through tanks and sumps to the subject PRS. SW Building tanks and sumps are addressed, in part, by other Potential Release Site Data Packages (PRSs 135, 136, 137, 138, and 139), and are not the subject of this data package other than the contaminants carried.

PRS 440 carried hot wastes from SW Building, south to WD Building. Reference B provides a physical description of Potential Release Site 440.

**CONTAMINATION:**

SW Building operations provide insight into the contaminants potentially resident in UGLy PRS 440. Note References C and D. Reference D presents potential nuclide contaminants of concern as a function of specific programs and room locations. A briefing presentation (Reference E), given by BWXT of Ohio Soils Project personnel further illuminates the number and variety of contaminants that may impact PRS 440.

Building SW is to be demolished and an Action Memorandum has been generated (Reference F).

Reference G and Table 1 present GIS mapping and sampling information in proximity to the PRS 440 underground process waste line. PRS 124 presents supporting contamination information (Reference H).

Table 1: Selected GIS Mapping/Sampling Information

| Contaminant | Maximum Concentration Detected | Guideline Criteria ($10^{-6}$) | Background Value |
|---|---|---|---|
| Beryllium | 1.2 mg/kg | 0.70 mg/kg | 1.3 mg/kg |
| Pu-238 | 225 pCi/g | 55 pCi/g ($10^{-5}$) | 0.13 pCi/g |
| Th-232+D | 5.7 pCi/g | 0.07 pCi/g | 1.4 pCi/g |

+D indicates contributions of decay products were included in calculation of risk guideline value

**READING ROOM REFERENCES:**

A) *Operable Unit 9 Site Scoping Report: Volume 12 - Site Summary Report* (Excerpt)

C) *Mound Facility Physical Characterization (MLM-3791)*, December 1, 1993 (Excerpt)

D) Mound Technical Manual, MD-22153, Issue 2, *Mound Site Radionuclides By Location* (Excerpt)

F) *Action Memorandum/Engineering Evaluation/Cost Analysis, Buildings R, SW, 58 and 68 Slab Removal Action*, Mound Plant, Miamisburg, Ohio, **DATE**, Final

H) Potential Release Site Data Package (PRS) 124

**OTHER REFERENCES:**

B) Cost Estimate Assumptions and Ground Rules, B&W Services, Inc.

E) Technical Presentation, Main Hill Underground Lines, PRS 122-124

G) GIS Mapping/Sampling Information

**PREPARED BY:**

Karen M. Arthur, BWXT of Ohio Soils Project Engineer
Joseph C. Geneczko, BWXT of Ohio Technical Staff
Mary Beth England, BWXT of Ohio Technical Staff

Steven S. Pawel, BWXT of Ohio Technical Staff

**REVIEWED BY:**

Richard Neff, Department of Energy/MEMP
David A. Rakel, BWXT of Ohio Technical Staff

**HISTORICAL/TECHNICAL REVIEWER:**

Dan Carfagno, Contractor to Ohio Environmental Protection Agency

# MOUND PLANT
# PRS #440
# MAIN HILL UNDERGROUND LINES
# Building SW to Building WD

**RECOMMENDATION:**

PRS 440 was identified because the underground line segment carried radioactively contaminated effluent from SW Building operations to the Waste Disposal building (WD).

Therefore, a RESPONSE ACTION is recommended for PRS 440.

**CONCURRENCE:**

DOE/MEMP: _____ 7/18/01
Robert S. Rothman, Remedial Project Manager (date)

USEPA: _____ 7/18/01
Timothy J. Fischer, Remedial Project Manager (date)

OEPA: _____ 7/18/01
Brian K. Nickel, Project Manager (date)

**SUMMARY OF COMMENTS AND RESPONSES:**

Comment period from _____ to _____

☐ No comments were received during the comment period.

☐ Comment responses can be found on page _____ of this package.

R

REFERENCE MATERIAL FOR PRS 440

Reference A

DUPLICATE
Classification Code. 29-01-01-07-12
Accession No. 9503280015

ENVIRONMENTAL RESTORATION PROGRAM

# OPERABLE UNIT 9
# SITE SCOPING REPORT:
# VOLUME 12 - SITE SUMMARY REPORT

## MOUND PLANT
## MIAMISBURG, OHIO

December 1994

U.S. DEPARTMENT OF ENERGY
OHIO FIELD OFFICE

ENVIRONMENTAL RESTORATION PROGRAM
EG&G MOUND APPLIED TECHNOLOGIES

FINAL

| Description of History and Nature of Waste Handling | | | | | | Hazardous Conditions and Incidents | | | Environmental Data | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| No. | Site Name | Location | Status | Potential Hazardous Substances | Ref | Releases | Media | Ref | Analytes[a] | Results | Ref |
| 118 | M Building Soils | E-7 | Grounds | Copper cyanide, Silver cyanide<br>Machine oils, Solvents | 4 | Oils, Copper cyanide, Silver cyanide | S | 10 | 1<br>14 | SGS[b] Table B.4 Locations 1050, 1051, 1062<br>Table B.9 RSS[c] Locations S0162, S0163, S0252 (Appendix E in Ref. 6) | 12<br>6 |
| 119 | Room M-38 Metal Plating Rinse Water Sump (Tank 225) | E-7 | Surplus | Rinse waters from metal plating operations. Possible contaminants include nickel, cadmium, silver, gold, manganese, cyanide, and aluminum.<br>Sodium hydroxide solution<br>Potassium permanganate | 3, 4 | None Suspected | | | No Data | | |
| 120 | Room M-108 Metal Plating Rinse Water Tank (Tank 119) | E-7 | In service | Rinse waters from metal plating operations. copper, gold, silver, nickel, aluminum, and uranium | 3, 4 | Silver cyanide | SW | 10 | No Data | | |
| 121 | Vapor Degreasers | E-7 | In service | Perclene D (perchloroethylene) | 4, 5, 18 | None Suspected | | | No Data | | |
| 122 | Underground Radioactive Waste Lines (Main Hill) | E-6<br>F-6 | Inactive | Alpha wastes from SW Bldg., R Bldg., and H Bldg.<br>Wastewater from B Building<br>Plutonium-238, Cobalt-60 | 4, 18 | Suspected | S | 4, 10 | No Data | | |
| 123 | Area 5, Radioactive Waste Line Break | F-6<br>F-7 | Grounds | Cobalt-60, Cesium-137, Plutonium-238 | 1, 5, 18 | Cobalt-60 | S | 1, 18 | 2, 14, 16 | Table B.1 (Table III.3 in Ref. 6) | 6 |
| 124 | Building 48 Hillside | F-6 | Inactive | Plutonium-238 | | Plutonium-238 | S | 6 | 14 | Table B.1 | 6 |
| 125 | Underground Sanitary Sewer Line G24 | F-6 | In service | Organic solvents, Plating Solutions, Laboratory chemicals, Nitric acid, Hydrochloric acid, Methylene chloride, Strong acids and bases | | Suspected | S | 5, 18 | 3, 4, 5, 6, 14, 16 | Tables B.6, B.7, and B.8 | 7 |
| 126 | Building 28 Solvent Storage Area | E-8 | Grounds | Organic solvents (including alcohol, methylene chloride, and acetone) | 4, 5, 9, 18 | Suspected | S | 4 | 1 | SGS[b] Table B.4 Location 1054 | 12 |

| Description of History and Nature of Waste Handling | | | | | | Hazardous Conditions and Incidents | | | Environmental Data | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| No. | Site Name | Location | Status | Potential Hazardous Substances | Ref | Releases | Media | Ref | Analytes[a] | Results | Ref |
| 127 | Building 28 Solvent Storage Shed | E-8 | In Service | Organic solvents (including alcohol, methylene chloride, and acetone) | 4, 5, 18 | Suspected | S | 4 | 1 | SGS[b] Table B.4 Locations 1190 and 1231 | 12 |
| 128 | DS Building Solvent Storage Shed | F-7 | In service | Organic solvents (including 1,1,1-trichloroethane, trichlorofluoromethane, ethanol, and trichloroethane) | 4, 5, 18 | Suspected | S | 4 | 1<br>14 | SGS[b] Table B.4 Location 1194 No Hits<br>Table B.9 RSS[c] Location S0128 (Appendix E in Ref. 6) | 12<br>6 |
| 129 | B Building Solvent Storage Shed | E-6 | Inactive | Organic solvents ( including trichloroethene, trichlorofluoromentane, ethanol, methonal, isopropanol, acetone, methylene chloride, toluelene)<br>Oils | 4, 5, 18 | Suspected | S | 4 | 1<br>14 | SGS[b] Table B.4 Locations 1202, 1203<br>Table B.9 RSS[c] Location S0146 | 12<br>6 |
| 130 | B Building Temporary Drum Storage Area | E-6 | Inactive | Waste solvents, waste oil, and trash from E and B Bldgs. | 4 | | | | | (Appendix E in Ref. 6) | |
| 131 | SW Building Soils | E-6<br>F-6 | Grounds | Tritium, Radium-226, Actinium-227, Thorium-232 | 4, 6, 18 | Tritium beneath the building | S | 1, 18 | 14, 16 | Table B.1 RSS[c] Locations S0154 and S0180 (Appendix E in Ref. 6) | 6 |
| 132 | Area 15, Entombed SW Cave (Room SW 1-B) | F-6 | Historical | Radon-222, Radium-226, Actinium-227, Thorium-228 | 1, 4, 6, 18 | Radon-222 | A | 1, 6 | No Data | | |
| 133 | SW Building Room 1-A | F-6 | Historical | High-activity wastewater from radium and actinium processing, reactor waste including Radium-226, Actinium-227, Cesium-137, Plutonium-238, and Uranium-238. | 4 | Cesium-137 (sealed in concrete in building floor) | | 4 | No Data | | |
| 134 | SW Building Drum Storage Area | E-6 | In service | Hazardous wastes<br>Asbestos, Waste oils, Antifreeze | 4, 5, 18 | | | | 14 | Table B.9 RSS[c] Location S0180 (Appendix E in Ref. 6) | 6 |
| 135 | Room SW-8 Beta Wastewater Tank (Tank 20) | F-6 | In service | Tritium | 3, 4 | | | | No Data | | |

| Description of History and Nature of Waste Handling | | | | | | Hazardous Conditions and Incidents | | | Environmental Data | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| No. | Site Name | Location | Status | Potential Hazardous Substances | Ref | Releases | Media | Ref | Analytes[a] | Results | Ref |
| 136 | Room SW-125 Beta Wastewater Tank (Tank 21) | F-6 | In service | Tritium | 3, 4 | Suspected historical leaks | | | No Data | | |
| 137 | Room SW-143 Beta Wastewater Tank (Tank 22) | F-6 | In service | Tritium | 3, 4 | Tanks lined | | | No Data | | |
| 138 | Room SW-137 Alpha Wastewater Sump (Tank 23) | E-6<br>F-6 | Inactive | Alpha wastewater from drains, sinks, and processes in SW Bldg - Uranium-238. | 3, 4 | Suspected uranium-233 | | | No Data | | |
| 139 | Room SW-10 Beta Wastewater Sump (Tank 226) | F-6 | Inactive | tritium | 3, 4 | Suspected historical leaks, tank lined | | | No Data | | |
| 140 | Beta Waste Solidification Facility - SW Building | E-6<br>F-6 | In service | tritium<br><br>Waste oils including vacuum pump, gear box, and diffusion pump oils. | 4 | | | | No Data | | |
| 141 | Tritium Effluent Removal System | E-6 | In service | Vacuum pump oils<br><br>Organic solvents<br><br>Tritium wastewater | | Tritium | A | 4, 10 | No Data | | |
| 142[a] | SW/R Building Solid Radioactive Waste Compactor | E-6<br>F-6 | In service | Tritium | 4 | | | | No Data | | |
| 143 | R/SW/T Building Stack Diesel Fuel Storage Tank (Tank 117) | F-6 | In service | Diesel fuel | 3 | | | | 1 | SGS[b] Table B.5 Location 1021 | 12- |
| 144 | R Building Sanitary Waste Collection Tank (Tank 120) | F-6 | In service | Sanitary wastes | 3, 4 | | | | No Data | | |
| 145 | Room R-128 Alpha Wastewater Tank (Tank 19) | E-6 | In service | Alpha wastewater generated in R Bldg. Possible contaminants include Pu-238,-239, Ra-226, and Ac-227 | 3, 4 | | | | No Data | | |
| 146 | R Building Rooms 121, 144, 146, and 148 entombed drains | F-6 | Historical | Radium-226, Actinium-227 | 4 | Sealed in concrete in building floor drains | | 4 | No Data | | |

- Soil Gas Survey - Freon 11, Freon 113, Trans-1,2-Dichloroethylene, Cis-1,2-Dichloroethylene, 1,1,1-Trichloroethane, Perchloroethylene, Trichloroethylene, Toluene
- Gamma Spectroscopy - Thorium-228, -230, Cobalt-60, Cesium-137, Radium-224, -226, -228, Americium-241, Actinium-227, Bismuth-207, Bismuth-210m, Potassium-40
- Target Analyte List
- Target Compound List (VOC)
- Target Compound List (SVOC)
- Target Compound List (Pesticides/Polychlorinated Biphenyl)
- Dioxins/Furans
- Extractable Petroleum Hydrocarbons (EPH)/Total Petroleum Hydrocarbons (TPH)
- Lithium

) - Nitrate/Nitrite
1 - Chloride
2 - Explosives
3 - Plutonium-238
4 - Plutonium-238, Thorium-232
5 - Cobalt-60, Cesium-137, Radium-226, Americium-241
6 - Tritium

eference List


. DOE 1986 "Phase I: Installation Assessment Mound (DRAFT)."
. DOE 1992a "Remedial Investigation/Feasibility Study, Operable Unit 9, Site-Wide Work Plan (Final)."
. DOE 1992c "Mound Plant Underground Storage Tank Program Plan & Regulatory Status Review (Final)."
. DOE 1993a "Site Scoping Report: Vol. 7 - Waste Management (FINAL)."
. EPA 1988a "Preliminary Review/Visual Site Inspection for RCRA Facility Assessment of Mound Plant"
. DOE 1993d "Operable Unit 9, Site Scping Report: Vol. 3 - Radiological Site Survey (FINAL)."
. DOE 1993c "Operable Unit 3, Misc. Sites Limited Field Investigation Report."
. DOE 1992d "Reconnaissance Sampling Report Decontamination & Decommissioning Areas, OU6, (FINAL)."
. Fentiman 1990 "Characterization of Mound's Hazardous, Radioactive and Mixed Wastes."
0. DOE 1992f "Operable Unit 9, Site Scpoing Report: Vol. 9 - Spills and Response Actions (FINAL)."
1. Styron and Meyer 1981"Potable Water Standards Project: Final Report."
2. DOE 1993b "Reconnaissance Sampling Report - Soil Gas Survey & Geophysical Investigations, Mound Plant Main Hill and SM/PP Hill (FINAL)."
3. DOE 1993d "Operable Unit 9, Site Scoping Report: Vol. 3 - Radiological Site Survey (FINAL)."
4. DOE 1991b "Main Hill Seeps, Operable Unit 2, On-Scene Coordinator Report for CERCLA Section 104 Remedial Action, West Powerhouse PCB Site."
5. Halford 1990 "Results of South Pond Sampling."
6. DOE 1993e "Operable Unit 4, Special Canal Sampling Report, Miami Erie Canal."
7. DOE 1990 "Preliminary Results of Reconnaissance Magnetic Survey of Mound Plant Areas 2, 6, 7, and C."
8. DOE 1992a "Remedial Investigation/Feasibility Study, Operable Unit 9, Site-Wide Work Plan (FINAL)."
9. Rogers 1975 "Mound Laboratory Environmental Plutonium Study, 1974."
0. DOE 1992h "Ground Water and Seep Water Quality Data Report Through First Quarter, FY92."
1. Dames and Moore 1976a, b "Potable Water Standards Project Mound Laboratory" and "Evaluation of the Buried Valley Aquifer Adjacent to Mound Laboratory."
2. DOE 1992i "Closure Report, Building 34 - Aviation Fuel Storage Tank."
3. DOE 1992j "Closure Report, Building 51 - Waste Storage Tank."
4. DOE 1994 "Operable Unit 1, Remedial Investigation Report."
5. EG&G 1994 "Active Underground Storage Tank Plan."

Reference B

| PRS # | UGLy Subsystem | Line Designation (prelim. cost est.) | Linear Feet (LF) |
|---|---|---|---|
| | Bldg H to Bldg WD | 1a | 180 |
| | Bldg H to Bldg WD | 1b | 132 |
| | Bldg H to Bldg WD | 2 | 20 |
| | Bldg H to Bldg WD | 5 | 321 |
| | Bldg H to Bldg WD | 6 | 223 |
| | Bldg H to Bldg WD | 7 | 223 |
| | East Exhaust Tower to Manhole 6 | 9 | 285 |
| | East Exhaust Tower to Manhole 6 | 9a | 60 |
| | East Exhaust Tower to Manhole 6 | 10a | 390 |
| | East Exhaust Tower to Manhole 6 | 11 | 53 |
| | East Exhaust Tower to Manhole 6 | 12 | 56 |
| | South Side of Bldg T to Manhole 8 | 13a | 208 |
| | South Side of Bldg T to Manhole 8 | 13b | 185 |
| | South Side of Bldg T to Manhole 8 | 14 | 114 |
| | Manhole 20 to Bldg WD | 3 | 65 |
| | Manhole 20 to Bldg WD | 4 | 150 |
| | Manhole 20 to Bldg WD | 4a | 223 |
| [redacted] 440 | Bldg SW to Bldg WD | 8 | 337 |

Go to page 13/14.

# B&W SERVICES, INC.

*BWX Technologies, Inc. a McDermott company*

| | |
|---|---|
| *To:* **Distribution** | |
| *From:* **R. S. Kingsley** | *File No.:* |
| *Subject:* **Cost Estimate Assumptions and Ground Rules** | *Date:* |

**Distribution**

A Task Force was formed to develop a cost estimate for the remediation of the hot waste sewers at the Mound site. The hot waste sewer lines transported radioactively contaminated hot waste from site research and development, operating, and site support buildings to a waste treatment complex located in the WD Building. Characterization information indicates that several segments of this hot waste sewer system are extensively contaminated with radioactive materials (i.e. >700,000 pCi $Co^{60}$ /100 $cm^2$ and > 400 nCi $Pu^{238}$. A series of alternative actions for the disposition of these lines is being developed. The objective of the task force was the estimation of the remediation costs for removal of the lines as one of the options to be considered for treatment action of these lines. This task force was composed of William Crisswell (Roy F Weston construction engineer), Chuck Finkenbein (BWXO radiation protection), Richard Kingsley (BWSI senior supervisory engineer), and Roger Murray (Morrison Knudsen Estimating Manager).

The task force met on March 13, 14, and 15 to develop the work scope and define the assumptions to be used in completing this cost estimate. The meeting:

- Described the underground lines (which the Mound project refers to as the UGLy (Underground Lines),
- Completed two site walk downs of the UGLy lines,
- Described current conditions of the UGLy lines,
- Grouped the underground lines into discrete segments for estimating convenience,
- Identified and defined cost study assumptions, and
- Identified additional information required completing a cost estimate.

Appendix A contains a copy of the view graphs used during the meeting by R. S. Kingsley to kick-off the meeting and describes the problems involved in the remediation of the UGLy lines.

This memo will:

- Describe follow-up actions items required to initiate the cost estimate study,
- Summarize guidance provided by John Price for preparing the UGLy line cost estimate,
- Document the underground line groupings to be used during the cost estimate, and
- Summarize cost study assumptions and ground rules developed by the Task Force for the completion of the Cost Study.

## A. Follow-up Action Items

During the course of the three-day Task Force meeting, a series of action items were identified that were to be completed by R. S. Kingsley. These action items include:

1. Identifying the location, number and routing of vertical riser/horizontal lateral lines connecting the T Building to the 8-inch diameter hot waste sewer trunk lines below and adjacent to the DS Building. In addition, it should be determined if these lines are encased in the T Building concrete walls (second priority). This action was completed and drawing sets forwarded to William Murray. The lines are not encased in the T Building walls.

2. Obtaining addition copies of the overall underground utility site plans for William Crisswell and John Murray (first priority). This action was completed.

3. Establishing the disposition of the 8-inch diameter hot waste sewer line along the south side of the DS Building at the present location of the COS Building (included with the second priority). Was this section of hot waste line rerouted, removed, or left in place during construction of the COS building? In addition, the design/construction drawings for the COS building should be located and forwarded to Task Force members. This action was completed. As-built drawings of the COS Building indicate that all effected hot waste sewer risers were removed during COS Building construction. The COS construction drawings were forwarded to Task Force members.

4. Obtaining a set of photographs of the surface above the UGLy lines should be obtained and sent to Roger Murray (third priority). This activity was completed and a set of photographs was forwarded to Roger Murray. In addition, a set of photographs will be placed in the soils group library along with a copy of this memo.

5. Obtaining a set of the original site construction drawings showing the layout of the site and the UGLy pipe trenches should be obtained and sent to Roger Murray. This action item was completed and a set of the original site underground line construction drawings was obtained and forwarded to Roger Murray.

6. In order to develop a remediation schedule, a number of questions must be answered including:

- What happens to Building 48 and when is it scheduled to happen?

- What happens to the T Building ventilation heads houses and when are they scheduled to happen?

- What happens to the pipe bridges and their supported utility systems located south of the DS Building between manhole 8 and 8A and when are they scheduled to happen?

- What happens to the pipe bridges and their supported utility systems located south of DS Building and when are they scheduled to happen?

- What is the disposition of I Building and when is it scheduled to happen?

- What is the color-coding on the hydrants on the west side of the DS Building (i.e. red, red/yellow, and green)?

- What is the disposition of the liquid $N_2$ system supporting TERF and when is it scheduled to happen?

- What is the disposition of the DS Building emergency generator and when is it scheduled to occur?

The above is a fourth priority in importance. The task force did not complete this action. Answering these questions requires extensive integration with a master site closure plan. A detailed site master closure plan does not exist in sufficient detail to answer these questions. Thus a schedule for remediation of these underground lines cannot be developed at this time.

7. Cost study waste management ground rules and guidelines will be developed in consultation with BWXO waste management personnel (i.e. John Kruger's staff). This discussion should define ground rules for establishing waste packaging, waste disposal, and waste transportation costs. In addition, reference waste disposal sites should be identified by type of contaminated waste produced during UGLy line remediation. Roger Murray completed this action and the results reflected in the cost estimate report.

8. Develop an analysis and sampling plan for excavated waste. This plan should define assumptions for waste characterization during remediation and disposal. In addition the plan should include assumption for the frequency and cost for worker bioassay. Roger Murray completed this action and the results reflected in the cost estimate.

9. Roger Murray will meet with xxx Hall to discuss project cost estimating guidelines.

10. The cost estimate report must include a discussion of the current baseline cost estimate for the remediation of the UGLy lines (directive received from ?? Hall). Guidance provided during this conversation on March 15 includes:

    - John Price will have to provide site support cost estimates

## B. Cost Estimate Study Guidance

John Price (BWXO soils project manager) provided guidance for the preparation of a cost estimate for the remediation of the UGLy system. This guidance included:

1. The cost estimate should be organized in the following three categories:

   - Work planning (i.e. engineering planning for UGLy line remediation, etc.),

   - Fieldwork. Fieldwork should include all of the work activities completed in the field to remediate the lines. Fieldwork should include all phase including field mobilization, field execution, line grouting, remediation, bottom-of-hole sampling, sampling and characterization of remediated soils, demobilization etc. The field work cost estimate should contain assumption for the size of the field crew (based upon past experience), number of samples taken per day, assumed $ft^3$ of soil excavated per day, assumed liner ft. of UGLy line remediated per day, assumed liner ft. of line grouted per day, etc., and

   - Reporting. This activity will include the preparation of final reports documenting the completion of the UGLy line remediation.

2. The Corps of Engineers reviews all project remediation cost estimates. Thus, this cost estimate must be defended to the Corps. For this reason, it is essential that all assumptions etc. used in developing this cost estimate must be documented.

3. The cost estimate should be developed assuming that the work is subcontracted to an outside firm. This includes all aspects of the job including supporting functions such as radiation control technicians, field labor, etc. Two exceptions to guidance include radiochemical laboratory support and project oversight, which will be provided by the Soils Project. In addition, the subcontractor will utilize DOE site equipment.

4. The cost estimate should develop:

   - A low estimate,

   - A medium (i.e. most likely estimate), and

   - Worst estimate.

   These three estimates can be based upon differing remediation assumptions, differing assumptions on the quantities of contaminated soils, differing remediation methodologies, or on combinations of these assumptions. The selection of these conditions is up to the task force. A matrix of the various alternative field conditions (i.e. differing levels of overburden contamination) could be developed and the likely hood that this assumed condition encountered estimated. Than a weighted average cost estimate calculated.

5. The UGLy remediation schedule should be connected to the remediation schedule for:

- TERF (i.e. Tritium Environmental Recovery System),
- Above ground utility system remediation (as shown in the current Primavera schedule),
- Remediation of buildings R, SW, and H, and
- Stack deconstruction.

6. UGLy line remediation is a fourth level WBS (i.e. WBS number 1.2.7.25) The three UGLy system activities (i.e. work planning, fieldwork, and reporting) are WBS level 5 activities. Segment remediation (i.e. Mound labor as $/hr., subcontract cost, etc.) is a level 6 activity, and the details backing up these totals are a WBS level 7 activity.

## C. Definition of Underground Line Segments

During the site walk down, the Task Force concluded that it was more efficient to break the UGLy lines down into segments for cost estimating purposes. The following discussions define those segments and summarize the assumptions made for the remediation of each segment. Throughout this discussion, the basic assumptions describe below concerning the UGLy lines and their remediation is applicable. These general assumptions include:

- The UGLy line is bedded in concrete,
- The dimensions of the concrete are 48 inches wide and 12 inches deep,
- A 20 inch wide bucket will be used to excavate the overburden and expose the line,
- The interior of all lines will be grouted prior to remediation, and
- The lines will be cut into segments and removed from the trench.

1. UGLy Line Segment 1A. This UGLy sewer line segment starts 5 ft. from H Building wall, runs ~ 23 ft. in a westerly direction to Manhole HW -22 (which is buried under asphalt) and then on another ~ 157 ft. to Manhole HW -20. During this traverse between the H Building and Manhole HW -22, this UGLy line segment cross beneath a number of other underground utilities including:

   - A 6 inch diameter cast iron (i.e. CIP) water line,
   - A 4 inch diameter CIP sanitary waste line,
   - An 8 inch diameter CIP fire line,
   - A 15 inch diameter concrete (CONC) storm sewer,
   - A second 5 inch diameter CIP water line,

- An ADT cable,
- A 1-4" electrical tile,
- Three 4 inch condensate lines, and
- A second 6-inch diameter vitreous clay (VCP) storm sewer.

In addition, segment 1A crosses beneath the breezeway that also supports a pipe bridge carrying a number of other utility lines.

Assumptions made about UGLy segment 1A include:

- This UGLy segment can be removed following removal of the breezeway and the utility lines that are supported on the pipe bridge attached to it's roof,
- H Building will be removed prior to the remediation of the UGLy line segment,
- Soils surrounding 1 ft. the UGLy line pipe trench contain low level waste,
- This UGLy line segment is 8 inch diameter VCP encased in concrete,
- A 10% excess will be added to the soil excavated from the pipe trench as a contingency for segment structural failure, and
- Overburden above this UGLy line segment is uncontaminated and will be used as backfill.

2. UGLy Line Segment 1B. This UGLy sewer line segment runs ~ 132 ft. in a westerly direction from Manhole HW-20 to Manhole HW 18. During this traverse, this UGLy line segment cross beneath a number of other underground utilities including:

- An abandoned 8 inch diameter CIP line,
- An 8 inch diameter VCP storm sewer,
- A second 8 inch diameter VCP storm sewer,
- A 4 inch diameter CIP water line,
- An abandoned 6 inch diameter CIP water line, and
- An 8-inch diameter ACP fire waterline.

In addition, ~ 87 ft. of segment 1B crosses beneath the elevated Building 58 that house the SW Building ventilation fans and filters. Filtered SW Building room air is discharged from this building directly to an adjacent exhaust stack. Thus, Building 58 must remain active as long as the SW Building contains radioactive contamination. In addition, ~ 20 ft. of this UGLy segment crosses a main Mound site north south roadway.

Assumptions made about UGLy segment 1B include:

- This UGLy segment cannot be removed until after the SW Building has been remediated and Building 58 dismantled.
- This UGLy line segment is 8 in. diameter VCP encased in concrete,
- Soils surrounding 1 ft. the UGLy line pipe trench contain low level waste,
- A 10% excess will be added to the soil excavated from the pipe trench as a contingency for segment structural failure, and
- Overburden above this UGLy line segment is uncontaminated and will be used as backfill.

3. UGLy Line Segment 3. This UGLy sewer line segment runs ~ 65 ft. from Manhole HW-20 in a southerly direction to the northern edge of the SW Building. (NOTE: This sewer segment is part of the hot waste drain line that runs ~ 180 ft. from Manhole HW -20 to Manhole HW -14. Approximately 115 ft. of the line lies beneath the SW building and the remainder lies outside the building. Manhole HW -14 lies inside of the SW Building. This line segment is part of a total ~ 358 ft. hot waste line section that formerly ran from Manhole MH-20 through Manhole MH-12 to Manhole MH-6. This latter hot waste sewer section has been capped and abandoned in place. Remediation of the sections of this UGLy line lying beneath the SW building are the responsibility of the building manager and are not the responsibility of John Price's Soils Group. Thus, the remediation cost for the hot waste sewer segment beneath the SW Building is not included in this cost estimate. The Soils Group will only be responsible for the remediation of the ~65 ft. of this UGLy line segment that runs between Manhole HW-20 and the north outer wall of the SW Building as defined by segment 3.)

   During this traverse of this UGLy line segment between the Manhole HW -20 and the northern wall of the SW Building, this UGLy line segment cross beneath a number of other underground utilities including:

   - A telephone cable,
   - An ADT line,
   - A 24 inch diameter CONC storm sewer,
   - A 8 inch diameter CIP abandoned line, and
   - A 4-inch diameter CIP water line.

   In addition, segment 3 ends at an ~ 18 thick concrete foundation outside of an access door into the SW Building. Formerly, this area was an ~ 10 ft, wide north south alley that ran between the R and SW Buildings. In order to increase the SW Building floor space, a roof was added over the alley along with north and south walls enclosing this alley

creating the addition SW Building floor space. In the process of enclosing this space, Manhole HW-14 was also enclosed within the building.

Assumptions made about UGLy segment 3 include:

- Remediation of this UGLy line segment is not constrained by the presence of the SW Building. Remediation however is constrained by the presence of the other underground utility lines.
- This UGLy line segment is 8 in. diameter VCP encased in concrete,
- Soils surrounding 1 ft. the UGLy line pipe trench contain low level waste,
- A 10% excess will be added to the soil excavated from the pipe trench as a contingency for segment structural failure, and
- Overburden above this UGLy line segment is uncontaminated and will be used as backfill.
- Soils surrounding 1 ft. the UGLy line pipe trench contain low level waste,
- A 10% excess will be added to the soil excavated from the pipe trench as a contingency for segment structural failure, and
- Overburden above this UGLy line segment is uncontaminated and will be used as backfill.

4. UGLy Line Segment 4. This UGLy sewer line segment runs ~ 88 ft. in a south southwesterly direction from the southern outside wall of the SW Building to Manhole HW-12. From Manhole HW-12, this UGLy sewer segment proceeds ~ 64 ft. in a southwesterly direction towards Manhole HW-6. This sewer segment terminates in a blank at ~ 20 ft. before Manhole HW-6 and does not actually enter Manhole HW-6. However, a two inch diameter line continues from the blanked off main 8 inch diameter VCP line to the WD Building. (The 2-inch diameter line will be described as Segment 4-A below). Details of this latter piping logic can be found in Monsanto Research Corp. drawing 5-1398 (reference insert for Manhole HW-6. (NOTE: This sewer segment is part of the hot waste drain line that runs ~ 178 ft. from Manhole HW -14 to Manhole HW -12. Approximately 90 ft. of the line lies beneath the SW building and the remainder lies outside the building. Manhole HW -14 lies inside of the SW Building. This line segment is part of a total ~ 358 ft. hot waste line section that formerly ran from Manhole MH-20 through Manhole MH-12 to Manhole MH-6. This latter hot waste sewer section has been capped and abandoned in place. Remediation of the sections of this UGLy line lying beneath the SW building are the responsibility of the building manager and are not the responsibility of John Price's Soils Group The Soils Group will only be responsible for the remediation of the ~88 ft. of this UGLy line segment that runs between the south outer wall of the SW Building and Manhole HW-12 and beyond to the line termination as defined by segment 4. The cost estimate does not include the remediation of the hot waste sewer running beneath the SW Building.)

During this traverse between SW Building southern wall and the segments termination at a blank, this UGLy line segment cross beneath a number of other underground utilities including:

- An 8 inch diameter fire line, and
- A 33-inch diameter CONC storm sewer.

Significantly, this sewer segment does not cross over any underground utilities between the south outer wall of the SW Building and Manhole HW-12. However, in this section of the site, this UGLy sewer segment does cross beneath ~ 93 ft. of Mound roadway and SW Building Driveway.

Assumptions made about UGLy segment 4 include:

- Remediation of this UGLy line segment is not constrained by the presence of the SW Building or, in a significant way, by the presence of the other underground utility lines.
- This UGLy line segment is 8 in. diameter VCP encased in concrete,
- Manhole HW-12 is filled with concrete (completed by the waste management group in October 1999.
- Soils surrounding 1 ft. the UGLy line pipe trench contain low level waste,
- A 10% excess will be added to the soil excavated from the pipe trench as a contingency for segment structural failure, and
- Fifty percent of the overburden above this UGLy line segment is contaminated. It is assumed that:
  - 5 % of the overburden is TRU waste,
  - 5 % of the overburden is mixed waste, and
  - 40% of the overburden is low-level waste.

  It is assumed that the balance of the overburden is clean and can be recycled and used as fill.

5. UGLy Line Segment 4A. This UGLy sewer line segment runs ~ 232 ft. in a southwesterly direction from the blank in the 8 inch diameter VCP line described in Segment 4 to the WD Building. Details of the piping logic between these two hot waste sewer line connections can be found in Monsanto Research Corp. drawing 5-1398 (reference insert for Manhole HW-6. (NOTE: This sewer segment does not actually enter Manhole HW-6, but diverts away from the sewer ~ 20 ft. from the sewer. During this traverse between the blank in the 8 in. VCP line and the WD Building, this UGLy line segment cross beneath a number of other underground utilities including:

- An 8 inch diameter VCP hot waste sewer line (described below as UGLy line segment 7),

- Two ten inch diameter concrete storm sewers, and

- An 8-inch diameter ACP fire line.

In addition, this UGLy sewer segment does cross beneath ~ 27 ft. of Mound roadway.

Assumptions made about UGLy segment 4A include:

- Remediation of this UGLy line segment is not constrained in a significant way by the presence of the other underground utility lines. One of the four lines above this sewer segment is another UGLy line segment of the hot waste sewer.

- This UGLy line segment is 2-in. diameter steel saran lined pipe. The line is assumed not to be encased in concrete and that this sewer segment is bedded in a pipe trench in the ground,

- Soils surrounding 1 ft. the UGLy line pipe trench contain low level waste,

- A 10% excess will be added to the soil excavated from the pipe trench as a contingency for segment structural failure, and

- Fifty percent of the overburden above this UGLy line segment is contaminated. It is further assumed that:

  - 5 % of the overburden is TRU waste,

  - 5 % of the overburden is mixed waste, and

  - 40% of the overburden is low-level waste.

  It is assumed that the balance of the overburden is clean and can be recycled and used as fill

6. UGLy Line Segment 5. This UGLy sewer line segment runs ~ 318 ft. in a southerly direction from Manhole HW-18 to HW-16. This UGLy line segment runs parallel to the west outside wall of the SW Building on the far side of the Mound site road that also parallels this SW Building. During this traverse between Manhole HW 18 and HW16, this UGLy line segment cross beneath a number of other underground utilities including:

   - Two ADT ducts,

   - A 2 inch diameter CIP line,

   - A 2-4 inch CND line,

- A 4-4" electrical duct,
- A 3 inch diameter CIP water line, and
- An 8-inch diameter CIP fire line.

In addition, this UGLy sewer segment crosses beneath the liquid $N_2$ storage tank farm across from the SW Building. This liquid nitrogen tank farm supplies an inert gas to the Tritium Environmental Recovery system and is an essential utility service to SW Building operations. This UGLy sewer segment also crosses beneath two ~17 ft. wide Mound site roadways. All of these utility systems cover a 136-ft. long section between Manhole 18 and site coordinate STA 5 +00. Thus, approximately 182 ft. of this UGLy line segment does not lie above other site underground utilities and the task force concluded that this ~182 ft. segment between site coordinate STA 5 + 00 and Manhole HW 16 could remediated at any time with limited impact on site operations. Remediation of the remaining ~ 136 ft. of this UGLy line segment must await the final shutdown of the SW Building.

Assumptions made about UGLy segment 5 include:

- This UGLy line segment is 8 inch diameter VCP The line is assumed not to be encased in concrete and that this sewer segment is bedded in a pipe trench in the ground,
- Twenty five percent of the length of this line has failed structurally,
- Ten percent of the overburden is contaminated with low level waste, and
- Twenty five percent of the pipe chase material is contaminated with low-level waste.

7. UGLy Line Segment 6. This 122 ft. long UGLy sewer line segment runs in a southwesterly direction from Manhole HW-16 to HW-6. During this traverse between Manhole HW 16 and HW-6, this UGLy line segment cross beneath a number of other underground utilities including:

- An 1 1/2 inch diameter steel hot waste line described below as UGLy line segment 8, and
- A 2-inch diameter saran lined steel hot waste line described above as UGLy line segment 4-A.

In addition, this UGLy sewer segment crosses beneath a 1-foot wide sidewalk.

Assumptions made about UGLy segment 6 include:

- This UGLy line segment is 8 inch diameter VCP The line is assumed not to be encased in concrete and that this sewer segment is bedded in a pipe trench in the ground,

- This UGLy line segment could be remediated at any time with minimal impact upon site operations,

- Ninety five percent of the overburden above this UGLy line segment is contaminated. It is further assumed that:

  - 5 % of the contaminated overburden is TRU waste,

  - 5 % of the contaminated overburden is mixed waste, and

  - 85% of the overburden is low-level waste.

- Twenty five percent of the length of this line has failed structurally, and

- Twenty five percent of the pipe chase material is contaminated in the same percentages described above for the overburden.

8. UGLy Line Segment 7. This UGLy sewer line segment runs ~ 148 ft. in a westerly direction from Manhole HW 6 to Manhole HW 4. The UGLy segment than runs ~ 98 ft. in a northerly direction from Manhole HW 4 to Manhole HW 2. During this ~ 246 ft. traverse between Manhole HW 6 and HW-2, this UGLy line segment cross beneath a number of other underground utilities including:

   - An 1 1/2 inch diameter steel hot waste line described below as UGLy line segment 8,

   - A 2-inch diameter saran lined steel hot waste line described above as UGLy line segment 4-A,

   - Three separate on-ground hot waste lines,

   - A two inch diameter storm sewer, and

   - An 8-inch diameter fire line.

   In addition, this UGLy sewer segment crosses beneath a 5-ft. wide sidewalk and a 12 ft. wide roadway.

   Assumptions made about UGLy segment 7 include:

   - This UGLy line segment is 8 inch diameter VCP The line is assumed not to be encased in concrete and that this sewer segment is bedded in a pipe trench in the ground,

   - This UGLy line segment could be remediated at any time with minimal impact upon site operations. However, it is assumed that the fire line and the storm water sewer will remain in place after the site is turned over to the sewer. Thus, costs will put in

the study to return these utilities to operations. In addition, costs will be put in the study to maintain these utilities during how waste sewer remediation,

- Sixty percent of the overburden above this UGLy line segment is contaminated. It is further assumed that:
  - 5 % of the contaminated overburden is TRU waste,
  - 5 % of the contaminated overburden is mixed waste, and
  - 90% of the overburden is low-level waste.
- Twenty five percent of the length of this line has failed structurally, and
- Twenty five percent of the pipe chase material is contaminated in the same percentages described above for the overburden.

9. ~~UGLy Line Segment 8:~~ This UGLy sewer line segment runs ~ 540 ft. in a southerly and southwesterly direction from the outside south wall of the SW Building to the WD Building. During much of this run, this UGLy sewer segment runs parallel to the UGLy sewer segment described as segment 4A. The two lines are ~ 2 ft. apart for approximately 181 ft. between site coordinates STA 2 + 00 and STA 0 + 70. During this ~ 540 ft. traverse between the SW Building and the WD Building, this UGLy line segment cross beneath a number of other underground utilities including:

- A 6 inch diameter CIP line,
- An electrical junction box,
- An 8 inch diameter hot waste line described in UGLy line segment 7,
- A 12 inch diameter storm sewer,
- A 10 inch diameter storm sewer,
- A 10 inch diameter concrete storm sewer, and
- An 8-inch diameter ACP fire line.

In addition, this UGLy sewer segment crosses beneath a 25-ft. wide roadway and a second 21 ft. wide roadway.

Assumptions made about UGLy segment 6 include:

- This UGLy line segment is 2-inch diameter welded steel pipe. It is assumed that this line carried only low-level liquid tritium waste and that there were no insoluble compounds present in this waste. The line is assumed not to be encased in concrete and that this sewer segment is bedded in a pipe trench in the ground,

- This UGLy line segment could be remediated at any time with minimal impact upon site operations. However, it is assumed that the fire line and the three storm water sewers will remain in place after the site is turned over to the sewer. Thus, costs will put in the study to return these utilities to operations. In addition, costs will be put in the study to maintain these utilities during how waste sewer remediation,

- The ~ 100 ft. of line to the immediate south of the SW Building is assumed to have fifty percent of the overburden above this UGLy line segment contaminated. It is further assumed that:

  - 5 % of the contaminated overburden is TRU waste,

  - 5 % of the contaminated overburden is mixed waste, and

  - 90% of the overburden is low-level waste.

- The ~ 180 ft. of line that runs parallel to the UGLy line segment 4 A will be remediated with that segment. Thus, the volume of waste (i.e. due to overburden and trench bed contamination) will not be included in the cost estimate (i.e. these costs will not be double counted). Only the actual volume of the UGLy line 8 steel pipe will be included in the cost estimate.

- Remediation of the UGLy line segment will commence at the SW Building and proceed towards the WD Building down the hillside.

10. UGLy Line Segment 9. This UGLy sewer line segment runs ~ 143 ft. in a southeasterly direction from Manhole HW 6 to Manhole HW 8. The UGLy segment than continues in a southeasterly direction for ~ 97 ft. to Manhole HW 8A. This line segment then continues for an additional ~47 ft. in an easterly direction to the edge of the DS Building. This UGLy line segment also contains an ~ 30 ft. length of 3 inch diameter CIP pipe connecting this hot waste sewer to a sump in the T Building ventilation tower adjacent to this UGLy line section. During this ~ 287 ft. traverse between Manhole HW 6 and the western edge of the DS Building, this UGLy line segment crosses beneath a number of other underground utilities including:

    - Two 4 inch electrical conduits, and

    - A 10-inch diameter VCP line.

    In addition, this UGLy sewer segment crosses beneath an overhead pipe bridge containing a number of other active and inactive utility systems.

    Assumptions made about UGLy segment 6 include:

    - This UGLy line segment is 8-inch diameter VCP pipe. According to the original site drawings for the hot waste sewer system, this line segment is not be encased in concrete. It is assumed that the segment is bedded in a pipe trench in the ground. The site drawings also indicate that there is a second abandoned 8-inch diameter hot waste sewer steel line abandoned in-place beneath this segment. The drawing

indicates that this abandoned line is encased in concrete. It is assumed that the upper line segment is slightly contaminated with low-level waste while the abandoned line is high contaminated with low-level waste. Thus, the volume of remediated line waste must be doubled because of the presence of the abandoned line.

- This UGLY line segment could be remediated at any time with minimal impact upon site operations. The major impediment to line remediation is the pipe bridge and it's overhead utilities. Once this pipe bridge is abandoned, this UGLy section can be remediated. These are minimal below grade utility systems that impact the remediation of this UGLy line segment, and

- Twenty five percent of the overburden above this UGLy line segment is contaminated. It is further assumed that:

  - 5 % of the contaminated overburden is TRU waste,

  - 0 % of the contaminated overburden is mixed waste, and

  - 95% of the contaminated overburden is low-level waste.

11. UGLy Line Segment 10. This UGLy sewer line segment runs ~ 304 ft. in an easterly direction along the north side of the DS Building along it's entire length. During this ~ 304 ft. traverse of the DS Building, this UGLy line segment does not cross any other underground utilities. However, there is on lateral tie in a vertical riser from the T Building.

    Assumptions made about UGLy segment 10 include:

    - This UGLy line segment is 8-inch diameter VCP pipe. It is assumed that the line is encased in concrete and that there are no other abandoned underground hot waste lines beneath the north side of the DS Building.

    - The 3-inch diameter, 30-ft. branch line to the T Building ventilation head house sump will also be remediated as part of this UGLy line segment. This line is assumed to contaminated with low level waste,

    - This UGLy line segment is located ~ 9 ft. below the finish grade elevation of the DS Building floor,

    - Based upon the insitu $Co^{60}$ surveillance study, it is assumed that 100% of this UGLy line segment is highly contaminated with low-level waste. In addition, the line segment is contaminated with other gamma emitting radioisotopes.

    - The cost study will assumed that the interior walls and floor of the north side of the DS Building would be removed to expose this hot waste sewer segment.

    - This UGLY line segment could be remediated at any time with minimal impact upon site operations, and

- Ten percent of the overburden above this UGLy line segment is contaminated. It is further assumed that:

  - 0 % of the contaminated overburden is TRU waste,

  - 0 % of the contaminated overburden is mixed waste, and

  - 100% of the contaminated overburden is low-level waste.

12. UGLy Line Segment 11. This UGLy sewer line segment runs ~ 53 ft. in a westerly direction from the east wall of the DS Building to the T Building Exhaust Tower sump. During this ~ 53 ft. traverse, this UGLy line segment does not cross beneath any other underground utilities.

    Assumptions made about UGLy segment 6 include:

    - This UGLy line segment is 8-inch diameter VCP pipe. The line is assumed to be encased in concrete,

    - This UGLy line segment could be remediated at any time with minimal impact upon site operations. The major impediment to line remediation is the pipe bridge and it's overhead utilities, and

    - Ten percent of the overburden above this UGLy line segment is contaminated. It is further assumed that:

      - 0 % of the contaminated overburden is TRU waste,

      - 0 % of the contaminated overburden is mixed waste, and

      - 100% of the contaminated overburden is low level waste.

13. UGLy Line Segment 12. This UGLy sewer line segment is the lateral riser from the T Building sump that transported that building's hot waste to the main hot waste trunk line described in UGLy line segment 10.

    Assumptions made about UGLy segment 12 include:

    - This UGLy line segment is 3-inch diameter pipe,

    - Details of the placement of this UGLy line segment along the T Building wall and the length of the lateral/riser line are assumed to be present in T Building construction drawings.

    - This UGLy line segment could be remediated at any time with minimal impact upon site operations. The major impediment to the remediation of this line segment is the pipe bridge and it's overhead utilities, and

    - Ten percent of the overburden above this UGLy line segment is contaminated. It is further assumed that:

- 0 % of the contaminated overburden is TRU waste,
- 0 % of the contaminated overburden is mixed waste, and
- 100% of the contaminated overburden is low-level waste.

14. UGLy Line Segment 13. This UGLy sewer line segment runs ~ 217 ft. in a southeasterly direction from Manhole HW 8 to Manhole HW 10. The UGLy segment than continues in an easterly direction for ~ 184 ft. This line segment then continues for an additional ~47 ft. in an easterly direction to the edge of the DS Building. During this ~ 287 ft. traverse between Manhole HW 6 and the eastern end of this hot waste line, this UGLy line segment cross beneath a number of other underground utilities including:

    - Two ground wires,
    - An 8 inch diameter CIP sanitary sewer line, and
    - A 12-inch diameter storm water sewer line.

    In addition, this UGLy sewer segment between Manholes HW 8 and HW-10 crosses beneath an overhead pipe bridge containing active and inactive utilities. This UGLY line segment runs parallel to the same pipe bridge for it's entire ~ 184 ft. length.

    Assumptions made about UGLy segment 6 include:

    - The ~ 217 ft. UGLy line segment between Manhole HW 8 and HW 10 is an 8-inch diameter vitreous clay pipe. This pipe segment replaced a 5-inch diameter cast iron pipe that is abandoned in place adjacent to the 8-inch VCP pipe. It is assumed that the original cast iron is highly contaminated with low-level waste and that the replacement segment is slightly contaminated with low-level waste. It is further assumed that the original cast iron line is encased in concrete while the newer line is not encased in concrete and that this sewer segment is bedded in soil. Thus, the volume of remediated line waste must be doubled because of the presence of the abandoned line,
    - The ~ 184 ft. UGLy line segment between Manhole HW 10 and the end of the line is an 8 inch diameter cast iron pipe that is the original line installed at the time of T Building construction.
    - This UGLy line segment could be remediated at any time with minimal impact upon site operations. The major impediment to segment remediation is the pipe bridge and it's overhead utilities. Once this pipe bridge is abandoned, this UGLy section can be remediated. These are minimal below grade utility systems that impact the remediation of this UGLy line segment, and
    - Ten percent of the overburden above this UGLy line segment is contaminated. It is further assumed that:
        - 0 % of the contaminated overburden is TRU waste,

- 0 % of the contaminated overburden is mixed waste, and
- 100% of the contaminated overburden is low-level waste.

15. UGLy Line Segment 14. This UGLy sewer line segment is the three lateral risers from the T Building sumps that transported that building's hot waste to the main hot waste trunk line described in UGLy line segment 13.

    Assumptions made about UGLy segment 14 include:

    - This UGLy line segment consist of three 3-inch diameter pipe vertical riser that carried low risk and high risk wastes from T Building sumps to the hot waste main sewer trunk line for transport to the WD Building,
    - Details of the placement of this UGLy line segment along the T Building wall and the length of the lateral/riser line are assumed to be present in T Building construction drawings.
    - This UGLy line segment could be remediated at any time with minimal impact upon site operations. The major impediment to segment remediation is the pipe bridge and it's overhead utilities, and
    - Ten percent of the overburden above this UGLy line segment is contaminated. It is further assumed that:
        - 0 % of the contaminated overburden is TRU waste,
        - 0 % of the contaminated overburden is mixed waste, and
        - 100% of the contaminated overburden is low-level waste.

## D. Cost Study Assumptions and Ground Rules

During the March 13-15 meeting, the Task Force developed a series of ground rules and assumptions for the completion of the cost study. These included general study assumptions and specific study assumptions. The following describes these assumptions.

### General Cost Study Assumptions

1. During the Task Force site walk-downs of the UGLy system, it became clear that the remediation of these lines would be compromised and complicated by all of the underground and aboveground utilities serving the site. The aboveground utilities are run on pipe bridges that crisscross the site while the below ground lines run in individual trenches throughout the site. The task force concluded that it would be cost prohibitive to remediate the UGLy lines if the majority of these above and below ground utility systems remained in place. Thus, before the UGLy lines are remediated, the other utilities serving the site must be abandoned, isolated, and removed by others (i.e. the removal of these other utility systems will not be included in this cost estimate). However, the cost for the excavation of an underground utility to gain access to an UGLy line would be included in

the cost estimate. The Task Force believes that certain essential site utilities (e.g. storm water lines) can be handled (i.e. rerouted) during UGLy line remediation. However, the cost for such rerouting and isolation of these essential utilities will not be included in this cost estimated because a master plan for the eventual configuration of the site has not been developed (i.e. which sanitary storm sewers remain and which will require rerouting etc.?). Some examples of the site utilities that will impact UGLy line remediation include:

- Steam distribution from the central site power plant used for plant heat (distributed throughout the site on pipe bridges throughout the site),
- Condensate return to the site power plant (distributed throughout the site on pipe bridges),
- Glycol supply and return for site cooling (distributed throughout on pipe bridges),
- Plant air (distributed throughout the site in underground main headers),
- Process water (distributed throughout the site in underground main headers),
- Etc.

**The coordination of UGLy line remediation with the removal of other Mound site utilities was the main problem identified by the Task Force that could affect the UGLY system remediation cost and schedule. Attempting to remediate the UGLY system without shutting down these other site utilities will be prohibitively expensive.**

2. A related interference with UGLy system remediation involves utilities serving the SW Building. On of these utilities includes the liquid $N_2$ cryogenic storage tanks located on the west side of the SW building. This system is a part of the Tritium Environmental Recovery System, which must remain operational until this building is shut down. An UGLy main trunk line runs in a north south direction beneath this tank farm. A second SW Building utility impacting UGLy line remediation is an elevated building (Building 58) which houses the SW Building's HVAC fans and filter systems and thus must remain operational until this building is shut down. An east west UGLy main trunk line is located beneath Building 58. A third SW Building interference with UGLy line remediation is a large number of underground utility lines that serve the building. As a result of these three major interference's, the Task Force assumed that the UGLy lines to the north and west of the SW Building would not be remediated until SW Building operations were terminated.

3. The overburden above an UGLy line segment will be graded by the Task Force on a case-by-case basis estimating the percentage of soil radiological contamination, chemical contamination, and mixed waste contamination above waste disposal limits (depending upon location within the Mound site). This percentage will be applied to the quantity of overburden required to access the UGLy line at the depth in a sewer segment. The volume of overburden above an UGLy system line will be estimated and the volume of radiologically contaminated, chemically contaminated, and mixed waste contaminated soil calculated for each line segment.

4. Any irregularities in the contamination condition of soil overburden will be handled as an overall contingency assigned to each line segment.

5. Soils containing less than radiological contamination and chemical contamination limits will be returned to the site and used as backfill.

6. Fieldwork productivity's (i.e. $ft^3$ excavated and loaded per day) will be assigned by the type of contamination assumed (i.e. clean soil, low level radiological contamination, TRU radiological contamination). The estimated man-hours will be completed by line segment and the productivity will be added for each segment reflecting productivity and contamination assumptions for that segment.

7. A 20-inch wide bucket will be assumed for the remediation. It is assumed that all UGLy lines were placed in concrete and that this concrete is 48-inch wide concrete and 12 inches deep. The overburden above the line will be excavated in a 1 to 1 slope.

8. A decontamination/change room trailer will be provided at the site to support the field staff. Capabilities of this trailer complex will include change room with lockers, health physics instrumentation for personnel monitoring, and shower room with waste disposal capability.

9. The battery limit for UGLy line remediation will be five ft. from building. Within this limit, the building manager is responsible for UGLy line remediation. The principle exception to this assumption is the DS Building. The remediation of the UGLy line beneath the DS Building (and above the T Building) will be included in the cost estimate. In addition the remediation of all-UGLy line laterals and vertical risers originating in the T Building will be included in the cost estimate. (NOTE: The remediation of the UGLy main trunk line that runs beneath the SW Building and Manhole MH-xx located inside of the SW Building is the responsibility of the SW Building manager and will not be included in this cost estimate.)

10. General contingencies that will be added to the overall cost estimate include unknown TRU contamination, additional unknown mixed waste contamination, and unknown/unidentified UGLy lines. An across the board 15% will be added to the total cost estimate to cover these unknown/unidentified conditions.

    The cost estimate will not include cost for the final grading of the site and the final drainage of the site. Others will estimate this cost when final disposition plans for the site are completed.

Reference C

MLM-3791

EG&G
MOUND APPLIED TECHNOLOGIES

# Mound Facility Physical Characterization

Prepared by William R. Tonne with contributors Barbara M. Alexander, Matthew R. Cage, Ernest H. Hase, Mark J. Schmidt, Jeanne E. Schneider, William Slusher, and James E. Todd

December 1, 1993

**MOUND**

*is operated for the*
**U. S. Department of Energy**
*under contract No. DE-AC04-88-DP43495*

## SW BUILDING PHYSICAL CHARACTERIZATION

1) Current Mission Description

a) Facility Capabilities

SW Building is a 43,066-$ft^2$ building used for tritium component development (CD), component evaluation operations (CEO), tritium recovery (TR), and Material Analysis (MA). Originally constructed in 1950, the SW complex has undergone thirteen major additions.

b) Resources Required to Support Operations

Primary Physical Resources:
- Electricity
- Physical security
- Fire protection, sprinklers, fire department
- Potable water
- Sanitary drains
- HVAC
- Breathing air
- Liquid nitrogen
- Helium, nitrogen, argon gas
- Alpha and beta "hot" drains
- HEPA filtration

Services:
- Human Resources
- Finance and Accounting
- Environmental, Safety, and Health
- Maintenance
- Custodial
- Payroll
- Meal
- Supply

c) Current Safety Envelope

The SW Building operates under the FSAR (Final Safety Analysis Report) MLM-ML-92-42-0001.

d) Current Status

1. No formal CAS review has been done. A quick condition assessment was done in July 1992.

2. No formal CAMP review has been done based on the latest Reconfiguration decision. A CAMP report was submitted on April 1, 1992, which focused on ES&H needs, infrastructure maintenance, and consolidation projects.

2) Future Facility Use

a) Alternate Future Use Scenarios

1. WFO in the same discipline is unknown under recent May 27, 1993, reconfiguration guidance. Probably none.

2. WFO in a new discipline is unknown under recent May 27, 1993, reconfiguration guidance. Probably none.

3. Commercialization possibilities under a lease agreement: Unknown under recent May 27, 1993, reconfiguration guidance. Probably none.

4. Commercialization possibilities under a sale agreement: Unknown under recent May 27, 1993, reconfiguration guidance. Probably none

5. SW Building and equipment is contaminated with radiological materials. A May 1993 Mound Asbestos Survey identified SW as a building that contained asbestos.

b) Facility Modifications Required for Likely Use

None. Tritium recovery facilities could be used for the deactivation of tritium operation areas.

c) Facility Modifications Required for Other Uses

Unknown.

d) Changes to Safety Envelope

Unknown.

e) Cleanup Criteria for Each Future Use Scenario

SW Building is contaminated with radiological materials and asbestos.

f) Disposition of Surplus Equipment

Unknown.

Reference D

04 01 9607250041

# MOUND

# TECHNICAL MANUAL

## MD–22153, ISSUE 1
## MOUND SITE RADIONUCLIDES BY LOCATION

| Section | Issue |
|---|---|
| Intro | 1 |
| 1 | 1 |
| 2 | 1 |
| 3 | 1 |
| Appen A | 1 |
| Appen B | 1 |

| Page | Issue |
|---|---|
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| 2 | 1 |
| 3 | 1 |


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Ray Weaver, BD–91
Drawing Control, OSW–3
Technical Manuals


CHANGES INCORPORATED

- [ ] Replace
- [ ] Insert (New Pages)
- [ ] Remove
- [x] Complete Reprint

All appropriate reviews by senior safety committees were conducted. This issue is authorized for use by Advanced Change Order on file in Technical Manuals.

Terry L. Vaughn, Radiological Control Manager 6–22–95

**Table 5 - SW BUILDING**

| ROOMS | RADIONUCLIDES AND RELATED COMPOUNDS | DATE USED |
|---|---|---|
| SW-2 | H-3 | 1973-PRES |
| SW-8 | H-3, Xe (all isotopes) . . . . . | 1957-1960 |
| | H-3 . . . . . | 1958-PRES |
| | H-3, U(238)(D,T), Li(D,T), Ba(D,T), Ti(D,T) . . . . . | 1960-1985 |
| | H-3 . . . . . | 1963-PRES |
| SW-9 | See Appendix B . . . . . | 1965-PRES |
| | U(D,T), Li(D,T), U/Al(D,T) See Appendix B . . . . . | 1989-PRES |
| SW-10 | H-3 . . . . . | 1967-1972 |
| SW-13, 11, 12, 14, 15, 16 | Ru-106, Cs-137, Sb-125, Te-121,127, Zr-93, 95, Nb-94, Sr-90, Pu-238,239, Y-88,90,91, rare earths (especially Ce) | 1951-1953 |
| | Th-228,232, U-238, Ra-224,228, Th-232 daughters . . . . . | 1955 |
| | Fe-55,59, Al-26, Ca-45, Co-60, Pa-231, Cu-65. . . . . | 1956 |
| | See Appendix B. . . . . | 1959-1965 |
| | H-3, U(D,T), LI(D,T), LiO(D,T), See Appendix B . . . . . | 1959-1978 |
| | See Appendix B. . . . . | 1964-1967 |
| | H-3, U-238, U(D,T), See Appendix B. . | 1968-PRES |
| | See Appendix B. . . . . | 1969-1975 |
| | See Appendix B. . . . . | 1975-1978 |
| SW-19 | Ra-226, $Ra(CO_3)$, $Ra(NO_3)_2$, $RaBr_2$, Ac-227, $Ac(C_2O_4)_4$, $AcF_2$, K-40, Th-228,229,230, radon and daughters | 1951-1953 |
| | See Appendix B. . . . . | 1962-1988 |
| | H-3, Ra daughters, See Appendix B . . | 1973-PRES |
| SW-20, 21 | H-3 . . . . . | 1961-1973 |

**Table 5 - SW BUILDING**

| ROOMS | RADIONUCLIDES AND RELATED COMPOUNDS | DATE USED |
|---|---|---|
| SW-22 | U-232,233, Th-228,229, Ra-224,225, Ac-225, Fr-221, At-217, Th-228 daughters . . . . . | 1966-1975 |
| | Th-230,232, U-234,235,238, Pa-231, Ac-227, Ra-223,224,226, $Ac(NO_3)$, $AcO_2$. . . . . | 1970-1979 |
| | Po-208,209,210, Po-210 daughters . . . | 1976-1979 |
| | See Appendix B . . . . . | 1984-1986 |
| SW-128, 129, 130,134 | Th-230,232, U-234,235,238, Pa-231, Ac-227, Ra-223,224,226 . . . . . | 1970-1979 |
| SW-132 | Th-230,232, U-234,235,238, Pa-231, Ac-227, Ra-223,224,226, $Ac(NO_3)$, $AcO_2$. . . . . | 1970-1979 |
| | Po-208,209,210, Po-210 daughters . . . | 1976-1979 |
| SW-136, 137 | Th-230,232, U-234,235,238, Pa-231, Ac-227, Ra-223,224,226, $Ac(NO_3)$, $AcO_2$ . . . . . | 1964-1979 |
| SW-140 | Ac-227, $AcO_2$, $Ac(NO_3)_2$, . . . . . | 1964-1968 |
| | Th-230,232, U-234,235,238, Pa-231, Ac-227, Ra-223,224,226, $Ac(NO_3)$, $AcO_2$. . . . . | 1974-1979 |
| | Po-208,209,210, Po-210 daughters . . . | 1976-1979 |
| SW-142 | Ra-226, $Ra(CO_3)$, $Ra(NO_3)_2$, $RaBr_2$, Ac-227, $Ac(C_2O_4)_4$, $AcF_2$, K-40, Th-228,229, 230, Po-208,209,210, radon and daughters . . . . . | 1950-1961 |
| | See Appendix B . . . . . | 1959-1969 |
| | See Appendix B . . . . . | 1962-1967 |
| | H-3, U-238, U(D,T), See Appendix B . | 1969-1985 |
| SW-146, 147 | H-3, U-238, U(D,T) . . . . . | 1967-1985 |
| | Tritiated stainless steel. . . . . | 1985-PRES |

**Table 5 - SW BUILDING**

| ROOMS | RADIONUCLIDES AND RELATED COMPOUNDS | DATE USED |
|---|---|---|
| SW-149, 149A | All radionuclides in SW Building . . . .<br>H-3, HTO, tritiated organics . . . . . .<br>H-3, HTO, tritiated organics . . . . . | 1965-1968<br>1969-PRES<br>1980-PRES |
| SW-150, 152 | H-3, U-238(D,T), See Appendix B. . . .<br>See Appendix B . . . . . | 1968-PRES<br>1973-PRES |
| SW-200 | H-3. . . . . | 1958-PRES |
| SW-202 | Po-210 . . . . . .<br>H-3. . . . . | 1958-1962<br>1963-PRES |
| SW-205 | H-3. . . . . | 1958-PRES |
| SW-208 | H-3, U-238(D,T), See Appendix B . . . .<br>H-3, U-238(D,T), See Appendix B . . . . | 1965-1989<br>1989-PRES |
| SW-210 | H-3, U(238)(D,T), See Appendix B . . . | 1968-1989 |
| SW-219 | Pu-238/Be, Pu-239/Be, Am-241,<br>Pu-239 . . . . . .<br>Po-210, Pu-238,239 . . . . . .<br>H-3. . . . . .<br>See Appendix B . . . . . .<br>H-3, U-238(D,T), See Appendix B. . . . | <br>1962-1965<br>1966-1971<br>1968-1978<br>1968-1980<br>1985-PRES |
| SW-231 | H-3, HTO . . . . . | 1970-PRES |
| SW-238,240 | H-3, U-238(D,T), U-238, See Appendix B . . . . . | 1968-PRES |

**Note:** All references to plutonium-238 was of the mixture ratio identified in the introduction to SW Building above. This mixture also included trace amounts of americium-241, neptunium-237, and uranium-234. Plutonium-239 used in the various projects was over 95% pure with trace amounts of plutonium-240,241. [611]

Reference E

# Main Hill Underground Lines

PRSs 122-124

Preview of the PRS Package

# Section 5

## SW and B Building Service Summaries

# HW Sewer Service Summary

- SW Building (Semi-Works Building)
- SW Building was used for the pilot scale testing and demonstration of chemical process technology
  - Tritium Program (1958 to 1998)
    - Radioisotopes include $H^3$ (95%) and $U^{238}$ (100%)
    - Process operations and HW Sewer issues similar to those described for R Building

# HW Sewer Service Summary

- SW Building (contd.)
  - $Po^{209}$ and $Pb^{206}$ Retrieval Program (1976-1979)
    - $Po^{209}$ recovered from old $Po^{210}$ program residues
    - radioisotopes include $Po^{208}$ (0.8%), $Po^{209}$ (87%), and $Po^{210}$ (<0.001%). $Pb^{206}$ in a stable isotope.

# HW Sewer Service Summary

- SW Building (contd.)
  - Actinium-227/Radium226 R&D (1951-1953)
    - Pilot scale recovery of $Ra^{226}$ and $Ac^{226}$ recovery and purification pilot scale programs. See R Building discussions for process descriptions.
    - Operations conducted in "old cave"
    - Radioisotopes same as R Building including $Ac^{227}$ (23%), $Ra^{226}$ (98%), $Th^{229}$ (100%), and $Po^{209}$ (74%). In addition, $K^{40}$ (100%) is also reported as a program radionuclide contaminant.

# HW Sewer Service Summary

- SW Building (contd.)
  - $Pa^{231}$ Recovery and Purification Program (1956)
    - Radioisotopes include $Pa^{231}$ (100%), $Co^{60}$ (0.4%), and $Al^{26}$ (100%)
    - Processes, chemicals, and HW sewer issues similar to those described for this program conducted in R Building.

# HW Sewer Service Summary

- SW Building (contd.)
  - Neutron Source Production (1962-1971)
    - Radioisotopes processed include $Pu^{238}$ (0.8%), $Pu^{239}$ (100%), $Am^{241}$ (95%), and $Po^{210}$ (<.001%).
    - Processes, chemicals, and HW sewer issues similar to those described for this program conducted in R Building.

# HW Sewer Service Summary

- SW Building (contd.)
  - Cotter Concentrate Program ($Pa^{231}$ and $Th^{230}$ Recovery From Uranium ore [i.e. Pitch Blend] 1970 to 1979)
    - Radioisotopes include $Ra^{226}$ (99%), $Ac^{227}$ (52%), $Th^{230}$ (100%), $Th^{232}$ (100%), $Pa^{231}$ (100%), $U^{233}$, $U^{234}$ (100%), $U^{235}$ (100%), and $U^{238}$ (100%).
    - Chemical constituents in ore include Na, Si, V, Pb, Be, Mg, and Ag.

# HW Sewer Service Summary

- SW Building (contd.)
  - Cotter Concentrate Program
    - Recover $Th^{230}$ and $Pa^{231}$ from uranium ore refining residues using:
      - $HNO_3$ dissolution of U refining residues,
      - solvent extraction with di-sec-butylphenyl phosponate/$CCl_4$ followed by solvent extraction with TOPO/$CCl_4$,
      - $H_2SO_4$ striping Th,
      - Pa recovered with di-2-ethylhexyl phosphoric acid/$CCl_4$.

# HW Sewer Service Summary

- SW Building (contd.)
  - $Th^{229}$ Separation Program (1966-1981)
    - Radioisotopes include $U^{232}$ (84%), $U^{233}$ (100%), $Th^{228}$ (0.15%), and $Th^{229}$ (100%)
    - $Th^{229}$ milked from aged $U^{233}$
      - isotope used to make Francium-221 and Astatine-217 by neutron irradiation

# HW Sewer Service Summary

- SW Building (contd.)
  - $Th^{229}$ Separation Program
    - Recovery process includes
      - $U^{233}$ dissolution in $HNO_3$,
      - Solvent extraction with di-sec-butylphenyl-phosphonate and TOPO in diethylbenzene,
      - Th stripped from organic with $H_2C_2O_4$ and $HNO_3$

# HW Sewer Service Summary

- SW Building (contd.)
  - $Th^{232}$ Refinery Program (Monex Program [1955])
    - Radioisotopes include $Th^{232}$ (100%), $U_{238}$ (100%), and $Ra^{228}$ (0.5%). In addition, $Th^{232}$ daughters are present including $Ra^{228}$, $Ac^{228}$, $Th^{228}$, $Ra^{224}$, $Rn^{220}$, $Po^{216}$, $Pb^{214}$, $Bi^{212}$, and $Po^{212}$ are present. $Th^{228}$ daughters are present including $Ra^{224}$, $Rn^{220}$, $Po^{216}$, $Pb^{214}$, $Bi^{212}$, $Tl^{208}$, and $Po^{212}$.

# HW Sewer Service Summary

- SW Building (contd.)
  - $Th^{232}$ Refinery Program (Monex Program)
    - Develop Th recovery flowsheets for the recovery and refining of $Th^{232}$ from Brazilian ore sludge's and other AEC residues. Refinery designed by never built. Process research continued.

# HW Sewer Service Summary

- SW Building (contd.)
  - $Th^{232}$ Refinery Program (Monex Program)
    - Process included
      - NaOH leaching of sludge
      - HCl leaching of sludge
      - sludge dissolution in $HNO_3$,
      - solvent extraction with TBP/kerosene, and
      - Th stripped from organic with $HNO_3$
      - Th metal (cleaned in trichloroethylene) also used as process feed

# HW Sewer Service Summary

- SW Building (contd.)
  - Hanford/Oak Ridge Waste Reduction Program {i.e. spent nuclear fuel reprocessing} (1951-1953)
    - standard fission products [I.e. $Cs^{137}$(34%), $Sr^{90}$ [31%], $Zr^{93}$(100%),$Nb^{94}$ (100%), $Ce^{144}$ (<0.01%), $Ru^{106}$ (<0.01%), $Tc^{99}$ (100%), etc.]
    - $Pu^{238}$ (68%), $Pu^{239}$ (100%),
    - Bismuth Phosphate, Purex Process, Redox Processes

# HW Sewer Service Summary

- SW Building (contd.)
  - Hanford/Oak Ridge Waste Reduction Program
    - Processes, chemicals, and HW sewer issues similar to those described for this program conducted in R Building.

Reference F

# ACTION MEMORANDUM
# ENGINEERING EVALUATION/COST ANALYSIS

# BUILDINGS R, SW, 58, AND 68 SLAB REMOVAL ACTION

## MOUND PLANT
## MIAMISBURG, OHIO

NOVEMBER 2000

Public Review Draft

(Revision 0)

Department of Energy

BWXT of Ohio

## Table 5.1 Clean-Up Objectives

| Contaminant | Risk Based Guideline Values ($10^{-5}$)(1) | Background Values(4) | Clean-Up Objective |
|---|---|---|---|
| Actinium-227 + decay products in secular equilibrium to Lead-207 | 10 pCi/g | NA | 10 pCi/g |
| Americium-241 | 49.5 pCi/g | ND | 49.5 pCi/g |
| Bismuth-207 | 1.75 pCi/g | ND | 1.75 pCi/g |
| Cesium-137 + decay products in secular equilibrium to Barium-137 | 4.6 pCi/g | 0.42 pCi/g | 4.6 pCi/g |
| Lead-210 + decay products in secular equilibrium to Lead-206 | 17 pCi/g | NA | 17 pCi/g |
| Protactinium-231 + decay products in secular equilibrium to Lead-207 | 6.9 pCi/g(6) | NA | 6.9 pCi/g |
| Plutonium-238 | 55 pCi/g | 0.13 pCi/g | 55 pCi/g |
| Plutonium-239/240 | 55 pCi/g | 0.18 pCi/g | 55 pCi/g |
| Radium-226 + decay products in secular equilibrium to Lead-210 | 1.4 pCi/g | 2.0 pCi/g | 3.4 pCi/g |
| Strontium-90 + decay products in secular equilibrium to Zirconium-90 | 30 pCi/g | 0.72 pCi/g | 30 pCi/g |
| Thorium-228 + decay products in secular equilibrium to Lead 208 | 1 pCi/g(3) | 1.5 pCi/g | 3.0 pCi/g(5) |
| Thorium-230 + decay products in secular equilibrium to Lead-206 | 1.3 pCi/g(2) | 1.9 pCi/g | 3.2 pCi/g(2) |
| Thorium-232 + decay products in secular equilibrium to Lead-208 | 1 pCi/g(3) | 1.4 pCi/g | 3.0 pCi/g(5) |
| Tritium | 235,000 pCi/g | 1.6 pCi/g | 235,000 pCi/g |
| Uranium-233 + decay products in secular equilibrium to Bismuth-209 | 9.7 pCi/g(6) | NA | 9.7 pCi/g |
| Uranium-234 + decay products in secular equilibrium to Lead-206 | 1.3 pCi/g(6) | 1.1 pCi/g | 2.4 pCi/g |
| Uranium-238 + decay products in secular equilibrium to Lead-206 | 1.2 pCi/g(2) | 1.2 pCi/g | 2.4 pCi/g(7) |

(1) Mound Plant Construction Worker, 1 x $10^{-5}$ Risk Based Guideline Value (RBGV) concentrations for soil and sediment (DOE 1997).
(2) Taken from HH Building Action Memo, Draft, July 2000.
(3) Values are presented in "Technical Position Report in Support of the Release Block H Residual Risk Evaluation," Final, Rev. 0, July 1999.
(4) Mound 2000 RREM, Final (DOE 1997).
(5) Core Team approved As Low As Reasonably Achievable (ALARA) concentration value based on the quantification limitations of the Mound on-site screening lab.
(6) Calculations of $10^{-5}$ Risk Based Guideline Values are attached in Appendix A.
(7) If Uranium-238 is present in concentrations greater than 2.4 pCi/g, evaluate secular equilibrium with daughters. If secular equilibrium exists, use 2.4 pCi/g as clean up goal. If secular equilibrium does not exist, adjust Uranium-238 clean-up goal upward to account for reduced daughter concentrations.
NA = Not Available; ND = Not Detected

## 9. RECOMMENDATION

This decision document represents the selected removal action for Buildings R, SW, 68 Slab and 58, developed in accordance with CERCLA as amended by SARA, and not inconsistent with the NCP. This decision is based on the administrative record for the site.

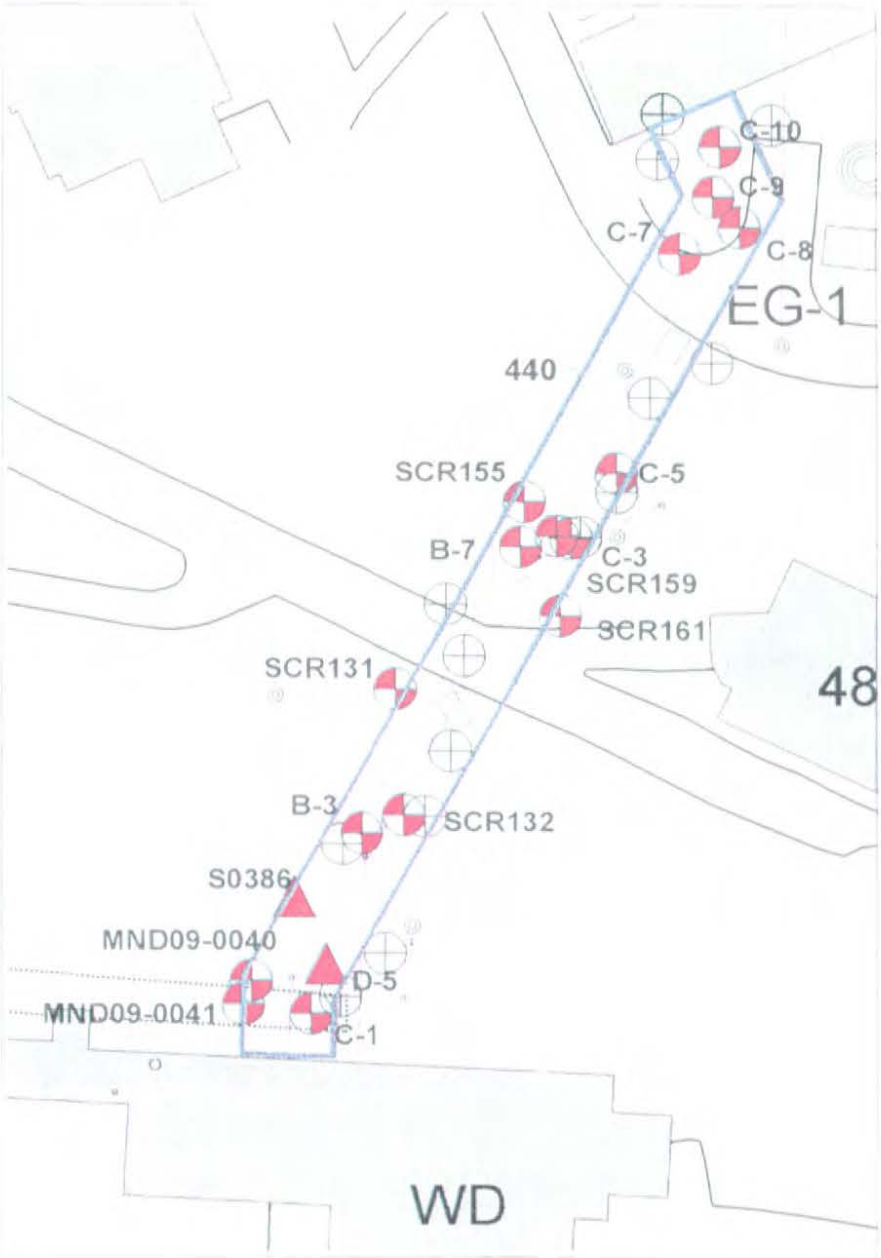
Conditions at the site meet the NCP Section 300.415 (b)(2) criteria for a removal and we recommend initiation of the response action.

Approved:

| | | |
|---|---|---|
| Art Kleinrath, On Scene Coordinator | DOE/MEMP | 10/18/2000 Date |
| Timothy J. Fischer, Remedial Project Manager | USEPA | 11/16/00 Date |
| Brain K. Nickel, Project Manager | OEPA | 10/18/00 Date |

Reference G

# PRS 440 Sample Locations




PRS 440 Boundary
PRS 440 Hits
PRS 440 Hits Outline
PRS 440 Sample Locations Outline
Soil Boring Outline
Surface Sample Outline
Hot Waste Lines
Line
Manhole
Building Label
Text: Bldg ID
Building Outline
Hidden Building Outline
Building Outline
Building
Color Fill
Transportation Text
Text Information
Roads
Paved Drives/Parking
Unpaved Drives/Parking

20 0 20 40 60 80 100 Feet

N
W E
S

| Location_name | Sample_id | Location_typ | Collection_d | Value_name | Measured_valu | Value_un | Detection | Chem_clas | Start_de | End_dep | CAS_number | Lab_ | Data | Project_cod | Media | Collection_m | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| B-3 | 4003-0014 | Borehole | 19930811 | Aluminum | 9620.000 | MG/KG | | INORG | 12.5 | 14.5 | 7429-90-5 | | J | MND16 | Soil | | |
| B-3 | 4003-0014 | Borehole | 19930811 | Arsenic | 4.000 | MG/KG | | INORG | 12.5 | 14.5 | 7440-38-2 | | | MND16 | Soil | | |
| B-3 | 4003-0014 | Borehole | 19930811 | Barium | 25.000 | MG/KG | | INORG | 12.5 | 14.5 | 7440-39-3 | B | J | MND16 | Soil | | |
| B-3 | 4003-0014 | Borehole | 19930811 | Beryllium | 0.660 | MG/KG | | INORG | 12.5 | 14.5 | 7440-41-7 | B | | MND16 | Soil | | |
| B-3 | 4003-0014 | Borehole | 19930811 | Calcium | 167000.000 | MG/KG | | INORG | 12.5 | 14.5 | 7440-70-2 | | | MND16 | Soil | | |
| B-3 | 4003-0014 | Borehole | 19930811 | Chromium | 12.900 | MG/KG | | INORG | 12.5 | 14.5 | 7440-47-3 | | J | MND16 | Soil | | |
| B-3 | 4003-0014 | Borehole | 19930811 | Cobalt | 9.000 | MG/KG | | INORG | 12.5 | 14.5 | 7440-48-4 | B | | MND16 | Soil | | |
| B-3 | 4003-0014 | Borehole | 19930811 | Copper | 13.100 | MG/KG | | INORG | 12.5 | 14.5 | 7440-50-8 | | | MND16 | Soil | | |
| B-3 | 4003-0014 | Borehole | 19930811 | Iron | 17300.000 | MG/KG | | INORG | 12.5 | 14.5 | 7439-89-6 | | | MND16 | Soil | | |
| B-3 | 4003-0014 | Borehole | 19930811 | Lead | 6.200 | MG/KG | | INORG | 12.5 | 14.5 | 7439-92-1 | | | MND16 | Soil | | |
| B-3 | 4003-0014 | Borehole | 19930811 | Magnesium | 36100.000 | MG/KG | | INORG | 12.5 | 14.5 | 7439-95-4 | | | MND16 | Soil | | |
| B-3 | 4003-0014 | Borehole | 19930811 | Manganese | 547.000 | MG/KG | | INORG | 12.5 | 14.5 | 7439-96-5 | | | MND16 | Soil | | |
| B-3 | 4002-0014 | Borehole | 19930811 | Methylene Chloride | 22.000 | UG/KG | | ORVOA | 12.5 | 14.5 | 75-09-2 | | J | MND16 | Soil | | |
| B-3 | 4003-0014 | Borehole | 19930811 | pH | 7.400 | STD UNIT | | GENERA | 12.5 | 14.5 | 1006 | | | MND16 | Soil | | |
| B-3 | 4003-0014 | Borehole | 19930811 | Potassium | **2530.000** | MG/KG | | INORG | 12.5 | 14.5 | 7440-09-7 | | | MND16 | Soil | | 2-Exceeds background value. |
| B-3 | 4003-0014 | Borehole | 19930811 | Selenium | **0.860** | MG/KG | | INORG | 12.5 | 14.5 | 7782-49-2 | B | | MND16 | Soil | | 2-Exceeds background value. |
| B-3 | 4003-0014 | Borehole | 19930811 | Sodium | **252.000** | MG/KG | | INORG | 12.5 | 14.5 | 7440-23-5 | B | | MND16 | Soil | | 2-Exceeds background value. |
| B-3 | 4003-0014 | Borehole | 19930811 | Strontium-90 | 0.200 | PCI/G | 0.740 | RAD | 12.5 | 14.5 | 10098-97-2 | | | MND16 | Soil | | |
| B-3 | 4003-0014 | Borehole | 19930811 | Thallium | **23.900** | MG/KG | | INORG | 12.5 | 14.5 | 7440-28-0 | | | MND16 | Soil | | 2-Exceeds background value. |
| B-3 | 4003-0014 | Borehole | 19930811 | Vanadium | 13.400 | MG/KG | | INORG | 12.5 | 14.5 | 7440-62-2 | B | | MND16 | Soil | | |
| B-3 | 4003-0014 | Borehole | 19930811 | Zinc | 37.200 | MG/KG | | INORG | 12.5 | 14.5 | 7440-66-6 | | | MND16 | Soil | | |
| B-7 | 4007-0005 | Borehole | 19930823 | Aluminum | 10400.000 | MG/KG | | INORG | 3.5 | 5.0 | 7429-90-5 | | | MND16 | Soil | | |
| B-7 | 4007-0005 | Borehole | 19930823 | Arsenic | 3.000 | MG/KG | | INORG | 3.5 | 5.0 | 7440-38-2 | | | MND16 | Soil | | |
| B-7 | 4007-0005 | Borehole | 19930823 | Barium | 52.600 | MG/KG | | INORG | 3.5 | 5.0 | 7440-39-3 | B | | MND16 | Soil | | |
| B-7 | 4007-0005 | Borehole | 19930823 | Beryllium | **0.780** | MG/KG | | INORG | 3.5 | 5.0 | 7440-41-7 | B | | MND16 | Soil | | 1-Exceeds soil 10-6 GV. |
| B-7 | 4007-0005 | Borehole | 19930823 | Calcium | 222000.000 | MG/KG | | INORG | 3.5 | 5.0 | 7440-70-2 | | | MND16 | Soil | | |
| B-7 | 4007-0005 | Borehole | 19930823 | Chromium | 12.400 | MG/KG | | INORG | 3.5 | 5.0 | 7440-47-3 | | J | MND16 | Soil | | |
| B-7 | 4007-0005 | Borehole | 19930823 | Cobalt | 6.800 | MG/KG | | INORG | 3.5 | 5.0 | 7440-48-4 | B | | MND16 | Soil | | |
| B-7 | 4007-0005 | Borehole | 19930823 | Copper | 8.500 | MG/KG | | INORG | 3.5 | 5.0 | 7440-50-8 | B | | MND16 | Soil | | |
| B-7 | 4007-0005 | Borehole | 19930823 | Iron | 17900.000 | MG/KG | | INORG | 3.5 | 5.0 | 7439-89-6 | | | MND16 | Soil | | |
| B-7 | 4007-0005 | Borehole | 19930823 | Lead | 8.700 | MG/KG | | INORG | 3.5 | 5.0 | 7439-92-1 | | J | MND16 | Soil | | |
| B-7 | 4007-0005 | Borehole | 19930823 | Magnesium | 7150.000 | MG/KG | | INORG | 3.5 | 5.0 | 7439-95-4 | | | MND16 | Soil | | |
| B-7 | 4007-0005 | Borehole | 19930823 | Manganese | 574.000 | MG/KG | | INORG | 3.5 | 5.0 | 7439-96-5 | | | MND16 | Soil | | |
| B-7 | 4007-0005 | Borehole | 19930823 | Neptunium-237 | -0.240 | PCI/G | 0.180 | RAD | 3.5 | 5.0 | 13994-20-2 | | | MND16 | Soil | | |
| B-7 | 4007-0005 | Borehole | 19930823 | pH | 6.800 | STD UNIT | | GENERA | 3.5 | 5.0 | 1006 | | | MND16 | Soil | | |
| B-7 | 4007-0005 | Borehole | 19930823 | Plutonium-238 | **0.680** | PCI/G | 0.160 | RAD | 3.5 | 5.0 | 13981-16-3 | * | | MND16 | Soil | | 2-Exceeds background value. |
| B-7 | 4007-1007 | Borehole | 19930823 | Plutonium-238 | **0.690** | PCI/G | 0.140 | RAD | 3.5 | 5.0 | 13981-16-3 | | | MND16 | Soil | | 2-Exceeds background value. |
| B-7 | 4007-1007 | Borehole | 19930823 | Plutonium-239/240 | 0.027 | PCI/G | 0.100 | RAD | 3.5 | 5.0 | PU-239/240 | | | MND16 | Soil | | |
| B-7 | 4007-0005 | Borehole | 19930823 | Plutonium-239/240 | 0.099 | PCI/G | 0.120 | RAD | 3.5 | 5.0 | PU-239/240 | | | MND16 | Soil | | |
| B-7 | 4007-0005 | Borehole | 19930823 | Plutonium-242 | -0.077 | PCI/G | 0.710 | RAD | 3.5 | 5.0 | 13982-10-0 | | | MND16 | Soil | | |
| B-7 | 4007-1007 | Borehole | 19930823 | Plutonium-242 | 0.240 | PCI/G | 0.380 | RAD | 3.5 | 5.0 | 13982-10-0 | | | MND16 | Soil | | |
| B-7 | 4007-0005 | Borehole | 19930823 | Potassium | **2960.000** | MG/KG | | INORG | 3.5 | 5.0 | 7440-09-7 | | J | MND16 | Soil | | 2-Exceeds background value. |
| B-7 | 4007-0005 | Borehole | 19930823 | Sodium | 176.000 | MG/KG | | INORG | 3.5 | 5.0 | 7440-23-5 | B | | MND16 | Soil | | |
| B-7 | 4007-1007 | Borehole | 19930823 | Strontium-90 | 0.160 | PCI/G | 0.510 | RAD | 3.5 | 5.0 | 10098-97-2 | | | MND16 | Soil | | |
| B-7 | 4007-0005 | Borehole | 19930823 | Strontium-90 | **0.730** | PCI/G | 0.720 | RAD | 3.5 | 5.0 | 10098-97-2 | N | | MND16 | Soil | | 2-Exceeds background value. |
| B-7 | 4007-0005 | Borehole | 19930823 | Thallium | **15.700** | MG/KG | | INORG | 3.5 | 5.0 | 7440-28-0 | B | | MND16 | Soil | | 2-Exceeds background value. |
| B-7 | 4007-1007 | Borehole | 19930823 | Uranium-234 | 0.510 | PCI/G | 0.380 | RAD | 3.5 | 5.0 | 13966-29-5 | | | MND16 | Soil | | |
| B-7 | 4007-0005 | Borehole | 19930823 | Uranium-234 | 0.670 | PCI/G | 0.260 | RAD | 3.5 | 5.0 | 13966-29-5 | | | MND16 | Soil | | |
| B-7 | 4007-1007 | Borehole | 19930823 | Uranium-238 | -0.018 | PCI/G | 0.310 | RAD | 3.5 | 5.0 | 7440-61-1 | | | MND16 | Soil | | |
| B-7 | 4007-0005 | Borehole | 19930823 | Uranium-238 | 0.130 | PCI/G | 0.210 | RAD | 3.5 | 5.0 | 7440-61-1 | | | MND16 | Soil | | |
| B-7 | 4007-1007 | Borehole | 19930823 | Uranium-238 | 0.280 | PCI/G | 0.340 | RAD | 3.5 | 5.0 | 7440-61-1 | | | MND16 | Soil | | |
| B-7 | 4007-0005 | Borehole | 19930823 | Uranium-238 | 1.000 | PCI/G | 0.230 | RAD | 3.5 | 5.0 | 7440-61-1 | | | MND16 | Soil | | |
| B-7 | 4007-0005 | Borehole | 19930823 | Vanadium | 14.700 | MG/KG | | INORG | 3.5 | 5.0 | 7440-62-2 | B | | MND16 | Soil | | |
| B-7 | 4007-0005 | Borehole | 19930823 | Zinc | 41.500 | MG/KG | | INORG | 3.5 | 5.0 | 7440-66-6 | | | MND16 | Soil | | |
| C-1 | 5001-0003 | Borehole | 19930805 | Acetone | 28.000 | UG/KG | | ORVOA | 2.0 | 4.0 | 67-64-1 | | J | MND16 | Soil | | |
| C-1 | 5001-0003 | Borehole | 19930805 | Aluminum | 3440.000 | MG/KG | | INORG | 2.0 | 4.0 | 7429-90-5 | | J | MND16 | Soil | | |
| C-1 | 5001-0003 | Borehole | 19930805 | Arsenic | 6.000 | MG/KG | | INORG | 2.0 | 4.0 | 7440-38-2 | | | MND16 | Soil | | |
| C-1 | 5001-0003 | Borehole | 19930805 | Barium | 41.200 | MG/KG | | INORG | 2.0 | 4.0 | 7440-39-3 | B | J | MND16 | Soil | | |
| C-1 | 5001-0003 | Borehole | 19930805 | Beryllium | 0.230 | MG/KG | | INORG | 2.0 | 4.0 | 7440-41-7 | B | | MND16 | Soil | | |
| C-1 | 5001-0003 | Borehole | 19930805 | Calcium | 97800.000 | MG/KG | | INORG | 2.0 | 4.0 | 7440-70-2 | | | MND16 | Soil | | |
| C-1 | 5001-0003 | Borehole | 19930805 | Chromium | 6.500 | MG/KG | | INORG | 2.0 | 4.0 | 7440-47-3 | | J | MND16 | Soil | | |
| C-1 | 5001-0003 | Borehole | 19930805 | Cobalt | 3.100 | MG/KG | | INORG | 2.0 | 4.0 | 7440-48-4 | B | | MND16 | Soil | | |
| C-1 | 5001-0003 | Borehole | 19930805 | Fluoranthene | 170.000 | UG/KG | | ORSVO | 2.0 | 4.0 | 206-44-0 | J | | MND16 | Soil | | |
| C-1 | 5001-0003 | Borehole | 19930805 | Iron | 9010.000 | MG/KG | | INORG | 2.0 | 4.0 | 7439-89-6 | | | MND16 | Soil | | |
| C-1 | 5001-0003 | Borehole | 19930805 | Lead | 8.700 | MG/KG | | INORG | 2.0 | 4.0 | 7439-92-1 | | | MND16 | Soil | | |
| C-1 | 5001-0003 | Borehole | 19930805 | Magnesium | 39700.000 | MG/KG | | INORG | 2.0 | 4.0 | 7439-95-4 | | | MND16 | Soil | | |
| C-1 | 5001-0003 | Borehole | 19930805 | Manganese | 330.000 | MG/KG | | INORG | 2.0 | 4.0 | 7439-96-5 | | | MND16 | Soil | | |
| C-1 | 5001-0003 | Borehole | 19930805 | pH | 7.200 | STD UNIT | | GENERA | 2.0 | 4.0 | 1006 | | | MND16 | Soil | | |
| C-1 | 5001-0003 | Borehole | 19930805 | Potassium | 634.000 | MG/KG | | INORG | 2.0 | 4.0 | 7440-09-7 | B | | MND16 | Soil | | |
| C-1 | 5001-0003 | Borehole | 19930805 | Pyrene | 160.000 | UG/KG | | ORSVO | 2.0 | 4.0 | 129-00-0 | J | | MND16 | Soil | | |
| C-1 | 5001-0003 | Borehole | 19930805 | Selenium | **0.590** | MG/KG | | INORG | 2.0 | 4.0 | 7782-49-2 | B | | MND16 | Soil | | 2-Exceeds background value. |
| C-1 | 5001-0003 | Borehole | 19930805 | Sodium | 150.000 | MG/KG | | INORG | 2.0 | 4.0 | 7440-23-5 | B | | MND16 | Soil | | |
| C-1 | 5001-0003 | Borehole | 19930805 | Thallium | **13.000** | MG/KG | | INORG | 2.0 | 4.0 | 7440-28-0 | | | MND16 | Soil | | 2-Exceeds background value. |
| C-1 | 5001-0003 | Borehole | 19930805 | Tritium | -0.050 | PCI/G | 0.380 | RAD | 2.0 | 4.0 | 10028-17-8 | N | | MND16 | Soil | | |

| Location_name | Sample_id | Location_typ | Collection_d | Value_name | Measured_valu | Value_un | Detection | Chem_clas | Start_de | End_de | CAS_number | Lab_ | Data | Project_cod | Media | Collection_m | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C-1 | 5001-0003 | Borehole | 19930805 | Vanadium | 9.400 | MG/KG | | INORG | 2.0 | 4.0 | 7440-62-2 | B | | MND16 | Soil | | |
| C-1 | 5001-0003 | Borehole | 19930805 | Xylenes, Total | 24.000 | UG/KG | | ORVOA | 2.0 | 4.0 | 1330-20-7 | | J | MND16 | Soil | | |
| C-1 | 5001-0003 | Borehole | 19930805 | Zinc | 29.400 | MG/KG | | INORG | 2.0 | 4.0 | 7440-66-6 | | | MND16 | Soil | | |
| C-10 | 5010-0001 | Borehole | 19930909 | Tritium | 0.290 | PCI/G | 0.330 | RAD | 1.0 | 3.0 | 10028-17-8 | | | MND16 | Soil | | |
| C-3 | 5003-0006 | Borehole | 19930820 | Tritium | 0.120 | PCI/G | 0.360 | RAD | 5.5 | 7.5 | 10028-17-8 | | | MND16 | Soil | | |
| C-5 | 5005-0014 | Borehole | 19930819 | Tritium | 0.720 | PCI/G | 0.360 | RAD | 13.5 | 14.7 | 10028-17-8 | | | MND16 | Soil | | |
| C-5 | 5005-1014 | Borehole | 19930819 | Tritium | 0.870 | PCI/G | 0.360 | RAD | 13.5 | 14.7 | 10028-17-8 | | | MND16 | Soil | | |
| C-7 | 5007-0013 | Borehole | 19930913 | Tritium | **97.000** | PCI/G | 0.360 | RAD | 13.0 | 15.0 | 10028-17-8 | | | MND16 | Soil | | 2-Exceeds background value. |
| C-8 | 5008-0010 | Borehole | 19930909 | Tritium | **90.000** | PCI/G | 0.410 | RAD | 9.5 | 11.5 | 10028-17-8 | | | MND16 | Soil | | 2-Exceeds background value. |
| C-9 | 5009-0006 | Borehole | 19930909 | Aluminum | 1940.000 | MG/KG | | INORG | 5.0 | 7.0 | 7429-90-5 | | | MND16 | Soil | | |
| C-9 | 5009-0006 | Borehole | 19930909 | Arsenic | 3.600 | MG/KG | | INORG | 5.0 | 7.0 | 7440-38-2 | | J | MND16 | Soil | | |
| C-9 | 5009-0006 | Borehole | 19930909 | Barium | 17.700 | MG/KG | | INORG | 5.0 | 7.0 | 7440-39-3 | B | | MND16 | Soil | | |
| C-9 | 5009-0006 | Borehole | 19930909 | Butyl Benzyl Phthalate | 440.000 | UG/KG | | ORSVO | 5.0 | 7.0 | 85-68-7 | J | | MND16 | Soil | | |
| C-9 | 5009-0006 | Borehole | 19930909 | Calcium | 171000.000 | MG/KG | | INORG | 5.0 | 7.0 | 7440-70-2 | | | MND16 | Soil | | |
| C-9 | 5009-0006 | Borehole | 19930909 | Chromium | 5.800 | MG/KG | | INORG | 5.0 | 7.0 | 7440-47-3 | | J | MND16 | Soil | | |
| C-9 | 5009-0006 | Borehole | 19930909 | Cobalt | 2.700 | MG/KG | | INORG | 5.0 | 7.0 | 7440-48-4 | B | | MND16 | Soil | | |
| C-9 | 5009-0006 | Borehole | 19930909 | Copper | 7.400 | MG/KG | | INORG | 5.0 | 7.0 | 7440-50-8 | B | | MND16 | Soil | | |
| C-9 | 5009-0006 | Borehole | 19930909 | Iron | 7170.000 | MG/KG | | INORG | 5.0 | 7.0 | 7439-89-6 | | | MND16 | Soil | | |
| C-9 | 5009-0006 | Borehole | 19930909 | Lead | 4.600 | MG/KG | | INORG | 5.0 | 7.0 | 7439-92-1 | | J | MND16 | Soil | | |
| C-9 | 5009-0006 | Borehole | 19930909 | Magnesium | **59800.000** | MG/KG | | INORG | 5.0 | 7.0 | 7439-95-4 | | | MND16 | Soil | | 2-Exceeds background value. |
| C-9 | 5009-0006 | Borehole | 19930909 | Manganese | 223.000 | MG/KG | | INORG | 5.0 | 7.0 | 7439-96-5 | | | MND16 | Soil | | |
| C-9 | 5009-0006 | Borehole | 19930909 | pH | 9.200 | STD UNIT | | GENERA | 5.0 | 7.0 | 1006 | | | MND16 | Soil | | |
| C-9 | 5009-0006 | Borehole | 19930909 | Sodium | 177.000 | MG/KG | | INORG | 5.0 | 7.0 | 7440-23-5 | B | | MND16 | Soil | | |
| C-9 | 5009-0006 | Borehole | 19930909 | Thallium | **12.700** | MG/KG | | INORG | 5.0 | 7.0 | 7440-28-0 | B | | MND16 | Soil | | 2-Exceeds background value. |
| C-9 | 5009-0006 | Borehole | 19930909 | Tritium | **2.100** | PCI/G | 0.330 | RAD | 5.0 | 7.0 | 10028-17-8 | | | MND16 | Soil | | 2-Exceeds background value. |
| C-9 | 5009-0006 | Borehole | 19930909 | Vanadium | 7.100 | MG/KG | | INORG | 5.0 | 7.0 | 7440-62-2 | B | | MND16 | Soil | | |
| C-9 | 5009-0006 | Borehole | 19930909 | Zinc | 25.300 | MG/KG | | INORG | 5.0 | 7.0 | 7440-66-6 | | | MND16 | Soil | | |
| D-5 | 9207070009 | Surface loca | 19920707 | Tritium | 0.000 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9207080009 | Surface loca | 19920708 | Tritium | 0.000 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9503280021 | Surface loca | 19950322 | Tritium | 0.000 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9503290009 | Surface loca | 19950329 | Tritium | 0.000 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9504110009 | Surface loca | 19950411 | Tritium | 0.043 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9206150009 | Surface loca | 19920615 | Tritium | 0.089 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9503270009 | Surface loca | 19950327 | Tritium | 0.146 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9408230008 | Surface loca | 19940823 | Tritium | 0.233 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9206250009 | Surface loca | 19920625 | Tritium | 0.285 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9208190020 | Surface loca | 19920819 | Tritium | 0.289 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9207090009 | Surface loca | 19920709 | Tritium | 0.298 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9503280021 | Surface loca | 19950322 | Tritium | 0.308 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9502270009 | Surface loca | 19950227 | Tritium | 0.377 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9508020015 | Surface loca | 19950802 | Tritium | 0.388 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9502230009 | Surface loca | 19950223 | Tritium | 0.393 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9309010022 | Surface loca | 19930901 | Tritium | 0.404 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9504060060 | Surface loca | 19950406 | Tritium | 0.413 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9206170009 | Surface loca | 19920617 | Tritium | 0.442 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9503160009 | Surface loca | 19950316 | Tritium | 0.469 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9207090009 | Surface loca | 19920709 | Tritium | 0.480 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9503200009 | Surface loca | 19950320 | Tritium | 0.550 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9207020009 | Surface loca | 19920702 | Tritium | 0.563 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9503280009 | Surface loca | 19950328 | Tritium | 0.607 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9504060046 | Surface loca | 19950405 | Tritium | 0.627 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9205220009 | Surface loca | 19920522 | Tritium | 0.637 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9208190008 | Surface loca | 19920818 | Tritium | 0.692 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9308160009 | Surface loca | 19930816 | Tritium | 0.695 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9506150015 | Surface loca | 19950613 | Tritium | 0.717 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9506150007 | Surface loca | 19950615 | Tritium | 0.718 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9312220009 | Surface loca | 19931222 | Tritium | 0.725 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9206230009 | Surface loca | 19920623 | Tritium | 0.768 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9408240008 | Surface loca | 19940824 | Tritium | 0.775 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9206010022 | Surface loca | 19920601 | Tritium | 0.780 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9504100009 | Surface loca | 19950410 | Tritium | 0.784 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9504190009 | Surface loca | 19950419 | Tritium | 0.796 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9507110009 | Surface loca | 19950711 | Tritium | 0.819 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9504060060 | Surface loca | 19950406 | Tritium | 0.820 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9207010009 | Surface loca | 19920701 | Tritium | 0.843 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9308300009 | Surface loca | 19930830 | Tritium | 0.847 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9206240009 | Surface loca | 19920624 | Tritium | 0.872 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9508160017 | Surface loca | 19950810 | Tritium | 0.899 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9508160037 | Surface loca | 19950815 | Tritium | 0.912 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9205050009 | Surface loca | 19920505 | Tritium | 0.921 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9503150009 | Surface loca | 19950315 | Tritium | 0.927 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9205070009 | Surface loca | 19920507 | Tritium | 0.928 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9507170009 | Surface loca | 19950717 | Tritium | 0.981 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9506200009 | Surface loca | 19950620 | Tritium | 0.982 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |

| Location_name | Sample_Id | Location_typ | Collection_d | Value_name | Measured_valu | Value_un | Detection | Chem_clas | Start_de | End_dep | CAS_number | Lab_ | Data | Project_cod | Media | Collection_m | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| D-5 | 9504190009 | Surface loca | 19950419 | Tritium | 1.014 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9506150024 | Surface loca | 19950614 | Tritium | 1.017 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9503300009 | Surface loca | 19950330 | Tritium | 1.028 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9307270009 | Surface loca | 19930727 | Tritium | 1.045 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9205140009 | Surface loca | 19920514 | Tritium | 1.048 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9504060033 | Surface loca | 19950404 | Tritium | 1.063 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9408230008 | Surface loca | 19940823 | Tritium | 1.083 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9401260009 | Surface loca | 19940126 | Tritium | 1.102 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9205180009 | Surface loca | 19920518 | Tritium | 1.107 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9205060009 | Surface loca | 19920506 | Tritium | 1.111 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9505090009 | Surface loca | 19950509 | Tritium | 1.114 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9310050021 | Surface loca | 19931004 | Tritium | 1.132 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9209080009 | Surface loca | 19920903 | Tritium | 1.150 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9309090021 | Surface loca | 19930902 | Tritium | 1.160 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9507200009 | Surface loca | 19950720 | Tritium | 1.166 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9506050007 | Surface loca | 19950605 | Tritium | 1.178 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9508020008 | Surface loca | 19950801 | Tritium | 1.190 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9506280009 | Surface loca | 19950628 | Tritium | 1.212 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9507100009 | Surface loca | 19950710 | Tritium | 1.229 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9309010009 | Surface loca | 19930831 | Tritium | 1.237 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9503230009 | Surface loca | 19950323 | Tritium | 1.261 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9505230008 | Surface loca | 19950523 | Tritium | 1.261 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9505250009 | Surface loca | 19950525 | Tritium | 1.271 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9505240009 | Surface loca | 19950524 | Tritium | 1.273 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9506060008 | Surface loca | 19950606 | Tritium | 1.303 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9506120017 | Surface loca | 19950608 | Tritium | 1.315 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9205050009 | Surface loca | 19920505 | Tritium | 1.320 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9206300009 | Surface loca | 19920630 | Tritium | 1.338 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9206180009 | Surface loca | 19920618 | Tritium | 1.341 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9508230007 | Surface loca | 19950823 | Tritium | 1.350 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9401250009 | Surface loca | 19940125 | Tritium | 1.354 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9502080007 | Surface loca | 19950208 | Tritium | 1.356 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9208250008 | Surface loca | 19920825 | Tritium | 1.360 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9506060008 | Surface loca | 19950606 | Tritium | 1.371 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9401240007 | Surface loca | 19940124 | Tritium | 1.378 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9208240008 | Surface loca | 19920824 | Tritium | 1.385 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9205130009 | Surface loca | 19920512 | Tritium | 1.395 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9506120028 | Surface loca | 19950612 | Tritium | 1.399 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9206230009 | Surface loca | 19920623 | Tritium | 1.417 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9506120009 | Surface loca | 19950607 | Tritium | 1.425 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9504200009 | Surface loca | 19950420 | Tritium | 1.427 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9205210009 | Surface loca | 19920521 | Tritium | 1.458 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9504170009 | Surface loca | 19950417 | Tritium | 1.486 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9206290009 | Surface loca | 19920629 | Tritium | 1.490 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9507130009 | Surface loca | 19950713 | Tritium | 1.493 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9408220009 | Surface loca | 19940822 | Tritium | 1.498 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9309010009 | Surface loca | 19930831 | Tritium | 1.499 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9506120028 | Surface loca | 19950612 | Tritium | 1.529 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9207140009 | Surface loca | 19920714 | Tritium | 1.530 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9209080009 | Surface loca | 19920903 | Tritium | 1.542 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9408090010 | Surface loca | 19940808 | Tritium | 1.552 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9408180009 | Surface loca | 19940818 | Tritium | 1.555 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9207060009 | Surface loca | 19920706 | Tritium | 1.561 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9504170021 | Surface loca | 19950412 | Tritium | 1.571 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9412210009 | Surface loca | 19941221 | Tritium | 1.576 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9503020009 | Surface loca | 19950302 | Tritium | 1.580 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9507190009 | Surface loca | 19950719 | Tritium | 1.588 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9205190008 | Surface loca | 19920519 | Tritium | 1.588 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9308170009 | Surface loca | 19930817 | Tritium | 1.594 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9508160007 | Surface loca | 19950809 | Tritium | 1.601 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9309080021 | Surface loca | 19930907 | Tritium | 1.603 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9409220009 | Surface loca | 19940922 | Tritium | 1.615 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9503140009 | Surface loca | 19950314 | Tritium | 1.618 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9505310009 | Surface loca | 19950531 | Tritium | 1.618 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9506220009 | Surface loca | 19950622 | Tritium | 1.643 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9209170008 | Surface loca | 19920917 | Tritium | 1.654 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9501310008 | Surface loca | 19950131 | Tritium | 1.659 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9301250020 | Surface loca | 19930120 | Tritium | 1.665 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9506190009 | Surface loca | 19950619 | Tritium | 1.675 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9507180009 | Surface loca | 19950718 | Tritium | 1.676 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9505170008 | Surface loca | 19950517 | Tritium | 1.686 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9508080016 | Surface loca | 19950803 | Tritium | 1.689 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9307130009 | Surface loca | 19930713 | Tritium | 1.702 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9403220009 | Surface loca | 19940322 | Tritium | 1.706 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |

| Location_name | Sample_Id | Location_typ | Collection_d | Value_name | Measured_valu | Value_un | Detection | Chem_clas | Start_de | End_dep | CAS_number | Lab_( | Data | Project_cod | Media | Collection_m | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| D-5 | 9307150009 | Surface loca | 19930714 | Tritium | 1.734 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9408090010 | Surface loca | 19940808 | Tritium | 1.744 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9308040009 | Surface loca | 19930803 | Tritium | 1.764 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9505300013 | Surface loca | 19950530 | Tritium | 1.769 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9502070009 | Surface loca | 19950207 | Tritium | 1.771 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9507120029 | Surface loca | 19950706 | Tritium | 1.775 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9209140009 | Surface loca | 19920914 | Tritium | 1.780 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9502280009 | Surface loca | 19950228 | Tritium | 1.784 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9504180009 | Surface loca | 19950418 | Tritium | 1.787 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9508220018 | Surface loca | 19950821 | Tritium | 1.792 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9308120009 | Surface loca | 19930812 | Tritium | 1.793 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9507310008 | Surface loca | 19950731 | Tritium | 1.793 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9507310008 | Surface loca | 19950731 | Tritium | 1.793 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9507100009 | Surface loca | 19950710 | Tritium | 1.816 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9508160027 | Surface loca | 19950814 | Tritium | 1.822 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9307220009 | Surface loca | 19930722 | Tritium | 1.847 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9301250020 | Surface loca | 19930120 | Tritium | 1.850 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9306020023 | Surface loca | 19930602 | Tritium | 1.865 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9403230009 | Surface loca | 19940323 | Tritium | 1.879 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9401270009 | Surface loca | 19940127 | Tritium | 1.881 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9205040009 | Surface loca | 19920504 | Tritium | 1.887 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9408030009 | Surface loca | 19940803 | Tritium | 1.919 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9307270009 | Surface loca | 19930727 | Tritium | 1.925 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9507120007 | Surface loca | 19950712 | Tritium | 1.931 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9306030009 | Surface loca | 19930603 | Tritium | 1.935 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9209080034 | Surface loca | 19920908 | Tritium | 1.942 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9502220009 | Surface loca | 19950222 | Tritium | 1.946 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9208120009 | Surface loca | 19920812 | Tritium | 1.946 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9209220009 | Surface loca | 19920921 | Tritium | 1.962 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9308110009 | Surface loca | 19930810 | Tritium | 1.982 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9308120009 | Surface loca | 19930812 | Tritium | 1.988 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9504130009 | Surface loca | 19950413 | Tritium | 1.995 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9507120020 | Surface loca | 19950705 | Tritium | 1.997 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9505180008 | Surface loca | 19950518 | Tritium | 2.000 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9409210009 | Surface loca | 19940921 | Tritium | 2.003 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9306020023 | Surface loca | 19930602 | Tritium | 2.005 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9309280009 | Surface loca | 19930928 | Tritium | 2.019 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9312200009 | Surface loca | 19931220 | Tritium | 2.019 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9502210007 | Surface loca | 19950213 | Tritium | 2.024 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9307260009 | Surface loca | 19930726 | Tritium | 2.026 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9205200011 | Surface loca | 19920520 | Tritium | 2.045 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9307120009 | Surface loca | 19930712 | Tritium | 2.056 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9309290009 | Surface loca | 19930929 | Tritium | 2.081 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9506010009 | Surface loca | 19950601 | Tritium | 2.084 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9206040009 | Surface loca | 19920604 | Tritium | 2.099 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9506270009 | Surface loca | 19950627 | Tritium | 2.105 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9312210009 | Surface loca | 19931221 | Tritium | 2.118 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9206010009 | Surface loca | 19920528 | Tritium | 2.123 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9308250009 | Surface loca | 19930825 | Tritium | 2.123 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9507260009 | Surface loca | 19950726 | Tritium | 2.128 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9306240009 | Surface loca | 19930624 | Tritium | 2.135 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9506220009 | Surface loca | 19950622 | Tritium | 2.136 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9505010009 | Surface loca | 19950501 | Tritium | 2.142 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9401190007 | Surface loca | 19940119 | Tritium | 2.143 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9209160008 | Surface loca | 19920915 | Tritium | 2.152 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9305260009 | Surface loca | 19930526 | Tritium | 2.194 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9508220029 | Surface loca | 19950822 | Tritium | 2.222 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9505150008 | Surface loca | 19950515 | Tritium | 2.239 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9502070009 | Surface loca | 19950207 | Tritium | 2.275 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9401180007 | Surface loca | 19940118 | Tritium | 2.277 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9505080009 | Surface loca | 19950508 | Tritium | 2.287 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9208200009 | Surface loca | 19920820 | Tritium | 2.289 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9409210009 | Surface loca | 19940921 | Tritium | 2.291 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9401200007 | Surface loca | 19940120 | Tritium | 2.300 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9205130022 | Surface loca | 19920513 | Tritium | 2.312 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9205200011 | Surface loca | 19920520 | Tritium | 2.336 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9409280009 | Surface loca | 19940928 | Tritium | 2.337 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9508170007 | Surface loca | 19950816 | Tritium | 2.343 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9505220008 | Surface loca | 19950522 | Tritium | 2.387 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9506210009 | Surface loca | 19950621 | Tritium | 2.391 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9205260009 | Surface loca | 19920526 | Tritium | 2.393 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9308260009 | Surface loca | 19930826 | Tritium | 2.399 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9207130009 | Surface loca | 19920713 | Tritium | 2.433 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9205110009 | Surface loca | 19920511 | Tritium | 2.449 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |

| Location_name | Sample_id | Location_typ | Collection_d | Value_name | Measured_valu | Value_un | Detection | Chem_clas | Start_de | End_dep | CAS_number | Lab_ | Data | Project_cod | Media | Collection_m | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| D-5 | 9209160021 | Surface loca | 19920916 | Tritium | 2.452 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9309300009 | Surface loca | 19930930 | Tritium | 2.464 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9508210007 | Surface loca | 19950817 | Tritium | 2.478 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9307280009 | Surface loca | 19930728 | Tritium | 2.481 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9505180008 | Surface loca | 19950518 | Tritium | 2.495 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9307210009 | Surface loca | 19930721 | Tritium | 2.501 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9504060009 | Surface loca | 19950403 | Tritium | 2.525 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9503210009 | Surface loca | 19950321 | Tritium | 2.604 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9504260009 | Surface loca | 19950426 | Tritium | 2.630 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9502060009 | Surface loca | 19950206 | Tritium | 2.635 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9501300008 | Surface loca | 19950130 | Tritium | 2.641 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9507270009 | Surface loca | 19950727 | Tritium | 2.643 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9309150009 | Surface loca | 19930915 | Tritium | 2.646 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9508170007 | Surface loca | 19950816 | Tritium | 2.652 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9206160009 | Surface loca | 19920616 | Tritium | 2.685 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9506260009 | Surface loca | 19950626 | Tritium | 2.693 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9312160009 | Surface loca | 19931216 | Tritium | 2.707 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9507030009 | Surface loca | 19950703 | Tritium | 2.762 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9502010009 | Surface loca | 19950201 | Tritium | 2.768 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9505040009 | Surface loca | 19950504 | Tritium | 2.778 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9309170009 | Surface loca | 19930916 | Tritium | 2.793 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9312020009 | Surface loca | 19931202 | Tritium | 2.798 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9308180009 | Surface loca | 19930818 | Tritium | 2.805 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9307200009 | Surface loca | 19930720 | Tritium | 2.829 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9208170008 | Surface loca | 19920817 | Tritium | 2.857 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9307290009 | Surface loca | 19930729 | Tritium | 2.859 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9305270009 | Surface loca | 19930527 | Tritium | 2.902 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9209100022 | Surface loca | 19920910 | Tritium | 2.914 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9206110009 | Surface loca | 19920611 | Tritium | 2.924 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9505160008 | Surface loca | 19950516 | Tritium | 2.931 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9312150009 | Surface loca | 19931215 | Tritium | 2.934 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9306220009 | Surface loca | 19930622 | Tritium | 2.942 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9503010009 | Surface loca | 19950301 | Tritium | 2.943 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9505020009 | Surface loca | 19950502 | Tritium | 2.948 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9501310023 | Surface loca | 19950125 | Tritium | 2.988 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9307080022 | Surface loca | 19930708 | Tritium | 3.004 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9502020012 | Surface loca | 19950202 | Tritium | 3.014 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9506290009 | Surface loca | 19950629 | Tritium | 3.020 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9403210051 | Surface loca | 19940321 | Tritium | 3.037 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9505040009 | Surface loca | 19950504 | Tritium | 3.102 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9205270009 | Surface loca | 19920527 | Tritium | 3.117 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9310060008 | Surface loca | 19931006 | Tritium | 3.153 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9306230009 | Surface loca | 19930623 | Tritium | 3.175 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9305110009 | Surface loca | 19930511 | Tritium | 3.210 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9311080009 | Surface loca | 19931108 | Tritium | 3.235 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9507240009 | Surface loca | 19950724 | Tritium | 3.238 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9307080022 | Surface loca | 19930708 | Tritium | 3.276 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9502090007 | Surface loca | 19950209 | Tritium | 3.299 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9208170008 | Surface loca | 19920817 | Tritium | 3.320 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9507240009 | Surface loca | 19950724 | Tritium | 3.341 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9208110009 | Surface loca | 19920811 | Tritium | 3.395 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9401120009 | Surface loca | 19940112 | Tritium | 3.404 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9305250009 | Surface loca | 19930525 | Tritium | 3.408 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9503060009 | Surface loca | 19950306 | Tritium | 3.468 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9308240009 | Surface loca | 19930824 | Tritium | 3.471 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9408040021 | Surface loca | 19940804 | Tritium | 3.487 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9311080009 | Surface loca | 19931108 | Tritium | 3.522 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9508080006 | Surface loca | 19950808 | Tritium | 3.575 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9306210009 | Surface loca | 19930621 | Tritium | 3.596 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9502200008 | Surface loca | 19950220 | Tritium | 3.601 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9505100008 | Surface loca | 19950510 | Tritium | 3.613 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9206090009 | Surface loca | 19920609 | Tritium | 3.620 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9206100009 | Surface loca | 19920610 | Tritium | 3.637 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9504240009 | Surface loca | 19950424 | Tritium | 3.665 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9504270009 | Surface loca | 19950427 | Tritium | 3.747 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9404120009 | Surface loca | 19940412 | Tritium | 3.750 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9305130009 | Surface loca | 19930512 | Tritium | 3.803 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9308200009 | Surface loca | 19930819 | Tritium | 3.808 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9401200007 | Surface loca | 19940120 | Tritium | 3.901 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9502200008 | Surface loca | 19950220 | Tritium | 3.923 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9301180008 | Surface loca | 19930118 | Tritium | 3.996 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9312130009 | Surface loca | 19931213 | Tritium | 4.031 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9508080024 | Surface loca | 19950807 | Tritium | 4.100 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9508080024 | Surface loca | 19950807 | Tritium | 4.111 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |

| Location_name | Sample_id | Location_typ | Collection_d | Value_name | Measured_valu | Value_un | Detection | Chem_clas | Start_de | End_dep | CAS_number | Lab_ | Data | Project_cod | Media | Collection_m | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| D-5 | 9206220008 | Surface loca | 19920622 | Tritium | 4.133 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9503130009 | Surface loca | 19950313 | Tritium | 4.153 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9507250009 | Surface loca | 19950725 | Tritium | 4.181 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9309230009 | Surface loca | 19930923 | Tritium | 4.229 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9407200009 | Surface loca | 19940720 | Tritium | 4.231 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9210190006 | Surface loca | 19921015 | Tritium | 4.257 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9312060009 | Surface loca | 19931206 | Tritium | 4.284 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9312140009 | Surface loca | 19931214 | Tritium | 4.319 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9308020009 | Surface loca | 19930802 | Tritium | 4.333 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9501240022 | Surface loca | 19950124 | Tritium | 4.369 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9306210009 | Surface loca | 19930621 | Tritium | 4.425 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9502140007 | Surface loca | 19950214 | Tritium | 4.495 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9301250008 | Surface loca | 19930119 | Tritium | 4.501 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9403240009 | Surface loca | 19940324 | Tritium | 4.548 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9404130009 | Surface loca | 19940413 | Tritium | 4.615 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9306020009 | Surface loca | 19930601 | Tritium | 4.619 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9306020009 | Surface loca | 19930601 | Tritium | 4.619 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9402080009 | Surface loca | 19940208 | Tritium | 4.736 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9309270024 | Surface loca | 19930927 | Tritium | 4.757 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9312010009 | Surface loca | 19931201 | Tritium | 4.760 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9505110008 | Surface loca | 19950511 | Tritium | 4.783 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9309220009 | Surface loca | 19930922 | Tritium | 4.851 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9307060009 | Surface loca | 19930706 | Tritium | 4.953 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9501190037 | Surface loca | 19950119 | Tritium | 4.980 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9206080009 | Surface loca | 19920608 | Tritium | 5.087 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9208270009 | Surface loca | 19920827 | Tritium | 5.099 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9306300022 | Surface loca | 19930629 | Tritium | 5.150 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9312090009 | Surface loca | 19931209 | Tritium | 5.224 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9209100009 | Surface loca | 19920909 | Tritium | 5.266 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9209100009 | Surface loca | 19920909 | Tritium | 5.266 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9501190022 | Surface loca | 19950118 | Tritium | 5.295 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9404140009 | Surface loca | 19940414 | Tritium | 5.300 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9208130009 | Surface loca | 19920813 | Tritium | 5.306 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9403210009 | Surface loca | 19940315 | Tritium | 5.372 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9402080009 | Surface loca | 19940208 | Tritium | 5.381 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9408150009 | Surface loca | 19940815 | Tritium | 5.438 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9503070009 | Surface loca | 19950307 | Tritium | 5.440 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9502150007 | Surface loca | 19950215 | Tritium | 5.463 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9403210022 | Surface loca | 19940316 | Tritium | 5.464 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9504250009 | Surface loca | 19950425 | Tritium | 5.493 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9402070008 | Surface loca | 19940207 | Tritium | 5.566 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9408030021 | Surface loca | 19940801 | Tritium | 5.671 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9312090009 | Surface loca | 19931209 | Tritium | 5.709 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9408250019 | Surface loca | 19940811 | Tritium | 5.712 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9412200009 | Surface loca | 19941220 | Tritium | 5.801 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9309140021 | Surface loca | 19930914 | Tritium | 5.830 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9408030034 | Surface loca | 19940802 | Tritium | 5.931 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9311290009 | Surface loca | 19931129 | Tritium | 5.942 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9408090023 | Surface loca | 19940809 | Tritium | 5.981 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9503070009 | Surface loca | 19950307 | Tritium | 6.005 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9312080009 | Surface loca | 19931208 | Tritium | 6.013 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9206080009 | Surface loca | 19920608 | Tritium | 6.052 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9501170009 | Surface loca | 19950117 | Tritium | 6.307 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9302090009 | Surface loca | 19930209 | Tritium | 6.313 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9307060023 | Surface loca | 19930701 | Tritium | 6.347 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9403210009 | Surface loca | 19940315 | Tritium | 6.378 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9403210038 | Surface loca | 19940317 | Tritium | 6.448 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9208100009 | Surface loca | 19920810 | Tritium | 6.625 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9401030009 | Surface loca | 19940103 | Tritium | 6.716 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9503090009 | Surface loca | 19950309 | Tritium | 6.756 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9402240009 | Surface loca | 19940224 | Tritium | 6.768 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9408100009 | Surface loca | 19940810 | Tritium | 6.841 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9402240009 | Surface loca | 19940224 | Tritium | 6.968 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9308240021 | Surface loca | 19930823 | Tritium | 6.971 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9502210018 | Surface loca | 19950221 | Tritium | 7.092 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9208060008 | Surface loca | 19920806 | Tritium | 7.233 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9403090009 | Surface loca | 19940309 | Tritium | 7.241 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9401060009 | Surface loca | 19940106 | Tritium | 7.415 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9403140009 | Surface loca | 19940314 | Tritium | 7.443 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9306170009 | Surface loca | 19930617 | Tritium | 7.772 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9505030009 | Surface loca | 19950503 | Tritium | 7.927 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9411010009 | Surface loca | 19941101 | Tritium | 7.948 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9403080009 | Surface loca | 19940308 | Tritium | 7.957 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9402160009 | Surface loca | 19940216 | Tritium | 8.346 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |

| Location_name | Sample_id | Location_typ | Collection_d | Value_name | Measured_valu | Value_un | Detection | Chem_clas | Start_de | End_dep | CAS_number | Lab_ | Data | Project_cod | Media | Collection_m | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| D-5 | 9305180009 | Surface loca | 19930518 | Tritium | 8.413 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9306160009 | Surface loca | 19930616 | Tritium | 8.450 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9501240009 | Surface loca | 19950123 | Tritium | 8.560 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9501170021 | Surface loca | 19950116 | Tritium | 8.632 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9402090009 | Surface loca | 19940209 | Tritium | 8.841 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9401130009 | Surface loca | 19940113 | Tritium | 8.948 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9404050009 | Surface loca | 19940405 | Tritium | 8.969 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9209010009 | Surface loca | 19920831 | Tritium | 8.974 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9402230009 | Surface loca | 19940223 | Tritium | 8.995 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9403310009 | Surface loca | 19940331 | Tritium | 9.249 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9401310009 | Surface loca | 19940131 | Tritium | 9.299 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9501240009 | Surface loca | 19950123 | Tritium | 9.306 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9305060009 | Surface loca | 19930506 | Tritium | 9.360 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9408040009 | Surface loca | 19940728 | Tritium | 9.501 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9502160007 | Surface loca | 19950216 | Tritium | 9.518 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9403310009 | Surface loca | 19940331 | Tritium | 9.585 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9401050009 | Surface loca | 19940105 | Tritium | 9.616 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9408040021 | Surface loca | 19940804 | Tritium | 9.654 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9309200009 | Surface loca | 19930920 | Tritium | 9.712 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9401100009 | Surface loca | 19940110 | Tritium | 9.949 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9305240009 | Surface loca | 19930524 | Tritium | 10.033 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9402280009 | Surface loca | 19940228 | Tritium | 10.110 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9411020009 | Surface loca | 19941102 | Tritium | 10.158 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9312070009 | Surface loca | 19931207 | Tritium | 10.186 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9409280009 | Surface loca | 19940928 | Tritium | 10.187 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9402070044 | Surface loca | 19940203 | Tritium | 10.430 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9306150009 | Surface loca | 19930615 | Tritium | 10.565 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9309200009 | Surface loca | 19930920 | Tritium | 10.614 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9501110009 | Surface loca | 19950111 | Tritium | 10.897 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9306280009 | Surface loca | 19930628 | Tritium | 10.998 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9305050009 | Surface loca | 19930505 | Tritium | 11.010 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9403070009 | Surface loca | 19940307 | Tritium | 11.018 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9403100009 | Surface loca | 19940310 | Tritium | 11.089 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9501120009 | Surface loca | 19950112 | Tritium | 11.154 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9501030021 | Surface loca | 19950102 | Tritium | 11.218 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9410270009 | Surface loca | 19941027 | Tritium | 11.232 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9406220009 | Surface loca | 19940622 | Tritium | 11.299 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9310050008 | Surface loca | 19931005 | Tritium | 11.374 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9403300009 | Surface loca | 19940330 | Tritium | 11.385 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9401110009 | Surface loca | 19940111 | Tritium | 11.451 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9408170009 | Surface loca | 19940817 | Tritium | 11.456 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9401040009 | Surface loca | 19940104 | Tritium | 11.600 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9310050008 | Surface loca | 19931005 | Tritium | 11.675 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9410250009 | Surface loca | 19941025 | Tritium | 11.727 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9410270009 | Surface loca | 19941027 | Tritium | 11.763 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9410190047 | Surface loca | 19941020 | Tritium | 11.938 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9401040009 | Surface loca | 19940104 | Tritium | 11.960 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9411030009 | Surface loca | 19941103 | Tritium | 12.008 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9403070022 | Surface loca | 19940303 | Tritium | 12.012 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9301140007 | Surface loca | 19930114 | Tritium | 12.025 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9410260009 | Surface loca | 19941026 | Tritium | 12.034 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9501040009 | Surface loca | 19950104 | Tritium | 12.089 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9309210009 | Surface loca | 19930921 | Tritium | 12.111 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9402170009 | Surface loca | 19940217 | Tritium | 12.114 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9401170009 | Surface loca | 19940117 | Tritium | 12.189 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9403020009 | Surface loca | 19940302 | Tritium | 12.198 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9403290009 | Surface loca | 19940329 | Tritium | 12.709 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9305130023 | Surface loca | 19930513 | Tritium | 12.804 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9412150009 | Surface loca | 19941215 | Tritium | 12.815 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9306300009 | Surface loca | 19930630 | Tritium | 12.835 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9501030034 | Surface loca | 19941226 | Tritium | 12.892 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9412150009 | Surface loca | 19941215 | Tritium | 12.920 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9410130009 | Surface loca | 19941013 | Tritium | 13.093 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9403010009 | Surface loca | 19940301 | Tritium | 13.226 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9407250009 | Surface loca | 19940725 | Tritium | 13.502 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9305130023 | Surface loca | 19930513 | Tritium | 13.596 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9410110009 | Surface loca | 19941011 | Tritium | 13.643 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9501030009 | Surface loca | 19950103 | Tritium | 13.694 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9410310009 | Surface loca | 19941031 | Tritium | 13.697 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9410120009 | Surface loca | 19941012 | Tritium | 13.758 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9303220023 | Surface loca | 19930317 | Tritium | 13.930 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9303220023 | Surface loca | 19930317 | Tritium | 13.930 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9306080023 | Surface loca | 19930608 | Tritium | 14.058 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9407190009 | Surface loca | 19940719 | Tritium | 14.183 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |

| Location_name | Sample_id | Location_typ | Collection_d | Value_name | Measured_valu | Value_uni | Detection | Chem_clas | Start_de | End_dep | CAS_number | Lab_ | Data | Project_cod | Media | Collection_m | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| D-5 | 9410190033 | Surface loca | 19941019 | Tritium | 14.242 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9302030032 | Surface loca | 19930202 | Tritium | 14.438 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9305100009 | Surface loca | 19930510 | Tritium | 14.709 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9412120009 | Surface loca | 19941212 | Tritium | 15.349 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9412120009 | Surface loca | 19941212 | Tritium | 15.349 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9410040009 | Surface loca | 19941004 | Tritium | 15.434 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9303090009 | Surface loca | 19930309 | Tritium | 15.450 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9406230009 | Surface loca | 19940623 | Tritium | 15.460 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9410190009 | Surface loca | 19941017 | Tritium | 15.524 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9402150009 | Surface loca | 19940215 | Tritium | 15.626 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9407070009 | Surface loca | 19940707 | Tritium | 15.660 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9406210009 | Surface loca | 19940621 | Tritium | 15.713 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9410190021 | Surface loca | 19941018 | Tritium | 15.868 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9311300009 | Surface loca | 19931130 | Tritium | 15.933 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9306140009 | Surface loca | 19930614 | Tritium | 16.141 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9411070009 | Surface loca | 19941107 | Tritium | 16.319 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9410240009 | Surface loca | 19941024 | Tritium | 16.578 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9404040009 | Surface loca | 19940404 | Tritium | 16.854 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9409270009 | Surface loca | 19940927 | Tritium | 16.888 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9412080009 | Surface loca | 19941208 | Tritium | 17.212 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9407270009 | Surface loca | 19940727 | Tritium | 17.994 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9501050009 | Surface loca | 19950105 | Tritium | 18.004 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9306080009 | Surface loca | 19930607 | Tritium | 18.030 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9407260009 | Surface loca | 19940726 | Tritium | 18.261 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9303220009 | Surface loca | 19930318 | Tritium | 18.450 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9305040023 | Surface loca | 19930504 | Tritium | 18.799 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9303100008 | Surface loca | 19930310 | Tritium | 18.964 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9412070009 | Surface loca | 19941207 | Tritium | 19.273 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9406080009 | Surface loca | 19940608 | Tritium | 19.660 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9306090009 | Surface loca | 19930609 | Tritium | 19.781 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9412130009 | Surface loca | 19941213 | Tritium | 19.857 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9412140009 | Surface loca | 19941214 | Tritium | 20.043 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9303110021 | Surface loca | 19930311 | Tritium | 20.154 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9405260009 | Surface loca | 19940526 | Tritium | 20.248 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9405260009 | Surface loca | 19940526 | Tritium | 20.248 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9305200009 | Surface loca | 19930520 | Tritium | 20.254 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9412190009 | Surface loca | 19941219 | Tritium | 20.478 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9406300009 | Surface loca | 19940630 | Tritium | 20.491 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9411220009 | Surface loca | 19941122 | Tritium | 20.553 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9303100008 | Surface loca | 19930310 | Tritium | 20.640 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9407060009 | Surface loca | 19940706 | Tritium | 20.913 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9303080009 | Surface loca | 19930308 | Tritium | 21.010 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9406300009 | Surface loca | 19940630 | Tritium | 21.061 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9404070009 | Surface loca | 19940407 | Tritium | 21.100 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9302040008 | Surface loca | 19930204 | Tritium | 21.323 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9403280009 | Surface loca | 19940328 | Tritium | 21.366 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9302040008 | Surface loca | 19930204 | Tritium | 21.425 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9402220009 | Surface loca | 19940222 | Tritium | 21.662 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9412060009 | Surface loca | 19941206 | Tritium | 21.741 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9407180009 | Surface loca | 19940718 | Tritium | 21.977 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9406220025 | Surface loca | 19940616 | Tritium | 22.351 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9411290009 | Surface loca | 19941129 | Tritium | 22.395 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9411160009 | Surface loca | 19941116 | Tritium | 22.504 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9407050009 | Surface loca | 19940705 | Tritium | 22.566 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9306100009 | Surface loca | 19930610 | Tritium | 22.876 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9411230009 | Surface loca | 19941123 | Tritium | 23.088 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9402100001 | Surface loca | 19940202 | Tritium | 23.099 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9303040009 | Surface loca | 19930304 | Tritium | 23.250 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9303170023 | Surface loca | 19930316 | Tritium | 23.378 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9407130009 | Surface loca | 19940713 | Tritium | 24.255 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9411280009 | Surface loca | 19941128 | Tritium | 24.279 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9404110009 | Surface loca | 19940411 | Tritium | 24.279 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9406290009 | Surface loca | 19940629 | Tritium | 24.718 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9402070021 | Surface loca | 19940201 | Tritium | 24.822 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9302160009 | Surface loca | 19930216 | Tritium | 25.188 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9411300009 | Surface loca | 19941130 | Tritium | 25.424 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9407200009 | Surface loca | 19940720 | Tritium | 25.548 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9406280009 | Surface loca | 19940628 | Tritium | 25.722 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9406150009 | Surface loca | 19940615 | Tritium | 25.840 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9410050009 | Surface loca | 19941005 | Tritium | 26.124 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9406290009 | Surface loca | 19940629 | Tritium | 26.201 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9411300009 | Surface loca | 19941130 | Tritium | 26.294 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9302110009 | Surface loca | 19930210 | Tritium | 26.761 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9407110009 | Surface loca | 19940711 | Tritium | 26.852 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |

| Location_name | Sample_id | Location_typ | Collection_d | Value_name | Measured_val | Value_un | Detection | Chem_clas | Start_de | End_de | CAS_number | Lab_ | Data | Project_cod | Media | Collection_m | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| D-5 | 9304280009 | Surface loca | 19930428 | Tritium | 27.282 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9302080008 | Surface loca | 19930208 | Tritium | 28.067 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9412050009 | Surface loca | 19941205 | Tritium | 28.239 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9411170009 | Surface loca | 19941117 | Tritium | 28.250 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9406220038 | Surface loca | 19940620 | Tritium | 28.306 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9404060009 | Surface loca | 19940406 | Tritium | 28.490 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9407140009 | Surface loca | 19940714 | Tritium | 28.789 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9305170009 | Surface loca | 19930517 | Tritium | 29.114 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9303170009 | Surface loca | 19930315 | Tritium | 29.346 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9305190008 | Surface loca | 19930519 | Tritium | 29.419 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9404180009 | Surface loca | 19940418 | Tritium | 29.529 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9412010009 | Surface loca | 19941201 | Tritium | 29.537 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9405250009 | Surface loca | 19940525 | Tritium | 29.725 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9406270009 | Surface loca | 19940627 | Tritium | 29.942 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9410060009 | Surface loca | 19941006 | Tritium | 30.449 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9406090009 | Surface loca | 19940609 | Tritium | 30.557 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9302230009 | Surface loca | 19930223 | Tritium | 31.080 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9409290009 | Surface loca | 19940929 | Tritium | 31.453 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9407210009 | Surface loca | 19940721 | Tritium | 31.527 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9302230009 | Surface loca | 19930223 | Tritium | 31.692 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9302110021 | Surface loca | 19930211 | Tritium | 33.155 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9411210009 | Surface loca | 19941121 | Tritium | 33.440 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9303020009 | Surface loca | 19930302 | Tritium | 34.182 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9210260008 | Surface loca | 19921026 | Tritium | 34.486 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9410100009 | Surface loca | 19941010 | Tritium | 35.120 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9303030009 | Surface loca | 19930303 | Tritium | 35.215 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9305040037 | Surface loca | 19930429 | Tritium | 35.267 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9410100009 | Surface loca | 19941010 | Tritium | 35.319 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9407120009 | Surface loca | 19940712 | Tritium | 35.921 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9406140009 | Surface loca | 19940614 | Tritium | 36.114 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9302180009 | Surface loca | 19930218 | Tritium | 36.451 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9405190009 | Surface loca | 19940519 | Tritium | 36.939 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9303010032 | Surface loca | 19930301 | Tritium | 37.691 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9304270009 | Surface loca | 19930427 | Tritium | 38.332 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9410050009 | Surface loca | 19941005 | Tritium | 38.818 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9304270009 | Surface loca | 19930427 | Tritium | 38.911 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9406060009 | Surface loca | 19940606 | Tritium | 41.065 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9406010009 | Surface loca | 19940601 | Tritium | 41.065 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9302170009 | Surface loca | 19930217 | Tritium | 41.497 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9304020008 | Surface loca | 19930323 | Tritium | 41.650 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9402210009 | Surface loca | 19940221 | Tritium | 42.354 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9302010019 | Surface loca | 19930128 | Tritium | 42.514 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9304260009 | Surface loca | 19930426 | Tritium | 43.580 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9408160009 | Surface loca | 19940816 | Tritium | 43.916 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9405240009 | Surface loca | 19940524 | Tritium | 45.335 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9406070009 | Surface loca | 19940607 | Tritium | 45.352 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9405240009 | Surface loca | 19940524 | Tritium | 45.432 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9212020009 | Surface loca | 19921202 | Tritium | 45.758 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9303230009 | Surface loca | 19930322 | Tritium | 46.504 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9211190009 | Surface loca | 19921119 | Tritium | 46.957 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9302010031 | Surface loca | 19930201 | Tritium | 47.269 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9302010031 | Surface loca | 19930201 | Tritium | 47.269 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9212020009 | Surface loca | 19921202 | Tritium | 47.562 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9405310009 | Surface loca | 19940531 | Tritium | 48.653 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9305040009 | Surface loca | 19930503 | Tritium | 49.472 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9302010007 | Surface loca | 19930127 | Tritium | 50.132 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9302030008 | Surface loca | 19930203 | Tritium | 50.915 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9304220009 | Surface loca | 19930422 | Tritium | 52.364 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9212010009 | Surface loca | 19921201 | Tritium | 53.126 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9302220009 | Surface loca | 19930222 | Tritium | 53.742 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9301260007 | Surface loca | 19930126 | Tritium | 54.028 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9304210009 | Surface loca | 19930421 | Tritium | 54.449 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9210120007 | Surface loca | 19921012 | Tritium | 56.018 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9304200009 | Surface loca | 19930420 | Tritium | 56.378 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9406020009 | Surface loca | 19940602 | Tritium | 59.286 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9304190009 | Surface loca | 19930419 | Tritium | 59.516 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9304190009 | Surface loca | 19930419 | Tritium | 59.516 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9208050009 | Surface loca | 19920805 | Tritium | 67.213 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9209220023 | Surface loca | 19920922 | Tritium | 69.727 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9209220023 | Surface loca | 19920922 | Tritium | 70.412 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9301140018 | Surface loca | 19930113 | Tritium | 72.774 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9212230009 | Surface loca | 19921223 | Tritium | 72.920 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9302150009 | Surface loca | 19930215 | Tritium | 74.781 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |
| D-5 | 9405040009 | Surface loca | 19940504 | Tritium | 75.068 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Ground | Unknown | |

| Location_name | Sample_id | Location_typ | Collection_d | Value_name | Measured_valu | Value_un | Detection | Chem_clas | Start_de | End_de | CAS_number | Lab_ | Data | Project_cod | Media | Collection_m | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| D-5 | 9303010008 | Surface loca | 19930224 | Tritium | 76.141 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9405030009 | Surface loca | 19940503 | Tritium | 77.919 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9405230009 | Surface loca | 19940523 | Tritium | 80.417 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9304150009 | Surface loca | 19930415 | Tritium | 82.181 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9207160007 | Surface loca | 19920716 | Tritium | 83.609 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9406060009 | Surface loca | 19940606 | Tritium | 83.900 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9301060008 | Surface loca | 19930106 | Tritium | 84.214 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9405160009 | Surface loca | 19940516 | Tritium | 84.607 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9405120009 | Surface loca | 19940512 | Tritium | 86.181 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9406130009 | Surface loca | 19940613 | Tritium | 89.719 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9301050008 | Surface loca | 19930105 | Tritium | 90.619 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9301050008 | Surface loca | 19930105 | Tritium | 91.773 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9406130009 | Surface loca | 19940613 | Tritium | 92.100 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9211090008 | Surface loca | 19921105 | Tritium | 101.607 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9212080009 | Surface loca | 19921208 | Tritium | 104.269 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9207270007 | Surface loca | 19920727 | Tritium | 111.162 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9304080019 | Surface loca | 19930408 | Tritium | 112.437 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9304080019 | Surface loca | 19930408 | Tritium | 112.544 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9405180009 | Surface loca | 19940518 | Tritium | 115.751 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9301070008 | Surface loca | 19930107 | Tritium | 116.528 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9210190006 | Surface loca | 19921015 | Tritium | 129.465 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9211230009 | Surface loca | 19921123 | Tritium | 137.682 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9212030009 | Surface loca | 19921203 | Tritium | 139.087 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9405020035 | Surface loca | 19940502 | Tritium | 139.100 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9405020009 | Surface loca | 19940427 | Tritium | 139.955 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9301040020 | Surface loca | 19921225 | Tritium | 140.342 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9211240009 | Surface loca | 19921124 | Tritium | 146.290 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9212090009 | Surface loca | 19921209 | Tritium | 146.616 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9208040007 | Surface loca | 19920804 | Tritium | 156.122 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9304120009 | Surface loca | 19930412 | Tritium | 156.980 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9405020023 | Surface loca | 19940428 | Tritium | 163.634 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9210140017 | Surface loca | 19921008 | Tritium | 164.417 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9405110009 | Surface loca | 19940511 | Tritium | 167.183 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9404190009 | Surface loca | 19940419 | Tritium | 170.601 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9404190009 | Surface loca | 19940419 | Tritium | 172.211 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9212220009 | Surface loca | 19921222 | Tritium | 175.015 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9405190009 | Surface loca | 19940519 | Tritium | 175.511 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9207210008 | Surface loca | 19920721 | Tritium | 177.493 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9207200009 | Surface loca | 19920720 | Tritium | 177.947 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9301120008 | Surface loca | 19930112 | Tritium | 186.275 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9207300009 | Surface loca | 19920730 | Tritium | 187.853 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9207280008 | Surface loca | 19920728 | Tritium | 195.226 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9207280008 | Surface loca | 19920728 | Tritium | 195.915 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9212150009 | Surface loca | 19921215 | Tritium | 201.925 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9209280009 | Surface loca | 19920928 | Tritium | 208.154 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9304130009 | Surface loca | 19930413 | Tritium | 214.763 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9207290009 | Surface loca | 19920729 | Tritium | 217.539 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9207220008 | Surface loca | 19920722 | Tritium | 219.760 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9211250009 | Surface loca | 19921125 | Tritium | 224.216 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9212100009 | Surface loca | 19921210 | Tritium | 233.219 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9405100009 | Surface loca | 19940510 | Tritium | 249.555 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9405100009 | Surface loca | 19940510 | Tritium | 249.555 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9208030009 | Surface loca | 19920803 | Tritium | 256.425 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9405050009 | Surface loca | 19940505 | Tritium | 261.212 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9304140009 | Surface loca | 19930414 | Tritium | 262.014 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9212160009 | Surface loca | 19921216 | Tritium | 264.491 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9405050009 | Surface loca | 19940505 | Tritium | 265.852 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9301040032 | Surface loca | 19921228 | Tritium | 278.903 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9301110008 | Surface loca | 19930111 | Tritium | 287.910 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9211300009 | Surface loca | 19921130 | Tritium | 301.144 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9212140009 | Surface loca | 19921214 | Tritium | 302.265 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9404260009 | Surface loca | 19940426 | Tritium | 333.546 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9208030024 | Surface loca | 19920723 | Tritium | 362.581 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9301040008 | Surface loca | 19930104 | Tritium | 367.340 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9301040044 | Surface loca | 19921230 | Tritium | 371.881 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9212070009 | Surface loca | 19921207 | Tritium | 376.877 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9301040057 | Surface loca | 19930102 | Tritium | 418.086 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9212210009 | Surface loca | 19921221 | Tritium | 435.664 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9209300008 | Surface loca | 19920929 | Tritium | 462.050 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9209300020 | Surface loca | 19920930 | Tritium | 536.981 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9405090009 | Surface loca | 19940509 | Tritium | 576.206 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9404250009 | Surface loca | 19940425 | Tritium | 1163.424 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9404210009 | Surface loca | 19940421 | Tritium | 1171.916 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |
| D-5 | 9404200009 | Surface loca | 19940420 | Tritium | 2458.234 | PCI/L | | RAD | 0.0 | 0.0 | 10028-17-8 | | | MWS | Groundv | Unknown | |

| Location_name | Sample_id | Location_typ | Collection_d | Value_name | Measured_valu | Value_un | Detection_ | Chem_clas | Start_de | End_dep | CAS_number | Lab_ | Data | Project_cod | Media | Collection_m | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MND09-0040 | 0040-0002 | Borehole | 19890816 | Aluminum | 8120.000 | MG/KG | 0.000 | INORG | 0.5 | 2.0 | 7429-90-5 | | | OU6RECON | Soil | | |
| MND09-0040 | 0040-0001 | Borehole | 19890816 | Aluminum | 9860.000 | MG/KG | 0.000 | INORG | 0.0 | 0.5 | 7429-90-5 | | | OU6RECON | Soil | | |
| MND09-0040 | 0040-0002 | Borehole | 19890816 | Arsenic | 3.700 | MG/KG | 0.000 | INORG | 0.5 | 2.0 | 7440-38-2 | | | OU6RECON | Soil | | |
| MND09-0040 | 0040-0001 | Borehole | 19890816 | Arsenic | 3.900 | MG/KG | 0.000 | INORG | 0.0 | 0.5 | 7440-38-2 | | | OU6RECON | Soil | | |
| MND09-0040 | 0040-0002 | Borehole | 19890816 | Barium | **351.000** | MG/KG | 0.000 | INORG | 0.5 | 2.0 | 7440-39-3 | | | OU6RECON | Soil | | 2-Exceeds background value. |
| MND09-0040 | 0040-0001 | Borehole | 19890816 | Barium | **465.000** | MG/KG | 0.000 | INORG | 0.0 | 0.5 | 7440-39-3 | | | OU6RECON | Soil | | 2-Exceeds background value. |
| MND09-0040 | 0040-0002 | Borehole | 19890816 | Beryllium | **1.000** | MG/KG | 0.000 | INORG | 0.5 | 2.0 | 7440-41-7 | | | OU6RECON | Soil | | 1-Exceeds soil 10-6 GV. |
| MND09-0040 | 0040-0001 | Borehole | 19890816 | Beryllium | **1.200** | MG/KG | 0.000 | INORG | 0.0 | 0.5 | 7440-41-7 | | | OU6RECON | Soil | | 1-Exceeds soil 10-6 GV. |
| MND09-0040 | 0040-0001 | Borehole | 19890816 | Cadmium | **4.500** | MG/KG | 0.000 | INORG | 0.0 | 0.5 | 7440-43-9 | | | OU6RECON | Soil | | 2-Exceeds background value. |
| MND09-0040 | 0040-0002 | Borehole | 19890816 | Cadmium | **5.000** | MG/KG | 0.000 | INORG | 0.5 | 2.0 | 7440-43-9 | | | OU6RECON | Soil | | 2-Exceeds background value. |
| MND09-0040 | 0040-0002 | Borehole | 19890816 | Calcium | 112000.000 | MG/KG | 0.000 | INORG | 0.5 | 2.0 | 7440-70-2 | * | | OU6RECON | Soil | | |
| MND09-0040 | 0040-0001 | Borehole | 19890816 | Calcium | 113000.000 | MG/KG | 0.000 | INORG | 0.0 | 0.5 | 7440-70-2 | * | | OU6RECON | Soil | | |
| MND09-0040 | 0040-0002 | Borehole | 19890816 | Chromium | 14.700 | MG/KG | 0.000 | INORG | 0.5 | 2.0 | 7440-47-3 | * | | OU6RECON | Soil | | |
| MND09-0040 | 0040-0001 | Borehole | 19890816 | Chromium | 18.000 | MG/KG | 0.000 | INORG | 0.0 | 0.5 | 7440-47-3 | * | | OU6RECON | Soil | | |
| MND09-0040 | 0040-0002 | Borehole | 19890816 | Cobalt | 10.700 | MG/KG | 0.000 | INORG | 0.5 | 2.0 | 7440-48-4 | | | OU6RECON | Soil | | |
| MND09-0040 | 0040-0001 | Borehole | 19890816 | Cobalt | 13.600 | MG/KG | 0.000 | INORG | 0.0 | 0.5 | 7440-48-4 | | | OU6RECON | Soil | | |
| MND09-0040 | 0040-0002 | Borehole | 19890816 | Copper | 10.600 | MG/KG | 0.000 | INORG | 0.5 | 2.0 | 7440-50-8 | | | OU6RECON | Soil | | |
| MND09-0040 | 0040-0001 | Borehole | 19890816 | Copper | 13.300 | MG/KG | 0.000 | INORG | 0.0 | 0.5 | 7440-50-8 | | | OU6RECON | Soil | | |
| MND09-0040 | 0040-0002 | Borehole | 19890816 | Iron | 15900.000 | MG/KG | 0.000 | INORG | 0.5 | 2.0 | 7439-89-6 | E | | OU6RECON | Soil | | |
| MND09-0040 | 0040-0001 | Borehole | 19890816 | Iron | 20700.000 | MG/KG | 0.000 | INORG | 0.0 | 0.5 | 7439-89-6 | E | | OU6RECON | Soil | | |
| MND09-0040 | 0040-0001 | Borehole | 19890816 | Lead | 11.500 | MG/KG | 0.000 | INORG | 0.0 | 0.5 | 7439-92-1 | | | OU6RECON | Soil | | |
| MND09-0040 | 0040-0002 | Borehole | 19890816 | Lead | 27.200 | MG/KG | 0.000 | INORG | 0.5 | 2.0 | 7439-92-1 | | | OU6RECON | Soil | | |
| MND09-0040 | 0040-0001 | Borehole | 19890816 | Magnesium | 20600.000 | MG/KG | 0.000 | INORG | 0.0 | 0.5 | 7439-95-4 | * | | OU6RECON | Soil | | |
| MND09-0040 | 0040-0002 | Borehole | 19890816 | Magnesium | 28300.000 | MG/KG | 0.000 | INORG | 0.5 | 2.0 | 7439-95-4 | * | | OU6RECON | Soil | | |
| MND09-0040 | 0040-0002 | Borehole | 19890816 | Manganese | 392.000 | MG/KG | 0.000 | INORG | 0.5 | 2.0 | 7439-96-5 | | | OU6RECON | Soil | | |
| MND09-0040 | 0040-0001 | Borehole | 19890816 | Manganese | 565.000 | MG/KG | 0.000 | INORG | 0.0 | 0.5 | 7439-96-5 | | | OU6RECON | Soil | | |
| MND09-0040 | 0040-0002 | Borehole | 19890816 | Nickel | 26.900 | MG/KG | 0.000 | INORG | 0.5 | 2.0 | 7440-02-0 | * | | OU6RECON | Soil | | |
| MND09-0040 | 0040-0001 | Borehole | 19890816 | Nickel | **32.500** | MG/KG | 0.000 | INORG | 0.0 | 0.5 | 7440-02-0 | * | | OU6RECON | Soil | | 2-Exceeds background value. |
| MND09-0040 | 0040-0002 | Borehole | 19890816 | Plutonium-238 | **10.000** | PCI/G | | RAD | 0.5 | 2.0 | 13981-16-3 | | | OU6RECON | Soil | | 1-Exceeds soil 10-6 GV. 2-Exceeds background value. |
| MND09-0040 | 0040-0001 | Borehole | 19890816 | Plutonium-238 | **12.000** | PCI/G | | RAD | 0.0 | 0.5 | 13981-16-3 | | | OU6RECON | Soil | | 1-Exceeds soil 10-6 GV. 2-Exceeds background value. |
| MND09-0040 | 0040-0002 | Borehole | 19890816 | Potassium | 1780.000 | MG/KG | 0.000 | INORG | 0.5 | 2.0 | 7440-09-7 | | | OU6RECON | Soil | | |
| MND09-0040 | 0040-0001 | Borehole | 19890816 | Potassium | **2030.000** | MG/KG | 0.000 | INORG | 0.0 | 0.5 | 7440-09-7 | | | OU6RECON | Soil | | 2-Exceeds background value. |
| MND09-0040 | 0040-0002 | Borehole | 19890816 | Sodium | **1540.000** | MG/KG | 0.000 | INORG | 0.5 | 2.0 | 7440-23-5 | | | OU6RECON | Soil | | 2-Exceeds background value. |
| MND09-0040 | 0040-0001 | Borehole | 19890816 | Sodium | **2140.000** | MG/KG | 0.000 | INORG | 0.0 | 0.5 | 7440-23-5 | | | OU6RECON | Soil | | 2-Exceeds background value. |
| MND09-0040 | 0040-0002 | Borehole | 19890816 | Thallium | 0.220 | MG/KG | 0.000 | INORG | 0.5 | 2.0 | 7440-28-0 | B | | OU6RECON | Soil | | |
| MND09-0040 | 0040-0001 | Borehole | 19890816 | Thorium-232 | 0.800 | PCI/G | | RAD | 0.0 | 0.5 | 7440-29-1 | | | OU6RECON | Soil | | |
| MND09-0040 | 0040-0002 | Borehole | 19890816 | Thorium-232 | **5.700** | PCI/G | | RAD | 0.5 | 2.0 | 7440-29-1 | | | OU6RECON | Soil | | 1-Exceeds soil 10-6 GV. 2-Exceeds background value. 3-Exceeds other criteria. |
| MND09-0040 | 0040-0001 | Borehole | 19890816 | Vanadium | 19.800 | MG/KG | 0.000 | INORG | 0.0 | 0.5 | 7440-62-2 | | | OU6RECON | Soil | | |
| MND09-0040 | 0040-0002 | Borehole | 19890816 | Vanadium | 20.200 | MG/KG | 0.000 | INORG | 0.5 | 2.0 | 7440-62-2 | | | OU6RECON | Soil | | |
| MND09-0040 | 0040-0002 | Borehole | 19890816 | Zinc | **230.000** | MG/KG | 0.000 | INORG | 0.5 | 2.0 | 7440-66-6 | | | OU6RECON | Soil | | 2-Exceeds background value. |
| MND09-0040 | 0040-0001 | Borehole | 19890816 | Zinc | **303.000** | MG/KG | 0.000 | INORG | 0.0 | 0.5 | 7440-66-6 | | | OU6RECON | Soil | | 2-Exceeds background value. |
| MND09-0041 | 0041-0001 | Borehole | 19890816 | Aluminum | 611.000 | MG/KG | 0.000 | INORG | 0.0 | 0.5 | 7429-90-5 | | | OU6RECON | Soil | | |
| MND09-0041 | 0041-0004 | Borehole | 19890816 | Aluminum | 1680.000 | MG/KG | 0.000 | INORG | 4.0 | 6.0 | 7429-90-5 | | | OU6RECON | Soil | | |
| MND09-0041 | 0041-0005 | Borehole | 19890816 | Aluminum | 2100.000 | MG/KG | 0.000 | INORG | 6.0 | 8.0 | 7429-90-5 | | | OU6RECON | Soil | | |
| MND09-0041 | 0041-0002 | Borehole | 19890816 | Aluminum | 2290.000 | MG/KG | 0.000 | INORG | 0.5 | 2.0 | 7429-90-5 | | | OU6RECON | Soil | | |
| MND09-0041 | 0041-0001 | Borehole | 19890816 | Arsenic | 1.900 | MG/KG | 0.000 | INORG | 0.0 | 0.5 | 7440-38-2 | B | | OU6RECON | Soil | | |
| MND09-0041 | 0041-0004 | Borehole | 19890816 | Arsenic | 2.500 | MG/KG | 0.000 | INORG | 4.0 | 6.0 | 7440-38-2 | | | OU6RECON | Soil | | |
| MND09-0041 | 0041-0005 | Borehole | 19890816 | Arsenic | 2.700 | MG/KG | 0.000 | INORG | 6.0 | 8.0 | 7440-38-2 | | | OU6RECON | Soil | | |
| MND09-0041 | 0041-0002 | Borehole | 19890816 | Arsenic | 7.600 | MG/KG | 0.000 | INORG | 0.5 | 2.0 | 7440-38-2 | | | OU6RECON | Soil | | |
| MND09-0041 | 0041-0001 | Borehole | 19890816 | Barium | **216.000** | MG/KG | 0.000 | INORG | 0.0 | 0.5 | 7440-39-3 | | | OU6RECON | Soil | | 2-Exceeds background value. |
| MND09-0041 | 0041-0005 | Borehole | 19890816 | Barium | **258.000** | MG/KG | 0.000 | INORG | 6.0 | 8.0 | 7440-39-3 | | | OU6RECON | Soil | | 2-Exceeds background value. |
| MND09-0041 | 0041-0004 | Borehole | 19890816 | Barium | **268.000** | MG/KG | 0.000 | INORG | 4.0 | 6.0 | 7440-39-3 | | | OU6RECON | Soil | | 2-Exceeds background value. |
| MND09-0041 | 0041-0002 | Borehole | 19890816 | Barium | **315.000** | MG/KG | 0.000 | INORG | 0.5 | 2.0 | 7440-39-3 | | | OU6RECON | Soil | | 2-Exceeds background value. |
| MND09-0041 | 0041-0001 | Borehole | 19890816 | Beryllium | 0.690 | MG/KG | 0.000 | INORG | 0.0 | 0.5 | 7440-41-7 | B | | OU6RECON | Soil | | |
| MND09-0041 | 0041-0005 | Borehole | 19890816 | Beryllium | **0.740** | MG/KG | 0.000 | INORG | 6.0 | 8.0 | 7440-41-7 | B | | OU6RECON | Soil | | 1-Exceeds soil 10-6 GV. |
| MND09-0041 | 0041-0002 | Borehole | 19890816 | Beryllium | **0.770** | MG/KG | 0.000 | INORG | 0.5 | 2.0 | 7440-41-7 | B | | OU6RECON | Soil | | 1-Exceeds soil 10-6 GV. |
| MND09-0041 | 0041-0004 | Borehole | 19890816 | Beryllium | **0.780** | MG/KG | 0.000 | INORG | 4.0 | 6.0 | 7440-41-7 | B | | OU6RECON | Soil | | 1-Exceeds soil 10-6 GV. |
| MND09-0041 | 0041-0005 | Borehole | 19890816 | Cadmium | **5.800** | MG/KG | 0.000 | INORG | 6.0 | 8.0 | 7440-43-9 | | | OU6RECON | Soil | | 2-Exceeds background value. |
| MND09-0041 | 0041-0002 | Borehole | 19890816 | Cadmium | **6.600** | MG/KG | 0.000 | INORG | 0.5 | 2.0 | 7440-43-9 | | | OU6RECON | Soil | | 2-Exceeds background value. |
| MND09-0041 | 0041-0004 | Borehole | 19890816 | Cadmium | **6.700** | MG/KG | 0.000 | INORG | 4.0 | 6.0 | 7440-43-9 | | | OU6RECON | Soil | | 2-Exceeds background value. |
| MND09-0041 | 0041-0001 | Borehole | 19890816 | Cadmium | **7.500** | MG/KG | 0.000 | INORG | 0.0 | 0.5 | 7440-43-9 | | | OU6RECON | Soil | | 2-Exceeds background value. |
| MND09-0041 | 0041-0002 | Borehole | 19890816 | Calcium | 123000.000 | MG/KG | 0.000 | INORG | 0.5 | 2.0 | 7440-70-2 | * | | OU6RECON | Soil | | |
| MND09-0041 | 0041-0001 | Borehole | 19890816 | Calcium | 144000.000 | MG/KG | 0.000 | INORG | 0.0 | 0.5 | 7440-70-2 | * | | OU6RECON | Soil | | |
| MND09-0041 | 0041-0004 | Borehole | 19890816 | Calcium | 145000.000 | MG/KG | 0.000 | INORG | 4.0 | 6.0 | 7440-70-2 | * | | OU6RECON | Soil | | |
| MND09-0041 | 0041-0001 | Borehole | 19890816 | Chromium | 5.400 | MG/KG | 0.000 | INORG | 0.0 | 0.5 | 7440-47-3 | * | | OU6RECON | Soil | | |
| MND09-0041 | 0041-0004 | Borehole | 19890816 | Chromium | 7.000 | MG/KG | 0.000 | INORG | 4.0 | 6.0 | 7440-47-3 | * | | OU6RECON | Soil | | |
| MND09-0041 | 0041-0005 | Borehole | 19890816 | Chromium | 9.300 | MG/KG | 0.000 | INORG | 6.0 | 8.0 | 7440-47-3 | * | | OU6RECON | Soil | | |
| MND09-0041 | 0041-0002 | Borehole | 19890816 | Chromium | 11.000 | MG/KG | 0.000 | INORG | 0.5 | 2.0 | 7440-47-3 | * | | OU6RECON | Soil | | |
| MND09-0041 | 0041-0001 | Borehole | 19890816 | Cobalt | 5.600 | MG/KG | 0.000 | INORG | 0.0 | 0.5 | 7440-48-4 | B | | OU6RECON | Soil | | |
| MND09-0041 | 0041-0005 | Borehole | 19890816 | Cobalt | 6.100 | MG/KG | 0.000 | INORG | 6.0 | 8.0 | 7440-48-4 | B | | OU6RECON | Soil | | |
| MND09-0041 | 0041-0004 | Borehole | 19890816 | Cobalt | 6.200 | MG/KG | 0.000 | INORG | 4.0 | 6.0 | 7440-48-4 | B | | OU6RECON | Soil | | |
| MND09-0041 | 0041-0002 | Borehole | 19890816 | Cobalt | 6.300 | MG/KG | 0.000 | INORG | 0.5 | 2.0 | 7440-48-4 | B | | OU6RECON | Soil | | |
| MND09-0041 | 0041-0004 | Borehole | 19890816 | Copper | 2.800 | MG/KG | 0.000 | INORG | 4.0 | 6.0 | 7440-50-8 | B | | OU6RECON | Soil | | |
| MND09-0041 | 0041-0005 | Borehole | 19890816 | Copper | 3.500 | MG/KG | 0.000 | INORG | 6.0 | 8.0 | 7440-50-8 | B | | OU6RECON | Soil | | |

| Location_name | Sample_id | Location_typ | Collection_d | Value_name | Measured_valu | Value_un | Detection | Chem_clas | Start_de | End_dep | CAS_number | Lab_ | Data | Project_cod | Media | Collection_m | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MND09-0041 | 0041-0002 | Borehole | 19890816 | Copper | 4.400 | MG/KG | 0.000 | INORG | 0.5 | 2.0 | 7440-50-8 | B | | OU6RECON | Soil | | |
| MND09-0041 | 0041-0001 | Borehole | 19890816 | Iron | 4350.000 | MG/KG | 0.000 | INORG | 0.0 | 0.5 | 7439-89-6 | E | | OU6RECON | Soil | | |
| MND09-0041 | 0041-0004 | Borehole | 19890816 | Iron | 4870.000 | MG/KG | 0.000 | INORG | 4.0 | 6.0 | 7439-89-6 | E | | OU6RECON | Soil | | |
| MND09-0041 | 0041-0005 | Borehole | 19890816 | Iron | 5330.000 | MG/KG | 0.000 | INORG | 6.0 | 8.0 | 7439-89-6 | E | | OU6RECON | Soil | | |
| MND09-0041 | 0041-0002 | Borehole | 19890816 | Iron | 6280.000 | MG/KG | 0.000 | INORG | 0.5 | 2.0 | 7439-89-6 | E | | OU6RECON | Soil | | |
| MND09-0041 | 0041-0005 | Borehole | 19890816 | Lead | 4.500 | MG/KG | 0.000 | INORG | 6.0 | 8.0 | 7439-92-1 | | | OU6RECON | Soil | | |
| MND09-0041 | 0041-0004 | Borehole | 19890816 | Lead | 6.200 | MG/KG | 0.000 | INORG | 4.0 | 6.0 | 7439-92-1 | | | OU6RECON | Soil | | |
| MND09-0041 | 0041-0002 | Borehole | 19890816 | Lead | 11.200 | MG/KG | 0.000 | INORG | 0.5 | 2.0 | 7439-92-1 | | | OU6RECON | Soil | | |
| MND09-0041 | 0041-0001 | Borehole | 19890816 | Lead | 15.200 | MG/KG | 0.000 | INORG | 0.0 | 0.5 | 7439-92-1 | | | OU6RECON | Soil | | |
| MND09-0041 | 0041-0005 | Borehole | 19890816 | Magnesium | 52700.000 | MG/KG | 0.000 | INORG | 6.0 | 8.0 | 7439-95-4 | * | | OU6RECON | Soil | | 2-Exceeds background value. |
| MND09-0041 | 0041-0002 | Borehole | 19890816 | Magnesium | 55700.000 | MG/KG | 0.000 | INORG | 0.5 | 2.0 | 7439-95-4 | * | | OU6RECON | Soil | | 2-Exceeds background value. |
| MND09-0041 | 0041-0004 | Borehole | 19890816 | Magnesium | 64500.000 | MG/KG | 0.000 | INORG | 4.0 | 6.0 | 7439-95-4 | * | | OU6RECON | Soil | | 2-Exceeds background value. |
| MND09-0041 | 0041-0001 | Borehole | 19890816 | Magnesium | 78200.000 | MG/KG | 0.000 | INORG | 0.0 | 0.5 | 7439-95-4 | * | | OU6RECON | Soil | | 2-Exceeds background value. |
| MND09-0041 | 0041-0001 | Borehole | 19890816 | Manganese | 133.000 | MG/KG | 0.000 | INORG | 0.0 | 0.5 | 7439-96-5 | | | OU6RECON | Soil | | |
| MND09-0041 | 0041-0005 | Borehole | 19890816 | Manganese | 230.000 | MG/KG | 0.000 | INORG | 6.0 | 8.0 | 7439-96-5 | | | OU6RECON | Soil | | |
| MND09-0041 | 0041-0004 | Borehole | 19890816 | Manganese | 234.000 | MG/KG | 0.000 | INORG | 4.0 | 6.0 | 7439-96-5 | | | OU6RECON | Soil | | |
| MND09-0041 | 0041-0002 | Borehole | 19890816 | Manganese | 332.000 | MG/KG | 0.000 | INORG | 0.5 | 2.0 | 7439-96-5 | | | OU6RECON | Soil | | |
| MND09-0041 | 0041-0001 | Borehole | 19890816 | Nickel | 10.600 | MG/KG | 0.000 | INORG | 0.0 | 0.5 | 7440-02-0 | * | | OU6RECON | Soil | | |
| MND09-0041 | 0041-0004 | Borehole | 19890816 | Nickel | 15.300 | MG/KG | 0.000 | INORG | 4.0 | 6.0 | 7440-02-0 | * | | OU6RECON | Soil | | |
| MND09-0041 | 0041-0005 | Borehole | 19890816 | Nickel | 16.600 | MG/KG | 0.000 | INORG | 6.0 | 8.0 | 7440-02-0 | * | | OU6RECON | Soil | | |
| MND09-0041 | 0041-0002 | Borehole | 19890816 | Nickel | 18.700 | MG/KG | 0.000 | INORG | 0.5 | 2.0 | 7440-02-0 | * | | OU6RECON | Soil | | |
| MND09-0041 | 0041-0002 | Borehole | 19890816 | Plutonium-238 | 5.000 | PCI/G | | RAD | 0.5 | 2.0 | 13981-16-3 | | | OU6RECON | Soil | | 2-Exceeds background value. |
| MND09-0041 | 0041-0005 | Borehole | 19890816 | Plutonium-238 | 6.000 | PCI/G | | RAD | 6.0 | 8.0 | 13981-16-3 | | | OU6RECON | Soil | | 1-Exceeds soil 10-6 GV. 2-Exceeds background value. |
| MND09-0041 | 0041-0003 | Borehole | 19890816 | Plutonium-238 | 7.000 | PCI/G | | RAD | 2.0 | 4.0 | 13981-16-3 | | | OU6RECON | Soil | | 1-Exceeds soil 10-6 GV. 2-Exceeds background value. |
| MND09-0041 | 0041-0004 | Borehole | 19890816 | Plutonium-238 | 9.000 | PCI/G | | RAD | 4.0 | 6.0 | 13981-16-3 | | | OU6RECON | Soil | | 1-Exceeds soil 10-6 GV. 2-Exceeds background value. |
| MND09-0041 | 0041-0001 | Borehole | 19890816 | Plutonium-238 | 10.000 | PCI/G | | RAD | 0.0 | 0.5 | 13981-16-3 | | | OU6RECON | Soil | | 1-Exceeds soil 10-6 GV. 2-Exceeds background value. |
| MND09-0041 | 0041-0001 | Borehole | 19890816 | Potassium | 425.000 | MG/KG | 0.000 | INORG | 0.0 | 0.5 | 7440-09-7 | B | | OU6RECON | Soil | | |
| MND09-0041 | 0041-0004 | Borehole | 19890816 | Potassium | 526.000 | MG/KG | 0.000 | INORG | 4.0 | 6.0 | 7440-09-7 | B | | OU6RECON | Soil | | |
| MND09-0041 | 0041-0005 | Borehole | 19890816 | Potassium | 541.000 | MG/KG | 0.000 | INORG | 6.0 | 8.0 | 7440-09-7 | B | | OU6RECON | Soil | | |
| MND09-0041 | 0041-0002 | Borehole | 19890816 | Potassium | 651.000 | MG/KG | 0.000 | INORG | 0.5 | 2.0 | 7440-09-7 | B | | OU6RECON | Soil | | |
| MND09-0041 | 0041-0001 | Borehole | 19890816 | Sodium | 1160.000 | MG/KG | 0.000 | INORG | 0.0 | 0.5 | 7440-23-5 | | | OU6RECON | Soil | | 2-Exceeds background value. |
| MND09-0041 | 0041-0005 | Borehole | 19890816 | Sodium | 1300.000 | MG/KG | 0.000 | INORG | 6.0 | 8.0 | 7440-23-5 | | | OU6RECON | Soil | | 2-Exceeds background value. |
| MND09-0041 | 0041-0004 | Borehole | 19890816 | Sodium | 1390.000 | MG/KG | 0.000 | INORG | 4.0 | 6.0 | 7440-23-5 | | | OU6RECON | Soil | | 2-Exceeds background value. |
| MND09-0041 | 0041-0002 | Borehole | 19890816 | Sodium | 1450.000 | MG/KG | 0.000 | INORG | 0.5 | 2.0 | 7440-23-5 | | | OU6RECON | Soil | | 2-Exceeds background value. |
| MND09-0041 | 0041-0002 | Borehole | 19890816 | Thallium | 0.220 | MG/KG | 0.000 | INORG | 0.5 | 2.0 | 7440-28-0 | B | | OU6RECON | Soil | | |
| MND09-0041 | 0041-0001 | Borehole | 19890816 | Thorium-232 | 0.200 | PCI/G | | RAD | 0.0 | 0.5 | 7440-29-1 | | | OU6RECON | Soil | | |
| MND09-0041 | 0041-0003 | Borehole | 19890816 | Thorium-232 | 0.400 | PCI/G | | RAD | 2.0 | 4.0 | 7440-29-1 | | | OU6RECON | Soil | | |
| MND09-0041 | 0041-0005 | Borehole | 19890816 | Thorium-232 | 0.500 | PCI/G | | RAD | 6.0 | 8.0 | 7440-29-1 | | | OU6RECON | Soil | | |
| MND09-0041 | 0041-0004 | Borehole | 19890816 | Thorium-232 | 2.300 | PCI/G | | RAD | 4.0 | 6.0 | 7440-29-1 | | | OU6RECON | Soil | | 1-Exceeds soil 10-6 GV. 2-Exceeds background value. |
| MND09-0041 | 0041-0002 | Borehole | 19890816 | Thorium-232 | 4.600 | PCI/G | | RAD | 0.5 | 2.0 | 7440-29-1 | | | OU6RECON | Soil | | 1-Exceeds soil 10-6 GV. 2-Exceeds background value. 3-Exceeds other criteria. |
| MND09-0041 | 0041-0002 | Borehole | 19890816 | Vanadium | 18.100 | MG/KG | 0.000 | INORG | 0.5 | 2.0 | 7440-62-2 | | | OU6RECON | Soil | | |
| MND09-0041 | 0041-0005 | Borehole | 19890816 | Vanadium | 18.500 | MG/KG | 0.000 | INORG | 6.0 | 8.0 | 7440-62-2 | | | OU6RECON | Soil | | |
| MND09-0041 | 0041-0001 | Borehole | 19890816 | Vanadium | 18.900 | MG/KG | 0.000 | INORG | 0.0 | 0.5 | 7440-62-2 | | | OU6RECON | Soil | | |
| MND09-0041 | 0041-0004 | Borehole | 19890816 | Vanadium | 20.100 | MG/KG | 0.000 | INORG | 4.0 | 6.0 | 7440-62-2 | | | OU6RECON | Soil | | |
| MND09-0041 | 0041-0001 | Borehole | 19890816 | Zinc | 127.000 | MG/KG | 0.000 | INORG | 0.0 | 0.5 | 7440-66-6 | | | OU6RECON | Soil | | |
| MND09-0041 | 0041-0005 | Borehole | 19890816 | Zinc | 157.000 | MG/KG | 0.000 | INORG | 6.0 | 8.0 | 7440-66-6 | | | OU6RECON | Soil | | 2-Exceeds background value. |
| MND09-0041 | 0041-0004 | Borehole | 19890816 | Zinc | 157.000 | MG/KG | 0.000 | INORG | 4.0 | 6.0 | 7440-66-6 | | | OU6RECON | Soil | | 2-Exceeds background value. |
| MND09-0041 | 0041-0002 | Borehole | 19890816 | Zinc | 182.000 | MG/KG | 0.000 | INORG | 0.5 | 2.0 | 7440-66-6 | | | OU6RECON | Soil | | 2-Exceeds background value. |
| S0386 | 4094 | Surface loca | 19831001 | Plutonium-238 | 2.190 | PCI/G | 0.010 | RAD | 0.0 | 0.0 | 13981-16-3 | | | RSS | Soil | Not Applicabl | 2-Exceeds background value. |
| SCR131 | 9311161-M3 | Borehole | 19931116 | Plutonium-238 | 25.000 | PCI/G | | RAD | 0.0 | 0.0 | 13981-16-3 | | | SCRDATA | Soil | Unknown | 1-Exceeds soil 10-6 GV. 2-Exceeds background value. |
| SCR131 | 93111092 | Borehole | 19931110 | Plutonium-238 | 25.000 | PCI/G | | RAD | 0.0 | 0.0 | 13981-16-3 | | | SCRDATA | Soil | Unknown | 1-Exceeds soil 10-6 GV. 2-Exceeds background value. |
| SCR131 | 9311125-M | Borehole | 19931111 | Plutonium-238 | 25.000 | PCI/G | | RAD | 0.0 | 0.0 | 13981-16-3 | | | SCRDATA | Soil | Unknown | 1-Exceeds soil 10-6 GV. 2-Exceeds background value. |
| SCR131 | 9311167 | Borehole | 19931116 | Plutonium-238 | 26.000 | PCI/G | | RAD | 0.0 | 0.0 | 13981-16-3 | | | SCRDATA | Soil | Unknown | 1-Exceeds soil 10-6 GV. 2-Exceeds background value. 3-Exceeds other criteria. |
| SCR131 | 93111219 | Borehole | 19931112 | Plutonium-238 | 26.000 | PCI/G | | RAD | 0.0 | 0.0 | 13981-16-3 | | | SCRDATA | Soil | Unknown | 1-Exceeds soil 10-6 GV. 2-Exceeds background value. 3-Exceeds other criteria. |
| SCR131 | 9311161-M1 | Borehole | 19931116 | Plutonium-238 | 26.000 | PCI/G | | RAD | 0.0 | 0.0 | 13981-16-3 | | | SCRDATA | Soil | Unknown | 1-Exceeds soil 10-6 GV. 2-Exceeds background value. 3-Exceeds other criteria. |
| SCR131 | 9311164-M5 | Borehole | 19931116 | Plutonium-238 | 26.000 | PCI/G | | RAD | 0.0 | 0.0 | 13981-16-3 | | | SCRDATA | Soil | Unknown | 1-Exceeds soil 10-6 GV. 2-Exceeds background value. 3-Exceeds other criteria. |
| SCR131 | 9311169 | Borehole | 19931116 | Plutonium-238 | 26.000 | PCI/G | | RAD | 0.0 | 0.0 | 13981-16-3 | | | SCRDATA | Soil | Unknown | 1-Exceeds soil 10-6 GV. 2-Exceeds background value. 3-Exceeds other criteria. |
| SCR131 | 9311124-M | Borehole | 19931111 | Plutonium-238 | 27.000 | PCI/G | | RAD | 0.0 | 0.0 | 13981-16-3 | | | SCRDATA | Soil | Unknown | 1-Exceeds soil 10-6 GV. 2-Exceeds background value. 3-Exceeds other criteria. |
| SCR131 | 93111518 | Borehole | 19931115 | Plutonium-238 | 27.000 | PCI/G | | RAD | 0.0 | 0.0 | 13981-16-3 | | | SCRDATA | Soil | Unknown | 1-Exceeds soil 10-6 GV. 2-Exceeds background value. 3-Exceeds other criteria. |
| SCR131 | 93111140 | Borehole | 19931111 | Plutonium-238 | 27.000 | PCI/G | | RAD | 0.0 | 0.0 | 13981-16-3 | | | SCRDATA | Soil | Unknown | 1-Exceeds soil 10-6 GV. 2-Exceeds background value. 3-Exceeds other criteria. |
| SCR131 | 9311168 | Borehole | 19931116 | Plutonium-238 | 28.000 | PCI/G | | RAD | 0.0 | 0.0 | 13981-16-3 | | | SCRDATA | Soil | Unknown | 1-Exceeds soil 10-6 GV. 2-Exceeds background value. 3-Exceeds other criteria. |
| SCR131 | 9311126 | Borehole | 19931111 | Plutonium-238 | 28.000 | PCI/G | | RAD | 0.0 | 0.0 | 13981-16-3 | | | SCRDATA | Soil | Unknown | 1-Exceeds soil 10-6 GV. 2-Exceeds background value. 3-Exceeds other criteria. |
| SCR131 | 93111520 | Borehole | 19931115 | Plutonium-238 | 28.000 | PCI/G | | RAD | 0.0 | 0.0 | 13981-16-3 | | | SCRDATA | Soil | Unknown | 1-Exceeds soil 10-6 GV. 2-Exceeds background value. 3-Exceeds other criteria. |
| SCR131 | 93111519 | Borehole | 19931115 | Plutonium-238 | 28.000 | PCI/G | | RAD | 0.0 | 0.0 | 13981-16-3 | | | SCRDATA | Soil | Unknown | 1-Exceeds soil 10-6 GV. 2-Exceeds background value. 3-Exceeds other criteria. |
| SCR131 | 93111220 | Borehole | 19931112 | Plutonium-238 | 29.000 | PCI/G | | RAD | 0.0 | 0.0 | 13981-16-3 | | | SCRDATA | Soil | Unknown | 1-Exceeds soil 10-6 GV. 2-Exceeds background value. 3-Exceeds other criteria. |
| SCR131 | 9311155-M1 | Borehole | 19931115 | Plutonium-238 | 30.000 | PCI/G | | RAD | 0.0 | 0.0 | 13981-16-3 | | | SCRDATA | Soil | Unknown | 1-Exceeds soil 10-6 GV. 2-Exceeds background value. 3-Exceeds other criteria. |
| SCR131 | 9311162-M2 | Borehole | 19931116 | Plutonium-238 | 31.000 | PCI/G | | RAD | 0.0 | 0.0 | 13981-16-3 | | | SCRDATA | Soil | Unknown | 1-Exceeds soil 10-6 GV. 2-Exceeds background value. 3-Exceeds other criteria. |
| SCR131 | 93111515 | Borehole | 19931115 | Plutonium-238 | 34.000 | PCI/G | | RAD | 0.0 | 0.0 | 13981-16-3 | | | SCRDATA | Soil | Unknown | 1-Exceeds soil 10-6 GV. 2-Exceeds background value. 3-Exceeds other criteria. |
| SCR131 | 9311123-M | Borehole | 19931111 | Plutonium-238 | 34.000 | PCI/G | | RAD | 0.0 | 0.0 | 13981-16-3 | | | SCRDATA | Soil | Unknown | 1-Exceeds soil 10-6 GV. 2-Exceeds background value. 3-Exceeds other criteria. |
| SCR131 | 93111141 | Borehole | 19931111 | Plutonium-238 | 35.000 | PCI/G | | RAD | 0.0 | 0.0 | 13981-16-3 | | | SCRDATA | Soil | Unknown | 1-Exceeds soil 10-6 GV. 2-Exceeds background value. 3-Exceeds other criteria. |
| SCR132 | 88022529 | Borehole | 19880224 | Plutonium-238 | 25.000 | PCI/G | | RAD | 0.0 | 0.0 | 13981-16-3 | | | SCRDATA | Soil | Unknown | 1-Exceeds soil 10-6 GV. 2-Exceeds background value. |
| SCR132 | 88022546 | Borehole | 19880224 | Plutonium-238 | 26.000 | PCI/G | | RAD | 0.0 | 0.0 | 13981-16-3 | | | SCRDATA | Soil | Unknown | 1-Exceeds soil 10-6 GV. 2-Exceeds background value. 3-Exceeds other criteria. |
| SCR132 | 88022534 | Borehole | 19880224 | Plutonium-238 | 30.000 | PCI/G | | RAD | 0.0 | 0.0 | 13981-16-3 | | | SCRDATA | Soil | Unknown | 1-Exceeds soil 10-6 GV. 2-Exceeds background value. 3-Exceeds other criteria. |
| SCR132 | 88022531 | Borehole | 19880224 | Plutonium-238 | 32.000 | PCI/G | | RAD | 0.0 | 0.0 | 13981-16-3 | | | SCRDATA | Soil | Unknown | 1-Exceeds soil 10-6 GV. 2-Exceeds background value. 3-Exceeds other criteria. |

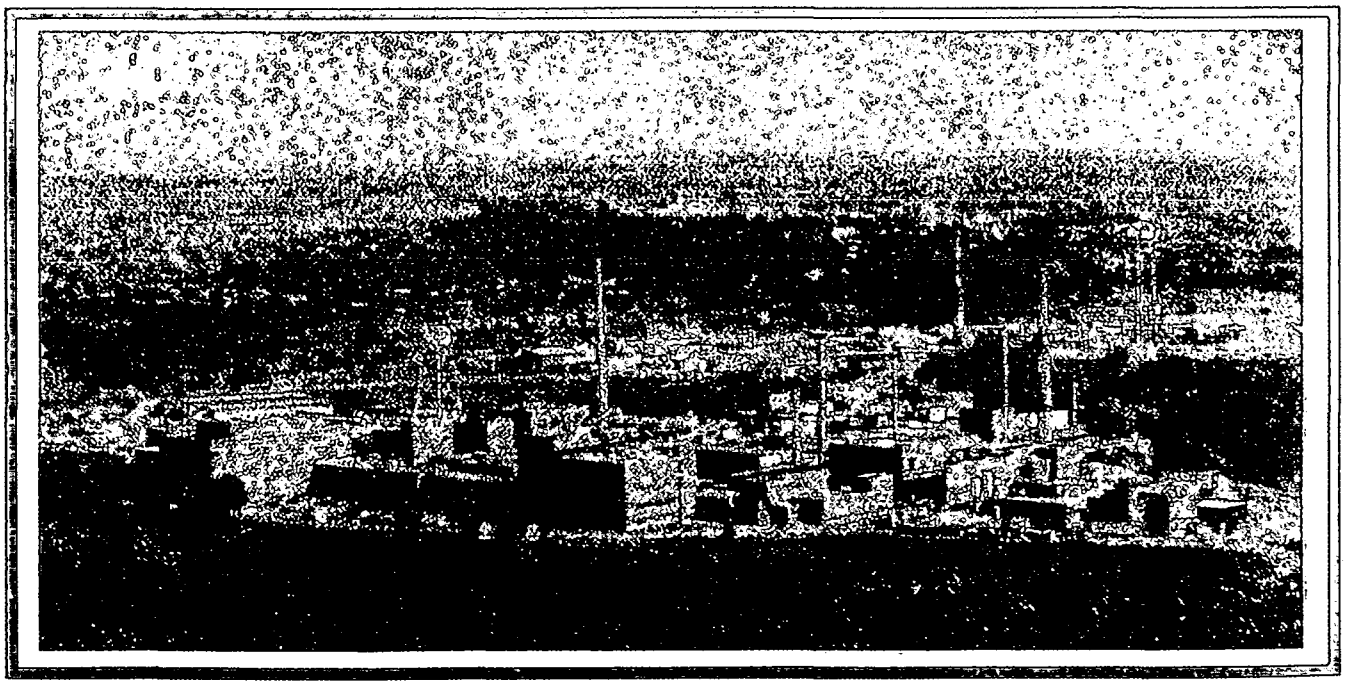
| Location_name | Sample_id | Location_typ | Collection_d | Value_name | Measured_valu | Value_un | Detection | Chem_clas | Start_de | End_dep | CAS_number | Lab_ | Data | Project_cod | Media | Collection_m | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SCR132 | 88022548 | Borehole | 19880224 | Plutonium-238 | 33.000 | PCI/G | | RAD | 0.0 | 0.0 | 13981-16-3 | | | SCRDATA | Soil | Unknown | 1-Exceeds soil 10-6 GV. 2-Exceeds background value. 3-Exceeds other criteria. |
| SCR132 | 88022545 | Borehole | 19880224 | Plutonium-238 | 33.000 | PCI/G | | RAD | 0.0 | 0.0 | 13981-16-3 | | | SCRDATA | Soil | Unknown | 1-Exceeds soil 10-6 GV. 2-Exceeds background value. 3-Exceeds other criteria. |
| SCR132 | 88022528 | Borehole | 19880224 | Plutonium-238 | 33.000 | PCI/G | | RAD | 0.0 | 0.0 | 13981-16-3 | | | SCRDATA | Soil | Unknown | 1-Exceeds soil 10-6 GV. 2-Exceeds background value. 3-Exceeds other criteria. |
| SCR132 | 88022550 | Borehole | 19880224 | Plutonium-238 | 34.000 | PCI/G | | RAD | 0.0 | 0.0 | 13981-16-3 | | | SCRDATA | Soil | Unknown | 1-Exceeds soil 10-6 GV. 2-Exceeds background value. 3-Exceeds other criteria. |
| SCR132 | 88022533 | Borehole | 19880224 | Plutonium-238 | 79.000 | PCI/G | | RAD | 0.0 | 0.0 | 13981-16-3 | | | SCRDATA | Soil | Unknown | 1-Exceeds soil 10-6 GV. 2-Exceeds background value. 3-Exceeds other criteria. |
| SCR132 | 88022533 | Borehole | 19880224 | Thorium-232 | 3.100 | PCI/G | | RAD | 0.0 | 0.0 | 7440-29-1 | | | SCRDATA | Soil | Unknown | 1-Exceeds soil 10-6 GV. 2-Exceeds background value. 3-Exceeds other criteria. |
| SCR155 | 8802256 | Borehole | 19880224 | Plutonium-238 | 26.000 | PCI/G | | RAD | 0.0 | 0.0 | 13981-16-3 | | | SCRDATA | Soil | Unknown | 1-Exceeds soil 10-6 GV. 2-Exceeds background value. 3-Exceeds other criteria. |
| SCR155 | 8802255 | Borehole | 19880224 | Plutonium-238 | 26.000 | PCI/G | | RAD | 0.0 | 0.0 | 13981-16-3 | | | SCRDATA | Soil | Unknown | 1-Exceeds soil 10-6 GV. 2-Exceeds background value. 3-Exceeds other criteria. |
| SCR155 | 8802251 | Borehole | 19880224 | Plutonium-238 | 27.000 | PCI/G | | RAD | 0.0 | 0.0 | 13981-16-3 | | | SCRDATA | Soil | Unknown | 1-Exceeds soil 10-6 GV. 2-Exceeds background value. 3-Exceeds other criteria. |
| SCR155 | 88022523 | Borehole | 19880224 | Plutonium-238 | 28.000 | PCI/G | | RAD | 0.0 | 0.0 | 13981-16-3 | | | SCRDATA | Soil | Unknown | 1-Exceeds soil 10-6 GV. 2-Exceeds background value. 3-Exceeds other criteria. |
| SCR155 | 88022517 | Borehole | 19880224 | Plutonium-238 | 31.000 | PCI/G | | RAD | 0.0 | 0.0 | 13981-16-3 | | | SCRDATA | Soil | Unknown | 1-Exceeds soil 10-6 GV. 2-Exceeds background value. 3-Exceeds other criteria. |
| SCR155 | 88022525 | Borehole | 19880224 | Plutonium-238 | 35.000 | PCI/G | | RAD | 0.0 | 0.0 | 13981-16-3 | | | SCRDATA | Soil | Unknown | 1-Exceeds soil 10-6 GV. 2-Exceeds background value. 3-Exceeds other criteria. |
| SCR155 | 88022511 | Borehole | 19880224 | Plutonium-238 | 37.000 | PCI/G | | RAD | 0.0 | 0.0 | 13981-16-3 | | | SCRDATA | Soil | Unknown | 1-Exceeds soil 10-6 GV. 2-Exceeds background value. 3-Exceeds other criteria. |
| SCR155 | 8802253 | Borehole | 19880224 | Plutonium-238 | 74.000 | PCI/G | | RAD | 0.0 | 0.0 | 13981-16-3 | | | SCRDATA | Soil | Unknown | 1-Exceeds soil 10-6 GV. 2-Exceeds background value. 3-Exceeds other criteria. |
| SCR155 | 8802253 | Borehole | 19880224 | Thorium-232 | 2.200 | PCI/G | | RAD | 0.0 | 0.0 | 7440-29-1 | | | SCRDATA | Soil | Unknown | 1-Exceeds soil 10-6 GV. 2-Exceeds background value. |
| SCR159 | 90072559 | Borehole | 19900725 | Plutonium-238 | 26.000 | PCI/G | | RAD | 0.0 | 0.0 | 13981-16-3 | | | SCRDATA | Soil | Unknown | 1-Exceeds soil 10-6 GV. 2-Exceeds background value. 3-Exceeds other criteria. |
| SCR159 | 90072554 | Borehole | 19900725 | Plutonium-238 | 27.000 | PCI/G | | RAD | 0.0 | 0.0 | 13981-16-3 | | | SCRDATA | Soil | Unknown | 1-Exceeds soil 10-6 GV. 2-Exceeds background value. 3-Exceeds other criteria. |
| SCR159 | 90072555 | Borehole | 19900725 | Plutonium-238 | 29.000 | PCI/G | | RAD | 0.0 | 0.0 | 13981-16-3 | | | SCRDATA | Soil | Unknown | 1-Exceeds soil 10-6 GV. 2-Exceeds background value. 3-Exceeds other criteria. |
| SCR159 | 90072560 | Borehole | 19900725 | Plutonium-238 | 30.000 | PCI/G | | RAD | 0.0 | 0.0 | 13981-16-3 | | | SCRDATA | Soil | Unknown | 1-Exceeds soil 10-6 GV. 2-Exceeds background value. 3-Exceeds other criteria. |
| SCR159 | 90072561 | Borehole | 19900725 | Plutonium-238 | 31.000 | PCI/G | | RAD | 0.0 | 0.0 | 13981-16-3 | | | SCRDATA | Soil | Unknown | 1-Exceeds soil 10-6 GV. 2-Exceeds background value. 3-Exceeds other criteria. |
| SCR159 | 90072557 | Borehole | 19900725 | Plutonium-238 | 225.000 | PCI/G | | RAD | 0.0 | 0.0 | 13981-16-3 | | | SCRDATA | Soil | Unknown | 1-Exceeds soil 10-6 GV. 2-Exceeds background value. 3-Exceeds other criteria. |
| SCR161 | 9312024-Q | Borehole | 19931202 | Plutonium-238 | 26.000 | PCI/G | | RAD | 0.0 | 0.0 | 13981-16-3 | | | SCRDATA | Soil | Unknown | 1-Exceeds soil 10-6 GV. 2-Exceeds background value. 3-Exceeds other criteria. |

Reference H

MOUND

Environmental
Restoration
Program

# MOUND PLANT
## Potential Release Site Package
## PRS #124



PRS 124

| REV | DESCRIPTION | DATE |
|---|---|---|
| WORKING DRAFT | | Apr. 11, 2001 |
| DRAFT | DOE / BWXTO review of Working Draft on April 16, 2001. Distribute for Core Team evaluation (binning) in May 2001. | Apr. 16, 2001 |
| DRAFT PROPOSED FINAL | | |
| PUBLIC REVIEW DRAFT | | |
| FINAL | | |

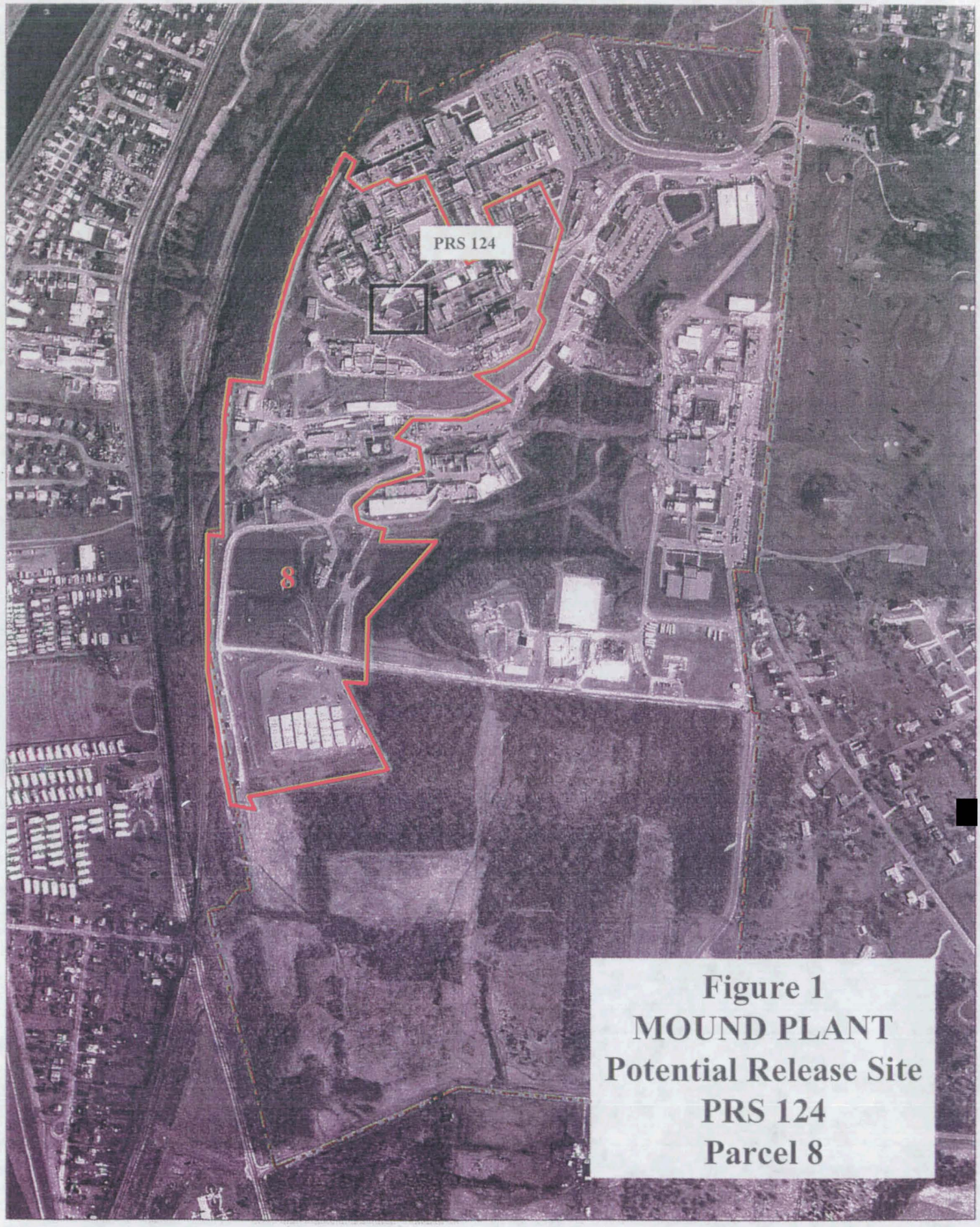
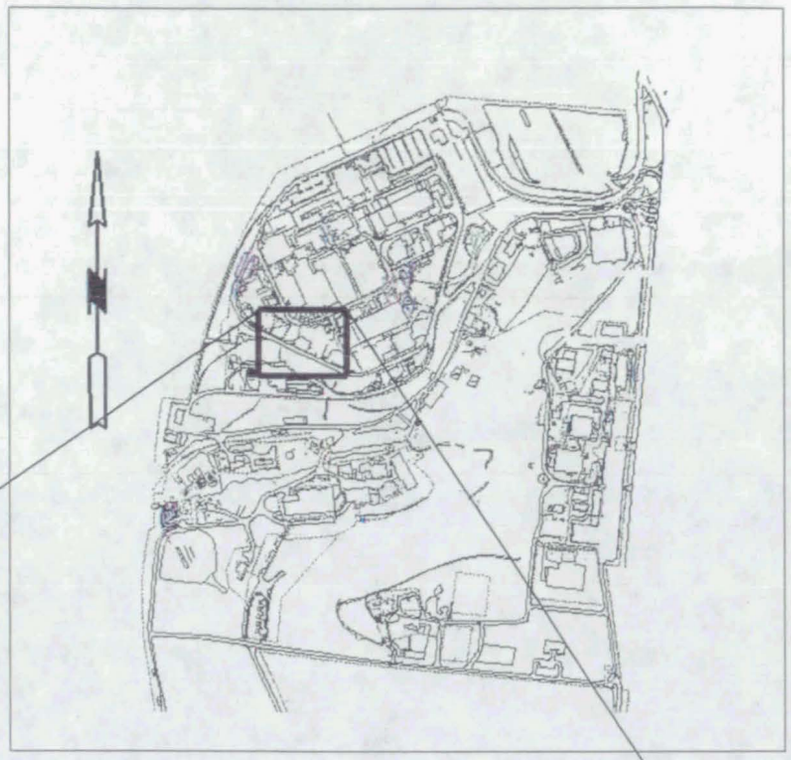
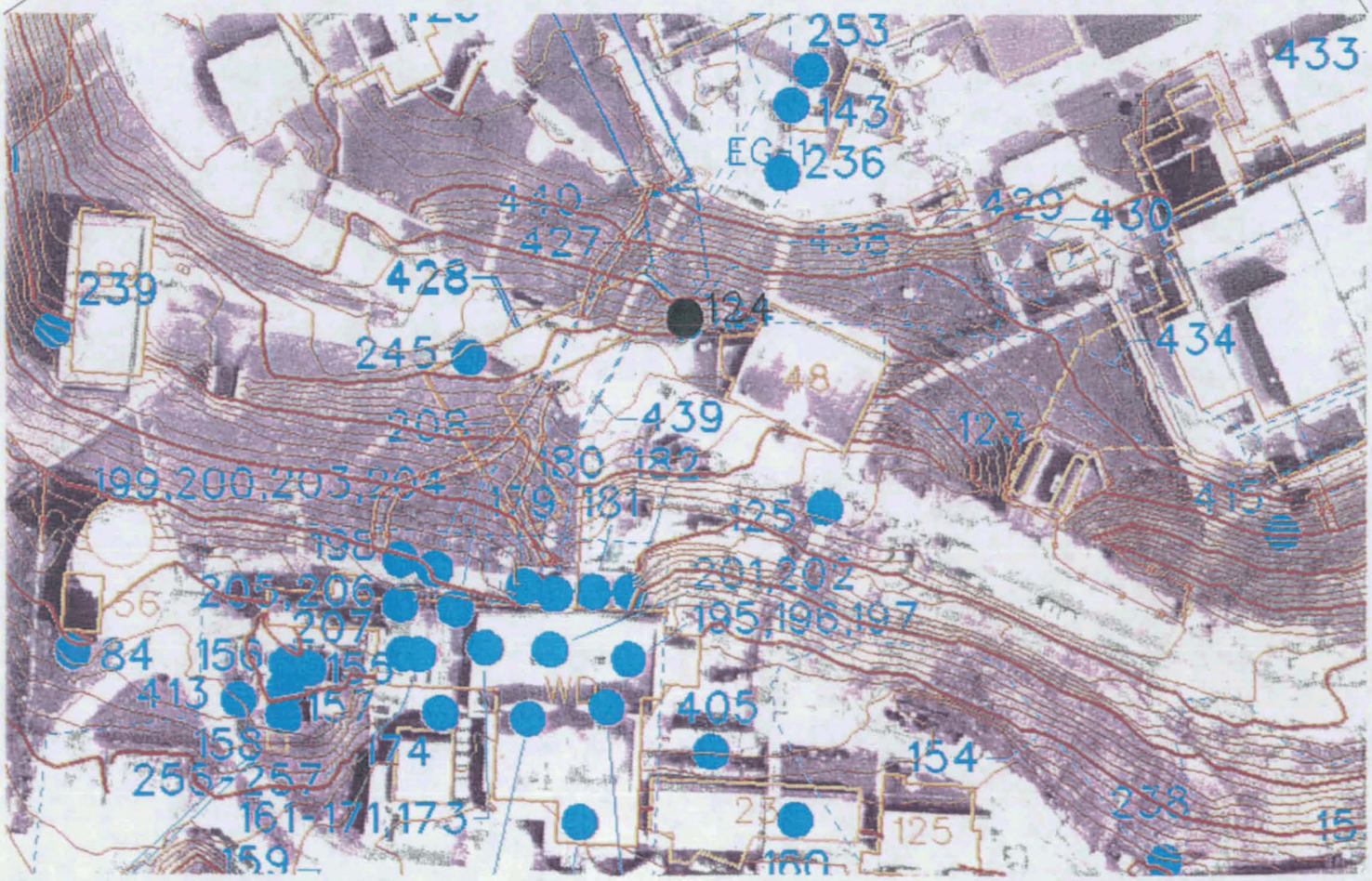



**Figure 1**
**MOUND PLANT**
**Potential Release Site**
**PRS 124**
**Parcel 8**

# Figure 2
# Mound Plant
## PRS 124
## Building 48 Hillside

On the map below:
- PRS number and location shown in black
- Fencing shown in red
- Elevation contours shown in brown
- Other PRS's shown in blue





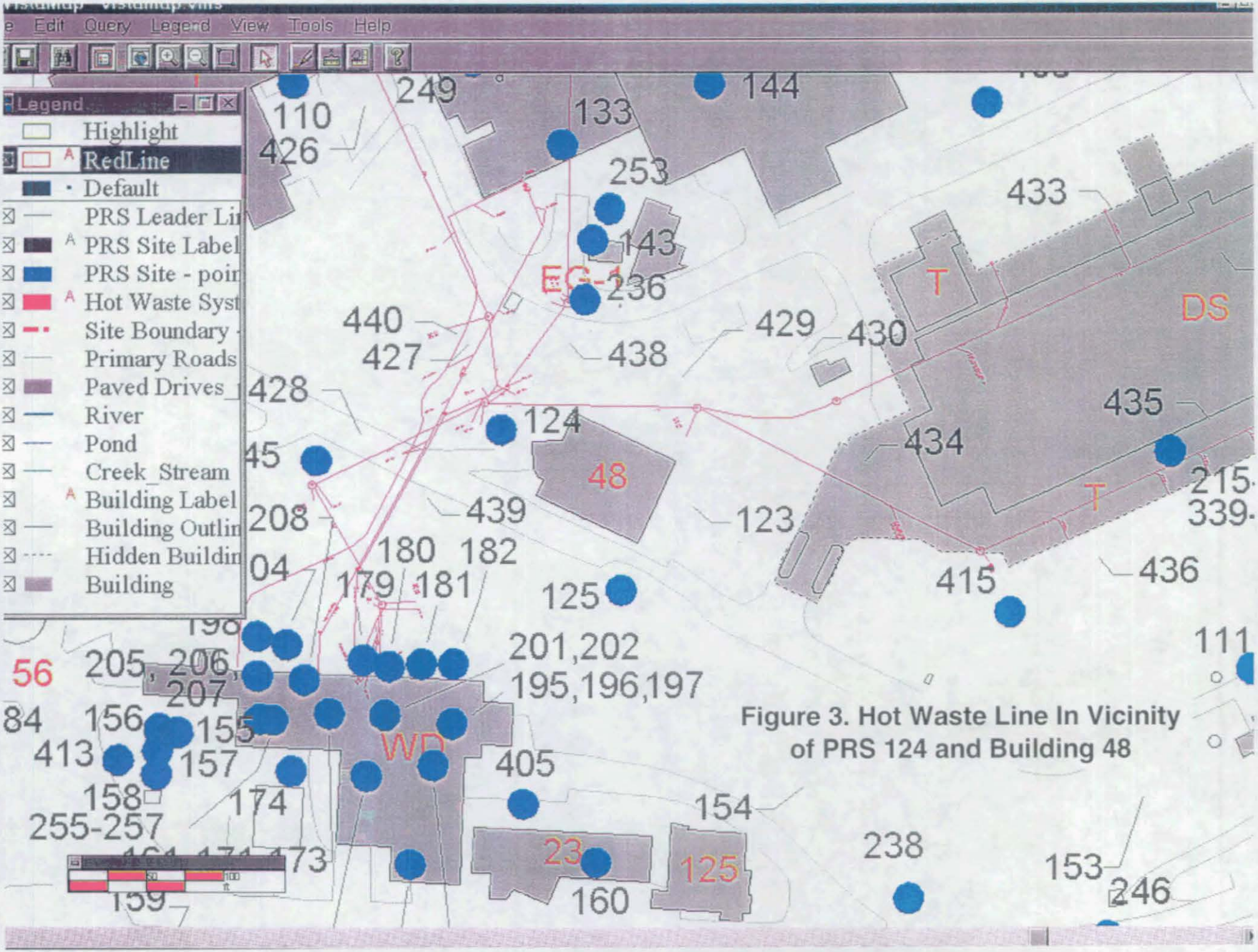



Figure 3. Hot Waste Line In Vicinity of PRS 124 and Building 48

Figure 4
Building 48 Hillside

## PRS 124

### PRS HISTORY:

The document, Operable Unit 9, Site Scoping Report: Volume 12 - Site Summary Report [1], identifies PRS 124 as the Mound Plant *Building 48 Hillside.* This reference also declares that plutonium-238 in soil is the suspected contaminant of concern. GIS [2] mapping / sampling information indicates that the area of concern is located adjacent to a radiological process line manhole northwest of Building 48. Several Main Hill radiological process waste lines join near this location and continue to the Waste Disposal (WD) Building. Note Figure 3 and also Reference 3. This reference declares that "The contamination encountered at the Building 48 hillside is attributed to a release of 7.64 mCi of plutonium-238 in November 1967." It is also noted that the incident is documented in the Site Scoping Report, Volume 11: Spills and Response Actions [4].

### BACKGROUND:

On November 9, 1967, 1500 - 2000 gallons of low-level radioactive wastewater was accidentally released during waste line repair[4]. Soil sampling accomplished in support of a construction project (Circa 1986) indicated plutonium-238 concentrations as high as 32 nCi/g. These concentrations required that the construction project be abandoned. Construction borings were backfilled and contamination was left in place for future D&D activities [3].

### CONTAMINATION:

Table 1: Soil Analysis Report, Soils Identified With PRS 124[2]

| Contaminant | Maximum Level (pCi/g) | Guideline Value ($10^{-6}$) (pCi/g) | Background Value (pCi/g) |
|---|---|---|---|
| Plutonium 238 (SCR191) | 2902.0 | 55.0 ($10^{-5}$) | 0.13 |
| Plutonium 238 (SCR159) | 225.0 | 55.0 ($10^{-5}$) | 0.13 |
| Plutonium 238 (SCR155) | 74.0 | 55.0 ($10^{-5}$) | 0.13 |
| Thorium 230 (MND17-5001) | 5.23 | 0.13 | 1.90 |
| Thorium 232 (SCR191) | 182.2 | 0.11 | 1.40 |
| Thorium 232 (SCR155) | 2.20 | 0.11 | 1.40 |

**READING ROOM REFERENCES:**

1) Operable Unit 9, Site Scoping Report: Volume 12 - Site Summary Report, December 1994

3) Operable Unit 9, Site Scoping Report: Volume 3 - Radiological Site Survey, June 1993

4) Operable Unit 9, Site Scoping Report: Volume 11 - Spills and Response Actions, March 1992

**OTHER REFERENCES:**

2) GIS Mapping / Sampling Information

**PREPARED BY:**

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**CONTRIBUTORS:**

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Richard Neff, Department of Energy / MEMP

**MOUND PLANT**
**PRS 124**

**Building 48 Hillside**

**RECOMMENDATION:**

**CONCURRENCE:**

DOE/MEMP: _____
Robert S. Rothman, Remedial Project Manager (date)

USEPA: _____
Timothy J. Fischer, Remedial Project Manager (date)

OEPA: _____
Brian K. Nickel, Project Manager (date)

**SUMMARY OF COMMENTS AND RESPONSES**

Comment period from _____ to _____

___ No comments were received during the comment period.

___ Comment responses can be found on page _____ of this package.

**REFERENCE MATERIAL FOR PRS 124**

Reference 1

DEPHICATE
Classification Code 29-01-01-07-12
Accession No. 9503285015

ENVIRONMENTAL RESTORATION PROGRAM

# OPERABLE UNIT 9
# SITE SCOPING REPORT:
# VOLUME 12 - SITE SUMMARY REPORT

## MOUND PLANT
## MIAMISBURG, OHIO

December 1994

U.S. DEPARTMENT OF ENERGY
OHIO FIELD OFFICE

ENVIRONMENTAL RESTORATION PROGRAM
EG&G MOUND APPLIED TECHNOLOGIES

FINAL

| Description of History and Nature of Waste Handling | | | | | | Hazardous Conditions and Incidents | | | Environmental Data | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| No. | Site Name | Location | Status | Potential Hazardous Substances | Ref | Releases | Media | Ref | Analytes[a] | Results | Ref |
| 118 | M Building Soils | E-7 | Grounds | Copper cyanide, Silver cyanide<br><br>Machine oils, Solvents | 4 | Oils, Copper cyanide, Silver cyanide | S | 10 | 1<br><br>14 | SGS[b] Table B.4 Locations 1050, 1051, 1062<br><br>Table B.9 RSS[c] Locations S0162, S0163, S0252 (Appendix E in Ref. 6) | 12<br><br>6 |
| 119 | Room M-38 Metal Plating Rinse Water Sump (Tank 225) | E-7 | Surplus | Rinse waters from metal plating operations. Possible contaminants include nickel, cadmium, silver, gold, manganese, cyanide, and aluminum.<br>Sodium hydroxide solution<br>Potassium permanganate | 3, 4 | None Suspected | | | No Data | | |
| 120 | Room M-108 Metal Plating Rinse Water Tank (Tank 119) | E-7 | In service | Rinse waters from metal plating operations. copper, gold, silver, nickel, aluminum, and uranium | 3, 4 | Silver cyanide | SW | 10 | No Data | | |
| 121 | Vapor Degreasers | E-7 | In service | Perclene D (perchloroethylene) | 4, 5, 18 | None Suspected | | | No Data | | |
| 122 | Underground Radioactive Waste Lines (Main Hill) | E-6<br>F-6 | Inactive | Alpha wastes from SW Bldg., R Bldg., and H Bldg.<br><br>Wastewater from B Building<br>Plutonium-238, Cobalt-60 | 4, 18 | Suspected | S | 4, 10 | No Data | | |
| 123 | Area 5, Radioactive Waste Line Break | F-6<br>F-7 | Grounds | Cobalt-60, Cesium-137, Plutonium-238 | 1, 5, 18 | Cobalt-60 | S | 1, 18 | 2, 14, 16 | Table B.1 (Table III.3 in Ref. 6) | 6 |
| 124 | Building 48 Hillside | F-6 | Inactive | Plutonium-238 | | Plutonium-238 | S | 6 | 14 | Table B.1 | 6 |
| 125 | Underground Sanitary Sewer Line G24 | F-6 | In service | Organic solvents, Plating Solutions, Laboratory chemicals, Nitric acid, Hydrochloric acid, Methylene chloride, Strong acids and bases | | Suspected | S | 5, 18 | 3, 4, 5, 6, 14, 16 | Tables B.6, B.7, and B.8 | 7 |
| 126 | Building 28 Solvent Storage Area | E-8 | Grounds | Organic solvents (including alcohol, methylene chloride, and acetone) | 4, 5, 9, 18 | Suspected | S | 4 | 1 | SGS[b] Table B.4 Location 1054 | 12 |

Scoping Report
Vol. 12

Table A.1

1 - Soil Gas Survey - Freon 11, Freon 113, Trans-1,2-Dichloroethylene, Cis-1,2-Dichloroethylene, 1,1,1-Trichloroethane, Perchloroethylene, Trichloroethylene, Toluene
2 - Gamma Spectroscopy - Thorium-228, -230, Cobalt-60, Cesium-137, Radium-224, -226, -228, Americium-241, Actinium-227, Bismuth-207, Bismuth-210m, Potassium-40
3 - Target Analyte List
4 - Target Compound List (VOC)
5 - Target Compound List (SVOC)
6 - Target Compound List (Pesticides/Polychlorinated Biphenyl)
7 - Dioxins/Furans
8 - Extractable Petroleum Hydrocarbons (EPH)/Total Petroleum Hydrocarbons (TPH)
9 - Lithium
10 - Nitrate/Nitrite
11 - Chloride
12 - Explosives
13 - Plutonium-238
14 - Plutonium-238, Thorium-232
15 - Cobalt-60, Cesium-137, Radium-226, Americium-241
16 - Tritium

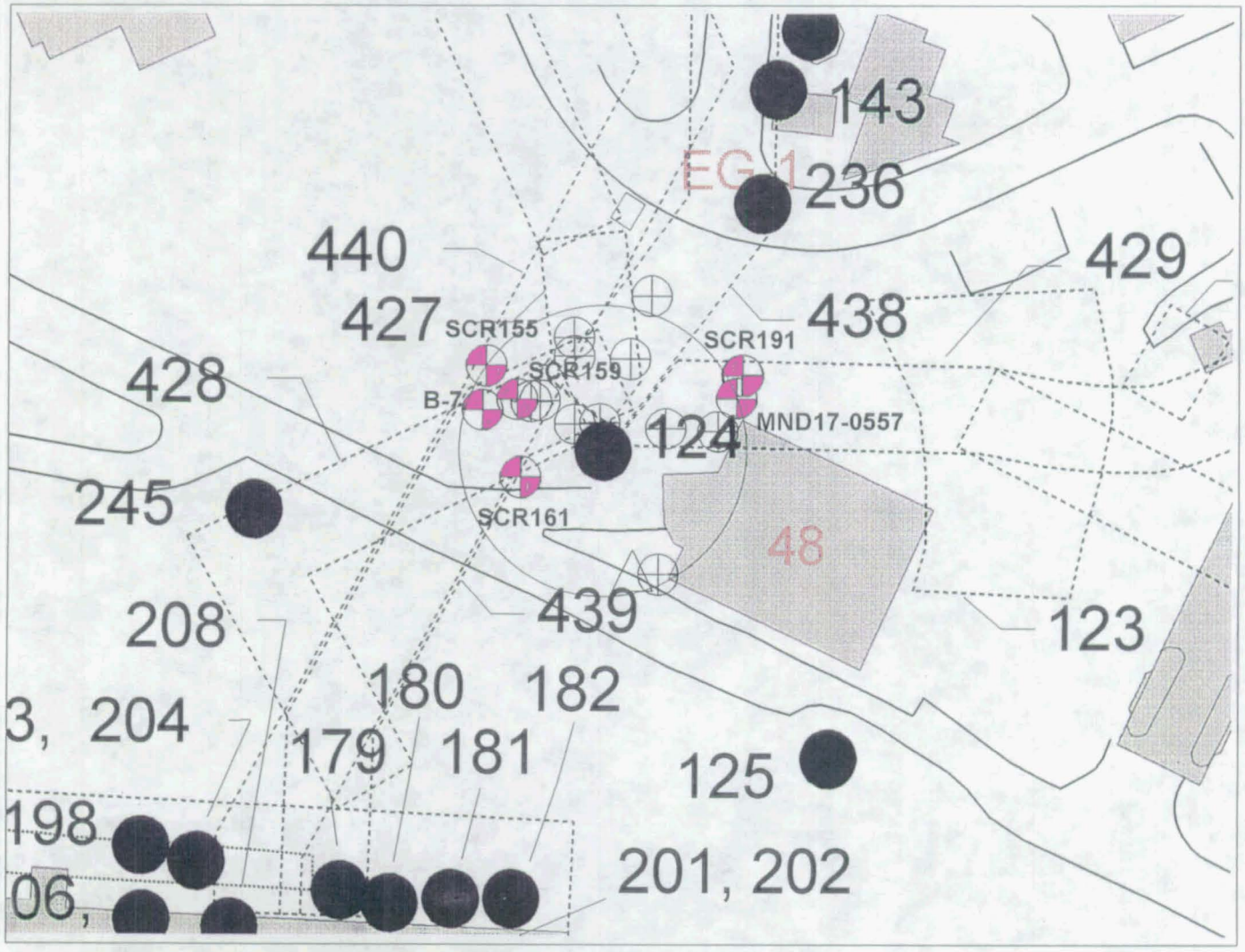
Reference List


1. DOE 1986 "Phase I: Installation Assessment Mound [DRAFT]."
2. DOE 1992a "Remedial Investigation/Feasibility Study, Operable Unit 9, Site-Wide Work Plan (Final)."
3. DOE 1992c "Mound Plant Underground Storage Tank Program Plan & Regulatory Status Review (Final)."
4. DOE 1993a "Site Scoping Report: Vol. 7 - Waste Management (FINAL)."
5. EPA 1988a "Preliminary Review/Visual Site Inspection for RCRA Facility Assessment of Mound Plant"
6. DOE 1993d "Operable Unit 9, Site Scping Report: Vol. 3 - Radiological Site Survey (FINAL)."
7. DOE 1993c "Operable Unit 3, Misc. Sites Limited Field Investigation Report."
8. DOE 1992d "Reconnaissance Sampling Report Decontamination & Decommissioning Areas, OU6, (FINAL)."
9. Fentiman 1990 "Characterization of Mound's Hazardous, Radioactive and Mixed Wastes."
10. DOE 1992f "Operable Unit 9, Site Scpoing Report: Vol. 9 - Spills and Response Actions (FINAL)."
11. Styron and Meyer 1981 "Potable Water Standards Project: Final Report."
12. DOE 1993b "Reconnaissance Sampling Report - Soil Gas Survey & Geophysical Investigations, Mound Plant Main Hill and SM/PP Hill (FINAL)."
13. DOE 1993d "Operable Unit 9, Site Scoping Report: Vol. 3 - Radiological Site Survey (FINAL)."
14. DOE 1991b "Main Hill Seeps, Operable Unit 2, On-Scene Coordinator Report for CERCLA Section 104 Remedial Action, West Powerhouse PCB Site."
15. Halford 1990 "Results of South Pond Sampling."
16. DOE 1993e "Operable Unit 4, Special Canal Sampling Report, Miami Erie Canal."
17. DOE 1990 "Preliminary Results of Reconnaissance Magnetic Survey of Mound Plant Areas 2, 6, 7, and C."
18. DOE 1992a "Remedial Investigation/Feasibility Study, Operable Unit 9, Site-Wide Work Plan (FINAL)."
19. Rogers 1975 "Mound Laboratory Environmental Plutonium Study, 1974."
20. DOE 1992h "Ground Water and Seep Water Quality Data Report Through First Quarter, FY92."
21. Dames and Moore 1976a, b "Potable Water Standards Project Mound Laboratory" and "Evaluation of the Buried Valley Aquifer Adjacent to Mound Laboratory."
22. DOE 1992i "Closure Report, Building 34 - Aviation Fuel Storage Tank."
23. DOE 1992j "Closure Report, Building 51 - Waste Storage Tank."
24. DOE 1994 "Operable Unit 1, Remedial Investigation Report."
25. EG&G 1994 "Active Underground Storage Tank Plan."


Update 11/29/94
Scoping Rpt Vol 12

Reference 2

# PRS 124 Sample Locations
# Plutonium and Thorium Detects




20 0 20 40 60 80 100 120 140 160 Feet

N
W E
S

| Location_name | Sample_Id | Location_typ | Collection_d | Value_name | Measured_ | Value_unit | Detectid | Chem_c | Start_de | End_dep | CAS_number | Lab_q | Data_ | Project_code | Media | Collection_m | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MND17-0557 | 0557-5001 | Borehole | 19950822 | Thorium-230 | 5.23 | PCI/G | | RAD | 0.0 | 0.5 | 14269-63-7 | | | MND17 | Soil | Split spoon | 1-Exceeds soil 10-6 GV. 2-Exceeds background value. 3-Exceeds other criteria. |
| MND17-0557 | 0557-5001 | Borehole | 19950822 | Thorium-232 | 0.25 | PCI/G | | RAD | 0.0 | 0.5 | 7440-29-1 | | | MND17 | Soil | Split spoon | |
| MND17-0557 | 0557-5004 | Borehole | 19950823 | Thorium-232 | 0.69 | PCI/G | | RAD | 0.5 | 4.0 | 7440-29-1 | | | MND17 | Soil | Split spoon | |
| MND17-0557 | 0557-5008 | Borehole | 19950823 | Thorium-232 | 0.72 | PCI/G | | RAD | 4.0 | 8.0 | 7440-29-1 | | | MND17 | Soil | Split spoon | |
| SCR191 | 8802151 | Borehole | 19880215 | Plutonium-238 | 2902.00 | PCI/G | | RAD | 0.0 | 0.0 | 13981-16-3 | | | SCRDATA | Soil | Unknown | 1-Exceeds soil 10-6 GV. 2-Exceeds background value. 3-Exceeds other criteria. |
| SCR191 | 8802151 | Borehole | 19880215 | Thorium-232 | 182.20 | PCI/G | | RAD | 0.0 | 0.0 | 7440-29-1 | | | SCRDATA | Soil | Unknown | 1-Exceeds soil 10-6 GV. 2-Exceeds background value. 3-Exceeds other criteria. |
| SCR191 | 8802154 | Borehole | 19880215 | Plutonium-238 | 1279.00 | PCI/G | | RAD | 0.0 | 0.0 | 13981-16-3 | | | SCRDATA | Soil | Unknown | 1-Exceeds soil 10-6 GV. 2-Exceeds background value. 3-Exceeds other criteria. |
| SCR191 | 8802154 | Borehole | 19880215 | Thorium-232 | 59.80 | PCI/G | | RAD | 0.0 | 0.0 | 7440-29-1 | | | SCRDATA | Soil | Unknown | 1-Exceeds soil 10-6 GV. 2-Exceeds background value. 3-Exceeds other criteria. |
| SCR191 | 8802152 | Borehole | 19880215 | Plutonium-238 | 1118.00 | PCI/G | | RAD | 0.0 | 0.0 | 13981-16-3 | | | SCRDATA | Soil | Unknown | 1-Exceeds soil 10-6 GV. 2-Exceeds background value. 3-Exceeds other criteria. |
| SCR191 | 8802152 | Borehole | 19880215 | Thorium-232 | 106.90 | PCI/G | | RAD | 0.0 | 0.0 | 7440-29-1 | | | SCRDATA | Soil | Unknown | 1-Exceeds soil 10-6 GV. 2-Exceeds background value. 3-Exceeds other criteria. |
| SCR191 | 8802155 | Borehole | 19880215 | Plutonium-238 | 195.00 | PCI/G | | RAD | 0.0 | 0.0 | 13981-16-3 | | | SCRDATA | Soil | Unknown | 1-Exceeds soil 10-6 GV. 2-Exceeds background value. 3-Exceeds other criteria. |
| SCR191 | 8802155 | Borehole | 19880215 | Thorium-232 | 8.20 | PCI/G | | RAD | 0.0 | 0.0 | 7440-29-1 | | | SCRDATA | Soil | Unknown | 1-Exceeds soil 10-6 GV. 2-Exceeds background value. 3-Exceeds other criteria. |
| SCR191 | 8802153 | Borehole | 19880215 | Plutonium-238 | 39.00 | PCI/G | | RAD | 0.0 | 0.0 | 13981-16-3 | | | SCRDATA | Soil | Unknown | 1-Exceeds soil 10-6 GV. 2-Exceeds background value. 3-Exceeds other criteria. |
| SCR191 | 8802153 | Borehole | 19880215 | Thorium-232 | 2.80 | PCI/G | | RAD | 0.0 | 0.0 | 7440-29-1 | | | SCRDATA | Soil | Unknown | 1-Exceeds soil 10-6 GV. 2-Exceeds background value. |
| SCR161 | 9312024-Q | Borehole | 19931202 | Plutonium-238 | 26.00 | PCI/G | | RAD | 0.0 | 0.0 | 13981-16-3 | | | SCRDATA | Soil | Unknown | 1-Exceeds soil 10-6 GV. 2-Exceeds background value. 3-Exceeds other criteria. |
| SCR159 | 90072559 | Borehole | 19900725 | Plutonium-238 | 26.00 | PCI/G | | RAD | 0.0 | 0.0 | 13981-16-3 | | | SCRDATA | Soil | Unknown | 1-Exceeds soil 10-6 GV. 2-Exceeds background value. 3-Exceeds other criteria. |
| SCR159 | 90072555 | Borehole | 19900725 | Plutonium-238 | 29.00 | PCI/G | | RAD | 0.0 | 0.0 | 13981-16-3 | | | SCRDATA | Soil | Unknown | 1-Exceeds soil 10-6 GV. 2-Exceeds background value. 3-Exceeds other criteria. |
| SCR159 | 90072560 | Borehole | 19900725 | Plutonium-238 | 30.00 | PCI/G | | RAD | 0.0 | 0.0 | 13981-16-3 | | | SCRDATA | Soil | Unknown | 1-Exceeds soil 10-6 GV. 2-Exceeds background value. 3-Exceeds other criteria. |
| SCR159 | 90072557 | Borehole | 19900725 | Plutonium-238 | 225.00 | PCI/G | | RAD | 0.0 | 0.0 | 13981-16-3 | | | SCRDATA | Soil | Unknown | 1-Exceeds soil 10-6 GV. 2-Exceeds background value. 3-Exceeds other criteria. |
| SCR159 | 90072561 | Borehole | 19900725 | Plutonium-238 | 31.00 | PCI/G | | RAD | 0.0 | 0.0 | 13981-16-3 | | | SCRDATA | Soil | Unknown | 1-Exceeds soil 10-6 GV. 2-Exceeds background value. 3-Exceeds other criteria. |
| SCR159 | 90072554 | Borehole | 19900725 | Plutonium-238 | 27.00 | PCI/G | | RAD | 0.0 | 0.0 | 13981-16-3 | | | SCRDATA | Soil | Unknown | 1-Exceeds soil 10-6 GV. 2-Exceeds background value. 3-Exceeds other criteria. |
| SCR155 | 88022511 | Borehole | 19880224 | Plutonium-238 | 37.00 | PCI/G | | RAD | 0.0 | 0.0 | 13981-16-3 | | | SCRDATA | Soil | Unknown | 1-Exceeds soil 10-6 GV. 2-Exceeds background value. 3-Exceeds other criteria. |
| SCR155 | 8802251 | Borehole | 19880224 | Plutonium-238 | 27.00 | PCI/G | | RAD | 0.0 | 0.0 | 13981-16-3 | | | SCRDATA | Soil | Unknown | 1-Exceeds soil 10-6 GV. 2-Exceeds background value. 3-Exceeds other criteria. |
| SCR155 | 88022517 | Borehole | 19880224 | Plutonium-238 | 31.00 | PCI/G | | RAD | 0.0 | 0.0 | 13981-16-3 | | | SCRDATA | Soil | Unknown | 1-Exceeds soil 10-6 GV. 2-Exceeds background value. 3-Exceeds other criteria. |
| SCR155 | 8802253 | Borehole | 19880224 | Plutonium-238 | 74.00 | PCI/G | | RAD | 0.0 | 0.0 | 13981-16-3 | | | SCRDATA | Soil | Unknown | 1-Exceeds soil 10-6 GV. 2-Exceeds background value. 3-Exceeds other criteria. |
| SCR155 | 8802253 | Borehole | 19880224 | Thorium-232 | 2.20 | PCI/G | | RAD | 0.0 | 0.0 | 7440-29-1 | | | SCRDATA | Soil | Unknown | 1-Exceeds soil 10-6 GV. 2-Exceeds background value. |
| SCR155 | 8802256 | Borehole | 19880224 | Plutonium-238 | 26.00 | PCI/G | | RAD | 0.0 | 0.0 | 13981-16-3 | | | SCRDATA | Soil | Unknown | 1-Exceeds soil 10-6 GV. 2-Exceeds background value. 3-Exceeds other criteria. |
| SCR155 | 8802255 | Borehole | 19880224 | Plutonium-238 | 26.00 | PCI/G | | RAD | 0.0 | 0.0 | 13981-16-3 | | | SCRDATA | Soil | Unknown | 1-Exceeds soil 10-6 GV. 2-Exceeds background value. 3-Exceeds other criteria. |
| SCR155 | 88022525 | Borehole | 19880224 | Plutonium-238 | 35.00 | PCI/G | | RAD | 0.0 | 0.0 | 13981-16-3 | | | SCRDATA | Soil | Unknown | 1-Exceeds soil 10-6 GV. 2-Exceeds background value. 3-Exceeds other criteria. |
| SCR155 | 88022523 | Borehole | 19880224 | Plutonium-238 | 28.00 | PCI/G | | RAD | 0.0 | 0.0 | 13981-16-3 | | | SCRDATA | Soil | Unknown | 1-Exceeds soil 10-6 GV. 2-Exceeds background value. 3-Exceeds other criteria. |
| B-7 | 4007-0005 | Borehole | 19930823 | Plutonium-238 | 0.68 | PCI/G | 0.16 | RAD | 3.5 | 5.0 | 13981-16-3 | * | | MND16 | Soil | | 2-Exceeds background value. |
| B-7 | 4007-1007 | Borehole | 19930823 | Plutonium-238 | 0.69 | PCI/G | 0.14 | RAD | 3.5 | 5.0 | 13981-16-3 | | | MND16 | Soil | | 2-Exceeds background value. |

Reference 3

ENVIRONMENTAL RESTORATION PROGRAM

# OPERABLE UNIT 9, SITE SCOPING REPORT: VOLUME 3 - RADIOLOGICAL SITE SURVEY

## MOUND PLANT
## MIAMISBURG, OHIO

June 1993

DEPARTMENT OF ENERGY
ALBUQUERQUE FIELD OFFICE

ENVIRONMENTAL RESTORATION PROGRAM
EG&G MOUND APPLIED TECHNOLOGIES

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was detected in the samples from this location (a maximum of 0.98 pCi/g of plutonium-238 and less than 2 pCi/g of thorium).

Area D was not identified in the original Site Survey Project Report (Stought et al. 1988), but it has always been included as one of the sites to be addressed by the Mound Plant D&D Program. No significant radioactive contamination was identified during the Site Survey Project, either in the original report or by this evaluation. This is consistent with the site history for this area, which indicates that any nitric acid released would have been raw material prior to processing and, therefore, not contaminated. The D&D of Area D is being conducted as part of the D&D of Building 38 and its utility systems.

The maximum depth sampled in Area D was 180 inches. Borehole data in Mound Plant drawing #FSE16472, reproduced in the Site Scoping Report: Volume II Addendum (DOE 1992f) indicate that the depth to bedrock in this area of the SM/PP Hill ranges from approximately 108 to 228 inches, but this may vary greatly due to the presence of fill dirt. The boring log for location C0146 is not available, so it cannot be determined if bedrock was reached during the sampling.

### 4.1.9. Building 48 Hillside

A note in the Site Survey Project Report (Table 2.1 in Stought et al. 1988) indicated that elevated levels of plutonium-238 were discovered in an area designated as Block 19. The area of concern is actually located adjacent to a process sewer manhole northwest of Building 48 on the south slope of the Main Hill (Plate 1). This area is referred to as the Building 48 hillside in this report. The Building 48 hillside is also west of Area 5, but is not currently included in the boundaries of Area 5. Internal Mound Plant memoranda reviewed for this report substantiate the note in the project report (Stought et al. 1988) that plutonium-238 concentrations are as high as 32 nCi/g (Draper 1986a). The data sheets are included in Appendix E. The levels of plutonium-238 encountered required that the construction project be abandoned, so the initial holes were simply backfilled and the contamination left in place. The contamination encountered at the Building 48 hillside is attributed to a release of 7.64 mCi of plutonium-238 in November 1967. This incident is listed in the Site Scoping Report: Volume 11: Spills and Response Actions (DOE 1992h). As the Building 48 hillside is associated with the soils adjacent to the alpha waste water sewer lines, similar problems may be anticipated along the length of the lines. These lines are scheduled to undergo D&D.

ENVIRONMENTAL RESTORATION PROGRAM

# OPERABLE UNIT 9,
# SITE SCOPING REPORT
# VOLUME 11 - SPILLS AND RESPONSE ACTIONS

## MOUND PLANT
## MIAMISBURG, OHIO

March 1992

DEPARTMENT OF ENERGY
ALBUQUERQUE FIELD OFFICE

ENVIRONMENTAL RESTORATION PROGRAM
TECHNICAL SUPPORT OFFICE
LOS ALAMOS NATIONAL LABORATORY

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(Revision 0)

## Table II.1. Summary of Spills and Environmental Releases from Records of the Safety Office

| Date | Location | Material | Amount | Incident | Response |
|---|---|---|---|---|---|
| 02/12/63 | South end SW Bldg. | H-3 | "Low-level" | Fire of paper covering metal during cutting and drumming for disposal (63-13). | MRC Incident Investigation Report No. 63-13 (2/14/63). |
| 03/04/63 | Historic landfill | Misc. chemicals | Unknown | Explosion of incompatible chemicals in deteriorated containers; no radioactivity. | MRC Incident Investigation Report No. 63-19 (2/19/63). |
| 10/27/64 | SM Bldg. | Pu-238 | Unknown | Methanol vapors inside fumehood exploded; possible air release. | MRC Incident Investigation Final Report 11/23/64 - record incomplete. Use of flammable solvents within gloveboxes prohibited by AEC. |
| 02/26/65 | SM Bldg. | Pu-238 | Unknown | Ruptured can of trash in Room 26; possible air release; possible water release. | MRC report 3/2/65 - record incomplete. |
| 03/06/65 | SM Bldg. | Pu-238 | Unknown | Acid release in Room 59; possible air release. | MRC report 3/8/65 - record incomplete. |
| 08/27/65 | SM Bldg. | Pu-238 | Unknown | Fire in Room 38; possible air release. | MRC report 9/7/65 - record incomplete. |
| 05/20/66 | SM Bldg. | H-3 | Unknown | Unidentified release of tritium to SW stack. | MRC Incident Investigation Report No. 66-26 (5/27/66). Recommendations to re-evaluate mechanical and engineering conditions of ERS. |
| 09/08/67 | WTS west of SM Bldg. | Pu-238 | Unknown | Flanges in line found unbolted; low-risk line contaminated, including soil to 15 ft downslope; high-risk line not in use yet. | MRC Incident Investigation Report No. 67-21 (10/10/67). Soil cleanup proposed (no cleanup guideline given) with periodic system inspections. |
| 11/09/67 | Wasteline south of SW/R Bldgs. | "Low-level radioactivity" | 1,500-2,000 gals | During wasteline repair wastewater spilled across road to storm drains and then to drainage ditch; about 7.65 millicuries released. | MRC Incident Description 11/17/67. 10 on-plant and 7 off-plant water samples collected 5 to 20 minutes after spill; highest air reading 1200 dis/min/mL; highest water reading 216.0 dis/min/mL at culvert exit to drainage ditch. |
| 03/30/68 | SM Bldg. | Pu-238 | Unknown | Reversal of air flow in SM stack; possible air release. | MRC Incident Investigation Report No. 68-8 (4/10/68). |