# Decision Document

Solid Waste Management Units B-11b
Building 101-34 Catchment Pit
Hawthorne Army Depot
Hawthorne, Nevada

October 1999

Hawthorne Army
Depot

# Decision Document SWMU B-11b

October 1999

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ENVIRONMENTAL PROTECTION

The selected remedy is protective of human health and the environment. It has been shown that a complete pathway to human health and the environment does not exist, and there is no potential for an exposure pathway to be completed in the future.

**U. S. Army**

01 DEC 1999

James A. Piner
Lieutenant Colonel, U.S. Army

**State of Nevada**

6 DEC '99

Paul Liebendorfer
Chief, Bureau of Federal Facilities

# Decision Document

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# SWMU B-11b, Building 101-34 Catchment Pit
# Hawthorne Army Depot
# Hawthorne, Nevada

## 1.0 Introduction:

This decision document describes the rationale for the proposed closure of SWMU B-11b, Building 101-34 catchment pit, at the Hawthorne Army Depot (HWAD), Hawthorne, Nevada. This document was prepared by the U.S. Army Corps of Engineers, Sacramento District, HWAD and the Nevada Department of Environmental Protection (NDEP).

Tetra Tech, Inc. (Tt), and Ecology and Environment (E&E) were tasked by the US Army Corps of Engineers, Sacramento District (USACE), to perform remedial investigations and ground water monitoring at the Hawthorne Army Depot (HWAD), Hawthorne, Nevada. These tasks were conducted from early 1994 through 1997, primarily at solid waste management units (SWMUs) designated by the Army and the Nevada Division of Environmental Protection (NDEP). The NDEP is the lead regulatory agency for environmental issues at HWAD. The purpose of the sampling was to determine the extent and degree of environmental impacts, if any, associated with activities performed at each SWMU. The primary goal of the investigation was to assess the environmental impacts at each SWMU and to report the findings, present conclusions, and recommend any remediation if necessary.

With guidance from the NDEP, basewide proposed closure goals (PCGs) for soil were established as acceptable levels so that SWMU closure could be recommended and to assist in directing the investigative efforts toward those SWMUs where the target analytes were of greatest concern (Appendix B). These PCGs were used as action levels throughout this investigation and are used for comparison with the detected analytes in this report.

## 2.0 Site History

SWMU B11b is in the HWAD's central magazine area, on the south-central side of the 101 Production Area (Figure 1-1). SWMU B11b is an inactive unlined catchment pit located 40 feet northwest of Building 101-34 (Figure 1-2). The catchment pit measures 45 feet long by 13 feet wide by three feet deep.

The USACE, HWAD, and the NDEP agreed to define the boundary of each SWMU using annotated monuments and survey pins. As part of E&E's 1997 field investigations, a survey monument was constructed and surveyed at SWMU B11b. A brass survey pin on the monument designates the monument number HWAAP-80-1996 and the SWMU number B11b. Three corner pins were set and surveyed to define the SWMU boundary with the monument as the northwest corner. The location of these corner markers and the SWMU boundary are shown on Figure 1-2. Survey data is presented in Appendix A.

## 3.0 Site Conditions

Soils encountered during E&E's investigation of SWMU B11b were primarily coarse to medium sands.

During E&E's 1994 investigation and Tt's 1997 first and second quarter ground water monitoring (Tt 1997a, 1997b), the depth to ground water was measured at approximately 97 feet bgs. Based on the past uses of the pit and on observations made during the previous site inspections, the target analytes were known to be explosives, metals, and volatile organic compounds (VOCs) and semivolatile organic compounds (SVOCs)

## 4.0 INVESTIGATIONS

Site inspections of SWMU B11b were conducted by the USAEHA (1988), Jacobs Engineering (1988), and RAI (1992). During these inspections TNT-stained soil was noted in the catchment pit. No investigation activities were conducted during these inspections, and no samples were collected from the SWMU at that time.

During E&E's 1992 site inspection, Building 101-34 was noted to be a paint storage facility. Several drums used to store methyl ethyl ketone, trichloroethene, and naphtha were observed on the east side of this building. Dried paint was observed at the east end of the Building 101-34 catchment pit.

In 1994, sampling activities proposed by E&E for the remedial investigation at SWMU B11b included collecting and analyzing surface and subsurface soil samples and sampling the ground water by hydropunch (fig 3-1). However, refusal was encountered during the CPT sounding, and a ground water sample was not collected. Red stained soil was noted in the pit and it was assumed that this staining indicated TNT contamination. In late 1998 questions begain to arise that the red satined soil may not be explosives contaminated soil; and as in other SWMU's. The Corps of Engineers took samples of the stained soil in January 1999 from several sites in the 101 area including SWMU B-11b. When the samples taken from B-11b did not indicate any explosives contamination, it was determined to sample the SWMU for closure. In March of 1999 The Corps of Engineers took soil samples from SWMU B-11b as a confirmation sampling event. The sample locations from the March 1999 sampling event are shown on figure 4.

## 5.0 Investigation Results

Arsenic (2.8 mg/kg), barium (120 mg/kg), beryllium (0.67 mg/kg), total chromium (11 mg/kg), and lead (6.9 mg/kg) were detected in the CPT subsurface sample B11b-CPSI-1-007. No explosives were detected in the subsurface sample. Arsenic (3 mg/kg to 5.5 mg/kg), barium (71 mg/kg to 160 mg/kg), total chromium (2.9 mg/kg to 46 mg/kg), and lead (4.1 mg/kg to 250 mg/kg) were detected in both the surface and near-surface soil samples collected at SWMU B11b. Cadmium was detected only in the surface sample B11b-HA1-1-000 at 0.8 mg/kg. Beryllium, mercury, selenium, and silver were not detected in the surface and near-surface samples (appendix C). Of the explosives compounds, only picric acid was detected in surface soil sample B11b-HA1-1-000 at a concentration of 0.85 mg/kg. SVOCs were detected only in surface soil sample B11b-HA1-1-000. The SVOCs detected were naphthalene at 17 mg/kg, diethylphthalate at 0.62 mg/kg, butylbenzylphthalate at 2.8 mg/kg, bis(2-ethylhexyl)phthalate at 13 mg/kg, and 2-methylnaphthalene at 1.0 mg/kg.

The March 1999 sampling results are sumarized in table 1-1 and the complete analysisi of the samples is shown in appendix D.

**Table 1-1**

| SWMU B-11b |
|---|
| CONFORMATION SAMPLE RESULTS |

| SAMPLE NUMBER | | TNT (ppm) | RDX (ppm) |
|---|---|---|---|
| CS11-BB-01 | | <0.26 | <0.26 |
| | | | |
| CS11-SW-01 | | <0.26 | <0.26 |
| CS11-SW-02 | | <0.26 | 0.2J |
| CS11-SW-03 | | <0.26 | <0.26 |
| CS11-SW-04 | | <0.26 | <0.26 |
| | | | |
| CS11-SA-01 | | <0.26 | 1.9 |
| CS11-SA-02 | | <0.26 | 0.2J |
| CS11-SA-03 | | <0.26 | <0.26 |
| CS11-SA-04 | | <0.26 | <0.26 |

A risk analysis was conducted on the elevated lead result (250mg/kg). USEPA's acceptable cancer risk range is from $10^{-6}$ to $10^{-4}$. For screening purposes, the USEPA has derived an industrial PRG for lead of 1,000 mg/kg. The maximum detected lead concentration of 250 mg/kg is well below this value. Using the industrial PRGs, the estimated cancer risk at SWMU B11b of 8.1E-07 is below the acceptable target risk range. A hazard index (HI) of 1 or less is considered protective of human health under current USEPA guidelines. Using the USEPA Region IX industrial PRGs, the estimated HI for SWMU B11b is 0.01, a value below the threshold value of 1.

## 6.0 Remediation

No remediation at this SWMU

## 7.0 Remediation Results

Not Applicable

## 8.0 Public Involvement:

It is the U.S. Department of Defense and Army policy to involve the local community throughout the investigation process at an installation. To initiate this involvement, HWAD has established and maintains a repository library at the local public library. This repository includes final copies of all past studies and other documents regarding environmental issues at HWAD. As future environmental documents are made available to HWAD the repository shall be updated.

HWAD has solicited community participation in establishment of a restoration and advisory board (RAB). To date there has been insufficient response and HWAD has not

formed a RAB. HWAD has held open houses to inform the public of on going environmental issues. HWAD continues to solicit community involvement, and will establish a RAB should sufficient community interest be obtained.

**9.0 Conclusions and Recommendations**

Based on investigation results, the basin at SWMU B-11b was backfilled with completed compost material, with a 3 " cover of clean soil on top. It is recommended that SWMU B-11b be closed with the restriction that no structure be constructed over the area where the basin was backfilled.

## 10.0 References


Ecology and Environment. 1995. RCRA Facility Assessment Report for 24 Solid Waste Management Units, Hawthorne Army Depot, Hawthorne, Nevada. April 1995.

Jacobs Engineering. 1988. RCRA Facility Assessment, Hawthorne Army Ammunition Plant, TES IV Work Assignment No. 433.

Millsap, Herman. 1997. Hawthorne Army Depot. Personal communication via telephone with Richard Brunner of Tetra Tech, July 17, 1997

RAI. 1992. Site Screening Inspection (SSI) for the Hawthorne Army Ammunition Plant, Hawthorne, Nevada. Prepared for the US Army Corps of Engineers Toxic and Hazardous Materials Agency by Resource Applications, Inc., Falls Church, Virginia, December, 1992.

Tetra Tech. 1997a. Draft Quarterly Ground Water Monitoring Report, First Quarter 1997, Hawthorne Army Depot, Hawthorne, Nevada. April 1997.

_____. 1997b. Quarterly Ground Water Monitoring Report, Second Quarter 1997, Hawthorne Army Depot, Hawthorne, Nevada. July 1997.

_____. 1997c. Final Data Package with recommendations for future action, Group B solid waste management units, Hawthorne Army Depot, Hawthorne, Nevada, Volumes 1, 2a and 2b. January 1997.

_____. 1997d. Final Technical Memorandum Background Sampling at the Hawthorne Army Depot, Hawthorne, Nevada. March 1997.

_____. 1997d. Final Investigation Report, Solid Waste Management Unit B 11a, Hawthorne Army Depot, Hawthorne, Nevada. December 1997.

USACE. 1995. Risk Assessment Handbook: Volume I Human Health Assessment (EM 200-1-4). USACE. June 1995.

_____. 1999. Final Field Sampling Report, West 101 Production Area: Hawthorne Army Depot, Hawthorne, Nevada. April 1999.

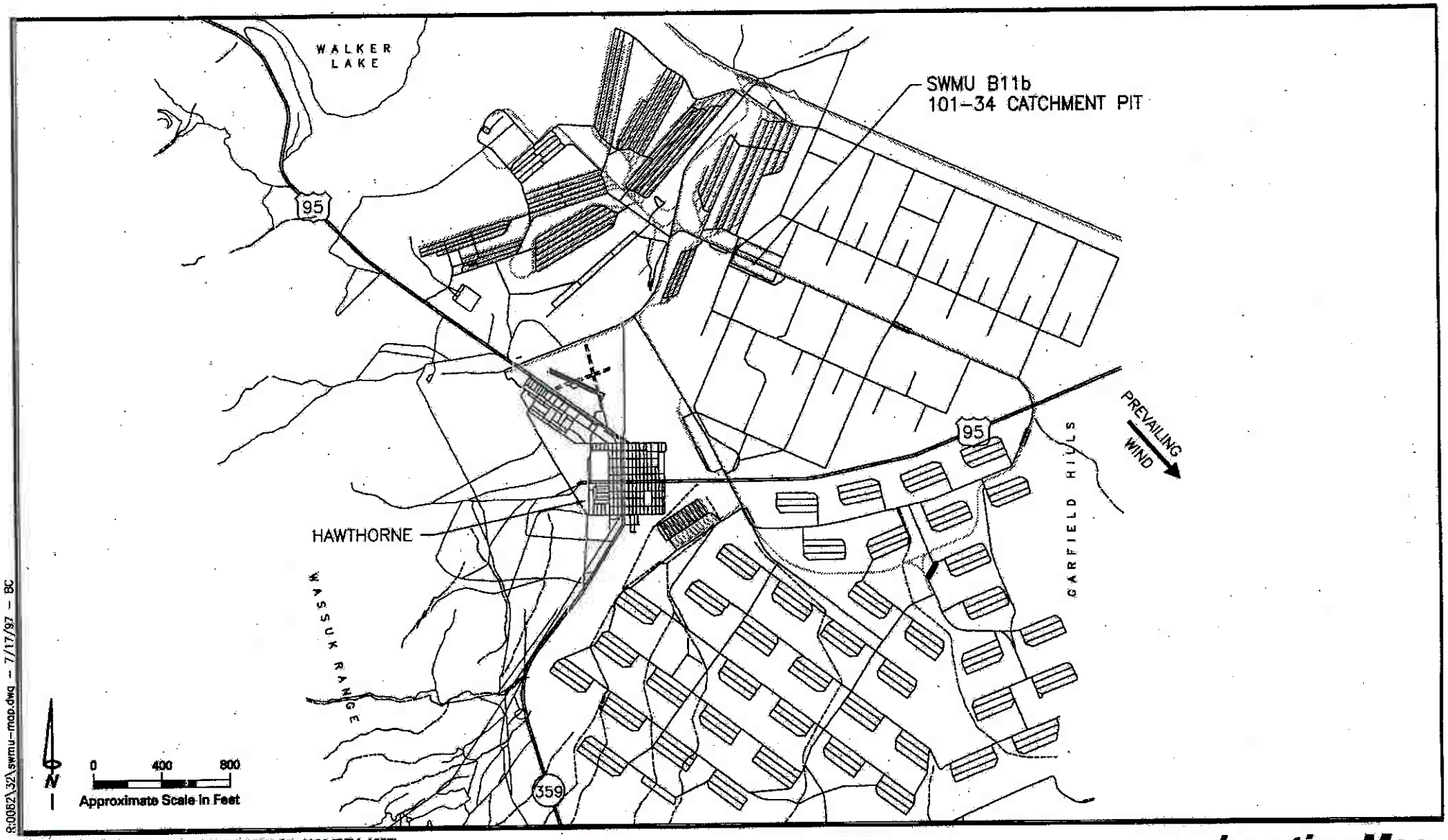
USAEHA. 1988. Final Report. Ground Water Contamination Survey No. 38-26-0850-88. Evaluation of Solid Waste Management Units. HWAAP, Hawthorne, Nevada, May 12-19, 1987 and August 1-5, 1988.

USATHAMA. 1977. Installation Assessment of Naval Ammunition Depot, Hawthorne, Nevada. US Army Toxic and Hazardous Materials Agency, Aberdeen Proving Ground, Maryland. Records Evaluation Report No. 114.

USEPA. 1989. Risk Assessment Guidance for Superfund. Volume I Human Health Evaluation Manual (Part A). December 1989.

_____. 1996. Region IX Preliminary Remediation Goals. USEPA Region IX. August 1996.

WaterWork. 1990. Hawthorne Army Ammunition Plant, Area 101 Surface Impoundments, Field and Lab Data and Analysis, Attachment 1-8.



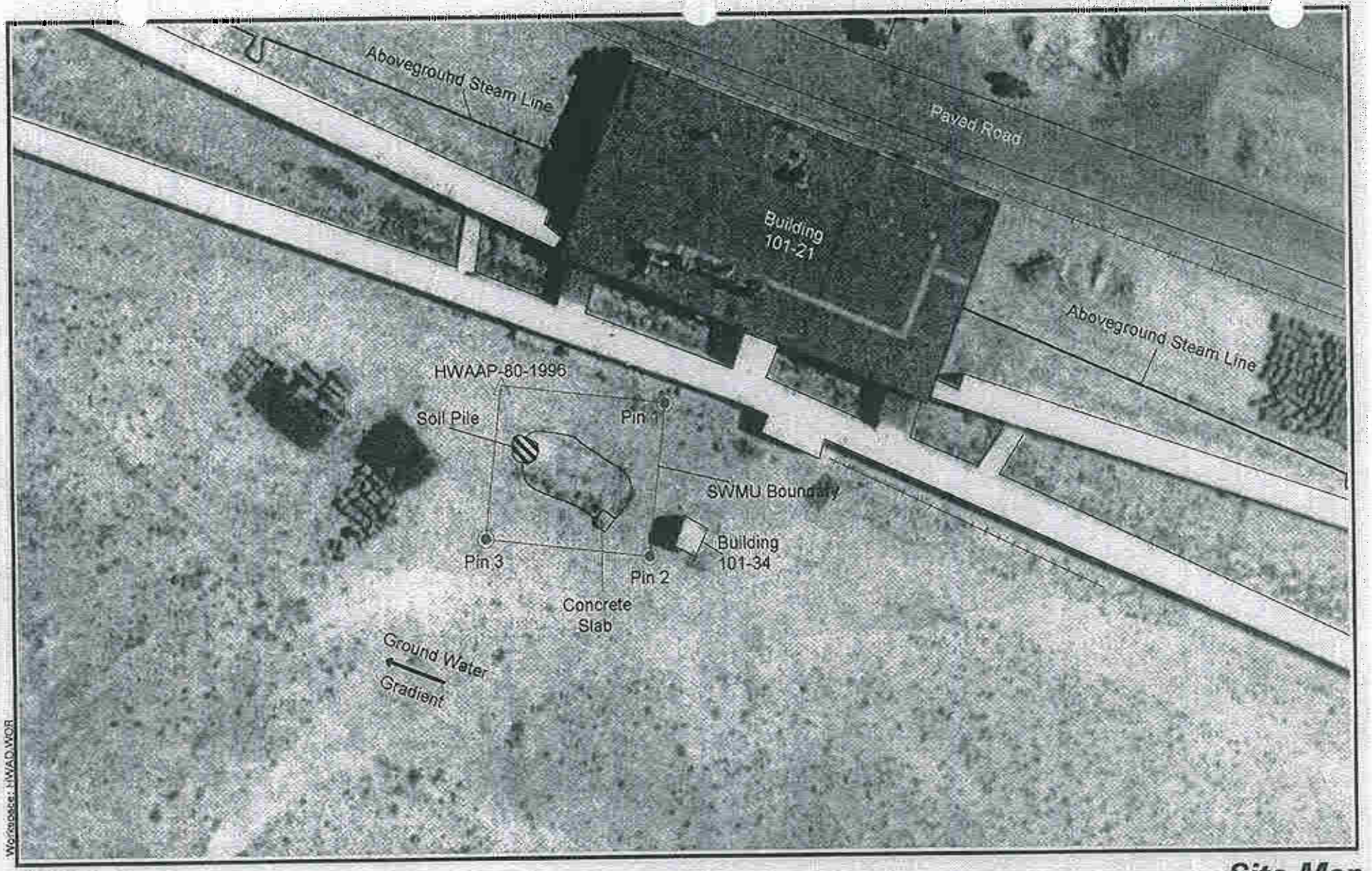

SOURCE: TETRA TECH FINAL DATA PACKAGE, 1996 (REV. 1997)

8:0862\32\swmu-map.dwg -- 7/17/97 -- BC

***Location Map***
***SWMU B11b***
Hawthorne Army Depot
Hawthorne, Nevada

Tetra Tech, Inc.

**Figure 1-1**




Workspace: HWAO.WOR

Legend:

- Boundary Corner Pin
- Explosion Barrier
- Railroad
- SWMU Monument

N

0 35 70

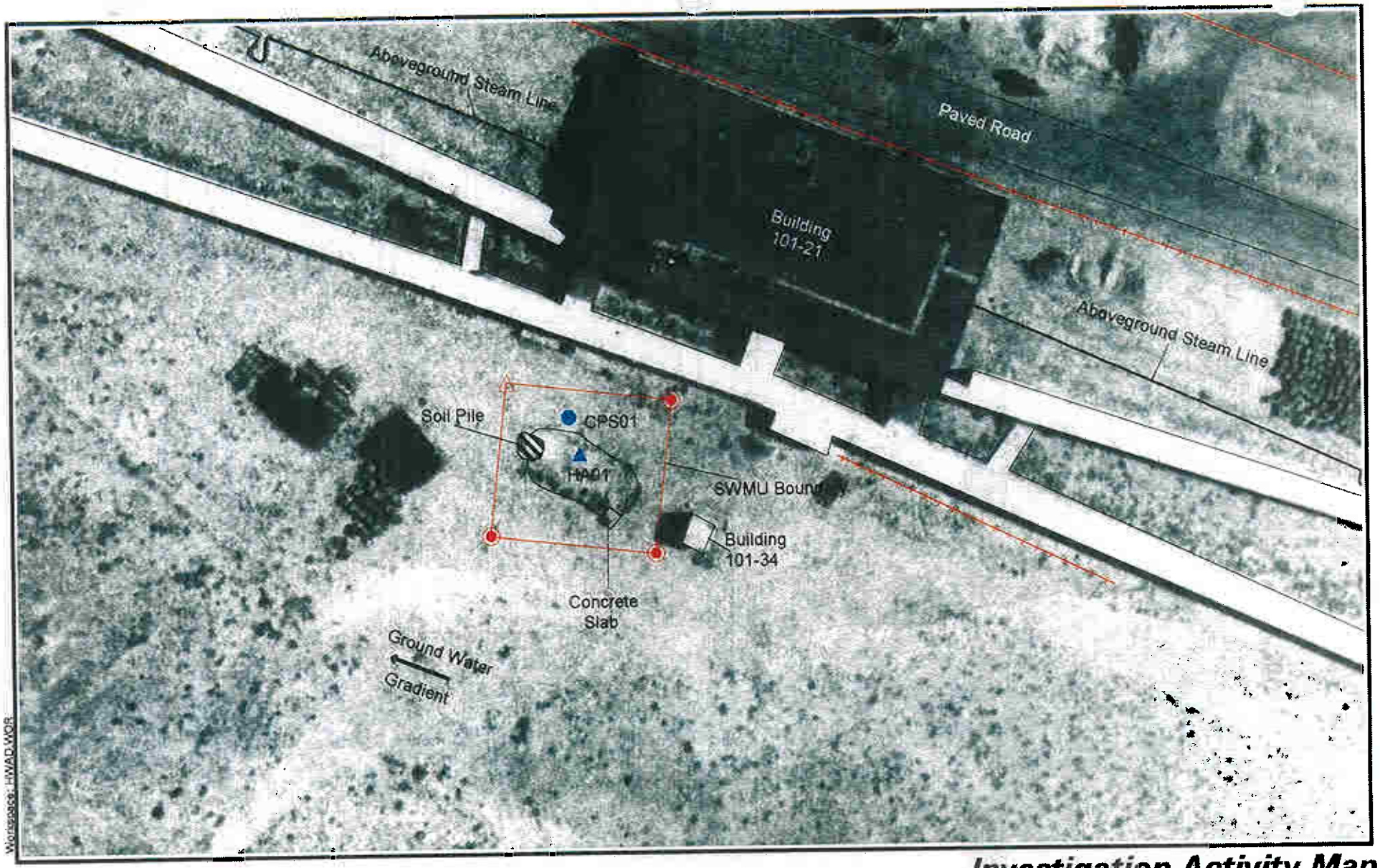
Approximate Scale in Feet

Tetra Tech, Inc.

# Site Map
# SWMU B11b
# 101-34 Catchment Pit

Hawthorne Army Depot
Hawthorne, Nevada

**Figure 1-2**




Workspace: HWAD.WOR

Legend:

- Boundary Corner Pin
- Hand Auger Location
- Soil Boring Location
- Explosion Barrier
- Railroad
- SWMU Monument

N

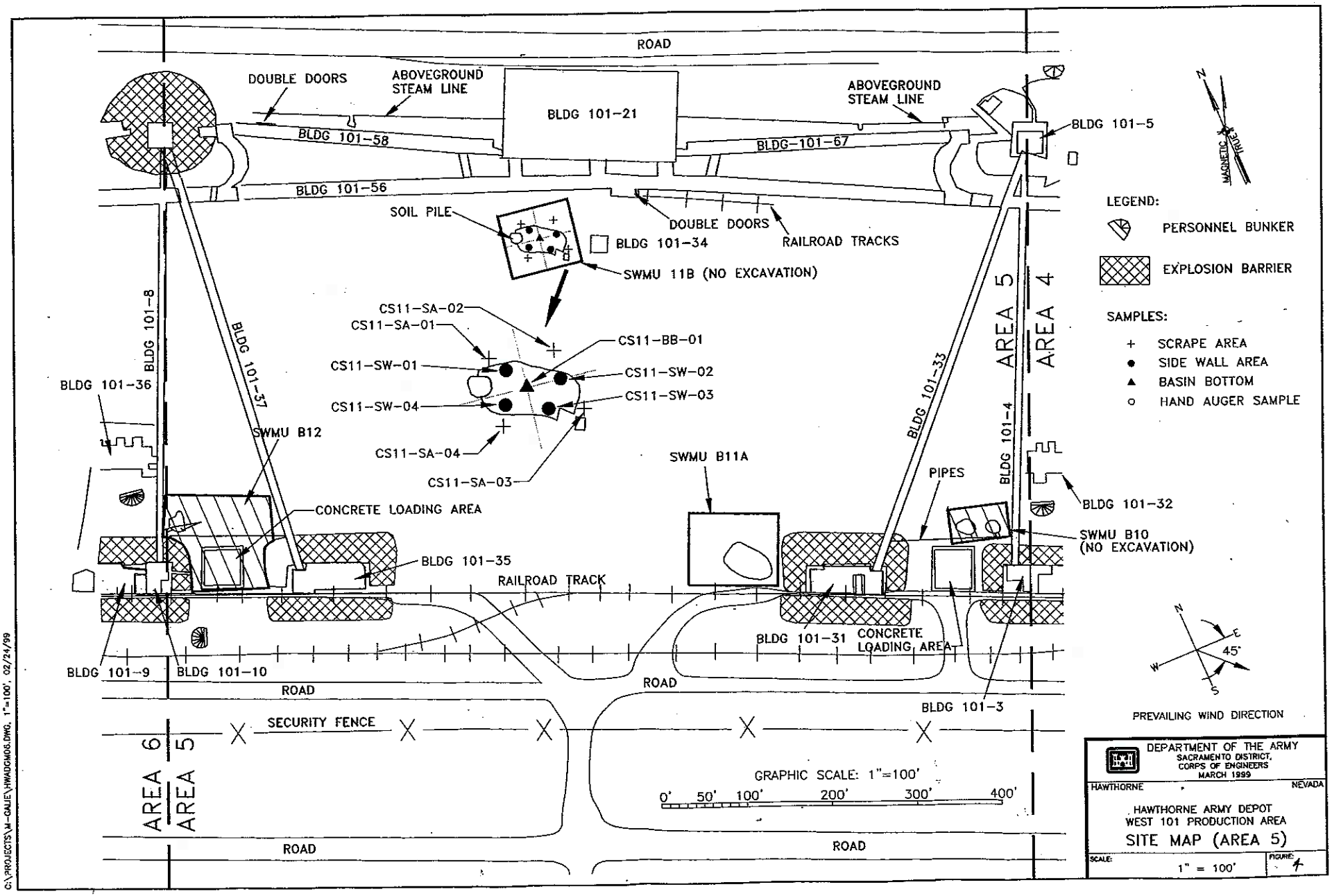
0 35 70
Approximate Scale in Feet

Tetra Tech, Inc.

# Investigation Activity Map
# SWMU B11b
# 101-34 Catchment Pit

Hawthorne Army Depot
Hawthorne, Nevada

**Figure 3-1**


ROAD
DOUBLE DOORS
ABOVEGROUND STEAM LINE
BLDG 101-21
ABOVEGROUND STEAM LINE
BLDG 101-5
BLDG 101-58
BLDG-101-67
BLDG 101-56
SOIL PILE
DOUBLE DOORS
RAILROAD TRACKS
BLDG 101-34
SWMU 11B (NO EXCAVATION)
CS11-SA-02
CS11-SA-01
CS11-BB-01
CS11-SW-01
CS11-SW-02
CS11-SW-04
CS11-SW-03
CS11-SA-04
CS11-SA-03
BLDG 101-8
BLDG 101-37
BLDG 101-36
SWMU B12
CONCRETE LOADING AREA
BLDG 101-35
RAILROAD TRACK
SWMU B11A
BLDG 101-33
AREA 5
AREA 4
BLDG 101-4
PIPES
BLDG 101-32
SWMU B10 (NO EXCAVATION)
BLDG 101-31
CONCRETE LOADING AREA
BLDG 101-9
BLDG 101-10
ROAD
ROAD
BLDG 101-3
SECURITY FENCE
AREA 6
AREA 5
ROAD
ROAD
GRAPHIC SCALE: 1"=100'
0' 50' 100' 200' 300' 400'
MAGNETIC NORTH
LEGEND:
PERSONNEL BUNKER
EXPLOSION BARRIER
SAMPLES:
+ SCRAPE AREA
● SIDE WALL AREA
▲ BASIN BOTTOM
○ HAND AUGER SAMPLE
N
E
W
S
45°
PREVAILING WIND DIRECTION
DEPARTMENT OF THE ARMY
SACRAMENTO DISTRICT, CORPS OF ENGINEERS
MARCH 1999
HAWTHORNE
NEVADA
HAWTHORNE ARMY DEPOT
WEST 101 PRODUCTION AREA
SITE MAP (AREA 5)
SCALE: 1" = 100'
FIGURE: 4
C:\PROJECTS\H-GAUE\HWADGM05.DWG, 1"=100', 02/24/99

# Appendix A

# NOTES

1. FOR THE LOCATION OF THE FOLLOWING SWMU'S, REFER TO FIGURE 3-6 OF THE "FINAL R.C.R.A. FACILITY INVESTIGATION REPORT OF GROUP "A" SOLID WASTE MANAGEMENT UNITS A-04, B-16, B-21, B-24, B-26, AND H-01".

2. THE "HWAD" MONUMENTS AS SHOWN HEREIN AS "M", ARE A 1' X 1' X 2'+ CONCRETE MONUMENT WITH A BRASS CAP STAMPED AS PER SPECIFICATIONS. ALL OF THE OTHER CORNERS ARE MARKED BY A 5/8" RE-BAR WITH A PLASTIC CAP STAMPED "STINCHFIELD PLS 3631" UNLESS NOTED OTHERWISE ON THE MAPS.

3. HORIZONTAL DATUM IS BASED ON NAD 83(1994) AND MORE SPECIFICALLY, NGS STATION "W 2". "W 2" IS A FEDERAL BASE NETWORK CONTROL STATION AND IS LOCATED IN THE APPROXIMATE CENTER OF THIS PROJECT.

4. VERTICAL DATUM IS BASED ON NAVD 29. NAVD 88 ELEVATIONS HAVE BEEN SCALED AND THEREFORE ARE NOT ACCURATE. VERTICAL CONTROL USING GPS WAS USED TO ESTABLISH THE ELEVATIONS OF THE EXISTING CONTROL POINTS AND THE "HWAD" MONUMENTS. THE VALUE OF NGS STATION "W 2" WAS USED AS A BASIS FOR THE VERTICAL CONTROL.

5. COORDINATE VALUES OF EXISTING NGS CONTROL, TRAVERSE POINTS, AND HWAD MONUMENTS ARE STATE PLANE COORDINATES, WEST ZONE.

6. THE COMBINED FACTOR WAS CALCULATED USING THE FOLLOWING FIGURES. THE "MAP SCALE" AT POINT "W 2" IS 0.99990022, THE MEAN ELEVATION OF THE TOTAL PROJECT WAS TAKEN AS 4150.00 FEET ABOVE SEA LEVEL AND THE MEAN RADIUS OF THE EARTH WAS TAKEN AS 20,906,000 FEET. THE SEA LEVEL FACTOR WAS CALCULATED AS FOLLOWS: 20,906000/20,906,000 + 4150.00 = 0.999801532. THE COMBINED FACTOR (CF) WAS CALCULATED AS FOLLOWS: 0.99990022 X 0.999801532 = 0.999701772.

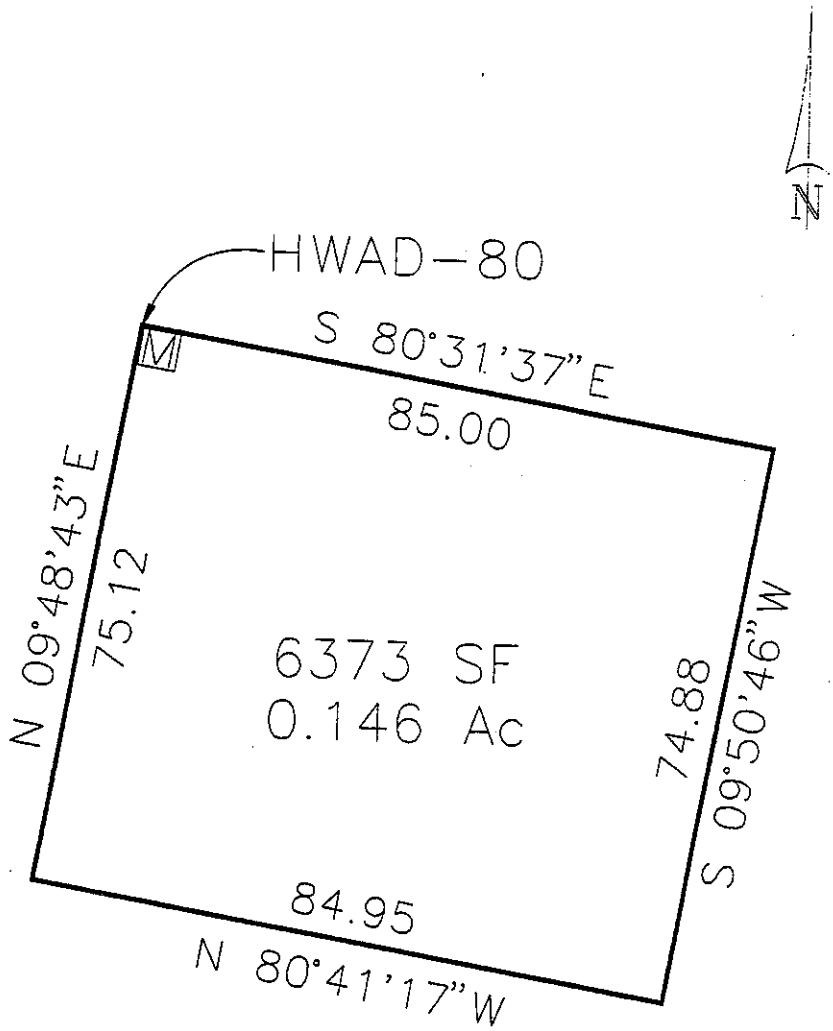
7. GROUND DISTANCE X CF (0.999801532) = GRID DISTANCE.

8. GRID DISTANCE X INVERSE CF (1.00298317) = GROUND DISTANCE.

9. COORDINATE VALUES OF ALL OTHER POINTS INCLUDING SWMU CORNERS OTHER THAN "HWAD" MONUMENTS, REFERENCE POINTS, TEST PIT OR HOLE LOCATIONS ETC., WERE CALCULATED USING GROUND DISTANCES AND ARE THEREFORE NOT TRUE STATE PLANE COORDINATES.

10. DISTANCES AS SHOWN ON THESE SWMU'S ARE HORIZONTAL GROUND DISTANCES.

PROFESSIONAL LAND SURVEYOR
RICHARD A. STINCHFIELD
7/28/97
No.3631




| | | | | | | |
|---|---|---|---|---|---|---|
| NW COR | N | 14512727.971 | E | 2622230.477 | ELEV | 4193.884 |
| NE COR | N | 14512713.982 | E | 2622314.313 | ELEV | 4196.478 |
| SE COR | N | 14512640.208 | E | 2622301.509 | ELEV | 4192.821 |
| SW COR | N | 14512653.954 | E | 2622217.676 | ELEV | 4192.235 |

PROFESSIONAL LAND SURVEYOR STATE OF NEVADA
RICHARD A. STINCHFIELD
7/21/97
No.3631

20 10 0 20 40 60
SCALE IN FEET

ecology and environment, inc.
International Specialists in the Environment

SWMU B 11b

COMSTOCK
LAND SURVEYING
777 LA RUE AVENUE, SUITE A

SWMU B11b Survey Data
Hawthorne Army Depot
Hawthorne, Nevada

| SWMU | Point ID | Northing (feet) | Easting (feet) | Elevation |
|---|---|---|---|---|
| B11b | HA01 | 1389354.12 | 497851.03 | NE |
| B11b | CPS01 | 1389372.12 | 497846.83 | NE |
| B11b | Pin 3 | 1389307.46 | 497802.86 | 4192.235 |
| B11b | Pin 2 | 1389303.05 | 497887.18 | 4192.821 |
| B11b | Pin 1 | 1389388.1 | 497891.92 | 4196.478 |
| B11b | HWAAP-80-1996 | 1389392.65 | 497807.65 | 4193.884 |

Notes:

NE = Not establised

Coordinate data based on electronic map file using the NAD 1927 datum.

Elevation data based on surveyors plat using NGVD 1929 datum.

# Appendix B

# Proposed Closure Goals
# Hawthorne Army Depot
# Hawthorne, Nevada

| Constituent of Concern | Chemical Classification | Carcinogenic (C) or Non-carcinogenic (NC) | HWAD Proposed Closure Goals for Soil (mg/kg) | HWAD Proposed Closure Goal Source |
|---|---|---|---|---|
| Nitrate | Anion | NC | 128,000 | Calculated Subpart S[a] |
| 2-Amino-dinitrotoluene | Explosive | NC | - | NA[b] |
| 4-Amino-dinitrotoluene | Explosive | NC | - | NA |
| 1,3-Dinitrobenzene | Explosive | NC | 8 | Calculated Subpart S |
| 2,4-Dinitrotoluene | Explosive | NC | 160 | Calculated Subpart S |
| 2,6-Dinitrotoluene | Explosive | NC | 80 | Calculated Subpart S |
| HMX | Explosive | NC | 4,000 | Calculated Subpart S |
| Nitrobenzene | Explosive | NC | 40 | Calculated Subpart S |
| Nitrotoluene (2-, 3-, 4-) | Explosive | NC | 800 | Calculated Subpart S |
| RDX | Explosive | NC | 64 | Calculated Subpart S |
| Tetryl | Explosive | NC | 800 | Calculated Subpart S |
| 1,3,5-Trinitrobenzene | Explosive | NC | 4 | Calculated Subpart S |
| 2,4,6-Trinitrotoluene | Explosive | C | 233 | Calculated Subpart S |
| Aluminum | Metal | NC | 80,000 | Calculated Subpart S |
| Arsenic (cancer endpoint) | Metal | C & NC | 30 | Background[c] |
| Barium and compounds | Metal | NC | 5,600 | Calculated Subpart S |
| Beryllium and compounds | Metal | C | 1 | Background |
| Cadmium and compounds | Metal | NC | 40 | Calculated Subpart S |
| Chromium III and compounds | Metal | NC | 80,000 | Calculated Subpart S |
| Lead | Metal | NC | 1000 | PRG[d] |
| Mercury and compounds (inorganic) | Metal | NC | 24 | Calculated Subpart S |
| Selenium | Metal | NC | 400 | Calculated Subpart S |
| Silver and compounds | Metal | NC | 400 | Calculated Subpart S |
| Acenaphthene | PAH | NC | 4,800 | Calculated Subpart S |
| Benzo[a]anthracene | PAH | C | 0.96 | Calculated Subpart S |
| Benzo[a]pyrene | PAH | C | 0.10 | Detection Limit[e] |
| Benzo[b]fluoranthene | PAH | C | 0.96 | Calculated Subpart S |
| Benzo[k]fluoranthene | PAH | C | 10 | Calculated Subpart S |
| Chrysene | PAH | C | 96 | Calculated Subpart S |
| Dibenz[ah]anthracene | PAH | C | 0.96 | Calculated Subpart S |
| Fluoranthene | PAH | NC | 3,200 | Calculated Subpart S |
| Fluorene | PAH | NC | 3,200 | Calculated Subpart S |
| Indeno[1,2,3-cd]pyrene | PAH | C | - | NA |
| Naphthalene | PAH | NC | 3,200 | Calculated Subpart S |
| Pyrene | PAH | NC | 2,400 | Calculated Subpart S |
| Total Petroleum Hydrocarbons as Diesel (TPH-d) | PAH | C | 100 | NDEP Level Clean-up[f] |
| Polychlorinated biphenyls (PCBs) | PCBs | C | 25 | TSCA[g] |
| Bis(2-ethylhexyl)phthalate (DEHP) | SVOC | C | 1,600 | Calculated Subpart S |
| Bromoform (tribromomethane) | SVOC | C | 89 | Calculated Subpart S |

# Proposed Closure Goals
# Hawthorne Army Depot
# Hawthorne, Nevada

| Constituent of Concern | Chemical Classification | Carcinogenic (C) or Non-carcinogenic (NC) | HWAD Proposed Closure Goals for Soil (mg/kg) | HWAD Proposed Closure Goal Source |
|---|---|---|---|---|
| Butyl benzyl phthalate | SVOC | NC | 16,000 | Calculated Subpart S |
| Dibromochloromethane | SVOC | C | 83 | Calculated Subpart S |
| Dibutyl-phthalate | SVOC | NC | 8,000 | Calculated Subpart S |
| Diethyl phthalate | SVOC | NC | 64,000 | Calculated Subpart S |
| Phenanthrene | SVOC | | - | NA |
| Phenol | SVOC | NC | 48,000 | Calculated Subpart S |
| Acetone | VOC | NC | 800 | Calculated Subpart S |
| Anthracene | VOC | NC | 24,000 | Calculated Subpart S |
| Benzene | VOC | C | 24 | Calculated Subpart S |
| Bis(2-chloroisopropyl)ether | VOC | C | 3,200 | Calculated Subpart S |
| Bromomethane | VOC | NC | 112 | Calculated Subpart S |
| Carbon tetrachloride | VOC | C | 5 | Calculated Subpart S |
| Chlorobenzene | VOC | NC | 1,600 | Calculated Subpart S |
| Chloroform | VOC | C | 115 | Calculated Subpart S |
| Chloromethane | VOC | C | 538 | Calculated Subpart S |
| Dibromomethane | VOC | C | 0.008 | Calculated Subpart S |
| 1,2-Dichlorobenzene | VOC | NC | 7,200 | Calculated Subpart S |
| 1,4-Dichlorobenzene | VOC | C | 18,300 | Calculated Subpart S |
| Dichlorodifluoromethane | VOC | C | 16,000 | Calculated Subpart S |
| Ethylbenzene | VOC | NC | 8,000 | Calculated Subpart S |
| Methylene bromide | VOC | NC | 800 | Calculated Subpart S |
| Methylene chloride | VOC | C | 4,800 | Calculated Subpart S |
| 2-Methylnaphthalene | VOC | | - | NA |
| 1,1,2,2-Tetrachloroethane | VOC | C | 35 | Calculated Subpart S |
| Tetrachloroethylene (PCE) | VOC | C & NC | 800 | Calculated Subpart S |
| Toluene | VOC | NC | 16,000 | Calculated Subpart S |
| 1,1,1-Trichloroethane | VOC | NC | 7,200 | Calculated Subpart S |
| Trichloroethylene (TCE) | VOC | C & NC | 480 | Calculated Subpart S |
| Trichlorofluoromethane | VOC | NC | 24,000 | Calculated Subpart S |
| 1,2,3-Trichloropropane | VOC | C | 480 | Calculated Subpart S |
| Vinyl chloride | VOC | C | 0.37 | Calculated Subpart S |
| Xylene Total (m-, o-, p-) | VOC | NC | 160,000 | Calculated Subpart S |
| 2,3,7,8-TCDD | Dioxin | C | 0.000005 | Calculated Subpart S |

[a] RCRA 55 FR 30870

[b] Not available

[c] Highest background concentration detected in 50 background soil samples

[d] Smucker, Stanford J. USEPA Rgion IX, Preliminary Remedial Goals, Second Half, Sep. 1995

[e] Method detection limit for Volatile Organic Compounds by EPA Method 8260 or

Semi-Volatile Organic Compounds analyzed by EPA Method 8270

[f] Nevada Division of Environmental Protection

[g] Cleanup level for PCB spills in accordance with Toxic Substance and Control Act Spill Policy Guidelines 40 CFR 761

# Appendix C

Nitrogen
Method 353.2 (ASC)

| Sample ID | Location ID | Sample Date | Depth (feet) | Lab | Nitrogen Nitrate |
|---|---|---|---|---|---|
| | | | | | mg/kg |
| B11B-HA1-1-000 | HA01 | 5/2/94 | 0.5 | ASC | <1 |
| B11B-HA1-1-005 | HA01 | 5/2/94 | 5 | ASC | 15 |
| B11B-CPS1-1-007 | CPS01 | 5/22/94 | 7 | ASC | 16 |

| | |
|---|---|
| Analyses | 3 |
| Detections | 2 |
| Minimum Concentration | 15 |
| Maximum Concentration | 16 |
| HWAD - PCG | 128000 |
| HWAD - PCG Hits | 0 |

Metals
Method 6010 (ASC)

| Sample ID | Location ID | Sample Date | Depth (feet) | Lab | Barium | Beryllium | Cadmium | Chromium Total | Silver | Arsenic | Lead | Selenium |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg |
| B11B-HA1-1-000 | HA01 | 5/2/94 | 0.5 | ASC | 160 | <0.53 | 0.8 | 46 | <1 | NA | NA | NA |
| B11B-HA1-1-005 | HA01 | 5/2/94 | 5 | ASC | 71 | <0.54 | <0.54 | 2.9 | <1.1 | 3 | 4.1 | <0.54 |
| B11B-CPS1-1-007 | CPS01 | 5/22/94 | 7 | ASC | 120 | 0.67 | <0.55 | 11 | <1.1 | 2.8 | 6.9 | <0.55 |
| Analyses | | | | | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 2 |
| Detections | | | | | 3 | 1 | 1 | 3 | 0 | 2 | 2 | 0 |
| Minimum Concentration | | | | | 71 | 0.67 | 0.8 | 2.9 | 0 | 2.8 | 4.1 | 0 |
| Maximum Concentration | | | | | 160 | 0.67 | 0.8 | 46 | 0 | 3 | 6.9 | 0 |
| HWAD - PCG | | | | | 2000 | 1 | 20 | 20 | 100 | 100 | 100 | 20 |
| HWAD - PCG Hits | | | | | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |

Note:
NA = Not analyzed.
Zero values listed for maximum and minimum concentrations indicate a nondetect for that analyte.

Metals
Method 7060 (ASC)

| Sample ID | Location ID | Sample Date | Depth (feet) | Lab | Arsenic |
|---|---|---|---|---|---|
| | | | | | mg/kg |
| B11B-HA1-1-000 | HA01 | 5/2/94 | 0.5 | ASC | 5.5 |
| B11B-HA1-1-005 | HA01 | 5/2/94 | 5 | ASC | 3 |
| B11B-CPS1-1-007 | CPS01 | 5/22/94 | 7 | ASC | 2.8 |

| | |
|---|---|
| Analyses | 3 |
| Detections | 3 |
| Minimum Concentration | 2.8 |
| Maximum Concentration | 5.5 |
| HWAD - PCG | 100 |
| HWAD - PCG Hits | 0 |

Metals
Method 7421 (ASC)

| Sample ID | Location ID | Sample Date | Depth (feet) | Lab | Lead |
|---|---|---|---|---|---|
| | | | | | mg/kg |
| B11B-HA1-1-000 | HA01 | 5/2/94 | 0.5 | ASC | 250 |
| B11B-HA1-1-005 | HA01 | 5/2/94 | 5 | ASC | 4.1 |
| B11B-CPS1-1-007 | CPS01 | 5/22/94 | 7 | ASC | 6.9 |

| | |
|---|---|
| Analyses | 3 |
| Detections | 3 |
| Minimum Concentration | 4.1 |
| Maximum Concentration | 250 |
| HWAD - PCG | 100 |
| HWAD - PCG Hits | 1 |

Mercury
Method 7471 (ASC)

| Sample ID | Location ID | Sample Date | Depth (feet) | Lab | Mercury |
|---|---|---|---|---|---|
| | | | | | mg/kg |
| B11B-HA1-1-000 | HA01 | 5/2/94 | 0.5 | ASC | <0.1 |
| B11B-HA1-1-005 | HA01 | 5/2/94 | 5 | ASC | <0.11 |
| B11B-CPS1-1-007 | CPS01 | 5/22/94 | 7 | ASC | <0.11 |

| | |
|---|---|
| Analyses | 3 |
| Detections | 0 |
| Minimum Concentration | 0 |
| Maximum Concentration | 0 |
| HWAD - PCG | 24 |
| HWAD - PCG Hits | 0 |

Note:
Zero values listed for maximum and minimum concentrations indicate a nondetect for that analyte.

Metals
Method 7740 (ASC)

| Sample ID | Location ID | Sample Date | Depth (feet) | Lab | Selenium |
|---|---|---|---|---|---|
| | | | | | mg/kg |
| B11B-HA1-1-000 | HA01 | 5/2/94 | 0.5 | ASC | <0.53 |
| B11B-HA1-1-005 | HA01 | 5/2/94 | 5 | ASC | <0.54 |
| B11B-CPS1-1-007 | CPS01 | 5/22/94 | 7 | ASC | <0.55 |

| | |
|---|---|
| Analyses | 3 |
| Detections | 0 |
| Minimum Concentration | 0 |
| Maximum Concentration | 0 |
| HWAD - PCG | 20 |
| HWAD - PCG Hits | 0 |

Note:
Zero values listed for maximum and minimum concentrations indicate a nondetect for that analyte.

Volatile Organics
Method 8260A (ASC)

| Sample ID | Location ID | Sample Date | Depth (feet) | Lab | 1,1,1-Trichloroethane | 1,1,2,2-Tetrachloroethane | 1,1,2-Trichloroethane | 1,1-Dichloroethane | 1,1-Dichloroethene | 1,2-Dichloroethane | 1,2-Dichloroethene (total) | 1,2-Dichloropropane |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg |
| B11B-CPS1-1-007 | CPS01 | 5/22/94 | 7 | ASC | <0.0055 | <0.0055 | <0.0055 | <0.0055 | <0.0055 | <0.0055 | <0.0055 | <0.0055 |
| Analyses | | | | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Detections | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Minimum Concentration | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Maximum Concentration | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| HWAD - PCG | | | | | 7200 | 35 | NE | NE | NE | NE | NE | NE |
| HWAD - PCG Hits | | | | | 0 | 0 | NE | NE | NE | NE | NE | NE |

Notes:
NE = Not established
Zero values listed for maximum and minimum concentrations
indicate a nondetect for that analyte.

Volatile Organics
Method 8260A (ASC)

| Sample ID | Location ID | Sample Date | Depth (feet) | Lab | 2-Butanone | 2-Chloroethylvinylether | 2-Hexanone | 4-Methyl-2-pentanone | Acetone | Benzene | Bromodichloromethane | Bromoform |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg |
| B11B-CPS1-1-007 | CPS01 | 5/22/94 | 7 | ASC | <0.011 | <0.011 | <0.011 | <0.011 | 0.02 [B] | <0.0055 | <0.0055 | <0.0055 |
| Analyses | | | | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Detections | | | | | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| Minimum Concentration | | | | | 0 | 0 | 0 | 0 | 0.02 | 0 | 0 | 0 |
| Maximum Concentration | | | | | 0 | 0 | 0 | 0 | 0.02 | 0 | 0 | 0 |
| HWAD - PCG | | | | | NE | NE | NE | NE | 800 | 10 | NE | 89 |
| HWAD - PCG Hits | | | | | NE | NE | NE | NE | 0 | 0 | NE | 0 |

Notes:
NE = Not established
Zero values listed for maximum and minimum concentrations indicate a nondetect for that analyte.

Volatile Organics
Method 8260A (ASC)

| Sample ID | Location ID | Sample Date | Depth (feet) | Lab | Bromomethane | Carbon disulfide | Carbon tetrachloride | Chlorobenzene | Chloroethane | Chloroform | Chloromethane | cis-1,3-Dichloropropene |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg |
| B11B-CPS1-1-007 | CPS01 | 5/22/94 | 7 | ASC | <0.011 | <0.0055 | <0.0055 | <0.0055 | <0.011 | <0.0055 | <0.011 | <0.0055 |
| Analyses | | | | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Detections | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Minimum Concentration | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Maximum Concentration | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| HWAD - PCG | | | | | 112 | NE | 10 | 2000 | NE | 120 | 538 | NE |
| HWAD - PCG Hits | | | | | 0 | NE | 0 | 0 | NE | 0 | 0 | NE |

Notes:
NE = Not established
Zero values listed for maximum and minimum concentrations indicate a nondetect for that analyte.

Volatile Organics
Method 8260A (ASC)

| Sample ID | Location ID | Sample Date | Depth (feet) | Lab | Dibromochloromethane | Ethylbenzene | Methylene chloride | Styrene | Tetrachloroethene | Toluene | Total Xylenes | trans-1,3,-Dichloropropene |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg |
| B11B-CPS1-1-007 | CPS01 | 5/22/94 | 7 | ASC | <0.0055 | <0.0055 | 0.018 [B] | <0.0055 | <0.0055 | <0.0055 | <0.0055 | <0.0055 |
| Analyses | | | | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Detections | | | | | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| Minimum Concentration | | | | | 0 | 0 | 0.018 | 0 | 0 | 0 | 0 | 0 |
| Maximum Concentration | | | | | 0 | 0 | 0.018 | 0 | 0 | 0 | 0 | 0 |
| HWAD - PCG | | | | | 83 | 8000 | 4800 | NE | 15 | 16000 | 160000 | NE |
| HWAD - PCG Hits | | | | | 0 | 0 | 0 | NE | 0 | 0 | 0 | NE |

Notes:
NE = Not established
Zero values listed for maximum and minimum concentrations indicate a nondetect for that analyte.

Volatile Organics
Method 8260A (ASC)

| Sample ID | Location ID | Sample Date | Depth (feet) | Lab | Trichloroethene | Vinyl acetate | Vinyl chloride | trans-1,2-Dichloroethene |
|---|---|---|---|---|---|---|---|---|
| | | | | | mg/kg | mg/kg | mg/kg | mg/kg |
| B11B-CPS1-1-007 | CPS01 | 5/22/94 | 7 | ASC | <0.0055 | <0.011 | <0.011 | NA |
| Analyses | | | | | 1 | 1 | 1 | 0 |
| Detections | | | | | 0 | 0 | 0 | 0 |
| Minimum Concentration | | | | | 0 | 0 | 0 | 0 |
| Maximum Concentration | | | | | 0 | 0 | 0 | 0 |
| HWAD - PCG | | | | | 10 | NE | 24000 | NE |
| HWAD - PCG Hits | | | | | 0 | NE | 0 | NE |

Notes:
NE = Not established
Zero values listed for maximum and minimum concentrations indicate a nondetect for that analyte.

Semivolatile Organics
Method 82 (ASC)

| Sample ID | Location ID | Sample Date | Depth (feet) | Lab | 1,2,4-Trichlorobenzene | 1,2-Dichlorobenzene | 1,3-Dichlorobenzene | 1,4-Dichlorobenzene | 2,2-oxybis(1-Chloropropane) | 2,4,5-Trichlorophenol | 2,4,6-Trichlorophenol | 2,4-Dichlorophenol |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg |
| B11B-HA1-1-000 | HA01 | 5/2/94 | 0.5 | ASC | <17 | <17 | <17 | <17 | <17 | <84.00001 | <17 | <17 |
| B11B-HA1-1-005 | HA01 | 5/2/94 | 5 | ASC | <0.36 | <0.36 | <0.36 | <0.36 | <0.36 | <1.7 | <0.36 | <0.36 |
| B11B-CPS1-1-007 | CPS01 | 5/22/94 | 7 | ASC | <0.36 | <0.36 | <0.36 | <0.36 | <0.36 | <1.8 | <0.36 | <0.36 |
| Analyses | | | | | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Detections | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Minimum Concentration | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Maximum Concentration | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| HWAD - PCG | | | | | | 7200 | NE | 150 | 3200 | NE | NE | NE |
| HWAD - PCG Hits | | | | | | 0 | NE | 0 | 0 | NE | NE | NE |

Notes:
NE = Not established
Zero values listed for maximum and minimum concentrations indicate a nondetect for that analyte.

Semivolatile Organics
Method 82 (ASC)

| Sample ID | Location ID | Sample Date | Depth (feet) | Lab | 2,4-Dimethylphenol | 2,4-Dinitrophenol | 2,4-Dinitrotoluene | 2,6-Dinitrotoluene | 2-Chloronaphthalene | 2-Chlorophenol | 2-Methylnaphthalene | 2-Methylphenol |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg |
| B11B-HA1-1-000 | HA01 | 5/2/94 | 0.5 | ASC | <17 | <84.00001 | <17 | <17 | <17 | <17 | 1 J | <17 |
| B11B-HA1-1-005 | HA01 | 5/2/94 | 5 | ASC | <0.36 | <1.7 | <1 | <1 | <0.36 | <0.36 | <0.36 | <0.36 |
| B11B-CPS1-1-007 | CPS01 | 5/22/94 | 7 | ASC | <0.36 | <1.8 | <1 | <1 | <0.36 | <0.36 | <0.36 | <0.36 |
| Analyses | | | | | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Detections | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| Minimum Concentration | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| Maximum Concentration | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| HWAD - PCG | | | | | NE | NE | 2.6 | 80 | NE | NE | NE | NE |
| HWAD - PCG Hits | | | | | NE | NE | 0 | 0 | NE | NE | NE | NE |

Notes:
NE = Not established
Zero values listed for maximum and minimum concentrations indicate a nondetect for that analyte.

Semivolatile Organics
Method 82 (ASC)

| Sample ID | Location ID | Sample Date | Depth (feet) | Lab | 2-Nitroaniline | 2-Nitrophenol | 3,3-Dichlorobenzidine | 3-Nitroaniline | 4,6-Dinitro-2-methylphenol | 4-Bromophenylphenylether | 4-Chloro-3-methylphenol |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg |
| B11B-HA1-1-000 | HA01 | 5/2/94 | 0.5 | ASC | <84.00001 | <17 | <35 | <84.00001 | <84.00001 | <17 | <17 |
| B11B-HA1-1-005 | HA01 | 5/2/94 | 5 | ASC | <1.7 | <0.36 | <0.72 | <1.7 | <1.7 | <0.36 | <0.36 |
| B11B-CPS1-1-007 | CPS01 | 5/22/94 | 7 | ASC | <1.8 | <0.36 | <0.72 | <1.8 | <1.8 | <0.36 | <0.36 |
| Analyses | | | | | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Detections | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Minimum Concentration | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Maximum Concentration | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| HWAD - PCG | | | | | NE | NE | NE | NE | NE | NE | NE |
| HWAD - PCG Hits | | | | | NE | NE | NE | NE | NE | NE | NE |

Notes:
NE = Not established
Zero values listed for maximum and minimum concentrations indicate a nondetect for that analyte.

Semivolatile Organics
Method 82 (ASC)

| Sample ID | Location ID | Sample Date | Depth (feet) | Lab | 4-Chloroaniline | 4-Chlorophenylphenylether | 4-Methylphenol | 4-Nitroaniline | 4-Nitrophenol | Acenaphthene | Acenaphthylene | Anthracene |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg |
| B11B-HA1-1-000 | HA01 | 5/2/94 | 0.5 | ASC | <17 | <17 | <17 | <84.00001 | <84.00001 | <17 | <17 | <17 |
| B11B-HA1-1-005 | HA01 | 5/2/94 | 5 | ASC | <0.36 | <0.36 | <0.36 | <1.7 | <1.7 | <0.36 | <0.36 | <0.36 |
| B11B-CPS1-1-007 | CPS01 | 5/22/94 | 7 | ASC | <0.36 | <0.36 | <0.36 | <1.8 | <1.8 | <0.36 | <0.36 | <0.36 |
| Analyses | | | | | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Detections | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Minimum Concentration | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Maximum Concentration | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| HWAD - PCG | | | | | NE | NE | NE | NE | NE | 4800 | NE | 24000 |
| HWAD - PCG Hits | | | | | NE | NE | NE | NE | NE | 0 | NE | 0 |

Notes:
NE = Not established
Zero values listed for maximum and minimum concentrations indicate a nondetect for that analyte.

Semivolatile Organics
Method 82 (ASC)

| Sample ID | Location ID | Sample Date | Depth (feet) | Lab | Benzidine | Benzo(a)anthracene | Benzo(a)pyrene | Benzo(b)fluoranthene | Benzo(ghi)perylene | Benzo(k)fluoranthene | Benzoic acid | Benzyl alcohol |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg |
| B11B-HA1-1-000 | HA01 | 5/2/94 | 0.5 | ASC | <84.00001 | <17 | <17 | <17 | <17 | <17 | <84.00001 | <17 |
| B11B-HA1-1-005 | HA01 | 5/2/94 | 5 | ASC | <1.7 | <0.36 | <0.36 | <0.36 | <0.36 | <0.36 | <1.7 | <0.36 |
| B11B-CPS1-1-007 | CPS01 | 5/22/94 | 7 | ASC | <1.8 | <0.36 | <0.36 | <0.36 | <0.36 | <0.36 | <1.8 | <0.36 |
| Analyses | | | | | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Detections | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Minimum Concentration | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Maximum Concentration | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| HWAD - PCG | | | | | NE | 0.96 | 0.1 | 0.96 | NE | 10 | NE | NE |
| HWAD - PCG Hits | | | | | NE | 0 | 0 | 0 | NE | 0 | NE | NE |

Notes:
NE = Not established
Zero values listed for maximum and minimum concentrations indicate a nondetect for that analyte.

Semivolatile Organics
Method 82 (ASC)

| Sample ID | Location ID | Sample Date | Depth (feet) | Lab | bis(2-Chloroethoxy)methane | bis(2-Chloroethyl)ether | bis(2-Ethylhexyl)phthalate | Butylbenzylphthalate | Chrysene | di-n-Butylphthalate | di-n-Octylphthalate | Dibenzo(a,h)anthracene | Dibenzofuran |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg |
| B11B-HA1-1-000 | HA01 | 5/2/94 | 0.5 | ASC | <17 | <17 | 13 J | 2.8 J | <17 | <17 | <17 | <17 | <17 |
| B11B-HA1-1-005 | HA01 | 5/2/94 | 5 | ASC | <0.36 | <0.36 | <0.36 | <0.36 | <0.36 | <0.36 | <0.36 | <0.36 | <0.36 |
| B11B-CPS1-1-007 | CPS01 | 5/22/94 | 7 | ASC | <0.36 | <0.36 | <0.36 | <0.36 | <0.36 | <0.36 | <0.36 | <0.36 | <0.36 |
| Analyses | | | | | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Detections | | | | | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| Minimum Concentration | | | | | 0 | 0 | 13 | 2.8 | 0 | 0 | 0 | 0 | 0 |
| Maximum Concentration | | | | | 0 | 0 | 13 | 2.8 | 0 | 0 | 0 | 0 | 0 |
| HWAD - PCG | | | | | NE | NE | 1600 | 16000 | 96 | 8000 | NE | 0.96 | NE |
| HWAD - PCG Hits | | | | | NE | NE | 0 | 0 | 0 | 0 | NE | 0 | NE |

Notes:
NE = Not established
Zero values listed for maximum and minimum concentrations indicate a nondetect for that analyte.

Semivolatile Organics
Method 82 (ASC)

| Sample ID | Location ID | Sample Date | Depth (feet) | Lab | Diethylphthalate | Dimethylphthalate | Fluoranthene | Fluorene | Hexachlorobenzene | Hexachlorobutadiene | Hexachlorocyclopentadiene | Hexachloroethane | Indeno(1,2,3-cd)pyrene |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg |
| B11B-HA1-1-000 | HA01 | 5/2/94 | 0.5 | ASC | 0.62 J | <17 | <17 | <17 | <17 | <17 | <17 | <17 | <17 |
| B11B-HA1-1-005 | HA01 | 5/2/94 | 5 | ASC | <0.36 | <0.36 | <0.36 | <0.36 | <0.36 | <0.36 | <0.36 | <0.36 | <0.36 |
| B11B-CPS1-1-007 | CPS01 | 5/22/94 | 7 | ASC | <0.36 | <0.36 | <0.36 | <0.36 | <0.36 | <0.36 | <0.36 | <0.36 | <0.36 |
| Analyses | | | | | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Detections | | | | | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Minimum Concentration | | | | | 0.62 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Maximum Concentration | | | | | 0.62 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| HWAD - PCG | | | | | 64000 | NE | 3200 | 3200 | NE | NE | NE | NE | NE |
| HWAD - PCG Hits | | | | | 0 | NE | 0 | 0 | NE | NE | NE | NE | NE |

Notes:
NE = Not established
Zero values listed for maximum and minimum concentrations indicate a nondetect for that analyte.

Semivolatile Organics
Method 82 (ASC)

| Sample ID | Location ID | Sample Date | Depth (feet) | Lab | Isophorone | n-Nitroso-di-n-propylamine | n-Nitrosodiphenylamine | Naphthalene | Nitrobenzene | Pentachlorophenol | Phenanthrene | Phenol |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg |
| B11B-HA1-1-000 | HA01 | 5/2/94 | 0.5 | ASC | <17 | <17 | <17 | 17 J | <17 | <84.00001 | <17 | <17 |
| B11B-HA1-1-005 | HA01 | 5/2/94 | 5 | ASC | <0.36 | <0.36 | <0.36 | <0.36 | <1 | <1.7 | <0.36 | <0.36 |
| B11B-CPS1-1-007 | CPS01 | 5/22/94 | 7 | ASC | <0.36 | <0.36 | <0.36 | <0.36 | <1 | <1.8 | <0.36 | <0.36 |
| Analyses | | | | | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Detections | | | | | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| Minimum Concentration | | | | | 0 | 0 | 0 | 17 | 0 | 0 | 0 | 0 |
| Maximum Concentration | | | | | 0 | 0 | 0 | 17 | 0 | 0 | 0 | 0 |
| HWAD - PCG | | | | | NE | NE | NE | 3200 | 40 | NE | NE | 48000 |
| HWAD - PCG Hits | | | | | NE | NE | NE | 0 | 0 | NE | NE | 0 |

Notes:
NE = Not established
Zero values listed for maximum and minimum concentrations indicate a nondetect for that analyte.

Semivolatile Organics
Method 82 (ASC)

| Sample ID | Location ID | Sample Date | Depth (feet) | Lab | Pyrene |
|---|---|---|---|---|---|
| | | | | | mg/kg |
| B11B-HA1-1-000 | HA01 | 5/2/94 | 0.5 | ASC | <17 |
| B11B-HA1-1-005 | HA01 | 5/2/94 | 5 | ASC | <0.36 |
| B11B-CPS1-1-007 | CPS01 | 5/22/94 | 7 | ASC | <0.36 |

| | |
|---|---|
| Analyses | 3 |
| Detections | 0 |
| Minimum Concentration | 0 |
| Maximum Concentration | 0 |
| HWAD - PCG | 2400 |
| HWAD - PCG Hits | 0 |

Notes:
NE = Not established
Zero values listed for maximum and minimum concentrations indicate a nondetect for that analyte.

Picric Acid
Method 8330M (ASC)

| Sample ID | Location ID | Sample Date | Depth (feet) | Lab | Picric Acid |
|---|---|---|---|---|---|
| | | | | | mg/kg |
| B11B-HA1-1-000 | HA01 | 5/2/94 | 0.5 | ASC | 0.85 |
| B11B-HA1-1-005 | HA01 | 5/2/94 | 5 | ASC | <0.25 |
| B11B-CPS1-1-007 | CPS01 | 5/22/94 | 7 | ASC | <0.25 |

| | |
|---|---|
| Analyses | 3 |
| Detections | 1 |
| Minimum Concentration | 0.85 |
| Maximum Concentration | 0.85 |
| HWAD - PCG | 7 |
| HWAD - PCG Hits | 0 |

Picric Acid
Method 8330M (ASC)

| Sample ID | Location ID | Sample Date | Depth | Aquifer | Picric Acid ug/L |
|---|---|---|---|---|---|
| 101-13-MW5-1 | DZB101-13MW05 | 3/27/94 | 0 | WT | <2.5 |
| 101-13-MW5-2 | DZB101-13MW05 | 3/27/94 | 0 | WT | <2.5 |
| 101-15-MW7-1 | DZB101-15MW07 | 3/27/94 | 0 | WT | <2.5 |
| 101-13-MW4-1 | DZB101-13MW04 | 5/6/94 | 0 | NA | <2.5 |
| 101-15-MW6-1 | DZB101-15MW06 | 5/10/94 | 0 | WT | <2.5 |
| 101-13/15-MW8-1 | DZB101-13MW08 | 5/16/94 | 0 | NA | <2.5 |
| IRPMW34-012997-W | IRPMW34 | 1/29/97 | 140 | SW | 2.1 |
| IRPMW35-012997-W | IRPMW35 | 1/29/97 | 100 | WT | 5.9 |
| IRPMW37-012997-W | IRPMW37 | 1/29/97 | 135 | WT | <2 |
| IRPMW30-013097-W | IRPMW30 | 1/30/97 | 165 | SW | <2 |
| IRPMW31-013097-W | IRPMW31 | 1/30/97 | 87 | WT | <2 |
| IRPMW33-013097-W | IRPMW33 | 1/30/97 | 94 | WT | 5.9 |
| IRPMW36-013097-W | IRPMW36 | 1/30/97 | 188 | SW | <2 |
| IRPMW32A-013197-W | IRPMW32 | 1/31/97 | 176 | SW | <2 |
| IRPMW32B-013197-W | IRPMW32 | 1/31/97 | 0 | SW | <2 |

| | |
|---|---|
| Analyses | 15 |
| Detections | 3 |
| Minimum Concentration | 2.1 |
| Maximum Concentration | 5.9 |
| MCL | 1 |
| MCL Hits | 3 |
| PRG | NE |
| PRG Hits | NE |

Notes:
NA = Not analyzed
NE = Not established
HWAD Action Level based on guidance from ASTDR and NDEP approval.



8/15/97 8:53:42 AM

Explosives
Method 8330 (CCAS)

| Sample ID | Location ID | Sample Date | Depth | Aquifer | 2,3-Dinitrotoluene | 2,4,6-Trinitrotoluene | 2,4-Dinitrotoluene | 3,4- and 2,6-Dinitrotoluene | Picric Acid | RDX |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L |
| DZB-101-13-MW4 | DZB101-13MW04 | 5/23/89 | 0 | | <1 | <0.2 | <0.5 | <0.5 | <0.2 | <1 |
| DZB-101-13-MW4D | DZB101-13MW04 | 5/23/89 | 0 | | <1 | <0.2 | <0.5 | <0.5 | <0.2 | <1 |
| DZB-101-13-MW5 | DZB101-13MW05 | 5/23/89 | 0 | | <1 | <0.2 | <0.5 | <0.5 | 3.6 | <1 |
| DZB-101-13-MW5D | DZB101-13MW05 | 5/23/89 | 0 | | <1 | <0.2 | <0.5 | <0.5 | <0.2 | <1 |
| DZB-101-13-MW8 | DZB101-13MW08 | 5/23/89 | 0 | | <1 | <0.2 | <0.5 | <0.5 | 1.2 | <1 |
| DZB-101-13-MW8D | DZB101-13MW08 | 5/23/89 | 0 | | <1 | <0.2 | <0.5 | <0.5 | <0.2 | <1 |
| DZB-101-15-MW6 | DZB101-15MW06 | 5/23/89 | 0 | | <1 | <0.2 | <0.5 | <0.5 | <0.2 | <1 |
| DZB-101-15-MW6D | DZB101-15MW06 | 5/23/89 | 0 | | <1 | <0.2 | <0.5 | <0.5 | <0.2 | <1 |
| DZB-101-15-MW7 | DZB101-15MW07 | 5/23/89 | 0 | | <1 | <0.2 | <0.5 | <0.5 | <0.2 | <1 |
| DZB-101-15-MW7D | DZB101-15MW07 | 5/23/89 | 0 | | <1 | <0.2 | 2 | <0.5 | <0.2 | <1 |
| Analyses | | | | | 10 | 10 | 10 | 10 | 10 | 10 |
| Detections | | | | | 0 | 0 | 1 | 0 | 2 | 0 |
| Minimum Concentration | | | | | 0 | 0 | 2 | 3 | 1.2 | 0 |
| Maximum Concentration | | | | | 0 | 0 | 2 | 3 | 3.6 | 0 |
| MCL | | | | | NE | NE | NE | NE | 1 | NE |
| MCL Hits | | | | | NE | NE | NE | NE | 2 | NE |
| PRG | | | | | NE | 0.0022 | 0.073 | NE | NE | 0.00061 |
| PRG Hits | | | | | NE | 0 | 1 | NE | NE | 0 |

Notes:

NA = Not analyzed

NE = Not established

Zero values listed for maximum and minimum concentrations indicate a nondetect value for that analyte.

HWAD Action Level based on guidance from ASTDR and NDEP approval.

Explosives
Method M8330 (APCL)

| Sample ID | Location ID | Sample Date | Depth | Aquifer | Picric Acid ug/L |
|---|---|---|---|---|---|
| DZB101-13MW4-020197-W | DZB101-13MW4 | 2/1/97 | 108 | WT | <7.1 |
| DZB101-13MW8-020397-W | DZB101-13MW8 | 2/3/97 | 130 | WT | <7.1 |
| DZB101-15MW7-020397-W | DZB101-15MW7 | 2/3/97 | 107 | WT | <7.1 |
| IRPMW30A-042297-W | IRPMW30 | 4/22/97 | 160 | SW | <7.1 |
| IRPMW30B-042297-W | IRPMW30 | 4/22/97 | 160 | SW | <7.1 |
| IRPMW31-042297-W | IRPMW31 | 4/22/97 | 89 | WT | <7.1 |
| IRPMW32-042397-W | IRPMW32 | 4/23/97 | 175 | SW | <7.1 |
| IRPMW33-042397-W | IRPMW33 | 4/23/97 | 95 | WT | <7.1 |
| IRPMW34-042397-W | IRPMW34 | 4/23/97 | 138 | SW | <7.1 |
| IRPMW35-042397-W | IRPMW35 | 4/23/97 | 100 | WT | <7.1 |
| IRPMW36-042397-W | IRPMW36 | 4/23/97 | 180 | SW | <7.1 |
| DZB101-13MW4-042497-W | DZB101-13MW4 | 4/24/97 | 103 | WT | <7.1 |
| DZB101-13MW5-042497-W | DZB101-13MW5 | 4/24/97 | 104 | WT | <7.1 |
| DZB101-13MW8-042497-W | DZB101-13MW8 | 4/24/97 | 130 | WT | <7.1 |
| DZB101-15MW7-042497-W | DZB101-15MW7 | 4/24/97 | 108 | WT | <7.1 |
| IRPMW37A-042497-W | IRPMW37 | 4/24/97 | 24 | WT | <7.1 |
| IRPMW37B-042497-W | IRPMW37 | 4/24/97 | 45 | WT | <7.1 |

| | |
|---|---|
| Analyses | 17 |
| Detections | 0 |
| Minimum Concentration | 0 |
| Maximum Concentration | |
| | 1 |
| MCL | 0 |
| MCL Hits | NE |
| PRG | NE |
| PRG Hits | |

Notes:

NE = Not established.

Zero values listed for maximum and minimum concentrations indicate a nondetect value for that analyte.

HWAD Action Level based on guidance from ASTDR and NDEP approval.

Explosives
Method 8330 (ASC)

| Sample ID | Location ID | Sample Date | Depth (feet) | Lab | 2,4,6-TNT | 2,4-Dinitrotoluene | 2,6-Dinitrotoluene | 2-Amino-4,6-DNT | 2-Nitrotoluene | 3-Nitrotoluene | 4-Amino-2,6-DNT | 4-Nitrotoluene | HMX |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg |
| B11B-HA1-1-000 | HA01 | 5/2/94 | 0.5 | ASC | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| B11B-HA1-1-005 | HA01 | 5/2/94 | 5 | ASC | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| B11B-CPS1-1-007 | CPS01 | 5/22/94 | 7 | ASC | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Analyses | | | | | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Detections | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Minimum Concentration | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Maximum Concentration | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| HWAD - PCG | | | | | 233 | 2.6 | 80 | NE | 800 | 800 | NE | 800 | 4000 |
| HWAD - PCG Hits | | | | | 0 | 0 | 0 | NE | 0 | 0 | NE | 0 | 0 |

Notes:
NE = not established
Zero values listed for maximum and minimum concentrations indicate a nondetect for that analyte.

Explosives
Method 8330 (ASC)

| Sample ID | Location ID | Sample Date | Depth (feet) | Lab | m-Dinitrobenzene | Nitrobenzene | RDX | sym-Trinitrobenzene | Tetryl |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg |
| B11B-HA1-1-000 | HA01 | 5/2/94 | 0.5 | ASC | <1 | <1 | <1 | <1 | <1 |
| B11B-HA1-1-005 | HA01 | 5/2/94 | 5 | ASC | <1 | <1 | <1 | <1 | <1 |
| B11B-CPS1-1-007 | CPS01 | 5/22/94 | 7 | ASC | <1 | <1 | <1 | <1 | <1 |
| Analyses | | | | | 3 | 3 | 3 | 3 | 3 |
| Detections | | | | | 0 | 0 | 0 | 0 | 0 |
| Minimum Concentration | | | | | 0 | 0 | 0 | 0 | 0 |
| Maximum Concentration | | | | | 0 | 0 | 0 | 0 | 0 |
| HWAD - PCG | | | | | 8 | 40 | 64 | 4 | 800 |
| HWAD - PCG Hits | | | | | 0 | 0 | 0 | 0 | 0 |

Notes:
NE = not established
Zero values listed for maximum and minimum concentrations indicate a nondetect for that analyte.

Picric Acid
Method 8330M (ASC)

| Sample ID | Location ID | Sample Date | Depth (feet) | Lab | Picric Acid |
|---|---|---|---|---|---|
| | | | | | mg/kg |
| B11B-HA1-1-000 | HA01 | 5/2/94 | 0.5 | ASC | 0.85 |
| B11B-HA1-1-005 | HA01 | 5/2/94 | 5 | ASC | <0.25 |
| B11B-CPS1-1-007 | CPS01 | 5/22/94 | 7 | ASC | <0.25 |

| | |
|---|---|
| Analyses | 3 |
| Detections | 1 |
| Minimum Concentration | 0.85 |
| Maximum Concentration | 0.85 |
| HWAD - PCG | NE |
| HWAD - PCG Hits | NE |

Note:
NE = Not established

# Appendix D

Applied P & Ch Laboratory
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# APCL Analytical Report

| Component Analyzed | Method | Unit | PQL | Analysis Result CS11-BB-01 99-02449-9 | CS11-SA-01 99-02449-10 | CS11-SA-02 99-02449-11 | CS11-SA-03 99-02449-12 |
|---|---|---|---|---|---|---|---|
| MOISTURE | ASTM-D2216 | %Moisture | 0.5 | 2.3 | 2.3 | 2.0 | 1.2 |
| NITROAROMATICS AND NITROAMINES [a] | | | | | | | |
| Dilution Factor | | | | 1 | 1 | 1 | 1 |
| 4-AMINO-2,6-DINITROTOLUENE | 8330 | mg/kg | 0.2 | <0.20 | <0.20 | <0.20 | <0.20 |
| 2-AMINO-4,6-DINITROTOLUENE | 8330 | mg/kg | 0.2 | <0.20 | <0.20 | <0.20 | <0.20 |
| 1,3-DINITROBENZENE | 8330 | mg/kg | 0.25 | <0.26 | <0.26 | <0.26 | <0.25 |
| 2,4-DINITROTOLUENE | 8330 | mg/kg | 0.25 | <0.26 | <0.26 | <0.26 | <0.25 |
| 2,6-DINITROTOLUENE | 8330 | mg/kg | 0.25 | <0.26 | <0.26 | <0.26 | <0.25 |
| HMX | 8330 | mg/kg | 0.25 | <0.26 | 0.79 | 0.08J | <0.25 |
| NITROBENZENE | 8330 | mg/kg | 0.25 | <0.26 | <0.26 | <0.26 | <0.25 |
| 3-NITROTOLUENE | 8330 | mg/kg | 0.25 | <0.26 | <0.26 | <0.26 | <0.25 |
| RDX | 8330 | mg/kg | 0.25 | <0.26 | 1.9 | 0.2J | <0.25 |
| TETRYL | 8330 | mg/kg | 0.25 | <0.26 | <0.26 | <0.26 | <0.25 |
| 1,3,5-TRINITROBENZENE | 8330 | mg/kg | 0.25 | <0.26 | <0.26 | <0.26 | <0.25 |
| 2,4,6-TRINITROTOLUENE | 8330 | mg/kg | 0.25 | <0.26 | <0.26 | <0.26 | <0.25 |
| 2/4-NITROTOLUENE. | 8330 | mg/kg | 0.25 | <0.26 | <0.26 | <0.26 | <0.25 |

| Component Analyzed | Method | Unit | PQL | Analysis Result CS11-SA-04 99-02449-13 | CS11-SW-01 99-02449-14 | CS11-SW-02 99-02449-15 | CS11-SW-03 99-02449-16 |
|---|---|---|---|---|---|---|---|
| MOISTURE | ASTM-D2216 | %Moisture | 0.5 | 1.4 | 0.9 | 1.2 | 2.1 |
| NITROAROMATICS AND NITROAMINES [a] | | | | | | | |
| Dilution Factor | | | | 1 | 1 | 1 | 1 |
| 4-AMINO-2,6-DINITROTOLUENE | 8330 | mg/kg | 0.2 | <0.20 | <0.20 | <0.20 | <0.20 |
| 2-AMINO-4,6-DINITROTOLUENE | 8330 | mg/kg | 0.2 | <0.20 | <0.20 | <0.20 | <0.20 |
| 1,3-DINITROBENZENE | 8330 | mg/kg | 0.25 | <0.25 | <0.25 | <0.25 | <0.26 |
| 2,4-DINITROTOLUENE | 8330 | mg/kg | 0.25 | <0.25 | <0.25 | <0.25 | <0.26 |
| 2,6-DINITROTOLUENE | 8330 | mg/kg | 0.25 | <0.25 | <0.25 | <0.25 | <0.26 |
| HMX | 8330 | mg/kg | 0.25 | 0.1J | <0.25 | <0.25 | <0.26 |
| NITROBENZENE | 8330 | mg/kg | 0.25 | <0.25 | <0.25 | <0.25 | <0.26 |
| 3-NITROTOLUENE | 8330 | mg/kg | 0.25 | <0.25 | <0.25 | <0.25 | <0.26 |
| RDX | 8330 | mg/kg | 0.25 | <0.25 | <0.25 | 0.2J | <0.26 |
| TETRYL | 8330 | mg/kg | 0.25 | <0.25 | <0.25 | <0.25 | <0.26 |
| 1,3,5-TRINITROBENZENE | 8330 | mg/kg | 0.25 | <0.25 | <0.25 | <0.25 | <0.26 |
| 2,4,6-TRINITROTOLUENE | 8330 | mg/kg | 0.25 | <0.25 | <0.25 | <0.25 | <0.26 |
| 2/4-NITROTOLUENE | 8330 | mg/kg | 0.25 | <0.25 | <0.25 | <0.25 | <0.26 |

| Component Analyzed | Method | Unit | PQL | Analysis Result CS11-SW-04 99-02449-17 | CS30-BB-01 99-02449-18 | CS30-BB-02 99-02449-19 | CS30-BB-03 99-02449-20 |
|---|---|---|---|---|---|---|---|
| MOISTURE | ASTM-D2216 | %Moisture | 0.5 | 2.2 | 3.0 | 4.9 | 2.4 |

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# APCL Analytical Report

| Component Analyzed | Method | Unit | PQL | Analysis Result CS11-SW-04 99-02449-17 | CS30-BB-01 99-02449-18 | CS30-BB-02 99-02449-19 | CS30-BB-03 99-02449-20 |
|---|---|---|---|---|---|---|---|
| **NITROAROMATICS AND NITROAMINES** | | | | | | | |
| Dilution Factor | | | | 1 | 1 | 1 | 1 |
| 4-AMINO-2,6-DINITROTOLUENE | 8330 | mg/kg | 0.2 | <0.20 | <0.21 | <0.21 | <0.21 |
| 2-AMINO-4,6-DINITROTOLUENE | 8330 | mg/kg | 0.2 | <0.20 | <0.21 | <0.21 | <0.21 |
| 1,3-DINITROBENZENE | 8330 | mg/kg | 0.25 | <0.26 | <0.26 | <0.26 | <0.26 |
| 2,4-DINITROTOLUENE | 8330 | mg/kg | 0.25 | <0.26 | <0.26 | <0.26 | <0.26 |
| 2,6-DINITROTOLUENE | 8330 | mg/kg | 0.25 | <0.26 | <0.26 | <0.26 | <0.26 |
| HMX | 8330 | mg/kg | 0.25 | <0.26 | <0.26 | <0.26 | <0.26 |
| NITROBENZENE | 8330 | mg/kg | 0.25 | <0.26 | <0.26 | <0.26 | <0.26 |
| 3-NITROTOLUENE | 8330 | mg/kg | 0.25 | <0.26 | <0.26 | <0.26 | <0.26 |
| RDX | 8330 | mg/kg | 0.25 | <0.26 | <0.26 | <0.26 | <0.26 |
| TETRYL | 8330 | mg/kg | 0.25 | <0.26 | <0.26 | <0.26 | <0.26 |
| 1,3,5-TRINITROBENZENE | 8330 | mg/kg | 0.25 | <0.26 | <0.26 | <0.26 | <0.26 |
| 2,4,6-TRINITROTOLUENE | 8330 | mg/kg | 0.25 | <0.26 | <0.26 | <0.26 | <0.26 |
| 2/4-NITROTOLUENE | 8330 | mg/kg | 0.25 | <0.26 | <0.26 | <0.26 | <0.26 |

| Component Analyzed | Method | Unit | PQL | Analysis Result CS30-SA-01 99-02449-21 | CS30-SA-02 99-02449-22 | CS30-SW-01 99-02449-23 |
|---|---|---|---|---|---|---|
| **MOISTURE** | ASTM-D2216 | %Moisture | 0.5 | 2.5 | 2.3 | 3.1 |
| **NITROAROMATICS AND NITROAMINES** | | | | | | |
| Dilution Factor | | | | 1 | 1 | 1 |
| 4-AMINO-2,6-DINITROTOLUENE | 8330 | mg/kg | 0.2 | <0.21 | <0.20 | <0.21 |
| 2-AMINO-4,6-DINITROTOLUENE | 8330 | mg/kg | 0.2 | <0.21 | <0.20 | <0.21 |
| 1,3 DINITROBENZENE | 8330 | mg/kg | 0.25 | <0.26 | <0.26 | <0.26 |
| 2,4-DINITROTOLUENE | 8330 | mg/kg | 0.25 | <0.26 | <0.26 | <0.26 |
| 2,6-DINITROTOLUENE | 8330 | mg/kg | 0.25 | <0.26 | <0.26 | <0.26 |
| HMX | 8330 | mg/kg | 0.25 | <0.26 | <0.26 | <0.26 |
| NITROBENZENE | 8330 | mg/kg | 0.25 | <0.26 | <0.26 | <0.26 |
| 3-NITROTOLUENE | 8330 | mg/kg | 0.25 | <0.26 | <0.26 | <0.26 |
| RDX | 8330 | mg/kg | 0.25 | <0.26 | <0.26 | <0.26 |
| TETRYL | 8330 | mg/kg | 0.25 | <0.26 | <0.26 | <0.26 |
| 1,3,5-TRINITROBENZENE | 8330 | mg/kg | 0.25 | <0.26 | <0.26 | <0.26 |
| 2,4,6-TRINITROTOLUENE | 8330 | mg/kg | 0.25 | <0.26 | <0.26 | <0.26 |
| 2/4-NITROTOLUENE | 8330 | mg/kg | 0.25 | <0.26 | <0.26 | <0.26 |

| Component Analyzed | Method | Unit | PQL | Analysis Result CS30-SW-02 99-02449-24 | CS30-SW-03 99-02449-25 | CS30-SW-04 99-02449-26 |
|---|---|---|---|---|---|---|
| **MOISTURE** | ASTM-D2216 | %Moisture | 0.5 | 6.6 | 2.9 | 2.8 |

# Appendix E

B11b, Facing southwest toward impoundment. #R7-N18, 9/29/94

B11b, View into pit.

SWMU B-11b September 1999