Decision Document

Solid Waste Management Units J23
Trench Dusty Acres Area
Hawthorne Army Depot
Hawthorne, Nevada

February 2000

Hawthorne Army
Depot

Decision Document SWMU J-23

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ENVIRONMENTAL PROTECTION

February 2000

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

29 FEB 2000

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

State of Nevada

22 MARCH 2000

Paul Liebendorfer
Chief, Bureau of Federal Facilities

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Decision Document
SWMU J-23,
Trench Dusty Acres Area
HAWTHORNE ARMY DEPOT
HAWTHORNE, NEVADA

1.0 Introduction:

This decision document describes the rationale for the proposed closure of SWMU J-23, the Trench Dusty Acres Area, at the Hawthorne Army Depot (HWAD), Hawthorne, Nevada. This document is prepared by the U.S. Army Corps of Engineers, Sacramento District, with the help of HWAD for the Nevada Department of Environmental Protection (NDEP).

Tetra Tech, Inc. (Tt), was 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 1993 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 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 A). 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 J23 is in HWAD's central magazine area, approximately 2,880 feet southeast of the intersection of Thorne Road and Mine Road (Figure 1-1). A 1980 aerial photograph shows a 250-foot long trench oriented east-west at this SWMU. The trench was at the northern edge of a 400 square foot area of disturbed soil displaying bulldozer scars

The USACE, HWAD, and the NDEP agreed to define the boundaries of each SWMU using annotated monuments and survey pins. As part of Tt's 1997 field investigation, a survey monument was constructed and surveyed at SWMU J23. A brass survey pin on the monument designates the monument number HWAAP-49-1996 and the SWMU

number J23. Two 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. The survey data for SWMU J23 is presented in Appendix B.

3.0 Site Conditions

SWMU J23 was observed to be level with sparse vegetation, indicating disturbed soil, but no depressions were observed indicating a former disposal trench. Soils encountered during Tt's investigations included silty sand and gravelly sand to a depth of 40 feet bgs The ground water beneath SWMU J23 is estimated to be at a depth of approximately 120 feet bgs.

The historical aerial photographs of this SWMU indicate that debris was buried in a trench. Also, the area around the SWMU appeared to have disturbed soil over about 400 square feet where debris may have been buried. No specific evidence of any releases of target analytes was observed during RAI's and Tt's site inspections, and no documentary evidence of duration of use or construction of the trench has been identified.

4.0 INVESTIGATIONS

Tt's field screening activities during its 1994 and 1997 remedial investigations included geophysical surveys, a soil gas survey, headspace soil sample screening for VOCs in the subsurface soil samples, and petroleum hydrocarbon screening, including screening for BTEX constituents. the geophysical surveys included a vertical magnetic gradient (MAG) survey, an electromagnetic terrain conductivity (EMAG) survey, and a surface ground penetrating radar (SGPR) survey. The MAG and EMAG surveys were conducted simultaneously over an 11.5-acre, 20-foot by 20-foot grid and are referred to in this report together as a magnetometry survey. The SGPR survey was conducted over the same area but was located by a series of traversed lines 20 feet apart. Sampling activities for the remedial investigation at SWMU J23 included collecting and analyzing surface, near-surface, and subsurface soil samples. Six Surface, near-surface, and subsurface soil samples collected in 1994 were analyzed for metals, TPH, and VOCs; 18 subsurface soil samples collected in 1997 were analyzed for metals, TPH, and VOCs. Figure 3-1 illustrates the sampling locations. . Four test pits (TP01 through TP04), one 25-foot long by ten-foot deep trench (TR01), and two 25-foot long by five-foot deep trenches (TR02 and TR03) were excavated at SWMU J23.

5.0 Investigation Results

All four of the test pits were excavated within the boundaries of different types of geophysical anomalies. None of these test pits contained any identifiable debris, indicating no disposal activities at the anomalies.

The one surface soil sample collected to assess if target analytes had migrated off-site contained barium (200 mg/kg), total chromium (5.2 mg/kg), lead (22 mg/kg), and mercury (0.1 mg/kg). The ten near-surface soil samples, including two split duplicate samples that were collected from hand-auger borings at SWMU J23, contained arsenic (<4 mg/kg to 8.9 mg/kg), barium (52 mg/kg to 100 mg/kg), total chromium (4.8 mg/kg to 12 mg/kg), and lead (5.7 mg/kg to 10 mg/kg). Barium, total chromium, and lead were found in all 10 of these near-surface soil samples, and arsenic was found in seven of these near-surface soil samples. No other metals were found in these 11 surface/near-surface soil samples collected at SWMU J23.

During Tt's 1994 remedial investigation, the soil samples J23-DP166 and J23-DP161, which were split duplicate samples of J23-HA03-1-S and J23-HA04-2-S, respectively, contained the VOCs dibromomethane (0.0007 mg/kg to 0.0008 mg/kg) and methylene chloride (0.0041 mg/kg to 0.0056 mg/kg). No other VOCs were found in these two of the 11 surface/near-surface soil samples that were analyzed for VOCs. No petroleum hydrocarbons were detected in any of the 11 surface/near-surface soil samples collected from SWMU J23.

These eight subsurface soil samples, including two collocated duplicate samples, contained barium (71 mg/kg to 170 mg/kg), cadmium (<0.2 mg/kg to 0.46 mg/kg), total chromium (4.4 mg/kg to 8.7 mg/kg), and lead (6.3 mg/kg to 13 mg/kg). Barium, total chromium, and lead were found in all eight of these subsurface soil samples, and cadmium was found in five of these eight subsurface soil samples. No other metals were found in these subsurface soil samples collected from soil borings at SWMU J23. No petroleum hydrocarbons or VOCs were detected in any of the eight subsurface soil samples collected from soil borings at SWMU J23.

The 18 subsurface soil samples, including two collocated duplicate samples, contained aluminum (3,610 mg/kg to 8,460 mg/kg), arsenic (2.6 mg/kg to 11.5 mg/kg), barium (47.8 mg/kg to 185 mg/kg), cadmium (<0.02 mg/kg to 0.22 mg/kg), total chromium (1.9 mg/kg to 5.3 mg/kg), lead (3.2 mg/kg to 56.2 mg/kg), mercury (<0.069 mg/kg to 0.26 mg/kg), and silver (<0.07 mg/kg to 0.93 mg/kg).

While some metals had elevated concentrations none were in excess of PCG's. Appendix C shows the analitical data from the sampling events. In addition there appears to be nothing in the SWMU that would have impacted the ground water beneath it.

6.0 Remediation

No remediation action was required for this site.

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 shall continue to solicit community involvement, and will establish a RAB should sufficient community interest be obtained.

9.0 Conclusions

There is no evidence of any of the chemicals of concern at SWMU J23. SWMU J23 should be closed without restrictions and returned to the base site master plan.

10.0 REFERENCES

EMSL. 1980. Aerial photographs of HWAAP, with overlays showing site locations identified by Art Gravenstein, NDEP.

NDEP. December 1998. Letter to HWAD. Draft Remedial Investigation reports, Solid Waste Management Units J02, J16, J25.

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

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_____. 1994a. Hawthorne Army Ammunition Plant - Group B Remedial Investigation: Final Site Safety and Health Plan.

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_____. 1997a. Final Quarterly Ground Water Monitoring Report, First Quarter 1997, Hawthorne Army Depot, Hawthorne, Nevada. September 1997.

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

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_____. 1997d. 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.

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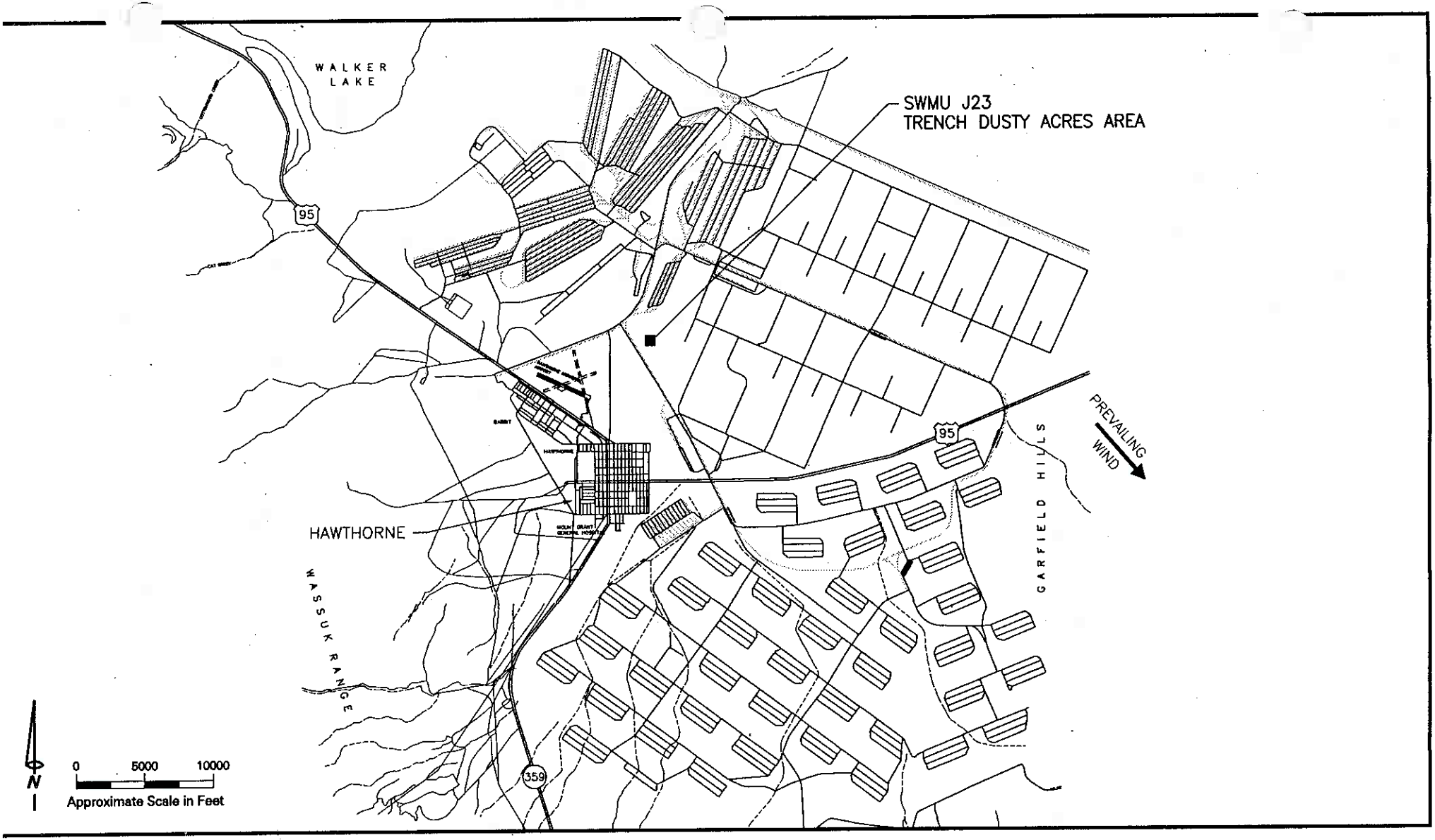
USEPA. 1989. Risk Assessment Guidance for Superfund. Volume I Human Health Evaluation Manual (Part A). USEPA. December 1989.

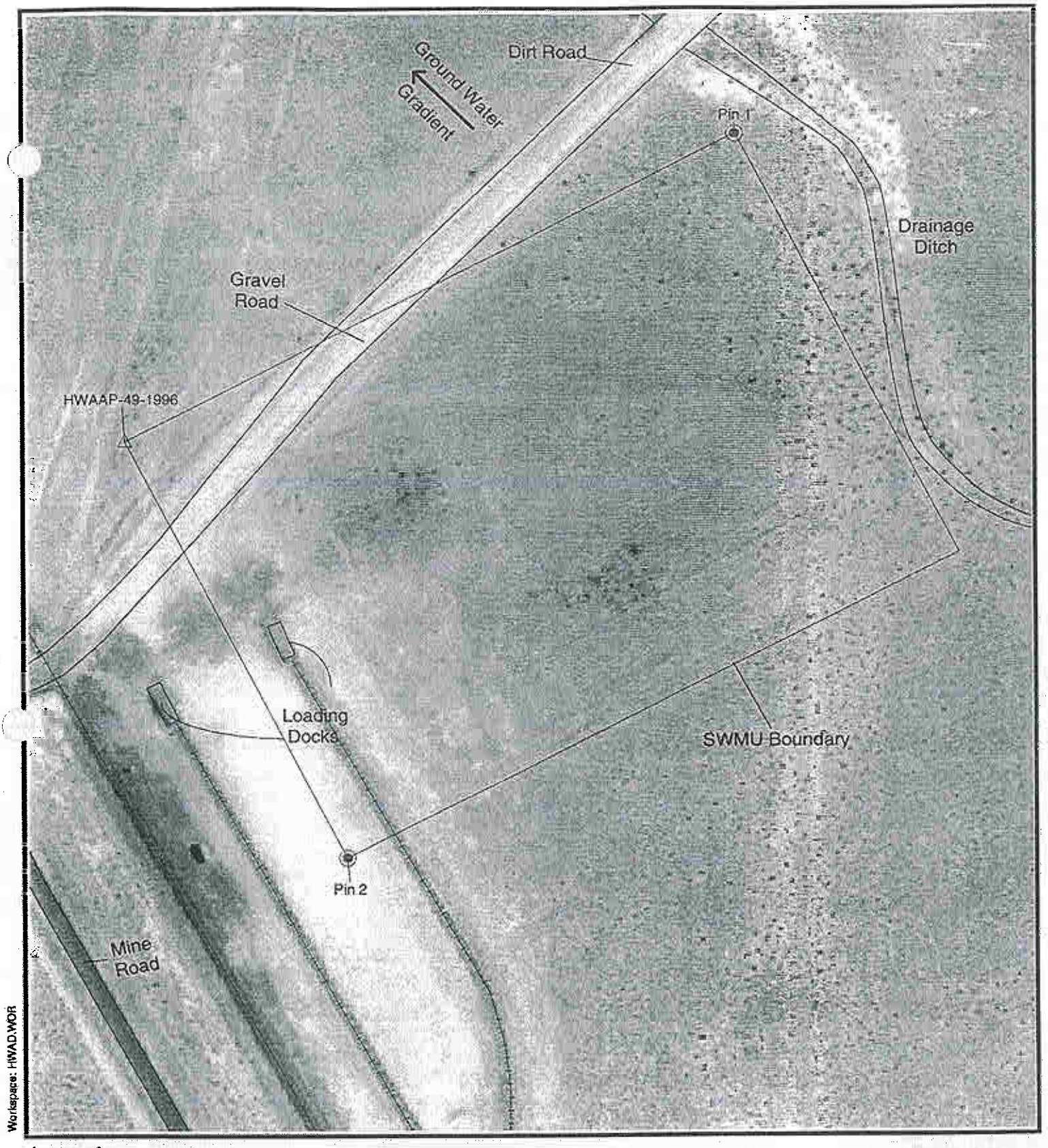
_____. 1996. Region IX Preliminary Remediation Goals. USEPA Region IX. August 1996.



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

Site Location Map
SWMU J23
Trench Dusty Acres Area
Hawthorne Army Depot
Hawthorne, Nevada
Figure 1-1

Tetra Tech, Inc.



Workspace: HWAD.WOR

Legend:

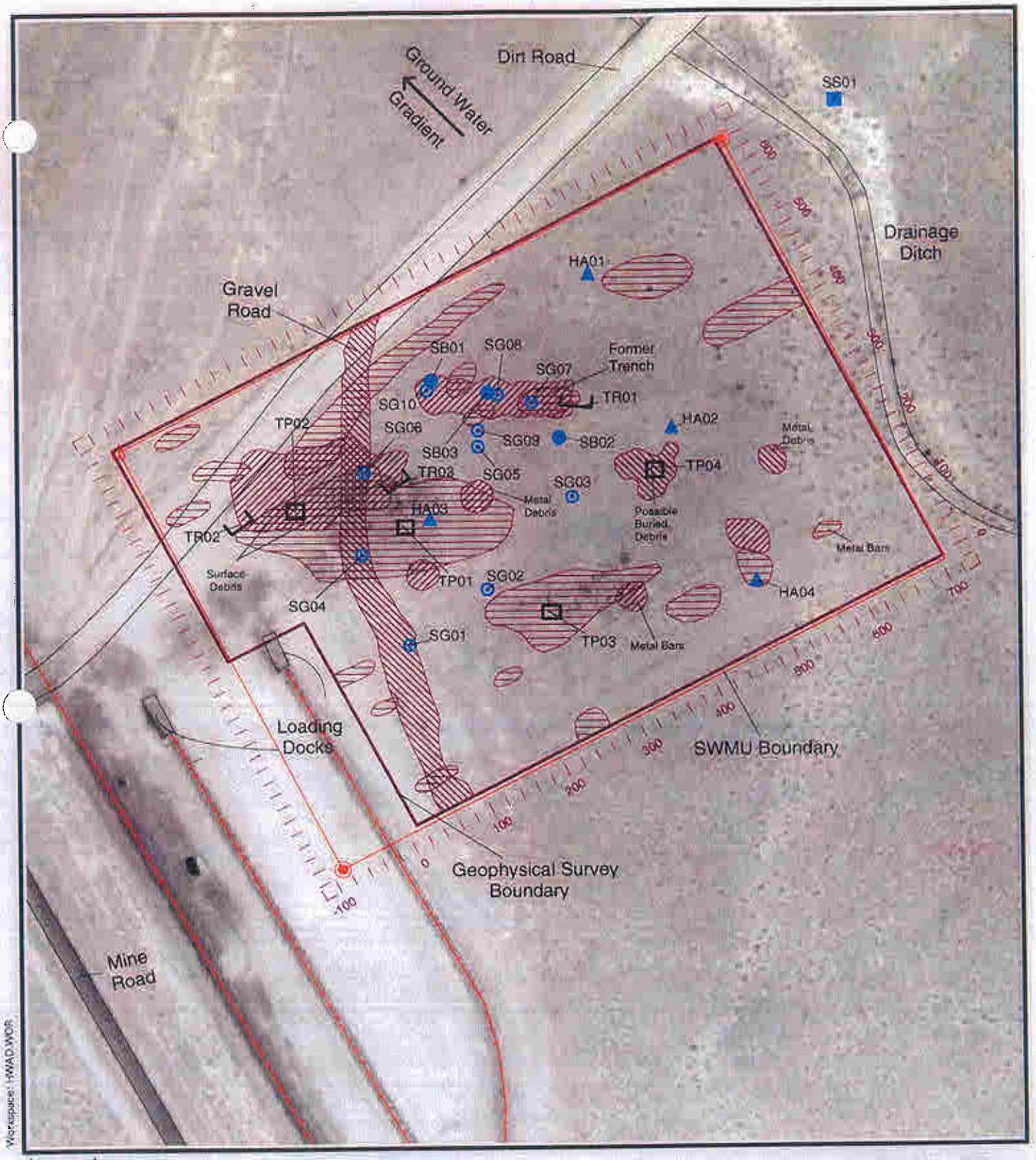
- Boundary Corner Pin
- Railroad
- SWMU Monument

N

0 80 160
Approximate Scale in: feet

Tetra Tech, Inc.

Site Map
SWMU J23
Trench Dusty Acres Area
Hawthorne Army Depot
Hawthorne, Nevada
Figure 1-2



Legend:

- SWMU Monument
- MAG Anomaly
- Boundary Corner Pin
- EMAG Anomaly
- Soil Gas Location
- Surface Soil Sample
- Hand Auger Location
- Soil Boring Location
- Railroad
- SGPR Anomaly
- Test Pit
- Trench Location

N

0 80 160

Approximate Scale in feet

Investigation Activity Map
SWMU J23
Trench Dusty Acres Area

Hawthorne Army Depot
Hawthorne, Nevada

Figure 3-1

Tetra Tech, Inc.

Appendix A

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 B

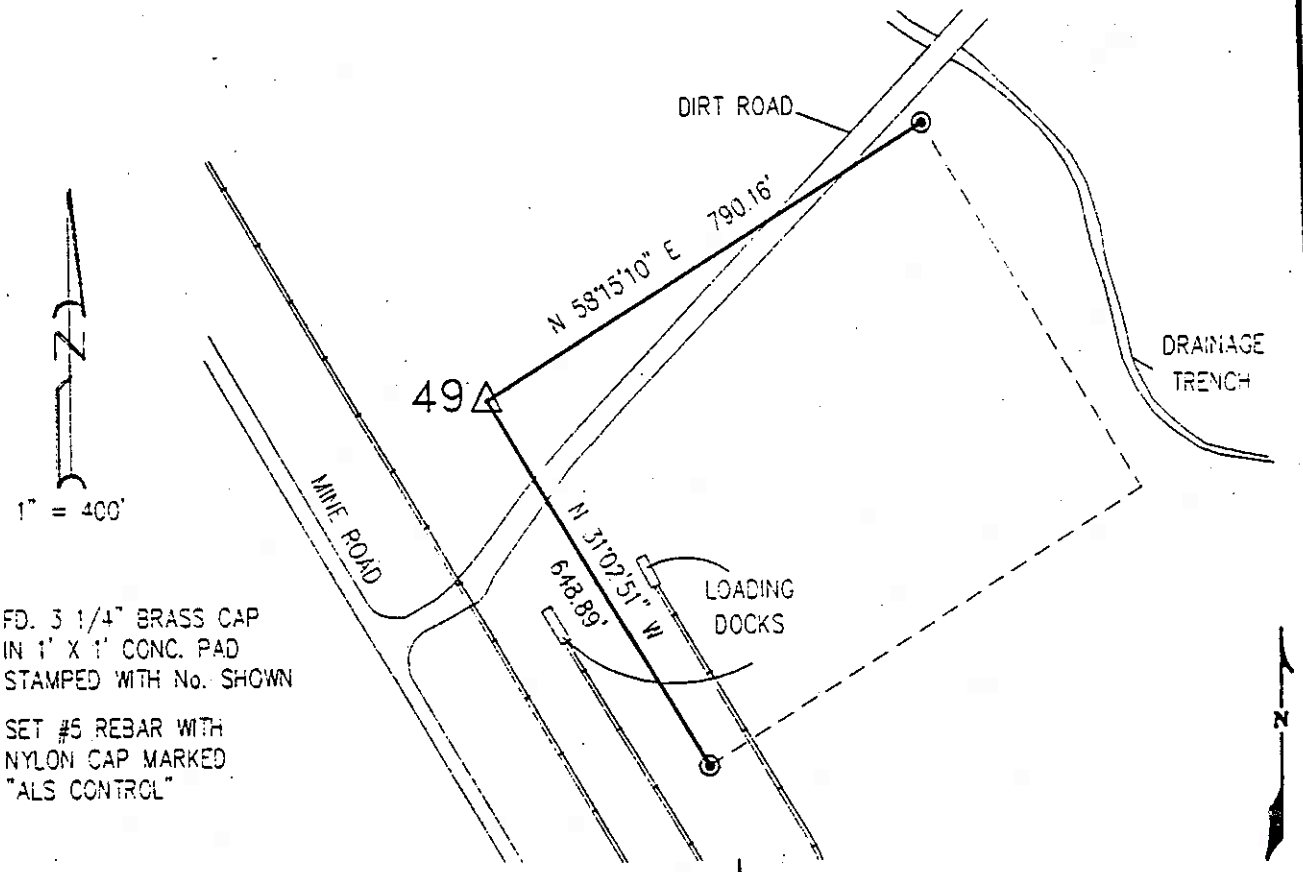
COUNTRY	TYPE OF MARK	STATION	
USA	BRASS CAP	49	
LOCALITY	STAMPING ON MARK	AGENCY (CAST IN MARKS)	ELEVATION (FT) (M)
HAWTHORNE NEV.	49 J-23	COE HWAAP	4174.72
LATITUDE	LONGITUDE	DATUM	DATUM
38°33'12.76932" N	118°37'00.84934" W	NAD '27	NGVD '29
(NORTHING)(EASTING) (FT) (M)	(EASTING)(NORTHING) (FT) (M)	GRID AND ZONE	ESTABLISHED BY (AGENCY)
1384618.37	490400.44	NEVADA SP WEST	A.L.S.
(NORTHING)(EASTING) (FT) (M)	(EASTING)(NORTHING) (FT) (M)	GRID AND ZONE	DATE / ORDER
			1997 / 2ND

TO OBTAIN GRID AZIMUTH, ADD ° ' " TO THE GEODETIC AZIMUTH

TO OBTAIN GRID AZ. (ADD)(SUB.) ° ' " TO THE GEODETIC AZIMUTH

OBJECT	AZIMUTH OR DIRECTION (GEODETIC)(GRID) (MAGNETIC)	BACK AZIMUTH	GEOD DISTANCE (METERS) (FEET)	GRID DISTANCE (METERS) (FEET)
	° ' "	° ' "		

MONUMENT 49 - SWMU J-23
FROM HIGHWAY 95 TAKE THORNE ROAD NORTHEAST 1.7 MILES TO MINE ROAD, THEN SOUTHEAST ON MINE ROAD 1800 FEET, THEN NORTHEAST ON A DIRT ROAD 300 FEET - LOADING DOCKS VISIBLE TO SOUTH. SEE MAP BELOW. MONUMENT IS A 3 1/4" BRASS CAP SET IN A 1' X 1' CONCRETE PAD AND IS MARKED WITH A 4" X 4" X 6' WOOD POST, PAINTED WHITE.



SKETCH

DA FORM 1 OCT 64 1959 REPLACES DA FORMS 1959 AND 1960, 1 FEB 57, WHICH ARE OBSOLETE.

DESCRIPTION OR RECOVERY OF HORIZONTAL CONTROL STATION
For use of this form, see TM 5-237; the proponent agency is TRADOC.

SWMU J23 Survey Data
Hawthotne Army Depot
Hawthorne, Nevada

SWMU	Point ID	Northing (feet)	Easting (feet)	Elevation
J23	HA01	1384855.62	490933.77	NE
J23	HA02	1384651.94	491059.22	NE
J23	HA03	1384529.07	490783.70	NE
J23	HA04	1384448.25	491184.67	NE
J23	SB01	1384713.74	490762.69	NE
J23	SB02	1384639.18	490925.68	NE
J23	SB03	1384698.46	490831.86	NE
J23	SG01	1384361.93	490779.64	NE
J23	SG02	1384436.72	490863.07	NE
J23	SG03	1384560.83	490950.52	NE
J23	SG04	1384481.85	490708.26	NE
J23	SG05	1384626.47	490829.02	NE
J23	SG07	1384685.54	490886.91	NE
J23	SG08	1384695.63	490844.08	NE
J23	SG09	1384648.28	490826.42	NE
J23	SG10	1384700.57	490759.26	NE
J23	SG16	1384592.08	490697.15	NE
J23	SS01	1385086.07	491201.17	NE
J23	TP01	1384510.69	490748.04	NE
J23		1384527.72	490764.10	NE
J23	TP02	1384531.26	490612.85	NE
J23		1384549.85	490630.55	NE
J23	TP03	1384398.31	490934.73	NE
J23		1384415.77	490953.94	NE
J23	TP04	1384587.13	491036.74	NE
J23		1384606.64	491053.43	NE
J23	TR01	1384678.82	490920.35	NE
J23		1384695.01	490959.33	NE
J23	TR02	1384509.55	490538.82	NE
J23		1384540.41	490571.39	NE
J23	TR03	1384565.22	490720.47	NE
J23		1384596.09	490753.04	NE
J23	HWAAP-49-1996	1384618.37	490400.44	4174.72
J23	Pin 1	1385033.81	491072.20	NE
J23	Pin 2	1384062.44	490735.10	NE

Notes:
NE = Not established.
Coordinate data based on electronic map file using the NAD 1927 datum.
Elevation data based on surveyors map using NGVD 1929 datum.

Appendix C

TPH Test Kit
MEthod 4030 (Tt Field)

Sample ID	Location ID	Sample Date	Depth (feet)	Lab	TPH-d mg/kg	TPH-d (Rerun) mg/kg	TPH-d-Dup mg/kg
J23-TP01-1-S	TP01	2/28/97	5	Tt Field	100<X<500	NA	NA
J23-TP01-2-S	TP01	2/28/97	5	Tt Field	100<X<500	NA	NA
J23-TP01-3-S	TP01	2/28/97	5	Tt Field	100<X<500	NA	0<X<20
J23-TP02-1-S	TP02	2/28/97	5	Tt Field	100<X<500	NA	NA
J23-TP02-2-S	TP02	2/28/97	5	Tt Field	100<X<500	NA	NA
J23-TP03-1-S	TP03	2/28/97	5	Tt Field	100<X<500	NA	NA
J23-TP03-2-S	TP03	2/28/97	5	Tt Field	NA	NA	NA
J23-TP04-1-S	TP04	2/28/97	5	Tt Field	100<X<500	NA	NA
J23-TP04-2-S	TP04	2/28/97	5	Tt Field	100<X<500	NA	NA
J23-TR01-1-S	TR01	2/28/97	4	Tt Field	100<X<500	NA	NA
J23-TR01-2-S	TR01	2/28/97	5	Tt Field	100<X<500	NA	NA
J23-TR01-3-S	TR01	2/28/97	10	Tt Field	100<X<500	NA	NA
J23-TR01-4-S	TR01	2/28/97	5	Tt Field	100<X<500	NA	NA
J23-TR01-5-S	TR01	2/28/97	10	Tt Field	100<X<500	NA	NA
J23-TR02-1-S	TR02	2/28/97	5	Tt Field	100<X<500	NA	NA
J23-TR02-2-S	TR02	2/28/97	4	Tt Field	100<X<500	NA	NA
J23-TR03-1-S	TR03	2/28/97	5	Tt Field	100<X<500	NA	NA
J23-TR03-2-S	TR03	2/28/97	5	Tt Field	100<X<500	0<X<20	NA
Analyses					17	1	1
Detections					0	0	0
Minimum Concentration					0	0	0
Maximum Concentration					0	0	0
HWAD - PCG					NE	NE	NE
HWAD - PCG Hits					NE	NE	NE

Notes:
NA = Not analyzed.
NE = Not established.

BTEX Test Kit
Method 4031 (Tt Field)

Sample ID	Location ID	Sample Date	Depth (feet)	Lab	BTEX mg/kg
J23-DP159	HA04	7/29/94	5	Tt Field	X<2
J23-DP163	HA03	7/29/94	2	Tt Field	X<2
J23-HA01-1-S	HA01	7/28/94	2	Tt Field	X<2
J23-HA01-2-S	HA01	7/28/94	5	Tt Field	X<2
J23-HA02-1-S	HA02	7/28/94	2	Tt Field	X<2
J23-HA02-2-S	HA02	7/28/94	5	Tt Field	X<2
J23-HA03-1-S	HA03	7/29/94	2	Tt Field	X<2
J23-HA03-2-S	HA03	7/29/94	5	Tt Field	X<2
J23-HA04-1-S	HA04	7/29/94	2	Tt Field	X<2
J23-HA04-2-S	HA04	7/29/94	5	Tt Field	2<X<10
J23-SS01-1-S	SS01	7/13/94	0	Tt Field	X<2

Analyses	11
Detections	0
Minimum Concentration	0
Maximum Concentration	0
HWAD - PCG	NE
HWAD - PCG Hits	NE

Notes:
NA = Not analyzed.
NE = Not established.

Metals
Method 6010 (BCA)

Sample ID	Location ID	Sample Date	Depth (feet)	Lab	Aluminum	Arsenic	Barium	Cadmium	Selenium	Silver	Chromium	Lead
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
J23-DP158	HA04	7/29/94	5	BCA	NA	4.8 J	69	1.1 U	<5	<0.9	8.4	10 J
J23-DP164	HA03	7/29/94	2	BCA	NA	8.9 J	100	1 U	<5	<0.9	12	10 J
J23-DP237	SB02	8/19/94	13.25	BCA	NA	<4	170	<0.2	<5	<1	8	11 J
J23-DP242	SB03	8/19/94	13.25	BCA	NA	<4	73	0.31 J	<5	<0.9	5.8	13 J
J23-HA01-1-S	HA01	7/28/94	2	BCA	NA	<4	54	1.2 U	<5	<0.9	4.8 J	6.6 J
J23-HA01-2-S	HA01	7/28/94	5	BCA	NA	4.2 J	66	1.2 U	<5	<0.9	8.2	7.9 J
J23-HA02-1-S	HA02	7/28/94	2	BCA	NA	<4	87	1 U	<5	<0.9	4.8 J	5.7 J
J23-HA02-2-S	HA02	7/28/94	5	BCA	NA	<4	52	0.91 U	<5	<0.9	4.9 J	5.8 J
J23-HA03-1-S	HA03	7/29/94	2	BCA	NA	8 J	100	1.1 U	<5	<0.9	8.7	9.4 J
J23-HA03-2-S	HA03	7/29/94	5	BCA	NA	4.1 J	71	0.93 U	<5	<0.9	7.6	7.5 J
J23-HA04-1-S	HA04	7/29/94	2	BCA	NA	5.8 J	75	1.2 U	<5	<0.9	8.6	9.7 J
J23-HA04-2-S	HA04	7/29/94	5	BCA	NA	4.3 J	67	0.99 U	<5	<0.9	7.6	10 J
J23-SB01-1-S	SB01	8/20/94	13.25	BCA	NA	<4	79	0.38 J	<5	<0.9	8.7	7.7 J
J23-SB01-2-S	SB01	8/20/94	17.25	BCA	NA	<4	79	0.46 J	<5	<0.9	7.7	7.2 J
J23-SB02-1-S	SB02	8/19/94	13.75	BCA	NA	<4	85	0.24 J	<5	<0.9	5.6	10 J
J23-SB02-2-S	SB02	8/19/94	16.75	BCA	NA	<4	84	NA	NA	<0.9	6.9	7.1 J
J23-SB03-1-S	SB03	8/19/94	13.75	BCA	NA	<4	87	0.41 J	<5	<0.9	4.4 J	8.6 J
J23-SB03-2-S	SB03	8/19/94	17.25	BCA	NA	<4	71	<0.2	<5	<0.9	6.2	6.3 J
J23-SS01-1-S	SS01	7/13/94	0	BCA	NA	<4	200	0.53 U	<5	<0.9	5.2	22 J
[illegible] ses					0	19	19	18	18	19	19	19
Detections					0	7	19	16	0	0	19	19
Minimum Concentration					0	4.1	52	0.24	0	0	4.4	5.7
Maximum Concentration					0	8.9	200	1.2	0	0	12	22
HWAD - PCG					80000	100	2000	20	20	100	20	100
HWAD - PCG Hits					0	0	0	0	0	0	0	0
Maximum Background Concentration					12365	18.1	447	1.08	0	0	13.76	16.7
Background Hits					0	0	0	5	0	0	0	1

Notes:
NA = Not analyzed.
NE = Not established.

etals
Method 6010A (APCL)

Sample ID	Location ID	Sample Date	Depth (feet)	Lab	Aluminum, Total	Arsenic, Total	Barium, Total	Beryllium, Total	Cadmium, Total	Chromium, Total	Lead, Total	Nickel, Total	Selenium, Total	Silver, Total
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
J23-TP01-1-S	TP01	2/28/97	5	APCL	6740	5.4	101	<0.018	<0.021	3.8	6.3	NA	<0.19	<0.072
J23-TP01-2-S	TP01	2/28/97	5	APCL	6690	5.3	93.3	<0.017	<0.021	4.3	6.3	NA	<0.19	<0.071
J23-TP01-3-S	TP01	2/28/97	5	APCL	5180	3.9	67	<0.017	<0.021	3.1	6.2	NA	<0.18	<0.071
J23-TP02-1-S	TP02	2/28/97	5	APCL	4600	3.2	61.3	<0.017	<0.02	2.7	4.3	NA	<0.18	<0.071
J23-TP02-2-S	TP02	2/28/97	5	APCL	5140	4.4	71.6	<0.017	<0.02	2.7	4.2	NA	<0.18	<0.071
J23-TP03-1-S	TP03	2/28/97	5	APCL	4760	4	71.5	<0.017	<0.02	3.1	4.1	NA	<0.18	<0.07
J23-TP03-2-S	TP03	2/28/97	5	APCL	4710	4.7	69.2	<0.017	<0.02	3.1	4.4	NA	<0.18	<0.071
J23-TP04-1-S	TP04	2/28/97	5	APCL	5870	8.9	47.8	<0.017	<0.021	3.9	5.3	NA	<0.19	<0.071
J23-TP04-2-S	TP04	2/28/97	5	APCL	6260	11.5	67.3	<0.018	<0.021	3.9	4.9	NA	<0.19	<0.071
J23-TR01-1-S	TR01	2/28/97	4	APCL	8460	4.2	185	<0.018	0.18 J	5.3	56.2	NA	<0.19	0.43 J
J23-TR01-2-S	TR01	2/28/97	5	APCL	6230	3.4	148	<0.017	0.22	4.3	46.5	NA	<0.18	0.93
J23-TR01-3-S	TR01	2/28/97	10	APCL	6540	4.4	111	<0.018	0.13 J	4.7	23.1	NA	<0.19	<0.072
J23-TR01-4-S	TR01	2/28/97	5	APCL	6440	5.8	108	<0.018	<0.021	3.8	22.8	NA	<0.19	<0.073
J23-TR01-5-S	TR01	2/28/97	10	APCL	4960	4.4	78.4	<0.018	<0.021	3.1	4.6	NA	<0.19	<0.071
J23-TR02-1-S	TR02	2/28/97	5	APCL	4360	4.6	54.5	<0.017	<0.021	3.3	5.5	NA	<0.18	<0.071
J23-TR02-2-S	TR02	2/28/97	4	APCL	3610	3.2	52.9	<0.017	<0.02	2.5	3.2	NA	<0.18	<0.07
J23-TR03-1-S	TR03	2/28/97	5	APCL	5880	3.8	65.1	<0.017	<0.021	3.8	5.2	NA	<0.18	<0.071
J23-TR03-2-S	TR03	2/28/97	5	APCL	3500	2.6	57.4	<0.017	<0.02	1.9	3.4	NA	<0.18	<0.07
Analyses					18	18	18	18	18	18	18	0	18	18
Detections					18	18	18	0	3	18	18	0	0	2
Minimum Concentration					3500	2.6	47.8	0	0.13	1.9	3.2	0	0	0.43
Maximum Concentration					8460	11.5	185	0	0.22	5.3	56.2	0	0	0.93
HWAD - PCG					80000	100	2000	1	20	20	100	NE	20	100
HWAD - PCG Hits					0	0	0	0	0	0	0	NE	0	0
Maximum Background Concentration					12365	18.1	447	0.58	1.08	13.76	16.7	0	0	0
Background Hits					0	0	0	0	0	0	4	0	0	0

Notes:
NA = Not analyzed.
NE = Not established.

Mercury
Method 7471 (BCA)

Sample ID	Location ID	Sample Date	Depth (feet)	Lab	Mercury mg/kg
J23-DP158	HA04	7/29/94	5	BCA	<0.04
J23-DP164	HA03	7/29/94	2	BCA	<0.04
J23-DP237	SB02	8/19/94	13.25	BCA	<0.04
J23-DP242	SB03	8/19/94	13.25	BCA	<0.04
J23-HA01-1-S	HA01	7/28/94	2	BCA	<0.04
J23-HA01-2-S	HA01	7/28/94	5	BCA	<0.04
J23-HA02-1-S	HA02	7/28/94	2	BCA	<0.04
J23-HA02-2-S	HA02	7/28/94	5	BCA	<0.04
J23-HA03-1-S	HA03	7/29/94	2	BCA	<0.04
J23-HA03-2-S	HA03	7/29/94	5	BCA	<0.04
J23-HA04-1-S	HA04	7/29/94	2	BCA	<0.04
J23-HA04-2-S	HA04	7/29/94	5	BCA	<0.04
J23-SB01-1-S	SB01	8/20/94	13.25	BCA	<0.04
J23-SB01-2-S	SB01	8/20/94	17.25	BCA	<0.04
J23-SB02-1-S	SB02	8/19/94	13.75	BCA	<0.04
J23-SB02-2-S	SB02	8/19/94	16.75	BCA	<0.04
J23-SB03-1-S	SB03	8/19/94	13.75	BCA	<0.04
J23-SB03-2-S	SB03	8/19/94	17.25	BCA	<0.04
J23-SS01-1-S	SS01	7/13/94	0	BCA	0.1

Analyses	19
Detections	1
Minimum Concentration	0.1
Maximum Concentration	0.1
HWAD - PCG	24
HWAD - PCG Hits	0
Maximum Background Concentration	0.108
Background Hits	0

Notes:
NA = Not analyzed.
NE = Not established.

Mercury
Method 7471A (APCL)

Sample ID	Location ID	Sample Date	Depth (feet)	Lab	Mercury, Total mg/kg
J23-TP01-1-S	TP01	2/28/97	5	APCL	<0.071
J23-TP01-2-S	TP01	2/28/97	5	APCL	<0.07
J23-TP01-3-S	TP01	2/28/97	5	APCL	<0.07
J23-TP02-1-S	TP02	2/28/97	5	APCL	<0.07
J23-TP02-2-S	TP02	2/28/97	5	APCL	<0.07
J23-TP03-1-S	TP03	2/28/97	5	APCL	<0.069
J23-TP03-2-S	TP03	2/28/97	5	APCL	<0.07
J23-TP04-1-S	TP04	2/28/97	5	APCL	<0.07
J23-TP04-2-S	TP04	2/28/97	5	APCL	<0.07
J23-TR01-1-S	TR01	2/28/97	4	APCL	0.26
J23-TR01-2-S	TR01	2/28/97	5	APCL	0.19 J
J23-TR01-3-S	TR01	2/28/97	10	APCL	<0.071
J23-TR01-4-S	TR01	2/28/97	5	APCL	<0.072
J23-TR01-5-S	TR01	2/28/97	10	APCL	<0.07
J23-TR02-1-S	TR02	2/28/97	5	APCL	<0.07
J23-TR02-2-S	TR02	2/28/97	4	APCL	<0.069
J23-TR03-1-S	TR03	2/28/97	5	APCL	<0.07
J23-TR03-2-S	TR03	2/28/97	5	APCL	<0.069

Analyses	18
Detections	2
Minimum Concentration	0.19
Maximum Concentration	0.26
HWAD - PCG	24
HWAD - PCG Hits	0
Maximum Background Concentration	0.108
Background Hits	2

Notes:

NA = Not analyzed.

NE = Not established.

TPH
Method 8015M (BCA Field)

Sample ID	Location ID	Sample Date	Depth (feet)	Lab	TPH (as diesel) mg/kg
J23-DP160	HA04	7/29/94	5	BCA Field	<0.2
J23-DP165	HA03	7/29/94	2	BCA Field	<0.2
J23-DP238	SB02	8/19/94	13.25	BCA Field	<0.2
J23-DP243	SB03	8/19/94	13.25	BCA Field	<0.2
J23-HA01-1-S	HA01	7/28/94	2	BCA Field	<0.2
J23-HA01-2-S	HA01	7/28/94	5	BCA Field	<0.2
J23-HA02-1-S	HA02	7/28/94	2	BCA Field	<0.2
J23-HA02-2-S	HA02	7/28/94	5	BCA Field	<0.2
J23-HA03-1-S	HA03	7/29/94	2	BCA Field	<0.2
J23-HA03-2-S	HA03	7/29/94	5	BCA Field	<0.2
J23-HA04-1-S	HA04	7/29/94	2	BCA Field	<0.2
J23-HA04-2-S	HA04	7/29/94	5	BCA Field	<0.2
J23-SB01-1-S	SB01	8/20/94	13.25	BCA Field	<0.2
J23-SB01-2-S	SB01	8/20/94	17.25	BCA Field	<0.2
J23-SB02-1-S	SB02	8/19/94	13.75	BCA Field	<0.2
J23-SB02-2-S	SB02	8/19/94	16.75	BCA Field	<0.2
J23-SB03-1-S	SB03	8/19/94	13.75	BCA Field	<0.2
J23-SB03-2-S	SB03	8/19/94	17.25	BCA Field	<0.2
J23-SS01-1-S	SS01	7/13/94	0	BCA Field	<0.8
Analyses					19
Detections					0
Minimum Concentration					0
Maximum Concentration					0
HWAD - PCG					100
HWAD - PCG Hits					0

Notes:
NA = Not analyzed.
NE = Not established.

TPH
Method 8015ME (APCL)

Sample ID	Location ID	Sample Date	Depth (feet)	Lab	C11-C22 (Diesel)	C23-C30 (Motor oil)	C31-C40 (Heavy oil)	C8-C10 (Gasoline)	Diesel Fuel
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
J23-TP02-1-S	TP02	2/28/97	5	APCL	<0.83	<0.38	<0.29	<0.15	NA
J23-TR01-1-S	TR01	2/28/97	4	APCL	<0.85	<0.39	<0.29	<0.16	NA
J23-TR02-2-S	TR02	2/28/97	4	APCL	<0.83	<0.38	<0.29	<0.15	NA
Analyses					3	3	3	3	0
Detections					0	0	0	0	0
Minimum Concentration					0	0	0	0	0
Maximum Concentration					0	0	0	0	0
HWAD - PCG					100	100	100	100	100
HWAD - PCG Hits					0	0	0	0	0

Notes:

NA = Not analyzed.

NE = Not established.

Sample ID	Location ID	Sample Date	Depth (feet)	Lab	1,1,1,2-Tetrachloroethane	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	1,2,3-Trichloropropane	1,2-Dichlorobenzene	1,2-Dichloroethane	1,2-Dichloropropane
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
J23-DP161	HA04	7/29/94	5	BCA	<0.0004	<0.0006	<0.0002	<0.0004	<0.0002	<0.0002	<0.0008	<0.0002	<0.0006	<0.0008
J23-DP166	HA03	7/29/94	2	BCA	<0.0004	<0.0006	<0.0002	<0.0004	<0.0002	<0.0002	<0.0008	<0.0002	<0.0006	<0.0008
J23-DP239	SB02	8/19/94	13.25	BCA	<0.0004	<0.0006	<0.0002	<0.0004	<0.0002	<0.0002	<0.0008	<0.0002	<0.0006	<0.0008
J23-DP244	SB03	8/19/94	13.25	BCA	<0.0004	<0.0006	<0.0002	<0.0004	<0.0002	<0.0002	<0.0008	<0.0002	<0.0006	<0.0008
J23-SB02-1-S	SB02	8/19/94	13.75	BCA	<0.0004	<0.0006	<0.0002	<0.0004	<0.0002	<0.0002	<0.0008	<0.0002	<0.0006	<0.0008
J23-SB02-2-S	SB02	8/19/94	16.75	BCA	<0.0004	<0.0006	<0.0002	<0.0004	<0.0002	<0.0002	<0.0008	<0.0002	<0.0006	<0.0008
J23-SB03-1-S	SB03	8/19/94	13.75	BCA	<0.0004	<0.0006	<0.0002	<0.0004	<0.0002	<0.0002	<0.0008	<0.0002	<0.0006	<0.0008
J23-SB03-2-S	SB03	8/19/94	17.25	BCA	<0.0004	<0.0006	<0.0002	<0.0004	<0.0002	<0.0002	<0.0008	<0.0002	<0.0006	<0.0008
Analyses					8	8	8	8	8	8	8	8	8	8
Detections					0	0	0	0	0	0	0	0	0	0
Minimum Concentration					0	0	0	0	0	0	0	0	0	0
Maximum Concentration					0	0	0	0	0	0	0	0	0	0
HWAD - PCG					NE	7200	35	NE	NE	NE	480	7200	NE	NE
HWAD - PCG Hits					NE	0	0	NE	NE	NE	0	0	NE	NE

Notes:

NA = Not analyzed.

NE = Not established.

OCs
Method 8260 (BCA)

Sample ID	Location ID	Sample Date	Depth (feet)	Lab	1,3-Dichlorobenzene	1,4-Dichlorobenzene	2-Chloroethylvinylether	Benzene	Benzyl chloride	Bromobenzene	Bromodichloromethane	Bromoform	Bromomethane	Carbon Tetrachloride
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
J23-DP161	HA04	7/29/94	5	BCA	<0.0002	<0.0004	<0.0006	<0.0002	<0.0006	<0.0004	<0.0002	<0.0002	<0.0002	<0.0006
J23-DP166	HA03	7/29/94	2	BCA	<0.0002	<0.0004	<0.0006	<0.0002	<0.0006	<0.0004	<0.0002	<0.0002	<0.0002	<0.0006
J23-DP239	SB02	8/19/94	13.25	BCA	<0.0002	<0.0004	<0.0006	<0.0002	<0.0006	<0.0004	<0.0002	<0.0002	<0.0002	<0.0006
J23-DP244	SB03	8/19/94	13.25	BCA	<0.0002	<0.0004	<0.0006	<0.0002	<0.0006	<0.0004	<0.0002	<0.0002	<0.0002	<0.0006
J23-SB02-1-S	SB02	8/19/94	13.75	BCA	<0.0002	<0.0004	<0.0006	<0.0002	<0.0006	<0.0004	<0.0002	<0.0002	<0.0002	<0.0006
J23-SB02-2-S	SB02	8/19/94	16.75	BCA	<0.0002	<0.0004	<0.0006	<0.0002	<0.0006	<0.0004	<0.0002	<0.0002	<0.0002	<0.0006
J23-SB03-1-S	SB03	8/19/94	13.75	BCA	<0.0002	<0.0004	<0.0006	<0.0002	<0.0006	<0.0004	<0.0002	<0.0002	<0.0002	<0.0006
J23-SB03-2-S	SB03	8/19/94	17.25	BCA	<0.0002	<0.0004	<0.0006	<0.0002	<0.0006	<0.0004	<0.0002	<0.0002	<0.0002	<0.0006
Analyses					8	8	8	8	8	8	8	8	8	8
Detections					0	0	0	0	0	0	0	0	0	0
Minimum Concentration					0	0	0	0	0	0	0	0	0	0
Maximum Concentration					0	0	0	0	0	0	0	0	0	0
HWAD - PCG					NE	150	NE	10	NE	NE	NE	89	112	10
HWAD - PCG Hits					NE	0	NE	0	NE	NE	NE	0	0	0

Notes:

NA = Not analyzed.

NE = Not established.

VOCs
Method 8260 (BCA)

Sample ID	Location ID	Sample Date	Depth (feet)	Lab	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	cis-1,3-Dichloropropene	Dibromochloromethane	Dibromomethane	Dichlorodifluoromethane	Ethylbenzene	Methylene chloride
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
J23-DP161	HA04	7/29/94	5	BCA	<0.0002	<0.0002	<0.0002	<0.0006	<0.0002	<0.0006	0.0007 J	<0.0001	<0.0002	0.0041
J23-DP166	HA03	7/29/94	2	BCA	<0.0002	<0.0002	<0.0002	<0.0006	<0.0002	<0.0006	0.0008 J	<0.0001	<0.0002	0.0056
J23-DP239	SB02	8/19/94	13.25	BCA	<0.0002	<0.0002	<0.0002	<0.0006	<0.0002	<0.0006	<0.0002	<0.0001	<0.0002	<0.0004
J23-DP244	SB03	8/19/94	13.25	BCA	<0.0002	<0.0002	<0.0002	<0.0006	<0.0002	<0.0006	<0.0002	<0.0001	<0.0002	0.0035 U
J23-SB02-1-S	SB02	8/19/94	13.75	BCA	<0.0002	<0.0002	<0.0002	<0.0006	<0.0002	<0.0006	<0.0002	<0.0001	<0.0002	<0.0004
J23-SB02-2-S	SB02	8/19/94	16.75	BCA	<0.0002	<0.0002	<0.0002	<0.0006	<0.0002	<0.0006	<0.0002	<0.0001	<0.0002	<0.0004
J23-SB03-1-S	SB03	8/19/94	13.75	BCA	<0.0002	<0.0002	<0.0002	<0.0006	<0.0002	<0.0006	<0.0002	<0.0001	<0.0002	<0.0004
J23-SB03-2-S	SB03	8/19/94	17.25	BCA	<0.0002	<0.0002	<0.0002	<0.0006	<0.0002	<0.0006	<0.0002	<0.0001	<0.0002	0.011 U
Analyses					8	8	8	8	8	8	8	8	8	8
Detections					0	0	0	0	0	0	2	0	0	4
Minimum Concentration					0	0	0	0	0	0	0.0007	0	0	0.0035
Maximum Concentration					0	0	0	0	0	0	0.0008	0	0	0.011
HWAD - PCG					2000	NE	120	538	NE	83	800	16000	8000	4800
HWAD - PCG Hits					0	NE	0	0	NE	0	0	0	0	0

Notes:
NA = Not analyzed.
NE = Not established.

OCs
Method 8260 (BCA)

Sample ID	Location ID	Sample Date	Depth (feet)	Lab	Tetrachloroethene	Toluene	Total Xylene Isomers	trans-1,2-Dichloroethene	trans-1,3-Dichloropropene	Trichloroethene	Trichlorofluoromethane	Vinyl chloride
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
J23-DP161	HA04	7/29/94	5	BCA	<0.0006	<0.0004	<0.0006	<0.0002	<0.0002	<0.001	<0.0001	<0.0002
J23-DP166	HA03	7/29/94	2	BCA	<0.0006	<0.0004	<0.0006	<0.0002	<0.0002	<0.001	<0.0001	<0.0002
J23-DP239	SB02	8/19/94	13.25	BCA	<0.0006	<0.0004	<0.0006	<0.0002	<0.0002	<0.001	<0.0001	<0.0002
J23-DP244	SB03	8/19/94	13.25	BCA	<0.0006	<0.0004	<0.0006	<0.0002	<0.0002	<0.001	<0.0001	<0.0002
J23-SB02-1-S	SB02	8/19/94	13.75	BCA	<0.0006	<0.0004	<0.0006	<0.0002	<0.0002	<0.001	<0.0001	<0.0002
J23-SB02-2-S	SB02	8/19/94	16.75	BCA	<0.0006	<0.0004	<0.0006	<0.0002	<0.0002	<0.001	<0.0001	<0.0002
J23-SB03-1-S	SB03	8/19/94	13.75	BCA	<0.0006	<0.0004	<0.0006	<0.0002	<0.0002	<0.001	<0.0001	<0.0002
J23-SB03-2-S	SB03	8/19/94	17.25	BCA	<0.0006	<0.0004	<0.0006	<0.0002	<0.0002	<0.001	<0.0001	<0.0002
Analyses					8	8	8	8	8	8	8	8
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					15	16000	160000	NE	NE	10	24000	24000
HWAD - PCG Hits					0	0	0	NE	NE	0	0	0

Notes:
NA = Not analyzed.
NE = Not established.

VOCs
Method 8260 (Quanterra)

Sample ID	Location ID	Sample Date	Depth (feet)	Lab	1,1,1,2-Tetrachloroethane	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	1,1-Dichloropropene	1,2,3-Trichlorobenzene	1,2,3-Trichloropropane	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
J23-SB01-1-S	SB01	8/20/94	13.25	Quanterra	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051
J23-SB01-2-S	SB01	8/20/94	17.25	Quanterra	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051
Analyses					2	2	2	2	2	2	2	2	2	2	2
Detections					0	0	0	0	0	0	0	0	0	0	0
Minimum Concentration					0	0	0	0	0	0	0	0	0	0	0
Maximum Concentration					0	0	0	0	0	0	0	0	0	0	0
HWAD - PCG					NE	7200	35	NE	NE	NE	NE	NE	480	NE	NE
HWAD - PCG Hits					NE	0	0	NE	NE	NE	NE	NE	0	NE	NE

Notes:
NA = Not analyzed.
NE = Not established.

VOCs
Method 8260 (Quanterra)

Sample ID	Location ID	Sample Date	Depth (feet)	Lab	1,2-Dibromo-3-chloropropane	1,2-Dibromoethane	1,2-Dichlorobenzene	1,2-Dichloroethane	1,2-Dichloropropane	1,3,5-Trimethylbenzene	1,3-Dichlorobenzene	1,3-Dichloropropane	1,4-Dichlorobenzene	1-Methylethylbenzene	2,2-Dichlorpropane	2-Chloroethylvinylether
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
J23-SB01-1-S	SB01	8/20/94	13.25	Quanterra	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	NA
J23-SB01-2-S	SB01	8/20/94	17.25	Quanterra	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	NA
Analyses					2	2	2	2	2	2	2	2	2	2	2	0
Detections					0	0	0	0	0	0	0	0	0	0	0	0
Minimum Concentration					0	0	0	0	0	0	0	0	0	0	0	0
Maximum Concentration					0	0	0	0	0	0	0	0	0	0	0	0
HWAD - PCG					NE	0.008	7200	NE	NE	NE	NE	NE	150	NE	NE	NE
HWAD - PCG Hits					NE	0	0	NE	NE	NE	NE	NE	0	NE	NE	NE

Notes:

NA = Not analyzed.

NE = Not established.

VOCs
Method 8260 (Quanterra)

Sample ID	Location ID	Sample Date	Depth (feet)	Lab	2-Chlorotoluene	4-Chlorotoluene	Benzene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	Carbon Tetrachloride	Chlorobenzene	Chloroethane
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
J23-SB01-1-S	SB01	8/20/94	13.25	Quanterra	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051
J23-SB01-2-S	SB01	8/20/94	17.25	Quanterra	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051
Analyses					2	2	2	2	2	2	2	2	2	2	2
Detections					0	0	0	0	0	0	0	0	0	0	0
Minimum Concentration					0	0	0	0	0	0	0	0	0	0	0
Maximum Concentration					0	0	0	0	0	0	0	0	0	0	0
HWAD - PCG					NE	NE	10	NE	NE	NE	89	112	10	2000	NE
HWAD - PCG Hits					NE	NE	0	NE	NE	NE	0	0	0	0	NE

Notes:
NA = Not analyzed.
NE = Not established.

VOCs
Method 8260 (Quanterra)

Sample ID	Location ID	Sample Date	Depth (feet)	Lab	Chloroform	Chloromethane	cis-1,2-Dichloroethene	cis-1,3-Dichloropropene	Dibromochloromethane	Dibromomethane	Dichlorodifluormethane	Dichlorodifluoromethane	Ethylbenzene	Hexachlorobutadiene	Isopropyltoluene
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
J23-SB01-1-S	SB01	8/20/94	13.25	Quanterra	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051
J23-SB01-2-S	SB01	8/20/94	17.25	Quanterra	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051
Analyses					2	2	2	2	2	2	2	2	2	2	2
Detections					0	0	0	0	0	0	0	0	0	0	0
Minimum Concentration					0	0	0	0	0	0	0	0	0	0	0
Maximum Concentration					0	0	0	0	0	0	0	0	0	0	0
HWAD - PCG					120	538	NE	NE	83	800	16000	16000	8000	NE	NE
HWAD - PCG Hits					0	0	NE	NE	0	0	0	0	0	NE	NE

Notes:
NA = Not analyzed.
NE = Not established.

Sample ID	Location ID	Sample Date	Depth (feet)	Lab	m-&p-Xylenes mg/kg	Methylene chloride mg/kg	Naphthalene mg/kg	n-Butylbenzene mg/kg	n-Propyl benzene mg/kg	o-Xylene mg/kg	sec-Butylbenzene mg/kg	Styrene mg/kg	tert-Butylbenzene mg/kg	Tetrachloroethene mg/kg	Toluene mg/kg
J23-SB01-1-S	SB01	8/20/94	13.25	Quanterra	<0.0051	0.0022 U	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051
J23-SB01-2-S	SB01	8/20/94	17.25	Quanterra	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051
Analyses					2	2	2	2	2	2	2	2	2	2	2
Detections					0	1	0	0	0	0	0	0	0	0	0
Minimum Concentration					0	0.0022	0	0	0	0	0	0	0	0	0
Maximum Concentration					0	0.0022	0	0	0	0	0	0	0	0	0
HWAD - PCG					160000	4800	3200	NE	NE	160000	NE	NE	NE	15	16000
HWAD - PCG Hits					0	0	0	NE	NE	0	NE	NE	NE	0	0

Notes:
NA = Not analyzed.
NE = Not established.

VOCs
Method 8260 (Quanterra)

Sample ID	Location ID	Sample Date	Depth (feet)	Lab	Total Xylene Isomers	trans-1,2-Dichloroethene	trans-1,3-Dichloropropene	Trichloroethene	Trichlorofluoromethane	Vinyl chloride
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
J23-SB01-1-S	SB01	8/20/94	13.25	Quanterra	NA	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051
J23-SB01-2-S	SB01	8/20/94	17.25	Quanterra	NA	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051
Analyses					0	2	2	2	2	2
Detections					0	0	0	0	0	0
Minimum Concentration					0	0	0	0	0	0
Maximum Concentration					0	0	0	0	0	0
HWAD - PCG					160000	NE	NE	10	24000	24000
HWAD - PCG Hits					0	NE	NE	0	0	0

Notes:
NA = Not analyzed.
NE = Not established.

VOCs
Method 8260A (APCL)

Sample ID	Location ID	Sample Date	Depth (feet)	Lab	1,1,1,2-Tetrachloroethane	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	1,1-Dichloropropene	1,2,3-Trichlorobenzene	1,2,3-Trichloropropane	1,2,4-Trichlorobenzene
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
J23-TP01-1-S	TP01	2/28/97	5	APCL	<0.0001	<0.0001	<0.0002	<0.0001	<0.0002	<0.0001	<0.0002	<0.0001	<0.0004	<0.0002
J23-TP01-2-S	TP01	2/28/97	5	APCL	<0.0001	<0.0001	<0.0002	<0.0001	<0.0002	<0.0001	<0.0002	<0.0001	<0.0004	<0.0002
J23-TP01-3-S	TP01	2/28/97	5	APCL	<0.0001	<0.0001	<0.0002	<0.0001	<0.0002	<0.0001	<0.0002	<0.0001	<0.0004	<0.0002
J23-TP02-1-S	TP02	2/28/97	5	APCL	<0.0001	<0.0001	<0.0002	<0.0001	<0.0002	<0.0001	<0.0002	<0.0001	<0.0004	<0.0002
J23-TP02-2-S	TP02	2/28/97	5	APCL	<0.0001	<0.0001	<0.0002	<0.0001	<0.0002	<0.0001	<0.0002	<0.0001	<0.0004	<0.0002
J23-TP03-1-S	TP03	2/28/97	5	APCL	<0.0001	<0.0001	<0.0002	<0.0001	<0.0002	<0.0001	<0.0002	<0.0001	<0.0004	<0.0002
J23-TP03-2-S	TP03	2/28/97	5	APCL	<0.0001	<0.0001	<0.0002	<0.0001	<0.0002	<0.0001	<0.0002	<0.0001	<0.0004	<0.0002
J23-TP04-1-S	TP04	2/28/97	5	APCL	<0.0001	<0.0001	<0.0002	<0.0001	<0.0002	<0.0001	<0.0002	<0.0001	<0.0004	<0.0002
J23-TP04-2-S	TP04	2/28/97	5	APCL	<0.0001	<0.0001	<0.0002	<0.0001	<0.0002	<0.0001	<0.0002	<0.0001	<0.0004	<0.0002
J23-TR01-1-S	TR01	2/28/97	4	APCL	<0.0001	<0.0001	<0.0002	<0.0001	<0.0002	<0.0001	<0.0002	<0.0001	<0.0004	<0.0002
J23-TR01-2-S	TR01	2/28/97	5	APCL	<0.0001	<0.0001	<0.0002	<0.0001	<0.0002	<0.0001	<0.0002	<0.0001	<0.0004	<0.0002
J23-TR01-3-S	TR01	2/28/97	10	APCL	<0.0001	<0.0001	<0.0002	<0.0001	<0.0002	<0.0001	<0.0002	<0.0001	<0.0004	<0.0002
J23-TR01-4-S	TR01	2/28/97	5	APCL	<0.0001	<0.0001	<0.0002	<0.0001	<0.0002	<0.0001	<0.0002	<0.0001	<0.0004	<0.0002
J23-TR01-5-S	TR01	2/28/97	10	APCL	<0.0001	<0.0001	<0.0002	<0.0001	<0.0002	<0.0001	<0.0002	<0.0001	<0.0004	<0.0002
J23-TR02-1-S	TR02	2/28/97	5	APCL	<0.0001	<0.0001	<0.0002	<0.0001	<0.0002	<0.0001	<0.0002	<0.0001	<0.0004	<0.0002
J23-TR02-2-S	TR02	2/28/97	4	APCL	<0.0001	<0.0001	<0.0002	<0.0001	<0.0002	<0.0001	<0.0002	<0.0001	<0.0004	<0.0002
J23-TR03-1-S	TR03	2/28/97	5	APCL	<0.0001	<0.0001	<0.0002	<0.0001	<0.0002	<0.0001	<0.0002	<0.0001	<0.0004	<0.0002
J23-TR03-2-S	TR03	2/28/97	5	APCL	<0.0001	<0.0001	<0.0002	<0.0001	<0.0002	<0.0001	<0.0002	<0.0001	<0.0004	<0.0002
Analyses					18	18	18	18	18	18	18	18	18	18
Detections					0	0	0	0	0	0	0	0	0	0
Minimum Concentration					0	0	0	0	0	0	0	0	0	0
Maximum Concentration					0	0	0	0	0	0	0	0	0	0
HWAD - PCG					NE	7200	35	NE	NE	NE	NE	NE	480	NE
HWAD - PCG Hits					NE	0	0	NE	NE	NE	NE	NE	0	NE

Notes:
NA = Not analyzed.
NE = Not established.

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VOCs
Method 8260A (APCL)

Sample ID	Location ID	Sample Date	Depth (feet)	Lab	1,2,4-Trimethylbenzene	1,2-Dibromoethane (EDB)	1,2-Dichlorobenzene	1,2-Dichloroethane	1,2-Dichloropropane	1,3,5-Trimethylbenzene	1,3-Dichlorobenzene	1,3-Dichloropropane	1,4-Dichlorobenzene	2,2-Dichloropropane
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
J23-TP01-1-S	TP01	2/28/97	5	APCL	<0.0001	<0.0005	<0.0001	<0.0002	<0.0002	<0.0001	<0.0001	<0.0002	<0.0001	<0.0002
J23-TP01-2-S	TP01	2/28/97	5	APCL	<0.0001	<0.0005	<0.0001	<0.0002	<0.0002	<0.0001	<0.0001	<0.0002	<0.0001	<0.0002
J23-TP01-3-S	TP01	2/28/97	5	APCL	<0.0001	<0.0005	<0.0001	<0.0002	<0.0002	<0.0001	<0.0001	<0.0002	<0.0001	<0.0002
J23-TP02-1-S	TP02	2/28/97	5	APCL	<0.0001	<0.0005	<0.0001	<0.0002	<0.0002	<0.0001	<0.0001	<0.0002	<0.0001	<0.0002
J23-TP02-2-S	TP02	2/28/97	5	APCL	<0.0001	<0.0005	<0.0001	<0.0002	<0.0002	<0.0001	<0.0001	<0.0002	<0.0001	<0.0002
J23-TP03-1-S	TP03	2/28/97	5	APCL	<0.0001	<0.0005	<0.0001	<0.0002	<0.0002	<0.0001	<0.0001	<0.0002	<0.0001	<0.0002
J23-TP03-2-S	TP03	2/28/97	5	APCL	<0.0001	<0.0005	<0.0001	<0.0002	<0.0002	<0.0001	<0.0001	<0.0002	<0.0001	<0.0002
J23-TP04-1-S	TP04	2/28/97	5	APCL	<0.0001	<0.0005	<0.0001	<0.0002	<0.0002	<0.0001	<0.0001	<0.0002	<0.0001	<0.0002
J23-TP04-2-S	TP04	2/28/97	5	APCL	<0.0001	<0.0005	<0.0001	<0.0002	<0.0002	<0.0001	<0.0001	<0.0002	<0.0001	<0.0002
J23-TR01-1-S	TR01	2/28/97	4	APCL	<0.0001	<0.0005	<0.0001	<0.0002	<0.0002	<0.0001	<0.0001	<0.0002	<0.0001	<0.0002
J23-TR01-2-S	TR01	2/28/97	5	APCL	<0.0001	<0.0005	<0.0001	<0.0002	<0.0002	<0.0001	<0.0001	<0.0002	<0.0001	<0.0002
J23-TR01-3-S	TR01	2/28/97	10	APCL	<0.0001	<0.0005	<0.0001	<0.0002	<0.0002	<0.0001	<0.0001	<0.0002	<0.0001	<0.0002
J23-TR01-4-S	TR01	2/28/97	5	APCL	<0.0001	<0.0005	<0.0001	<0.0002	<0.0002	<0.0001	<0.0001	<0.0002	<0.0001	<0.0002
J23-TR01-5-S	TR01	2/28/97	10	APCL	<0.0001	<0.0005	<0.0001	<0.0002	<0.0002	<0.0001	<0.0001	<0.0002	<0.0001	<0.0002
J23-TR02-1-S	TR02	2/28/97	5	APCL	<0.0001	<0.0005	<0.0001	<0.0002	<0.0002	<0.0001	<0.0001	<0.0002	<0.0001	<0.0002
J23-TR02-2-S	TR02	2/28/97	4	APCL	<0.0001	<0.0005	<0.0001	<0.0002	<0.0002	<0.0001	<0.0001	<0.0002	<0.0001	<0.0002
J23-TR03-1-S	TR03	2/28/97	5	APCL	<0.0001	<0.0005	<0.0001	<0.0002	<0.0002	<0.0001	<0.0001	<0.0002	<0.0001	<0.0002
J23-TR03-2-S	TR03	2/28/97	5	APCL	<0.0001	<0.0005	<0.0001	<0.0002	<0.0002	<0.0001	<0.0001	<0.0002	<0.0001	<0.0002
Analyses					18	18	18	18	18	18	18	18	18	18
Detections					0	0	0	0	0	0	0	0	0	0
Minimum Concentration					0	0	0	0	0	0	0	0	0	0
Maximum Concentration					0	0	0	0	0	0	0	0	0	0
HWAD - PCG					NE	0.008	7200	NE	NE	NE	NE	NE	150	NE
HWAD - PCG Hits					NE	0	0	NE	NE	NE	NE	NE	0	NE

Notes:
NA = Not analyzed.
NE = Not established.

Cs
Method 8260A (APCL)

Sample ID	Location ID	Sample Date	Depth (feet)	Lab	2-Chlorotoluene	4-Chlorotoluene	4-Isopropyltoluene	Benzene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	Carbon tetrachloride
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
J23-TP01-1-S	TP01	2/28/97	5	APCL	<0.0001	<0.0002	<0.0002	<0.0002	<0.0001	<0.0005	<0.0002	<0.0003	<0.0003	<0.0001
J23-TP01-2-S	TP01	2/28/97	5	APCL	<0.0001	<0.0002	<0.0002	<0.0002	<0.0001	<0.0005	<0.0002	<0.0003	<0.0003	<0.0001
J23-TP01-3-S	TP01	2/28/97	5	APCL	<0.0001	<0.0002	<0.0002	<0.0002	<0.0001	<0.0005	<0.0002	<0.0003	<0.0003	<0.0001
J23-TP02-1-S	TP02	2/28/97	5	APCL	<0.0001	<0.0002	<0.0002	<0.0002	<0.0001	<0.0005	<0.0002	<0.0003	<0.0003	<0.0001
J23-TP02-2-S	TP02	2/28/97	5	APCL	<0.0001	<0.0002	<0.0002	<0.0002	<0.0001	<0.0005	<0.0002	<0.0003	<0.0003	<0.0001
J23-TP03-1-S	TP03	2/28/97	5	APCL	<0.0001	<0.0002	<0.0002	<0.0002	<0.0001	<0.0005	<0.0002	<0.0003	<0.0003	<0.0001
J23-TP03-2-S	TP03	2/28/97	5	APCL	<0.0001	<0.0002	<0.0002	<0.0002	<0.0001	<0.0005	<0.0002	<0.0003	<0.0003	<0.0001
J23-TP04-1-S	TP04	2/28/97	5	APCL	<0.0001	<0.0002	<0.0002	<0.0002	<0.0001	<0.0005	<0.0002	<0.0003	<0.0003	<0.0001
J23-TP04-2-S	TP04	2/28/97	5	APCL	<0.0001	<0.0002	<0.0002	<0.0002	<0.0001	<0.0005	<0.0002	<0.0003	<0.0003	<0.0001
J23-TR01-1-S	TR01	2/28/97	4	APCL	<0.0001	<0.0002	<0.0002	<0.0002	<0.0001	<0.0005	<0.0002	<0.0003	<0.0003	<0.0001
J23-TR01-2-S	TR01	2/28/97	5	APCL	<0.0001	<0.0002	<0.0002	<0.0002	<0.0001	<0.0005	<0.0002	<0.0003	<0.0003	<0.0001
J23-TR01-3-S	TR01	2/28/97	10	APCL	<0.0001	<0.0002	<0.0002	<0.0002	<0.0001	<0.0005	<0.0002	<0.0003	<0.0003	<0.0001
J23-TR01-4-S	TR01	2/28/97	5	APCL	<0.0001	<0.0002	<0.0002	<0.0002	<0.0001	<0.0005	<0.0002	<0.0003	<0.0003	<0.0001
J23-TR01-5-S	TR01	2/28/97	10	APCL	<0.0001	<0.0002	<0.0002	<0.0002	<0.0001	<0.0005	<0.0002	<0.0003	<0.0003	<0.0001
J23-TR02-1-S	TR02	2/28/97	5	APCL	<0.0001	<0.0002	<0.0002	<0.0002	<0.0001	<0.0005	<0.0002	<0.0003	<0.0003	<0.0001
J23-TR02-2-S	TR02	2/28/97	4	APCL	<0.0001	<0.0002	<0.0002	<0.0002	<0.0001	<0.0005	<0.0002	<0.0003	<0.0003	<0.0001
J23-TR03-1-S	TR03	2/28/97	5	APCL	<0.0001	<0.0002	<0.0002	<0.0002	<0.0001	<0.0005	<0.0002	<0.0003	<0.0003	<0.0001
J23-TR03-2-S	TR03	2/28/97	5	APCL	<0.0001	<0.0002	<0.0002	<0.0002	<0.0001	<0.0005	<0.0002	<0.0003	<0.0003	<0.0001
Analyses					18	18	18	18	18	18	18	18	18	18
Detections					0	0	0	0	0	0	0	0	0	0
Minimum Concentration					0	0	0	0	0	0	0	0	0	0
Maximum Concentration					0	0	0	0	0	0	0	0	0	0
HWAD - PCG					NE	NE	NE	10	NE	NE	NE	89	112	10
HWAD - PCG Hits					NE	NE	NE	0	NE	NE	NE	0	0	0

Notes:
NA = Not analyzed.
NE = Not established.

VOCs
Method 8260A (APCL)

Sample ID	Location ID	Sample Date	Depth (feet)	Lab	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	cis-1,2-Dichloroethene	cis-1,3-Dichloropropene	Dibromochloromethane	Dibromochloropropane	Dibromomethane	Dichlorodifluoromethane
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
J23-TP01-1-S	TP01	2/28/97	5	APCL	<0.0002	<0.0007	<0.0002	<0.0003	<0.0002	<0.0001	<0.0002	<0.0009 EE	<0.0005	<0.0002
J23-TP01-2-S	TP01	2/28/97	5	APCL	<0.0002	<0.0007	<0.0002	<0.0003	<0.0002	<0.0001	<0.0002	<0.0009 EE	<0.0005	<0.0002
J23-TP01-3-S	TP01	2/28/97	5	APCL	<0.0002	<0.0007	<0.0002	<0.0003	<0.0002	<0.0001	<0.0002	<0.0009 EE	<0.0005	<0.0002
J23-TP02-1-S	TP02	2/28/97	5	APCL	<0.0002	<0.0007	<0.0002	<0.0003	<0.0002	<0.0001	<0.0002	<0.0009 EE	<0.0005	<0.0002
J23-TP02-2-S	TP02	2/28/97	5	APCL	<0.0002	<0.0007	<0.0002	<0.0003	<0.0002	<0.0001	<0.0002	<0.0009 EE	<0.0005	<0.0002
J23-TP03-1-S	TP03	2/28/97	5	APCL	<0.0002	<0.0007	<0.0002	<0.0003	<0.0002	<0.0001	<0.0002	<0.0009 EE	<0.0005	<0.0002
J23-TP03-2-S	TP03	2/28/97	5	APCL	<0.0002	<0.0007	<0.0002	<0.0003	<0.0002	<0.0001	<0.0002	<0.0009 EE	<0.0005	<0.0002
J23-TP04-1-S	TP04	2/28/97	5	APCL	<0.0002	<0.0007	<0.0002	<0.0003	<0.0002	<0.0001	<0.0002	<0.0009 EE	<0.0005	<0.0002
J23-TP04-2-S	TP04	2/28/97	5	APCL	<0.0002	<0.0007	<0.0002	<0.0003	<0.0002	<0.0001	<0.0002	<0.0009 EE	<0.0005	<0.0002
J23-TR01-1-S	TR01	2/28/97	4	APCL	<0.0002	<0.0007	<0.0002	<0.0003	<0.0002	<0.0001	<0.0002	<0.0009 EE	<0.0005	<0.0002
J23-TR01-2-S	TR01	2/28/97	5	APCL	<0.0002	<0.0007	<0.0002	<0.0003	<0.0002	<0.0001	<0.0002	<0.0009 EE	<0.0005	<0.0002
J23-TR01-3-S	TR01	2/28/97	10	APCL	<0.0002	<0.0007	<0.0002	<0.0003	<0.0002	<0.0001	<0.0002	<0.0009 EE	<0.0005	<0.0002
J23-TR01-4-S	TR01	2/28/97	5	APCL	<0.0002	<0.0007	<0.0002	<0.0003	<0.0002	<0.0001	<0.0002	<0.0009 EE	<0.0005	<0.0002
J23-TR01-5-S	TR01	2/28/97	10	APCL	<0.0002	<0.0007	<0.0002	<0.0003	<0.0002	<0.0001	<0.0002	<0.0009 EE	<0.0005	<0.0002
J23-TR02-1-S	TR02	2/28/97	5	APCL	<0.0002	<0.0007	<0.0002	<0.0003	<0.0002	<0.0001	<0.0002	<0.0009 EE	<0.0005	<0.0002
J23-TR02-2-S	TR02	2/28/97	4	APCL	<0.0002	<0.0007	<0.0002	<0.0003	<0.0002	<0.0001	<0.0002	<0.0009 EE	<0.0005	<0.0002
J23-TR03-1-S	TR03	2/28/97	5	APCL	<0.0002	<0.0007	<0.0002	<0.0003	<0.0002	<0.0001	<0.0002	<0.0009 EE	<0.0005	<0.0002
J23-TR03-2-S	TR03	2/28/97	5	APCL	<0.0002	<0.0007	<0.0002	<0.0003	<0.0002	<0.0001	<0.0002	<0.0009 EE	<0.0005	<0.0002
Analyses					18	18	18	18	18	18	18	18	18	18
Detections					0	0	0	0	0	0	0	0	0	0
Minimum Concentration					0	0	0	0	0	0	0	0	0	0
Maximum Concentration					0	0	0	0	0	0	0	0	0	0
HWAD - PCG					2000	NE	120	538	NE	NE	83	NE	800	16000
HWAD - PCG Hits					0	NE	0	0	NE	NE	0	NE	0	0

Notes:

NA = Not analyzed.

NE = Not established.

Sample ID	Location ID	Sample Date	Depth (feet)	Lab	Ethylbenzene	Hexachlorobutadiene	Isopropylbenzene	m-&p-Xylenes	Methylene chloride	MTBE	n-Butylbenzene	n-Propylbenzene	Naphthalene	o-Xylene
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
J23-TP01-1-S	TP01	2/28/97	5	APCL	<0.0001	<0.0002	<0.0002	<0.0005	<0.0007	<0.0002	<0.0002	<0.0001	<0.0002	<0.0001
J23-TP01-2-S	TP01	2/28/97	5	APCL	<0.0001	<0.0002	<0.0002	<0.0005	<0.0007	<0.0002	<0.0002	<0.0001	<0.0002	<0.0001
J23-TP01-3-S	TP01	2/28/97	5	APCL	<0.0001	<0.0002	<0.0002	<0.0005	<0.0007	<0.0002	<0.0002	<0.0001	<0.0002	<0.0001
J23-TP02-1-S	TP02	2/28/97	5	APCL	<0.0001	<0.0002	<0.0002	<0.0005	<0.0007	<0.0002	<0.0002	<0.0001	<0.0002	<0.0001
J23-TP02-2-S	TP02	2/28/97	5	APCL	<0.0001	<0.0002	<0.0002	<0.0005	<0.0007	<0.0002	<0.0002	<0.0001	<0.0002	<0.0001
J23-TP03-1-S	TP03	2/28/97	5	APCL	<0.0001	<0.0002	<0.0002	<0.0005	<0.0007	<0.0002	<0.0002	<0.0001	<0.0002	<0.0001
J23-TP03-2-S	TP03	2/28/97	5	APCL	<0.0001	<0.0002	<0.0002	<0.0005	<0.0007	<0.0002	<0.0002	<0.0001	<0.0002	<0.0001
J23-TP04-1-S	TP04	2/28/97	5	APCL	<0.0001	<0.0002	<0.0002	<0.0005	<0.0007	<0.0002	<0.0002	<0.0001	<0.0002	<0.0001
J23-TP04-2-S	TP04	2/28/97	5	APCL	<0.0001	<0.0002	<0.0002	<0.0005	<0.0007	<0.0002	<0.0002	<0.0001	<0.0002	<0.0001
J23-TR01-1-S	TR01	2/28/97	4	APCL	<0.0001	<0.0002	<0.0002	<0.0005	<0.0007	<0.0002	<0.0002	<0.0001	<0.0002	<0.0001
J23-TR01-2-S	TR01	2/28/97	5	APCL	<0.0001	<0.0002	<0.0002	<0.0005	<0.0007	<0.0002	<0.0002	<0.0001	<0.0002	<0.0001
J23-TR01-3-S	TR01	2/28/97	10	APCL	<0.0001	<0.0002	<0.0002	<0.0005	<0.0007	<0.0002	<0.0002	<0.0001	<0.0002	<0.0001
J23-TR01-4-S	TR01	2/28/97	5	APCL	<0.0001	<0.0002	<0.0002	<0.0005	<0.0007	<0.0002	<0.0002	<0.0001	<0.0002	<0.0001
J23-TR01-5-S	TR01	2/28/97	10	APCL	<0.0001	<0.0002	<0.0002	<0.0005	<0.0007	<0.0002	<0.0002	<0.0001	<0.0002	<0.0001
J23-TR02-1-S	TR02	2/28/97	5	APCL	<0.0001	<0.0002	<0.0002	<0.0005	<0.0007	<0.0002	<0.0002	<0.0001	<0.0002	<0.0001
J23-TR02-2-S	TR02	2/28/97	4	APCL	<0.0001	<0.0002	<0.0002	<0.0005	<0.0007	<0.0002	<0.0002	<0.0001	<0.0002	<0.0001
J23-TR03-1-S	TR03	2/28/97	5	APCL	<0.0001	<0.0002	<0.0002	<0.0005	<0.0007	<0.0002	<0.0002	<0.0001	<0.0002	<0.0001
J23-TR03-2-S	TR03	2/28/97	5	APCL	<0.0001	<0.0002	<0.0002	<0.0005	<0.0007	<0.0002	<0.0002	<0.0001	<0.0002	<0.0001
Analyses					18	18	18	18	18	18	18	18	18	18
Detections					0	0	0	0	0	0	0	0	0	0
Minimum Concentration					0	0	0	0	0	0	0	0	0	0
Maximum Concentration					0	0	0	0	0	0	0	0	0	0
HWAD - PCG					8000	NE	NE	160000	4800	NE	NE	NE	3200	160000
HWAD - PCG Hits					0	NE	NE	0	0	NE	NE	NE	0	0

Notes:
NA = Not analyzed.
NE = Not established.

VOCs
Method 8260A (APCL)

Sample ID	Location ID	Sample Date	Depth (feet)	Lab	sec-Butylbenzene	Styrene	tert-Butylbenzene	Tetrachloroethene	Toluene	trans-1,2-Dichloroethene	trans-1,3-Dichloropropene	Trichloroethene	Trichlorofluoromethane	Vinyl chloride
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
J23-TP01-1-S	TP01	2/28/97	5	APCL	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0002	<0.0002	<0.0004	<0.0002	<0.0002
J23-TP01-2-S	TP01	2/28/97	5	APCL	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0002	<0.0002	<0.0004	<0.0002	<0.0002
J23-TP01-3-S	TP01	2/28/97	5	APCL	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0002	<0.0002	<0.0004	<0.0002	<0.0002
J23-TP02-1-S	TP02	2/28/97	5	APCL	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0002	<0.0002	<0.0004	<0.0002	<0.0002
J23-TP02-2-S	TP02	2/28/97	5	APCL	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0002	<0.0002	<0.0004	<0.0002	<0.0002
J23-TP03-1-S	TP03	2/28/97	5	APCL	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0002	<0.0002	<0.0004	<0.0002	<0.0002
J23-TP03-2-S	TP03	2/28/97	5	APCL	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0002	<0.0002	<0.0004	<0.0002	<0.0002
J23-TP04-1-S	TP04	2/28/97	5	APCL	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0002	<0.0002	<0.0004	<0.0002	<0.0002
J23-TP04-2-S	TP04	2/28/97	5	APCL	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0002	<0.0002	<0.0004	<0.0002	<0.0002
J23-TR01-1-S	TR01	2/28/97	4	APCL	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0002	<0.0002	<0.0004	<0.0002	<0.0002
J23-TR01-2-S	TR01	2/28/97	5	APCL	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0002	<0.0002	<0.0004	<0.0002	<0.0002
J23-TR01-3-S	TR01	2/28/97	10	APCL	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0002	<0.0002	<0.0004	<0.0002	<0.0002
J23-TR01-4-S	TR01	2/28/97	5	APCL	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0002	<0.0002	<0.0004	<0.0002	<0.0002
J23-TR01-5-S	TR01	2/28/97	10	APCL	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0002	<0.0002	<0.0004	<0.0002	<0.0002
J23-TR02-1-S	TR02	2/28/97	5	APCL	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0002	<0.0002	<0.0004	<0.0002	<0.0002
J23-TR02-2-S	TR02	2/28/97	4	APCL	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0002	<0.0002	<0.0004	<0.0002	<0.0002
J23-TR03-1-S	TR03	2/28/97	5	APCL	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0002	<0.0002	<0.0004	<0.0002	<0.0002
J23-TR03-2-S	TR03	2/28/97	5	APCL	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0002	<0.0002	<0.0004	<0.0002	<0.0002
Analyses					18	18	18	18	18	18	18	18	18	18
Detections					0	0	0	0	0	0	0	0	0	0
Minimum Concentration					0	0	0	0	0	0	0	0	0	0
Maximum Concentration					0	0	0	0	0	0	0	0	0	0
HWAD - PCG					NE	NE	NE	15	16000	NE	NE	10	24000	24000
HWAD - PCG Hits					NE	NE	NE	0	0	NE	NE	0	0	0

Notes:
NA = Not analyzed.
NE = Not established.

Appendix D

-23, View to west of levelled ground surface; trucks being offloaded at rail spur south of site. #R3-P1, 11/3/93

J-23, View to northwest, along storm drainage ditch at north margin of SWMU. #R3-P2, 11/3/93