Decision Document

Solid Waste Management Unit B-06
Building 101-13 Impoundment
Hawthorne Army Depot
Hawthorne, Nevada

October 2001

Hawthorne Army
Depot

Decision Document SWMU B-06

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ENVIRONMENTAL PROTECTION

October 2001

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

13 NOV 2001

Anne L. Davis
Lieutenant Colonel, U.S. Army
Commanding

State of Nevada

30 Nov 2001

Paul Liebendorfer
Chief, Bureau of Federal Facilities

Decision Document

Solid Waste Management Unit B-06
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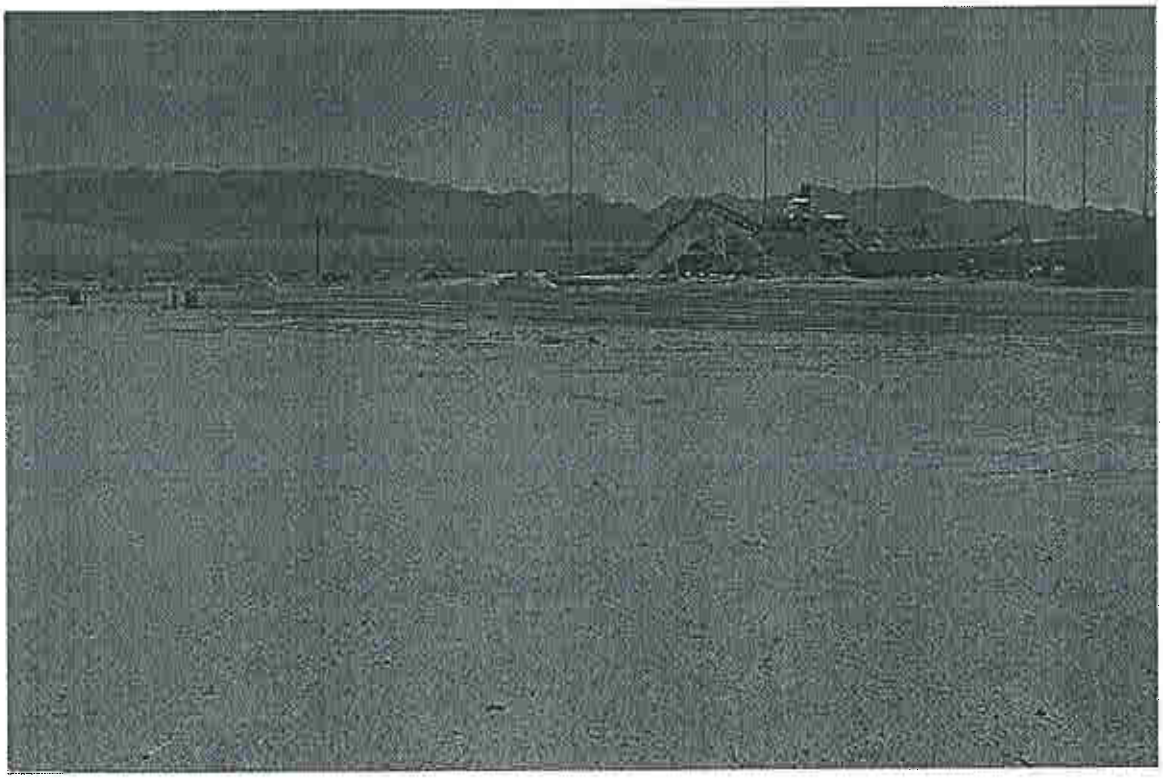
Hawthorne Army Depot
Hawthorne, Nevada



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SWMU B-06
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Hawthorne, Nevada

1.0 Introduction

This decision document describes the rationale for the proposed closure of SWMU B-06, Building 101-13 Impoundment, at the Hawthorne Army Depot (HWAD), Hawthorne, Nevada. The U.S. Army Corps of Engineers, Sacramento District (USACE) and HWAD prepared this document for the Nevada Department of Environmental Protection (NDEP).

Tetra Tech, Inc. (Tt), was tasked by the USACE, to perform remedial investigations and ground water monitoring at HWAD. 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 purpose of these studies was to determine the extent and degree of environmental impacts, if any, associated with activities performed at each SWMU. The primary goal was to assess the environmental impacts, report the findings, present conclusions, and recommend any remediation, if necessary. Remediation of the SWMU was completed in 1999. The NDEP is the lead regulatory agency for environmental issues at HWAD.

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. These PCGs were used as action levels throughout this investigation and are used for comparison with the detected analytes in this report (Appendix A). Clean up and excavation goals established, with guidance from the NDEP, and were used to guide the remediation effort (Appendix A).

2.0 Site History

SWMU B-06 is in HWAD's central magazine area, on the northeast side of the 101 Production Area (Figure 1-1). SWMU B-06 is near the southwest corner of Building 101-13. The existing lined impoundment was constructed in 1982 at the site of the previous unlined impoundment. The soil excavated from the previous unlined impoundment was placed on the north end of the pit. B-06 is one of three double-lined surface impoundments in the 101 Production Area that were designed to collect explosives-contaminated wastewater (Figure 1-2). The impoundment had a design capacity of 310,000 gallons and was constructed with a double PVC liner and a leachate collection system. The two liners in this pit were at depths of about 0.5 feet and 1.5 feet below the floor of the pit. The impoundment was approximately 105 feet long, 80 feet wide, and 8 feet deep, with side walls sloping at a ratio of about 1:3. The sides of the impoundment were eroded and the soil was stained maroon in the center (USAEHA 1988). Two discharge pipes enter the impoundment from the northeast side. A sump on the northeast side of Building 101-12 is connected to a drain line that runs to this impoundment (Tt 1997a).

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 investigations, a survey monument was constructed and surveyed at SWMU B-06. A brass survey pin on the monument designates the monument as number HWAAP-57-1996 and the SWMU as number B-06. Three corner pins were set and surveyed to define a 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 and the survey data is presented in Appendix B.

3.0 Site Conditions

The soils encountered during the investigation of SWMU B-06 consisted of brown and tan sandy silts. Monitoring wells installed in 1997 have a measured groundwater level of 95 bgs. To date none of the sampled monitoring wells in the area of B-06 have indicated any explosives contamination. Nearby structures have not been operational since 1980.

4.0 Investigations

Site inspections of SWMU B-06 were conducted by the USAEHA (1988), Jacobs Engineering (1988), and Resource Applications Incorporated (RAI 1992). During these inspections, evidence of TNT-stained soils was noted in the impoundment. WaterWork Corporation, from April to June 1989, conducted an investigation of the impoundment, the results of which are included in a report submitted by WaterWork in March 1990. Based on the results of the WaterWork investigation, additional surface soil sampling was recommended for the remedial investigation to better characterize the near-surface soils and to assess the potential remedial actions. In 1994, Tt completed an additional investigation of the SWMU. In 1994, three sediment/sludge samples, three duplicate sludge samples, and two surface soil samples were collected and analyzed for explosives and semi volatile organic compounds (SVOCs). In 1997, four additional surface soil samples and one duplicate surface soil sample were collected from the interior of the pit for additional site characterization for the risk evaluation of explosives and hydrocarbons.

5.0 Investigation Results

SWMU B-06 is located to the west of Pad 01 and the tunnel running from Building 101-15 to 101-13 (Figure 1-2). The SWMU was excavated by DZHC in 1999, and the explosives-contaminated soil was bioremediated and disposed of in the SWMU excavation pit. An area immediately east of the tunnel, north of Building 101-64, and south of the explosion barrier for Building 101-12/13 had been designated for vehicle parking and equipment staging for Pad 01. Rain showers and dust-control watering in early June 2000 brought out red staining in the soils in several spots in this area. Previously, this area had been thought to be uncontaminated and the occasional dull reddish spots were believed to be the result of iron staining in the native soils.

As a safety concern for the workers at the treatment pad, three grab soil samples from these red-stained spots were collected and submitted to the mobile laboratory for analysis. Concentrations ranged from 3,000 to 4,500 mg/kg for TNT, 1,400 to 4,100 mg/kg for RDX, 990 to 1,900 mg/kg for HMX, and 13 to 28 mg/kg for TNB. As these concentrations were all above the BEGs and the PCGs, this area was cordoned off and a sampling grid called Northeast (NE) B06 was

established (Figure 6). The USACE requested that as a part of this sampling effort, Tt reestablish the grid and sample an area to the northwest of the SWMU B-06 disposal pond excavation where samples were needed in order to confirm clean closure of this SWMU. Subsequent sampling of this Northwest (NW) B-06 area indicated the presence of TNT-contaminated soils beneath a thin (4 to 8 inches) veneer of more recent wind-blown sands. As the soil yardage allocated for treatment at Pad 01 had been exhausted, the soil excavated from the two B-06 areas was stockpiled at B-29 and used in building the first two windrows at Pad 03.

Northeast B-06 Excavation Area

The NE B-06 area is located to the west of Pad 01 and is roughly bounded by Building 101-64 to the south, the tunnel and small blast shelter to the west, the explosion barrier for Building 101-12/13 to the north, and Pad 01 to the east. It became apparent based on this sampling effort that most of the grids in this area contained TNT concentrations above the BEGs.

All of the grids in this area were excavated based on visual contamination. Table 5-2, at the end of Appendix D, presents the analytical data from the post-excavation grid sampling through final confirmation sampling. Generally, these grids were excavated about 6 to 12 inches, with the shallower excavations being near the asphalt roadway where it was difficult to excavate. Post-excavation sampling indicated the grids along either side of the roadway, where the TNT-soil had been compacted and imbedded into asphalt and gravel, still exceeded excavation goals and were reexcavated. The roadway was water-washed to remove the compacted soil veneer. The soil and water then ran into the excavation areas on either side of the roadway. From there, the water was pumped off and used to water the nearby windrows. Once the excavation dried sufficiently, the previously flooded excavation grids were reexcavated removing an additional three to six inches of potentially impacted soil from the roadway. The grids were then sampled and backfilled to grade using clean sand from the Dock 1 Borrow Pit.

Northwest B-06 Excavation Area

A 100-foot by 100-foot area to the northwest of B-06 was divided into sixteen 25-foot by 25-foot grids (Figure 6). Initial samples were collected by digging holes and collecting the underlying reddish (where encountered) soil from depths of about 3 to 12 inches below the surface. Typically about a 4- to 8-inch veneer of more recent, windblown sand was present over a reddish soil layer that presumably represented the surface during the years of active operation for the 101 Production Facility. The easternmost grids were in the actual SWMU B-06 pond that had been excavated and backfilled with compost during DZHC's previous remedial activities. As compost was present about 3 inches below the surface, those grids were sampled from the fill sand above the compost. Explosives concentrations above the BEGs were found in ten of the grids sampled. These grids were excavated about 0.75 to 1.0 foot and resampled. Those grids still exceeding BEGs were excavated further. The maximum excavation at the site was about 2.5 feet bgs, and the grids were then backfilled with clean sand from the Dock 1 Borrow Pit. Table 5-2 contained in the back of Appendix D provides a summary of confirmation samples for the final cleanup at this site.

Figure 3-1 shows the location of the samples taken in the three sampling events of 1989, 1994 and 1997. Analytical results for these samples are included in Appendix C. Surface soil and interliner samples that were collected during the WaterWork investigation (1989) contained low

concentrations of barium, antimony, lead, and mercury. All these detections were below the HWAD PCGs. Surface soil samples from Tt's 1994 sampling B06-SS01-0-S though B06-SS07-1-S contained 1,3,5-trinitrobenzene (1,3,5-TNB) (6.6 mg/kg to 270 mg/kg), 2,4,6-TNT (4 mg/kg to 8 mg/kg), HMX (1.9 mg/kg to 110 mg/kg), and RDX (2.3 mg/kg to 359 mg/kg). Picric acid was detected only in B06-SS05-1-S at 4 mg/kg. Sludge sample duplicate B06-DP0107 detected 2,4-dintrotoluene (2,4,-DNT) at 0.65 mg/kg, TNT at 4.1 mg/kg, HMX at 1.9 mg/kg, and RDX at 2.3 mg/kg. The Corps of Engineers sampling effort inside the basin found TNT in one sample at a concentration of 39ppm and RDX in two samples at concentrations of 197ppm and 268ppm. An additional sample was collected of the red stained soil located on the north side of the SWMU where the excavated soil from the construction of the liner system was placed. Analysis of this sample indicated concentrations of TNT at 13,400ppm and RDX at 9,750ppm. The data supported the conclusion of the RI report that explosive contamination in excess of the PRG's was present at this site. Using the USEPA Region IX industrial PRGs, the estimated Hazard Index for SWMU B-06 is 8.1, a value above the threshold value of 1. Risk evaluation findings therefore indicate that the identified site contaminants in surface soils at SWMU B-06 pose a potential hazard to on-site receptors.

6.0 Remediation

Based on the composting pilot study in April 1998 the explosives contaminated soil from SWMU B-06 was treated by composting. Composting is a natural process in which microorganisms biologically degrade organic material. For the destruction of the explosives contamination temperatures in the compost must reach between 120° F -- 160° F and the system must remain in aerobic conditions. The windrow system of composting was selected as the most efficient and economical to be used at the site. Three thousand one hundred and fifty-nine (3,159) cubic yards of contaminated soil was removed from B-06 and placed in the compost windrows during DZHC's fieldwork between March – August 1999. DZHC also removed the sump and drain lines from building 101-12. Confirmation samples, from the excavated area and finished compost, were taken in accordance with the project work plan. At this time the pit was backfilled with composted soil. In Tetra Tech's fieldwork during the summer of 2000, an additional five hundred and seventy eight (578) cubic yards of explosive-contaminated soil were excavated and treated during May – July as previously addressed.

7.0 Remediation Results

In 1999, contaminated soil from B-06 was placed into twenty (20) different windrows at remediation pad 1. The windrows and the excavated B-06 area were sampled for explosives and the test results are shown in appendix D (for the 1999 work) and appendix E (for the year 2000 work). The locations of the confirmation samples taken by DZHC in the B-06 excavation area are shown in figures 4-5. Tetra Tech placed contaminated soil from B-06 into the following windrows: Pad 01 windrows 7, 8, and 9; Pad 03 windrows 1, 2, 18, 19 and 20. Windrow 19 at pad 03 had B-06 material placed only in cells C and D. The locations of the confirmation samples taken by Tt are shown in figure 6. All test results indicated explosives levels below excavation or clean up goals.

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 ongoing environmental issues. HWAD continues to solicit community involvement, and will establish a RAB should sufficient community interest be obtained.

9.0 Conclusions and Recommendations

The explosives-contaminated soil from B-06 has been excavated to below excavation goals and the contaminated soil was successfully treated to results below treatment goals. The effectiveness of the remediation was checked with confirmation sampling and the SWMU was backfilled with composted soil and covered with clean soil. As such, the site should be closed and returned to the base site master plan, with the restriction to prohibit construction in the SWMU boundary.

10.0 REFERENCES

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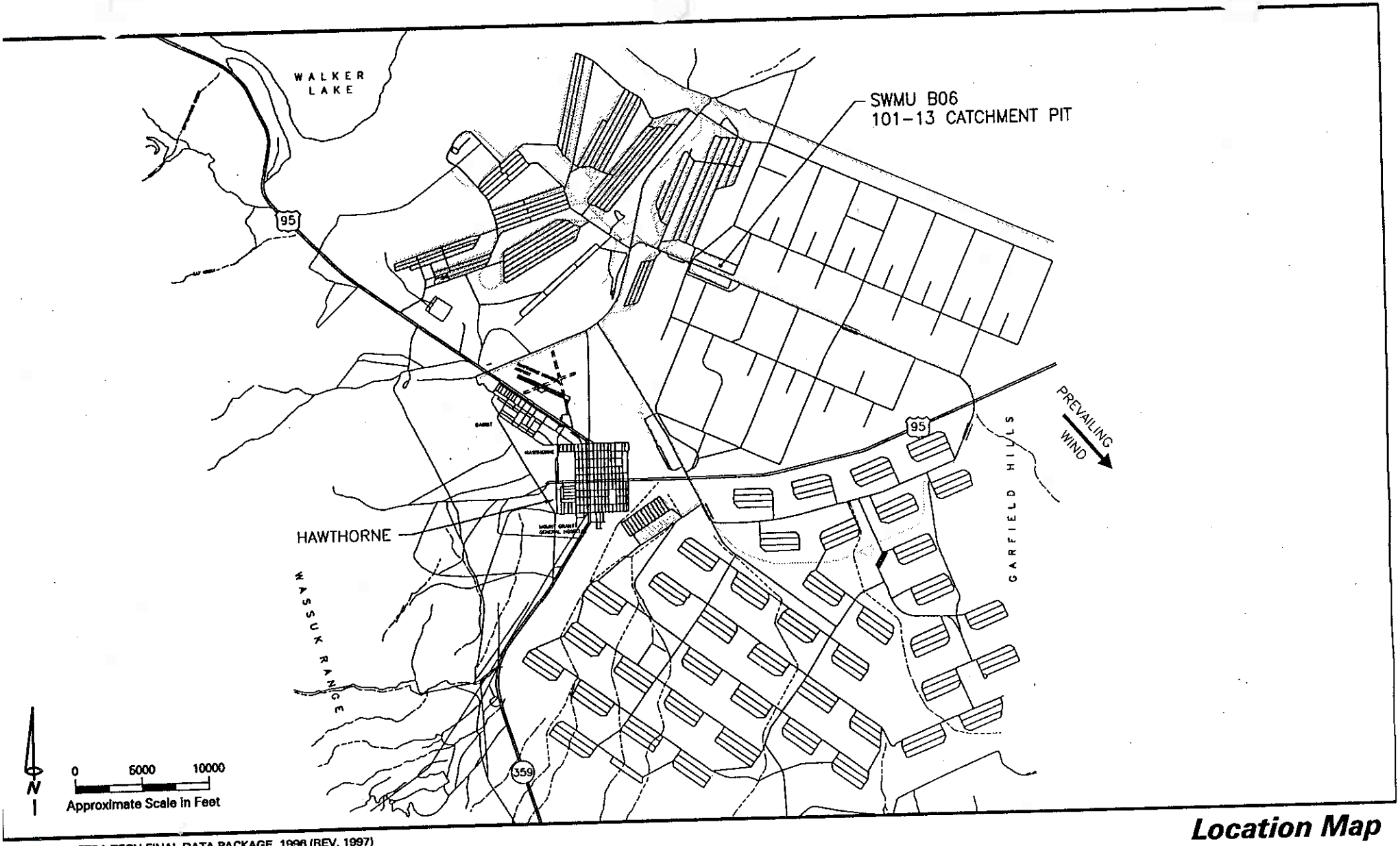


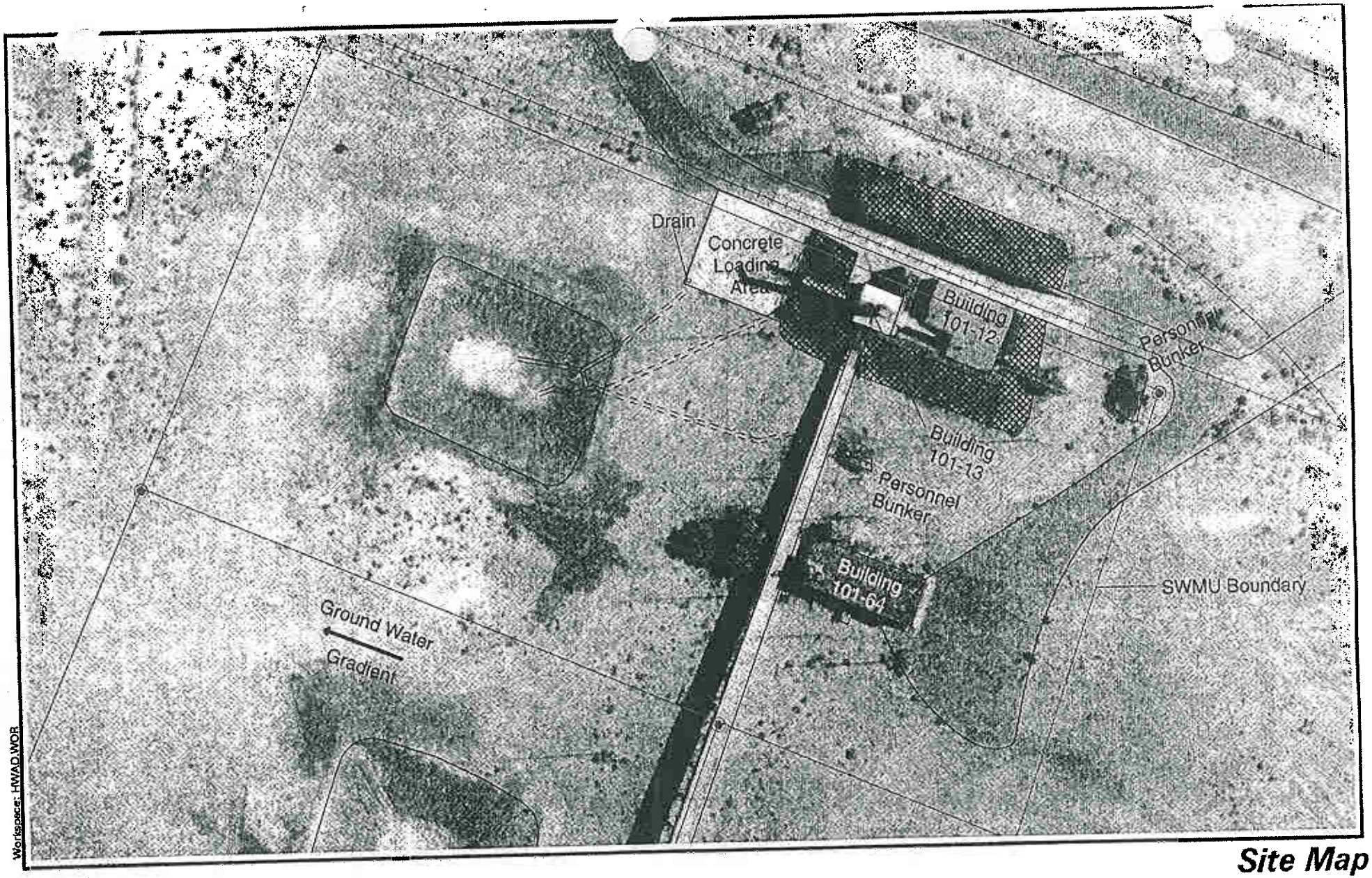
SOURCE: TETRA TECH FINAL DATA PACKAGE, 1998 (REV. 1997)

Location Map
SWMU B06
101-13 Catchment Pit

Hawthorne Army Depot
Hawthorne, Nevada

Figure 1-1

Tetra Tech, Inc.



Workspace: HWAD.WOR

Legend:

- Boundary Corner Pin
- Drain Line
- Explosion Barrier
- Fence
- Railroad
- SWMU Monument

N

0 35 70

Approximate Scale in Feet

Tetra Tech, Inc.

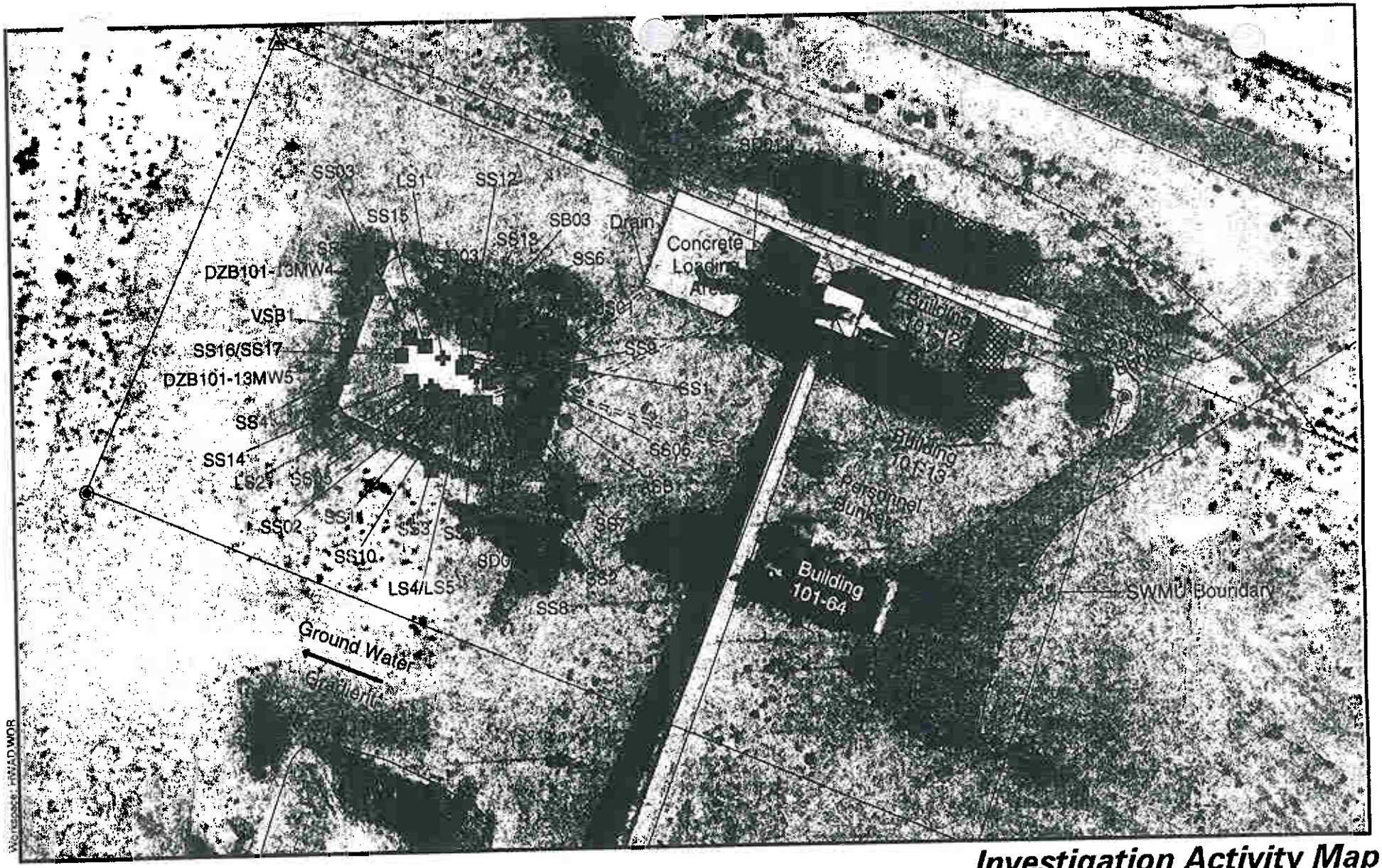
Site Map

SWMU B06

101-13 Catchment Pit

Hawthorne Army Depot
Hawthorne, Nevada

Figure 1-2



Legend:

- Boundary Corner Pin
- Drain Line
- Soil Boring Location
- Surface Soil/Sediment Sample
- Explosion Barrier
- Fence
- Liner Sample
- Railroad
- SWMU Monument

N

0 35 70
Approximate Scale in Feet

Investigation Activity Map
SWMU B06
101-13 Catchment Pit

Hawthorne Army Depot
Hawthorne, Nevada

Figure 3-1

Tetra Tech, Inc.

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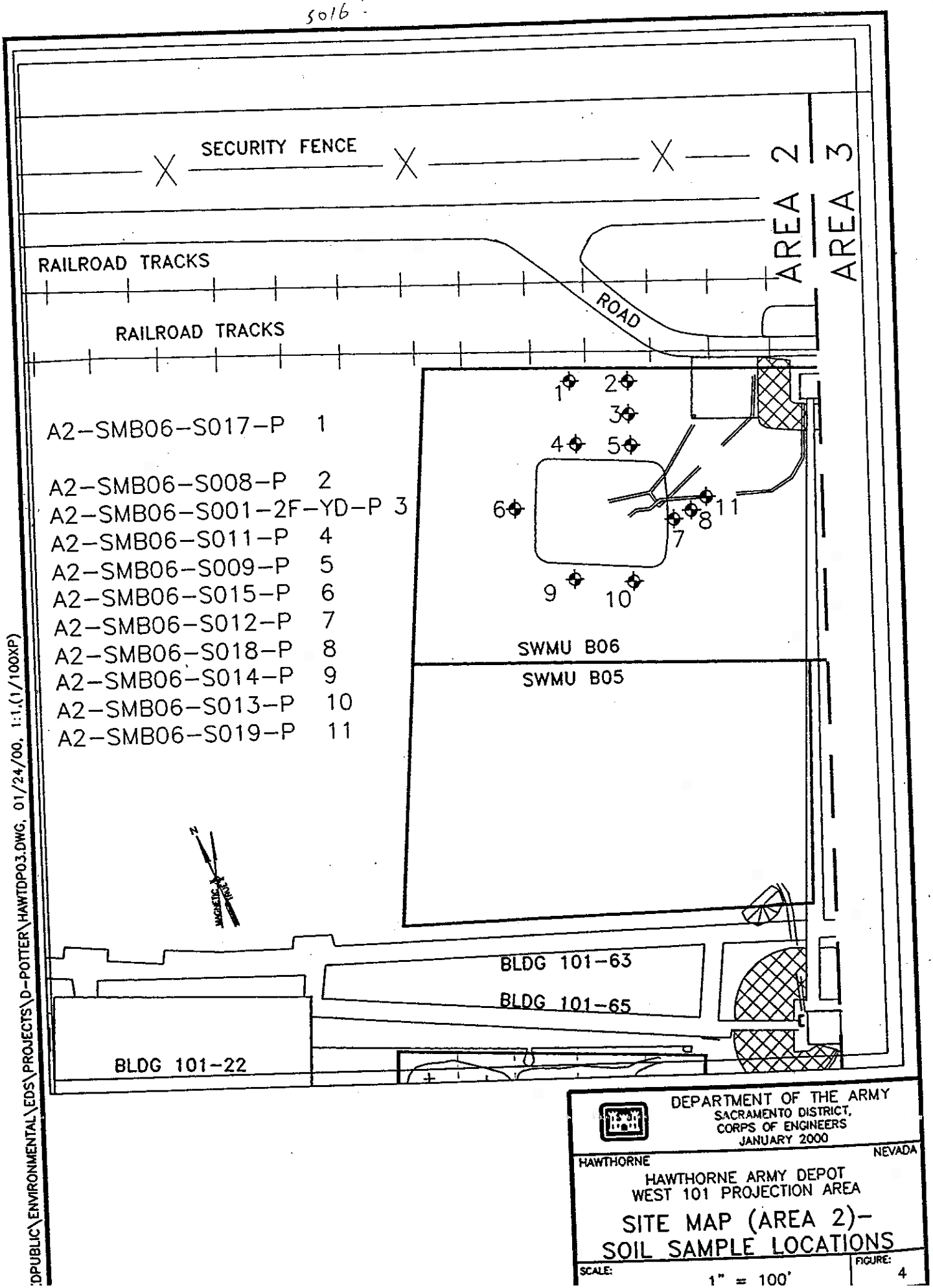
SECURITY FENCE
RAILROAD TRACKS
RAILROAD TRACKS
ROAD
AREA 2
AREA 3
A2-SMB06-S017-P 1
A2-SMB06-S008-P 2
A2-SMB06-S001-2F-YD-P 3
A2-SMB06-S011-P 4
A2-SMB06-S009-P 5
A2-SMB06-S015-P 6
A2-SMB06-S012-P 7
A2-SMB06-S018-P 8
A2-SMB06-S014-P 9
A2-SMB06-S013-P 10
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SWMU B06
SWMU B05
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MAGNETIC
TRUE
BLDG 101-63
BLDG 101-65
BLDG 101-22
DEPARTMENT OF THE ARMY
SACRAMENTO DISTRICT,
CORPS OF ENGINEERS
JANUARY 2000
HAWTHORNE
NEVADA
HAWTHORNE ARMY DEPOT
WEST 101 PROJECTION AREA
SITE MAP (AREA 2)-
SOIL SAMPLE LOCATIONS
SCALE:
1" = 100'
FIGURE:
4
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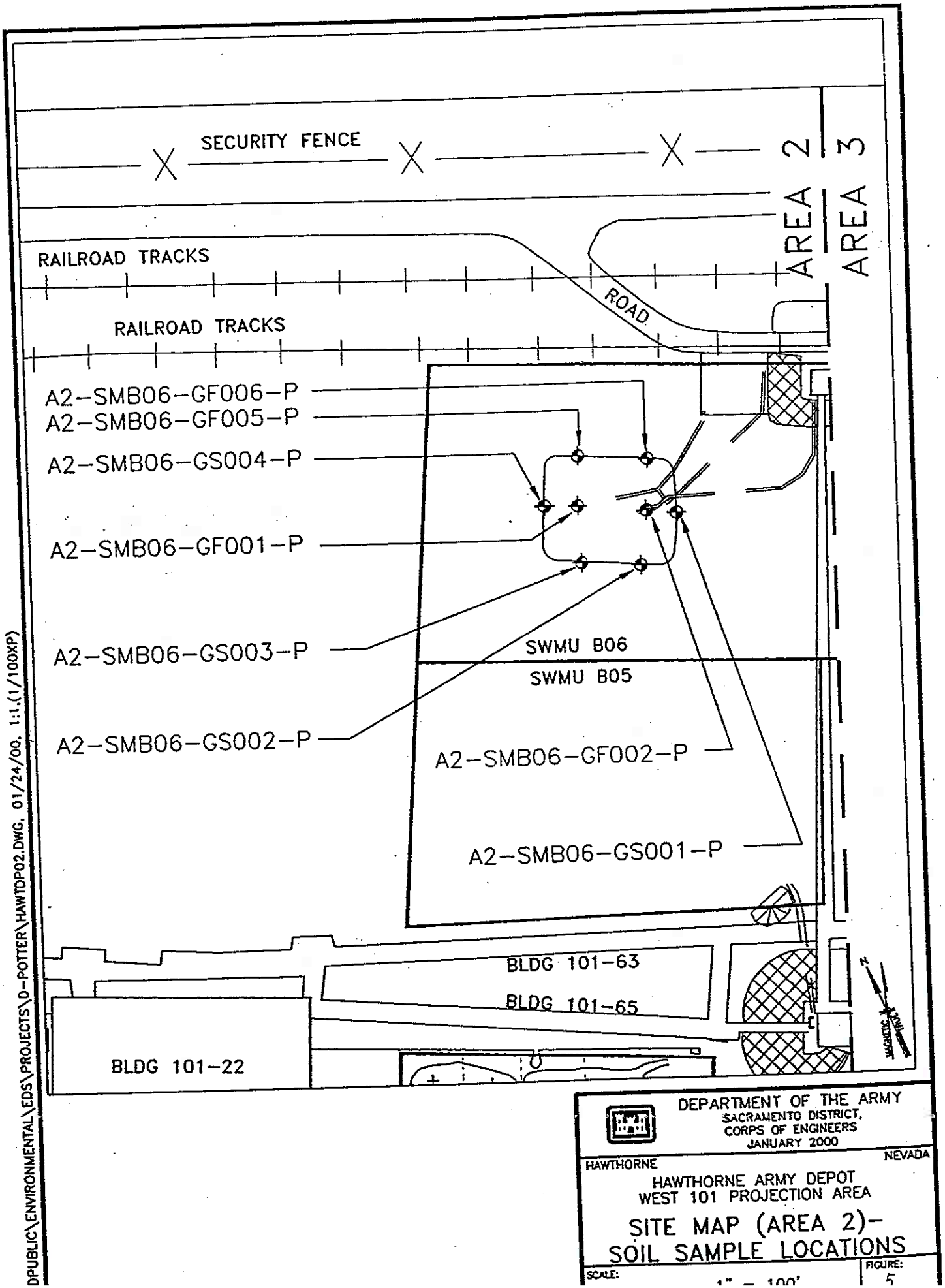
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SWMU B06
SWMU B05
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A2-SMB06-GS001-P
BLDG 101-63
BLDG 101-65
BLDG 101-22
DEPARTMENT OF THE ARMY
SACRAMENTO DISTRICT,
CORPS OF ENGINEERS
JANUARY 2000
HAWTHORNE
NEVADA
HAWTHORNE ARMY DEPOT
WEST 101 PROJECTION AREA
SITE MAP (AREA 2)-
SOIL SAMPLE LOCATIONS
SCALE:
1" = 100'
FIGURE:
5
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SAMPLE LOCATION INDEX

Locaation #	Sample #
1.	B06 013SE 013SW
2.	B06 013SE 038SW
3.	B06 013SE 063SW
4.	B06 013SE 088SW
5.	B06 038SE 013SW
6.	B06 038SE 038SW
7.	B06 038SE 063SW
8.	B06 038SE 088SW
9.	B06 063SE 013SW
10.	B06 063SE 038SW
11.	B06 063SE 063SW
12.	B06 063SE 088SW
13.	B06 088SE 013SW
14.	B06 088SE 038SW
15.	B06 088SE 063SW
16.	B06 088SE 088SW
17.	B06 063NE 013NW
18.	B06 063NE 013SE
19.	B06 038NE 013SE
20.	B06 013NE 013SE
21.	B06 063NE 038SE
22.	B06 038NE 038SE
23.	B06 013NE 038SE
24.	B06 063NE 063SE
25.	B06 038NE 063SE
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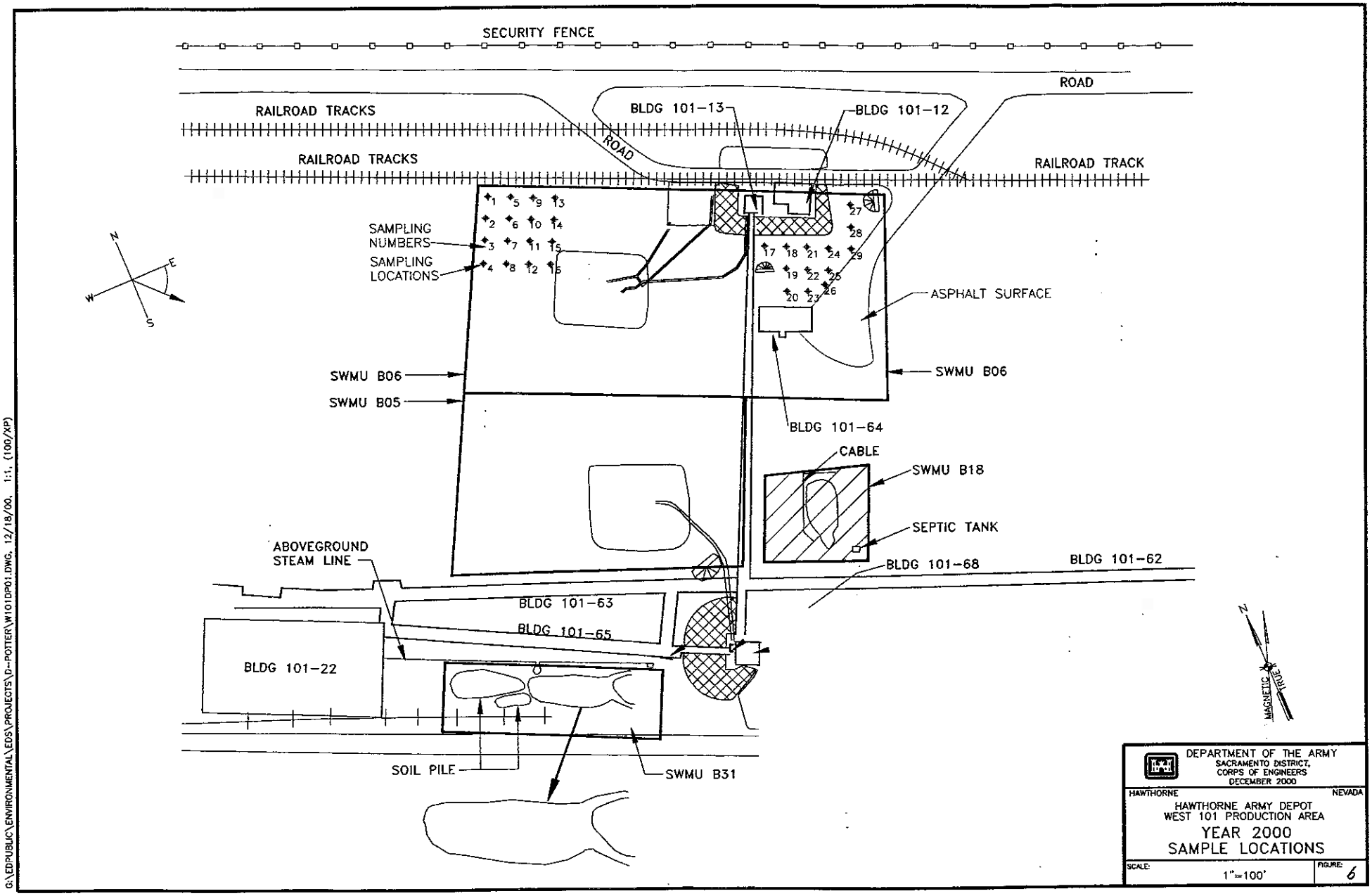

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Appendix A

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

Clean-up Goals by Screening* and Definitive Analysis

Contaminant	Concentration (mg/kg)
2,4,6,-trinitrotoluene (TNT)	40*
2,4-dinitrotoluene (2,4-DNT)	2.6
2,6-dinitrotoluene (2,6-DNT)	2.6
1,3,5-trinitrobenzene (1,3,5-TNB)	4
1,3,-drinitrobenzne (1,3-DNB)	8
2-amino-4,6dinitrotoluene (2-Am-DNT)	NE
4-amino-2,6-dinitrotoluene (4-Am-DNT)	NE
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	100
Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	64
Picric acid	7
Pentachlorophenol	None

NE - not established

Proposed Excavation Goal (PEG's) by Definitive and Screening * Analysis-
Maximum Concentration of Contaminants
In Soil to Be Left in Place at Depth Below the Surface

Contaminant	Concentration (mg/kg)
2,4,6,-trinitrotoluene (TNT)	800*
2,4-dinitrotoluene (2,4-DNT)	80
2,6-dinitrotoluene (2,6-DNT)	80
1,3,5-trinitrobenzene (1,3,5-TNB)	150
1,3,-drinitrobenzne (1,3-DNB)	NE
2-amino-4,6dinitrotoluene (2-Am-DNT)	NE
4-amino-2,6-dinitrotoluene (4-Am-DNT)	NE
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	4000
Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	300
Picric acid	7.0
Pentachlorophenol	NE
Nitroaromatics/Nitroamines	<30

Appendix B

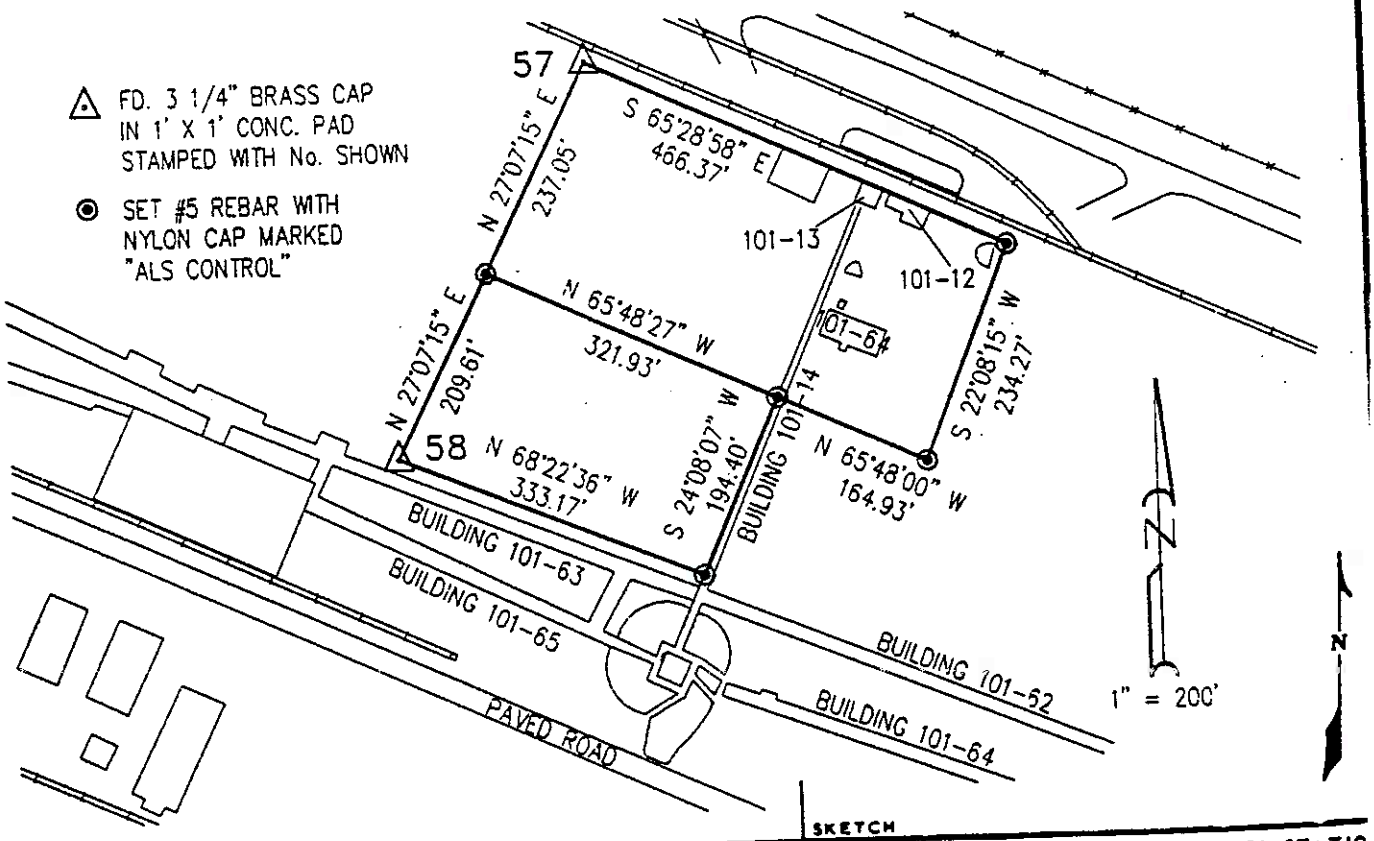
COUNTRY: USA	TYPE OF MARK: BRASS CAP	STATION: 57	
LOCALITY: HAWTHORNE NEV.	STAMPING ON MARK: 57 B-6	AGENCY (CAST IN MARKS): COE HWAAP	ELEVATION (FT) (M): 4191.60
LATITUDE: 38°34'09.33409" N	LONGITUDE: 118°35'17.73529" W	DATUM: NAD '27	DATUM: NGVD '29
(NORTHING)(EASTING) (FT) (M): 1390338.37	(EASTING)(NORTHING) (FT) (M): 498591.52	GRID AND ZONE: NEVADA SP WEST	ESTABLISHED BY (AGENCY): A.L.S.
(NORTHING)(EASTING) (FT) (M):	(EASTING)(NORTHING) (FT) (M):	GRID AND ZONE:	DATE: 1997 ORDER: 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)

MONUMENTS 57 AND 58 – SWMU'S B-6 AND B-5
FROM HIGHWAY 95 TAKE THORNE ROAD NORTHEAST 3 MILES TO 3RD AVENUE NORTH, THEN GO SOUTHEAST ON 3RD 1.6 MILES, THEN NORTHEAST 1200 FEET, THEN NORTHWEST 1200 FEET TO BUILDING 101-12. SEE MAP BELOW. MONUMENTS ARE 3 1/4" BRASS CAPS SET IN 1' X 1' CONCRETE PADS AND ARE MARKED WITH 4" X 4" X 6' WOOD POSTS, 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 STATIO
For use of this form, see TM 5-237; the proponent agency is TRADOC.

NOTES ON COMPLETION OF FORM

GENERAL: This form may be used in the field as an office form to record and publish positions, scriptions, and related data.

FIELD USE OF FORM: The information required ould be obtained and recorded *AT THE STATION TE.* The field engineer should fill in only the in- mation available and applicable to field use. In neral, the geographic and grid positions, azimuths, stances, and elevations should not be filled in at ld level except when the information is required r an immediate specific purpose.

a. ORIGINAL DESCRIPTION OF NEW STATION: e type of mark used for the station, reference marks, d azimuth marks, and a description of each must be ven in the text of the description. If a disk is used, e identity of the agency whose name is cast in the sk and all of the letters and numbers stamped on the ark which identify the organization establishing or etting the mark should be given. In many areas the se of disks is not desirable because of their loss, ue to vandalism or superstition. Less conspicuous ia should be used under these conditions. This equires exact statements of the character of the arks. Information for all marks as to the elevation bove or below ground and approximate elevation bove or below nearby prominent features is impor- ant. At least three measurements within .01 foot hould be made from the station to any permanent arks, features, or structures that would permit re- locating the spot where an instrument was centered. Good judgment should be exercised as to how far these measurements should be made. It is recom- mended that they be made to items which are not in the immediate vicinity of the station. Angles should also be turned to these items, particularly where no azimuth mark or marks have been established.

b. VIEW: Provide information on height of tower or stand used in occupying or establishing the sta- tion and information on view from a normal tripod, i.e., a 50-foot tower was used at the station; view from a tripod height is clear to the south and east but is obstructed by rise in ground *(by 50 foot trees)* to the north and west.

c. PHOTOGRAPHIC IDENTIFICATION: Provide when possible, two measurements from the station to natural or cultural features which might be visible on aerial photography and a description of the terrain. If photographs are available identify the station there- on and note estimated accuracy of the identification.

d. NOTES ON RECOVERED STATIONS: A diligent search should be made for *ALL* previously established stations in the vicinity and no station should be reported as destroyed unless conclusive evidence of destruction is present. A statement of the diligence of the search and reason for the non- recovery of a previously established mark is required. If the spot where a station mark was located can be reproduced by measurement given in the description, the station is not destroyed. The reproduced spot should be tied in by azimuth and distance and the estimated accuracy of the reproduced location given. If a new mark is set in the exact location of a pre- viously established but destroyed mark, the designa- tion of the station should be identical with the original with only a new date added to its designa- tion. If a new disk is set in the approximate loca- tion of the old station, the name should be preserved but the number "2" and a new date should be added.

(DESCRIBED) (RECOVERED) BY	
PROJECT	
DATE	FIELD BOOK

☆ U.S. Government Printing Office: 1966—491-003/50495

SWMU B06 Survey Data
Hawthorne Army Depot
Hawthorne, Nevada

SWMU	Point ID	Northing (feet)	Easting (feet)	Elevation
B06	ASB1	1390147.47	498728.58	NE
B06	DZBMW04	1390225.06	498623.47	4193.78
B06	DZBMW05	1390178.86	498602.46	4194.35
B06	HWAAP-57-1996	1390338.36	498591.53	4191.48
B06	LS1	1390181.47	498667.63	NE
B06	LS2	1390167.99	498660.81	NE
B06	LS3	1390171.68	498684.34	NE
B06	LS4/LS5	1390159.65	498677.66	NE
B06	Pin 1	1390144.84	499015.84	4196.74
B06	Pin 2	1389927.84	498927.56	4197.27
B06	Pin 3	1390127.38	498483.46	4191.46
B06	SD01	1390221.59	498829.85	NE
B06	SD02	1390158.29	498688.28	NE
B06	SD03	1390176.24	498677.72	NE
B06	SS01	1390168.20	498690.74	NE
B06	SS02	1390161.93	498668.55	NE
B06	SS03	1390191.92	498651.16	NE
B06	SS04	1390158.46	498683.42	NE
B06	SS05	1390162.05	498653.54	NE
B06	SS06	1390168.02	498710.30	NE
B06	SS07	1390632.03	496936.20	NE
B06	SS1	1390171.29	498737.51	NE
B06	SS10	1390152.65	498666.78	NE
B06	SS11	1390162.01	498671.69	NE
B06	SS12	1390178.71	498679.61	NE
B06	SS13	1390187.8	498684.62	NE
B06	SS14	1390170.88	498651.00	NE
B06	SS15	1390187.58	498658.92	NE
B06	SS16/SS17	1390183.80	498646.59	NE
B06	SS2	1390122.46	498715.50	NE
B06	SS3	1390127.42	498658.83	NE
B06	SS4	1390174.93	498615.62	NE
B06	SS5	1390217.44	498636.54	NE
B06	SS6	1390209.48	498699.76	NE
B06	SS7	1390158.28	498701.15	NE

SWMU B06 Survey Data
Hawthorne Army Depot
Hawthorne, Nevada

SWMU	Point ID	Northing (feet)	Easting (feet)	Elevation
B06	SS8	1390153.83	498689.89	NE
B06	SS9	1390170.53	498697.81	NE
B06	VSB1	1390198.35	498622.21	NE

Notes:
NE = Not establised
Coordinate datum is NAD 1927
Elevation datum is NGVD 1929

Appendix C

Metals
Method 6010 (CCAS)

Sample ID	Location ID	Sample Date	Depth	Barium
				mg/kg
DZB-101-13-LS1	LS1	4/24/89	0	65
DZB-101-13-LS2	LS2	4/24/89	0	54
DZB-101-13-LS3	LS3	4/24/89	0	21
DZB-101-13-LS4	LS4	4/24/89	0	35
DZB-101-13-LS5	LS4	4/24/89	0	49
DZB-101-13-SS1	SS1	4/24/89	0	NA
DZB-101-13-SS16	SS16	4/24/89	0	87
DZB-101-13-SS17	SS16	4/24/89	0	84

Analyses	7
Detections	7
Minimum Concentration	21
Maximum Concentration	87
HWAD - PCG	2000
HWAD - PCG Hits	0

Notes:
NA = Not analyzed

Metals
Method 7040 (CCAS)

Sample ID	Location ID	Sample Date	Depth	Antimony
				mg/kg
DZB-101-13-LS1	LS1	4/24/89	0	<0.5
DZB-101-13-LS2	LS2	4/24/89	0	<0.5
DZB-101-13-LS3	LS3	4/24/89	0	<0.5
DZB-101-13-LS4	LS4	4/24/89	0	<0.5
DZB-101-13-LS5	LS4	4/24/89	0	<0.5
DZB-101-13-SS1	SS1	4/24/89	0	NA
DZB-101-13-SS16	SS16	4/24/89	0	0.6
DZB-101-13-SS17	SS16	4/24/89	0	<0.5
DZB-ASB1A	ASB1	5/15/89	3	<0.5
DZB-ASB1B	ASB1	5/15/89	6	<0.5
DZB-ASB1C	ASB1	5/15/89	9	1.6
DZB-ASB1D	ASB1	5/15/89	12	0.9
DZB-ASB1E	ASB1	5/15/89	15	<0.5
DZB-ASB1EE	ASB1	5/15/89	15	1.5
DZB-ASB1F	ASB1	5/15/89	18	0.7
DZB-ASB1G	ASB1	5/15/89	21	1.8
DZB-ASB1H	ASB1	5/15/89	25	0.8
DZB-ASB1I	ASB1	5/15/89	30	0.6
DZB-ASB1J	ASB1	5/15/89	35	<0.5
DZB-ASB1K	ASB1	5/15/89	40	1
DZB-ASB1L	ASB1	5/15/89	45	0.5
DZB-ASB1M	ASB1	5/15/89	50	0.5
DZB-VSB1A	VSB1	5/15/89	3	<0.5
DZB-VSB1B	VSB1	5/15/89	6	0.5
DZB-VSB1C	VSB1	5/15/89	9	<0.5
DZB-VSB1D	VSB1	5/15/89	12	<0.5
DZB-VSB1E	VSB1	5/15/89	15	2
DZB-VSB1F	VSB1	5/15/89	18	2.3
DZB-VSB1G	VSB1	5/15/89	21	1
DZB-VSB1H	VSB1	5/15/89	25	0.7
DZB-VSB1I	VSB1	5/15/89	30	0.6
DZB-VSB1J	VSB1	5/15/89	35	1.1
DZB-VSB1K	VSB1	5/15/89	40	<0.5
DZB-VSB1L	VSB1	5/15/89	45	0.7
DZB-VSB1M	VSB1	5/15/89	50	<0.5
DZB-VSB1N	VSB1	5/15/89	60	1
DZB-VSB1O	VSB1	5/15/89	70	<0.5
DZB-VSB1P	VSB1	5/15/89	80	<0.5
DZB-VSB1Q	VSB1	5/15/89	90	<0.5

Metals
Method 7040 (CCAS)

Sample ID	Location ID	Sample Date	Depth	Antimony
				mg/kg
Analyses				38
Detections				20
Minimum Concentration				0.5
Maximum Concentration				2.3
HWAD - PCG				
HWAD - PCG Hits				

Notes:
NA = Not analyzed

Metals
Method 7080 (CCAS)

Sample ID	Location ID	Sample Date	Depth	Barium
				mg/kg
DZB-ASB1A	ASB1	5/15/89	3	94
DZB-ASB1B	ASB1	5/15/89	6	47
DZB-ASB1C	ASB1	5/15/89	9	130
DZB-ASB1D	ASB1	5/15/89	12	210
DZB-ASB1E	ASB1	5/15/89	15	220
DZB-ASB1EE	ASB1	5/15/89	15	250
DZB-ASB1F	ASB1	5/15/89	18	94
DZB-ASB1G	ASB1	5/15/89	21	64
DZB-ASB1H	ASB1	5/15/89	25	100
DZB-ASB1I	ASB1	5/15/89	30	180
DZB-ASB1J	ASB1	5/15/89	35	170
DZB-ASB1K	ASB1	5/15/89	40	140
DZB-ASB1L	ASB1	5/15/89	45	96
DZB-ASB1M	ASB1	5/15/89	50	67
DZB-VSB1A	VSB1	5/15/89	3	76
DZB-VSB1B	VSB1	5/15/89	6	8.7
DZB-VSB1C	VSB1	5/15/89	9	25
DZB-VSB1D	VSB1	5/15/89	12	79
DZB-VSB1E	VSB1	5/15/89	15	260
DZB-VSB1F	VSB1	5/15/89	18	180
DZB-VSB1G	VSB1	5/15/89	21	120
DZB-VSB1H	VSB1	5/15/89	25	170
DZB-VSB1I	VSB1	5/15/89	30	62
DZB-VSB1J	VSB1	5/15/89	35	480
DZB-VSB1K	VSB1	5/15/89	40	93
DZB-VSB1L	VSB1	5/15/89	45	140
DZB-VSB1M	VSB1	5/15/89	50	67
DZB-VSB1N	VSB1	5/15/89	60	110
DZB-VSB1O	VSB1	5/15/89	70	85
DZB-VSB1P	VSB1	5/15/89	80	54
DZB-VSB1Q	VSB1	5/15/89	90	75

Analyses	31
Detections	31
Minimum Concentration	8.7
Maximum Concentration	480
HWAD - PCG	2000
HWAD - PCG Hits	0

Notes:
NA = Not analyzed

Metals
Method 7420 (CCAS)

Sample ID	Location ID	Sample Date	Depth	Lead
				mg/kg
DZB-101-13-LS1	LS1	4/24/89	0	<1
DZB-101-13-LS2	LS2	4/24/89	0	<1
DZB-101-13-LS3	LS3	4/24/89	0	<1
DZB-101-13-LS4	LS4	4/24/89	0	<1
DZB-101-13-LS5	LS4	4/24/89	0	<1
DZB-101-13-SS1	SS1	4/24/89	0	NA
DZB-101-13-SS16	SS16	4/24/89	0	9
DZB-101-13-SS17	SS16	4/24/89	0	9

Analyses	7
Detections	2
Minimum Concentration	9
Maximum Concentration	9
HWAD - PCG	100
HWAD - PCG Hits	0

Notes:
NA = Not analyzed

Metals
Method 7421 (CCAS)

Sample ID	Location ID	Sample Date	Depth	Lead
				mg/kg
DZB-ASB1A	ASB1	5/15/89	3	1
DZB-ASB1B	ASB1	5/15/89	6	<1
DZB-ASB1C	ASB1	5/15/89	9	4
DZB-ASB1D	ASB1	5/15/89	12	4
DZB-ASB1E	ASB1	5/15/89	15	8
DZB-ASB1EE	ASB1	5/15/89	15	12
DZB-ASB1F	ASB1	5/15/89	18	2
DZB-ASB1G	ASB1	5/15/89	21	1
DZB-ASB1H	ASB1	5/15/89	25	2
DZB-ASB1I	ASB1	5/15/89	30	6
DZB-ASB1J	ASB1	5/15/89	35	2
DZB-ASB1K	ASB1	5/15/89	40	9
DZB-ASB1L	ASB1	5/15/89	45	3
DZB-ASB1M	ASB1	5/15/89	50	3
DZB-VSB1A	VSB1	5/15/89	3	2
DZB-VSB1B	VSB1	5/15/89	6	6
DZB-VSB1C	VSB1	5/15/89	9	5
DZB-VSB1D	VSB1	5/15/89	12	1
DZB-VSB1E	VSB1	5/15/89	15	4
DZB-VSB1F	VSB1	5/15/89	18	4
DZB-VSB1G	VSB1	5/15/89	21	3
DZB-VSB1H	VSB1	5/15/89	25	2
DZB-VSB1I	VSB1	5/15/89	30	2
DZB-VSB1J	VSB1	5/15/89	35	3
DZB-VSB1K	VSB1	5/15/89	40	1
DZB-VSB1L	VSB1	5/15/89	45	3
DZB-VSB1M	VSB1	5/15/89	50	4
DZB-VSB1N	VSB1	5/15/89	60	5
DZB-VSB1O	VSB1	5/15/89	70	2
DZB-VSB1P	VSB1	5/15/89	80	1
DZB-VSB1Q	VSB1	5/15/89	90	2

Analyses	31
Detections	30
Minimum Concentration	1
Maximum Concentration	12
HWAD - PCG	100
HWAD - PCG Hits	0

Notes:
NA = Not analyzed

Metals
Method 7471 (CCAS)

Sample ID	Location ID	Sample Date	Depth	Mercury
				mg/kg
DZB-101-13-LS1	LS1	4/24/89	0	<0.01
DZB-101-13-LS2	LS2	4/24/89	0	<0.01
DZB-101-13-LS3	LS3	4/24/89	0	<0.01
DZB-101-13-LS4	LS4	4/24/89	0	<0.01
DZB-101-13-LS5	LS4	4/24/89	0	<0.01
DZB-101-13-SS1	SS1	4/24/89	0	NA
DZB-101-13-SS16	SS16	4/24/89	0	0.03
DZB-101-13-SS17	SS16	4/24/89	0	<0.01
DZB-ASB1A	ASB1	5/15/89	3	<0.01
DZB-ASB1B	ASB1	5/15/89	6	<0.01
DZB-ASB1C	ASB1	5/15/89	9	0.02
DZB-ASB1D	ASB1	5/15/89	12	0.03
DZB-ASB1E	ASB1	5/15/89	15	0.03
DZB-ASB1EE	ASB1	5/15/89	15	0.04
DZB-ASB1F	ASB1	5/15/89	18	0.2
DZB-ASB1G	ASB1	5/15/89	21	0.02
DZB-ASB1H	ASB1	5/15/89	25	0.02
DZB-ASB1I	ASB1	5/15/89	30	0.04
DZB-ASB1J	ASB1	5/15/89	35	0.02
DZB-ASB1K	ASB1	5/15/89	40	0.01
DZB-ASB1L	ASB1	5/15/89	45	0.01
DZB-ASB1M	ASB1	5/15/89	50	<0.01
DZB-VSB1A	VSB1	5/15/89	3	0.02
DZB-VSB1B	VSB1	5/15/89	6	0.04
DZB-VSB1C	VSB1	5/15/89	9	0.04
DZB-VSB1D	VSB1	5/15/89	12	0.02
DZB-VSB1E	VSB1	5/15/89	15	0.03
DZB-VSB1F	VSB1	5/15/89	18	0.03
DZB-VSB1G	VSB1	5/15/89	21	0.03
DZB-VSB1H	VSB1	5/15/89	25	0.04
DZB-VSB1I	VSB1	5/15/89	30	0.02
DZB-VSB1J	VSB1	5/15/89	35	0.05
DZB-VSB1K	VSB1	5/15/89	40	0.02
DZB-VSB1L	VSB1	5/15/89	45	0.02
DZB-VSB1M	VSB1	5/15/89	50	<0.01
DZB-VSB1N	VSB1	5/15/89	60	<0.01
DZB-VSB1O	VSB1	5/15/89	70	0.01
DZB-VSB1P	VSB1	5/15/89	80	0.01
DZB-VSB1Q	VSB1	5/15/89	90	0.02

Metals
Method 7471 (CCAS)

Sample ID	Location ID	Sample Date	Depth	Mercury
				mg/kg
Analyses				38
Detections				27
Minimum Concentration				0.01
Maximum Concentration				0.2
HWAD - PCG				24
HWAD - PCG Hits				0

Notes:
NA = Not analyzed

Explosives
Method 8090M (BCA Field)

Sample ID	Location ID	Sample Date	Depth	1,3,5-Trinitrobenzene	1,3-Dinitrobenzene	2,3-Dinitrotoluene	2,4,6-Trinitrotoluene	2,4-Dinitrotoluene	2,6-Dinitrotoluene	2-Nitrotoluene	3-Nitrotoluene
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
B06-DP106	SD01	7/19/94	0	<500000	<250000	NA	<250000	<250000	<250000	<250000	<250000
B06-SD01-1-S	SD01	7/19/94	0	<125000	<62500	NA	<62500	<62500	<62500	<62500	<62500
B06-SD02-1-S	SD02	7/19/94	0	<0.5	<0.25	NA	<0.25	<0.25	<0.25	<0.25	<0.25
B06-SD03-1-S	SD03	7/19/94	0	<0.5	<0.25	NA	<0.25	<0.25	<0.25	<0.25	<0.25
B06-SS01-0-S	SS01	7/19/94	0	<0.5	<0.25	NA	<0.25	<0.25	<0.25	<0.25	<0.25
B06-SS02-0-S	SS02	7/19/94	0	<0.5	<0.25	NA	<0.25	<0.25	<0.25	<0.25	<0.25
Analyses				6	6	0	6	6	6	6	6
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				4	8		233	2.6	80	800	800
HWAD - PCG Hits				0	0		0	0	0	0	0

Notes:
NA = Not analyzed

Explosives
Method 8090M (BCA Field)

Sample ID	Location ID	Sample Date	Depth	4-Nitrotoluene	Nitrobenzene	RDX	Tetryl
				mg/kg	mg/kg	mg/kg	mg/kg
B06-DP106	SD01	7/19/94	0	<250000	<250000	<50000000	<250000
B06-SD01-1-S	SD01	7/19/94	0	<62500	<62500	<125000	<62500
B06-SD02-1-S	SD02	7/19/94	0	<0.25	<0.25	<50	<0.25
B06-SD03-1-S	SD03	7/19/94	0	<0.25	<0.25	<50	<0.25
B06-SS01-0-S	SS01	7/19/94	0	<0.25	<0.25	<50	<0.25
B06-SS02-0-S	SS02	7/19/94	0	<0.25	<0.25	<50	<0.25
Analyses				6	6	6	6
Detections				0	0	0	0
Minimum Concentration				0	0	0	0
Maximum Concentration				0	0	0	0
HWAD - PCG				800	40	64	800
HWAD - PCG Hits				0	0	0	0

Notes:
NA = Not analyzed

Semivolatile Organics
Method 8270 (BCA)

Sample ID	Location I	Sample Date	Depth	1,2,4-Trichlorobenzene	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	2,4,5-Trichlorophenol	2,4,6-Trichlorophenol	2,4-Dichlorophenol	2,4-Dimethylphenol	2,4-Dinitrophenol	2,4-Dinitrotoluene	2,6-Dinitrotoluene
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
B06-DP108	SD01	7/19/94	0	<20	<20	<20	<20	<20	<20	<20	<20	<10	5	<20
B06-SD01-1-S	SD01	7/19/94	0	<5	<5	<5	<5	<5	<5	<5	<5	<2.5	2.1	<5
B06-SD02-1-S	SD02	7/19/94	0	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.4	<0.4	<0.8
B06-SD03-1-S	SD03	7/19/94	0	<125	<125	<125	<125	<125	<125	<125	<125	<75	<75	<125
B06-SS01-0-S	SS01	7/19/94	0	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.1	0.15	<0.2
B06-SS02-0-S	SS02	7/19/94	0	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.1	0.15	<0.2
Analyses				6	6	6	6	6	6	6	6	6	6	6
Detections				0	0	0	0	0	0	0	0	0	4	0
Minimum Concentration				0	0	0	0	0	0	0	0	0	0.15	0
Maximum Concentration				0	0	0	0	0	0	0	0	0	5	0
HWAD - PCG					7200		150						2.6	80
HWAD - PCG Hits					0		0						1	0

Notes:
NA = Not analyzed

Semivolatile Organics
Method 8270 (BCA)

Sample ID	Location I	Sample Date	Depth	2-Chlorophenol	2-Methyl-4,6-dinitrophenol	2-Methylnaphthalene	2-Methylphenol (o-Cresol)	2-Nitroaniline	2-Nitrophenol	3,3-Dichlorobenzidine	3-Nitroaniline	4-Bromophenylphenylether	4-Chloro-3-methylphenol	4-Chloroaniline
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
B06-DP108	SD01	7/19/94	0	<20	<20	<20	<20	<20	<20	<10	<20	<10	<20	<20
B06-SD01-1-S	SD01	7/19/94	0	<5	<5	<5	<5	<5	<5	<2.5	<5	<2.5	<5	<5
B06-SD02-1-S	SD02	7/19/94	0	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.4	<0.8	<0.4	<0.8	<0.8
B06-SD03-1-S	SD03	7/19/94	0	<125	<125	<125	<125	<125	<125	<75	<125	<75	<125	<125
B06-SS01-0-S	SS01	7/19/94	0	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.1	<0.2	<0.1	<0.2	<0.2
B06-SS02-0-S	SS02	7/19/94	0	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.1	<0.2	<0.1	<0.2	<0.2
Analyses				6	6	6	6	6	6	6	6	6	6	6
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														
HWAD - PCG Hits														

Notes:
NA = Not analyzed

Semivolatile Organics
Method 8270 (BCA)

Sample ID	Location I	Sample Date	Depth	4-Chlorophenylphenylether	4-Methylphenol (p-Cresol)	4-Nitroaniline	4-Nitrophenol	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
B06-DP108	SD01	7/19/94	0	<10	<30	<20	<10	<10	<20	2.2	8.7	6.4	10	<10
B06-SD01-1-S	SD01	7/19/94	0	<2.5	<10	<5	<2.5	<2.5	<5	<2.5	1.9	<2.5	2.3	<2.5
B06-SD02-1-S	SD02	7/19/94	0	<0.4	<1.2	<0.8	<0.4	0.31	<0.8	1.1	6.5	4.8	5.4	0.57
B06-SD03-1-S	SD03	7/19/94	0	<75	<200	<125	<75	<75	<125	11	42	39	40	21
B06-SS01-0-S	SS01	7/19/94	0	<0.1	<0.3	<0.2	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1
B06-SS02-0-S	SS02	7/19/94	0	<0.1	<0.3	<0.2	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1
Analyses				6	6	6	6	6	6	6	6	6	6	6
Detections				0	0	0	0	1	0	3	4	3	4	2
Minimum Concentration				0	0	0	0	0.31	0	1.1	1.9	4.8	2.3	0.57
Maximum Concentration				0	0	0	0	0.31	0	11	42	39	40	21
HWAD - PCG								4800		24000	0.96	0.1	0.96	
HWAD - PCG Hits								0		0	4	3	4	

Notes:
NA = Not analyzed

Semivolatile Organics
Method 8270 (BCA)

Sample ID	Location I	Sample Date	Depth	Benzo(k)fluoranthene	Benzoic acid	Benzyl Alcohol	Bis(2-chloroethoxy)methane	Bis(2-chloroethyl)ether	Bis(2-chloroisopropyl)ether	Bis(2-ethylhexyl)phthalate	Butylbenzylphthalate	Chrysene	Dibenzo(a,h)anthracene	Dibenzofuran
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
B06-DP108	SD01	7/19/94	0	3.5	<100	<20	<20	<20	<20	4	<10	8.8	<10	<10
B06-SD01-1-S	SD01	7/19/94	0	0.74	<25	<5	<5	<5	<5	1.6	<2.5	2	<2.5	<2.5
B06-SD02-1-S	SD02	7/19/94	0	2.5	<4	<0.8	<0.8	<0.8	<0.8	1.8	<0.4	6.2	1.2	<0.4
B06-SD03-1-S	SD03	7/19/94	0	22	<750	<125	<125	<125	<125	6.5	<75	45	<75	<75
B06-SS01-0-S	SS01	7/19/94	0	<0.1	<1	<0.2	<0.2	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1
B06-SS02-0-S	SS02	7/19/94	0	<0.1	<1	<0.2	<0.2	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1
Analyses				6	6	6	6	6	6	6	6	6	6	6
Detections				4	0	0	0	0	0	4	0	4	1	0
Minimum Concentration				0.74	0	0	0	0	0	1.6	0	2	1.2	0
Maximum Concentration				22	0	0	0	0	0	6.5	0	45	1.2	0
HWAD - PCG				10						1600	16000	96	0.96	
HWAD - PCG Hits				1						0	0	0	1	

Notes:
NA = Not analyzed

Semivolatile Organics
Method 8270 (BCA)

Sample ID	Location I	Sample Date	Depth	Dibutylphthalate	Diethylphthalate	Dimethylphthalate	Di-n-octylphthalate	Fluoranthene	Fluorene	Hexachlorobenzene	Hexachlorobutadiene	Hexachlorocyclopentadiene	Hexachloroethane	Indeno(1,2,3-c,d)pyrene
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
B06-DP108	SD01	7/19/94	0	11	<20	<20	<10	15	<10	<10	<20	<10	<20	<20
B06-SD01-1-S	SD01	7/19/94	0	4.2	<5	<5	<2.5	3.3	<2.5	<2.5	<5	<2.5	<5	<5
B06-SD02-1-S	SD02	7/19/94	0	0.23	<0.8	<0.8	<0.4	5.9	<0.4	<0.4	<0.8	<0.4	<0.8	<0.8
B06-SD03-1-S	SD03	7/19/94	0	<75	<125	<125	<75	54	<75	<75	<125	<75	<125	20
B06-SS01-0-S	SS01	7/19/94	0	0.11	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.2	<0.2
B06-SS02-0-S	SS02	7/19/94	0	<0.1	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.2	<0.2
Analyses				6	6	6	6	6	6	6	6	6	6	6
Detections				4	0	0	0	4	0	0	0	0	0	1
Minimum Concentration				0.11	0	0	0	3.3	0	0	0	0	0	20
Maximum Concentration				11	0	0	0	54	0	0	0	0	0	20
HWAD - PCG				8000	64000			3200	3200					
HWAD - PCG Hits				0	0			0	0					

Notes:
NA = Not analyzed

Semivolatile Organics
Method 8270 (BCA)

Sample ID	Location I	Sample Date	Depth	Isophorone	Naphthalene	Nitrobenzene	N-Nitrosodimethylamine	N-Nitrosodi-n-propylamine	N-Nitrosodiphenylamine	Pentachlorophenol	Phenanthrene	Phenol	Pyrene
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
B06-DP108	SD01	7/19/94	0	<20	<20	<20	<20	<20	<10	<10	5.6	<10	17
B06-SD01-1-S	SD01	7/19/94	0	<5	<5	<5	<5	<5	<2.5	<2.5	0.9	<2.5	2.9
B06-SD02-1-S	SD02	7/19/94	0	<0.8	<0.8	<0.8	<0.8	<0.8	<0.4	<0.4	2.9	<0.4	8.9
B06-SD03-1-S	SD03	7/19/94	0	<125	<125	<125	<125	<125	<75	<75	30	<75	70
B06-SS01-0-S	SS01	7/19/94	0	<0.2	<0.2	<0.2	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1
B06-SS02-0-S	SS02	7/19/94	0	<0.2	<0.2	<0.2	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1
Analyses				6	6	6	6	6	6	6	6	6	6
Detections				0	0	0	0	0	0	0	4	0	4
Minimum Concentration				0	0	0	0	0	0	0	0.9	0	2.9
Maximum Concentration				0	0	0	0	0	0	0	30	0	70
HWAD - PCG					3200	40						48000	2400
HWAD - PCG Hits					0	0						0	0

Notes:
NA = Not analyzed

Explosives
Method 8330 (APCL)

Sample ID	Location ID	Sample Date	Depth	1,3,5-Trinitrobenzene	1,3-Dinitrobenzene	2,4,6-Trinitrotoluene	2,4-Dinitrotoluene	2,6-Dinitrotoluene	2-Nitrotoluene	3-Nitrotoluene	4-Nitrotoluene	HMX	Nitrobenzene
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
B06-SS03-1-S	SS03	2/13/97	0	13	<15	4	<18.6	<20	<38	<28	<32	100	<28
B06-SS04-1-S	SS04	2/13/97	0	26	<90	8	<110	<120	<230	<165	<195	42	<170
B06-SS05-1-S	SS05	2/13/97	0	270	<95	<155	<115	<125	<240	<170	<205	110	<180
B06-SS06-1-S	SS06	2/13/97	0	16	<13.6	<22	<16.8	<18	<34	<26	<30	27	<26
B06-SS07-1-S	SS06	2/13/97	0	6.6	<3.4	<5.7	<4.2	<4.5	<8.7	<6.3	<7.4	9.9	<6.5
Analyses				5	5	5	5	5	5	5	5	5	5
Detections				5	0	2	0	0	0	0	0	5	0
Minimum Concentration				6.6	0	4	0	0	0	0	0	9.9	0
Maximum Concentration				270	0	8	0	0	0	0	0	110	0
HWAD - PCG				4	8	233	2.6	80	800	800	800	4000	40
HWAD - PCG Hits				5	0	0	0	0	0	0	0	0	0

Notes:
NA = Not analyzed

Explosives
Method 8330 (APCL)

Sample ID	Location ID	Sample Date	Depth	RDX	Tetryl	2-Amino-4,6-dinitrotoluene	4-Amino-2,6-dinitrotoluene
				mg/kg	mg/kg	mg/kg	mg/kg
B06-SS03-1-S	SS03	2/13/97	0	148	<26	NA	NA
B06-SS04-1-S	SS04	2/13/97	0	210	<150	NA	NA
B06-SS05-1-S	SS05	2/13/97	0	359	<160	NA	NA
B06-SS06-1-S	SS06	2/13/97	0	112	<24	NA	NA
B06-SS07-1-S	SS06	2/13/97	0	54	<5.8	NA	NA
Analyses				5	5	0	0
Detections				5	0	0	0
Minimum Concentration				54	0	0	0
Maximum Concentration				359	0	0	0
HWAD - PCG				64	800		
HWAD - PCG Hits				4	0		

Notes:
NA = Not analyzed

Explosives
Method 8330 (CCAS)

Sample ID	Location ID	Sample Date	Depth	2,3-Dinitrotoluene	2,4-Dinitrotoluene	3,4- and 2,6-Dinitrotoluene	picric acid	RDX	2,4,6-Trinitrotoluene
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
DZB-101-13-LS1	LS1	4/24/89	0	<2	<1	<1	0.7	<3	3.9
DZB-101-13-LS2	LS2	4/24/89	0	<2	<1	<1	0.7	<3	6
DZB-101-13-LS3	LS3	4/24/89	0	<2	<1	<1	1.1	<3	<0.5
DZB-101-13-LS4	LS4	4/24/89	0	<2	<1	<1	1.2	<3	5.5
DZB-101-13-LS5	LS4	4/24/89	0	<2	<1	<1	0.5	<3	1.7
DZB-101-13-SS1	SS1	4/24/89	0	<20	<10	<10	9.8	57	13
DZB-101-13-SS16	SS16	4/24/89	0	<2	<1	<1	1.6	3.2	<0.5
DZB-101-13-SS17	SS16	4/24/89	0	<2	<1	<1	1.3	<3	<0.5
DZB-ASB1A	ASB1	5/15/89	3	<2	<1	<1	<0.5	<3	<0.5
DZB-ASB1B	ASB1	5/15/89	6	<2	<1	<1	<0.5	<3	0.5
DZB-ASB1C	ASB1	5/15/89	9	<2	<1	<1	1.1	<3	<0.5
DZB-ASB1D	ASB1	5/15/89	12	<2	<1	<1	1.3	<3	<0.5
DZB-ASB1E	ASB1	5/15/89	15	<2	<1	<1	0.7	<3	<0.5
DZB-ASB1EE	ASB1	5/15/89	15	<2	<1	<1	0.8	<3	<0.5
DZB-ASB1F	ASB1	5/15/89	18	<2	<1	<1	0.6	<3	<0.5
DZB-ASB1G	ASB1	5/15/89	21	<2	<1	<1	1	<3	<0.5
DZB-ASB1H	ASB1	5/15/89	25	<2	<1	<1	5.4	<3	<0.5
DZB-ASB1I	ASB1	5/15/89	30	<2	<1	<1	0.9	5.3	<0.5
DZB-ASB1J	ASB1	5/15/89	35	<2	<1	<1	<0.5	<3	<0.5
DZB-ASB1K	ASB1	5/15/89	40	<2	<1	<1	<0.5	<3	<0.5
DZB-ASB1L	ASB1	5/15/89	45	<2	<1	<1	<0.5	<3	<0.5
DZB-ASB1M	ASB1	5/15/89	50	<2	<1	<1	<0.5	<3	<0.5
DZB-VSB1A	VSB1	5/15/89	3	<2	<1	<1	<0.5	<3	<0.5
DZB-VSB1B	VSB1	5/15/89	6	<2	<1	<1	<0.5	<3	<0.5
DZB-VSB1C	VSB1	5/15/89	9	<2	<1	<1	<0.5	<3	<0.5
DZB-VSB1D	VSB1	5/15/89	12	<2	<1	<1	<0.5	<3	<0.5
DZB-VSB1E	VSB1	5/15/89	15	<2	<1	<1	2.8	<3	<0.5
DZB-VSB1F	VSB1	5/15/89	18	<2	<1	<1	<0.5	<3	<0.5
DZB-VSB1G	VSB1	5/15/89	21	<2	<1	<1	<0.5	<3	<0.5
DZB-VSB1H	VSB1	5/15/89	25	<2	<1	<1	<0.5	<3	<0.5
DZB-VSB1I	VSB1	5/15/89	30	<2	<1	<1	<0.5	<3	<0.5
DZB-VSB1J	VSB1	5/15/89	35	<2	<1	<1	0.8	3	<0.5
DZB-VSB1K	VSB1	5/15/89	40	<2	<1	<1	0.6	<3	<0.5
DZB-VSB1L	VSB1	5/15/89	45	<2	<1	<1	<0.5	<3	<0.5

Explosives
Method 8330 (CCAS)

Sample ID	Location ID	Sample Date	Depth	2,3-Dinitrotoluene	2,4-Dinitrotoluene	3,4- and 2,6-Dinitrotoluene	picric acid	RDX	2,4,6-Trinitrotoluene
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
DZB-VSB1M	VSB1	5/15/89	50	<2	<1	<1	<0.5	<3	<0.5
DZB-VSB1N	VSB1	5/15/89	60	<2	1.4	<1	0.9	3.8	<0.5
DZB-VSB1O	VSB1	5/15/89	70	<2	<1	<1	<0.5	<3	<0.5
DZB-VSB1P	VSB1	5/15/89	80	3	<1	<1	<0.5	<3	<0.5
DZB-VSB1Q	VSB1	5/15/89	90	<2	<1	<1	<0.5	<3	<0.5
Analyses				39	39	39	39	39	39
Detections				1	1	0	20	5	6
Minimum Concentration				3	1.4	0	0.5	3	0.5
Maximum Concentration				3	1.4	0	9.8	57	13
HWAD - PCG					2.6			64	233
HWAD - PCG Hits					0			0	0

Notes:
NA = Not analyzed

Explosives
Method 8330 (Datachem)

Sample ID	Location ID	Sample Date	Depth	1,3,5-Trinitrobenzene	1,3-Dinitrobenzene	2,4,6-Trinitrotoluene	2,4-Dinitrotoluene	2,6-Dinitrotoluene	2-Nitrotoluene	3-Nitrotoluene	4-Nitrotoluene	HMX	Nitrobenzene
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
B06-DP107	SD01	7/19/94	0	<0.09	<0.04	4.1	0.65	<0.17	<0.46	<0.39	<0.74	1.9	<0.09
Analyses				1	1	1	1	1	1	1	1	1	1
Detections				0	0	1	1	0	0	0	0	1	0
Minimum Concentration				0	0	4.1	0.65	0	0	0	0	1.9	0
Maximum Concentration				0	0	4.1	0.65	0	0	0	0	1.9	0
HWAD - PCG				4	8	233	2.6	80	800	800	800	4000	40
HWAD - PCG Hits				0	0	0	0	0	0	0	0	0	0

Notes:
NA = Not analyzed

Explosives
Method 8330 (Datachem)

Sample ID	Location ID	Sample Date	Depth	RDX	TETRYL
				mg/kg	mg/kg
B06-DP107	SD01	7/19/94	0	2.3	<0.19
Analyses				1	1
Detections				1	0
Minimum Concentration				2.3	0
Maximum Concentration				2.3	0
HWAD - PCG				64	800
HWAD - PCG Hits				0	0

Notes:
NA = Not analyzed

RDX Test Kit
Method 8510 (Tt Field)

Sample ID	Location ID	Sample Date	Depth	RDX	RDX-Dup
				mg/kg	mg/kg
B06-SS03-1-S	SS03	2/13/97	0	266.67	266.67
B06-SS04-1-S	SS04	2/13/97	0	NA	NA
Analyses				1	1
Detections				1	1
Minimum Concentration				266.67	266.67
Maximum Concentration				266.67	266.67
HWAD - PCG				64	64
HWAD - PCG Hits				1	1

Notes:
NA = Not analyzed

TNT Test Kit
Method 8510 (Tt Field)

Sample ID	Location ID	Sample Date	Depth	2,4,6-TNT	2,4,6-TNT-Dup
				mg/kg	mg/kg
B06-SS03-1-S	SS03	2/13/97	0	31.58	31.58
B06-SS04-1-S	SS04	2/13/97	0	NA	NA
B06-SS05-1-S	SS05	2/13/97	0	NA	NA
B06-SS06-1-S	SS06	2/13/97	0	NA	NA
Analyses				1	1
Detections				1	1
Minimum Concentration				31.58	31.58
Maximum Concentration				31.58	31.58
HWAD - PCG				233	233
HWAD - PCG Hits				0	0

Notes:
NA = Not analyzed

Appendix D

Windrow Compost Confirmation Samples

SWMU B-06

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APCL Analytical Report

Submitted to:
Tetra Tech, Inc. (San Francisco)
Attention: Roy Roenbeck
180 Howard St. Ste. 250
San Francisco CA 94105
Tel: (415)974-1221 Fax: (415)974-5914

Service ID #: 801-992955
Collected by:
Collected on: 04/06-08/99

Received: 04/09/99
Extracted: 04/12/99
Tested: 04/09-13/99
Reported: 04/15/99

Sample Description: Soil and Water
Project Description: W 101 Bioremediation

Analysis of Water and Soil Samples

I . Analysis of Water Samples

Component Analyzed	Method	Unit	PQL	Analysis Result ~~ER-040699-1525-1~~ 99-02955-18	~~ER-040799-1450-2~~ 99-02955-19
NITROAROMATICS AND NITROAMINES					
Dilution Factor				1.51	3.85
4-AMINO-2,6-DINITROTOLUENE	8330	μg/L	10	<15	<38
2-AMINO-4,6-DINITROTOLUENE	8330	μg/L	10	<15	<38
1,3-DINITROBENZENE	8330	μg/L	4	<6	<15
2,4-DINITROTOLUENE	8330	μg/L	5.7	<8.6	<22
2,6-DINITROTOLUENE	8330	μg/L	9.4	<14	<36
HMX	8330	μg/L	13	<20	<49
NITROBENZENE	8330	μg/L	6.4	<9.6	<24
3-NITROTOLUENE	8330	μg/L	7.9	<12	<30
RDX	8330	μg/L	14	<21	<53
TETRYL	8330	μg/L	4	<6	<15
1,3,5-TRINITROBENZENE	8330	μg/L	7.3	<11	<28
2,4,6-TRINITROTOLUENE	8330	μg/L	6.9	<10	<26
2/4-NITROTOLUENE	8330	μg/L	8.5	<13	<32

II . Analysis of Soil Samples

Component Analyzed	Method	Unit	PQL	Analysis Result ~~A3-WR001-C001-CC002-P~~ 99-02955-1	~~A3-WR001-C002-CC002-P~~ 99-02955-2
MOISTURE	ASTM-D2216	%Moisture	0.5	26.9	28.3
NITROAROMATICS AND NITROAMINES					
Dilution Factor				1	1
4-AMINO-2,6-DINITROTOLUENE	8330	mg/kg	0.2	<0.27	<0.28
2-AMINO-4,6-DINITROTOLUENE	8330	mg/kg	0.2	<0.27	<0.28
1,3-DINITROBENZENE	8330	mg/kg	0.25	<0.34	<0.35
2,4-DINITROTOLUENE	8330	mg/kg	0.25	<0.34	<0.35
2,6-DINITROTOLUENE	8330	mg/kg	0.25	<0.34	<0.35
HMX	8330	mg/kg	0.25	<0.34	<0.35
NITROBENZENE	8330	mg/kg	0.25	<0.34	<0.35
3-NITROTOLUENE	8330	mg/kg	0.25	<0.34	<0.35
RDX	8330	mg/kg	0.25	<0.34	<0.35
TETRYL	8330	mg/kg	0.25	<0.34	<0.35
1,3,5-TRINITROBENZENE	8330	mg/kg	0.25	<0.34	<0.35
2,4,6-TRINITROTOLUENE	8330	mg/kg	0.25	<0.34	<0.35
2/4-NITROTOLUENE	8330	mg/kg	0.25	<0.34	<0.35

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Component Analyzed	Method	Unit	PQL	Analysis Result A3-WR002-C003-CC002P 99-02955-7	Analysis Result A3-WR002-C004-CC002P 99-02955-8
NITROAROMATICS AND NITROAMINES [a]					
Dilution Factor				1	1
4-AMINO-2,6-DINITROTOLUENE	8330	mg/kg	0.2	<0.29	0.2J
2-AMINO-4,6-DINITROTOLUENE	8330	mg/kg	0.2	<0.29	0.2J
1,3-DINITROBENZENE	8330	mg/kg	0.25	<0.37	<0.38
2,4-DINITROTOLUENE	8330	mg/kg	0.25	<0.37	<0.38
2,6-DINITROTOLUENE	8330	mg/kg	0.25	<0.37	<0.38
HMX	8330	mg/kg	0.25	<0.37	<0.38
NITROBENZENE	8330	mg/kg	0.25	<0.37	<0.38
3-NITROTOLUENE	8330	mg/kg	0.25	<0.37	<0.38
RDX	8330	mg/kg	0.25	<0.37	0.44
TETRYL	8330	mg/kg	0.25	<0.37	<0.38
1,3,5-TRINITROBENZENE	8330	mg/kg	0.25	<0.37	<0.38
2,4,6-TRINITROTOLUENE	8330	mg/kg	0.25	<0.37	0.2J
2/4-NITROTOLUENE	8330	mg/kg	0.25	<0.37	<0.38

Component Analyzed	Method	Unit	PQL	Analysis Result A3-WR002-C005-CC002P 99-02955-9	Analysis Result A3-WR003-C001-CC002P 99-02955-10
MOISTURE	ASTM-D2216	%Moisture	0.5	26.7	27.3
NITROAROMATICS AND NITROAMINES					
Dilution Factor				1	1
4-AMINO-2,6-DINITROTOLUENE	8330	mg/kg	0.2	<0.27	<0.27
2-AMINO-4,6-DINITROTOLUENE	8330	mg/kg	0.2	<0.27	<0.27
1,3-DINITROBENZENE	8330	mg/kg	0.25	<0.34	<0.34
2,4-DINITROTOLUENE	8330	mg/kg	0.25	<0.34	<0.34
2,6-DINITROTOLUENE	8330	mg/kg	0.25	<0.34	<0.34
HMX	8330	mg/kg	0.25	<0.34	<0.34
NITROBENZENE	8330	mg/kg	0.25	<0.34	<0.34
3-NITROTOLUENE	8330	mg/kg	0.25	<0.34	<0.34
RDX	8330	mg/kg	0.25	<0.34	<0.34
TETRYL	8330	mg/kg	0.25	<0.34	<0.34
1,3,5-TRINITROBENZENE	8330	mg/kg	0.25	<0.34	<0.34
2,4,6-TRINITROTOLUENE	8330	mg/kg	0.25	<0.34	<0.34
2/4-NITROTOLUENE	8330	mg/kg	0.25	<0.34	<0.34

Component Analyzed	Method	Unit	PQL	Analysis Result A3-WR003-C002-CC002P 99-02955-11	Analysis Result A3-WR003-C003-CC002P 99-02955-12
MOISTURE	ASTM-D2216	%Moisture	0.5	31.8	27.0

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Component Analyzed	Method	Unit	PQL	Analysis Result A3-WR003-C002-CC002P 99-02955-11	Analysis Result A3-WR003-C003-CC002P 99-02955-12
NITROAROMATICS AND NITROAMINES					
Dilution Factor				1	1
4-AMINO-2,6-DINITROTOLUENE	8330	mg/kg	0.2	<0.29	<0.27
2-AMINO-4,6-DINITROTOLUENE	8330	mg/kg	0.2	<0.29	<0.27
1,3-DINITROBENZENE	8330	mg/kg	0.25	<0.37	<0.34
2,4-DINITROTOLUENE	8330	mg/kg	0.25	<0.37	<0.34
2,6-DINITROTOLUENE	8330	mg/kg	0.25	<0.37	<0.34
HMX	8330	mg/kg	0.25	<0.37	<0.34
NITROBENZENE	8330	mg/kg	0.25	<0.37	<0.34
3-NITROTOLUENE	8330	mg/kg	0.25	<0.37	<0.34
RDX	8330	mg/kg	0.25	<0.37	<0.34
TETRYL	8330	mg/kg	0.25	<0.37	<0.34
1,3,5-TRINITROBENZENE	8330	mg/kg	0.25	<0.37	<0.34
2,4,6-TRINITROTOLUENE	8330	mg/kg	0.25	<0.37	<0.34
2/4-NITROTOLUENE	8330	mg/kg	0.25	<0.37	<0.34

Component Analyzed	Method	Unit	PQL	Analysis Result A3-WR003-C004-CC002P 99-02955-13	Analysis Result A3-WR008-C001-CC002P 99-02955-14
MOISTURE	ASTM-D2216	%Moisture	0.5	12.7	37.6
NITROAROMATICS AND NITROAMINES [a]					
Dilution Factor				1	10
4-AMINO-2,6-DINITROTOLUENE	8330	mg/kg	0.2	<0.23	<3.2
2-AMINO-4,6-DINITROTOLUENE	8330	mg/kg	0.2	<0.23	<3.2
1,3-DINITROBENZENE	8330	mg/kg	0.25	<0.29	<4.0
2,4-DINITROTOLUENE	8330	mg/kg	0.25	<0.29	<4.0
2,6-DINITROTOLUENE	8330	mg/kg	0.25	<0.29	<4.0
HMX	8330	mg/kg	0.25	<0.29	15
NITROBENZENE	8330	mg/kg	0.25	<0.29	<4.0
3-NITROTOLUENE	8330	mg/kg	0.25	<0.29	<4.0
RDX	8330	mg/kg	0.25	0.3J	120
TETRYL	8330	mg/kg	0.25	<0.29	<4.0
1,3,5-TRINITROBENZENE	8330	mg/kg	0.25	<0.29	<4.0
2,4,6-TRINITROTOLUENE	8330	mg/kg	0.25	0.1J	11
2/4-NITROTOLUENE	8330	mg/kg	0.25	<0.29	<4.0

Component Analyzed	Method	Unit	PQL	Analysis Result A3-WR008-C002-CC002P 99-02955-15	Analysis Result A3-WR008-C003-CC002P 99-02955-16
MOISTURE	ASTM-D2216	%Moisture	0.5	42.7	32.4

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Component Analyzed	Method	Unit	PQL	Analysis Result A3-WR008-C002-CC002P 99-02955-15	Analysis Result A3-WR008-C003-CC002P 99-02955-16
NITROAROMATICS AND NITROAMINES [a]					
Dilution Factor				10	10
4-AMINO-2,6-DINITROTOLUENE	8330	mg/kg	0.2	<3.5	3J
2-AMINO-4,6-DINITROTOLUENE	8330	mg/kg	0.2	<3.5	2J
1,3-DINITROBENZENE	8330	mg/kg	0.25	<4.4	<3.7
2,4-DINITROTOLUENE	8330	mg/kg	0.25	<4.4	<3.7
2,6-DINITROTOLUENE	8330	mg/kg	0.25	<4.4	<3.7
HMX	8330	mg/kg	0.25	21	24
NITROBENZENE	8330	mg/kg	0.25	<4.4	<3.7
3-NITROTOLUENE	8330	mg/kg	0.25	<4.4	<3.7
RDX	8330	mg/kg	0.25	123	154
TETRYL	8330	mg/kg	0.25	<4.4	<3.7
1,3,5-TRINITROBENZENE	8330	mg/kg	0.25	<4.4	<3.7
2,4,6-TRINITROTOLUENE	8330	mg/kg	0.25	14	49
2/4-NITROTOLUENE	8330	mg/kg	0.25	<4.4	<3.7

Component Analyzed	Method	Unit	PQL	Analysis Result A3-WR008-C004-CC002P 99-02955-17
MOISTURE	ASTM-D2216	%Moisture	0.5	47.8
NITROAROMATICS AND NITROAMINES [a]				
Dilution Factor				10
4-AMINO-2,6-DINITROTOLUENE	8330	mg/kg	0.2	3J
2-AMINO-4,6-DINITROTOLUENE	8330	mg/kg	0.2	<3.8
1,3-DINITROBENZENE	8330	mg/kg	0.25	<4.8
2,4-DINITROTOLUENE	8330	mg/kg	0.25	<4.8
2,6-DINITROTOLUENE	8330	mg/kg	0.25	<4.8
HMX	8330	mg/kg	0.25	21
NITROBENZENE	8330	mg/kg	0.25	<4.8
3-NITROTOLUENE	8330	mg/kg	0.25	<4.8
RDX	8330	mg/kg	0.25	145
TETRYL	8330	mg/kg	0.25	<4.8
1,3,5-TRINITROBENZENE	8330	mg/kg	0.25	<4.8
2,4,6-TRINITROTOLUENE	8330	mg/kg	0.25	47
2/4-NITROTOLUENE	8330	mg/kg	0.25	<4.8

PQL: Practical Quantitation Limit. MDL: Method Detection Limit. CRDL: Contract Required Detection Limit
N.D.: Not Detected or less than the practical quantitation limit. "-": Analysis is not required.
J: Reported between PQL and MDL.
† All results are reported on dry basis for soil samples.
Listed Dilution Factors (DF) are relative to the method default DF. All unlisted DFs are 1.0
[a] Positive results had been confirmed by GC/MS.

Respectfully submitted,

Dominic Lan
Laboratory Director
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APCL Analytical Report

Submitted to:
Tetra Tech, Inc. (San Francisco)
Attention: Roy Roenbeck
180 Howard St. Ste. 250
San Francisco CA 94105
Tel: (415)974-1221 Fax: (415)974-5914

Service ID #: 801-993109
Collected by:
Collected on: 04/18/99

Received: 04/20/99
Extracted: 04/21/99
Tested: 04/21-22/99
Reported: 04/26/99

Sample Description: Soil and Water
Project Description: W.101 Bioremediation

Analysis of Water and Soil Samples

I. Analysis of Water Samples

Component Analyzed	Method	Unit	PQL	Analysis Result ER-041899-1736-1 99-03109-10
NITROAROMATICS AND NITROAMINES [a]				
Dilution Factor				1.4
4-AMINO-2,6-DINITROTOLUENE	8330	µg/L	10	<14
2-AMINO-4,6-DINITROTOLUENE	8330	µg/L	10	0.4J
1,3-DINITROBENZENE	8330	µg/L	4	<5.6
2,4-DINITROTOLUENE	8330	µg/L	5.7	<8.0
2,6-DINITROTOLUENE	8330	µg/L	9.4	<13
HMX	8330	µg/L	13	<18
NITROBENZENE	8330	µg/L	6.4	<9.0
3-NITROTOLUENE	8330	µg/L	7.9	<11
RDX	8330	µg/L	14	<20
TETRYL	8330	µg/L	4	<5.6
1,3,5-TRINITROBENZENE	8330	µg/L	7.3	<10
2,4,6-TRINITROTOLUENE	8330	µg/L	6.9	1J
2/4-NITROTOLUENE	8330	µg/L	8.5	<12

II. Analysis of Soil Samples

Component Analyzed	Method	Unit	PQL	Analysis Result A3-WR004-C001-CC002-P 99-03109-1	A3-WR004-C002-CC002-P 99-03109-2
MOISTURE	ASTM-D2216	%Moisture	0.5	29.2	27.0
NITROAROMATICS AND NITROAMINES [a]					
Dilution Factor				1	1
4-AMINO-2,6-DINITROTOLUENE	8330	mg/kg	0.2	<0.28	<0.27
2-AMINO-4,6-DINITROTOLUENE	8330	mg/kg	0.2	<0.28	<0.27
1,3-DINITROBENZENE	8330	mg/kg	0.25	<0.35	<0.34
2,4-DINITROTOLUENE	8330	mg/kg	0.25	<0.35	<0.34
2,6-DINITROTOLUENE	8330	mg/kg	0.25	<0.35	<0.34
HMX	8330	mg/kg	0.25	0.38	<0.34
NITROBENZENE	8330	mg/kg	0.25	<0.35	<0.34
3-NITROTOLUENE	8330	mg/kg	0.25	<0.35	<0.34
RDX	8330	mg/kg	0.25	0.42	<0.34
TETRYL	8330	mg/kg	0.25	<0.35	<0.34
1,3,5-TRINITROBENZENE	8330	mg/kg	0.25	0.2J	0.1J
2,4,6-TRINITROTOLUENE	8330	mg/kg	0.25	<0.35	<0.34
2/4-NITROTOLUENE	8330	mg/kg	0.25	<0.35	<0.34

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APCL Analytical Report

Component Analyzed	Method	Unit	PQL	Analysis Result A3-WR004-C003-CC002-P 99-03109-3	Analysis Result A3-WR004-C004-CC002-P 99-03109-4
MOISTURE	ASTM-D2216	%Moisture	0.5	29.5	21.5
NITROAROMATICS AND NITROAMINES [a]					
Dilution Factor				1	1
4-AMINO-2,6-DINITROTOLUENE	8330	mg/kg	0.2	<0.28	<0.25
2-AMINO-4,6-DINITROTOLUENE	8330	mg/kg	0.2	<0.28	<0.25
1,3-DINITROBENZENE	8330	mg/kg	0.25	<0.35	<0.32
2,4-DINITROTOLUENE	8330	mg/kg	0.25	<0.35	<0.32
2,6-DINITROTOLUENE	8330	mg/kg	0.25	<0.35	<0.32
HMX	8330	mg/kg	0.25	0.3J	<0.32
NITROBENZENE	8330	mg/kg	0.25	<0.35	<0.32
3-NITROTOLUENE	8330	mg/kg	0.25	<0.35	<0.32
RDX	8330	mg/kg	0.25	<0.35	0.1J
TETRYL	8330	mg/kg	0.25	<0.35	<0.32
1,3,5-TRINITROBENZENE	8330	mg/kg	0.25	0.1J	0.2J
2,4,6-TRINITROTOLUENE	8330	mg/kg	0.25	<0.35	<0.32
2/4-NITROTOLUENE	8330	mg/kg	0.25	<0.35	<0.32

Component Analyzed	Method	Unit	PQL	Analysis Result A3-WR005-C001-CC002-P 99-03109-5	Analysis Result A3-WR005-C002-CC002-P 99-03109-6
MOISTURE	ASTM-D2216	%Moisture	0.5	28.9	29.0
NITROAROMATICS AND NITROAMINES [a]					
Dilution Factor				1	1
4-AMINO-2,6-DINITROTOLUENE	8330	mg/kg	0.2	<0.28	<0.28
2-AMINO-4,6-DINITROTOLUENE	8330	mg/kg	0.2	<0.28	<0.28
1,3-DINITROBENZENE	8330	mg/kg	0.25	<0.35	<0.35
2,4-DINITROTOLUENE	8330	mg/kg	0.25	<0.35	<0.35
2,6-DINITROTOLUENE	8330	mg/kg	0.25	<0.35	<0.35
HMX	8330	mg/kg	0.25	<0.35	<0.35
NITROBENZENE	8330	mg/kg	0.25	<0.35	<0.35
3-NITROTOLUENE	8330	mg/kg	0.25	<0.35	<0.35
RDX	8330	mg/kg	0.25	<0.35	<0.35
TETRYL	8330	mg/kg	0.25	<0.35	<0.35
1,3,5-TRINITROBENZENE	8330	mg/kg	0.25	<0.35	<0.35
2,4,6-TRINITROTOLUENE	8330	mg/kg	0.25	0.2J	<0.35
2/4-NITROTOLUENE	8330	mg/kg	0.25	<0.35	<0.35

Component Analyzed	Method	Unit	PQL	Analysis Result A3-WR005-C003-CC002-P 99-03109-7	Analysis Result A3-WR005-C004-CC002-P 99-03109-8
MOISTURE	ASTM-D2216	%Moisture	0.5	31.4	24.9

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Component Analyzed	Method	Unit	PQL	Analysis Result A3-WR005-C003-CC002-P 99-03109-7	Analysis Result A3-WR005-C004-CC002-P 99-03109-8
NITROAROMATICS AND NITROAMINES [a]					
Dilution Factor				1	1
4-AMINO-2,6-DINITROTOLUENE	8330	mg/kg	0.2	<0.29	<0.27
2-AMINO-4,6-DINITROTOLUENE	8330	mg/kg	0.2	<0.29	<0.27
1,3-DINITROBENZENE	8330	mg/kg	0.25	<0.36	<0.33
2,4-DINITROTOLUENE	8330	mg/kg	0.25	<0.36	<0.33
2,6-DINITROTOLUENE	8330	mg/kg	0.25	<0.36	<0.33
HMX	8330	mg/kg	0.25	<0.36	0.84
NITROBENZENE	8330	mg/kg	0.25	0.3J	0.2J
3-NITROTOLUENE	8330	mg/kg	0.25	<0.36	<0.33
RDX	8330	mg/kg	0.25	<0.36	0.49
TETRYL	8330	mg/kg	0.25	<0.36	<0.33
1,3,5-TRINITROBENZENE	8330	mg/kg	0.25	0.50	0.41
2,4,6-TRINITROTOLUENE	8330	mg/kg	0.25	0.1J	0.2J
2/4-NITROTOLUENE	8330	mg/kg	0.25	<0.36	<0.33

Component Analyzed	Method	Unit	PQL	Analysis Result A3-WR005-C005-CC002-P 99-03109-9
MOISTURE	ASTM-D2216	%Moisture	0.5	30.8
NITROAROMATICS AND NITROAMINES [a]				
Dilution Factor				1
4-AMINO-2,6-DINITROTOLUENE	8330	mg/kg	0.2	<0.29
2-AMINO-4,6-DINITROTOLUENE	8330	mg/kg	0.2	<0.29
1,3-DINITROBENZENE	8330	mg/kg	0.25	<0.36
2,4-DINITROTOLUENE	8330	mg/kg	0.25	<0.36
2,6-DINITROTOLUENE	8330	mg/kg	0.25	<0.36
HMX	8330	mg/kg	0.25	<0.36
NITROBENZENE	8330	mg/kg	0.25	<0.36
3-NITROTOLUENE	8330	mg/kg	0.25	<0.36
RDX	8330	mg/kg	0.25	<0.36
TETRYL	8330	mg/kg	0.25	<0.36
1,3,5-TRINITROBENZENE	8330	mg/kg	0.25	<0.36
2,4,6-TRINITROTOLUENE	8330	mg/kg	0.25	<0.36
2/4-NITROTOLUENE	8330	mg/kg	0.25	<0.36

PQL: Practical Quantitation Limit. MDL: Method Detection Limit. CRDL: Contract Required Detection Limit
N.D.: Not Detected or less than the practical quantitation limit. "-": Analysis is not required.
J: Reported between PQL and MDL.
† All results are reported on dry basis for soil samples.
Listed Dilution Factors (DF) are relative to the method default DF. All unlisted DFs are 1.0
[a] Positive results had been confirmed by second column.

Respectfully submitted,

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APCL Analytical Report

Submitted to:
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Attention: Roy Roenbeck
180 Howard St. Ste. 250
San Francisco CA 94105
Tel: (415)974-1221 Fax: (415)974-5914

Service ID #: 801-993156
Collected by:
Collected on: 04/20-21/99

Received: 04/22/99
Extracted: 04/26/99
Tested: 04/22-27/99
Reported: 04/30/99

Sample Description: Soil and Water
Project Description: W 101 Bioremediation

Analysis of Water and Soil Samples

I. Analysis of Water Samples

Component Analyzed	Method	Unit	PQL	Analysis Result ER-042099-1120-2 99-03156-21
NITROAROMATICS AND NITROAMINES [a]				
Dilution Factor				3.85
4-AMINO-2,6-DINITROTOLUENE	8330	µg/L	10	<38
2-AMINO-4,6-DINITROTOLUENE	8330	µg/L	10	<38
1,3-DINITROBENZENE	8330	µg/L	4	<15
2,4-DINITROTOLUENE	8330	µg/L	5.7	<22
2,6-DINITROTOLUENE	8330	µg/L	9.4	<36
HMX	8330	µg/L	13	1J
NITROBENZENE	8330	µg/L	6.4	<24
3-NITROTOLUENE	8330	µg/L	7.9	<30
RDX	8330	µg/L	14	<53
TETRYL	8330	µg/L	4	<15
1,3,5-TRINITROBENZENE	8330	µg/L	7.3	<28
2,4,6-TRINITROTOLUENE	8330	µg/L	6.9	2J
2/4-NITROTOLUENE	8330	µg/L	8.5	<32

II. Analysis of Soil Samples

Component Analyzed	Method	Unit	PQL	Analysis Result A3-SMB18-P1-GF001-P 99-03156-1	A3-SMB18-P1-GS001-P 99-03156-2
MOISTURE	ASTM-D2216	%Moisture	0.5	1.9	1.2
NITROAROMATICS AND NITROAMINES [a]					
Dilution Factor				1	1
4-AMINO-2,6-DINITROTOLUENE	8330	mg/kg	0.2	0.44	0.3
2-AMINO-4,6-DINITROTOLUENE	8330	mg/kg	0.2	0.49	0.52
1,3-DINITROBENZENE	8330	mg/kg	0.25	<0.25	<0.25
2,4-DINITROTOLUENE	8330	mg/kg	0.25	0.2J	0.27
2,6-DINITROTOLUENE	8330	mg/kg	0.25	<0.25	<0.25
HMX	8330	mg/kg	0.25	0.83	0.74
NITROBENZENE	8330	mg/kg	0.25	<0.25	<0.25
3-NITROTOLUENE	8330	mg/kg	0.25	<0.25	<0.25
RDX	8330	mg/kg	0.25	3.6	7.54
TETRYL	8330	mg/kg	0.25	<0.25	<0.25
1,3,5-TRINITROBENZENE	8330	mg/kg	0.25	0.1J	0.82
2,4,6-TRINITROTOLUENE	8330	mg/kg	0.25	18.1	2.8
2/4-NITROTOLUENE	8330	mg/kg	0.25	<0.25	<0.25

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Component Analyzed	Method	Unit	PQL	Analysis Result A3-WR006-C001-CC002-P 99-03156-7	Analysis Result A3-WR006-C002-CC002-P 99-03156-8
NITROAROMATICS AND NITROAMINES (a)					
Dilution Factor				1	1
4-AMINO-2,6-DINITROTOLUENE	8330	mg/kg	0.2	0.2J	<0.26
2-AMINO-4,6-DINITROTOLUENE	8330	mg/kg	0.2	0.2J	<0.26
1,3-DINITROBENZENE	8330	mg/kg	0.25	<0.31	<0.33
2,4-DINITROTOLUENE	8330	mg/kg	0.25	<0.31	<0.33
2,6-DINITROTOLUENE	8330	mg/kg	0.25	<0.31	<0.33
HMX	8330	mg/kg	0.25	0.58	0.49
NITROBENZENE	8330	mg/kg	0.25	<0.31	<0.33
3-NITROTOLUENE	8330	mg/kg	0.25	<0.31	<0.33
RDX	8330	mg/kg	0.25	1.0	<0.33
TETRYL	8330	mg/kg	0.25	<0.31	<0.33
1,3,5-TRINITROBENZENE	8330	mg/kg	0.25	<0.31	1.2
2,4,6-TRINITROTOLUENE	8330	mg/kg	0.25	0.2J	0.09J
2/4-NITROTOLUENE	8330	mg/kg	0.25	<0.31	<0.33

Component Analyzed	Method	Unit	PQL	Analysis Result A3-WR006-C003-CC002-P 99-03156-9	Analysis Result A3-WR006-C004-CC002-P 99-03156-10
MOISTURE	ASTM-D2216	%Moisture	0.5	23.4	21.9
NITROAROMATICS AND NITROAMINES (a)					
Dilution Factor				1	1
4-AMINO-2,6-DINITROTOLUENE	8330	mg/kg	0.2	<0.26	<0.26
2-AMINO-4,6-DINITROTOLUENE	8330	mg/kg	0.2	0.2J	0.2J
1,3-DINITROBENZENE	8330	mg/kg	0.25	<0.33	<0.32
2,4-DINITROTOLUENE	8330	mg/kg	0.25	<0.33	<0.32
2,6-DINITROTOLUENE	8330	mg/kg	0.25	<0.33	<0.32
HMX	8330	mg/kg	0.25	0.2J	<0.32
NITROBENZENE	8330	mg/kg	0.25	<0.33	<0.32
3-NITROTOLUENE	8330	mg/kg	0.25	<0.33	<0.32
RDX	8330	mg/kg	0.25	0.3J	0.1J
TETRYL	8330	mg/kg	0.25	<0.33	<0.32
1,3,5-TRINITROBENZENE	8330	mg/kg	0.25	3.5	0.3J
2,4,6-TRINITROTOLUENE	8330	mg/kg	0.25	0.37	0.1J
2/4-NITROTOLUENE	8330	mg/kg	0.25	<0.33	<0.32

Component Analyzed	Method	Unit	PQL	Analysis Result A3-WR006-C005-CC002-P 99-03156-11	Analysis Result A3-WR007-C001-CC002-P 99-03156-12
MOISTURE	ASTM-D2216	%Moisture	0.5	24.5	27.8

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Component Analyzed	Method	Unit	PQL	Analysis Result A3-WR006-C005-CC002-P 99-03156-11	Analysis Result A3-WR007-C001-CC002-P 99-03156-12
NITROAROMATICS AND NITROAMINES [a]					
Dilution Factor				1	1
4-AMINO-2,6-DINITROTOLUENE	8330	mg/kg	0.2	<0.26	<0.28
2-AMINO-4,6-DINITROTOLUENE	8330	mg/kg	0.2	0.2J	<0.28
1,3-DINITROBENZENE	8330	mg/kg	0.25	<0.33	<0.35
2,4-DINITROTOLUENE	8330	mg/kg	0.25	<0.33	<0.35
2,6-DINITROTOLUENE	8330	mg/kg	0.25	<0.33	<0.35
HMX	8330	mg/kg	0.25	<0.33	0.2J
NITROBENZENE	8330	mg/kg	0.25	<0.33	<0.35
3-NITROTOLUENE	8330	mg/kg	0.25	<0.33	<0.35
RDX	8330	mg/kg	0.25	<0.33	0.2J
TETRYL	8330	mg/kg	0.25	<0.33	<0.35
1,3,5-TRINITROBENZENE	8330	mg/kg	0.25	0.2J	0.3J
2,4,6-TRINITROTOLUENE	8330	mg/kg	0.25	<0.33	0.2J
2/4-NITROTOLUENE	8330	mg/kg	0.25	<0.33	<0.35

Component Analyzed	Method	Unit	PQL	Analysis Result A3-WR007-C002-CC002-P 99-03156-13	Analysis Result A3-WR007-C003-CC002-P 99-03156-14
MOISTURE	ASTM-D2216	%Moisture	0.5	27.1	24.4
NITROAROMATICS AND NITROAMINES [a]					
Dilution Factor				1	1
4-AMINO-2,6-DINITROTOLUENE	8330	mg/kg	0.2	<0.27	<0.26
2-AMINO-4,6-DINITROTOLUENE	8330	mg/kg	0.2	<0.27	<0.26
1,3-DINITROBENZENE	8330	mg/kg	0.25	<0.34	<0.33
2,4-DINITROTOLUENE	8330	mg/kg	0.25	<0.34	<0.33
2,6-DINITROTOLUENE	8330	mg/kg	0.25	<0.34	<0.33
HMX	8330	mg/kg	0.25	<0.34	0.36
NITROBENZENE	8330	mg/kg	0.25	<0.34	<0.33
3-NITROTOLUENE	8330	mg/kg	0.25	<0.34	<0.33
RDX	8330	mg/kg	0.25	<0.34	0.3J
TETRYL	8330	mg/kg	0.25	<0.34	<0.33
1,3,5-TRINITROBENZENE	8330	mg/kg	0.25	0.1J	0.2J
2,4,6-TRINITROTOLUENE	8330	mg/kg	0.25	<0.34	0.2J
2/4-NITROTOLUENE	8330	mg/kg	0.25	<0.34	<0.33

Component Analyzed	Method	Unit	PQL	Analysis Result A3-WR007-C004-CC002-P 99-03156-15	Analysis Result A3-WR008-C001-CC002-P 99-03156-16
MOISTURE	ASTM-D2216	%Moisture	0.5	26.2	25.9

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Component Analyzed	Method	Unit	PQL	Analysis Result A3-WR007-C004-CC002-P 99-03156-15	Analysis Result A3-WR008-C001-CC002-P 99-03156-16
NITROAROMATICS AND NITROAMINES [a]					
Dilution Factor				1	1
4-AMINO-2,6-DINITROTOLUENE	8330	mg/kg	0.2	<0.27	<0.27
2-AMINO-4,6-DINITROTOLUENE	8330	mg/kg	0.2	0.2J	<0.27
1,3-DINITROBENZENE	8330	mg/kg	0.25	<0.34	<0.34
2,4-DINITROTOLUENE	8330	mg/kg	0.25	<0.34	<0.34
2,6-DINITROTOLUENE	8330	mg/kg	0.25	<0.34	<0.34
HMX	8330	mg/kg	0.25	0.2J	0.49
NITROBENZENE	8330	mg/kg	0.25	<0.34	<0.34
3-NITROTOLUENE	8330	mg/kg	0.25	<0.34	<0.34
RDX	8330	mg/kg	0.25	0.3J	<0.34
TETRYL	8330	mg/kg	0.25	<0.34	<0.34
1,3,5-TRINITROBENZENE	8330	mg/kg	0.25	0.3J	0.1J
2,4,6-TRINITROTOLUENE	8330	mg/kg	0.25	0.09J	0.3J
2/4-NITROTOLUENE	8330	mg/kg	0.25	<0.34	<0.34

Component Analyzed	Method	Unit	PQL	Analysis Result A3-WR008-C002-CC002-P 99-03156-17	Analysis Result A3-WR008-C003-CC002-P 99-03156-18
MOISTURE	ASTM-D2216	%Moisture	0.5	29.5	29.6
NITROAROMATICS AND NITROAMINES [a]					
Dilution Factor				1	1
4-AMINO-2,6-DINITROTOLUENE	8330	mg/kg	0.2	<0.28	<0.28
2-AMINO-4,6-DINITROTOLUENE	8330	mg/kg	0.2	0.2J	0.2J
1,3-DINITROBENZENE	8330	mg/kg	0.25	<0.35	<0.36
2,4-DINITROTOLUENE	8330	mg/kg	0.25	<0.35	<0.36
2,6-DINITROTOLUENE	8330	mg/kg	0.25	<0.35	<0.36
HMX	8330	mg/kg	0.25	<0.35	0.2J
NITROBENZENE	8330	mg/kg	0.25	<0.35	<0.36
3-NITROTOLUENE	8330	mg/kg	0.25	<0.35	<0.36
RDX	8330	mg/kg	0.25	<0.35	<0.36
TETRYL	8330	mg/kg	0.25	<0.35	<0.36
1,3,5-TRINITROBENZENE	8330	mg/kg	0.25	0.2J	0.1J
2,4,6-TRINITROTOLUENE	8330	mg/kg	0.25	0.1J	0.1J
2/4-NITROTOLUENE	8330	mg/kg	0.25	<0.35	<0.36

Component Analyzed	Method	Unit	PQL	Analysis Result A3-WR008-C004-CC002-P 99-03156-19	Analysis Result A3-WR008-C005-CC002-P 99-03156-20
MOISTURE	ASTM-D2216	%Moisture	0.5	31.9	32.8

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Component Analyzed	Method	Unit	PQL	Analysis Result A3-WR008-C004-CC002-P 99-03156-19	Analysis Result A3-WR008-C005-CC002-P 99-03156-20
NITROAROMATICS AND NITROAMINES [a]					
Dilution Factor				1	1
4-AMINO-2,6-DINITROTOLUENE	8330	mg/kg	0.2	<0.29	<0.30
2-AMINO-4,6-DINITROTOLUENE	8330	mg/kg	0.2	<0.29	<0.30
1,3-DINITROBENZENE	8330	mg/kg	0.25	<0.37	<0.37
2,4-DINITROTOLUENE	8330	mg/kg	0.25	<0.37	<0.37
2,6-DINITROTOLUENE	8330	mg/kg	0.25	<0.37	<0.37
HMX	8330	mg/kg	0.25	0.48	<0.37
NITROBENZENE	8330	mg/kg	0.25	<0.37	<0.37
3-NITROTOLUENE	8330	mg/kg	0.25	<0.37	<0.37
RDX	8330	mg/kg	0.25	<0.37	<0.37
TETRYL	8330	mg/kg	0.25	<0.37	<0.37
1,3,5-TRINITROBENZENE	8330	mg/kg	0.25	<0.37	0.1J
2,4,6-TRINITROTOLUENE	8330	mg/kg	0.25	<0.37	0.3J
2/4-NITROTOLUENE	8330	mg/kg	0.25	<0.37	<0.37

PQL: Practical Quantitation Limit. MDL: Method Detection Limit. CRDL: Contract Required Detection Limit

N.D.: Not Detected or less than the practical quantitation limit. "-": Analysis is not required.

J: Reported between PQL and MDL.

† All results are reported on dry basis for soil samples.

Listed Dilution Factors (DF) are relative to the method default DF. All unlisted DFs are 1.0

[a] Positive results had been confirmed by second column.

Respectfully submitted,

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APCL Analytical Report

Submitted to:
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Tel: (415)974-1221 Fax: (415)974-5914

Service ID #: 801-993611
Collected by:
Collected on: 05/12-13/99

Received: 05/14/99
Extracted: 05/17/99
Tested: 05/17-18/99
Reported: 05/23/99

Sample Description: Soil and Water
Project Description: W 101 Bioremediation

Analysis of Water and Soil Samples

I. Analysis of Water Samples

Component Analyzed	Method	Unit	PQL	Analysis Result ~~EtC051299-1808-1~~ 99-03611-19	Analysis Result ~~MC-051399-0820-2~~ 99-03611-20
NITROAROMATICS AND NITROAMINES					
Dilution Factor				2.08	6.38
4-AMINO-2,6-DINITROTOLUENE	8330	µg/L	10	<21	<65
2-AMINO-4,6-DINITROTOLUENE	8330	µg/L	10	<21	<65
1,3-DINITROBENZENE	8330	µg/L	4	<8.4	<26
2,4-DINITROTOLUENE	8330	µg/L	5.7	<12	<37
2,6-DINITROTOLUENE	8330	µg/L	9.4	<20	<61
HMX	8330	µg/L	13	<27	<85
NITROBENZENE	8330	µg/L	6.4	<14	<42
3-NITROTOLUENE	8330	µg/L	7.9	<17	<51
RDX	8330	µg/L	14	<30	<91
TETRYL	8330	µg/L	4	0.5J	3J
1,3,5-TRINITROBENZENE	8330	µg/L	7.3	<15	<47
2,4,6-TRINITROTOLUENE	8330	µg/L	6.9	0.3J	<45
2/4-NITROTOLUENE	8330	µg/L	8.5	<18	<55

II. Analysis of Soil Samples

Component Analyzed	Method	Unit	PQL	Analysis Result A3-WR001A-C001CC002P 99-03611-1	Analysis Result A3-WR001A-C002CC002P 99-03611-2
MOISTURE, PERCENT IN SOIL	ASTM-D2216	%Moisture	0.5	28.3	30.2
NITROAROMATICS AND NITROAMINES					
Dilution Factor				1	1
4-AMINO-2,6-DINITROTOLUENE	8330	mg/kg	0.2	0.6	<0.29
2-AMINO-4,6-DINITROTOLUENE	8330	mg/kg	0.2	0.5	<0.29
1,3-DINITROBENZENE	8330	mg/kg	0.25	<0.35	0.1J
2,4-DINITROTOLUENE	8330	mg/kg	0.25	<0.35	<0.36
2,6-DINITROTOLUENE	8330	mg/kg	0.25	<0.35	<0.36
HMX	8330	mg/kg	0.25	0.97	<0.36
NITROBENZENE	8330	mg/kg	0.25	<0.35	<0.36
3-NITROTOLUENE	8330	mg/kg	0.25	<0.35	<0.36
RDX	8330	mg/kg	0.25	9.83	<0.36
TETRYL	8330	mg/kg	0.25	<0.35	<0.36
1,3,5-TRINITROBENZENE	8330	mg/kg	0.25	<0.35	<0.36
2,4,6-TRINITROTOLUENE	8330	mg/kg	0.25	1.4	0.37
2/4-NITROTOLUENE	8330	mg/kg	0.25	<0.35	<0.36

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Component Analyzed	Method	Unit	PQL	Analysis Result A3-WR001A-C003CC002P 99-03611-3	Analysis Result A3-WR001A-C004CC002P 99-03611-4
MOISTURE, PERCENT IN SOIL	ASTM-D2216	%Moisture	0.5	28.3	35.8
NITROAROMATICS AND NITROAMINES					
Dilution Factor				1	1
4-AMINO-2,6-DINITROTOLUENE	8330	mg/kg	0.2	<0.28	0.67
2-AMINO-4,6-DINITROTOLUENE	8330	mg/kg	0.2	<0.28	0.4
1,3-DINITROBENZENE	8330	mg/kg	0.25	<0.35	<0.39
2,4-DINITROTOLUENE	8330	mg/kg	0.25	<0.35	<0.39
2,6-DINITROTOLUENE	8330	mg/kg	0.25	<0.35	<0.39
HMX	8330	mg/kg	0.25	<0.35	0.86
NITROBENZENE	8330	mg/kg	0.25	<0.35	<0.39
3-NITROTOLUENE	8330	mg/kg	0.25	<0.35	<0.39
RDX	8330	mg/kg	0.25	<0.35	10.5
TETRYL	8330	mg/kg	0.25	<0.35	<0.39
1,3,5-TRINITROBENZENE	8330	mg/kg	0.25	<0.35	<0.39
2,4,6-TRINITROTOLUENE	8330	mg/kg	0.25	0.1J	0.42
2/4-NITROTOLUENE	8330	mg/kg	0.25	<0.35	<0.39

Component Analyzed	Method	Unit	PQL	Analysis Result A3-WR001A-C005CC002P 99-03611-5	Analysis Result A3-WR002A-C001CC002P 99-03611-6
MOISTURE, PERCENT IN SOIL	ASTM-D2216	%Moisture	0.5	29.8	22.0
NITROAROMATICS AND NITROAMINES					
Dilution Factor				1	1
4-AMINO-2,6-DINITROTOLUENE	8330	mg/kg	0.2	<0.28	<0.26
2-AMINO-4,6-DINITROTOLUENE	8330	mg/kg	0.2	<0.28	<0.26
1,3-DINITROBENZENE	8330	mg/kg	0.25	0.2J	<0.32
2,4-DINITROTOLUENE	8330	mg/kg	0.25	<0.36	<0.32
2,6-DINITROTOLUENE	8330	mg/kg	0.25	<0.36	<0.32
HMX	8330	mg/kg	0.25	<0.36	0.2J
NITROBENZENE	8330	mg/kg	0.25	<0.36	<0.32
3-NITROTOLUENE	8330	mg/kg	0.25	<0.36	<0.32
RDX	8330	mg/kg	0.25	<0.36	<0.32
TETRYL	8330	mg/kg	0.25	<0.36	<0.32
1,3,5-TRINITROBENZENE	8330	mg/kg	0.25	<0.36	0.3J
2,4,6-TRINITROTOLUENE	8330	mg/kg	0.25	0.50	<0.32
2/4-NITROTOLUENE	8330	mg/kg	0.25	<0.36	<0.32

Component Analyzed	Method	Unit	PQL	Analysis Result A3-WR002A-C002CC002P 99-03611-7	Analysis Result A3-WR002A-C003CC002P 99-03611-8
MOISTURE, PERCENT IN SOIL	ASTM-D2216	%Moisture	0.5	26.6	36.4

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Component Analyzed	Method	Unit	PQL	Analysis Result A3-WR002A-C002CC002P 99-03611-7	Analysis Result A3-WR002A-C003CC002P 99-03611-8
NITROAROMATICS AND NITROAMINES					
Dilution Factor				1	1
4-AMINO-2,6-DINITROTOLUENE	8330	mg/kg	0.2	0.3	<0.31
2-AMINO-4,6-DINITROTOLUENE	8330	mg/kg	0.2	0.67	<0.31
1,3-DINITROBENZENE	8330	mg/kg	0.25	<0.34	<0.39
2,4-DINITROTOLUENE	8330	mg/kg	0.25	<0.34	<0.39
2,6-DINITROTOLUENE	8330	mg/kg	0.25	<0.34	<0.39
HMX	8330	mg/kg	0.25	0.63	0.70
NITROBENZENE	8330	mg/kg	0.25	<0.34	<0.39
3-NITROTOLUENE	8330	mg/kg	0.25	<0.34	<0.39
RDX	8330	mg/kg	0.25	<0.34	<0.39
TETRYL	8330	mg/kg	0.25	<0.34	<0.39
1,3,5-TRINITROBENZENE	8330	mg/kg	0.25	0.46	<0.39
2,4,6-TRINITROTOLUENE	8330	mg/kg	0.25	3.0	0.3J
2/4-NITROTOLUENE	8330	mg/kg	0.25	<0.34	<0.39

Component Analyzed	Method	Unit	PQL	Analysis Result A3-WR002A-C004CC002P 99-03611-9	Analysis Result A3-WR002A-C005CC002P 99-03611-10
MOISTURE, PERCENT IN SOIL	ASTM-D2216	%Moisture	0.5	27.4	29.7
NITROAROMATICS AND NITROAMINES					
Dilution Factor				1	1
4-AMINO-2,6-DINITROTOLUENE	8330	mg/kg	0.2	<0.28	<0.28
2-AMINO-4,6-DINITROTOLUENE	8330	mg/kg	0.2	<0.28	<0.28
1,3-DINITROBENZENE	8330	mg/kg	0.25	<0.34	<0.36
2,4-DINITROTOLUENE	8330	mg/kg	0.25	<0.34	<0.36
2,6-DINITROTOLUENE	8330	mg/kg	0.25	<0.34	<0.36
HMX	8330	mg/kg	0.25	<0.34	<0.36
NITROBENZENE	8330	mg/kg	0.25	<0.34	<0.36
3-NITROTOLUENE	8330	mg/kg	0.25	<0.34	<0.36
RDX	8330	mg/kg	0.25	<0.34	<0.36
TETRYL	8330	mg/kg	0.25	<0.34	<0.36
1,3,5-TRINITROBENZENE	8330	mg/kg	0.25	<0.34	<0.36
2,4,6-TRINITROTOLUENE	8330	mg/kg	0.25	0.2J	<0.36
2/4-NITROTOLUENE	8330	mg/kg	0.25	<0.34	<0.36

Component Analyzed	Method	Unit	PQL	Analysis Result A3-WR005A-C001CC001P 99-03611-11	Analysis Result A3-WR005A-C002CC001P 99-03611-12
MOISTURE, PERCENT IN SOIL	ASTM-D2216	%Moisture	0.5	30.5	27.9

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APCL Analytical Report

Submitted to:
Tetra Tech, Inc. (San Francisco)
Attention: Roy Roenbeck
180 Howard St. Ste. 250
San Francisco CA 94105
Tel: (415)974-1221 Fax: (415)974-5914

Service ID #: 801-993724
Collected by: Phillber
Collected on: 05/17-18/99

Received: 05/20/99
Extracted: 05/24/99
Tested: 05/20-26/99
Reported: 06/02/99

Sample Description: Compost Soil and Water
Project Description: W 101 Bioremediation

Analysis of Water ,Compost and Soil Samples

I . Analysis of Water Samples

Component Analyzed	Method	Unit	PQL	Analysis Result ~~RR051899-1610T~~ 99-03724-8
NITROAROMATICS AND NITROAMINES				
Dilution Factor				3.08
4-AMINO-2,6-DINITROTOLUENE	8330	µg/L	10	<31
2-AMINO-4,6-DINITROTOLUENE	8330	µg/L	10	<31
1,3-DINITROBENZENE	8330	µg/L	4	<13
2,4-DINITROTOLUENE	8330	µg/L	5.7	<18
2,6-DINITROTOLUENE	8330	µg/L	9.4	<29
HMX	8330	µg/L	13	<41
NITROBENZENE	8330	µg/L	6.4	<20
3-NITROTOLUENE	8330	µg/L	7.9	<25
RDX	8330	µg/L	14	<44
TETRYL	8330	µg/L	4	<13
1,3,5-TRINITROBENZENE	8330	µg/L	7.3	<23
2,4,6-TRINITROTOLUENE	8330	µg/L	6.9	<22
2/4-NITROTOLUENE	8330	µg/L	8.5	<27

II . Analysis of Compost and Soil Samples

Component Analyzed	Method	Unit	PQL	Analysis Result ~~A1-SMB60-P1-GP001-2-P~~ 99-03724-1	~~A1-SMB60-S001-2P-YD-P~~ 99-03724-2
MOISTURE, PERCENT IN SOIL	ASTM-D2216	%Moisture	0.5	4.5	6.2
NITROAROMATICS AND NITROAMINES					
Dilution Factor				10	1
4-AMINO-2,6-DINITROTOLUENE	8330	mg/kg	0.2	<2.1	-
2-AMINO-4,6-DINITROTOLUENE	8330	mg/kg	0.2	2J	-
1,3-DINITROBENZENE	8330	mg/kg	0.25	<2.6	-
2,4-DINITROTOLUENE	8330	mg/kg	0.25	<2.6	-
2,6-DINITROTOLUENE	8330	mg/kg	0.25	<2.6	-
HMX	8330	mg/kg	0.25	6.6	-
NITROBENZENE	8330	mg/kg	0.25	<2.6	-
3-NITROTOLUENE	8330	mg/kg	0.25	<2.6	-
RDX	8330	mg/kg	0.25	51	-
TETRYL	8330	mg/kg	0.25	<2.6	-
1,3,5-TRINITROBENZENE	8330	mg/kg	0.25	8.3	-
2,4,6-TRINITROTOLUENE	8330	mg/kg	0.25	17	-
2/4-NITROTOLUENE	8330	mg/kg	0.25	<2.6	-

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Component Analyzed	Method	Unit	PQL	Analysis Result A3-WR003A-C001CC002-P 99-03724-3	Analysis Result A3-WR003A-C002CC002-P 99-03724-4
MOISTURE, PERCENT IN SOIL	ASTM-D2216	%Moisture	0.5	19.0	25.7
NITROAROMATICS AND NITROAMINES					
Dilution Factor				1	1
4-AMINO-2,6-DINITROTOLUENE	8330	mg/kg	0.2	0.1J	<0.27
2-AMINO-4,6-DINITROTOLUENE	8330	mg/kg	0.2	<0.25	<0.27
1,3-DINITROBENZENE	8330	mg/kg	0.25	<0.31	<0.34
2,4-DINITROTOLUENE	8330	mg/kg	0.25	<0.31	<0.34
2,6-DINITROTOLUENE	8330	mg/kg	0.25	<0.31	<0.34
HMX	8330	mg/kg	0.25	<0.31	<0.34
NITROBENZENE	8330	mg/kg	0.25	<0.31	<0.34
3-NITROTOLUENE	8330	mg/kg	0.25	<0.31	<0.34
RDX	8330	mg/kg	0.25	0.61	<0.34
TETRYL	8330	mg/kg	0.25	<0.31	<0.34
1,3,5-TRINITROBENZENE	8330	mg/kg	0.25	0.2J	<0.34
2,4,6-TRINITROTOLUENE	8330	mg/kg	0.25	0.1J	<0.34
2/4-NITROTOLUENE	8330	mg/kg	0.25	<0.31	<0.34

Component Analyzed	Method	Unit	PQL	Analysis Result A3-WR003A-C003CC002-P 99-03724-5	Analysis Result A3-WR003A-C004CC002-P 99-03724-6
MOISTURE, PERCENT IN SOIL	ASTM-D2216	%Moisture	0.5	21.6	20.0
NITROAROMATICS AND NITROAMINES					
Dilution Factor				1	1
4-AMINO-2,6-DINITROTOLUENE	8330	mg/kg	0.2	<0.26	<0.25
2-AMINO-4,6-DINITROTOLUENE	8330	mg/kg	0.2	<0.26	<0.25
1,3-DINITROBENZENE	8330	mg/kg	0.25	<0.32	<0.31
2,4-DINITROTOLUENE	8330	mg/kg	0.25	<0.32	<0.31
2,6-DINITROTOLUENE	8330	mg/kg	0.25	<0.32	<0.31
HMX	8330	mg/kg	0.25	<0.32	<0.31
NITROBENZENE	8330	mg/kg	0.25	<0.32	<0.31
3-NITROTOLUENE	8330	mg/kg	0.25	<0.32	<0.31
RDX	8330	mg/kg	0.25	<0.32	0.50
TETRYL	8330	mg/kg	0.25	<0.32	<0.31
1,3,5-TRINITROBENZENE	8330	mg/kg	0.25	<0.32	<0.31
2,4,6-TRINITROTOLUENE	8330	mg/kg	0.25	<0.32	<0.31
2/4-NITROTOLUENE	8330	mg/kg	0.25	<0.32	<0.31

Component Analyzed	Method	Unit	PQL	Analysis Result A3-WR003A-C005CC002-P 99-03724-7
MOISTURE, PERCENT IN SOIL	ASTM-D2216	%Moisture	0.5	27.5

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Component Analyzed	Method	Unit	PQL	Analysis Result A3-WR003A-C005CC002-P 99-03724-7
NITROAROMATICS AND NITROAMINES				
Dilution Factor				1
4-AMINO-2,6-DINITROTOLUENE	8330	mg/kg	0.2	< 0.28
2-AMINO-4,6-DINITROTOLUENE	8330	mg/kg	0.2	< 0.28
1,3-DINITROBENZENE	8330	mg/kg	0.25	< 0.34
2,4-DINITROTOLUENE	8330	mg/kg	0.25	< 0.34
2,6-DINITROTOLUENE	8330	mg/kg	0.25	< 0.34
HMX	8330	mg/kg	0.25	< 0.34
NITROBENZENE	8330	mg/kg	0.25	< 0.34
3-NITROTOLUENE	8330	mg/kg	0.25	< 0.34
RDX	8330	mg/kg	0.25	< 0.34
TETRYL	8330	mg/kg	0.25	< 0.34
1,3,5-TRINITROBENZENE	8330	mg/kg	0.25	< 0.34
2,4,6-TRINITROTOLUENE	8330	mg/kg	0.25	< 0.34
2/4-NITROTOLUENE	8330	mg/kg	0.25	< 0.34

Component Analyzed	Method	Unit	PQL	Analysis Result A2-SMB06-S001-2F-YD-P 99-03724-2
Dilution Factor				1
PICRIC ACID	M8330	mg/kg	2.5	< 2.7

PQL: Practical Quantitation Limit. MDL: Method Detection Limit. CRDL: Contract Required Detection Limit

N.D.: Not Detected or less than the practical quantitation limit. "-": Analysis is not required.

J: Reported between PQL and MDL.

† All results are reported on dry basis for soil samples.

Listed Dilution Factors (DF) are relative to the method default DF. All unlisted DFs are 1.0

Respectfully submitted,

Dominic Lau
Laboratory Director
Applied P & Ch Laboratory

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APCL Analytical Report

Service ID #: 801-993752
Collected by: M.Phillber
Collected on: 05/19 20/99

Received: 05/21/99
Extracted: 05/24/99
Tested: 05/24-26/99
Reported: 06/03/99

Submitted to:
Tetra Tech, Inc (San Francisco)
Attention: Roy Hoenbeck
180 Howard St. Ste. 250
San Francisco CA 94105
Tel: (415)974-1221 Fax: (415)974-5914

Sample Description: Compost and Water from Hawthorne
Project Description: W.101 Bioremediation

Analysis of Water and Compost Samples

I. Analysis of Water Samples

Component Analyzed	Method	Unit	PQL	Analysis Result ~~ER-03199-1800-7~~ 99-03752-14
NITROAROMATICS AND NITROAMINES				
Dilution Factor				2.2
4-AMINO-2,6-DINITROTOLUENE	8330	µg/L	10	<22
2-AMINO-4,6-DINITROTOLUENE	8330	µg/L	10	<22
1,3-DINITROBENZENE	8330	µg/L	4	<8.8
2,4-DINITROTOLUENE	8330	µg/L	5.7	<13
2,6-DINITROTOLUENE	8330	µg/L	9.4	<21
HMX	8330	µg/L	13	<29
NITROBENZENE	8330	µg/L	6.4	<14
3-NITROTOLUENE	8330	µg/L	7.9	<17
RDX	8330	µg/L	14	<31
TETRYL	8330	µg/L	4	<8.8
1,3,5-TRINITROBENZENE	8330	µg/L	7.3	<16
2,4,6-TRINITROTOLUENE	8330	µg/L	6.9	<15
3/4-NITROTOLUENE	8330	µg/L	8.5	<19

II. Analysis of Compost Samples

Component Analyzed	Method	Unit	PQL	Analysis Result A3-WR004A-C001-CC002-P 99-03752-1	A3-WR004A-C002-CC002-P 99-03752-2
MOISTURE, PERCENT IN SOIL	ASTM-D2216	%Moisture	0.5	24.3	20.2
NITROAROMATICS AND NITROAMINES					
Dilution Factor				1	1
4-AMINO-2,6-DINITROTOLUENE	8330	mg/kg	0.2	<0.26	<0.25
2-AMINO-4,6-DINITROTOLUENE	8330	mg/kg	0.2	<0.26	<0.25
1,3-DINITROBENZENE	8330	mg/kg	0.25	<0.33	<0.31
2,4-DINITROTOLUENE	8330	mg/kg	0.25	<0.33	<0.31
2,6-DINITROTOLUENE	8330	mg/kg	0.25	<0.33	<0.31
HMX	8330	mg/kg	0.25	<0.33	<0.31
NITROBENZENE	8330	mg/kg	0.25	<0.33	<0.31
3-NITROTOLUENE	8330	mg/kg	0.25	<0.33	<0.31
RDX	8330	mg/kg	0.25	0.54	<0.31
TETRYL	8330	mg/kg	0.25	<0.33	<0.31
1,3,5-TRINITROBENZENE	8330	mg/kg	0.25	<0.33	<0.31
2,4,6-TRINITROTOLUENE	8330	mg/kg	0.25	<0.33	<0.31
2/4-NITROTOLUENE	8330	mg/kg	0.25	<0.33	<0.31

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Component Analyzed	Method	Unit	PQL	Analysis Result A3-WR004A-C003-CC002-P 99-03752-3	Analysis Result A3-WR004A-C004-CC002-P 99-03752-4
MOISTURE, PERCENT IN SOIL	ASTM-D2216	%Moisture	0.5	20.1	27.1
NITROAROMATICS AND NITROAMINES					
Dilution Factor				1	1
4-AMINO-2,6-DINITROTOLUENE	8330	mg/kg	0.2	<0.25	<0.27
2-AMINO-4,6-DINITROTOLUENE	8330	mg/kg	0.2	<0.25	<0.27
1,3-DINITROBENZENE	8330	mg/kg	0.25	<0.31	<0.34
2,4-DINITROTOLUENE	8330	mg/kg	0.25	<0.31	<0.34
2,6-DINITROTOLUENE	8330	mg/kg	0.25	<0.31	<0.34
HMX	8330	mg/kg	0.25	<0.31	<0.34
NITROBENZENE	8330	mg/kg	0.25	<0.31	<0.34
3-NITROTOLUENE	8330	mg/kg	0.25	<0.31	<0.34
RDX	8330	mg/kg	0.25	<0.31	<0.34
TETRYL	8330	mg/kg	0.25	<0.31	<0.34
1,3,5-TRINITROBENZENE	8330	mg/kg	0.25	<0.31	<0.34
2,4,6-TRINITROTOLUENE	8330	mg/kg	0.25	0.2J	<0.34
2/4-NITROTOLUENE	8330	mg/kg	0.25	<0.31	<0.34

Component Analyzed	Method	Unit	PQL	Analysis Result A3-WR007A-C001-CC001-P 99-03752-5	Analysis Result A3-WR007A-C002-CC001-P 99-03752-6
MOISTURE, PERCENT IN SOIL	ASTM-D2216	%Moisture	0.5	38.3	33.5
NITROAROMATICS AND NITROAMINES					
Dilution Factor				10	10
4-AMINO-2,6-DINITROTOLUENE	8330	mg/kg	0.2	30	13
2-AMINO-4,6-DINITROTOLUENE	8330	mg/kg	0.2	7.6	5
1,3-DINITROBENZENE	8330	mg/kg	0.25	<4.0	<3.8
2,4-DINITROTOLUENE	8330	mg/kg	0.25	<4.0	<3.8
2,6-DINITROTOLUENE	8330	mg/kg	0.25	<4.0	<3.8
HMX	8330	mg/kg	0.25	46	40
NITROBENZENE	8330	mg/kg	0.25	<4.0	<3.8
3-NITROTOLUENE	8330	mg/kg	0.25	<4.0	<3.8
RDX	8330	mg/kg	0.25	297	251
TETRYL	8330	mg/kg	0.25	<4.0	<3.8
1,3,5-TRINITROBENZENE	8330	mg/kg	0.25	33	40
2,4,6-TRINITROTOLUENE	8330	mg/kg	0.25	211	36
2/4-NITROTOLUENE	8330	mg/kg	0.25	<4.0	<3.8

Component Analyzed	Method	Unit	PQL	Analysis Result A3-WR007A-C003-CC001-P 99-03752-7	Analysis Result A3-WR007A-C004-CC001-P 99-03752-8
MOISTURE, PERCENT IN SOIL	ASTM-D2216	%Moisture	0.5	27.9	28.2

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APCL Analytical Report

Submitted to:
Tetra Tech, Inc. (San Francisco)
Attention: Roy Roenbeck
180 Howard St. Ste. 250
San Francisco CA 94105
Tel: (415)974-1221 Fax: (415)974-5914

Service ID #: 801-993862
Collected by: D.Jonsales
Collected on: 05/24-26/99

Received: 05/27/99
Extracted: 05/28/99
Tested: 05/27-06/03/99
Reported: 06/07/99

Sample Description: Soil, Compost and Water
Project Description: W.101 Bioremediation

Analysis of Water , Compost and Soil Samples

I . Analysis of Water Samples

Component Analyzed	Method	Unit	PQL	Analysis Result ER-052499-1325-1 99-03862-24
NITROAROMATICS AND NITROAMINES				
Dilution Factor				
4-AMINO-2,6-DINITROTOLUENE	8330	µg/L	10	3.35
2-AMINO-4,6-DINITROTOLUENE	8330	µg/L	10	<33
1,3-DINITROBENZENE	8330	µg/L	4	<13
2,4-DINITROTOLUENE	8330	µg/L	5.7	<19
2,6-DINITROTOLUENE	8330	µg/L	9.4	<31
HMX	8330	µg/L	13	<43
NITROBENZENE	8330	µg/L	6.4	<21
3-NITROTOLUENE	8330	µg/L	7.9	<26
RDX	8330	µg/L	14	<47
TETRYL	8330	µg/L	4	<13
1,3,5-TRINITROBENZENE	8330	µg/L	7.3	<24
2,4,6-TRINITROTOLUENE	8330	µg/L	6.9	<23
2/4-NITROTOLUENE	8330	µg/L	8.5	<28

II . Analysis of Compost and Soil Samples

Component Analyzed	Method	Unit	PQL	Analysis Result A2-SMB06-S008-P 99-03862-1	A2-SMB06-S008-P 99-03862-2
MOISTURE, PERCENT IN SOIL	ASTM-D2216	%Moisture	0.5	3.6	5.5
NITROAROMATICS AND NITROAMINES					
Dilution Factor				10	10
4-AMINO-2,6-DINITROTOLUENE	8330	mg/kg	0.2	<2.1	<2.1
2-AMINO-4,6-DINITROTOLUENE	8330	mg/kg	0.2	<2.1	<2.1
1,3-DINITROBENZENE	8330	mg/kg	0.25	<2.6	<2.6
2,4-DINITROTOLUENE	8330	mg/kg	0.25	<2.6	<2.6
2,6-DINITROTOLUENE	8330	mg/kg	0.25	<2.6	<2.6
HMX	8330	mg/kg	0.25	12	21
NITROBENZENE	8330	mg/kg	0.35	<2.6	<2.6
3-NITROTOLUENE	8330	mg/kg	0.25	<2.6	<2.6
RDX	8330	mg/kg	0.25	71	142
TETRYL	8330	mg/kg	0.25	<2.6	<2.6
1,3,5-TRINITROBENZENE	8330	mg/kg	0.25	5.3	23
2,4,6-TRINITROTOLUENE	8330	mg/kg	0.25	199	22
2/4-NITROTOLUENE	8330	mg/kg	0.25	<2.6	<2.6

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Component Analyzed	Method	Unit	PQL	Analysis Result A3-WR005A-C001CC002P 99-03862-15	Analysis Result A3-WR005A-C002CC002P 99-03862-16
NITROAROMATICS AND NITROAMINES					
Dilution Factor				1	1
4-AMINO-2,6-DINITROTOLUENE	8330	mg/kg	0.2	<0.26	<0.27
2-AMINO-4,6-DINITROTOLUENE	8330	mg/kg	0.2	<0.26	<0.27
1,3-DINITROBENZENE	8330	mg/kg	0.25	<0.33	<0.34
2,4-DINITROTOLUENE	8330	mg/kg	0.25	<0.33	<0.34
2,6-DINITROTOLUENE	8330	mg/kg	0.25	<0.33	<0.34
HMX	8330	mg/kg	0.25	<0.33	<0.34
NITROBENZENE	8330	mg/kg	0.25	<0.33	<0.34
3-NITROTOLUENE	8330	mg/kg	0.25	<0.33	<0.34
RDX	8330	mg/kg	0.25	<0.33	<0.34
TETRYL	8330	mg/kg	0.25	<0.33	<0.34
1,3,5-TRINITROBENZENE	8330	mg/kg	0.25	<0.33	<0.34
2,4,6-TRINITROTOLUENE	8330	mg/kg	0.25	<0.33	<0.34
2/4-NITROTOLUENE	8330	mg/kg	0.25	<0.33	<0.34

Component Analyzed	Method	Unit	PQL	Analysis Result A3-WR005A-C003CC002P 99-03862-17	Analysis Result A3-WR005A-C004CC002P 99-03862-18
MOISTURE, PERCENT IN SOIL	ASTM-D2216	%Moisture	0.5	21.5	21.2
NITROAROMATICS AND NITROAMINES					
Dilution Factor				1	1
4-AMINO-2,6-DINITROTOLUENE	8330	mg/kg	0.2	<0.25	<0.25
2-AMINO-4,6-DINITROTOLUENE	8330	mg/kg	0.2	<0.25	<0.25
1,3-DINITROBENZENE	8330	mg/kg	0.25	<0.32	<0.32
2,4-DINITROTOLUENE	8330	mg/kg	0.25	<0.32	<0.32
2,6-DINITROTOLUENE	8330	mg/kg	0.25	<0.32	<0.32
HMX	8330	mg/kg	0.25	<0.32	<0.32
NITROBENZENE	8330	mg/kg	0.25	<0.32	<0.32
3-NITROTOLUENE	8330	mg/kg	0.25	<0.32	<0.32
RDX	8330	mg/kg	0.25	<0.32	<0.32
TETRYL	8330	mg/kg	0.25	<0.32	<0.32
1,3,5-TRINITROBENZENE	8330	mg/kg	0.25	0.1J	<0.32
2,4,6-TRINITROTOLUENE	8330	mg/kg	0.25	0.3J	<0.32
2/4-NITROTOLUENE	8330	mg/kg	0.25	<0.32	<0.32

Component Analyzed	Method	Unit	PQL	Analysis Result A3-WR006A-C001CC002P 99-03862-19	Analysis Result A3-WR006A-C002CC002P 99-03862-20
MOISTURE, PERCENT IN SOIL	ASTM-D2216	%Moisture	0.5	24.0	23.9

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Component Analyzed	Method	Unit	PQL	Analysis Result A3-WR006A-C001CC002P 99-03862-19	Analysis Result A3-WR006A-C002CC002P 99-03862-20
NITROAROMATICS AND NITROAMINES					
Dilution Factor				1	1
4-AMINO-2,6-DINITROTOLUENE	8330	mg/kg	0.2	<0.26	<0.26
2-AMINO-4,6-DINITROTOLUENE	8330	mg/kg	0.2	<0.26	<0.26
1,3-DINITROBENZENE	8330	mg/kg	0.25	<0.33	<0.33
2,4-DINITROTOLUENE	8330	mg/kg	0.25	<0.33	<0.33
2,6-DINITROTOLUENE	8330	mg/kg	0.25	<0.33	<0.33
HMX	8330	mg/kg	0.25	<0.33	<0.33
NITROBENZENE	8330	mg/kg	0.25	<0.33	<0.33
3-NITROTOLUENE	8330	mg/kg	0.25	<0.33	<0.33
RDX	8330	mg/kg	0.25	<0.33	<0.33
TETRYL	8330	mg/kg	0.25	<0.33	<0.33
1,3,5-TRINITROBENZENE	8330	mg/kg	0.25	0.2J	<0.33
2,4,6-TRINITROTOLUENE	8330	mg/kg	0.25	<0.33	<0.33
2/4-NITROTOLUENE	8330	mg/kg	0.25	<0.33	<0.33

Component Analyzed	Method	Unit	PQL	Analysis Result A3-WR006A-C003CC002P 99-03862-21	Analysis Result A3-WR006A-C004CC002P 99-03862-22
MOISTURE, PERCENT IN SOIL	ASTM-D2216	%Moisture	0.5	16.9	25.9
NITROAROMATICS AND NITROAMINES					
Dilution Factor				1	1
4-AMINO-2,6-DINITROTOLUENE	8330	mg/kg	0.2	<0.24	<0.27
2-AMINO-4,6-DINITROTOLUENE	8330	mg/kg	0.2	<0.24	<0.27
1,3-DINITROBENZENE	8330	mg/kg	0.25	<0.30	<0.34
2,4-DINITROTOLUENE	8330	mg/kg	0.25	<0.30	<0.34
2,6-DINITROTOLUENE	8330	mg/kg	0.25	<0.30	<0.34
HMX	8330	mg/kg	0.25	0.82	<0.34
NITROBENZENE	8330	mg/kg	0.25	<0.30	<0.34
3-NITROTOLUENE	8330	mg/kg	0.25	<0.30	<0.34
RDX	8330	mg/kg	0.25	1.6	<0.34
TETRYL	8330	mg/kg	0.25	<0.30	<0.34
1,3,5-TRINITROBENZENE	8330	mg/kg	0.25	0.2J	0.3J
2,4,6-TRINITROTOLUENE	8330	mg/kg	0.25	<0.30	<0.34
2/4-NITROTOLUENE	8330	mg/kg	0.25	<0.30	<0.34

Component Analyzed	Method	Unit	PQL	Analysis Result A3-WR006A-C005CC002P 99-03862-23
MOISTURE, PERCENT IN SOIL	ASTM-D2216	%Moisture	0.5	33.2

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Component Analyzed	Method	Unit	PQL	Analysis Result AS WR005A-C005CC003P 99-03862-23
NITROAROMATICS AND NITROAMINES [a]				
Dilution Factor				1
4-AMINO-2,6-DINITROTOLUENE	8330	mg/kg	0.2	<0.30
2-AMINO-4,6-DINITROTOLUENE	8330	mg/kg	0.2	<0.30
1,3-DINITROBENZENE	8330	mg/kg	0.25	<0.37
2,4-DINITROTOLUENE	8330	mg/kg	0.25	<0.37
2,6-DINITROTOLUENE	8330	mg/kg	0.25	<0.37
HMX	8330	mg/kg	0.25	<0.37
NITROBENZENE	8330	mg/kg	0.25	<0.37
3-NITROTOLUENE	8330	mg/kg	0.25	<0.37
RDX	8330	mg/kg	0.25	<0.37
TETRYL	8330	mg/kg	0.25	<0.37
1,3,5-TRINITROBENZENE	8330	mg/kg	0.25	0.2J
2,4,6-TRINITROTOLUENE	8330	mg/kg	0.25	<0.37
2/4-NITROTOLUENE	8330	mg/kg	0.25	<0.37

PQL: Practical Quantitation Limit. MDL: Method Detection Limit. CRDL: Contract Required Detection Limit
N.D.: Not Detected or less than the practical quantitation limit. " ": Analysis is not required.
J: Reported between PQL and MDL.
† All results are reported on dry basis for soil samples.
Listed Dilution Factors (DF) are relative to the method default DF. All unlisted DFs are 1.0
(a) Positive results had been confirmed by second column.

Respectfully submitted,

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APCL Analytical Report

Submitted to:
Tetra Tech, Inc. (San Francisco)
Attention: Roy Roenbeck
180 Howard St. Ste. 250
San Francisco CA 94105
Tel: (415)974-1221 Fax: (415)974-5914

Service ID #: 801-993985
Collected by: D.Gonzales
Collected on: 06/01-02/99

Received: 06/04/99
Extracted: 06/07/99
Tested: 06/07-09/99
Reported: 06/11/99

Sample Description: Compost, Soil and Water
Project Description: W 101 Bioremediation

Analysis of Water , Compost and Soil Samples

I . Analysis of Water Samples

Component Analyzed	Method	Unit	PQL	Analysis Result ~~ER-060199-1455-1~~ 99-03985-26
NITROAROMATICS AND NITROAMINES (a)				
Dilution Factor				1.69
4-AMINO-2,6-DINITROTOLUENE	8330	µg/L	10	<17
2-AMINO-4,6-DINITROTOLUENE	8330	µg/L	10	<17
1,3-DINITROBENZENE	8330	µg/L	4	<6.7
2,4-DINITROTOLUENE	8330	µg/L	5.7	<9.5
2,6-DINITROTOLUENE	8330	µg/L	9.4	<16
HMX	8330	µg/L	13	<22
NITROBENZENE	8330	µg/L	6.4	<11
3-NITROTOLUENE	8330	µg/L	7.9	<13
RDX	8330	µg/L	14	0.6J
TETRYL	8330	µg/L	4	<6.7
1,3,5-TRINITROBENZENE	8330	µg/L	7.3	<12
2,4,6-TRINITROTOLUENE	8330	µg/L	6.9	<12
2/4-NITROTOLUENE	8330	µg/L	8.5	<14

II . Analysis of Compost and Soil Samples

Component Analyzed	Method	Unit	PQL	Analysis Result A3-WR007A-C001-CC002-P 99-03985-1	A3-WR007A-C002-CC002-P 99-03985-3
MOISTURE, PERCENT IN SOIL	ASTM-D2216	%Moisture	0.5	25.0	26.4
NITROAROMATICS AND NITROAMINES (a)					
Dilution Factor				1	1
4-AMINO-2,6-DINITROTOLUENE	8330	mg/kg	0.2	<0.27	<0.27
2-AMINO-4,6-DINITROTOLUENE	8330	mg/kg	0.2	<0.27	<0.27
1,3-DINITROBENZENE	8330	mg/kg	0.25	<0.33	<0.34
2,4-DINITROTOLUENE	8330	mg/kg	0.25	<0.33	<0.34
2,6-DINITROTOLUENE	8330	mg/kg	0.25	<0.33	<0.34
HMX	8330	mg/kg	0.25	<0.33	<0.34
NITROBENZENE	8330	mg/kg	0.25	<0.33	<0.34
3-NITROTOLUENE	8330	mg/kg	0.25	<0.33	<0.34
RDX	8330	mg/kg	0.25	<0.33	0.56
TETRYL	8330	mg/kg	0.25	<0.33	<0.34
1,3,5-TRINITROBENZENE	8330	mg/kg	0.25	0.3J	<0.34
2,4,6-TRINITROTOLUENE	8330	mg/kg	0.25	<0.33	<0.34
2/4-NITROTOLUENE	8330	mg/kg	0.25	<0.33	<0.34

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Component Analyzed	Method	Unit	PQL	Analysis Result AS-WR007A-C003-CC002-P 99-03985-3	AS-WR007A-C004-CC002-P 99-03985-4
MOISTURE, PERCENT IN SOIL	ASTM-D2216	%Moisture	0.5	22.0	21.8
NITROAROMATICS AND NITROAMINES [a]					
Dilution Factor				1	1
4-AMINO-2,6-DINITROTOLUENE	8330	mg/kg	0.2	<0.26	<0.26
2-AMINO-4,6-DINITROTOLUENE	8330	mg/kg	0.2	<0.26	<0.26
1,3-DINITROBENZENE	8330	mg/kg	0.25	<0.32	<0.32
2,4-DINITROTOLUENE	8330	mg/kg	0.25	<0.32	<0.32
2,6-DINITROTOLUENE	8330	mg/kg	0.25	<0.32	<0.32
HMX	8330	mg/kg	0.25	<0.32	<0.32
NITROBENZENE	8330	mg/kg	0.25	<0.32	<0.32
3-NITROTOLUENE	8330	mg/kg	0.25	<0.32	<0.32
RDX	8330	mg/kg	0.25	<0.32	<0.32
TETRYL	8330	mg/kg	0.25	<0.32	<0.32
1,3,5-TRINITROBENZENE	8330	mg/kg	0.25	<0.32	<0.32
2,4,6-TRINITROTOLUENE	8330	mg/kg	0.25	<0.32	<0.32
2/4-NITROTOLUENE	8330	mg/kg	0.25	<0.32	<0.32

Component Analyzed	Method	Unit	PQL	Analysis Result AS-WR007A-C005-CC002-P 99-03985-5	AS-WR008A-C001-CC002-P 99-03985-6
MOISTURE, PERCENT IN SOIL	ASTM-D2216	%Moisture	0.5	23.7	30.8
NITROAROMATICS AND NITROAMINES [a]					
Dilution Factor				1	1
4-AMINO-2,6-DINITROTOLUENE	8330	mg/kg	0.2	<0.26	<0.29
2-AMINO-4,6-DINITROTOLUENE	8330	mg/kg	0.2	<0.26	<0.29
1,3-DINITROBENZENE	8330	mg/kg	0.25	<0.33	<0.36
2,4-DINITROTOLUENE	8330	mg/kg	0.25	<0.33	0.3J
2,6-DINITROTOLUENE	8330	mg/kg	0.25	<0.33	<0.36
HMX	8330	mg/kg	0.25	<0.33	<0.36
NITROBENZENE	8330	mg/kg	0.25	<0.33	<0.36
3-NITROTOLUENE	8330	mg/kg	0.25	<0.33	<0.36
RDX	8330	mg/kg	0.25	<0.33	<0.36
TETRYL	8330	mg/kg	0.25	<0.33	<0.36
1,3,5-TRINITROBENZENE	8330	mg/kg	0.25	0.3J	2.2
2,4,6-TRINITROTOLUENE	8330	mg/kg	0.25	<0.33	0.2J
2/4-NITROTOLUENE	8330	mg/kg	0.25	<0.33	<0.36

Component Analyzed	Method	Unit	PQL	Analysis Result AS-WR008A-C002-CC002-P 99-03985-7	AS-WR008A-C003-CC002-P 99-03985-8
MOISTURE, PERCENT IN SOIL	ASTM-D2216	%Moisture	0.5	28.8	35.8

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Component Analyzed	Method	Unit	PQL	Analysis Result A3-WR008A-C002-CC002-P 99-03985-7	Analysis Result A3-WR008A-C003-CC002-P 99-03985-8
NITROAROMATICS AND NITROAMINES (a)					
Dilution Factor				1	1
4-AMINO-2,6-DINITROTOLUENE	8330	mg/kg	0.2	<0.28	<0.31
2-AMINO-4,6-DINITROTOLUENE	8330	mg/kg	0.2	<0.28	<0.31
1,3-DINITROBENZENE	8330	mg/kg	0.25	<0.35	<0.39
2,4-DINITROTOLUENE	8330	mg/kg	0.25	<0.35	0.40
2,6-DINITROTOLUENE	8330	mg/kg	0.25	<0.35	<0.39
HMX	8330	mg/kg	0.25	<0.35	<0.39
NITROBENZENE	8330	mg/kg	0.25	<0.35	<0.39
3-NITROTOLUENE	8330	mg/kg	0.25	<0.35	<0.39
RDX	8330	mg/kg	0.25	<0.35	<0.39
TETRYL	8330	mg/kg	0.25	<0.35	<0.39
1,3,5-TRINITROBENZENE	8330	mg/kg	0.25	0.2J	<0.39
2,4,6-TRINITROTOLUENE	8330	mg/kg	0.25	<0.35	<0.39
2/4-NITROTOLUENE	8330	mg/kg	0.25	<0.35	<0.39

Component Analyzed	Method	Unit	PQL	Analysis Result A3-WR008A-C004-CC002-P 99-03985-9	Analysis Result A4-SMB08-P1-GF001-P 99-03985-10
MOISTURE, PERCENT IN SOIL	ASTM-D2216	%Moisture	0.5	33.5	1.9
NITROAROMATICS AND NITROAMINES (a)					
Dilution Factor				1	5
4-AMINO-2,6-DINITROTOLUENE	8330	mg/kg	0.2	<0.30	<1.0
2-AMINO-4,6-DINITROTOLUENE	8330	mg/kg	0.2	<0.30	<1.0
1,3-DINITROBENZENE	8330	mg/kg	0.25	<0.38	<1.3
2,4-DINITROTOLUENE	8330	mg/kg	0.25	<0.38	<1.3
2,6-DINITROTOLUENE	8330	mg/kg	0.25	<0.38	<1.3
HMX	8330	mg/kg	0.25	<0.38	14
NITROBENZENE	8330	mg/kg	0.25	<0.38	<1.3
3-NITROTOLUENE	8330	mg/kg	0.25	<0.38	<1.3
RDX	8330	mg/kg	0.25	<0.38	89
TETRYL	8330	mg/kg	0.25	<0.38	<1.3
1,3,5-TRINITROBENZENE	8330	mg/kg	0.25	<0.38	<1.3
2,4,6-TRINITROTOLUENE	8330	mg/kg	0.25	<0.38	1.9
2/4-NITROTOLUENE	8330	mg/kg	0.25	<0.38	<1.3

Component Analyzed	Method	Unit	PQL	Analysis Result A4-SMB08-P1-GS001-P 99-03985-11	Analysis Result A4-SMB08-P1-GS002-P 99-03985-12
MOISTURE, PERCENT IN SOIL	ASTM-D2216	%Moisture	0.5	1.5	1.4

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APCL Analytical Report

Submitted to:
Tetra Tech, Inc. (San Francisco)
Attention: Roy Roenbeck
180 Howard St. Ste. 250
San Francisco CA 94105
Tel: (415)974-1221 Fax: (415)974-5914

Service ID #: 801-994434
Collected by: D. Gonzales
Collected on: 06/22-24/99

Received: 06/25/99
Extracted: 06/29/99
Tested: 06/28-07/02/99
Reported: 07/07/99

Sample Description: Soil and Water
Project Description: W 101 Bioremediation

Analysis of Water and Soil Samples

I . Analysis of Water Samples

Component Analyzed	Method	Unit	PQL	Analysis Result ~~Rt-061299-0840-1~~ 99-04434-22
NITROAROMATICS AND NITROAMINES				
Dilution Factor				3.85
4-AMINO 2,6-DINITROTOLUENE	8330	µg/L	10	<38
2-AMINO-4,6 DINITROTOLUENE	8330	µg/L	10	<38
1,3-DINITROBENZENE	8330	µg/L	4	<15
2,4-DINITROTOLUENE	8330	µg/L	5.7	<22
2,6-DINITROTOLUENE	8330	µg/L	9.4	<36
HMX	8330	µg/L	13	<49
NITROBENZENE	8330	µg/L	6.4	<24
3-NITROTOLUENE	8330	µg/L	7.9	<30
RDX	8330	µg/L	14	<53
TETRYL	8330	µg/L	4	<15
1,3,5-TRINITROBENZENE	8330	µg/L	7.3	<28
2,4,6-TRINITROTOLUENE	8330	µg/L	6.9	<26
2-NITROTOLUENE [a]	8330	µg/L	8.5	<32
4-NITROTOLUENE [a]	8330	µg/L	8.5	<32

II . Analysis of Soil Samples

Component Analyzed	Method	Unit	PQL	Analysis Result ~~A1-SMB17-S001-P~~ 99-04434-1	A3-WR001BC001-CC002P 99-04434-2
MOISTURE, PERCENT IN SOIL	ASTM-D2216	%Moisture	0.5	1.6	35.4
NITROAROMATICS AND NITROAMINES					
Dilution Factor				10	1
4-AMINO-2,6-DINITROTOLUENE	8330	mg/kg	0.2	<2.0	<0.31
2-AMINO-4,6-DINITROTOLUENE	8330	mg/kg	0.2	<2.0	<0.31
1,3-DINITROBENZENE	8330	mg/kg	0.25	<2.5	<0.39
2,4-DINITROTOLUENE	8330	mg/kg	0.25	<2.5	<0.39
2,6-DINITROTOLUENE	8330	mg/kg	0.25	<2.5	<0.39
HMX	8330	mg/kg	0.25	1J	<0.39
NITROBENZENE	8330	mg/kg	0.25	<2.5	<0.39
3-NITROTOLUENE	8330	mg/kg	0.25	<2.5	<0.39
RDX	8330	mg/kg	0.25	6.4	0.85
TETRYL	8330	mg/kg	0.25	<2.5	<0.39
1,3,5-TRINITROBENZENE	8330	mg/kg	0.25	14	<0.39
2,4,6-TRINITROTOLUENE	8330	mg/kg	0.25	55	<0.39
2-NITROTOLUENE [a]	8330	mg/kg	0.25	<2.5	<0.39
4-NITROTOLUENE [a]	8330	mg/kg	0.25	<2.5	<0.39

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Component Analyzed	Method	Unit	PQL	Analysis Result A3-WR001BC002-CC002P 99-04434-3	Analysis Result A3-WR001BC003-CC002P 99-04434-4
MOISTURE, PERCENT IN SOIL	ASTM-D2216	%Moisture	0.5	16.5	28.1
NITROAROMATICS AND NITROAMINES					
Dilution Factor				1	1
4-AMINO-2,6-DINITROTOLUENE	8330	mg/kg	0.2	<0.24	<0.28
2-AMINO-4,6-DINITROTOLUENE	8330	mg/kg	0.2	<0.24	<0.28
1,3-DINITROBENZENE	8330	mg/kg	0.25	<0.30	<0.35
2,4-DINITROTOLUENE	8330	mg/kg	0.25	<0.30	<0.35
2,6-DINITROTOLUENE	8330	mg/kg	0.25	<0.30	<0.35
HMX	8330	mg/kg	0.25	<0.30	<0.35
NITROBENZENE	8330	mg/kg	0.25	<0.30	<0.35
3-NITROTOLUENE	8330	mg/kg	0.25	<0.30	<0.35
RDX	8330	mg/kg	0.25	<0.30	0.51
TETRYL	8330	mg/kg	0.25	<0.30	<0.35
1,3,5-TRINITROBENZENE	8330	mg/kg	0.25	<0.30	<0.35
2,4,6-TRINITROTOLUENE	8330	mg/kg	0.25	0.3J	0.1J
2-NITROTOLUENE [a]	8330	mg/kg	0.25	<0.30	<0.35
4-NITROTOLUENE [a]	8330	mg/kg	0.25	<0.30	<0.35

Component Analyzed	Method	Unit	PQL	Analysis Result A3-WR001BC004-CC002P 99-04434-5	Analysis Result A3-WR001BC005-CC002P 99-04434-6
MOISTURE, PERCENT IN SOIL	ASTM-D2216	%Moisture	0.5	32.2	14.3
NITROAROMATICS AND NITROAMINES					
Dilution Factor				1	1
4-AMINO-2,6-DINITROTOLUENE	8330	mg/kg	0.2	<0.30	<0.23
2-AMINO-4,6-DINITROTOLUENE	8330	mg/kg	0.2	<0.30	<0.23
1,3-DINITROBENZENE	8330	mg/kg	0.25	<0.37	<0.29
2,4-DINITROTOLUENE	8330	mg/kg	0.25	0.3J	<0.29
2,6-DINITROTOLUENE	8330	mg/kg	0.25	<0.37	<0.29
HMX	8330	mg/kg	0.25	<0.37	<0.29
NITROBENZENE	8330	mg/kg	0.25	<0.37	<0.29
3-NITROTOLUENE	8330	mg/kg	0.25	<0.37	<0.29
RDX	8330	mg/kg	0.25	0.66	<0.29
TETRYL	8330	mg/kg	0.25	<0.37	<0.29
1,3,5-TRINITROBENZENE	8330	mg/kg	0.25	<0.37	<0.29
2,4,6-TRINITROTOLUENE	8330	mg/kg	0.25	0.1J	<0.29
2-NITROTOLUENE [a]	8330	mg/kg	0.25	<0.37	<0.29
4-NITROTOLUENE [a]	8330	mg/kg	0.25	<0.37	<0.29

Component Analyzed	Method	Unit	PQL	Analysis Result A3-WR002BC001-CC002P 99-04434-7	Analysis Result A3-WR002BC002-CC002P 99-04434-8
MOISTURE, PERCENT IN SOIL	ASTM-D2216	%Moisture	0.5	47.6	19.1

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Component Analyzed	Method	Unit	PQL	Analysis Result A3-WR002BC001-CC002P 99-04434-7	Analysis Result A3-WR002BC002-CC002P 99-04434-8
NITROAROMATICS AND NITROAMINES					
Dilution Factor				1	1
4-AMINO-2,6-DINITROTOLUENE	8330	mg/kg	0.2	<0.38	<0.25
2-AMINO-4,6-DINITROTOLUENE	8330	mg/kg	0.2	<0.38	<0.25
1,3-DINITROBENZENE	8330	mg/kg	0.25	<0.48	<0.31
2,4-DINITROTOLUENE	8330	mg/kg	0.25	<0.48	<0.31
2,6-DINITROTOLUENE	8330	mg/kg	0.25	<0.48	<0.31
HMX	8330	mg/kg	0.25	<0.48	<0.31
NITROBENZENE	8330	mg/kg	0.25	<0.48	<0.31
3-NITROTOLUENE	8330	mg/kg	0.25	<0.48	<0.31
RDX	8330	mg/kg	0.25	<0.48	<0.31
TETRYL	8330	mg/kg	0.25	<0.48	<0.31
1,3,5-TRINITROBENZENE	8330	mg/kg	0.25	<0.48	<0.31
2,4,6-TRINITROTOLUENE	8330	mg/kg	0.25	<0.48	0.97
2-NITROTOLUENE [a]	8330	mg/kg	0.25	<0.48	<0.31
4-NITROTOLUENE [a]	8330	mg/kg	0.25	<0.48	<0.31

Component Analyzed	Method	Unit	PQL	Analysis Result A3-WR002BC003-CC002P 99-04434-9	Analysis Result A3-WR002BC004-CC002P 99-04434-10
MOISTURE, PERCENT IN SOIL	ASTM-D2216	%Moisture	0.5	19.7	18.6
NITROAROMATICS AND NITROAMINES					
Dilution Factor				1	1
4-AMINO-2,6-DINITROTOLUENE	8330	mg/kg	0.2	<0.25	<0.25
2-AMINO-4,6-DINITROTOLUENE	8330	mg/kg	0.2	<0.25	<0.25
1,3-DINITROBENZENE	8330	mg/kg	0.25	<0.31	<0.31
2,4-DINITROTOLUENE	8330	mg/kg	0.25	<0.31	<0.31
2,6-DINITROTOLUENE	8330	mg/kg	0.25	<0.31	<0.31
HMX	8330	mg/kg	0.25	<0.31	<0.31
NITROBENZENE	8330	mg/kg	0.25	<0.31	<0.31
3-NITROTOLUENE	8330	mg/kg	0.25	<0.31	<0.31
RDX	8330	mg/kg	0.25	0.2J	<0.31
TETRYL	8330	mg/kg	0.25	<0.31	<0.31
1,3,5-TRINITROBENZENE	8330	mg/kg	0.25	<0.31	<0.31
2,4,6-TRINITROTOLUENE	8330	mg/kg	0.25	0.09J	<0.31
2-NITROTOLUENE [a]	8330	mg/kg	0.25	<0.31	<0.31
4-NITROTOLUENE [a]	8330	mg/kg	0.25	<0.31	<0.31

Component Analyzed	Method	Unit	PQL	Analysis Result A3-WR005BC001-CC001P 99-04434-11	Analysis Result A3-WR005BC002-CC001P 99-04434-12
MOISTURE, PERCENT IN SOIL	ASTM-D2216	%Moisture	0.5	36.1	21.5

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APCL Analytical Report

Submitted to:
Tetra Tech, Inc. (San Francisco)
Attention: Roy Roenbeck
180 Howard St. Ste. 250
San Francisco CA 94105
Tel. (415)974-1221 Fax: (415)974-5914

Service ID #: 801-094595
Collected by: D. Gonzalez
Collected on: 06/29-30/99

Received: 07/02/99
Extracted: 07/06/99
Tested: 07/06-09/99
Reported: 07/12/99

Sample Description: Soil and Water
Project Description: W 101 Bioremediation

Analysis of Water and Soil Samples

I. Analysis of Water Samples

Component Analyzed	Method	Unit	PQL	Analysis Result EB-062999-1510-1 99-04595-16
NITROAROMATICS AND NITROAMINES				
Dilution Factor				3.85
4-AMINO-2,6-DINITROTOLUENE	8330	µg/L	10	<38
2-AMINO-4,6-DINITROTOLUENE	8330	µg/L	10	<38
1,4-DINITROBENZENE	8330	µg/L	4	<15
2,4-DINITROTOLUENE	8330	µg/L	5.7	<22
2,6-DINITROTOLUENE	8330	µg/L	9.4	<36
HMX	8330	µg/L	13	4J
NITROBENZENE	8330	µg/L	6.4	<24
3-NITROTOLUENE	8330	µg/L	7.9	<30
RDX	8330	µg/L	14	23J
TETRYL	8330	µg/L	4	<15
1,3,5-TRINITROBENZENE	8330	µg/L	7.3	<28
2,4,6-TRINITROTOLUENE	8330	µg/L	6.9	3J
2-NITROTOLUENE [a]	8330	µg/L	8.5	<32
4-NITROTOLUENE [a]	8330	µg/L	8.5	<32
Dilution Factor				3.85
PICRIC ACID	M8330	µg/L	10	<38

II. Analysis of Soil Samples

Component Analyzed	Method	Unit	PQL	Analysis Result 101044-B22A-CF001-06-P 99-04595-1	101044-B22A-CF002-06-P 99-04595-2
MOISTURE, PERCENT IN SOIL	ASTM-D2216	%Moisture	0.5	1.8	15.4

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Component Analyzed	Method	Unit	PQL	Analysis Result AS-WR004B-C002-CC002-P 99-04595-13	Analysis Result AS-WR004B-C003-CC002-P 99-04595-14
NITROAROMATICS AND NITROAMINES					
Dilution Factor				1	1
4-AMINO-2,6-DINITROTOLUENE	8330	mg/kg	0.2	<0.25	<0.24
2-AMINO-4,6-DINITROTOLUENE	8330	mg/kg	0.2	<0.25	<0.24
1,3-DINITROBENZENE	8330	mg/kg	0.25	<0.32	<0.30
2,4-DINITROTOLUENE	8330	mg/kg	0.25	<0.32	<0.30
2,6-DINITROTOLUENE	8330	mg/kg	0.25	<0.32	<0.30
HMX	8330	mg/kg	0.25	8.80	<0.30
NITROBENZENE	8330	mg/kg	0.25	<0.32	<0.30
3-NITROTOLUENE	8330	mg/kg	0.25	<0.32	<0.30
RDX	8330	mg/kg	0.25	19.0	0.11
TETRYL	8330	mg/kg	0.25	<0.32	<0.30
1,3,5-TRINITROBENZENE	8330	mg/kg	0.25	<0.32	<0.30
2,4,6-TRINITROTOLUENE	8330	mg/kg	0.25	1.1	0.3J
2-NITROTOLUENE (a)	8330	mg/kg	0.25	<0.32	<0.30
4-NITROTOLUENE (a)	8330	mg/kg	0.25	<0.32	<0.30

Component Analyzed	Method	Unit	PQL	Analysis Result AS-WR004B-C004-CC002-P 99-04595-15
MOISTURE, PERCENT IN SOIL	ASTM-D2216	%Moisture	0.5	22.0
NITROAROMATICS AND NITROAMINES				
Dilution Factor				1
4-AMINO-2,6-DINITROTOLUENE	8330	mg/kg	0.2	<0.26
2-AMINO-4,6-DINITROTOLUENE	8330	mg/kg	0.2	<0.26
1,3-DINITROBENZENE	8330	mg/kg	0.25	<0.32
2,4-DINITROTOLUENE	8330	mg/kg	0.25	<0.32
2,6-DINITROTOLUENE	8330	mg/kg	0.25	<0.32
HMX	8330	mg/kg	0.25	5.8
NITROBENZENE	8330	mg/kg	0.25	<0.32
3-NITROTOLUENE	8330	mg/kg	0.25	<0.32
RDX	8330	mg/kg	0.25	9.13
TETRYL	8330	mg/kg	0.25	<0.32
1,3,5 TRINITROBENZENE	8330	mg/kg	0.25	<0.32
2,4,6-TRINITROTOLUENE	8330	mg/kg	0.25	<0.32
2-NITROTOLUENE (a)	8330	mg/kg	0.25	<0.32
4-NITROTOLUENE (a)	8330	mg/kg	0.25	<0.32

Component Analyzed	Method	Unit	PQL	Analysis Result 101944-B22A-CF001-02-P 99-04595-1	Analysis Result 101944-B22A-CF002-02-P 99-04595-2
Dilution Factor				1	1
PICRIC ACID	M8330	mg/kg	2.5	<2.5	<3.0

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Component Analyzed	Method	Unit	PQL	Analysis Result A3-WR003B-C002-CC002-P 99-04595-9	Analysis Result A3-WR003B-C003-CC003-P 99-04595-10
NITROAROMATICS AND NITROAMINES					
Dilution Factor				1	1
4-AMINO-2,6-DINITROTOLUENE	8330	mg/kg	0.2	<0.26	<0.24
2-AMINO-4,6-DINITROTOLUENE	8330	mg/kg	0.2	<0.26	<0.24
1,3-DINITROBENZENE	8330	mg/kg	0.25	<0.33	<0.29
2,4-DINITROTOLUENE	8330	mg/kg	0.25	<0.33	<0.29
2,6-DINITROTOLUENE	8330	mg/kg	0.25	<0.33	<0.29
HMX	8330	mg/kg	0.25	0.91	<0.29
NITROBENZENE	8330	mg/kg	0.25	<0.33	<0.29
3-NITROTOLUENE	8330	mg/kg	0.25	<0.33	<0.29
RDX	8330	mg/kg	0.25	23.4	<0.29
TETRYL	8330	mg/kg	0.25	<0.33	<0.29
1,3,5-TRINITROBENZENE	8330	mg/kg	0.25	<0.33	<0.29
2,4,6-TRINITROTOLUENE	8330	mg/kg	0.25	<0.33	0.30
2-NITROTOLUENE [a]	8330	mg/kg	0.25	<0.33	<0.29
4-NITROTOLUENE [a]	8330	mg/kg	0.25	<0.33	<0.29

Component Analyzed	Method	Unit	PQL	Analysis Result A3-WR003B-C004-CC002-P 99-04595-11	Analysis Result A3-WR004B-C001-CC002-P 99-04595-12
MOISTURE, PERCENT IN SOIL	ASTM-D2216	%Moisture	0.5	18.7	20.9
NITROAROMATICS AND NITROAMINES					
Dilution Factor				1	1
4-AMINO-2,6-DINITROTOLUENE	8330	mg/kg	0.2	<0.25	<0.26
2-AMINO-4,6-DINITROTOLUENE	8330	mg/kg	0.2	<0.25	<0.25
1,3-DINITROBENZENE	8330	mg/kg	0.25	<0.31	<0.32
2,4-DINITROTOLUENE	8330	mg/kg	0.25	<0.31	<0.32
2,6-DINITROTOLUENE	8330	mg/kg	0.25	<0.31	<0.32
HMX	8330	mg/kg	0.25	<0.31	<0.32
NITROBENZENE	8330	mg/kg	0.25	<0.31	<0.32
3-NITROTOLUENE	8330	mg/kg	0.25	<0.31	<0.32
RDX	8330	mg/kg	0.25	0.47	<0.32
TETRYL	8330	mg/kg	0.25	<0.31	<0.32
1,3,5-TRINITROBENZENE	8330	mg/kg	0.25	<0.31	<0.32
2,4,6-TRINITROTOLUENE	8330	mg/kg	0.25	0.3J	0.32
2-NITROTOLUENE [a]	8330	mg/kg	0.25	<0.31	<0.32
4-NITROTOLUENE [a]	8330	mg/kg	0.25	<0.31	<0.32

Component Analyzed	Method	Unit	PQL	Analysis Result A3-WR004B-C002-CC002-P 99-04595-13	Analysis Result A3-WR004B-C003-CC003-P 99-04595-14
MOISTURE, PERCENT IN SOIL	ASTM-D2216	%Moisture	0.5	20.9	15.7

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Component Analyzed	Method	Unit	PQL	Analysis Result 101844 B220-GF000-05-F 99-04595-5	A2-SMB09 5018 F 99-04595-6
NITROAROMATICS AND NITROAMINES					
Dilution Factor				1	500
4-AMINO-2,6 DINITROTOLUENE	8330	mg/kg	0.2	< 0.20	< 100
2-AMINO 4,6-DINITROTOLUENE	8330	mg/kg	0.2	< 0.20	< 100
1,3-DINITROBENZENE	8330	mg/kg	0.25	< 0.25	< 130
2,4-DINITROTOLUENE	8330	mg/kg	0.25	< 0.25	< 130
2,6-DINITROTOLUENE	8330	mg/kg	0.25	< 0.25	< 130
HMX	8330	mg/kg	0.25	< 0.25	350
NITROBENZENE	8330	mg/kg	0.25	< 0.25	< 130
3-NITROTOLUENE	8330	mg/kg	0.25	< 0.25	< 130
RDX	8330	mg/kg	0.25	< 0.25	2,600
TETRYL	8330	mg/kg	0.25	< 0.25	< 130
1,3,5-TRINITROBENZENE	8330	mg/kg	0.25	< 0.25	830
2,4,6-TRINITROTOLUENE	8330	mg/kg	0.25	< 0.25	2,000
2-NITROTOLUENE (a)	8330	mg/kg	0.25	< 0.25	< 130
4-NITROTOLUENE (a)	8330	mg/kg	0.25	< 0.25	< 130

Component Analyzed	Method	Unit	PQL	Analysis Result ~~A2-SMB06 TUNNEL 5014~~ 99-04595-7	A3-WR003B-C001-CC002 F 99-04595-8
MOISTURE, PERCENT IN SOIL	ASTM-D2216	%Moisture	0.5	1.4	16.5
NITROAROMATICS AND NITROAMINES					
Dilution Factor				500	1
4-AMINO-2,6-DINITROTOLUENE	8330	mg/kg	0.2	< 100	< 0.24
2-AMINO-4,6-DINITROTOLUENE	8330	mg/kg	0.2	< 100	< 0.24
1,3 DINITROBENZENE	8330	mg/kg	0.25	< 130	< 0.30
2,4-DINITROTOLUENE	8330	mg/kg	0.25	< 130	< 0.30
2,6-DINITROTOLUENE	8330	mg/kg	0.25	< 130	< 0.30
HMX	8330	mg/kg	0.25	270	< 0.30
NITROBENZENE	8330	mg/kg	0.25	< 130	< 0.30
3-NITROTOLUENE	8330	mg/kg	0.25	< 130	< 0.30
RDX	8330	mg/kg	0.25	2,200	0.89
TETRYL	8330	mg/kg	0.25	< 130	< 0.30
1,3,5-TRINITROBENZENE	8330	mg/kg	0.25	461	< 0.30
2,4,6-TRINITROTOLUENE	8330	mg/kg	0.25	5,120	2.0
2-NITROTOLUENE (a)	8330	mg/kg	0.25	< 130	< 0.30
4-NITROTOLUENE (a)	8330	mg/kg	0.25	< 130	< 0.30

Component Analyzed	Method	Unit	PQL	Analysis Result A3-WR003B-C002-CC002-F 99-04595-9	A3-WR003B-C003-CC003-F 99-04595-10
MOISTURE, PERCENT IN SOIL	ASTM-D2216	%Moisture	0.5	23.6	16.2

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Component Analyzed	Method	Unit	PQL	Analysis Result AS-WR003C-C001-CC002-P 99-05332-7	AS-WR003C-C002-CC002-P 99-05332-8
NITROAROMATICS AND NITROAMINES					
Dilution Factor				1	1
4-AMINO-2,6-DINITROTOLUENE	8330	mg/kg	0.2	<0.24	<0.23
2-AMINO-4,6-DINITROTOLUENE	8330	mg/kg	0.2	<0.24	<0.23
1,3-DINITROBENZENE	8330	mg/kg	0.25	<0.30	<0.29
2,4-DINITROTOLUENE	8330	mg/kg	0.25	<0.30	<0.29
2,6-DINITROTOLUENE	8330	mg/kg	0.25	<0.30	<0.29
HMX	8330	mg/kg	0.25	<0.30	0.63
NITROBENZENE	8330	mg/kg	0.25	<0.30	<0.29
3-NITROTOLUENE	8330	mg/kg	0.25	<0.30	<0.29
RDX	8330	mg/kg	0.25	0.2J	0.1J
TETRYL	8330	mg/kg	0.25	<0.30	<0.29
1,3,5-TRINITROBENZENE	8330	mg/kg	0.25	<0.30	<0.29
2,4,6-TRINITROTOLUENE	8330	mg/kg	0.25	<0.30	0.56
2-NITROTOLUENE [a]	8330	mg/kg	0.25	<0.30	<0.29
4-NITROTOLUENE [a]	8330	mg/kg	0.25	<0.30	<0.29

Component Analyzed	Method	Unit	PQL	Analysis Result AS-WR003C-C003-CC002-P 99-05332-9	AS-WR003C-C004-CC002-P 99-05332-10
MOISTURE	ASTM-D2216	%Moisture	0.5	18.6	19.9
NITROAROMATICS AND NITROAMINES					
Dilution Factor				1	1
4-AMINO-2,6-DINITROTOLUENE	8330	mg/kg	0.2	<0.25	<0.25
2-AMINO-4,6-DINITROTOLUENE	8330	mg/kg	0.2	<0.25	<0.25
1,3-DINITROBENZENE	8330	mg/kg	0.25	<0.31	<0.31
2,4-DINITROTOLUENE	8330	mg/kg	0.25	<0.31	<0.31
2,6-DINITROTOLUENE	8330	mg/kg	0.25	<0.31	<0.31
HMX	8330	mg/kg	0.25	<0.31	0.48
NITROBENZENE	8330	mg/kg	0.25	<0.31	<0.31
3-NITROTOLUENE	8330	mg/kg	0.25	<0.31	<0.31
RDX	8330	mg/kg	0.25	<0.31	<0.31
TETRYL	8330	mg/kg	0.25	<0.31	<0.31
1,3,5-TRINITROBENZENE	8330	mg/kg	0.25	<0.31	<0.31
2,4,6-TRINITROTOLUENE	8330	mg/kg	0.25	<0.31	<0.31
2-NITROTOLUENE [a]	8330	mg/kg	0.25	<0.31	<0.31
4-NITROTOLUENE [a]	8330	mg/kg	0.25	<0.31	<0.31

Component Analyzed	Method	Unit	PQL	Analysis Result AS-WR003C-C005-CC002-P 99-05332-11	AS-WR005C-C001-CC001-P 99-05332-12
MOISTURE	ASTM-D2216	%Moisture	0.5	19.6	24.5

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APCL Analytical Report

Submitted to:
Tetra Tech, Inc. (San Francisco)
Attention: Roy Roenbeck
180 Howard St. Ste. 250
San Francisco CA 94105
Tel: (415)974-1221 Fax: (415)974-5914

Service ID #: 801-993464
Collected by: D.Gonzales
Collected on: 05/05/99

Received: 05/07/99
Extracted: 05/10/99
Tested: 05/07-11/99
Reported: 05/15/99

Sample Description: Compost Soil and Water
Project Description: West 101 Bioremediation

Analysis of Water and Compost Soil Samples

I . Analysis of Water Samples

Component Analyzed	Method	Unit	PQL	Analysis Result ER-050599-0730-1 99-03464-9
NITROAROMATICS AND NITROAMINES [a]				
Dilution Factor				3.08
4-AMINO-2,6-DINITROTOLUENE	8330	µg/L	10	<31
2-AMINO-4,6-DINITROTOLUENE	8330	µg/L	10	2J
1,3-DINITROBENZENE	8330	µg/L	4	<13
2,4-DINITROTOLUENE	8330	µg/L	5.7	<18
2,6-DINITROTOLUENE	8330	µg/L	9.4	<29
HMX	8330	µg/L	13	<41
NITROBENZENE	8330	µg/L	6.4	<20
3-NITROTOLUENE	8330	µg/L	7.9	<25
RDX	8330	µg/L	14	6J
TETRYL	8330	µg/L	4	<13
1,3,5-TRINITROBENZENE	8330	µg/L	7.3	4J
2,4,6-TRINITROTOLUENE	8330	µg/L	6.9	21J
2/4-NITROTOLUENE	8330	µg/L	8.5	<27

II . Analysis of Compost Soil Samples

Component Analyzed	Method	Unit	PQL	Analysis Result ~~A2-SMB06-P1-CF001-P~~ 99-03464-1	~~A2-SMB06-P1-CS003-P~~ 99-03464-2
MOISTURE	ASTM-D2216	%Moisture	0.5	3.2	5.2
NITROAROMATICS AND NITROAMINES [a]					
Dilution Factor				10	5
4-AMINO-2,6-DINITROTOLUENE	8330	mg/kg	0.2	2J	<1.1
2-AMINO-4,6-DINITROTOLUENE	8330	mg/kg	0.2	1J	<1.1
1,3-DINITROBENZENE	8330	mg/kg	0.25	<2.6	<1.3
2,4-DINITROTOLUENE	8330	mg/kg	0.25	<2.6	<1.3
2,6-DINITROTOLUENE	8330	mg/kg	0.25	<2.6	<1.3
HMX	8330	mg/kg	0.25	20	3.7
NITROBENZENE	8330	mg/kg	0.25	<2.6	<1.3
3-NITROTOLUENE	8330	mg/kg	0.25	<2.6	<1.3
RDX	8330	mg/kg	0.25	142	25
TETRYL	8330	mg/kg	0.25	<2.6	<1.3
1,3,5-TRINITROBENZENE	8330	mg/kg	0.25	9.9	2.2
2,4,6-TRINITROTOLUENE	8330	mg/kg	0.25	167	32
2/4-NITROTOLUENE	8330	mg/kg	0.25	<2.6	<1.3

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Component Analyzed	Method	Unit	PQL	Analysis Result ~~A3-S11B06-P1-CS001-P~~ 99-03464-3	A3-WR003A-C001-CC001-P 99-03464-4
MOISTURE	ASTM-D2216	%Moisture	0.5	2.6	26.8
NITROAROMATICS AND NITROAMINES [a]					
Dilution Factor				10	5
4-AMINO-2,6-DINITROTOLUENE	8330	mg/kg	0.2	<2.1	3.8
2-AMINO-4,6-DINITROTOLUENE	8330	mg/kg	0.2	<2.1	2
1,3-DINITROBENZENE	8330	mg/kg	0.25	<2.6	<1.7
2,4-DINITROTOLUENE	8330	mg/kg	0.25	<2.6	<1.7
2,6-DINITROTOLUENE	8330	mg/kg	0.25	<2.6	<1.7
HMX	8330	mg/kg	0.25	12	8.5
NITROBENZENE	8330	mg/kg	0.25	<2.6	<1.7
3-NITROTOLUENE	8330	mg/kg	0.25	<2.6	<1.7
RDX	8330	mg/kg	0.25	82	44
TETRYL	8330	mg/kg	0.25	<2.6	<1.7
1,3,5-TRINITROBENZENE	8330	mg/kg	0.25	5.5	2.1
2,4,6-TRINITROTOLUENE	8330	mg/kg	0.25	75	12
2/4-NITROTOLUENE	8330	mg/kg	0.25	<2.6	<1.7

Component Analyzed	Method	Unit	PQL	Analysis Result A3-WR003A-C002-CC001-P 99-03464-5	A3-WR003A-C003-CC001-P 99-03464-6
MOISTURE	ASTM-D2216	%Moisture	0.5	35.0	32.3
NITROAROMATICS AND NITROAMINES [a]					
Dilution Factor				5	10
4-AMINO-2,6-DINITROTOLUENE	8330	mg/kg	0.2	3	8.1
2-AMINO-4,6-DINITROTOLUENE	8330	mg/kg	0.2	1J	3
1,3-DINITROBENZENE	8330	mg/kg	0.25	<1.9	<3.7
2,4-DINITROTOLUENE	8330	mg/kg	0.25	<1.9	<3.7
2,6-DINITROTOLUENE	8330	mg/kg	0.25	<1.9	<3.7
HMX	8330	mg/kg	0.25	7.6	15
NITROBENZENE	8330	mg/kg	0.25	<1.9	<3.7
3-NITROTOLUENE	8330	mg/kg	0.25	<1.9	<3.7
RDX	8330	mg/kg	0.25	55	115
TETRYL	8330	mg/kg	0.25	<1.9	<3.7
1,3,5-TRINITROBENZENE	8330	mg/kg	0.25	2.1	4J
2,4,6-TRINITROTOLUENE	8330	mg/kg	0.25	16	32
2/4-NITROTOLUENE	8330	mg/kg	0.25	<1.9	<3.7

Component Analyzed	Method	Unit	PQL	Analysis Result A3-WR003A-C004-CC001-P 99-03464-7	A3-WR003A-C005-CC001-P 99-03464-8
MOISTURE	ASTM-D2216	%Moisture	0.5	35.4	30.6

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APCL Analytical Report

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Attention: Roy Roenbeck
180 Howard St. Ste. 250
San Francisco CA 94105
Tel: (415)974-1221 Fax: (415)974 5914

Service ID #: 801-995567
Collected by: D. Gonzales
Collected on: 08/24-25/99

Received: 08/27/99
Extracted: 08/27-09/01/99
Tested: 08/30-09/03/99
Reported: 09/07/99

Sample Description: Compost, Soil and Water
Project Description: W 101 Bioremediation

Analysis of Water and Soil Samples

I. Analysis of Water Samples

Component Analyzed	Method	Unit	PQL	Analysis Result ER-082499-0647-1 99-05567-11
NITROAROMATICS AND NITROAMINES				
Dilution Factor				4.15
4-AMINO-2,6-DINITROTOLUENE	8330	µg/L	10	<42
2-AMINO-4,6-DINITROTOLUENE	8330	µg/L	10	<42
1,3-DINITROBENZENE	8330	µg/L	4	<17
2,4-DINITROTOLUENE	8330	µg/L	5.7	<24
2,6-DINITROTOLUENE	8330	µg/L	9.4	<39
HMX	8330	µg/L	13	<55
NITROBENZENE	8330	µg/L	6.4	<27
3-NITROTOLUENE	8330	µg/L	7.9	<33
RDX	8330	µg/L	14	<59
TETRYL	8330	µg/L	4	<17
1,3,5-TRINITROBENZENE	8330	µg/L	7.3	<31
2,4,6-TRINITROTOLUENE	8330	µg/L	6.8	<29
2-NITROTOLUENE [a]	8330	µg/L	8.5	<36
4-NITROTOLUENE [a]	8330	µg/L	8.5	<36
Dilution Factor				4.15
PICRIC ACID	M8330	µg/L	10	<42

II. Analysis of Soil Samples

Component Analyzed	Method	Unit	PQL	Analysis Result A2-SMB06-S019-2-P 99-05567-1	A2-WR008-CC001-CC0002-P 99-05567-2
MOISTURE	ASTM D2216	%Moisture	0.5	2.6	20.0

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APCL Analytical Report

Component Analyzed	Method	Unit	PQL	Analysis Result ~~A2-SMB06-S019-2-P~~ 99-05567-1	A3-WR005-CC001-CC0002-P 99-05567-2
NITROAROMATICS AND NITROAMINES [b]					
Dilution Factor				10	1
4-AMINO-2,6-DINITROTOLUENE	8330	mg/kg	0.2	<2.1	<0.25
2-AMINO-4,6-DINITROTOLUENE	8330	mg/kg	0.2	<2.1	0.4
1,3-DINITROBENZENE	8330	mg/kg	0.25	<2.6	<0.31
2,4-DINITROTOLUENE	8330	mg/kg	0.25	<2.6	<0.31
2,6-DINITROTOLUENE	8330	mg/kg	0.25	<2.6	<0.31
HMX	8330	mg/kg	0.25	14	0.2J
NITROBENZENE	8330	mg/kg	0.25	<2.6	<0.31
3-NITROTOLUENE	8330	mg/kg	0.25	<2.6	<0.31
RDX	8330	mg/kg	0.25	104	0.44
TETRYL	8330	mg/kg	0.25	<2.6	<0.31
1,3,5-TRINITROBENZENE	8330	mg/kg	0.25	8.5	0.1J
2,4,6-TRINITROTOLUENE	8330	mg/kg	0.25	31	0.32
2-NITROTOLUENE [a]	8330	mg/kg	0.25	<2.6	<0.31
4-NITROTOLUENE [a]	8330	mg/kg	0.25	<2.6	<0.31
Dilution Factor				1	1
PICRIC ACID	M8330	mg/kg	2.5	[illegible]	<3.1

Component Analyzed	Method	Unit	PQL	Analysis Result A3-WR005-CC002-CC0002-P 99-05567-3	A3-WR005-CC003-CC0002-P 99-05567-4
MOISTURE	ASTM-D2216	%Moisture	0.5	17.5	21.8
NITROAROMATICS AND NITROAMINES [b]					
Dilution Factor				1	1
4-AMINO-2,6-DINITROTOLUENE	8330	mg/kg	0.2	<0.24	<0.26
2-AMINO-4,6-DINITROTOLUENE	8330	mg/kg	0.2	<0.24	<0.26
1,3-DINITROBENZENE	8330	mg/kg	0.25	<0.30	<0.32
2,4-DINITROTOLUENE	8330	mg/kg	0.25	<0.30	<0.32
2,6-DINITROTOLUENE	8330	mg/kg	0.25	<0.30	<0.32
HMX	8330	mg/kg	0.25	0.95	<0.32
NITROBENZENE	8330	mg/kg	0.25	<0.30	<0.32
3-NITROTOLUENE	8330	mg/kg	0.25	<0.30	<0.32
RDX	8330	mg/kg	0.25	14.1	<0.32
TETRYL	8330	mg/kg	0.25	<0.30	<0.32
1,3,5-TRINITROBENZENE	8330	mg/kg	0.25	<0.30	<0.32
2,4,6-TRINITROTOLUENE	8330	mg/kg	0.25	<0.30	<0.32
2-NITROTOLUENE [a]	8330	mg/kg	0.25	<0.30	<0.32
4-NITROTOLUENE [a]	8330	mg/kg	0.25	<0.30	<0.32
Dilution Factor				1	1
PICRIC ACID	M8330	mg/kg	2.5	<3.0	<3.2

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Component Analyzed	Method	Unit	PQL	Analysis Result A3-WR005-CC004-CC0002-P 99-05567-5	A3-WR006-CC001-CC0002-P 99-05567-6
MOISTURE	ASTM-D2216	%Moisture	0.5	21.9	16.0
NITROAROMATICS AND NITROAMINES [b]					
Dilution Factor				1	1
4-AMINO-2,6-DINITROTOLUENE	8330	mg/kg	0.2	0.97	<0.24
2-AMINO-4,6-DINITROTOLUENE	8330	mg/kg	0.2	0.93	<0.24
1,3-DINITROBENZENE	8330	mg/kg	0.25	<0.32	<0.30
2,4-DINITROTOLUENE	8330	mg/kg	0.25	<0.32	<0.30
2,6-DINITROTOLUENE	8330	mg/kg	0.25	<0.32	<0.30
HMX	8330	mg/kg	0.25	0.2J	<0.30
NITROBENZENE	8330	mg/kg	0.25	<0.32	<0.30
3-NITROTOLUENE	8330	mg/kg	0.25	<0.32	<0.30
RDX	8330	mg/kg	0.25	0.2J	<0.30
TETRYL	8330	mg/kg	0.25	<0.32	<0.30
1,3,5-TRINITROBENZENE	8330	mg/kg	0.25	<0.32	<0.30
2,4,6-TRINITROTOLUENE	8330	mg/kg	0.25	1.6	<0.30
2-NITROTOLUENE [a]	8330	mg/kg	0.25	<0.32	<0.30
4-NITROTOLUENE [a]	8330	mg/kg	0.25	<0.32	<0.30
Dilution Factor				1	1
PICRIC ACID	M8330	mg/kg	2.5	<3.2	<3.0

Component Analyzed	Method	Unit	PQL	Analysis Result A3-WR006-CC002-CC0002-P 99-05567-7	A3-WR006-CC003-CC0002-P 99-05567-8
MOISTURE	ASTM-D2216	%Moisture	0.5	17.6	19.5
NITROAROMATICS AND NITROAMINES [b]					
Dilution Factor				1	1
4-AMINO-2,6-DINITROTOLUENE	8330	mg/kg	0.2	<0.24	<0.25
2-AMINO-4,6-DINITROTOLUENE	8330	mg/kg	0.2	<0.24	<0.25
1,3-DINITROBENZENE	8330	mg/kg	0.25	<0.30	<0.31
2,4-DINITROTOLUENE	8330	mg/kg	0.25	<0.30	<0.31
2,6-DINITROTOLUENE	8330	mg/kg	0.25	<0.30	<0.31
HMX	8330	mg/kg	0.25	0.3J	<0.31
NITROBENZENE	8330	mg/kg	0.25	<0.30	<0.31
3-NITROTOLUENE	8330	mg/kg	0.25	<0.30	<0.31
RDX	8330	mg/kg	0.25	1.9	<0.31
TETRYL	8330	mg/kg	0.25	<0.30	<0.31
1,3,5-TRINITROBENZENE	8330	mg/kg	0.25	<0.30	<0.31
2,4,6-TRINITROTOLUENE	8330	mg/kg	0.25	<0.30	<0.31
2-NITROTOLUENE [a]	8330	mg/kg	0.25	<0.30	<0.31
4-NITROTOLUENE [a]	8330	mg/kg	0.25	<0.30	<0.31
Dilution Factor				1	1
PICRIC ACID	M8330	mg/kg	2.5	<3.0	<3.1

Excavation Confirmation Samples

SWMU B-06

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APCL Analytical Report

Submitted to:
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Attention: Roy Roenbeck
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Tel: (415)974-1221 Fax: (415)974-5914

Service ID #: 801-992992
Collected by:
Collected on: 04/10/99

Received: 04/13/99
Extracted: 04/15/99
Tested: 04/13-16/99
Reported: 04/21/99

Sample Description: Soil from Hawthorne
Project Description: W 101 Bioremediation

Analysis of Soil Samples

Component Analyzed	Method	Unit	PQL	Analysis Result A2-SMB06-P1-GF001-P 99-02992-1	~~A2-SMB06-P1-GF002-P~~ 99-02992-2
MOISTURE	ASTM-D2216	%Moisture	0.5	5.3	5.6
NITROAROMATICS AND NITROAMINES [a]					
Dilution Factor				10	100
4-AMINO-2,6-DINITROTOLUENE	8330	mg/kg	0.2	<2.1	<21
2-AMINO-4,6-DINITROTOLUENE	8330	mg/kg	0.2	<2.1	<21
1,3-DINITROBENZENE	8330	mg/kg	0.25	<2.6	<26
2,4-DINITROTOLUENE	8330	mg/kg	0.25	<2.6	<26
2,6-DINITROTOLUENE	8330	mg/kg	0.25	<2.6	<26
HMX	8330	mg/kg	0.25	10	77
NITROBENZENE	8330	mg/kg	0.25	<2.6	<26
3-NITROTOLUENE	8330	mg/kg	0.25	<2.6	<26
RDX	8330	mg/kg	0.25	71	595
TETRYL	8330	mg/kg	0.25	<2.6	<26
1,3,5-TRINITROBENZENE	8330	mg/kg	0.25	3.3	130
2,4,6-TRINITROTOLUENE	8330	mg/kg	0.25	62	1,110
2/4-NITROTOLUENE	8330	mg/kg	0.25	<2.6	<26

Component Analyzed	Method	Unit	PQL	Analysis Result ~~A2-SMB06-P1-GS001-P~~ 99-02992-3	A2-SMB06-P1-GS002-P 99-02992-4
MOISTURE	ASTM-D2216	%Moisture	0.5	7.0	3.3
NITROAROMATICS AND NITROAMINES [a]					
Dilution Factor				100	5
4-AMINO-2,6-DINITROTOLUENE	8330	mg/kg	0.2	<21	<1.0
2-AMINO-4,6-DINITROTOLUENE	8330	mg/kg	0.2	<21	<1.0
1,3-DINITROBENZENE	8330	mg/kg	0.25	<27	<1.3
2,4-DINITROTOLUENE	8330	mg/kg	0.25	<27	<1.3
2,6-DINITROTOLUENE	8330	mg/kg	0.25	<27	<1.3
HMX	8330	mg/kg	0.25	180	4.8
NITROBENZENE	8330	mg/kg	0.25	<27	<1.3
3-NITROTOLUENE	8330	mg/kg	0.25	<27	<1.3
RDX	8330	mg/kg	0.25	1,440	32
TETRYL	8330	mg/kg	0.25	<27	<1.3
1,3,5-TRINITROBENZENE	8330	mg/kg	0.25	40	2.2
2,4,6-TRINITROTOLUENE	8330	mg/kg	0.25	1,870	19
2/4-NITROTOLUENE	8330	mg/kg	0.25	<27	<1.3

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Component Analyzed	Method	Unit	PQL	Analysis Result ~~A2-SMB06-P1-GS003-P~~ 99-02992-5	A2-SMB06-P1-GS004-P 99-02992-6
MOISTURE	ASTM-D2216	%Moisture	0.5	6.8	3.5
NITROAROMATICS AND NITROAMINES [a]					
Dilution Factor				100	5
4-AMINO-2,6-DINITROTOLUENE	8330	mg/kg	0.2	<21	<1.0
2-AMINO-4,6-DINITROTOLUENE	8330	mg/kg	0.2	<21	<1.0
1,3-DINITROBENZENE	8330	mg/kg	0.25	<27	<1.3
2,4-DINITROTOLUENE	8330	mg/kg	0.25	<27	<1.3
2,6-DINITROTOLUENE	8330	mg/kg	0.25	<27	<1.3
HMX	8330	mg/kg	0.25	200	4.8
NITROBENZENE	8330	mg/kg	0.25	<27	<1.3
3-NITROTOLUENE	8330	mg/kg	0.25	<27	<1.3
RDX	8330	mg/kg	0.25	1,370	39
TETRYL	8330	mg/kg	0.25	<27	<1.3
1,3,5-TRINITROBENZENE	8330	mg/kg	0.25	37	2.4
2,4,6-TRINITROTOLUENE	8330	mg/kg	0.25	1,730	28
2/4-NITROTOLUENE	8330	mg/kg	0.25	<27	<1.3

Component Analyzed	Method	Unit	PQL	Analysis Result A2-SMB06-P1-GS005-P 99-02992-7	A2-SMB06-P1-GS006-P 99-02992-8
MOISTURE	ASTM-D2216	%Moisture	0.5	4.9	5.1
NITROAROMATICS AND NITROAMINES [a]					
Dilution Factor				10	10
4-AMINO-2,6-DINITROTOLUENE	8330	mg/kg	0.2	<2.1	<2.1
2-AMINO-4,6-DINITROTOLUENE	8330	mg/kg	0.2	<2.1	<2.1
1,3-DINITROBENZENE	8330	mg/kg	0.25	<2.6	<2.6
2,4-DINITROTOLUENE	8330	mg/kg	0.25	<2.6	<2.6
2,6-DINITROTOLUENE	8330	mg/kg	0.25	<2.6	<2.6
HMX	8330	mg/kg	0.25	19	21
NITROBENZENE	8330	mg/kg	0.25	<2.6	<2.6
3-NITROTOLUENE	8330	mg/kg	0.25	<2.6	<2.6
RDX	8330	mg/kg	0.25	150	149
TETRYL	8330	mg/kg	0.25	<2.6	<2.6
1,3,5-TRINITROBENZENE	8330	mg/kg	0.25	9.5	8.1
2,4,6-TRINITROTOLUENE	8330	mg/kg	0.25	114	97
2/4-NITROTOLUENE	8330	mg/kg	0.25	<2.6	<2.6

Component Analyzed	Method	Unit	PQL	Analysis Result A2-SMB06-P1-GS007-P 99-02992-9
MOISTURE	ASTM-D2216	%Moisture	0.5	3.4

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APCL Analytical Report

Submitted to:
Tetra Tech, Inc. (San Francisco)
Attention: Roy Roenbeck
180 Howard St. Ste. 250
San Francisco CA 94105
Tel: (415)974-1221 Fax: (415)974-5914

Service ID #: 801-993156
Collected by:
Collected on: 04/20-21/99

Received: 04/22/99
Extracted: 04/26/99
Tested: 04/22-27/99
Reported: 04/30/99

Sample Description: Soil and Water
Project Description: W 101 Bioremediation

Analysis of Water and Soil Samples

I. Analysis of Water Samples

Component Analyzed	Method	Unit	PQL	Analysis Result ER-042099-1120-2 99-03156-21
NITROAROMATICS AND NITROAMINES [a]				
Dilution Factor				3.85
4-AMINO-2,6-DINITROTOLUENE	8330	µg/L	10	<38
2-AMINO-4,6-DINITROTOLUENE	8330	µg/L	10	<38
1,3-DINITROBENZENE	8330	µg/L	4	<15
2,4-DINITROTOLUENE	8330	µg/L	5.7	<22
2,6-DINITROTOLUENE	8330	µg/L	9.4	<36
HMX	8330	µg/L	13	1J
NITROBENZENE	8330	µg/L	6.4	<24
3-NITROTOLUENE	8330	µg/L	7.9	<30
RDX	8330	µg/L	14	<53
TETRYL	8330	µg/L	4	<15
1,3,5-TRINITROBENZENE	8330	µg/L	7.3	<28
2,4,6-TRINITROTOLUENE	8330	µg/L	6.9	2J
2/4-NITROTOLUENE	8330	µg/L	8.5	<32

II. Analysis of Soil Samples

Component Analyzed	Method	Unit	PQL	Analysis Result A3-SMH18-P1-GF001-P 99-03156-1	A3-SMH18-P1-GS001-P 99-03156-2
MOISTURE	ASTM-D2216	%Moisture	0.5	1.9	1.2
NITROAROMATICS AND NITROAMINES [a]					
Dilution Factor				1	1
4-AMINO-2,6-DINITROTOLUENE	8330	mg/kg	0.2	0.44	0.3
2-AMINO-4,6-DINITROTOLUENE	8330	mg/kg	0.2	0.49	0.52
1,3-DINITROBENZENE	8330	mg/kg	0.25	<0.25	<0.25
2,4-DINITROTOLUENE	8330	mg/kg	0.25	0.2J	0.27
2,6-DINITROTOLUENE	8330	mg/kg	0.25	<0.25	<0.25
HMX	8330	mg/kg	0.25	0.83	0.74
NITROBENZENE	8330	mg/kg	0.25	<0.25	<0.25
3-NITROTOLUENE	8330	mg/kg	0.25	<0.25	<0.25
RDX	8330	mg/kg	0.25	3.6	7.54
TETRYL	8330	mg/kg	0.25	<0.25	<0.25
1,3,5-TRINITROBENZENE	8330	mg/kg	0.25	0.1J	0.82
2,4,6-TRINITROTOLUENE	8330	mg/kg	0.25	18.1	2.8
2/4-NITROTOLUENE	8330	mg/kg	0.25	<0.25	<0.25

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APCL Analytical Report

Submitted to:
Tetra Tech, Inc. (San Francisco)
Attention: Roy Roenbeck
180 Howard St. Ste. 250
San Francisco CA 94105
Tel: (415)974-1221 Fax: (415)974-5914

Service ID #: 801-993464
Collected by: D.Gonzales
Collected on: 05/05/99

Received: 05/07/99
Extracted: 05/10/99
Tested: 05/07-11/99
Reported: 05/15/99

Sample Description: Compost Soil and Water
Project Description: West 101 Bioremediation

Analysis of Water and Compost Soil Samples

I. Analysis of Water Samples

Component Analyzed	Method	Unit	PQL	Analysis Result ER-050599-0730-1 99-03464-9
NITROAROMATICS AND NITROAMINES [a]				
Dilution Factor				3.08
4-AMINO-2,6-DINITROTOLUENE	8330	µg/L	10	<31
2-AMINO-4,6-DINITROTOLUENE	8330	µg/L	10	2J
1,3-DINITROBENZENE	8330	µg/L	4	<13
2,4-DINITROTOLUENE	8330	µg/L	5.7	<18
2,6-DINITROTOLUENE	8330	µg/L	9.4	<29
HMX	8330	µg/L	13	<41
NITROBENZENE	8330	µg/L	6.4	<20
3-NITROTOLUENE	8330	µg/L	7.9	<25
RDX	8330	µg/L	14	6J
TETRYL	8330	µg/L	4	<13
1,3,5-TRINITROBENZENE	8330	µg/L	7.3	4J
2,4,6-TRINITROTOLUENE	8330	µg/L	6.9	21J
2/4-NITROTOLUENE	8330	µg/L	8.5	<27

II. Analysis of Compost Soil Samples

Component Analyzed	Method	Unit	PQL	Analysis Result A2-SMB06-P1-GF001-P 99-03464-1	A2-SMB06-P1-GS003-P 99-03464-2
MOISTURE	ASTM-D2216	%Moisture	0.5	3.2	5.2
NITROAROMATICS AND NITROAMINES [a]					
Dilution Factor				10	5
4-AMINO-2,6-DINITROTOLUENE	8330	mg/kg	0.2	2J	<1.1
2-AMINO-4,6-DINITROTOLUENE	8330	mg/kg	0.2	1J	<1.1
1,3-DINITROBENZENE	8330	mg/kg	0.25	<2.6	<1.3
2,4-DINITROTOLUENE	8330	mg/kg	0.25	<2.6	<1.3
2,6-DINITROTOLUENE	8330	mg/kg	0.25	<2.6	<1.3
HMX	8330	mg/kg	0.25	20	3.7
NITROBENZENE	8330	mg/kg	0.25	<2.6	<1.3
3-NITROTOLUENE	8330	mg/kg	0.25	<2.6	<1.3
RDX	8330	mg/kg	0.25	142	25
TETRYL	8330	mg/kg	0.25	<2.6	<1.3
1,3,5-TRINITROBENZENE	8330	mg/kg	0.25	9.9	2.2
2,4,6-TRINITROTOLUENE	8330	mg/kg	0.25	167	32
2/4-NITROTOLUENE	8330	mg/kg	0.25	<2.6	<1.3

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Component Analyzed	Method	Unit	PQL	Analysis Result A2-SMB06-P1-GS001-P 99-03464-3	Analysis Result A3-WR003A-C001-CC001-P 99-03464-4
MOISTURE	ASTM-D2216	%Moisture	0.5	2.6	28.8
NITROAROMATICS AND NITROAMINES [a]					
Dilution Factor				10	5
4-AMINO-2,6-DINITROTOLUENE	8330	mg/kg	0.2	< 2.1	3.8
2-AMINO-4,6-DINITROTOLUENE	8330	mg/kg	0.2	< 2.1	2
1,3-DINITROBENZENE	8330	mg/kg	0.25	< 2.6	< 1.7
2,4-DINITROTOLUENE	8330	mg/kg	0.25	< 2.6	< 1.7
2,6-DINITROTOLUENE	8330	mg/kg	0.25	< 2.6	< 1.7
HMX	8330	mg/kg	0.25	12	8.5
NITROBENZENE	8330	mg/kg	0.25	< 2.6	< 1.7
3-NITROTOLUENE	8330	mg/kg	0.25	< 2.6	< 1.7
RDX	8330	mg/kg	0.25	82	44
TETRYL	8330	mg/kg	0.25	< 2.6	< 1.7
1,3,5-TRINITROBENZENE	8330	mg/kg	0.25	5.5	2.1
2,4,6-TRINITROTOLUENE	8330	mg/kg	0.25	75	12
2/4-NITROTOLUENE	8330	mg/kg	0.25	< 2.6	< 1.7

Component Analyzed	Method	Unit	PQL	Analysis Result A3-WR003A-C002-CC001-P 99-03464-5	Analysis Result A3-WR003A-C003-CC001-P 99-03464-6
MOISTURE	ASTM-D2216	%Moisture	0.5	35.0	32.3
NITROAROMATICS AND NITROAMINES [a]					
Dilution Factor				5	10
4-AMINO-2,6-DINITROTOLUENE	8330	mg/kg	0.2	3	8.1
2-AMINO-4,6-DINITROTOLUENE	8330	mg/kg	0.2	1J	3
1,3-DINITROBENZENE	8330	mg/kg	0.25	< 1.9	< 3.7
2,4-DINITROTOLUENE	8330	mg/kg	0.25	< 1.9	< 3.7
2,6-DINITROTOLUENE	8330	mg/kg	0.25	< 1.9	< 3.7
HMX	8330	mg/kg	0.25	7.6	15
NITROBENZENE	8330	mg/kg	0.25	< 1.9	< 3.7
3-NITROTOLUENE	8330	mg/kg	0.25	< 1.9	< 3.7
RDX	8330	mg/kg	0.25	55	115
TETRYL	8330	mg/kg	0.25	< 1.9	< 3.7
1,3,5-TRINITROBENZENE	8330	mg/kg	0.25	2.1	4J
2,4,6-TRINITROTOLUENE	8330	mg/kg	0.25	16	32
2/4-NITROTOLUENE	8330	mg/kg	0.25	< 1.9	< 3.7

Component Analyzed	Method	Unit	PQL	Analysis Result A3-WR003A-C004-CC001-P 99-03464-7	Analysis Result A3-WR003A-C005-CC001-P 99-03464-8
MOISTURE	ASTM-D2216	%Moisture	0.5	35.4	30.6

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APCL Analytical Report

Submitted to:
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Attention: Roy Roenbeck
180 Howard St. Ste. 250
San Francisco CA 94105
Tel: (415)974-1221 Fax: (415)974-5914

Service ID #: 801-993724
Collected by: Phillibar
Collected on: 05/17-18/99

Received: 05/20/99
Extracted: 05/24/99
Tested: 05/20-26/99
Reported: 06/02/99

Sample Description: Compost Soil and Water
Project Description: W 101 Bioremediation

Analysis of Water ,Compost and Soil Samples

I . Analysis of Water Samples

Component Analyzed	Method	Unit	PQL	Analysis Result ER-051899-1640-1 99-03724-8
NITROAROMATICS AND NITROAMINES				
Dilution Factor				3.08
4-AMINO-2,6-DINITROTOLUENE	8330	µg/L	10	<31
2-AMINO-4,6-DINITROTOLUENE	8330	µg/L	10	<31
1,3-DINITROBENZENE	8330	µg/L	4	<13
2,4-DINITROTOLUENE	8330	µg/L	5.7	<18
2,6-DINITROTOLUENE	8330	µg/L	9.4	<29
HMX	8330	µg/L	13	<41
NITROBENZENE	8330	µg/L	6.4	<20
3-NITROTOLUENE	8330	µg/L	7.9	<25
RDX	8330	µg/L	14	<44
TETRYL	8330	µg/L	4	<13
1,3,5-TRINITROBENZENE	8330	µg/L	7.3	<23
2,4,6-TRINITROTOLUENE	8330	µg/L	6.9	<22
2/4-NITROTOLUENE	8330	µg/L	8.5	<27

II . Analysis of Compost and Soil Samples

Component Analyzed	Method	Unit	PQL	Analysis Result A2-SMB06-F1-GF002-2-P 99 03724-1	A2-SMB06-S001-2F-YD-P 99-03724-2
MOISTURE, PERCENT IN SOIL	ASTM-D2216	%Moisture	0.5	4.5	6.2
NITROAROMATICS AND NITROAMINES					
Dilution Factor				10	1
4-AMINO-2,6-DINITROTOLUENE	8330	mg/kg	0.2	<2.1	-
2-AMINO-4,6-DINITROTOLUENE	8330	mg/kg	0.2	2J	-
1,3-DINITROBENZENE	8330	mg/kg	0.25	<2.6	-
2,4-DINITROTOLUENE	8330	mg/kg	0.25	<2.6	-
2,6-DINITROTOLUENE	8330	mg/kg	0.25	<2.6	-
HMX	8330	mg/kg	0.25	6.6	-
NITROBENZENE	8330	mg/kg	0.25	<2.6	-
3-NITROTOLUENE	8330	mg/kg	0.25	<2.6	-
RDX	8330	mg/kg	0.25	51	-
TETRYL	8330	mg/kg	0.25	<2.6	-
1,3,5-TRINITROBENZENE	8330	mg/kg	0.25	8.3	-
2,4,6-TRINITROTOLUENE	8330	mg/kg	0.25	47	-
2/4-NITROTOLUENE	8330	mg/kg	0.25	<2.6	-

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APCL Analytical Report

Submitted to:
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Attention: Roy Roenbeck
180 Howard St. Ste. 250
San Francisco CA 94105
Tel: (415)974-1221 Fax: (415)974-5914

Service ID #: 801-993862
Collected by: D.Jomalo
Collected on: 05/24-26/99

Received: 05/27/99
Extracted: 05/28/99
Tested: 05/27-06/03/99
Reported: 06/07/99

Sample Description: Soil, Compost and Water
Project Description: W.101 Bioremediation

Analysis of Water , Compost and Soil Samples

I . Analysis of Water Samples

Component Analyzed	Method	Unit	PQL	Analysis Result ER-052499-1325-1 99-03862-24
NITROAROMATICS AND NITROAMINES				
Dilution Factor				3.35
4-AMINO-2,6-DINITROTOLUENE	8330	µg/L	10	<33
2-AMINO-4,6-DINITROTOLUENE	8330	µg/L	10	<33
1,3-DINITROBENZENE	8330	µg/L	4	<13
2,4-DINITROTOLUENE	8330	µg/L	5.7	<19
2,6-DINITROTOLUENE	8330	µg/L	9.4	<31
HMX	8330	µg/L	13	<43
NITROBENZENE	8330	µg/L	6.4	<21
3-NITROTOLUENE	8330	µg/L	7.9	<26
RDX	8330	µg/L	14	<47
TETRYL	8330	µg/L	4	<13
1,3,5-TRINITROBENZENE	8330	µg/L	7.3	<24
2,4,6-TRINITROTOLUENE	8330	µg/L	6.9	<23
2/4-NITROTOLUENE	8330	µg/L	8.5	<28

II . Analysis of Compost and Soil Samples

Component Analyzed	Method	Unit	PQL	Analysis Result A2-SMB06-S008-P 99-03862-1	A2-SMB06-S009-P 99-03862-2
MOISTURE, PERCENT IN SOIL	ASTM-D2216	%Moisture	0.5	3.6	5.5
NITROAROMATICS AND NITROAMINES					
Dilution Factor				10	10
4-AMINO-2,6-DINITROTOLUENE	8330	mg/kg	0.2	<2.1	<2.1
2-AMINO-4,6-DINITROTOLUENE	8330	mg/kg	0.2	<2.1	<2.1
1,3-DINITROBENZENE	8330	mg/kg	0.25	<2.6	<2.6
2,4-DINITROTOLUENE	8330	mg/kg	0.25	<2.6	<2.6
2,6-DINITROTOLUENE	8330	mg/kg	0.25	<2.6	<2.6
HMX	8330	mg/kg	0.25	12	21
NITROBENZENE	8330	mg/kg	0.25	<2.6	<2.6
3-NITROTOLUENE	8330	mg/kg	0.25	<2.6	<2.6
RDX	8330	mg/kg	0.25	71	142
TETRYL	8330	mg/kg	0.25	<2.6	<2.6
1,3,5-TRINITROBENZENE	8330	mg/kg	0.25	5.3	23
2,4,6-TRINITROTOLUENE	8330	mg/kg	0.25	199	22
2/4-NITROTOLUENE	8330	mg/kg	0.25	<2.6	<2.6

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Component Analyzed	Method	Unit	PQL	Analysis Result ~~A2-SMB06-S010-P~~ 99-03862-3	A2-SMB06-S011-P 99-03862-4
MOISTURE, PERCENT IN SOIL	ASTM-D2216	%Moisture	0.5	2.4	3.6
NITROAROMATICS AND NITROAMINES					
Dilution Factor				100	10
4-AMINO-2,6-DINITROTOLUENE	8330	mg/kg	0.2	< 20	< 2.1
2-AMINO-4,6-DINITROTOLUENE	8330	mg/kg	0.2	< 20	< 2.1
1,3-DINITROBENZENE	8330	mg/kg	0.25	< 26	< 2.6
2,4-DINITROTOLUENE	8330	mg/kg	0.25	< 26	< 2.6
2,6-DINITROTOLUENE	8330	mg/kg	0.25	< 26	< 2.6
HMX	8330	mg/kg	0.25	9J	9.0
NITROBENZENE	8330	mg/kg	0.25	< 26	< 2.6
3-NITROTOLUENE	8330	mg/kg	0.25	< 26	< 2.6
RDX	8330	mg/kg	0.25	22J	55
TETRYL	8330	mg/kg	0.25	< 26	< 2.6
1,3,5-TRINITROBENZENE	8330	mg/kg	0.25	75	15
2,4,6-TRINITROTOLUENE	8330	mg/kg	0.25	1,860	148
2/4-NITROTOLUENE	8330	mg/kg	0.25	< 26	< 2.6

Component Analyzed	Method	Unit	PQL	Analysis Result A2-SMB06-S012-P 99-03862-5	A2-SMB06-S013-P 99-03862-6
MOISTURE, PERCENT IN SOIL	ASTM-D2216	%Moisture	0.5	3.3	3.4
NITROAROMATICS AND NITROAMINES					
Dilution Factor				5	5
4-AMINO-2,6-DINITROTOLUENE	8330	mg/kg	0.2	0.9J	< 1.0
2-AMINO-4,6-DINITROTOLUENE	8330	mg/kg	0.2	0.6J	< 1.0
1,3-DINITROBENZENE	8330	mg/kg	0.25	< 1.3	< 1.3
2,4-DINITROTOLUENE	8330	mg/kg	0.25	< 1.3	< 1.3
2,6-DINITROTOLUENE	8330	mg/kg	0.25	< 1.3	< 1.3
HMX	8330	mg/kg	0.25	11	5.8
NITROBENZENE	8330	mg/kg	0.25	< 1.3	< 1.3
3-NITROTOLUENE	8330	mg/kg	0.25	< 1.3	< 1.3
RDX	8330	mg/kg	0.25	77	36
TETRYL	8330	mg/kg	0.25	< 1.3	< 1.3
1,3,5-TRINITROBENZENE	8330	mg/kg	0.25	4.1	2.7
2,4,6-TRINITROTOLUENE	8330	mg/kg	0.25	24	16
2/4-NITROTOLUENE	8330	mg/kg	0.25	< 1.3	< 1.3

Components Analyzed	Method	Unit	PQL	Analysis Result A2-SMB06-S014-P 99-03862-7	A2-SMB06-S015-P 99-03862-8
MOISTURE, PERCENT IN SOIL	ASTM-D2216	%Moisture	0.5	3.1	2.5

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Component Analyzed	Method	Unit	PQL	Analysis Result A2-SMB06-S014-P 99-03862-7	Analysis Result A2-SMB06-S015-P 99-03862-8
NITROAROMATICS AND NITROAMINES					
Dilution Factor				5	5
4-AMINO-2,6-DINITROTOLUENE	8330	mg/kg	0.2	<1.0	<1.0
2-AMINO-4,6-DINITROTOLUENE	8330	mg/kg	0.2	<1.0	<1.0
1,3-DINITROBENZENE	8330	mg/kg	0.25	<1.3	<1.3
2,4-DINITROTOLUENE	8330	mg/kg	0.25	<1.3	<1.3
2,6-DINITROTOLUENE	8330	mg/kg	0.25	<1.3	<1.3
HMX	8330	mg/kg	0.25	7.4	9.8
NITROBENZENE	8330	mg/kg	0.25	<1.3	<1.3
3-NITROTOLUENE	8330	mg/kg	0.25	<1.3	<1.3
RDX	8330	mg/kg	0.25	48	70
TETRYL	8330	mg/kg	0.25	<1.3	<1.3
1,3,5-TRINITROBENZENE	8330	mg/kg	0.25	3.3	5.5
2,4,6-TRINITROTOLUENE	8330	mg/kg	0.25	20	40
2/4-NITROTOLUENE	8330	mg/kg	0.25	<1.3	<1.3

Component Analyzed	Method	Unit	PQL	Analysis Result A2-SMB06-S015-P 99-03862-9	Analysis Result ~~A2-SMB06-T1-001-P~~ 99-03862-10
MOISTURE, PERCENT IN SOIL	ASTM-D2216	%Moisture	0.5	3.0	3.6
NITROAROMATICS AND NITROAMINES					
Dilution Factor				5	5
4-AMINO-2,6-DINITROTOLUENE	8330	mg/kg	0.2	<1.0	<1.0
2-AMINO-4,6-DINITROTOLUENE	8330	mg/kg	0.2	<1.0	<1.0
1,3-DINITROBENZENE	8330	mg/kg	0.25	<1.3	<1.3
2,4-DINITROTOLUENE	8330	mg/kg	0.25	<1.3	<1.3
2,6-DINITROTOLUENE	8330	mg/kg	0.25	<1.3	<1.3
HMX	8330	mg/kg	0.25	6.4	4.7
NITROBENZENE	8330	mg/kg	0.25	<1.3	<1.3
3-NITROTOLUENE	8330	mg/kg	0.25	<1.3	<1.3
RDX	8330	mg/kg	0.25	41	33
TETRYL	8330	mg/kg	0.25	<1.3	<1.3
1,3,5-TRINITROBENZENE	8330	mg/kg	0.25	3.3	3.0
2,4,6-TRINITROTOLUENE	8330	mg/kg	0.25	17	6.4
2/4-NITROTOLUENE	8330	mg/kg	0.25	<1.3	<1.3

Component Analyzed	Method	Unit	PQL	Analysis Result A2-SMB06-T2-001-P 99-03862-11	Analysis Result A4-SMB07-Pile-001-P 99-03862-12
MOISTURE, PERCENT IN SOIL	ASTM-D2216	%Moisture	0.5	3.2	1.8

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

APCL Analytical Report

Submitted to:
Tetra Tech, Inc. (San Francisco)
Attention: Roy Roenbeck
180 Howard St. Ste. 250
San Francisco CA 94105
Tel: (415)974-1221 Fax: (415)974-5914

Service ID #: 801-994287
Collected by: D. Gonzales
Collected on: 06/16-17/99

Received: 06/18/99
Extracted: 06/21/99
Tested: 06/21-24/99
Reported: 06/29/99

Sample Description: Soil and Water
Project Description: W.101 Bioremediation

Analysis of Water and Soil Samples

I. Analysis of Water Samples

Component Analyzed	Method	Unit	PQL	Analysis Result ER-061699-0900-1 99-04287-13
NITROAROMATICS AND NITROAMINES				
Dilution Factor				2.55
4-AMINO-2,6-DINITROTOLUENE	8330	µg/L	10	<26
2-AMINO-4,6 DINITROTOLUENE	8330	µg/L	10	<26
1,3-DINITROBENZENE	8330	µg/L	4	<10
2,4-DINITROTOLUENE	8330	µg/L	5.7	<15
2,6-DINITROTOLUENE	8330	µg/L	9.4	<24
HMX	8330	µg/L	13	<34
NITROBENZENE	8330	µg/L	6.4	<17
3-NITROTOLUENE	8330	µg/L	7.9	<21
RDX	8330	µg/L	14	<36
TETRYL	8330	µg/L	4	<10
1,3,5-TRINITROBENZENE	8330	µg/L	7.3	<19
2,4,6-TRINITROTOLUENE	8330	µg/L	6.9	<18
2-NITROTOLUENE [a]	8330	µg/L	8.5	<22
4-NITROTOLUENE [a]	8330	µg/L	8.5	<22

II. Analysis of Soil Samples

Component Analyzed	Method	Unit	PQL	Analysis Result A2-SMB06-S017-P 99-04287-1	~~A2-SMB11AP1GF001-09P~~ 99-04287-2
MOISTURE, PERCENT IN SOIL	ASTM-D2216	%Moisture	0.5	1.9	2.8
NITROAROMATICS AND NITROAMINES					
Dilution Factor				1	1
4-AMINO-2,6-DINITROTOLUENE	8330	mg/kg	0.2	<0.20	<0.21
2-AMINO-4,6-DINITROTOLUENE	8330	mg/kg	0.2	0.42	0.1J
1,3-DINITROBENZENE	8330	mg/kg	0.25	<0.25	<0.26
2,4-DINITROTOLUENE	8330	mg/kg	0.25	0.63	<0.26
2,6-DINITROTOLUENE	8330	mg/kg	0.25	<0.25	<0.26
HMX	8330	mg/kg	0.25	1.1	0.2J
NITROBENZENE	8330	mg/kg	0.25	<0.25	<0.26
3-NITROTOLUENE	8330	mg/kg	0.25	<0.25	<0.26
RDX	8330	mg/kg	0.25	2.4	0.48
TETRYL	8330	mg/kg	0.25	<0.25	<0.26
1,3,5-TRINITROBENZENE	8330	mg/kg	0.25	1.2	0.2J
2,4,6-TRINITROTOLUENE	8330	mg/kg	0.25	1.9	2.8
2-NITROTOLUENE [a]	8330	mg/kg	0.25	<0.25	<0.26
4-NITROTOLUENE [a]	8330	mg/kg	0.25	<0.25	<0.26

Applied P & Ch Laboratory
13780 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

APCL Analytical Report

Submitted to:
Tetra Tech, Inc. (San Francisco)
Attention: Roy Roenbeck
180 Howard St. Ste. 250
San Francisco CA 94105
Tel: (415)974-1221 Fax: (415)974 5914

Service ID #: 801-995567
Collected by: D. Gonzales
Collected on: 08/24-25/99

Received: 08/27/99
Extracted: 08/27-09/01/99
Tested: 08/30-09/03/99
Reported: 09/07/99

Sample Description: Compost, Soil and Water
Project Description: W 101 Bioremediation

Analysis of Water and Soil Samples

I . Analysis of Water Samples

Component Analyzed	Method	Unit	PQL	Analysis Result ER-082499-0647-1 99-05567-11
NITROAROMATICS AND NITROAMINES				
Dilution Factor				4.15
4-AMINO-2,6-DINITROTOLUENE	8330	µg/L	10	<42
2-AMINO-4,6-DINITROTOLUENE	8330	µg/L	10	<42
1,3-DINITROBENZENE	8330	µg/L	4	<17
2,4-DINITROTOLUENE	8330	µg/L	5.7	<24
2,6-DINITROTOLUENE	8330	µg/L	9.4	<39
HMX	8330	µg/L	13	<55
NITROBENZENE	8330	µg/L	6.4	<27
3-NITROTOLUENE	8330	µg/L	7.9	<33
RDX	8330	µg/L	14	<59
TETRYL	8330	µg/L	4	<17
1,3,5-TRINITROBENZENE	8330	µg/L	7.3	<31
2,4,6-TRINITROTOLUENE	8330	µg/L	6.9	<29
2-NITROTOLUENE (4)	8330	µg/L	8.5	<36
4-NITROTOLUENE (4)	8330	µg/L	8.5	<36
Dilution Factor				4.15
PICRIC ACID	M8330	µg/L	10	<42

II . Analysis of Soil Samples

Component Analyzed	Method	Unit	PQL	Analysis Result A2-SMD06-5019-2-P 99-05567-1	A2-WR095-CC001-CC0002-P 99-05567-2
MOISTURE	ASTM D2216	%Moisture	0.5	2.6	20.0

Applied P & Ch Laboratory
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Tel: (909) 590-1828 Fax: (909) 590-1498

APCL Analytical Report

Component Analyzed	Method	Unit	PQL	Analysis Result A2-SMB06-S019-2-P 99-05567-1	~~A3-WR005-CC001-CC0002-P~~ 99-05567-2
NITROAROMATICS AND NITROAMINES [b]					
Dilution Factor				10	1
4-AMINO-2,6-DINITROTOLUENE	8330	mg/kg	0.2	<2.1	<0.25
2-AMINO-4,6-DINITROTOLUENE	8330	mg/kg	0.2	<2.1	0.4
1,3-DINITROBENZENE	8330	mg/kg	0.25	<2.6	<0.31
2,4-DINITROTOLUENE	8330	mg/kg	0.25	<2.6	<0.31
2,6-DINITROTOLUENE	8330	mg/kg	0.25	<2.6	<0.31
HMX	8330	mg/kg	0.25	14	0.2J
NITROBENZENE	8330	mg/kg	0.25	<2.6	<0.31
3-NITROTOLUENE	8330	mg/kg	0.25	<2.6	<0.31
RDX	8330	mg/kg	0.25	104	0.44
TETRYL	8330	mg/kg	0.25	<2.6	<0.31
1,3,5-TRINITROBENZENE	8330	mg/kg	0.25	8.5	0.1J
2,4,6-TRINITROTOLUENE	8330	mg/kg	0.25	31	0.32
2-NITROTOLUENE [a]	8330	mg/kg	0.25	<2.6	<0.31
4-NITROTOLUENE [a]	8330	mg/kg	0.25	<2.6	<0.31
Dilution Factor				1	1
PICRIC ACID	M8330	mg/kg	2.5	-	<3.1

Component Analyzed	Method	Unit	PQL	Analysis Result ~~A3-WR005-CC002-CC0002-P~~ 99-05567-3	~~A3-WR005-CC003-CC0002-P~~ 99-05567-4
MOISTURE	ASTM-D2216	%Moisture	0.5	17.5	21.8
NITROAROMATICS AND NITROAMINES [b]					
Dilution Factor				1	1
4-AMINO-2,6-DINITROTOLUENE	8330	mg/kg	0.2	<0.24	<0.26
2-AMINO-4,6-DINITROTOLUENE	8330	mg/kg	0.2	<0.24	<0.26
1,3-DINITROBENZENE	8330	mg/kg	0.25	<0.30	<0.32
2,4-DINITROTOLUENE	8330	mg/kg	0.25	<0.30	<0.32
2,6-DINITROTOLUENE	8330	mg/kg	0.25	<0.30	<0.32
HMX	8330	mg/kg	0.25	0.95	<0.32
NITROBENZENE	8330	mg/kg	0.25	<0.30	<0.32
3-NITROTOLUENE	8330	mg/kg	0.25	<0.30	<0.32
RDX	8330	mg/kg	0.25	14.1	<0.32
TETRYL	8330	mg/kg	0.25	<0.30	<0.32
1,3,5-TRINITROBENZENE	8330	mg/kg	0.25	<0.30	<0.32
2,4,6-TRINITROTOLUENE	8330	mg/kg	0.25	<0.30	<0.32
2-NITROTOLUENE [a]	8330	mg/kg	0.25	<0.30	<0.32
4-NITROTOLUENE [a]	8330	mg/kg	0.25	<0.30	<0.32
Dilution Factor				1	1
PICRIC ACID	M8330	mg/kg	2.5	<3.0	<3.2

Table 5-2
Summary of Detected Analytical Results for Soil Samples at Northeast SWMU B06

Sample ID	Location ID	Sample Date	Depth	1,3,5-Trinitrobenzene	2,4,6-Trinitrotoluene	2,4-Dinitrotoluene	2,6-Dinitrotoluene	HMX	Nitrobenzene	RDX	Tetryl	Amino-dinitrotoluenes
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
NEB06-013NE013SE-01	013NE013SE	6/17/2000	1	<2.1	0.29 J	<1.7	<2.1	0.29 J	<1.7	0.46 J	<8.7	<2.5
NEB06-013NE038SE-01	013NE038SE	6/17/2000	1	<2.1	5.1	<1.7	<2.1	1.5 J	<1.7	2.1 J	<8.8	<2.5
NEB06-013NE063SE-01	013NE063SE	6/17/2000	1	1.2 J	72	<1.8	<2.2	23	<1.8	42	<9.3	<2.7
NEB06-013NE063SE-02	013NE063SE	7/11/2000	2	<2.1	<3.8	<1.7	<2.1	0.13 J	<1.7	0.085 J	<8.9	<2.6
NEB06-013NE138SE-01	013NE138SE	6/20/2000	1	0.34 J	11	<1.7	<2.1	22	<1.7	27	<9	5.9
NEB06-038NE013SE-01	038NE013SE	6/17/2000	1	0.13 J	9.9	<1.8	<2.2	8.5	<1.8	9.7	<9.3	<2.7
NEB06-038NE038SE-01	038NE038SE	6/17/2000	1	0.51 J	28	<1.7	<2.1	22	<1.7	23	<8.9	<2.5
NEB06-038NE063SE-01	038NE063SE	6/17/2000	1	1.6 J	340 E	<1.7	<2.2	86	<1.7	240 E	<9.1	<2.6
NEB06-038NE063SE-01-DIL	038NE063SE	6/17/2000	1	1.7	320	<17	<22	80	<17	220	<91	<26
NEB06-038NE063SE-02	038NE063SE	7/11/2000	2	<2.1	<3.8	<1.7	<2.1	0.13 J	<1.7	0.042 J	<8.9	<2.5
NEB06-038NE138SE-01	038NE138SE	6/20/2000	1	0.46 J	92	<1.7	<2.1	16	<1.7	27	<8.8	<2.5
NEB06-038NE138SE-02	038NE138SE	7/11/2000	2	<2.1	0.084 J	<1.7	<2.1	1.3 J	<1.7	0.34 J	<8.8	<2.5
NEB06-063NE013NW-01	063NE013NW	7/11/2000	1	7.2	3.3 J	0.51 J	0.17 J	13	0.42 J	50	<8.8	3.9
NEB06-063NE013NW-02A	063NE013NW	7/19/2000	2	6.5	31	0.21 J	<2.1	12	<1.7	83	0.42 N	<2.5
NEB06-063NE013NW-02B	063NE013NW	7/19/2000	2	7.1	36	<1.7	<2.1	14	<1.7	96	0.87 J	<2.5
NEB06-063NE013NW-2.5	063NE013NW	7/21/2000	2.5	0.76 J	8.9	<1.7	<2.1	1.4 J	<1.7	11	<8.8	0.46 J
NEB06-063NE013SE-02	063NE013SE	6/17/2000	2	0.31 J	13	<1.8	<2.2	12	<1.8	14	<9.3	<2.7
NEB06-063NE038SE-01	063NE038SE	6/17/2000	1	0.55 J	19	<1.8	<2.3	18	<1.8	18	<9.6	<2.7
NEB06-063NE063SE-01	063NE063SE	6/17/2000	1	0.47 J	11	<1.7	<2.1	7.5	<1.7	11	<8.9	<2.5
NEB06-063NE088SE-01A	063NE088SE	6/17/2000	1	0.13 J	5.1	<1.7	<2.2	3.7 J	<1.7	5.7	<9.1	0.69 J
NEB06-063NE088SE-01B	063NE088SE	6/17/2000	1	0.087 J	3.9	<1.7	<2.2	2.7 J	<1.7	5.4	<9.1	0.74 J
NEB06-088NE088SE-01	088NE088SE	6/17/2000	1	2.7	3.7 J	<1.7	<2.1	3.7 J	<1.7	10	<8.7	<2.5
NEB06-113NE088SE-01	113NE088SE	6/17/2000	1	0.72 J	7	<1.8	<2.3	20	<1.8	17	<9.5	3.4
Analyses				23	23	23	23	23	23	23	23	23
Detections				18	21	2	1	23	1	23	2	6
Minimum Concentration				0.087	0.084	0.21	0.17	0.13	0.42	0.042	0.42	0.46
Maximum Concentration				7.2	340	0.51	0.17	86	0.42	240	0.87	5.9
HWAD - BEG				150	800	2.6	NE	4000	NE	300	NE	NE
HWAD - BEG Hits				0	0	0	NE	0	NE	0	NE	NE

Notes:
NE = not established

Appendix E

Windrow Compost Confirmation Samples

SWMU B-06

Tetra Tech
Hawthorn Army Depot

ONSITE ENVIRONMENTAL LABORATORIES

Date Received: 6/22/00
Cooler ID: 0012
COC#: 0021

Report No : 000622
SDG No : 000622exp
Reported by : Chris Cao

Matrix : soil
Units : mg/Kg

Field Sample ID No.		B06-113NE088SE-01		B06-013NE138SE-01		B06-038NE138SE-01		PAD-01-WR07A-062200A		PAD-01-WR07A-062200B		PAD-01-WR07B-062200	
Lab Sample ID No.		NAV176		NAV177		NAV178		NAV179		NAV180		NAV181	
Sample Depth		1"		1"		1"		0		0		0	
Date Sampled		6/17/00		6/20/00		6/20/00		6/22/00		6/22/00		6/22/00	
Time Sampled		15:37		7:50		7:55		10:27		10:28		10:31	
Date Extracted		6/22/00		6/22/00		6/22/00		6/22/00		6/22/00		6/22/00	
Time Extracted		12:15		12:15		12:15		12:15		12:15		12:15	
Date Analyzed		6/22/00		6/22/00		6/23/00		6/23/00		6/23/00		6/23/00	
Time Analyzed		23:41		23:59		0:36		0:55		1:13		1:31	
Analytes	PQL	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.
HMX	4.4	20		22		16		6	U	0.81	J	0.53	J
RDX	2.0	17		27		27		2.7	U	2.9	U	0.89	J
1,3,5-TNB	2.0	0.72	J	0.34	J	0.46	J	2.7	U	2.9	U	3	U
1,3-DNB	0.8	0.91	U	0.85	U	0.84	U	1.1	U	1.2	U	1.2	U
NB	1.6	1.8	U	1.7	U	1.7	U	2.2	U	2.3	U	2.4	U
Tetryl	8.4	9.5	U	9	U	8.8	U	12	U	12	U	12	U
Amino-DNTs	2.4	3.4		5.9		2.5	U	3.3	U	3.5	U	3.5	U
2,4,6-TNT	3.6	7		11		92		4.9	U	5.2	U	5.3	U
2,6-DNT	2.0	2.3	U	2.1	U	2.1	U	2.7	U	2.9	U	3	U
2,4-DNT	1.6	1.8	U	1.7	U	1.7	U	2.2	U	2.3	U	2.4	U
2-NT	4.4	5	U	4.7	U	4.6	U	6	U	6.4	U	6.5	U
4-NT	14.0	16	U	15	U	15	U	19	U	20	U	21	U
3-NT	6.8	7.7	U	7.3	U	7.1	U	9.3	U	9.9	U	10	U
Surrogate	QC Limits												
1,2-DNB	65%-135	95%		97%		95%		95%		87%		83%	
Dilution Factor		1		1		1		1		1		1	
Percent Solids		92%		98%		99%		76%		72%		70%	

Notes :
U - Not detected at reported value
J- Between MDL and PQL
D - Dilution was performed on sample
E - Estimated value, result outside calibration range
DL - Surrogate diluted out due to high concentration of target compounds
PQL - Practical Quantitation Limit
N- non-confirmed by all three wavelengths
mg/Kg - Milligrams per kilogram (PPM)

Onsite Environmental Laboratories, Inc.

Tel: (510) 490-8571 Fax: (510) 490-8572

Tetra Tech
Hawthorn Army Depot

ONSITE ENVIRONMENTAL LABORATORIES

Date Received: 6/22/00
Cooler ID: 0012
COC#: 0021

Report No : 000622
SDG No : 000622exp
Reported by : Chris Cao

Matrix : soil
Units : mg/Kg

								Dilution	
Field Sample ID No.		PAD-01-WR07C-062200		PAD-01-WR07D-062200		PAD-01-WR07E-062200		B06-038NE063SE-01	
Lab Sample ID No.		NAV182		NAV183		NAV184		NAV171	
Sample Depth		0		0		0		1"	
Date Sampled		6/22/00		6/22/00		6/22/00		6/17/00	
Time Sampled		10:34		10:36		10:40		13:57	
Date Extracted		6/22/00		6/22/00		6/22/00		6/22/00	
Time Extracted		12:15		12:15		12:15		12:15	
Date Analyzed		6/23/00		6/23/00		6/23/00		6/23/00	
Time Analyzed		1:50		2:08		2:26		8:38	
Analytes	PQL	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.
HMX	4.4	0.94	J	1	J	0.71	J	80	D
RDX	2.0	3.3	U	3.4	U	3.5	U	220	D
1,3,5-TNB	2.0	3.3	U	3.4	U	3.5	U	1.7	D
1,3-DNB	0.8	1.3	U	1.3	U	1.4	U	8.7	DU
NB	1.6	2.7	U	2.7	U	2.8	U	17	DU
Tetryl	8.4	14	U	14	U	15	U	91	DU
Amino-DNTs	2.4	4	U	4	U	4.2	U	26	DU
2,4,6-TNT	3.6	6	U	6.1	U	6.3	U	320	D
2,6-DNT	2.0	3.3	U	3.4	U	3.5	U	22	DU
2,4-DNT	1.6	2.7	U	2.7	U	2.8	U	17	DU
2-NT	4.4	7.4	U	7.4	U	7.8	U	48	DU
4-NT	14.0	23	U	24	U	25	U	150	DU
3-NT	6.8	11	U	11	U	12	U	74	DU
Surrogate	QC Limits								
1,2-DNB	65%-135	80%		81%		81%		0%	DL
Dilution Factor		1		1		1		10	
Percent Solids		62%		62%		59%		96%	

Notes :
U - Not detected at reported value
J- Between MDL and PQL
D - Dilution was performed on sample
E - Estimated value, result outside calibration range
DL - Surrogate diluted out due to high concentration of target compounds
PQL - Practical Quantitation Limit
N- non-confirmed by all three wavelengths
mg/Kg - Milligrams per kilogram (PPM)

Onsite Environmental Laboratories, Inc.

Tel: (510) 490-8571 Fax: (510) 490-8572

Tetra Tech
Hawthorn Army Depot

ONSITE ENVIRONMENTAL LABORATORIES

Date Received: 6/25/00
Cooler ID: 0012
COC #: 024

Report No : 000625
SDG No : 000625exp
Reported by : Chris Cao

Matrix : soil
Units : mg/Kg

Field Sample ID No.		PAD01-WR08A-062400		PAD01-WR08B-062400		PAD01-WR08C-062400		PAD01-WR08D-062400		PAD01-WR08E-062400	
Lab Sample ID No.		NAV196		NAV197		NAV198		NAV199		NAV200	
Sample Depth		0		0		0		0		0	
Date Sampled		6/24/00		6/24/00		6/24/00		6/24/00		6/24/00	
Time Sampled		8:27		8:32		8:37		8:41		8:45	
Date Extracted		6/25/00		6/25/00		6/25/00		6/25/00		6/25/00	
Time Extracted		12:15		12:15		12:15		12:15		12:15	
Date Analyzed		6/25/00		6/25/00		6/25/00		6/25/00		6/25/00	
Time Analyzed		19:04		19:22		19:41		19:59		20:17	
Analytes	PQL	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.
HMX	4.4	7.2	U	6.6	U	6.5	U	7.1	U	6.4	U
RDX	2.0	3.3	U	3	U	3	U	3.2	U	2.9	U
1,3,5-TNB	2.0	3.3	U	3	U	3	U	3.2	U	2.9	U
1,3-DNB	0.8	1.3	U	1.2	U	1.2	U	1.3	U	1.2	U
NB	1.6	2.6	U	2.4	U	2.4	U	2.6	U	2.3	U
Tetryl	8.4	14	U	13	U	12	U	14	U	12	U
Amino-DNTs	2.4	3.9	U	3.6	U	3.5	U	3.9	U	3.5	U
2,4,6-TNT	3.6	5.9	U	5.4	U	5.3	U	5.8	U	5.2	U
2,6-DNT	2.0	3.3	U	3	U	3	U	3.2	U	2.9	U
2,4-DNT	1.6	2.6	U	2.4	U	2.4	U	2.6	U	2.3	U
2-NT	4.4	7.2	U	6.6	U	6.5	U	7.1	U	6.4	U
4-NT	14.0	23	U	21	U	21	U	23	U	20	U
3-NT	6.8	11	U	10	U	10	U	11	U	9.9	U
Surrogate	QC Limits										
1,2-DNB	65%-135	101%		93%		92%		91%		93%	
Dilution Factor		1		1		1		1		1	
Percent Solids		65%		70%		70%		66%		72%	

Notes :
U - Not detected at reported value
J- Between MDL and PQL
D - Dilution was performed on sample
E - Estimated value, result outside calibration range
DL - Surrogate diluted out due to high concentration of target compounds
PQL - Practical Quantitation Limit
N- non-confirmed by all three wavelengths
mg/Kg - Milligrams per kilogram (PPM)

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ONSIT ENVIRONMENTAL LABORATORIES, I

Date Received: 6/26/00
Cooler ID: 0012
COC #: 026

Report No : 000626
SDG No : 000626exp
Reported by : Chris Cao

Matrix : soil
Units : mg/Kg

Field Sample ID No.		PAD01-WR09A-062600		PAD01-WR09B-062600		PAD01-WR09C-062600A		PAD01-WR09D-062600		PAD01-WR09E-062600		PAD01-WR09C-062600B	
Lab Sample ID No.		NAV201		NAV202		NAV203		NAV204		NAV205		NAV206	
Sample Depth		0		0		0		0		0		0	
Date Sampled		6/26/00		6/26/00		6/26/00		6/26/00		6/26/00		6/26/00	
Time Sampled		10:35		10:38		10:41		10:45		10:47		10:41	
Date Extracted		6/26/00		6/26/00		6/26/00		6/26/00		6/26/00		6/26/00	
Time Extracted		12:15		12:15		12:15		12:15		12:15		12:15	
Date Analyzed		6/26/00		6/26/00		6/26/00		6/26/00		6/26/00		6/26/00	
Time Analyzed		19:29		19:47		20:05		20:24		20:42		21:00	
Analytes	PQL	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.
HMX	4.4	6.4	U	0.85	J	6.3	U	0.83	J	1.1	J	1.2	J
RDX	2.0	2.9	U	2.8	U	2.8	U	2.9	U	2.8	U	2.9	U
1,3,5-TNB	2.0	2.9	U	2.8	U	2.8	U	2.9	U	2.8	U	2.9	U
1,3-DNB	0.8	1.2	U	1.1	U	1.1	U	1.2	U	1.1	U	1.2	U
NB	1.6	2.3	U	2.3	U	2.3	U	2.4	U	2.2	U	2.3	U
Tetryl	8.4	12	U	12	U	12	U	12	U	12	U	12	U
Amino-DNTs	2.4	3.5	U	3.4	U	3.4	U	3.5	U	3.4	U	3.5	U
2,4,6-TNT	3.6	5.3	U	5.1	U	5.1	U	5.3	U	5.1	U	5.2	U
2,6-DNT	2.0	2.9	U	2.8	U	2.8	U	2.9	U	2.8	U	2.9	U
2,4-DNT	1.6	2.3	U	2.3	U	2.3	U	2.4	U	2.2	U	2.3	U
2-NT	4.4	6.4	U	6.2	U	6.3	U	6.5	U	6.2	U	6.3	U
4-NT	14.0	20	U	20	U	20	U	21	U	20	U	20	U
3-NT	6.8	9.9	U	9.6	U	9.7	U	10	U	9.5	U	9.8	U
Surrogate	QC Limits												
1,2-DNB	65%-135	74%		77%		80%		75%		80%		76%	
Dilution Factor		1		1		1		1		1		1	
Percent Solids		70%		75%		73%		71%		75%		73%	

Notes :
U - Not detected at reported value
J- Between MDL and PQL
D - Dilution was performed on sample
E - Estimated value, result outside calibration range
DL - Surrogate diluted out due to high concentration of target compounds
PQL - Practical Quantitation Limit
N- non-confirmed by all three wavelengths
mg/Kg - Milligrams per kilogram (PPM)

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ONSI ENVIRONME LABORATORIES

Date Received: 7/12/00
Cooler ID: 0012
COC#: 039

Report No : 000712
SDG No : 000712exp
Reported by : Chris Cao

Matrix : soil
Units : mg/Kg

Field Sample ID No.		NWB06-063SE038SW-02A		NWB06-063SE038SW-02B		NWB06-063SE088SW-02		NWB06-063SE063SW-02		PAD03-WR01A-071200		PAD03-WR01B-071200	
Lab Sample ID No.		NAV295		NAV296		NAV297		NAV298		NAV299		NAV300	
Sample Depth		2"		2"		2"		2"		0		0	
Date Sampled		7/11/00		7/11/00		7/11/00		7/11/00		7/12/00		7/12/00	
Time Sampled		8:00		8:00		8:10		8:05		6:52		6:57	
Date Extracted		7/12/00		7/12/00		7/12/00		7/12/00		7/12/00		7/12/00	
Time Extracted		12:30		12:30		12:30		12:30		12:30		12:30	
Date Analyzed		7/13/00		7/13/00		7/13/00		7/13/00		7/13/00		7/13/00	
Time Analyzed		1:41		2:01		2:40		2:59		3:19		3:38	
Analytes	PQL	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.
HMX	4.4	40		43		1.1	J	0.72	J	6.2	U	5.9	U
RDX	2.0	310	E	350	E	5.2		2.1		2.8	U	2.7	U
1,3,5-TNB	2.0	13		14		0.25	J	0.17	J	2.8	U	2.7	U
1,3-DNB	0.8	0.85	U	0.85	U	0.85	U	0.84	U	1.1	U	1.1	U
NB	1.6	1.7	U	1.7	U	1.7	U	1.7	U	2.3	U	2.2	U
Tetryl	8.4	0.51	J	0.76	J	8.9	U	8.8	U	12	U	11	U
Amino-DNTs	2.4	2.5	U	2.5	U	0.76	J	2.5	U	3.4	U	3.2	U
2,4,6-TNT	3.6	220	E	210	E	3.8	U	0.25	J	5.1	U	4.8	U
2,6-DNT	2.0	2.1	U	2.1	U	2.1	U	2.1	U	2.8	U	2.7	U
2,4-DNT	1.6	0.085	J	0.042	J	1.7	U	1.7	U	2.3	U	2.2	U
2-NT	4.4	4.7	U	4.7	U	4.7	U	4.6	U	6.2	U	5.9	U
4-NT	14.0	15	U	15	U	15	U	15	U	20	U	19	U
3-NT	6.8	7.2	U	7.2	U	7.2	U	7.2	U	9.6	U	9.1	U
Surrogate	QC Limits												
1,2-DNB	65%-135	99%		100%		93%		92%		82%		80%	
Dilution Factor		1		1		1		1		1		1	
Percent Solids		98%		98%		98%		99%		74%		78%	

Notes :
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J- Between MDL and PQL
D - Dilution was performed on sample
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PQL - Practical Quantitation Limit
N- non-confirmed by all three wavelengths
mg/Kg - Milligrams per kilogram (PPM)

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ONSITE ENVIRONMENTAL LABORATORIES

Date Received: 7/12/00
Cooler ID: 0012
COC#: 039

Report No : 000712
SDG No : 000712exp
Reported by : Chris Cao

Matrix : soil
Units : mg/Kg

Field Sample ID No.		PAD03-WR01C-071200		PAD03-WR01D-071200		PAD03-WR11A-071200		NWB06-063SE038SW-02A (Dilution)		NWB06-063SE038SW-02B (Dilution)	
Lab Sample ID No.		NAV301		NAV302		NAV303		NAV295		NAV296	
Sample Depth		0		0		0		2"		2"	
Date Sampled		7/12/00		7/12/00		7/12/00		7/11/00		7/11/00	
Time Sampled		7:02		7:07		7:29		8:00		8:00	
Date Extracted		7/12/00		7/12/00		7/12/00		7/12/00		7/12/00	
Time Extracted		12:30		12:30		12:30		12:30		12:30	
Date Analyzed		7/13/00		7/13/00		7/13/00		7/14/00		7/14/00	
Time Analyzed		3:57		4:17		4:36		3:14		3:33	
Analytes	PQL	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.
HMX	4.4	5.1	U	6.2	U	6.6	U	38	D	40	D
RDX	2.0	2.3	U	2.8	U	7.4		300	D	330	D
1,3,5-TNB	2.0	2.3	U	2.8	U	3	U	12	D	12	D
1,3-DNB	0.8	0.93	U	1.1	U	1.2	U	8.5	DU	8.5	DU
NB	1.6	1.9	U	2.3	U	2.4	U	17	DU	17	DU
Tetryl	8.4	9.8	U	12	U	13	U	89	DU	89	DU
Amino-DNTs	2.4	2.8	U	3.4	U	3.6	U	25	DU	25	DU
2,4,6-TNT	3.6	4.2	U	5.1	U	5.4	U	210	D	200	D
2,6-DNT	2.0	2.3	U	2.8	U	3	U	21	DU	21	DU
2,4-DNT	1.6	1.9	U	2.3	U	2.4	U	17	DU	17	DU
2-NT	4.4	5.1	U	6.2	U	6.6	U	47	DU	47	DU
4-NT	14.0	16	U	20	U	21	U	150	DU	150	DU
3-NT	6.8	7.9	U	9.6	U	10	U	72	DU	72	DU
Surrogate	QC Limits										
1,2-DNB	65%-135	80%		79%		85%		0%	DL	0%	DL
Dilution Factor		1		1		1		10		10	
Percent Solids		89%		73%		69%		98%		98%	

Notes :
U - Not detected at reported value
J- Between MDL and PQL
D - Dilution was performed on sample
E - Estimated value, result outside calibration range
DL - Surrogate diluted out due to high concentration of target compounds
PQL - Practical Quantitation Limit
N- non-confirmed by all three wavelengths
mg/Kg - Milligrams per kilogram (PPM)

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ONSITE ENVIRONMENTAL LABORATORIES, INC.

Date Received: 7/13/00
Cooler ID: 0012
COC #: 041

Report No : 000713
SDG No : 000713exp
Reported by : Chris Cao

Matrix : soil
Units : mg/Kg

Field Sample ID No.		PAD03-WR08A-071200		PAD03-WR08B-071200		PAD03-WR08C-071200		PAD03-WR08D-071200		PAD03-WR02A-071300A		PAD03-WR02B-071300	
Lab Sample ID No.		NAV304		NAV305		NAV306		NAV307		NAV308		NAV309	
Sample Depth		0		0		0		0		0		0	
Date Sampled		7/12/00		7/12/00		7/12/00		7/12/00		7/13/00		7/13/00	
Time Sampled		7:17		7:22		7:23		7:24		6:52		6:54	
Date Extracted		7/13/00		7/13/00		7/13/00		7/13/00		7/13/00		7/13/00	
Time Extracted		12:10		12:10		12:10		12:10		12:10		12:10	
Date Analyzed		7/13/00		7/14/00		7/14/00		7/14/00		7/14/00		7/14/00	
Time Analyzed		23:59		0:18		0:38		0:57		1:17		1:36	
Analytes	PQL	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.
HMX	4.4	6.5	U	6.3	U	0.11	J	1	J	6	U	6.2	U
RDX	2.0	2.9	U	2.9	U	2.8	U	3.1	U	2.7	U	2.8	U
1,3,5-TNB	2.0	2.9	U	2.9	U	2.8	U	3.1	U	2.7	U	2.8	U
1,3-DNB	0.8	1.2	U	1.1	U	1.1	U	1.2	U	1.1	U	1.1	U
NB	1.6	2.4	U	2.3	U	2.3	U	2.4	U	2.2	U	2.3	U
Tetryl	8.4	12	U	12	U	12	U	13	U	12	U	12	U
Amino-DNTs	2.4	3.5	U	3.4	U	3.4	U	3.7	U	3.3	U	3.4	U
2,4,6-TNT	3.6	5.3	U	5.1	U	5.1	U	5.5	U	4.9	U	5.1	U
2,6-DNT	2.0	2.9	U	2.9	U	2.8	U	3.1	U	2.7	U	2.8	U
2,4-DNT	1.6	2.4	U	2.3	U	2.3	U	2.4	U	2.2	U	2.3	U
2-NT	4.4	6.5	U	6.3	U	6.3	U	6.7	U	6	U	6.2	U
4-NT	14.0	21	U	20	U	20	U	21	U	19	U	20	U
3-NT	6.8	10	U	9.7	U	9.7	U	10	U	9.3	U	9.6	U
Surrogate	QC Limits												
1,2-DNB	65%-135	80%		81%		84%		79%		78%		80%	
Dilution Factor		1		1		1		1		1		1	
Percent Solids		70%		73%		74%		68%		75%		73%	

Notes :
U - Not detected at reported value
J - Between MDL and PQL
D - Dilution was performed on sample
E - Estimated value, result outside calibration range
DL - Surrogate diluted out due to high concentration of target compounds
PQL - Practical Quantitation Limit
N - non-confirmed by all three wavelengths
mg/Kg - Milligrams per kilogram (PPM)

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Date Received: 7/13/00
Cooler ID: 0012
COC#: 041

Report No : 000713
SDG No : 000713exp
Reported by : Chris Cao

Matrix : soil
Units : mg/Kg

Field Sample ID No.		PAD03-WR02C-071300		PAD03-WR02D-071300		PAD03-WR02A-071300B (Dup)	
Lab Sample ID No.		NAV310		NAV311		NAV312	
Sample Depth		0		0		0	
Date Sampled		7/13/00		7/13/00		7/13/00	
Time Sampled		6:55		6:57		6:52	
Date Extracted		7/13/00		7/13/00		7/13/00	
Time Extracted		12:10		12:10		12:10	
Date Analyzed		7/14/00		7/14/00		7/14/00	
Time Analyzed		1:56		2:15		2:55	
Analytes	PQL	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.
HMX	4.4	6.4	U	6.3	U	6.1	U
RDX	2.0	2.9	U	2.9	U	2.8	U
1,3,5-TNB	2.0	2.9	U	2.9	U	2.8	U
1,3-DNB	0.8	1.2	U	1.2	U	1.1	U
NB	1.6	2.3	U	2.3	U	2.2	U
Tetryl	8.4	12	U	12	U	12	U
Amino-DNTs	2.4	3.5	U	3.5	U	3.3	U
2,4,6-TNT	3.6	5.2	U	5.2	U	5	U
2,6-DNT	2.0	2.9	U	2.9	U	2.8	U
2,4-DNT	1.6	2.3	U	2.3	U	2.2	U
2-NT	4.4	6.4	U	6.3	U	6.1	U
4-NT	14.0	20	U	20	U	20	U
3-NT	6.8	9.8	U	9.8	U	9.5	U
Surrogate	QC Limits						
1,2-DNB	65%-135	77%		88%		79%	
Dilution Factor		1		1		1	
Percent Solids		71%		73%		75%	

Notes :
U - Not detected at reported value
J- Between MDL and PQL
D - Dilution was performed on sample
E - Estimated value, result outside calibration range
DL - Surrogate diluted out due to high concentration of target compounds
PQL - Practical Quantitation Limit
N- non-confirmed by all three wavelengths
mg/Kg - Milligrams per kilogram (PPM)

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Date Received: 8/14/00
Cooler ID: 0012
COC#: 071

Report No : 000814
SDG No : 000814exp
Reported by : Chris Cao

Matrix : soil
Units : mg/Kg

Field Sample ID No.		PAD03-WR17B-081300		PAD03-WR17C-081300		PAD03-WR17D-081300		PAD03-WR18A-081400		PAD03-WR18B-081400		PAD03-WR18C-081400	
Lab Sample ID No.		NAV578		NAV579		NAV580		NAV581		NAV582		NAV583	
Sample Depth		0		0		0		0		0		0	
Date Sampled		8/13/00		8/13/00		8/13/00		8/14/00		8/14/00		8/14/00	
Time Sampled		13:05		13:10		13:15		8:50		8:55		9:00	
Date Extracted		8/14/00		8/14/00		8/14/00		8/14/00		8/14/00		8/14/00	
Time Extracted		12:30		12:30		12:30		12:30		12:30		12:30	
Date Analyzed		8/14/00		8/14/00		8/14/00		8/14/00		8/14/00		8/15/00	
Time Analyzed		22:21		22:40		23:18		23:37		23:56		0:14	
Analytes	PQL	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.
HMX	4.4	3.8	N	3.5	N	0.38	N	2	N	6.6	U	6.4	U
RDX	2.0	0.47	J	0.51	J	0.43	J	0.36	J	0.66	J	0.4	J
1,3,5-TNB	2.0	2.9	U	2.8	U	2.7	U	3	U	3	U	2.9	U
1,3-DNB	0.8	1.2	U	1.1	U	1.1	U	1.2	U	1.2	U	1.2	U
NB	1.6	2.4	U	2.3	U	2.2	U	2.4	U	2.4	U	2.3	U
Tetryl	8.4	12	U	12	U	11	U	13	U	13	U	12	U
Amino-DNTs	2.4	3.5	U	3.4	U	3.2	U	3.6	U	3.6	U	3.5	U
2,4,6-TNT	3.6	5.3	U	5.1	U	4.9	U	5.4	U	5.4	U	5.2	U
2,6-DNT	2.0	2.9	U	2.8	U	2.7	U	3	U	3	U	2.9	U
2,4-DNT	1.6	2.4	U	2.3	U	2.2	U	2.4	U	2.4	U	2.3	U
2-NT	4.4	6.5	U	6.3	U	5.9	U	6.6	U	6.6	U	6.4	U
4-NT	14.0	21	U	20	U	19	U	21	U	21	U	20	U
3-NT	6.8	10	U	9.7	U	9.2	U	10	U	10	U	9.8	U
Surrogate	QC Limits												
1,2-DNB	65%-135	79%		81%		77%		76%		75%		74%	
Dilution Factor		1		1		1		1		1		1	
Percent Solids		70%		73%		77%		70%		69%		72%	

Notes :
U - Not detected at reported value
J- Between MDL and PQL
D - Dilution was performed on sample
E - Estimated value, result outside calibration range
DL - Surrogate diluted out due to high concentration of target compounds
PQL - Practical Quantitation Limit
N- non-confirmed by all three wavelengths
mg/Kg - Milligrams per kilogram (PPM)

Onsite Environmental Laboratories, Inc.

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ONSITE ENVIRONMENTAL LABORATORIES

Date Received: 8/14/00
Cooler ID: 0012
COC#: 071

Report No : 000814
SDG No : 000814exp
Reported by : Chris Cao

Matrix : soil
Units : mg/Kg

				Dilution		Dilution	
Field Sample ID No.		PAD03-WR18D-081400		PAD03-WR27A-081100		PAD03-WR27B-081100	
Lab Sample ID No.		NAV584		NAV572		NAV573	
Sample Depth		0		0		0	
Date Sampled		8/14/00		8/11/00		8/11/00	
Time Sampled		9:05		13:00		13:02	
Date Extracted		8/14/00		8/14/00		8/14/00	
Time Extracted		12:30		12:30		12:30	
Date Analyzed		8/15/00		8/16/00		8/16/00	
Time Analyzed		0:33		1:27		1:46	
Analytes	PQL	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.
HMX	4.4	6.7	U	64	DU	55	DU
RDX	2.0	0.3	N	2.3	D	25	DU
1,3,5-TNB	2.0	3	U	2.9	D	7	D
1,3-DNB	0.8	1.2	U	12	DU	10	DU
NB	1.6	2.4	U	23	DU	20	DU
Tetryl	8.4	13	U	120	DU	110	DU
Amino-DNTs	2.4	3.6	U	30	D	60	D
2,4,6-TNT	3.6	5.5	U	140	D	290	D
2,6-DNT	2.0	3	U	29	DU	25	DU
2,4-DNT	1.6	2.4	U	23	DU	20	DU
2-NT	4.4	6.7	U	64	DU	55	DU
4-NT	14.0	21	U	200	DU	180	DU
3-NT	6.8	10	U	99	DU	85	DU
Surrogate	QC Limits						
1,2-DNB	65%-135	74%		0%	DL	0%	DL
Dilution Factor		1		10		10	
Percent Solids		69%		72%		83%	

Notes :
U - Not detected at reported value
J- Between MDL and PQL
D - Dilution was performed on sample
E - Estimated value, result outside calibration range
DL - Surrogate diluted out due to high concentration of target compounds
PQL - Practical Quantitation Limit
N- non-confirmed by all three wavelengths
mg/Kg - Milligrams per kilogram (PPM)

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Date Received: 8/17/00
Cooler ID: 0012
COC#: 075

Report No : 000817
SDG No : 000817exp
Reported by : Chris Cao

Matrix : soil
Units : mg/Kg

Field Sample ID No.		PAD03-WR19C-081700		PAD03-WR19D-081700		PAD03-WR29A-081300		PAD03-WR29B-081300		PAD03-WR29C-081300		PAD03-WR29D-081300	
Lab Sample ID No.		NAV617		NAV618		NAV619		NAV620		NAV621		NAV622	
Sample Depth		0		0		0		0		0		0	
Date Sampled		8/17/00		8/17/00		8/13/00		8/13/00		8/13/00		8/13/00	
Time Sampled		8:20		8:25		13:20		13:25		13:30		13:35	
Date Extracted		8/17/00		8/17/00		8/17/00		8/17/00		8/17/00		8/17/00	
Time Extracted		12:10		12:10		12:10		12:10		12:10		12:10	
Date Analyzed		8/17/00		8/17/00		8/17/00		8/17/00		8/17/00		8/17/00	
Time Analyzed		21:50		22:09		22:47		23:06		23:25		23:43	
Analytes	PQL	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.
HMX	4.4	2.6	J	6.5	U	4.9	U	4.7	U	5.2	U	5.1	U
RDX	2.0	2.7	U	0.3	J	2.2	U	0.3	J	1.1	N	2.3	U
1,3,5-TNB	2.0	2.7	U	3	U	2	J	6.7		6.6		6	
1,3-DNB	0.8	1.1	U	1.2	U	0.089	J	0.17	J	0.23	J	0.65	J
NB	1.6	2.1	U	0.12	N	1.8	U	1.7	U	1.9	U	1.8	U
Tetryl	8.4	11	U	12	U	0.35	N	0.85	N	1	J	0.51	J
Amino-DNTs	2.4	3.2	U	3.6	U	4		14		34		8.5	
2,4,6-TNT	3.6	4.8	U	5.3	U	12		51		160	E	63	
2,6-DNT	2.0	2.7	U	3	U	2.2	U	2.1	U	2.3	U	2.3	U
2,4-DNT	1.6	2.1	U	2.4	U	1.8	U	0.13	J	0.19	J	1.8	U
2-NT	4.4	0.64	N	6.5	U	4.9	U	4.7	U	5.2	U	5.1	U
4-NT	14.0	19	U	21	U	15	U	15	U	16	U	16	U
3-NT	6.8	9	U	10	U	7.5	U	7.3	U	8	U	7.8	U
Surrogate	QC Limits												
1,2-DNB	65%-135	85%		80%		87%		93%		94%		115%	
Dilution Factor		1		1		1		1		1		1	
Percent Solids		78%		70%		95%		97%		88%		91%	

Notes :
U - Not detected at reported value
I- Between MDL and PQL
D - Dilution was performed on sample
E - Estimated value, result outside calibration range
DL - Surrogate diluted out due to high concentration of target compounds
PQL - Practical Quantitation Limit
N- non-confirmed by all three wavelengths
mg/Kg - Milligrams per kilogram (PPM)

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Date Received: 6/29/00
Cooler ID: 0012
COC #: 028

Report No : 000629
SDG No : 000629exp
Reported by : Chris Cao

Matrix : soil
Units : mg/Kg

Field Sample ID No.		PAD03-WR02A-062900		PAD03-WR02B-062900		PAD03-WR02C-062900		PAD03-WR02D-062900	
Lab Sample ID No.		NAV211		NAV212		NAV213		NAV214	
Sample Depth		0		0		0		0	
Date Sampled		6/29/00		6/29/00		6/29/00		6/29/00	
Time Sampled		11:10		11:12		11:14		11:16	
Date Extracted		6/29/00		6/29/00		6/29/00		6/29/00	
Time Extracted		12:42		12:42		12:42		12:42	
Date Analyzed		6/30/00		6/30/00		6/30/00		6/30/00	
Time Analyzed		0:48		1:06		1:24		1:43	
Analytes	PQL	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.
HMX	4.4	6.8	U	7.3	U	2.8	J	4.7	J
RDX	2.0	3.1	U	3.3	U	0.65	J	18	
1,3,5-TNB	2.0	3.1	U	3.3	U	2.5	U	0.65	J
1,3-DNB	0.8	1.2	U	1.3	U	1	U	1	U
NB	1.6	2.5	U	2.6	U	2	U	2	U
Tetryl	8.4	13	U	14	U	10	U	11	U
Amino-DNTs	2.4	3.7	U	4	U	3	U	3	U
2,4,6-TNT	3.6	1.7	J	5.9	U	4.5	U	0.7	J
2,6-DNT	2.0	3.1	U	3.3	U	2.5	U	2.5	U
2,4-DNT	1.6	2.5	U	2.6	U	2	U	2	U
2-NT	4.4	6.8	U	7.3	U	5.5	U	5.5	U
4-NT	14.0	22	U	23	U	17	U	18	U
3-NT	6.8	10	U	11	U	8.5	U	8.5	U
Surrogate	QC Limits								
1,2-DNB	65%-135	83%		84%		82%		89%	
Dilution Factor		1		1		1		1	
Percent Solids		67%		64%		84%		83%	

Notes :
U - Not detected at reported value
J- Between MDL and PQL
D - Dilution was performed on sample
E - Estimated value, result outside calibration range
DL - Surrogate diluted out due to high concentration of target compounds
PQL - Practical Quantitation Limit
N- non-confirmed by all three wavelengths
mg/Kg - Milligrams per kilogram (PPM)

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Excavation Confirmation Samples

SWMU B-06

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Date Received: 6/16/00
Cooler ID: 0012
COC #: 0014/0015

Report No : 000616
SDG No : 000616exp
Reported by : Chris Cao

Matrix : soil
Units : mg/Kg

Field Sample ID No.		NW06-013SE-013SW-01		NW06-063SE-013SW-01		NW06-013SE-038SW-01A		NW06-013SE-038SW-01B		NW06-088SE-013SW-01		NW06-038SE-013SW-01	
Lab Sample ID No.		NAV112		NAV113		NAV114		NAV115		NAV116		NAV117	
Sample Depth		1"		1"		1"		1"		1"		1"	
Date Sampled		6/15/00		6/15/00		6/15/00		6/15/00		6/15/00		6/15/00	
Time Sampled		14:59		7:56		15:11		15:00		8:16		7:32	
Date Extracted		6/16/00		6/16/00		6/16/00		6/16/00		6/16/00		6/16/00	
Time Extracted		15:15		15:15		15:15		15:15		15:15		15:15	
Date Analyzed		6/16/00		6/16/00		6/16/00		6/16/00		6/16/00		6/16/00	
Time Analyzed		22:18		22:36		22:54		23:13		23:31		23:50	
Analytes	PQL	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.
HMX	4.4	65		3.3	J	61		63		0.17	J	16	
RDX	2.0	400	E	19		450	E	500	E	0.97	J	110	E
1,3,5-TNB	2.0	37		1.2	J	41		40		0.084	J	24	
1,3-DNB	0.8	0.84	U	0.85	U	0.84	U	0.85	U	0.84	U	0.84	U
NB	1.6	1.7	U	1.7	U	1.7	U	1.7	U	1.7	U	1.7	U
Tetryl	8.4	8.8	U	9	U	8.9	U	8.9	U	8.9	U	8.9	U
Amino-DNTs	2.4	1.5	J	2.6	U	2.5	U	2.5	U	2.5	U	2.5	U
2,4,6-TNT	3.6	67		0.43	J	71		80		0.21	J	26	
2,6-DNT	2.0	2.1	U	2.1	U	2.1	U	2.1	U	2.1	U	2.1	U
2,4-DNT	1.6	1.7	U	1.7	U	0.21	J	1.7	U	1.7	U	1.7	U
2-NT	4.4	4.6	U	4.7	U	4.6	U	4.7	U	4.6	U	4.6	U
4-NT	14.0	15	U	15	U	15	U	15	U	15	U	15	U
3-NT	6.8	7.1	U	7.3	U	7.2	U	7.2	U	7.2	U	7.2	U
Surrogate	QC Limits												
1,2-DNB	65%-135	93%		92%		91%		91%		91%		92%	
Dilution Factor		1		1		1		1		1		1	
Percent Solids		99%		97%		99%		99%		98%		99%	

Notes :
U - Not detected at reported value
J- Between MDL and PQL
D - Dilution was performed on sample
E - Estimated value, result outside calibration range
DL - Surrogate diluted out due to high concentration of target compounds
PQL - Practical Quantitation Limit
N- non-confirmed by all three wavelengths
mg/Kg - Milligrams per kilogram (PPM)

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Date Received: 6/21/00
Cooler ID: 0012
COC #: 0020

Report No : 000621
SDG No : 000621exp
Reported by : Chris Cao

Matrix : soil
Units : mg/Kg

Field Sample ID No.		NWB06-013SE088SW-01		NWB06-013SE063SW-01		NWB06-038SE063SW-01		NWB06-038SE088SW-01		NWB06-063SE063SW-01		NWB06-063SE088SW-01	
Lab Sample ID No.		NAV156		NAV157		NAV158		NAV159		NAV160		NAV161	
Sample Depth		1"		1"		1"		1"		1"		1"	
Date Sampled		6/15/00		6/15/00		6/16/00		6/16/00		6/16/00		6/16/00	
Time Sampled		NA		NA		7:45		7:49		8:06		8:09	
Date Extracted		6/21/00		6/21/00		6/21/00		6/21/00		6/21/00		6/21/00	
Time Extracted		12:30		12:30		12:30		12:30		12:30		12:30	
Date Analyzed		6/21/00		6/21/00		6/21/00		6/21/00		6/21/00		6/21/00	
Time Analyzed		20:44		21:02		21:21		21:39		21:57		22:16	
Analytes	PQL	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.
HMX	4.4	2.8	J	26		14		9.1		19		11	
RDX	2.0	12		110	E	95		55		150	E	73	
1,3,5-TNB	2.0	0.59	J	4.9		10		2.1		19		6	
1,3-DNB	0.8	0.85	U	0.85	U	0.84	U	0.84	U	0.86	U	0.84	U
NB	1.6	1.7	U	1.7	U	1.7	U	1.7	U	1.7	U	1.7	U
Tetryl	8.4	8.9	U	8.9	U	8.8	U	8.8	U	9	U	8.9	U
Amino-DNTs	2.4	0.93	J	2.5	U	2.5	U	1.9	J	2.6	U	2.5	U
2,4,6-TNT	3.6	1.6	J	290	E	10		3.4	J	47		21	
2,6-DNT	2.0	2.1	U	2.1	U	2.1	U	2.1	U	2.1	U	2.1	U
2,4-DNT	1.6	1.7	U	1.7	U	1.7	U	1.7	U	1.7	U	1.7	U
2-NT	4.4	4.7	U	4.7	U	4.6	U	4.6	U	4.7	U	4.6	U
4-NT	14.0	15	U	15	U	15	U	15	U	15	U	15	U
3-NT	6.8	7.2	U	7.2	U	7.2	U	7.1	U	7.3	U	7.2	U
Surrogate	QC Limits												
1,2-DNB	65%-135	99%		100%		98%		98%		98%		103%	
Dilution Factor		1		1		1		1		1		1	
Percent Solids		99%		98%		99%		100%		97%		99%	

Notes :
U - Not detected at reported value
J - Between MDL and PQL
D - Dilution was performed on sample
E - Estimated value, result outside calibration range
DL - Surrogate diluted out due to high concentration of target compounds
PQL - Practical Quantitation Limit
N - non-confirmed by all three wavelengths
mg/Kg - Milligrams per kilogram (PPM)

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Date Received: 6/21/00
Cooler ID: 0012
COC#: 0020

Report No : 000621
SDG No : 000621exp
Reported by : Chris Cao

Matrix : soil
Units : mg/Kg

Field Sample ID No.		NWB06-088SE038SW-01		NWB06-088SE063SW-01		NWB06-088SE088SW-01		PAD01-WR09B-061900		PAD01-WR09C-061900		PAD01-WR09D-061900A	
Lab Sample ID No.		NAV162		NAV163		NAV164		NAV165		NAV166		NAV167	
Sample Depth		1"		1"		1"		0		0		0	
Date Sampled		6/16/00		6/16/00		6/16/00		6/19/00		6/19/00		6/19/00	
Time Sampled		8:22		8:30		8:42		9:30		9:33		9:36	
Date Extracted		6/21/00		6/21/00		6/21/00		6/21/00		6/21/00		6/21/00	
Time Extracted		12:30		12:30		12:30		12:30		12:30		12:30	
Date Analyzed		6/21/00		6/21/00		6/21/00		6/21/00		6/22/00		6/22/00	
Time Analyzed		22:34		22:52		23:29		23:47		0:06		0:24	
Analytes	PQL	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.
HMX	4.4	4.6	U	1.6	J	1.3	J	6.1	U	6	U	5.9	U
RDX	2.0	2.1	U	7.3		6.7		2.8	U	2.7	U	2.7	U
1,3,5-TNB	2.0	2.1	U	0.9	J	0.87	J	2.8	U	2.7	U	2.7	U
1,3-DNB	0.8	0.85	U	0.85	U	0.83	U	1.1	U	1.1	U	1.1	U
NB	1.6	1.7	U	1.7	U	1.7	U	2.2	U	2.2	U	2.1	U
Tetryl	8.4	8.9	U	9	U	8.7	U	12	U	11	U	11	U
Amino-DNTs	2.4	2.5	U	2.6	U	0.83	J	3.3	U	3.3	U	3.2	U
2,4,6-TNT	3.6	3.8	U	2	J	3.6	J	5	U	4.9	U	4.8	U
2,6-DNT	2.0	2.1	U	2.1	U	2.1	U	2.8	U	2.7	U	2.7	U
2,4-DNT	1.6	1.7	U	1.7	U	1.7	U	2.2	U	2.2	U	2.1	U
2-NT	4.4	4.6	U	4.7	U	4.5	U	6.1	U	6	U	5.9	U
4-NT	14.0	15	U	15	U	14	U	20	U	19	U	19	U
3-NT	6.8	7.2	U	7.3	U	7	U	9.5	U	9.3	U	9.1	U
Surrogate	QC Limits												
1,2-DNB	65%-135	100%		95%		97%		87%		86%		78%	
Dilution Factor		1		1		1		1		1		1	
Percent Solids		98%		98%		100%		74%		77%		78%	

Notes :
U - Not detected at reported value
J- Between MDL and PQL
D - Dilution was performed on sample
E - Estimated value, result outside calibration range
DL - Surrogate diluted out due to high concentration of target compounds
PQL - Practical Quantitation Limit
N- non-confirmed by all three wavelengths
mg/Kg - Milligrams per kilogram (PPM)

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Date Received: 6/19/00
Cooler ID: 0012
COC#: 0016

Report No : 000619
SDG No : 000619exp
Reported by : Chris Cao

Matrix : soil
Units : mg/Kg

Field Sample ID No.		PAD01-WR04F-061700		PAD01-WR04G-061700A		PAD01-WR04G-061700B		B06-013NE013SE-01		B06-038NE013SE-01		B06-063NE013SE-02	
Lab Sample ID No.		NAV132		NAV133		NAV134		NAV135		NAV136		NAV137	
Sample Depth		0		0		0		1"		1"		2"	
Date Sampled		6/17/00		6/17/00		6/17/00		6/17/00		6/17/00		6/17/00	
Time Sampled		13:30		13:32		13:34		12:55		13:01		13:07	
Date Extracted		6/19/00		6/19/00		6/19/00		6/19/00		6/19/00		6/19/00	
Time Extracted		13:00		13:00		13:00		13:00		13:00		13:00	
Date Analyzed		6/20/00		6/20/00		6/20/00		6/20/00		6/20/00		6/20/00	
Time Analyzed		3:02		3:21		3:58		4:16		4:34		4:53	
Analytes	PQL	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.
HMX	4.4	1.9	N	1.3	N	6.4	U	0.29	J	8.5		12	
RDX	2.0	3.2	U	2.7	U	2.9	U	0.46	J	9.7		14	
1,3,5-TNB	2.0	3.2	U	2.7	U	2.9	U	2.1	U	0.13	J	0.31	J
1,3-DNB	0.8	1.3	U	1.1	U	1.2	U	0.83	U	0.88	U	0.89	U
NB	1.6	2.6	U	2.2	U	2.3	U	1.7	U	1.8	U	1.8	U
Tetryl	8.4	13	U	11	U	12	U	8.7	U	9.3	U	9.3	U
Amino-DNTs	2.4	3.8	U	3.3	U	3.5	U	2.5	U	2.7	U	2.7	U
2,4,6-TNT	3.6	5.8	U	4.9	U	5.3	U	0.29	J	9.9		13	
2,6-DNT	2.0	3.2	U	2.7	U	2.9	U	2.1	U	2.2	U	2.2	U
2,4-DNT	1.6	2.6	U	2.2	U	2.3	U	1.7	U	1.8	U	1.8	U
2-NT	4.4	7	U	6	U	6.4	U	4.6	U	4.9	U	4.9	U
4-NT	14.0	22	U	19	U	20	U	15	U	15	U	16	U
3-NT	6.8	11	U	9.3	U	9.9	U	7.1	U	7.5	U	7.5	U
Surrogate	QC Limits												
1,2-DNB	65%-135	77%		80%		77%		89%		87%		87%	
Dilution Factor		1		1		1		1		1		1	
Percent Solids		66%		76%		72%		99%		93%		94%	

Notes :
U - Not detected at reported value
J- Between MDL and PQL
D - Dilution was performed on sample
E - Estimated value, result outside calibration range
DL - Surrogate diluted out due to high concentration of target compounds
PQL - Practical Quantitation Limit
N- non-confirmed by all three wavelengths
mg/Kg - Milligrams per kilogram (PPM)

Onsite Environmental Laboratories, Inc.
Tel: (510) 490-8571 Fax: (510) 490-8572

Tetra Tech
Hawthorn Army Depot

ONSITE ENVIRONMENTAL LABORATORIES, INC.

Date Received: 6/22/00
Cooler ID: 0012
COC #: 0021

Report No : 000622
SDG No : 000622exp
Reported by : Chris Cao

Matrix : soil
Units : mg/Kg

Field Sample ID No.		B06-013NE063SE-01		B06-038NE063SE-01		B06-063NE063SE-01		B06-063NE088SE-01A		B06-063NE088SE-01B (Dup)		B06-088NE088SE-01	
Lab Sample ID No.		NAV170		NAV171		NAV172		NAV173		NAV174		NAV175	
Sample Depth		1"		1"		1"		1"		1"		1"	
Date Sampled		6/17/00		6/17/00		6/17/00		6/17/00		6/17/00		6/17/00	
Time Sampled		13:44		13:57		14:08		15:22		15:22		15:28	
Date Extracted		6/22/00		6/22/00		6/22/00		6/22/00		6/22/00		6/22/00	
Time Extracted		12:15		12:15		12:15		12:15		12:15		12:15	
Date Analyzed		6/22/00		6/22/00		6/22/00		6/22/00		6/22/00		6/22/00	
Time Analyzed		21:51		22:09		22:28		22:46		23:04		23:23	
Analytes	PQL	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.
HMX	4.4	23		86		7.5		3.7	J	2.7	J	3.7	J
RDX	2.0	42		240	E	11		5.7		5.4		10	
1,3,5-TNB	2.0	1.2	J	1.6	J	0.47	J	0.13	J	0.087	J	2.7	
1,3-DNB	0.8	0.89	U	0.87	U	0.85	U	0.87	U	0.87	U	0.83	U
NB	1.6	1.8	U	1.7	U	1.7	U	1.7	U	1.7	U	1.7	U
Tetryl	8.4	9.3	U	9.1	U	8.9	U	9.1	U	9.1	U	8.7	U
Amino-DNTs	2.4	2.7	U	2.6	U	2.5	U	0.69	J	0.74	J	2.5	U
2,4,6-TNT	3.6	72		340	E	11		5.1		3.9		3.7	J
2,6-DNT	2.0	2.2	U	2.2	U	2.1	U	2.2	U	2.2	U	2.1	U
2,4-DNT	1.6	1.8	U	1.7	U	1.7	U	1.7	U	1.7	U	1.7	U
2-NT	4.4	4.9	U	4.8	U	4.7	U	4.8	U	4.8	U	4.6	U
4-NT	14.0	16	U	15	U	15	U	15	U	15	U	15	U
3-NT	6.8	7.5	U	7.4	U	7.2	U	7.4	U	7.4	U	7.1	U
Surrogate	QC Limits												
1,2-DNB	65%-135	100%		95%		101%		97%		98%		104%	
Dilution Factor		1		1		1		1		1		1	
Percent Solids		94%		96%		99%		96%		96%		99%	

Notes :
U - Not detected at reported value
J- Between MDL and PQL
D - Dilution was performed on sample
E - Estimated value, result outside calibration range
DL - Surrogate diluted out due to high concentration of target compounds
PQL - Practical Quantitation Limit
N- non-confirmed by all three wavelengths
mg/Kg - Milligrams per kilogram (PPM)

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Hawthorn Army Depot

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Date Received: 6/22/00
Cooler ID: 0012
COC#: 0021

Report No : 000622
SDG No : 000622exp
Reported by : Chris Cao

Matrix : soil
Units : mg/Kg

Field Sample ID No.		B06-113NE088SE-01		B06-013NE138SE-01		B06-038NE138SE-01		PAD-01-WR07A-062200A		PAD-01-WR07A-062200B		PAD-01-WR07B-062200	
Lab Sample ID No.		NAV176		NAV177		NAV178		NAV179		NAV180		NAV181	
Sample Depth		1"		1"		1"		0		0		0	
Date Sampled		6/17/00		6/20/00		6/20/00		6/22/00		6/22/00		6/22/00	
Time Sampled		15:37		7:50		7:55		10:27		10:28		10:31	
Date Extracted		6/22/00		6/22/00		6/22/00		6/22/00		6/22/00		6/22/00	
Time Extracted		12:15		12:15		12:15		12:15		12:15		12:15	
Date Analyzed		6/22/00		6/22/00		6/23/00		6/23/00		6/23/00		6/23/00	
Time Analyzed		23:41		23:59		0:36		0:55		1:13		1:31	
Analytes	PQL	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.
HMX	4.4	20		22		16		6	U	0.81	J	0.53	J
RDX	2.0	17		27		27		2.7	U	2.9	U	0.89	J
1,3,5-TNB	2.0	0.72	J	0.34	J	0.46	J	2.7	U	2.9	U	3	U
1,3-DNB	0.8	0.91	U	0.85	U	0.84	U	1.1	U	1.2	U	1.2	U
NB	1.6	1.8	U	1.7	U	1.7	U	2.2	U	2.3	U	2.4	U
Tetryl	8.4	9.5	U	9	U	8.8	U	12	U	12	U	12	U
Amino-DNTs	2.4	3.4		5.9		2.5	U	3.3	U	3.5	U	3.5	U
2,4,6-TNT	3.6	7		11		92		4.9	U	5.2	U	5.3	U
2,6-DNT	2.0	2.3	U	2.1	U	2.1	U	2.7	U	2.9	U	3	U
2,4-DNT	1.6	1.8	U	1.7	U	1.7	U	2.2	U	2.3	U	2.4	U
2-NT	4.4	5	U	4.7	U	4.6	U	6	U	6.4	U	6.5	U
4-NT	14.0	16	U	15	U	15	U	19	U	20	U	21	U
3-NT	6.8	7.7	U	7.3	U	7.1	U	9.3	U	9.9	U	10	U
Surrogate	QC Limits												
1,2-DNB	65%-135	95%		97%		95%		95%		87%		83%	
Dilution Factor		1		1		1		1		1		1	
Percent Solids		92%		98%		99%		76%		72%		70%	

Notes :
U - Not detected at reported value
J- Between MDL and PQL
D - Dilution was performed on sample
E - Estimated value, result outside calibration range
DL - Surrogate diluted out due to high concentration of target compounds
PQL - Practical Quantitation Limit
N- non-confirmed by all three wavelengths
mg/Kg - Milligrams per kilogram (PPM)

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ONSITE ENVIRONMENTAL LABORATORIES

Date Received: 6/23/00
Cooler ID: 0012
COC#: 023

Report No : 000623
SDG No : 000623exp
Reported by : Chris Cao

Matrix : soil
Units : mg/Kg

Field Sample ID No.		NWB06-038SE063SW-01		~~NWB06-063SE063SW-01~~		~~NWB06-063SE088SW-01~~		~~B07-020E020S-02A~~		~~B07-020E020S-02B~~		NWB06-~~038SE013SW-01~~	Dilution
Lab Sample ID No.		NAV191		NAV192		NAV193		NAV194		NAV195		NAV196	
Sample Depth		1"		1"		1"		2"		2"		1"	
Date Sampled		6/23/00		6/23/00		6/23/00		6/23/00		6/23/00		6/23/00	
Time Sampled		9:22		9:24		9:24		9:55		9:55		9:05	
Date Extracted		6/23/00		6/23/00		6/23/00		6/23/00		6/23/00		6/23/00	
Time Extracted		12:54		12:54		12:54		12:54		12:54		12:54	
Date Analyzed		6/23/00		6/23/00		6/23/00		6/23/00		6/23/00		6/24/00	
Time Analyzed		21:44		22:02		22:39		22:57		23:15		0:10	
Analytes	PQL	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.
HMX	4.4	3.8	J	15		10		4.8	U	4.8	U	42	D
RDX	2.0	3.9		100		67		0.22	J	2.2	U	330	D
1,3,5-TNB	2.0	2.1	U	7.3		5.5		2.2	U	2.2	U	32	D
1,3-DNB	0.8	0.84	U	0.87	U	0.84	U	0.87	U	0.88	U	8.5	DU
NB	1.6	1.7	U	1.7	U	1.7	U	1.7	U	1.8	U	17	DU
Tetryl	8.4	8.8	U	9.2	U	8.8	U	9.2	U	9.2	U	89	DU
Amino-DNTs	2.4	2.5	U	2.6	U	2.5	U	2.6	U	2.6	U	26	DU
2,4,6-TNT	3.6	3.8	U	12		21		3.9	U	3.9	U	77	D
2,6-DNT	2.0	2.1	U	2.2	U	2.1	U	2.2	U	2.2	U	21	DU
2,4-DNT	1.6	1.7	U	1.7	U	1.7	U	1.7	U	1.8	U	17	DU
2-NT	4.4	4.6	U	4.8	U	4.6	U	4.8	U	4.8	U	47	DU
4-NT	14.0	15	U	15	U	15	U	15	U	15	U	150	DU
3-NT	6.8	7.1	U	7.4	U	7.1	U	7.4	U	7.5	U	72	DU
Surrogate	QC Limits												
1,2-DNB	65%-135	95%		94%		95%		94%		89%		0%	DL
Dilution Factor		1		1		1		1		1		10	
Percent Solids		99%		96%		99%		95%		96%		98%	

Notes :
U - Not detected at reported value
J- Between MDL and PQL
D - Dilution was performed on sample
E - Estimated value, result outside calibration range
DL - Surrogate diluted out due to high concentration of target compounds
PQL - Practical Quantitation Limit
N- non-confirmed by all three wavelengths
mg/Kg - Milligrams per kilogram (PPM)

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Hawthorn Army Depot

ONSITE ENVIRONMENTAL LABORATORIES

Date Received: 6/23/00
Cooler ID: 0012
COC #: 023

Report No : 000623
SDG No : 000623exp
Reported by : Chris Cao

Matrix : soil
Units : mg/Kg

Field Sample ID No.		NWB06-013SE013SW-01		NWB06-038SE013SW-01		NWB06-013SE038SW-01		NWB06-038SE038SW-01		NWB06-063SE038SW-01		NWB06-013SE063SW-01	
Lab Sample ID No.		NAV185		NAV186		NAV187		NAV188		NAV189		NAV190	
Sample Depth		1"		1"		1"		1"		1"		1"	
Date Sampled		6/23/00		6/23/00		6/23/00		6/23/00		6/23/00		6/23/00	
Time Sampled		9:00		9:05		9:08		9:12		9:14		9:20	
Date Extracted		6/23/00		6/23/00		6/23/00		6/23/00		6/23/00		6/23/00	
Time Extracted		12:54		12:54		12:54		12:54		12:54		12:54	
Date Analyzed		6/23/00		6/23/00		6/23/00		6/23/00		6/23/00		6/23/00	
Time Analyzed		19:54		20:12		20:30		20:49		21:07		21:25	
Analytes	PQL	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.
HMX	4.4	3.3	J	45		1.2	J	35		15		1.1	J
RDX	2.0	20		340	E	9		260	E	110	E	3.3	
1,3,5-TNB	2.0	13		33		1.6	J	22		8.3		2.1	U
1,3-DNB	0.8	0.85	U	0.85	U	0.83	U	0.86	U	0.84	U	0.84	U
NB	1.6	1.7	U	1.7	U	1.7	U	1.7	U	1.7	U	1.7	U
Tetryl	8.4	8.9	U	0.85	J	8.7	U	0.73	J	8.8	U	8.8	U
Amino-DNTs	2.4	2.5	U	2.6	U	2.5	U	2.6	U	2.5	U	2.5	U
2,4,6-TNT	3.6	2.8	J	77		0.54	J	24		22		3.8	U
2,6-DNT	2.0	2.1	U	2.1	U	2.1	U	2.2	U	2.1	U	2.1	U
2,4-DNT	1.6	1.7	U	1.7	U	1.7	U	1.7	U	1.7	U	1.7	U
2-NT	4.4	4.7	U	4.7	U	4.6	U	4.7	U	4.6	U	4.6	U
4-NT	14.0	15	U	15	U	15	U	15	U	15	U	15	U
3-NT	6.8	7.2	U	7.2	U	7.1	U	7.3	U	7.2	U	7.1	U
Surrogate	QC Limits												
1,2-DNB	65%-135	91%		94%		98%		94%		94%		95%	
Dilution Factor		1		1		1		1		1		1	
Percent Solids		99%		98%		99%		98%		98%		98%	

Notes :
U - Not detected at reported value
J- Between MDL and PQL
D - Dilution was performed on sample
E - Estimated value, result outside calibration range
DL - Surrogate diluted out due to high concentration of target compounds
PQL - Practical Quantitation Limit
N- non-confirmed by all three wavelengths
mg/Kg - Milligrams per kilogram (PPM)

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Hawthorn Army Depot

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Date Received: 7/12/00
Cooler ID: 0012
COC #: 039

Report No : 000712
SDG No : 000712exp
Reported by : Chris Cao

Matrix : soil
Units : mg/Kg

Field Sample ID No.		B06-63NE013NW-01		B06-038NE063SE-02		B06-013NE063SE-02		~~B06-038NE138SE-02~~		NWB06-038SE013SW-02		NWB06-038NE038SW-02	
Lab Sample ID No.		NAV289		NAV290		NAV291		NAV292		NAV293		NAV294	
Sample Depth		1"		2"		2"		2"		2"		2"	
Date Sampled		7/11/00		7/11/00		7/11/00		7/11/00		7/11/00		7/11/00	
Time Sampled		7:30		7:35		7:40		7:45		7:50		7:55	
Date Extracted		7/12/00		7/12/00		7/12/00		7/12/00		7/12/00		7/12/00	
Time Extracted		12:30		12:30		12:30		12:30		12:30		12:30	
Date Analyzed		7/12/00		7/13/00		7/13/00		7/13/00		7/13/00		7/13/00	
Time Analyzed		23:44		0:04		0:23		0:43		1:02		1:22	
Analytes	PQL	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.
HMX	4.4	13		0.13	J	0.13	J	1.3	J	2.9	J	2.1	J
RDX	2.0	50		0.042	J	0.085	J	0.34	J	21		14	
1,3,5-TNB	2.0	7.2		2.1	U	2.1	U	2.1	U	2.9		1.1	J
1,3-DNB	0.8	0.84	U	0.85	U	0.85	U	0.84	U	0.85	U	0.87	U
NB	1.6	0.42	J	1.7	U	1.7	U	1.7	U	1.7	U	1.7	U
Tetryl	8.4	8.8	U	8.9	U	8.9	U	8.8	U	9	U	9.1	U
Amino-DNTs	2.4	3.9		2.5	U	2.6	U	2.5	U	2.6	U	1.4	J
2,4,6-TNT	3.6	3.3	J	3.8	U	3.8	U	0.084	J	1.9	J	3.9	U
2,6-DNT	2.0	0.17	J	2.1	U	2.1	U	2.1	U	2.1	U	2.2	U
2,4-DNT	1.6	0.51	J	1.7	U	1.7	U	1.7	U	1.7	U	1.7	U
2-NT	4.4	4.6	U	4.7	U	4.7	U	4.6	U	4.7	U	4.8	U
4-NT	14.0	15	U	15	U	15	U	15	U	15	U	15	U
3-NT	6.8	7.2	U	7.2	U	7.2	U	7.1	U	7.2	U	7.4	U
Surrogate	QC Limits												
1,2-DNB	65%-135	113%		92%		96%		92%		94%		96%	
Dilution Factor		1		1		1		1		1		1	
Percent Solids		100%		97%		98%		99%		97%		96%	

Notes :
U - Not detected at reported value
J- Between MDL and PQL
D - Dilution was performed on sample
E - Estimated value, result outside calibration range
DL - Surrogate diluted out due to high concentration of target compounds
PQL - Practical Quantitation Limit
N- non-confirmed by all three wavelengths
mg/Kg - Milligrams per kilogram (PPM)

Tel: (510) 490-8571 Fax: (510) 490-8572

Tetra Tech
Hawthorn Army Depot

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Date Received: 7/12/00
Cooler ID: 0012
COC#: 039

Report No : 000712
SDG No : 000712exp
Reported by : Chris Cao

Matrix : soil
Units : mg/Kg

Field Sample ID No.		NWB06-063SE038SW-02A		NWB06-063SE038SW-02B		NWB06-063SE088SW-02		NWB06-063SE063SW-02		PAD03-WR01A-071200		PAD03-WR01B-071200	
Lab Sample ID No.		NAV295		NAV296		NAV297		NAV298		NAV299		NAV300	
Sample Depth		2"		2"		2"		2"		0		0	
Date Sampled		7/11/00		7/11/00		7/11/00		7/11/00		7/12/00		7/12/00	
Time Sampled		8:00		8:00		8:10		8:05		6:52		6:57	
Date Extracted		7/12/00		7/12/00		7/12/00		7/12/00		7/12/00		7/12/00	
Time Extracted		12:30		12:30		12:30		12:30		12:30		12:30	
Date Analyzed		7/13/00		7/13/00		7/13/00		7/13/00		7/13/00		7/13/00	
Time Analyzed		1:41		2:01		2:40		2:59		3:19		3:38	
Analytes	PQL	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.
HMX	4.4	40		43		1.1	J	0.72	J	6.2	U	5.9	U
RDX	2.0	310	E	350	E	5.2		2.1		2.8	U	2.7	U
1,3,5-TNB	2.0	13		14		0.25	J	0.17	J	2.8	U	2.7	U
1,3-DNB	0.8	0.85	U	0.85	U	0.85	U	0.84	U	1.1	U	1.1	U
NB	1.6	1.7	U	1.7	U	1.7	U	1.7	U	2.3	U	2.2	U
Tetryl	8.4	0.51	J	0.76	J	8.9	U	8.8	U	12	U	11	U
Amino-DNTs	2.4	2.5	U	2.5	U	0.76	J	2.5	U	3.4	U	3.2	U
2,4,6-TNT	3.6	220	E	210	E	3.8	U	0.25	J	5.1	U	4.8	U
2,6-DNT	2.0	2.1	U	2.1	U	2.1	U	2.1	U	2.8	U	2.7	U
2,4-DNT	1.6	0.085	J	0.042	J	1.7	U	1.7	U	2.3	U	2.2	U
2-NT	4.4	4.7	U	4.7	U	4.7	U	4.6	U	6.2	U	5.9	U
4-NT	14.0	15	U	15	U	15	U	15	U	20	U	19	U
3-NT	6.8	7.2	U	7.2	U	7.2	U	7.2	U	9.6	U	9.1	U
Surrogate	QC Limits												
1,2-DNB	65%-135	99%		100%		93%		92%		82%		80%	
Dilution Factor		1		1		1		1		1		1	
Percent Solids		98%		98%		98%		99%		74%		78%	

Notes :
U - Not detected at reported value
J- Between MDL and PQL ,
D - Dilution was performed on sample
E - Estimated value, result outside calibration range
DL - Surrogate diluted out due to high concentration of target compounds
PQL - Practical Quantitation Limit
N- non-confirmed by all three wavelengths
mg/Kg - Milligrams per kilogram (PPM)

Tel: (510) 490-8571 Fax: (510) 490-8572

Tetra Tech
Hawthorne Army Depot

ONSIT ENVIRONMENT LABORATORIES

Date Received: 7/21/00
Cooler ID: 0012
COC #: 49

Report No : 000721
SDG No : 000721exp
Reported by : Chris Cao

Matrix : soil
Units : mg/Kg

Field Sample ID No.		B-29-PondP-038NE038SE-04		B-29-PondP-038NE013SE-04		B-29-PondP-038NE013NW-04		B-29-PondP-038NE038NW-04		B-29-PondP-038NE063NW-04		B06-063NE013NW-2.5	
Lab Sample ID No.		NAV373		NAV374		NAV375		NAV376		NAV377		NAV378	
Sample Depth		4		4		4		4		4		2.5	
Date Sampled		7/21/00		7/21/00		7/21/00		7/21/00		7/21/00		7/21/00	
Time Sampled		7:40		7:45		7:50		7:55		8:00		9:47	
Date Extracted		7/21/00		7/21/00		7/21/00		7/21/00		7/21/00		7/21/00	
Time Extracted		12:48		12:48		12:48		12:48		12:48		12:48	
Date Analyzed		7/21/00		7/22/00		7/22/00		7/22/00		7/22/00		7/22/00	
Time Analyzed		23:51		0:10		0:30		0:49		1:09		1:28	
Analytes	PQL	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.
HMX	4.4	4.6	U	4.7	U	4.7	U	4.6	U	4.8	U	1.4	J
RDX	2.0	2.1	U	2.1	U	2.1	U	2.1	U	2.2	U	11	
1,3,5-TNB	2.0	2.1	U	2.1	U	2.1	U	2.1	U	2.2	U	0.76	J
1,3-DNB	0.8	0.84	U	0.85	U	0.85	U	0.83	U	0.88	U	0.84	U
NB	1.6	1.7	U	1.7	U	1.7	U	1.7	U	1.8	U	1.7	U
Tetryl	8.4	8.8	U	8.9	U	8.9	U	8.7	U	9.2	U	8.8	U
Amino-DNTs	2.4	2.5	U	2.6	U	2.5	U	2.5	U	2.6	U	0.46	J
2,4,6-TNT	3.6	3.8	U	3.8	U	3.8	U	3.7	U	3.9	U	8.9	
2,6-DNT	2.0	2.1	U	2.1	U	2.1	U	2.1	U	2.2	U	2.1	U
2,4-DNT	1.6	1.7	U	1.7	U	1.7	U	1.7	U	1.8	U	1.7	U
2-NT	4.4	4.6	U	4.7	U	4.7	U	4.6	U	4.8	U	4.6	U
4-NT	14.0	15	U	15	U	15	U	14	U	15	U	15	U
3-NT	6.8	7.1	U	7.2	U	7.2	U	7	U	7.4	U	7.1	U
Surrogate	QC Limits												
1,2-DNB	65%-135	85%		85%		89%		86%		87%		86%	
Dilution Factor		1		1		1		1		1		1	
Percent Solids		99%		99%		100%		100%		98%		99%	

Notes :
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Date Received: 7/21/00
Cooler ID: 0012
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Report No : 000721
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Reported by : Chris Cao

Matrix : soil
Units : mg/Kg

Dup

Field Sample ID No.		NWB06-038SW063SE-03A		NWB06-038SW063SE-03B		PAD03-WR09A-072100		PAD03-WR09B-072100		PAD03-WR09C-072100		PAD03-WR09D-072100	
Lab Sample ID No.		NAV379		NAV380		NAV381		NAV382		NAV383		NAV384	
Sample Depth		3		3		0		0		0		0	
Date Sampled		7/21/00		7/21/00		7/21/00		7/21/00		7/21/00		7/21/00	
Time Sampled		9:40		9:44		8:47		8:50		8:53		8:56	
Date Extracted		7/21/00		7/21/00		7/21/00		7/21/00		7/21/00		7/21/00	
Time Extracted		12:48		12:48		12:48		12:48		12:48		12:48	
Date Analyzed		7/22/00		7/22/00		7/22/00		7/22/00		7/22/00		7/22/00	
Time Analyzed		1:48		2:07		2:46		3:06		3:25		3:45	
Analytes	PQL	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.
HMX	4.4	2	J	1.3	J	1.2	N	0.81	J	4.4	N	1.7	N
RDX	2.0	18		13		1	N	0.58	J	2.8	U	1.2	N
1,3,5-TNB	2.0	0.57	J	0.48	J	2.9	U	2.9	U	2.8	U	3	U
1,3-DNB	0.8	0.95	U	0.95	U	1.2	U	1.2	U	1.1	U	1.2	U
NB	1.6	1.9	U	1.9	U	2.3	U	2.3	U	2.2	U	2.4	U
Tetryl	8.4	9.9	U	10	U	12	U	12	U	12	U	12	U
Amino-DNTs	2.4	0.33	J	0.19	J	3.5	U	3.5	U	3.4	U	3.6	U
2,4,6-TNT	3.6	1.5	J	1.8	J	5.2	U	5.2	U	5.1	U	5.4	U
2,6-DNT	2.0	2.4	U	2.4	U	2.9	U	2.9	U	2.8	U	3	U
2,4-DNT	1.6	1.9	U	1.9	U	2.3	U	2.3	U	2.2	U	2.4	U
2-NT	4.4	5.2	U	5.2	U	6.4	U	6.3	U	6.2	U	6.5	U
4-NT	14.0	17	U	17	U	20	U	20	U	20	U	21	U
3-NT	6.8	8	U	8.1	U	9.8	U	9.8	U	9.5	U	10	U
Surrogate	QC Limits												
1,2-DNB	65%-135	83%		80%		79%		84%		74%		79%	
Dilution Factor		1		1		1		1		1		1	
Percent Solids		89%		90%		73%		72%		73%		72%	

Notes :
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September 1997

September 1999