MOUND -30-05-02---9802020004

ON SCENE COORDINATOR (OSC) REPORT

POTENTIAL RELEASE SITE 408
PRISM SYSTEM
LUBRICATION OIL CONTAMINATION
RELEASE BLOCK R

MOUND PLANT
MIAMISBURG, OHIO

December 1997

FINAL

(Revision 0)

Department of Energy
Ohio Field Office

Babcock & Wilcox of Ohio

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EXECUTIVE SUMMARY

PRS 408 is a soils area contaminated with Shell Rotella 10W lubricating oil. It is located in Release Block R, north of I Building at the DOE Mound Plant in Miamisburg, Ohio. It was the blowdown area for the nitrogen tanks of the "Prism" nitrogen production membrane system which supplied house nitrogen gas to R and SW Buildings. The system operated for about two years from 1989 to 1991. During operation, blowdown was discharged onto the ground to relieve pressure in the tanks. It is believed that the condensate formed during the blowdown process contained oil from the compressor and pumps in the system. An irregular shaped area about 12 ft. by 15 ft. was contaminated by the oil to a depth of 7 ft. at some locations. A cleanup level of 1156 ppm Total Petroleum Hydrocarbons was determined for this PRS. About 23 cubic yards of contaminated soil was removed from the site and staged at Building 34 for future treatment in a biological treatment unit at the Mound Plant. Verification sampling confirmed the cleanup goal was achieved. The excavation was backfilled to restore the area to the original contour.

Arthur Kleinrath, OSC
U.S. Department of Energy
Miamisburg, Ohio

Tim Fischer
U.S. EPA
Chicago, Illinois

Brian Nickel
Ohio EPA
Dayton, Ohio

1. SUMMARY OF EVENTS

1.1. SITE CONDITIONS AND BACKGROUND

PRS 408 is a soils area contaminated with Shell Rotella 10W lubricating oil. It is located in Release Block R, north of I Building at the DOE Mound Plant in Miamisburg, Ohio (Figure 1). It was the blowdown area for the nitrogen tanks of the "Prism" nitrogen production membrane system which supplied house nitrogen gas to R and SW Buildings (Figure 2). The system operated for about two years from 1989 to 1991. During operation, blowdown was discharged onto the ground to relieve pressure in the tanks. It is believed that the condensate formed during the blowdown process contained oil from the compressor and pumps in the system. The system has been removed but the concrete pad that supported the system is still in place.

No processes were performed in this area from the time the plant started operations until the late sixties when it became the location for several office trailers. The Prism System operated from 1989 to 1991. The site has been unused since with the exception of being used as a lay down area for fencing materials.

This site was identified as a Potential Release Site in June of 1996 when the engineer responsible for removing the Prism System reported a stained area of ground located around the area of the blowdown tube for the nitrogen tanks. The site was sampled and Total Petroleum Hydrocarbons were confirmed. An irregular shaped area about 12 ft. by 15 ft. was contaminated by the oil to a depth of 7 ft. at some locations.

Since the DOE is the sole responsible party for the release of petroleum hydrocarbons, no other Potentially Responsible Parties (PRP's) were sought to clean up the site. Babcock & Wilcox of Ohio Inc. is the operating contractor at the site. EG&G Mound Applied Technologies was the former operating contractor, from October 1, 1988 through September 30, 1997.

1.2. ORGANIZATION OF THE RESPONSE

Table I.1. lists the groups responding to this Action, and their responsibilities.

Figure 1 - Mound Plant

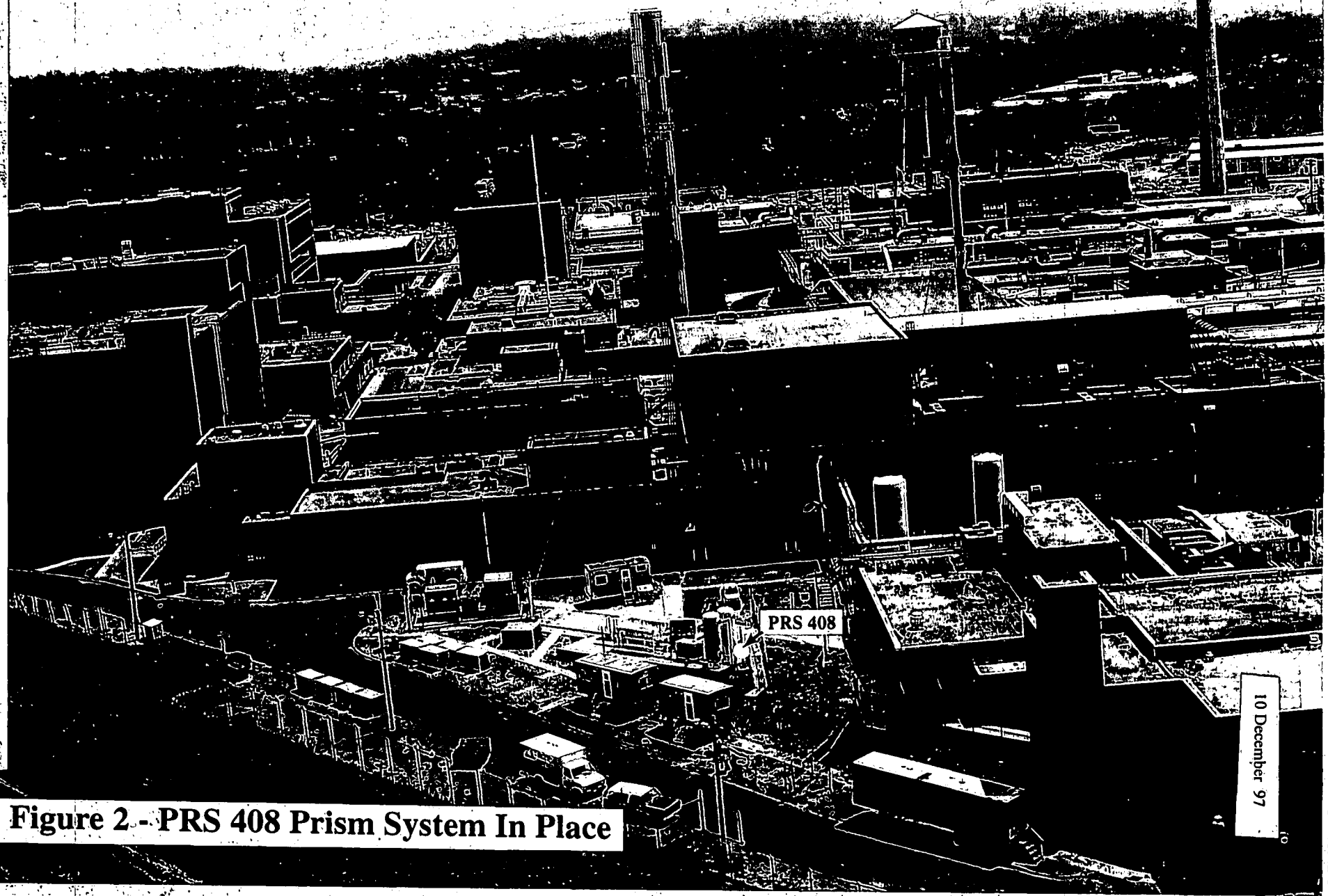


Figure 2 - PRS 408 Prism System In Place

Table I.1. Organization of the Response

Agencies or Parties Involved	Contact	Description of Participation
US EPA SFR-5J 77 W. Jackson Chicago,IL 60604	Tim Fischer 312-886-5787	Federal agency responsible for response oversight.
Ohio EPA 401 E. Fifth St. Dayton, OH 45402-2911	Brian Nickel 937-285-6468 Jeff Smith 937-285-6456	State agency responsible for response oversight.
DOE-MEMP P.O. Box 66 1 Mound Road Miamisburg, OH 45343-0066	Art Kleinrath 937-865-3597	Federal OSC responsible for response oversight and success.
Babcock & Wilcox of Ohio Inc. 1 Mound Ave. P.O. Box 3030 Miamisburg, Ohio 45343-3030	Dennis Gault 937-865-3913	Provided the OSC with technical assistance, administrative support, sampling, photo and site documentation, site safety, and report preparation.
Roy F. Weston, Inc 11840-D Kempersprings Drive Cincinnati, Ohio 45240-1640	Gordon Horn 513-825-3440	Provided sampling and analytical services for verification sampling.
Babcock & Wilcox of Ohio Inc. 1 Mound Ave. P.O. Box 3030 Miamisburg, Ohio 45343-3030	John Price 937-865-3954	Soils Project Manager responsible for the treatment and disposal of the contaminated material.

1.3. CHRONOLOGICAL NARRATIVE OF RESPONSE ACTIONS

The following is a chronological narrative of events, as they occurred for the PRS 408 Removal Action. For the convenience of the reader, a summarization of sampling data is included in Appendix B. All of the sampling data is contained in Appendix C.

12 June 1996:	The site was identified as a Potential Release Site based on visual observation of a possible historical petroleum release.
13 June 1996:	Preliminary sampling and analysis confirmed the presence of petroleum contamination in the soil around the blowdown tube of the Prism System. See Appendix B1.
8 August 1996:	Mound Environment Restoration (ER) personnel characterized the site. The results of the sampling indicated the contamination covered an area of approximately 12 ft. by 15 ft. to a depth of 1 ft. See Appendix B2.
21 August 1996:	Mound ER removed about 8 cu. yd. of contaminated soil and staged it at Mound's Bioremediation Facility for future treatment and disposal.
10 September 1996:	Remedial verification sampling was performed at the removal site and the soil at the staging area.
30 September 1996:	Verification sampling results showed that further removal of contaminated soil was needed to complete the remediation of Total Petroleum Hydrocarbons (TPH). See Appendix B3.
22 October 1996:	Mound Environmental Restoration personnel performed additional site characterization to determine the extent of a second soil removal action. See Appendix B4.
31 October 1996:	Mound ER removed another 11 cu. yd. of contaminated soil and staged it at Mound's Bioremediation Facility with the original 8 cu. yd. of soil for future

treatment and disposal. A total of about 19 cu. yd. of contaminated soil has been transported to the staging area.

20 November 1996: A second round of verification sampling was performed to confirm that the cleanup level for Total Petroleum Hydrocarbons has been reached.

2 December 1996: Verification sampling results demonstrated that a small area approximately 4 ft. x 8 ft. contained TPH levels above the clean up goal of 1156 ppm. See Appendix B5.

18 December 1996: Mound ER removed the remaining 4 cu. yd. of contaminated soil from PRS 408 and transported it to the staging area by Building 34. The total volume of contaminated soil staged at Building 34 is about 23 cu. yd.

18 December 1996: A third round of verification sampling was performed to confirm that the remediation is complete.

6 January 1997: Verification sampling results confirmed that the Total Petroleum Hydrocarbons had been removed to below the cleanup level. See Appendix B6.

30 January 1997: Mound ER backfilled the excavated area with clean top soil to restore the original contour of the site.

13 May 1997: Potential Release Site Data Package was binned No Further Action by the Core Team.

17 June 1997: Potential Release Site Data Package was released to the Public for 30 day review.

The petroleum contaminated soil has been staged adjacent to an existing Biological Treatment System at the Mound Plant. The DOE intends to treat the soil in combination with soil from other similar units. The DOE may augment the capacity of the unit by constructing additional units or by bringing mobile units on to the site. The soil will be managed to prevent dispersal prior to treatment. The existing unit and any supplemental units will be operated according to operation & maintenance (O&M) plans. The existing O&M plan provides for the control of run-on and run-off, and captures and treats water that drains from the soils during treatment.

1.4. RESOURCES COMMITTED

Table I.2. Materials and Disposition

Material	Quantity	Disposal Method	Disposal Location
Contaminated Soil	23 cubic yards	Bioremediation / Disposal	Mound Plant

Table I.3. Removal Project Cost Summary

Extramural Costs:	**Cost ($)**
Total Clean-up Contractor Costs	$1,000
Total Technical Assistance Team (TAT) Costs	$3,300 (Weston)
Total Contract Laboratory Program (CLP) Costs	$10,000 (Weston Environmental Measurements)
Total OTHER Program Costs	$2,000
EXTRAMURAL SUBTOTAL	**$14,300**
Intramural Costs:	**Cost ($)**
DOE Direct Costs	$4,500
DOE Indirect Costs	$1,200
INTRAMURAL SUBTOTAL	**$4,800**
Total Cost:	**Cost ($)**
ESTIMATED TOTAL PROJECT COST	**$20,000**

2. EFFECTIVENESS OF THE REMOVAL ACTION

This PRS was investigated and remediated within six months from the time it was identified. Sampling of the residual soil verified that the site was remediated to below the clean up goal of 1156 ppm TPH.

2.1. ACTIONS TAKEN BY MOUND PERSONNEL

Mound ER personnel and equipment were utilized to perform the site characterization (sampling and analysis), removal actions and transportation of contaminated soil to the staging area.

2.2. ACTIONS TAKEN BY LOCAL, STATE, AND FEDERAL AGENCIES

No actions were taken by Local, State and Federal agencies.

2.3. ACTIONS TAKEN BY CONTRACTORS

Roy F. Weston Corp. was used to perform verification sampling after the removal actions. The samples were then analyzed at Weston Environmental Measurements Laboratory.

3. DIFFICULTIES ENCOUNTERED

3.1 ITEMS THAT AFFECTED THE RESPONSE

The use of a field analyzer for Total Petroleum Hydrocarbons proved to be inadequate to sufficiently characterize the site. This resulted in three phases due to inconclusive field data.

The remedial action was completed at the end of December. The weather affected the efficiency of the site closure.

3.2. ISSUES OF INTERGOVERNMENTAL COORDINATION

The establishment of 1156 ppm Total Petroleum Hydrocarbons as the site clean up goal was a cooperative decision of DOE, USEPA and OEPA.

4. RECOMMENDATIONS

4.1. MEANS TO PREVENT A RECURRENCE OF THE DISCHARGE OR RELEASE

The source of the release has been removed therefore, future releases will not occur.

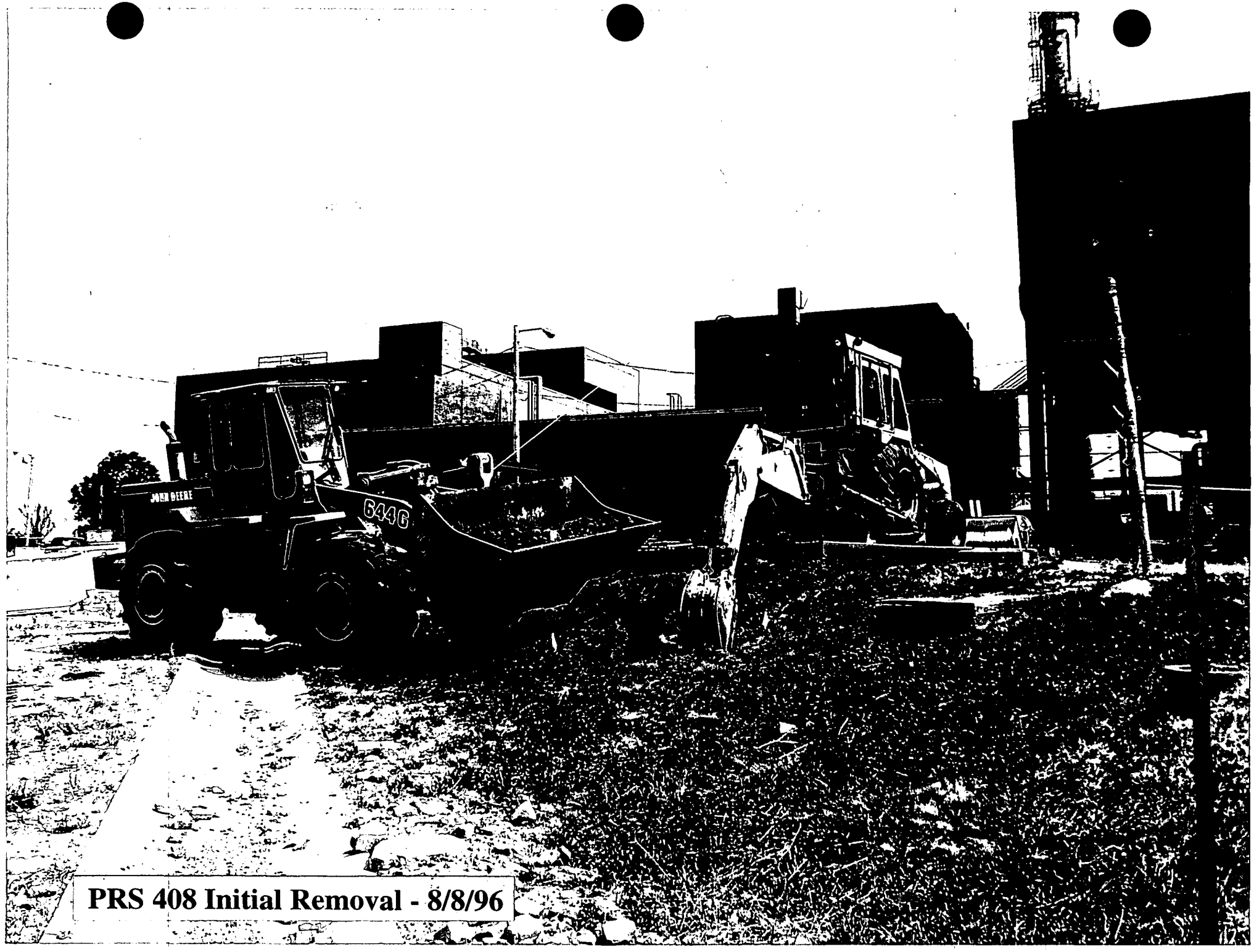
5. REFERENCE LIST OF SUPPLEMENTAL DOCUMENTS

The following reports and documents are pertinent to the removal action.

Contact Arthur Kleinrath, On-Scene Coordinator for PRS 408 Removal Action, at (937) 865-3597 to request access to these supplemental documents.

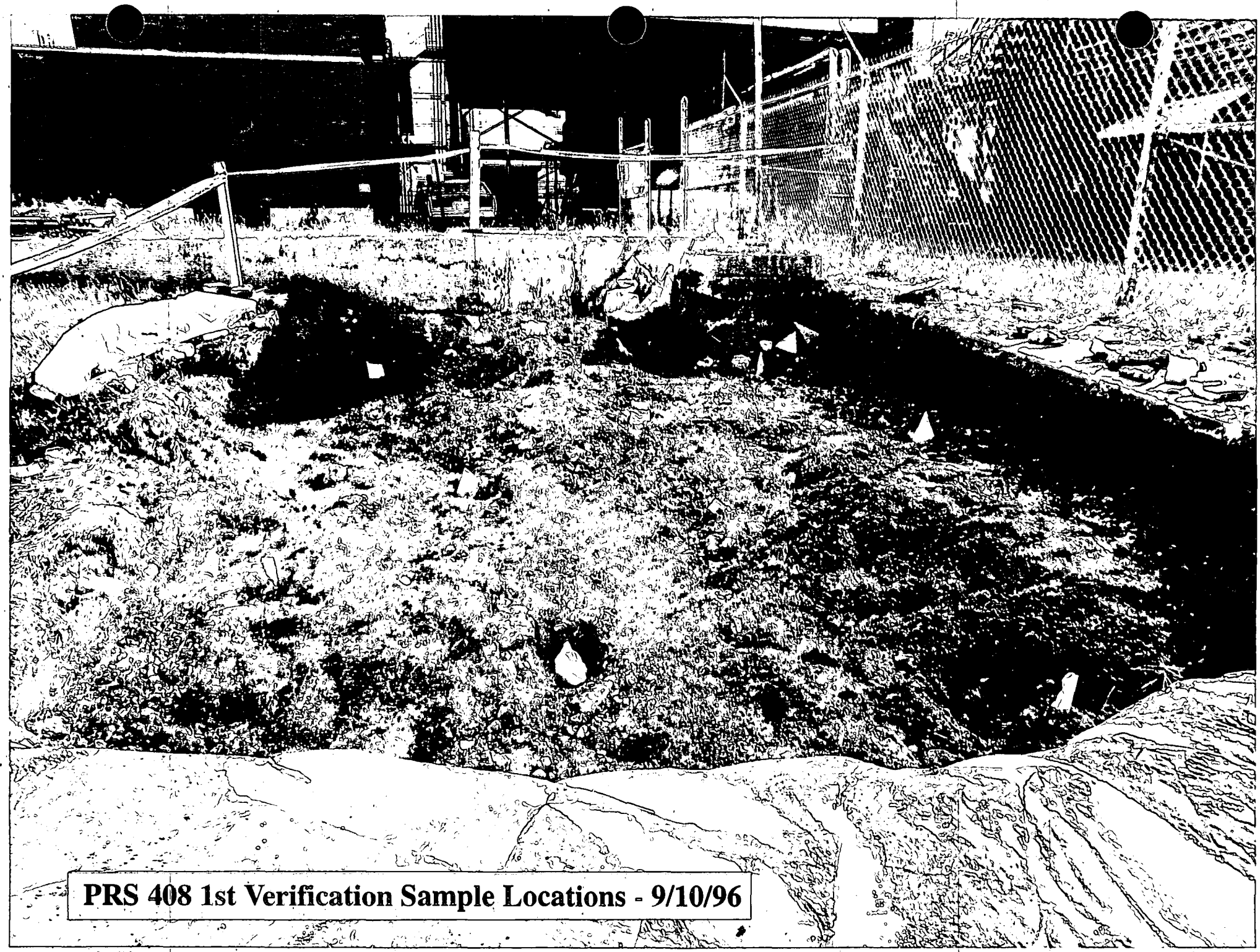
- Action Memorandum/Removal Site Evaluation
- Field Sampling Plan
- Job Safety and Health Analysis

Appendix A

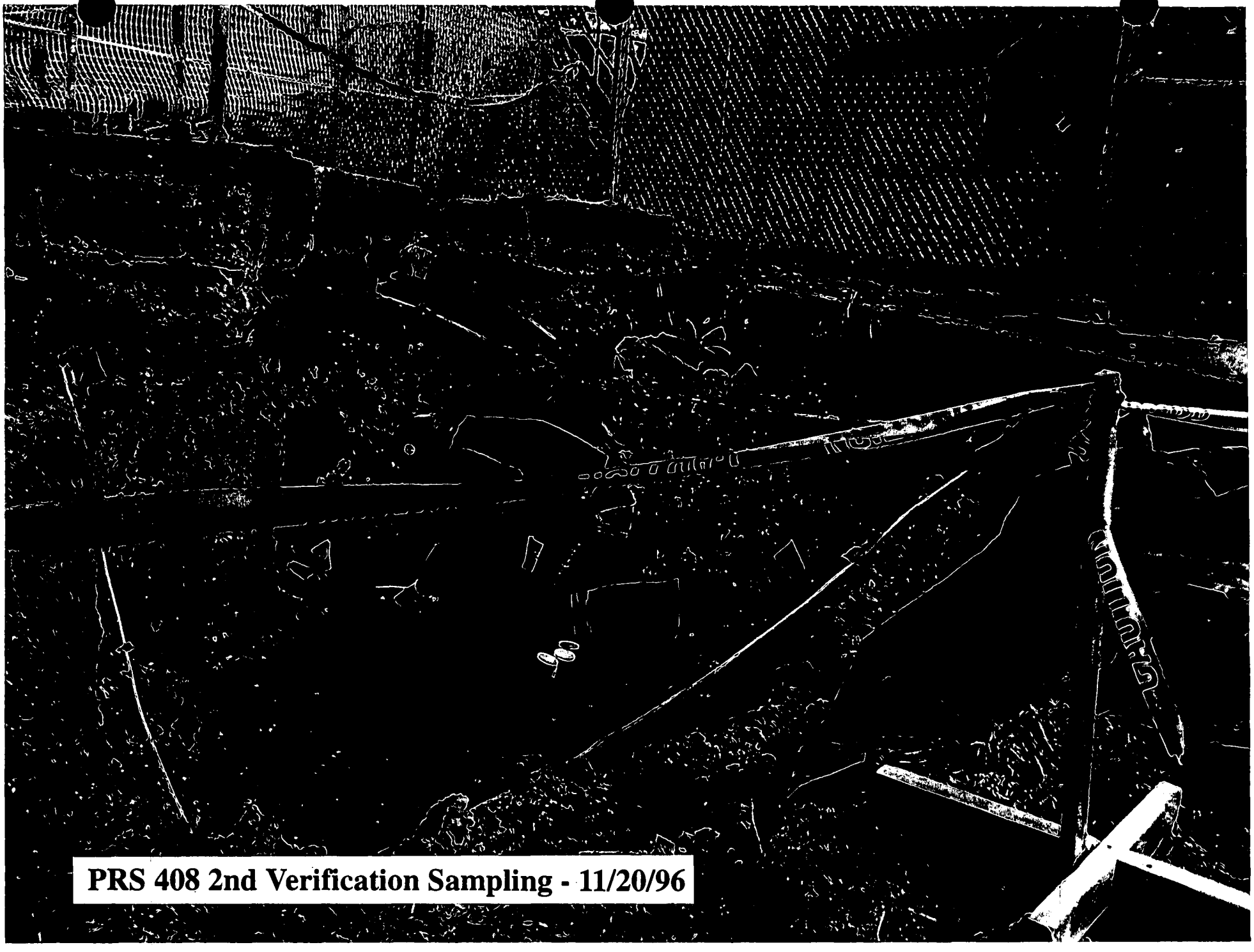


PRS 408 Initial Removal - 8/8/96

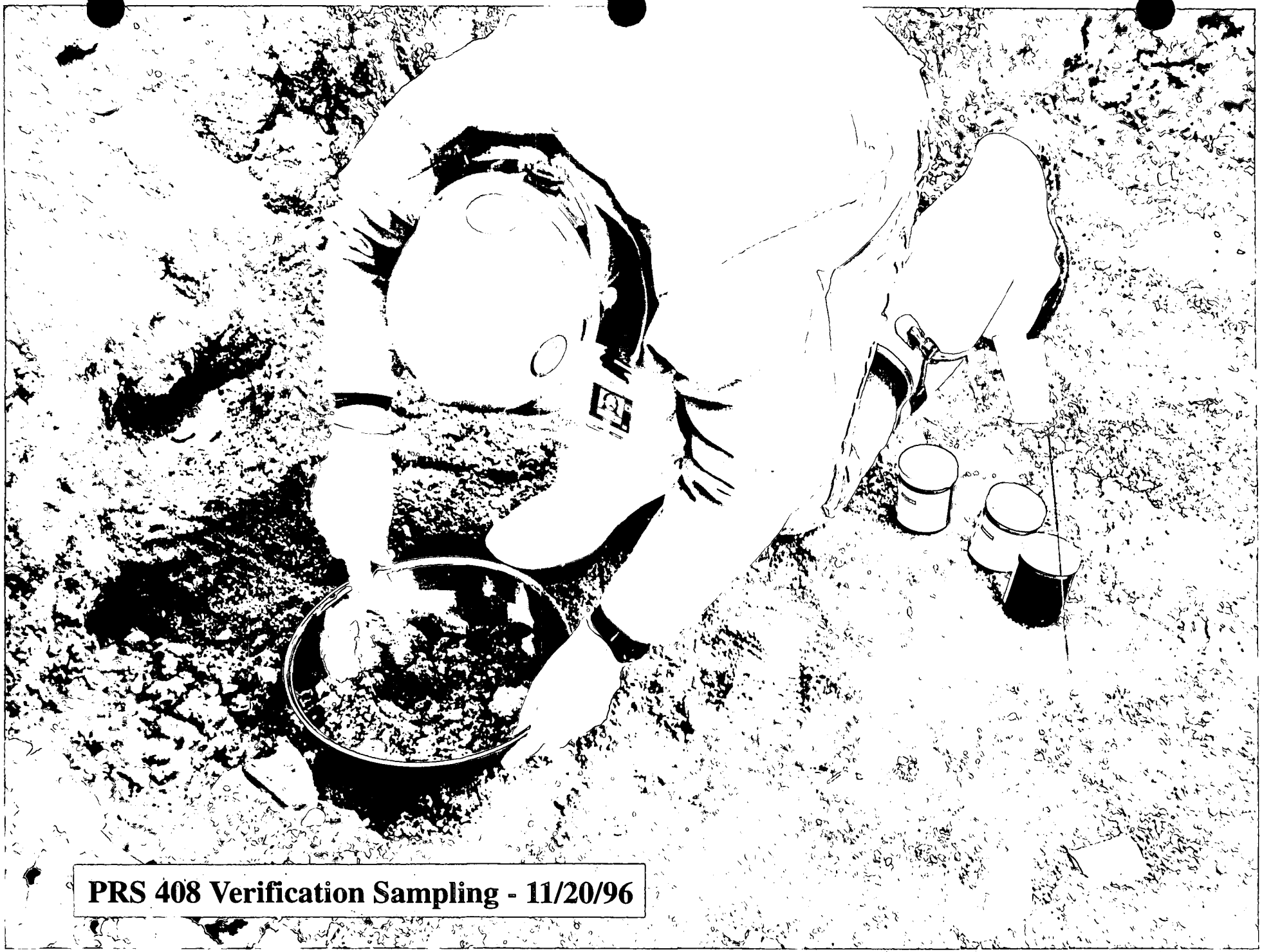
PRS 408 Initial Removal - 8/8/96



PRS 408 1st Verification Sample Locations - 9/10/96



PRS 408 2nd Verification Sampling - 11/20/96



PRS 408 Verification Sampling - 11/20/96

Appendix B

Appendix B1

PRS 408 Preliminary Sampling

June 13,1996

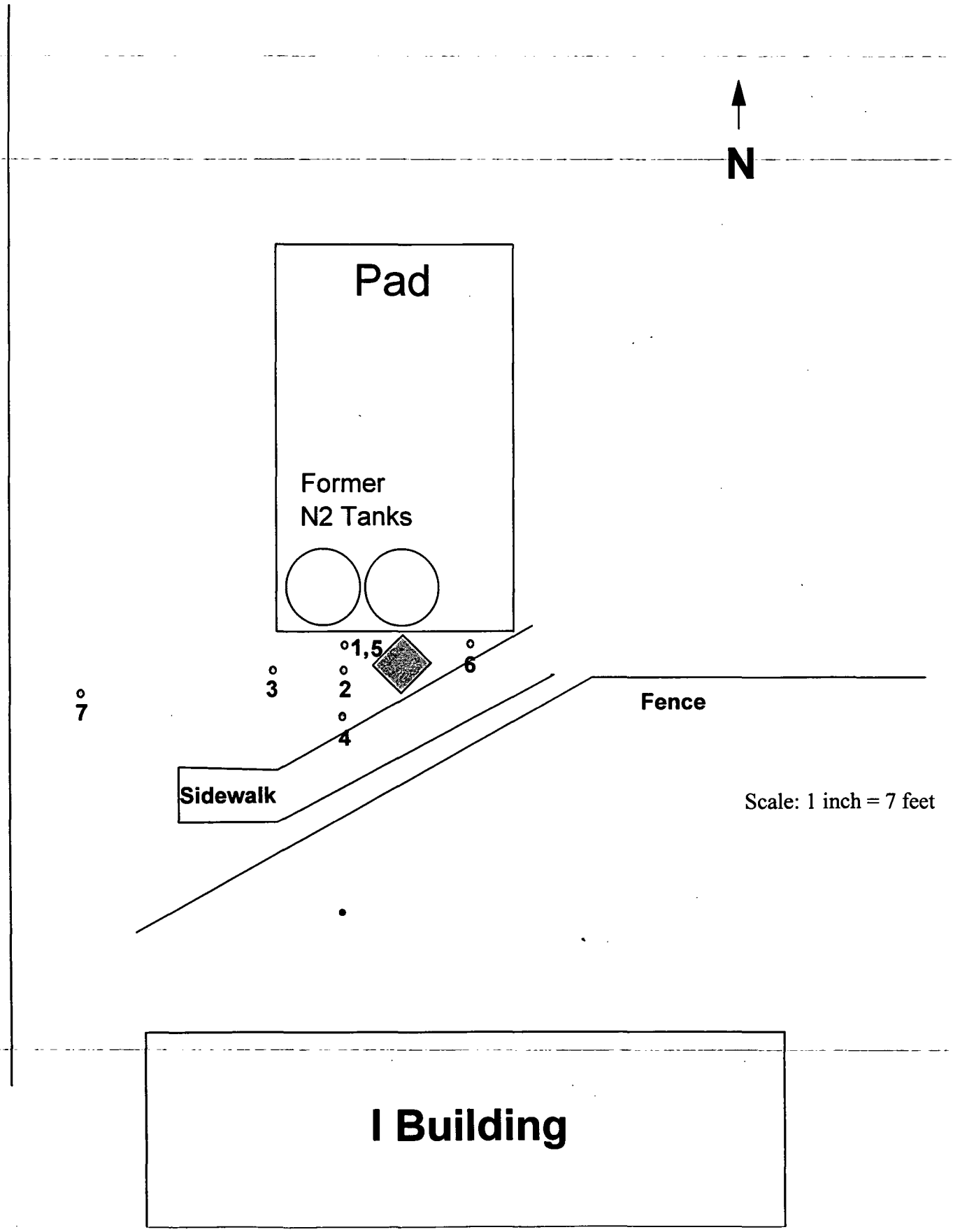
Total Petroleum Hydrocarbons

PetroFlag TPH Field Test Kit

Location	TPH (ppm)
1	13,400
2	19,720
3	>20,000
4	7,140
5	12,010
6	199
7	1,632

Note: Surface samples included a dark colored surface crust that had a petroleum odor

PRS 408
Initial Site Charactorization Sample Locations
June 13, 1996



Appendix B2

PRS 408 Site Characterization

August 8,1996

Total Petroleum Hydrocarbons

PetroFlag TPH Field Test Kit

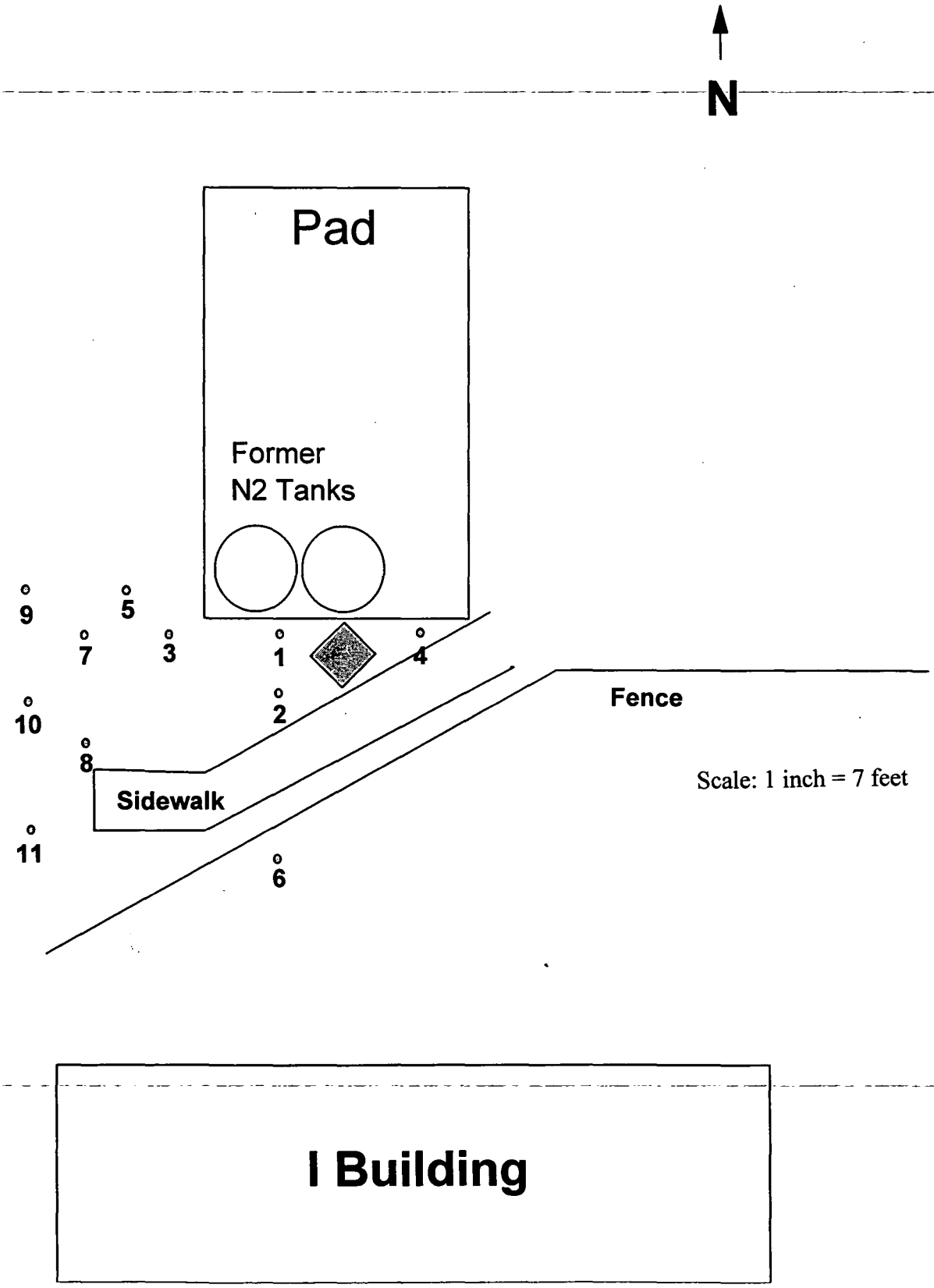
Location	Depth	TPH (ppm)
1	0-6"	936
1	6-12"	459
1	12-18"	216
2	0-6"	358
2	6-12"	68
2	12-18"	0
2	18-22"	0
2	22-28"	0
2	28-34"	0
2	34-40"	0
2	40-46"	0
2	46-52"	0
2	52-58"	0
2	58-64"	0
3	0-6"	9540
3	6-12"	467
3	12-18"	356
3	18-24"	953
3	24-30"	345
3	30-36"	481
3	36-42"	0
4	0-6"	77
4	6-12"	0
4	12-20"	0
4	20-26"	6

Location	Depth	TPH (ppm)
4	26-32"	29
4	32-38"	0
4	38-44"	0
4	44-50"	0
4	50-56"	22
4	56-62"	124
4	62-68"	7
4	68-74"	43
4	74-80"	10
4	80-85"	0
5	0-12"	70
6	0-12"	37
6	12-21"	0
7	0-12"	87
7	12-21"	0
7	21-30'	0
8	0-12"	16
8	12-24"	0
9	0-12"	23
9	12-21"	0
10	0-12"	38
10	12-17"	17
11	0-12"	51
11	12-22"	0

PRS 408

Site Charactorization Sample Locations

August 8, 1996



Appendix B3

PRS 408 Verification Sampling
(After 1st Removal Action)
September 10,1996

Total Petroleum Hydrocarbons

Weston Environmental Measurements Laboratory

Location	TPH (ppm)
1	37.2
2	**1650**
3	96.9
4	550
5	**1190**
6	386
7	**4780**
8	749
9	92.2
10	55.7
11	88.3
12	1110
13	1140
14	876
15	*
16	1340

* : No Data

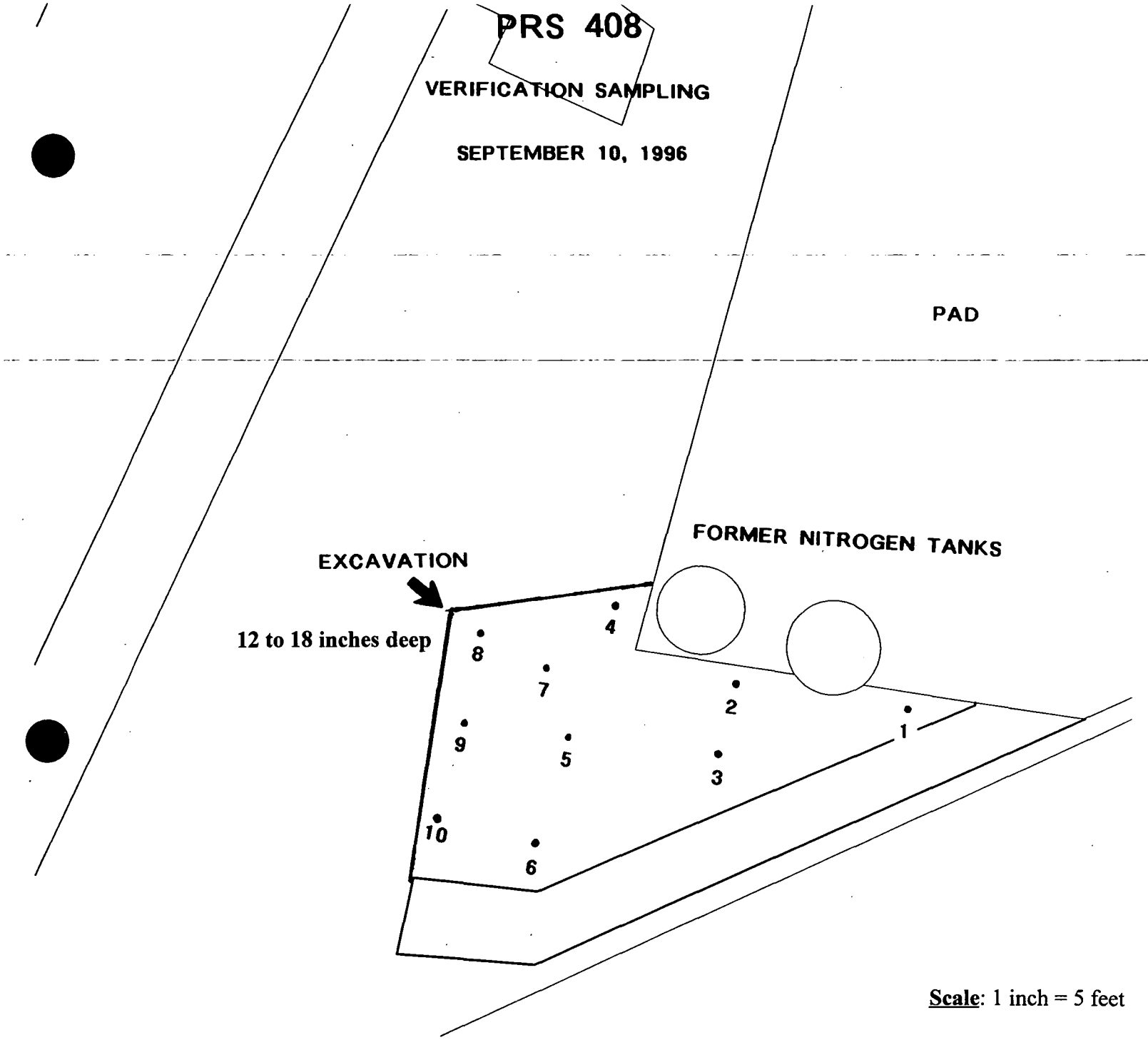
Note: Highlighted Data exceeds the cleanup level

Note: Locations 1-10 was PRS408 site after removal, 11-16 was the removed soil

PRS 408

VERIFICATION SAMPLING

SEPTEMBER 10, 1996



Scale: 1 inch = 5 feet

LEGEND

• :SAMPLE LOCATION

Appendix B4

PRS 408 Site Characterization
(After 1st Removal Action)
September 22,1996

Total Petroleum Hydrocarbons
(To Determine the Extent of Further Removal)

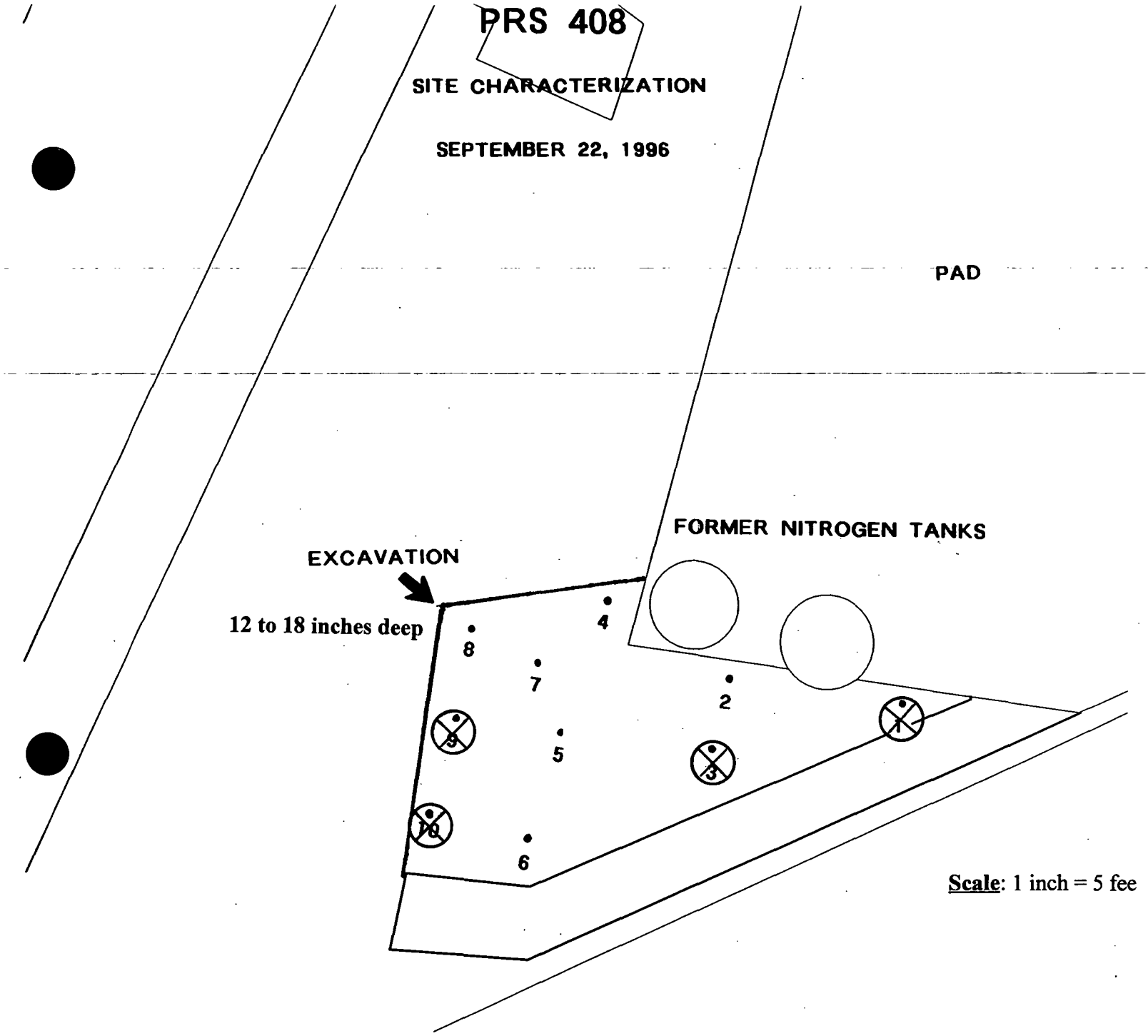
PetroFlag TPH Field Test kit

Location	Depth	TPH (ppm)
2	2"	409
2	10"	593
2	15"	1942
2	20"	233
2	29"	0
2	39"	0
4	12"	0
4	24"	33
5	4"	113
5	15"	0
5	28"	0
5	40"	0
5	50"	0
5	60"	0
6	12"	0
6	24"	0
7	6"	0
7	14'	0
7	26'	0
7	36'	7
7	48"	0
7	55"	0
8	6'	0
8	12'	0
8	26"	0
8	36'	0

PRS 408

SITE CHARACTERIZATION

SEPTEMBER 22, 1996



LEGEND

• :SAMPLE LOCATION

⊗ :SAMPLE LOCATION THAT HAS MET CLEAN UP GOAL

Appendix B5

PRS 408 Verification Sampling
(After 2nd Removal Action)

November 20,1996

Total Petroleum Hydrocarbons

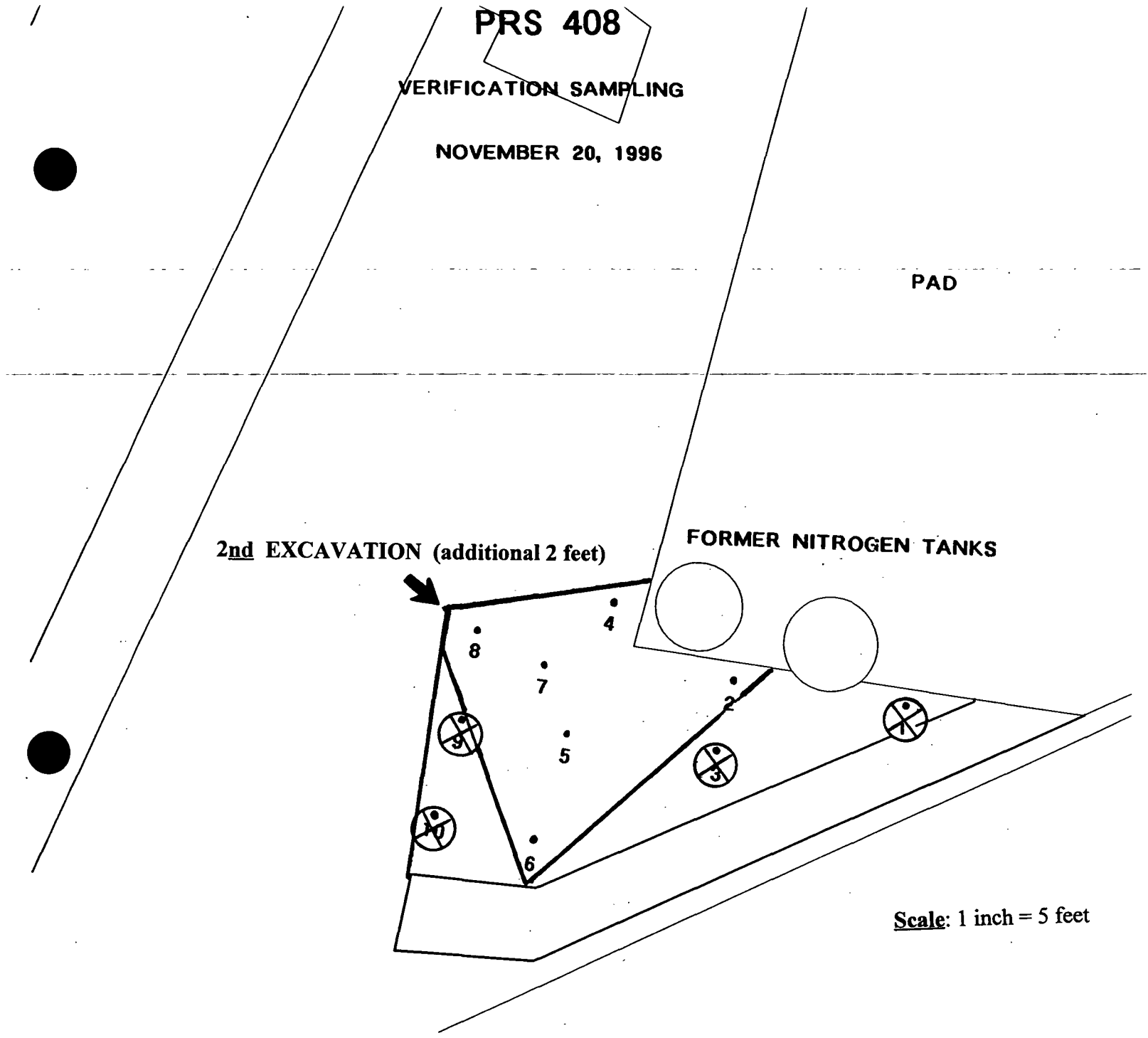
Weston Environmental Measurements Laboratory

Location	TPH (ppm)
2	**1190**
4	41.6
5	**1580**
6	187
7	38.4
8	43.2

PRS 408

VERIFICATION SAMPLING

NOVEMBER 20, 1996



LEGEND

• :SAMPLE LOCATION

⊗ :SAMPLE LOCATION THAT HAS MET CLEAN UP GOAL

Appendix B6

PRS 408 Verification Sampling
(After Final Removal Action)

December 18,1996

Total Petroleum Hydrocarbons

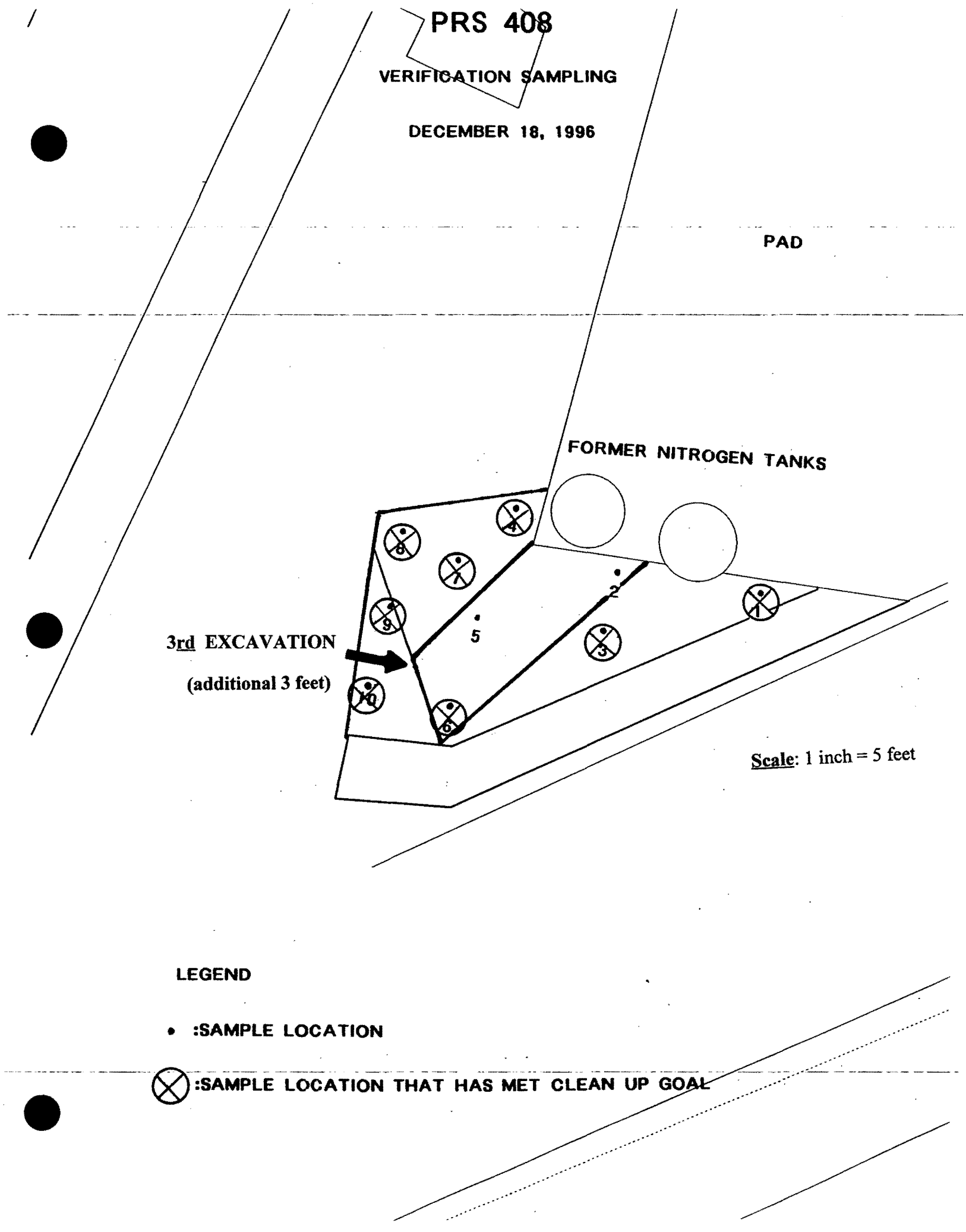
Weston Environmental Measurements Laboratory

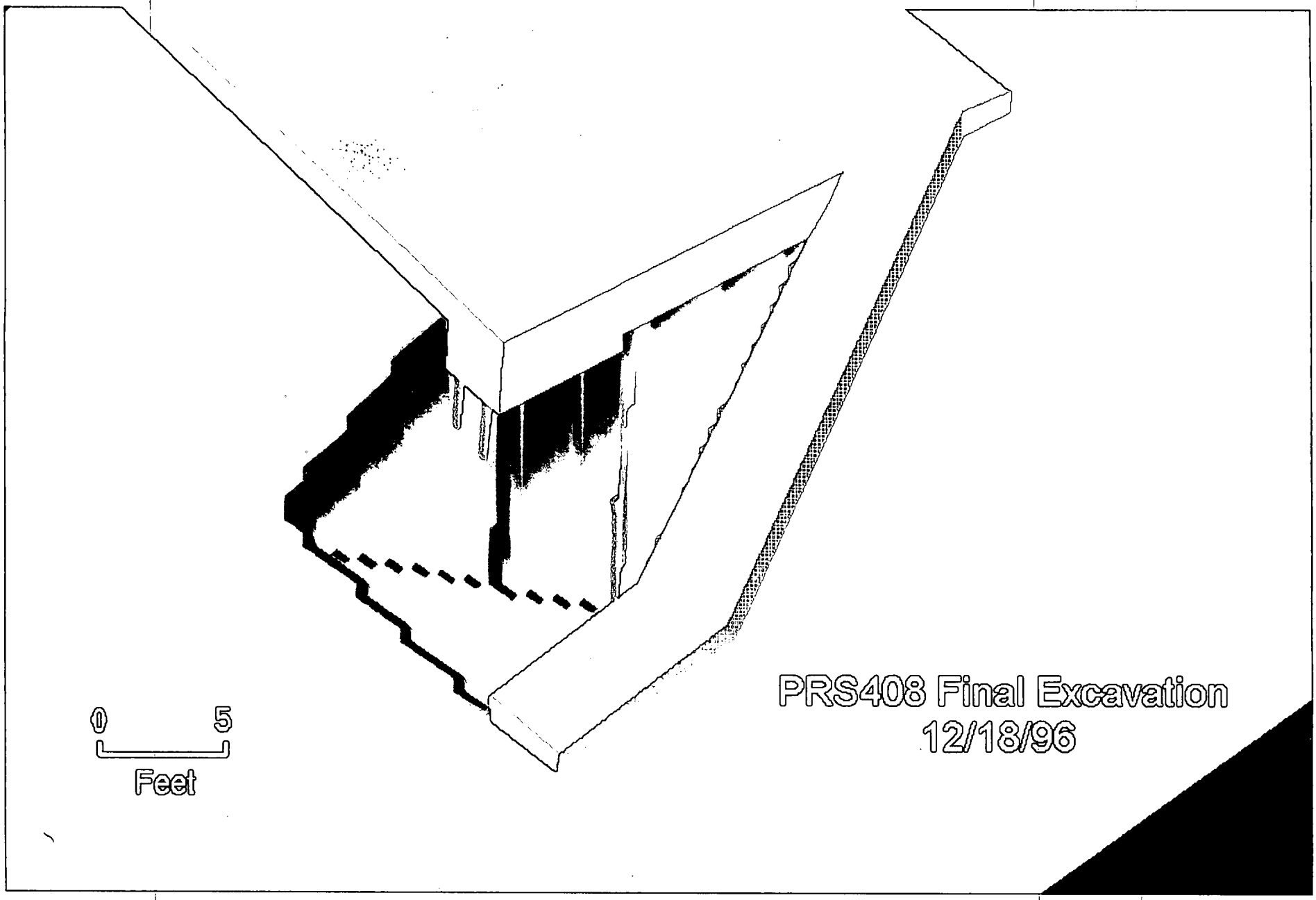
Location	TPH (ppm)
2	497
5	27.8

PRS 408

VERIFICATION SAMPLING

DECEMBER 18, 1996




PRS408 Final Excavation
12/18/96
0
5
Feet

Appendix C

PetroFLAG™

Hydrocarbon Test Kit - Field Data Sheet

Date: 6-13-96
Operator: DENNIS GAULT
Location: NITROGEN TANK PAD NORTH OF I BUILDING

Calibration Time/Date: 10:30 AM / 6-13-96
Calibration Temperature: 23.2°C

No.	Sample ID	Weight	Time/Date	Reading (ppm)	DF[1]	RF[2]	Actual (ppm)	Comments
1	#1	10gm	1105/6-13	>2000	1	7	>2000	OVER RANGE
2	#2	10gm	1105/6-13	>2000	1	7	>2000	"
3	#3	10gm	1106/6-13	>2000	1	7	>2000	"
4	#4	10gm	1106/6-13	>2000	1	7	>2000	"
5	#5	10gm	1107/6-13	>2000	1	7	>2000	"
6	BLANK	10gm	1103/6-13	0	1	7	0	
7	CAL	10gm	1104/6-13	1000	1	7	1000	
8								
9	#1	1gm	1339 1335/6-13	1427/1340	10	7	14270/13400	24.5°C
10	#2	1gm	1339 1335/6-13	72000/1972	10	7	OVER RANGE/19720	
11	#3	1gm	1340 1336/6-13	72000/72000	10	7	OVER RANGE	OVER RANGE
12	#4	1gm	1340 1336/6-13	771/714	10	7	7710/7140	
13	#5	1gm	1341 1337/6-13	1295/1201	10	7	12950/12010	
14	#6	10gm	1341 1338/6-13	266/199	1	7	266/199	
15	#7	10gm	1342 1338/6-13	1750/1632	1	7	1750/1632	
16								
17								
18								
19								
20								

[1]DF = Dilution Factor, e.g., for 5 gram soil sample DF=10g/5g=2, and actual concentration equals reading times DF (reading (ppm) x DF = actual concentration).

[2]RF = Response Factor, selected for the hydrocarbon contamination at the site.

PetroFLAG™

Hydrocarbon Test Kit - Field Data Sheet

Date: 8-8-96
Operator: D. GAULT
Location: PRIZEM SYSTEM

Calibration Time/Date: 1415 / 8-8-96
Calibration Temperature: 23.1°C

No.	Sample ID	Weight	Time/Date	Reading (ppm)	DF[1]	RF[2]	Actual (ppm)	Comments
1	BLANK	10gm	1415/8-8	Ø	1	8		
2	CAL.	"	1415/8-8	1000	"	"		
3	#1 0-6"	"	1450/8-8	936	"	"	936	
4	#1 6-12"	"	1450/8-8	459	"	"	459	
5	#1 12-18"	"	1451/8-8	216	"	"	216	
6	#2 0-6"	"	1451/8-8	358	"	"	358	
7	#2 6-12"	"	1451/8-8	68	"	"	68	
8	#2 12-18"	"	1452/8-8	Ø	"	"	Ø	
9	#2 18-22"	"	1452/8-8	Ø	"	"	Ø	
10	#2 22-28"	"	1453/8-8	6	"	"	6	
11	#2 28-34"	"	1453/8-8	Ø	"	"	Ø	
12	#2 34-40"	"	1454/8-8	Ø	"	"	Ø	
13	#2 40-46"	"	1454/8-8	Ø	"	"	Ø	
14	#2 46-52"	"	1455/8-8	Ø	"	"	Ø	
15	#2 52-58"	"	1455/8-8	Ø	"	"	Ø	
16	#2 58-64"	"	1456/8-8	Ø	"	"	Ø	
17								
18	RE-READ							
19	BLANK	"	1456/88	Ø				
20	CAL.	"	1457/8-8	968				

[1]DF = Dilution Factor, e.g., for 5 gram soil sample DF=10g/5g=2, and actual concentration equals reading times DF (reading (ppm) x DF = actual concentration).

[2]RF = Response Factor, selected for the hydrocarbon contamination at the site.

#1

PetroFLAG™

Hydrocarbon Test Kit - Field Data Sheet

Date: 8-12-96
Operator: D. Gault / M. Spivey
Location: Prism System

Calibration Time/Date: 0845 / 8-12
Calibration Temperature: 23.8°C

No.	Sample ID	Weight	Time/Date	Reading (ppm)	DF[1]	RF[2]	Actual (ppm)	Comments
1	BLANK	10 grams	0845/8-12	0	1	8	0	
2	CAL.	"	0845/8-12	1000	"	"	1000	
3	#3 0-6"	"	0845/8-12	>2000			>2000	OVER RANGE
4	#3 6-12"	"	0846/8-12	467	"	"	467	
5	#3 12-18"	"	0846/8-12	356	"	"	356	
6	#3 18-24"	"	0847/8-12	953	"	"	953	
7	#3 24-30"	"	0847/8-12	345	"	"	345	
8	#3 30-36"	"	0849/8-12	481	"	"	481	
9	#3 36-42"	"	0849/8-12	Ø	"	"	Ø	
10	#4 0-6"	"	0850/8-12	77	"	"	77	
11	#4 6-12"	"	0850/8-12	Ø	"	"	Ø	
12	#4 12-20"	"	0851/8-12	Ø	"	"	Ø	
13	#4 20-26"	"	0851/8-12	6	"	"	6	
14	#4 26-32"	"	0852/8-12	29	"	"	29	
15	#4 32-38"	"	0852/8-12	Ø	"	"	Ø	
16	#4 38-44"	"	0853/8-12	Ø	"	"	Ø	
17	#4 44-50"	"	0853/8-12	Ø	"	"	Ø	
18	#4 50-56"	"	0854/8-12	22	"	"	22	
19	#4 56-62"	"	0854/8-12	124	"	"	124	
20	#4 62-68"	"	0855/8-12	7	"	"	7	

[1]DF = Dilution Factor, e.g., for 5 gram soil sample DF=10g/5g=2, and actual concentration equals reading times DF (reading (ppm) x DF = actual concentration).

[2]RF = Response Factor, selected for the hydrocarbon contamination at the site.

#2

PetroFLAG™

Hydrocarbon Test Kit - Field Data Sheet

Date: 8-12-96
Operator: D. Gaunt / M. Spivey
Location: Pre-Fix System

Calibration Time/Date: _____
Calibration Temperature: _____

	No.	Sample ID	Weight	Time/Date	Reading (ppm)	DF[1]	RF[2]	Actual (ppm)	Comments
2	1	#4 68-74"	10gm	0855/8-12	43	1	8	43	
2	2	#4 74-80"	"	0856/8-12	10	"	"	10	
2	3	#4 80-85"	"	856/8-12	Ø	"	"	Ø	
	4								
	5								
	6	BLANK	"	0857/8-12	Ø	1	8	Ø	RE CHECK
	7	CAL	"	0857/8-12	1035	"	"	1135	"
	8								
	9								
	10								
	11	BLANK	1gm	0920/8-12	Ø	10	8	Ø	
	12	CAL	1gm	0920/8-12	1000	10	8	1000	
	13								
	14	#3 0-6"	1gm	0920/8-12	954	10	8	9540	
	15								
	16	BLANK	1	0923/8-12	Ø		8	Ø	
	17	CAL.	1	0922/8-12	1068		8	1168	
	18								
	19								
	20								

[1]DF = Dilution Factor, e.g., for 5 gram soil sample DF=10g/5g=2, and actual concentration equals reading times DF (reading (ppm) x DF = actual concentration).

[2]RF = Response Factor, selected for the hydrocarbon contamination at the site.

PetroFLAG™

Hydrocarbon Test Kit - Field Data Sheet

Date: 8-13-96
Operator: D. GAULT
Location: BLDG 23 / PRIZM SYSTEM

Calibration Time/Date: 1515 / 8-13-96
Calibration Temperature: 22.9°C

No.	Sample ID	Weight	Time/Date	Reading (ppm)	DF[1]	RF[2]	Actual (ppm)	Comments
1	BLANK	10g	1515	Ø	1	8	Ø	
2	CAL.	"	1515	1000	"	"	1000	
3	BLDG 23 M. SCHIDT	"	1516	757	"	"	757	?
4	PRIZM #5 0-12"	"	1520	70	"	"	70	
5	#6 0-12"	"	1520	37	"	"	37	
6	#6 12-24"	"	1522	Ø	"	"	Ø	
7	#7 0-12"	"	1522	87	"	"	87	
8	#7 12-21"	"	1522	Ø	"	"	Ø	
9	#7 21-30"	"	1523	Ø	"	"	Ø	
10	#8 0-12"	"	1544	16	"	"	16	
11	#8 12-24"	"	1545	Ø	"	"	Ø	
12	#9 0-12"	"	1545	23	"	"	23	
13	#9 12-21"	"	1546	Ø	"	"	Ø	
14	#10 1-12"	"	1546	38	"	"	38	
15	#10 12-17"	"	1547	17	"	"	17	
16	#11 0-12"	"	1547	51	"	"	51	
17	#11 12-22"	"	1548	Ø	"	"	Ø	
18	BLANK	"	1525	Ø	"	"	Ø	
19	CAL	"	1525	1168	"	"	1168	
20	BLDG. 23	1g	1548	>2000	10	"	>20,000	

[1]DF = Dilution Factor, e.g., for 5 gram soil sample DF=10g/5g=2, and actual concentration equals reading times DF (reading (ppm) x DF = actual concentration).

[2]RF = Response Factor, selected for the hydrocarbon contamination at the site.

WESTON
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FACSIMILE TRANSMITTAL
208 Laboratory - 2nd Floor
FAX 610-701-6141

TO: Dennis Gault / EG+G Mound — **Recipient's Telecopy** 513-865-3835
Telephone # 803-785-6678
Gordon Horn / RFW CIN — **Recipient's Telephone #**
Speed 017

FROM: Judy Stone — **Originator's Telephone #**

TOTAL PAGES: 36 (incl. cover sheet)

DATE: 9/19/96 **W.O.#:**

COMMENTS:

Mound data - TCLP benzene, GC VOA BTEX, TPH-GRO, metals

Providing quality environmental management and consulting engineering services for over 40 years in the areas of:

- Analytical Testing/Characterization
- Air Quality
- Water Quality/Wastewater
- Hazardous, Solid, Radioactive Waste
- Health and Safety
- Life Sciences
- Strategic Environmental Management
- Information Management
- Construction/Remediation
- Geosciences

55 Offices Worldwide

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SOIL ANALYSIS REPORT

SAMPLE ID: HPG00950
FILE ID: GSD00077.s0
PRIORITY:

Isotope		Activity (pCi/g)	Resp. Limit (pCi/g)
Co-60	<	0.01	1,390,000
Cs-137		0.04	6,500,000
Pb-210		0.80	1,300,000
Ra-226		1.85	26,300
Ac-227 (D)	<	0.06	31
Th-228	<	3.33	671
Th-229	<	0.11	104
Th-230	<	1.41	650
Th-232 (D)		0.71	130
Pa-231	<	0.28	160
U-235	<	0.09	1,730
U-238 (D)	<	1.50	1,730
Pu-238	<	13.93	452
Am-241	<	0.01	40

Other Nuclides:

Isotope	Activity (pCi/g)	Resp. Limit (pCi/g)	

Σ DOT 0.02 nCi/g Σ Respirator 0.05

Description:
PRS408 #1

Collector: [redacted], 5296

Date Collected: 9/10/96

Product Cycle Time: 9 Days

Comments:

Σ Respirator <1 indicates soil levels below limits. Values > or = 1 indicate the soil levels exceed alarm limits for that operation. Respirator limits provided by Health Physics on May 15, 1995.

Σ DOT 2 nCi/g limit, total activity.

(D) denotes identification by daughter emissions. Sample is assumed to be in secular equilibrium.

< by activity means it is less than the MDA. MDA value used in calculation of respirator and DOT limits.

Date: 9/19/96 Counted By: 5994 Report By: 5994 INITIALS [redacted]

SOIL ANALYSIS REPORT

SAMPLE ID: HPG00949
FILE ID: GSD00076.S0
PRIORITY:

Isotope		Activity (pCi/g)	Resp. Limit (pCi/g)
Co-60	<	0.01	1,390,000
Cs-137		0.10	6,500,000
Pb-210		0.80	1,300,000
Ra-226		1.60	26,300
Ac-227 (D)	<	0.05	31
Th-228	<	2.80	671
Th-229	<	0.10	104
Th-230		2.10	650
Th-232 (D)		0.50	130
Pa-231	<	0.20	160
U-235	<	0.08	1,730
U-238 (D)	<	1.20	1,730
Pu-238	<	11.50	452
Am-241	<	0.01	40

Other Nuclides:

Isotope	Activity (pCi/g)	Resp. Limit (pCi/g)	

Σ DOT 0.02 nCi/g Σ Respirator 0.04

Description:
PRS408 #2

Collector: [redacted], 5296

Date Collected: 9/10/96

Product Cycle Time: 8 Days

Comments:

Σ Respirator <1 indicates soil levels below limits. Values > or = 1 indicate the soil levels exceed alarm limits for that operation. Respirator limits provided by Health Physics on May 15, 1995.

Σ DOT 2 nCi/g limit, total activity.

(D) denotes identification by daughter emissions. Sample is assumed to be in secular equilibrium.

< by activity means it is less than the MDA. MDA value used in calculation of respirator and DOT limits.

Date: 9/18/96 Counted By: 5994 Report By: 5882 INITIALS [redacted]

SOIL ANALYSIS REPORT

SAMPLE ID: HPG00954
FILE ID: GSC00056.S0
PRIORITY:

Isotope		Activity (pCi/g)	Resp. Limit (pCi/g)
Co-60	<	0.01	1,390,000
Cs-137		0.05	6,500,000
Pb-210		0.60	1,300,000
Ra-226		1.40	26,300
Ac-227 (D)	<	0.07	31
Th-228	<	3.50	671
Th-229	<	0.11	104
Th-230	<	1.60	650
Th-232 (D)		0.60	130
Pa-231	<	0.30	160
U-235	<	0.10	1,730
U-238 (D)	<	1.20	1,730
Pu-238	<	16.60	452
Am-241	<	0.02	40

Other Nuclides:

Isotope	Activity (pCi/g)	Resp. Limit (pCi/g)	

Σ DOT 0.03 nCi/g Σ Respirator 0.06

Description:
PRS 408 #3

Collector: [redacted], 5296

Date Collected: 9/10/96

Product Cycle Time: 16 Days

Comments:

Σ Respirator <1 indicates soil levels below limits. Values > or = 1 indicate the soil levels exceed alarm limits for that operation. Respirator limits provided by Health Physics on May 15, 1995.

Σ DOT 2 nCi/g limit, total activity.

(D) denotes identification by daughter emissions. Sample is assumed to be in secular equilibrium.

< by activity means it is less than the MDA. MDA value used in calculation of respirator and DOT limits.

Date: 9/26/96 Counted By: 4535 Report By: 5882 INITIALS [redacted]

SOIL ANALYSIS REPORT

SAMPLE ID: HPG00951
FILE ID: GSC00051.s0
PRIORITY:

Isotope		Activity (pCi/g)	Resp. Limit (pCi/g)
Co-60	<	0.01	1,390,000
Cs-137		0.11	6,500,000
Pb-210		0.68	1,300,000
Ra-226		1.66	26,300
Ac-227 (D)		0.11	31
Th-228	<	3.27	671
Th-229	<	0.10	104
Th-230	<	1.47	650
Th-232 (D)		0.57	130
Pa-231	<	0.29	160
U-235	<	0.09	1,730
U-238 (D)	<	1.22	1,730
Pu-238	<	14.76	452
Am-241	<	0.02	40

Other Nuclides:

Isotope	Activity (pCi/g)	Resp. Limit (pCi/g)	

Σ DOT 0.02 nCi/g Σ Respirator 0.05

Description:
PRS408 #4

Collector [redacted] 5296

Date Collected: 9/10/96

Product Cycle Time: 9 Days

Comments:

Σ Respirator <1 indicates soil levels below limits. Values > or = 1 indicate the soil levels exceed alarm limits for that operation. Respirator limits provided by Health Physics on May 15, 1995.

Σ DOT 2 nCi/g limit, total activity.

(D) denotes identification by daughter emissions. Sample is assumed to be in secular equilibrium.

< by activity means it is less than the MDA. MDA value used in calculation of respirator and DOT limits.

Date: 9/19/96 Counted By: 5994 Report By: 5994 INITIALS [redacted]

SOIL ANALYSIS REPORT

SAMPLE ID: HPG00952
FILE ID: GSC00050.s0
PRIORITY:

Isotope		Activity (pCi/g)	Resp. Limit (pCi/g)
Co-60	<	0.01	1,390,000
Cs-137	<	0.01	6,500,000
Pb-210		0.60	1,300,000
Ra-226		1.40	26,300
Ac-227 (D)	<	0.08	31
Th-228	<	3.70	671
Th-229	<	0.10	104
Th-230	<	1.70	650
Th-232 (D)		0.70	130
Pa-231	<	0.30	160
U-235	<	0.10	1,730
U-238 (D)	<	1.40	1,730
Pu-238	<	17.60	452
Am-241	<	0.02	40

Other Nuclides:

Isotope	Activity (pCi/g)	Resp. Limit (pCi/g)	

Σ DOT 0.03 nCi/g Σ Respirator 0.06

Description:
PRS408 #6

Collector: [redacted] 5296

Date Collected: 9/10/96

Product Cycle Time: 8 Days

Comments:

Σ Respirator <1 indicates soil levels below limits. Values > or = 1 indicate the soil levels exceed alarm limits for that operation. Respirator limits provided by Health Physics on May 15, 1995.

Σ DOT 2 nCi/g limit, total activity.

(D) denotes identification by daughter emissions. Sample is assumed to be in secular equilibrium.

< by activity means it is less than the MDA. MDA value used in calculation of respirator and DOT limits.

Date: 9/18/96 Counted By: 5994 Report By: 5882 INITIALS [redacted]

SOIL ANALYSIS REPORT

SAMPLE ID: HPG00953
FILE ID: GSC00053.S0
PRIORITY:

Isotope		Activity (pCi/g)	Resp. Limit (pCi/g)
Co-60	<	0.01	1,390,000
Cs-137		0.06	6,500,000
Pb-210		0.70	1,300,000
Ra-226		1.70	26,300
Ac-227 (D)	<	0.07	31
Th-228	<	3.50	671
Th-229	<	0.11	104
Th-230	<	1.60	650
Th-232 (D)		0.60	130
Pa-231	<	0.30	160
U-235	<	0.10	1,730
U-238 (D)	<	1.20	1,730
Pu-238	<	16.50	452
Am-241	<	0.02	40

Other Nuclides:

Isotope	Activity (pCi/g)	Resp. Limit (pCi/g)	

Σ DOT 0.03 nCi/g Σ Respirator 0.05

Description:
PRS 408 #8

Collector: [redacted] 5296

Date Collected: 9/10/96

Product Cycle Time: 15 Days

Comments:

Σ Respirator <1 indicates soil levels below limits. Values > or = 1 indicate the soil levels exceed alarm limits for that operation. Respirator limits provided by Health Physics on May 15, 1995.

Σ DOT 2 nCi/g limit, total activity.

(D) denotes identification by daughter emissions. Sample is assumed to be in secular equilibrium.

< by activity means it is less than the MDA. MDA value used in calculation of respirator and DOT limits.

Date: 9/25/96 Counted By: 4535 Report By: 5882 INITIALS [redacted]

SOIL ANALYSIS REPORT

SAMPLE ID: HPG00955
FILE ID: SSB00081.S0
PRIORITY:

Isotope		Activity (pCi/g)	Resp. Limit (pCi/g)
Co-60	<	0.01	1,390,000
Cs-137		0.09	6,500,000
Pb-210		0.70	1,300,000
Ra-226		1.80	26,300
Ac-227 (D)	<	0.06	31
Th-228	<	2.97	671
Th-229	<	0.10	104
Th-230	<	1.33	650
Th-232 (D)		0.60	130
Pa-231	<	0.30	160
U-235	<	0.09	1,730
U-238 (D)	<	1.20	1,730
Pu-238	<	12.10	452
Am-241	<	0.01	40

Other Nuclides:

Isotope	Activity (pCi/g)	Resp. Limit (pCi/g)	

Σ DOT 0.02 nCi/g Σ Respirator 0.04

Description:
PRS 408 #10

Collector: [redacted] 5296

Date Collected: 9/10/96

Product Cycle Time: 16 Days

Comments:

Σ Respirator <1 indicates soil levels below limits. Values > or = 1 indicate the soil levels exceed alarm limits for that operation. Respirator limits provided by Health Physics on May 15, 1995.

Σ DOT 2 nCi/g limit, total activity.

(D) denotes identification by daughter emissions. Sample is assumed to be in secular equilibrium.

< by activity means it is less than the MDA. MDA value used in calculation of respirator and DOT limits.

Date: 9/26/96 Counted By: 4535 Report By: 5882 INITIALS [redacted]

SOIL ANALYSIS REPORT

SAMPLE ID: HPG00958
FILE ID: GSB00080.S0
PRIORITY:

Isotope		Activity (pCi/g)	Resp. Limit (pCi/g)
Co-60	<	0.01	1,390,000
Cs-137		0.10	6,500,000
Pb-210		0.70	1,300,000
Ra-226		1.50	26,300
Ac-227 (D)	<	0.06	31
Th-228	<	3.50	671
Th-229	<	0.10	104
Th-230	<	1.30	650
Th-232 (D)		0.60	130
Pa-231	<	0.30	160
U-235	<	0.08	1,730
U-238 (D)	<	1.00	1,730
Pu-238	<	12.90	452
Am-241	<	0.01	40

Other Nuclides:

Isotope	Activity (pCi/g)	Resp. Limit (pCi/g)	

Σ DOT 0.02 nCi/g Σ Respirator 0.05

Description:
PRS408 #11

Collector: [redacted] 5296

Date Collected: 9/16/96

Product Cycle Time: 9 Days

Comments:

Σ Respirator <1 indicates soil levels below limits. Values > or = 1 indicate the soil levels exceed alarm limits for that operation. Respirator limits provided by Health Physics on May 15, 1995.

Σ DOT 2 nCi/g limit, total activity.

(D) denotes identification by daughter emissions. Sample is assumed to be in secular equilibrium.

< by activity means it is less than the MDA. MDA value used in calculation of respirator and DOT limits.

Date: 9/25/96 Counted By: 5994 Report By: 5882 INITIALS [redacted]

SOIL ANALYSIS REPORT

SAMPLE ID: HPG00956
FILE ID: GSD00080.S0
PRIORITY:

Isotope		Activity (pCi/g)	Resp. Limit (pCi/g)
Co-60	<	0.01	1,390,000
Cs-137		0.08	6,500,000
Pb-210		0.80	1,300,000
Ra-226		1.80	26,300
Ac-227 (D)	<	0.07	31
Th-228	<	3.00	671
Th-229	<	0.10	104
Th-230	<	1.30	650
Th-232 (D)		0.70	130
Pa-231	<	0.26	160
U-235	<	0.08	1,730
U-238 (D)	<	1.50	1,730
Pu-238	<	11.90	452
Am-241	<	0.01	40

Other Nuclides:

Isotope	Activity (pCi/g)	Resp. Limit (pCi/g)	

Σ DOT 0.02 nCi/g Σ Respirator 0.04

Description:
PRS408 #12

Collector: [redacted] 5296

Date Collected: 9/16/96

Product Cycle Time: 9 Days

Comments:

Σ Respirator <1 indicates soil levels below limits. Values > or = 1 indicate the soil levels exceed alarm limits for that operation. Respirator limits provided by Health Physics on May 15, 1995.

Σ DOT 2 nCi/g limit, total activity.

(D) denotes identification by daughter emissions. Sample is assumed to be in secular equilibrium.

< by activity means it is less than the MDA. MDA value used in calculation of respirator and DOT limits.

Date: 9/25/96 Counted By: 5994 Report By: 5882 INITIALS [redacted]

SOIL ANALYSIS REPORT

SAMPLE ID: HPG00961
FILE ID: GSD00081.S0
PRIORITY:

Isotope		Activity (pCi/g)	Resp. Limit (pCi/g)
Co-60	<	0.01	1,390,000
Cs-137		0.06	6,500,000
Pb-210		0.70	1,300,000
Ra-226		1.30	26,300
Ac-227 (D)	<	0.06	31
Th-228	<	2.60	671
Th-229	<	0.09	104
Th-230	<	1.20	650
Th-232 (D)		0.50	130
Pa-231	<	0.20	160
U-235	<	0.07	1,730
U-238 (D)	<	0.96	1,730
Pu-238	<	11.00	452
Am-241	<	0.01	40

Other Nuclides:

Isotope	Activity (pCi/g)	Resp. Limit (pCi/g)	

Σ DOT 0.02 nCi/g Σ Respirator 0.04

Description:
PRS 408 #13

Collector: [redacted] 5296

Date Collected: 9/10/96

Product Cycle Time: 16 Days

Comments:

Σ Respirator <1 indicates soil levels below limits. Values > or = 1 indicate the soil levels exceed alarm limits for that operation. Respirator limits provided by Health Physics on May 15, 1995.

Σ DOT 2 nCi/g limit, total activity.

(D) denotes identification by daughter emissions. Sample is assumed to be in secular equilibrium.

< by activity means it is less than the MDA. MDA value used in calculation of respirator and DOT limits.

Date: 9/26/96 Counted By: 4535 Report By: 5882 INITIALS [redacted]

SOIL ANALYSIS REPORT

SAMPLE ID: HPG00957
FILE ID: GSB00077.S0
PRIORITY:

Isotope		Activity (pCi/g)	Resp. Limit (pCi/g)
Co-60	<	0.01	1,390,000
Cs-137		0.07	6,500,000
Pb-210		0.70	1,300,000
Ra-226		1.70	26,300
Ac-227 (D)	<	0.06	31
Th-228	<	2.90	671
Th-229	<	0.10	104
Th-230	<	1.30	650
Th-232 (D)		0.60	130
Pa-231	<	0.26	160
U-235	<	0.10	1,730
U-238 (D)	<	1.09	1,730
Pu-238	<	13.00	452
Am-241	<	0.01	40

Other Nuclides:

Isotope	Activity (pCi/g)	Resp. Limit (pCi/g)	

Σ DOT 0.02 nCi/g Σ Respirator 0.04

Description:
PRS 408 #15

Collector: [redacted]5296

Date Collected: 9/10/96

Product Cycle Time: 15 Days

Comments:

Σ Respirator <1 indicates soil levels below limits. Values > or = 1 indicate the soil levels exceed alarm limits for that operation. Respirator limits provided by Health Physics on May 15, 1995.

Σ DOT 2 nCi/g limit, total activity.

(D) denotes identification by daughter emissions. Sample is assumed to be in secular equilibrium.

< by activity means it is less than the MDA. MDA value used in calculation of respirator and DOT limits.

Date: 9/25/96 Counted By: 4535 Report By: 5882 INITIALS [redacted]

Roy F. Weston, Inc. - Lionville Laboratory
Volatiles By GC/MS, Special List

RFW Batch Number: 96091137 Client: EG&G MOUND Work Order: 05376069001 Page: 1a Report Date: 09/19/96 11:14

	Cust ID:	000012		000013		000014		000015		000011		VBLKJD	
Sample Information	RFW#:	018		019		020		021		022		96LVN218-MB1	
	Matrix:	WATER		WATER		WATER		WATER		WATER		WATER	
	D.F.:	10.0		10.0		10.0		10.0		10.0		1.00	
	Units:	ug/L		ug/L		ug/L		ug/L		ug/L		ug/L	
Surrogate Recovery	Toluene-d8	103	%	104	%	100	%	103	%	101	%	101	%
	Bromofluorobenzene	96	%	96	%	95	%	98	%	98	%	100	%
	1,2-Dichloroethane-d4	105	%	106	%	107	%	111	%	111	%	103	%
Benzene		50	U	50	U	50	U	50	U	50	U	5	U

	Cust ID:	VBLKJD BS		LCBRLK	
Sample Information	RFW#:	96LVN218-MB1		96LTV098-LB1	
	Matrix:	WATER		WATER	
	D.F.:	1.00		10.0	
	Units:	ug/L		ug/L	
Surrogate Recovery	Toluene-d8	97	%	98	%
	Bromofluorobenzene	97	%	97	%
	1,2-Dichloroethane-d4	98	%	100	%
Benzene		85	%	50	U

*= Outside of EPA CLP QC limits.

Roy F. Weston, Inc. - Lionville Laboratory
GAS RANGE ORGANICS

Report Date: 09/19/96 10:02

RFW Batch Number: 9609L137 Client: EG&G MOUND Work Order: 05376069001 Page: 1

	Cust ID:	000001	000002	000003	000004	000005	000005
Sample Information	RFW#:	001	002	003	004	005	005 MS
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	D.F.:	1.00	1.00	1.00	1.00	1.00	1.00
	Units:	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG
	Fluorobenzene	67 %	70 %	68 %	60 %	74 %	67 %
Gasoline		0.048 U	0.048 U	0.040 U	0.044 U	0.040 U	63 %

	Cust ID:	000005	000006	000007	000008	000009	000010
Sample Information	RFW#:	005 MSD	006	007	008	009	010
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	D.F.:	1.00	1.00	1.00	1.00	1.00	1.00
	Units:	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG
	Fluorobenzene	70 %	88 %	71 %	81 %	82 %	86 %
Gasoline		62 %	0.044 U	0.040 U	0.040 U	0.044 U	0.044 U

U= Analyzed, not detected. J= Present below detection limit. B= Present in blank. NR= Not reported. NS= Not spiked.
%= Percent recovery. D= Diluted out. I= Interference. NA= Not Applicable. *= Outside of EPA CLP QC

Roy F. Weston, Inc. - Lionville Laboratory
GAS RANGE ORGANICS

Report Date: 09/19/96 10:02

RFW Batch Number: 9609L137 Client: EG&G NOUMO Work Order: 05376069001 Page: 2

	Cust ID:	000012	000013	000014	000015	000016	000011
Sample Information	RFW#:	011	012	013	014	015	016
	Matrix:	SOIL	SOIL	SOIL	SOIL	WATER	SOIL
	D.F.:	1.00	1.00	1.00	1.00	1.00	1.00
	Units:	MG/KG	MG/KG	MG/KG	MG/KG	ug/L	MG/KG
	Fluorobenzene	82 %	75 %	86 %	85 %	107 %	75 %
Gasoline		0.040 U	0.044 U	0.044 U	0.044 U	40 U	0.044 U

	Cust ID:	000011	000011	TBLKZV	TBLKZV BS	TBLKZX	TBLKZX BS
Sample Information	RFW#:	016 MS	016 MSD	96LVD053-MB1	96LVD053-MB1	96LVD054-MB1	96LVD054-MB1
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	D.F.:	1.00	1.00	1.00	1.00	1.00	1.00
	Units:	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG
	Fluorobenzene	76 %	73 %	98 %	101 %	107 %	107 %
Gasoline		63 %	54 %	0.040 U	91 %	0.040 U	99 %

U= Analyzed, not detected. J= Present below detection limit. B= Present in blank. NR= Not reported. NS= Not spiked.
%= Percent recovery. D= Diluted out. I= Interference. NA= Not Applicable. *= Outside of EPA CLP QC

Roy F. Weston, Inc. - Lionville Laboratory
GAS RANGE ORGANICS
Report Date: 09/19/96 10:02

RFW Batch Number: 9609L13T Client: EG&G MOUND Work Order: 05376069001 Page: 3

	Cust ID:	TBLKAB	TBLKAB BS	TBLKAC	TBLKAC BS
Sample Information	RFW#:	96LVD055-MB1	96LVD055-BS1	96LVDW55-MB1	96LVDW55-MB1
	Matrix:	SOIL	SOIL	WATER	WATER
	D.F.:	1.00	1.00	1.00	1.00
	Units:	MG/KG	MG/KG	ug/L	ug/L
Fluorobenzene		102 %	109 %	102 %	109 %
Gasoline		0.040 U	97 %	40 U	97 %

U= Analyzed, not detected. J= Present below detection limit. B= Present in blank. NR= Not reported. NS= Not spiked.
%= Percent recovery. D= Diluted out. I= Interference. NA= Not Applicable. *= Outside of EPA CLP QC

Roy F. Weston, Inc. - Lionville Laboratory
Purgeable Aromatics by GC, Method 8020

Report Date: 09/18/96 12:57

IFW Batch Number: 96091137 Client: EG&G MOUND Work Order: 05376069001 Page: 1

	Cust ID:	000001	000002	000003	000004	000005	000006
Sample Information	RFW#:	001	002	003	004	005	006
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	D.F.:	1.00	1.00	1.00	1.00	1.00	1.00
	Units:	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
	Fluorobenzene	57 %	60 %	58 %	51 %	62 %	69 %
Benzene		1.2 U	1.2 U	1.0 U	1.1 U	1.0 U	1.1 U
Ethylbenzene		1.2 U	1.2 U	1.0 U	1.1 U	1.0 U	1.1 U
Toluene		1.2 U	1.2 U	1.0 U	1.1 U	1.0 U	1.1 U
Xylene (total)		1.2 U	1.2 U	1.0 U	1.1 U	1.0 U	1.1 U

	Cust ID:	000006	000006	001007	000008	000009	000010
Sample Information	RFW#:	006 MS	006 MSD	007	008	009	010
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	D.F.:	1.00	1.00	1.00	1.00	1.00	1.00
	Units:	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
	Fluorobenzene	76 %	72 %	55 %	62 %	62 %	65 %
Benzene		76 %	74 %	1.0 U	1.0 U	1.1 U	1.1 U
Ethylbenzene		72 %	67 %	1.0 U	1.0 U	1.1 U	1.1 U
Toluene		77 %	74 %	1.0 U	1.0 U	1.1 U	1.1 U
Xylene (total)		70 %	65 %	1.0 U	1.0 U	1.1 U	1.1 U

U= Analyzed, not detected. J= Present below detection limit. B= Present in blank. NR= Not reported. NS= Not spiked.
%= Percent recovery. D= Diluted out. I= Interference. NA= Not Applicable. *= Outside of EPA CLP QC

Roy F. Weston, Inc. - Lionville Laboratory
Purgeable Aromatics by GC, Method 8020

RFW Batch Number: 9609L137 Client: EG&G MOUND Work Order: 05376069801 Report Date: 09/18/96 12:57 Page: 2

	Cust ID:	000017	TBLKZV	TBLKZW BS	TBLKZX	TBLKZZ BS	TBLKZY
Sample Information	RFW#:	017	96LVD053-MB1	96LVD053-MB2	96LVD054-MB1	96LVD054-MB2	96LVDW54-MB1
	Matrix:	WATER	SOIL	SOIL	SOIL	SOIL	WATER
	D.F.:	1.00	1.00	1.00	1.00	1.00	1.00
	Units:	UG/L	UG/KG	UG/KG	UG/KG	UG/KG	UG/L
	Fluorobenzene	84 %	84 %	86 %	84 %	88 %	84 %
Benzene		1.0 U	1.0 U	91 %	1.0 U	89 %	1.0 U
Ethylbenzene		1.0 U	1.0 U	92 %	1.0 U	89 %	1.0 U
Toluene		1.0 U	1.0 U	93 %	1.0 U	91 %	1.0 U
Xylene (total)		1.0 U	1.0 U	89 %	1.0 U	87 %	1.0 U

	Cust ID:	TBLKAA BS
Sample Information	RFW#:	96LVDW54-MB2
	Matrix:	WATER
	D.F.:	1.00
	Units:	UG/L
	Fluorobenzene	88 %
Benzene		89 %
Ethylbenzene		89 %
Toluene		91 %
Xylene (total)		87 %

U= Analyzed, not detected. J= Present below detection limit. B= Present in blank. NR= Not reported. NS= Not spiked.
%= Percent recovery. D= Diluted out. I= Interference. NA= Not Applicable. *= Outside of EPA CLP QC

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 09/19/96

CLIENT: EG&G MOUND WESTON BATCH #: 96091137

WORK ORDER: 05376-069-001-0700-02

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT	DILUTION FACTOR
-001	000001	Silver, Total	0.21 u	MG/KG	0.21	1.0
		Aluminum, Total	11900	MG/KG	2.9	1.0
		Arsenic, Total	8.8	MG/KG	0.98	1.0
		Barium, Total	78.5	MG/KG	0.05	1.0
		Beryllium, Total	0.63	MG/KG	0.05	1.0
		Bismuth, Total	1.4 u	MG/KG	1.4	1.0
		Calcium, Total	21100	MG/KG	2.1	1.0
		Cadmium, Total	0.17 u	MG/KG	0.17	1.0
		Cobalt, Total	10.9	MG/KG	0.29	1.0
		Chromium, Total	15.3	MG/KG	0.36	1.0
		Copper, Total	17.5	MG/KG	0.19	1.0
		Iron, Total	20400	MG/KG	20.5	1.0
		Mercury, Total	0.06 u	MG/KG	0.06	1.0
		Potassium, Total	1380	MG/KG	6.5	1.0
		Magnesium, Total	5070	MG/KG	2.1	1.0
		Manganese, Total	750	MG/KG	0.24	1.0
		Sodium, Total	71.8	MG/KG	31.7	1.0
		Nickel, Total	15.7	MG/KG	0.62	1.0
		Lead, Total	16.3	MG/KG	0.43	1.0
		Antimony, Total	0.71 u	MG/KG	0.71	1.0
		Selenium, Total	1.0 u	MG/KG	1.0	1.0
		Thallium, Total	2.3	MG/KG	0.95	1.0
		Vanadium, Total	25.7	MG/KG	0.21	1.0
		Zinc, Total	54.4	MG/KG	0.12	1.0

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 09/19/96

CLIENT: EG&G MOUND WESTON BATCH #: 9609L137

WORK ORDER: 05376-069-001-0700-02

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT	DILUTION FACTOR
-002	000002	Silver, Total	0.21 u	MG/KG	0.21	1.0
		Aluminum, Total	9020	MG/KG	2.8	1.0
		Arsenic, Total	8.4	MG/KG	0.96	1.0
		Barium, Total	80.7	MG/KG	0.05	1.0
		Beryllium, Total	0.46	MG/KG	0.05	1.0
		Bismuth, Total	1.4 u	MG/KG	1.4	1.0
		Calcium, Total	48900	MG/KG	2.1	1.0
		Cadmium, Total	0.27	MG/KG	0.16	1.0
		Cobalt, Total	7.9	MG/KG	0.28	1.0
		Chromium, Total	13.4	MG/KG	0.35	1.0
		Copper, Total	21.4	MG/KG	0.19	1.0
		Iron, Total	16000	MG/KG	20.2	1.0
		Mercury, Total	0.07	MG/KG	0.05	1.0
		Potassium, Total	1410	MG/KG	6.4	1.0
		Magnesium, Total	16800	MG/KG	2.1	1.0
		Manganese, Total	502	MG/KG	0.23	1.0
		Sodium, Total	101	MG/KG	31.1	1.0
		Nickel, Total	13.4	MG/KG	0.61	1.0
		Lead, Total	17.7	MG/KG	0.42	1.0
		Antimony, Total	0.70 u	MG/KG	0.70	1.0
		Selenium, Total	0.98 u	MG/KG	0.98	1.0
		Thallium, Total	2.0	MG/KG	0.94	1.0
		Vanadium, Total	21.9	MG/KG	0.21	1.0
		Zinc, Total	73.1	MG/KG	0.12	1.0

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 09/19/96

CLIENT: BG&G MOUND WESTON BATCH #: 9609L137
WORK ORDER: 05376-069-001-0700-02

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT	DILUTION FACTOR
-003	000003	Silver, Total	0.19 u	MG/KG	0.19	1.0
		Aluminum, Total	8770	MG/KG	2.5	1.0
		Arsenic, Total	8.1	MG/KG	0.86	1.0
		Barium, Total	55.0	MG/KG	0.04	1.0
		Beryllium, Total	0.38	MG/KG	0.04	1.0
		Bismuth, Total	1.2 u	MG/KG	1.2	1.0
		Calcium, Total	90500	MG/KG	1.8	1.0
		Cadmium, Total	0.16	MG/KG	0.15	1.0
		Cobalt, Total	6.9	MG/KG	0.25	1.0
		Chromium, Total	12.4	MG/KG	0.31	1.0
		Copper, Total	19.9	MG/KG	0.17	1.0
		Iron, Total	16600	MG/KG	18.0	1.0
		Mercury, Total	0.05 u	MG/KG	0.05	1.0
		Potassium, Total	1470	MG/KG	5.7	1.0
		Magnesium, Total	16700	MG/KG	1.9	1.0
		Manganese, Total	534	MG/KG	0.21	1.0
		Sodium, Total	164	MG/KG	27.0	1.0
		Nickel, Total	13.6	MG/KG	0.54	1.0
		Lead, Total	12.2	MG/KG	0.28	1.0
		Antimony, Total	0.63 u	MG/KG	0.63	1.0
		Selenium, Total	0.88 u	MG/KG	0.88	1.0
		Thallium, Total	1.4	MG/KG	0.84	1.0
		Vanadium, Total	18.2	MG/KG	0.19	1.0
		Zinc, Total	76.2	MG/KG	0.10	1.0

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 09/19/96

CLIENT: EG&G MOUND WESTON BATCH #: 9609L137

WORK ORDER: 05376-069-001-0700-02

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT	DILUTION FACTOR
-004	000004	Silver, Total	0.20 u	MG/KG	0.20	1.0
		Aluminum, Total	7830	MG/KG	2.6	1.0
		Arsenic, Total	7.1	MG/KG	0.89	1.0
		Barium, Total	63.5	MG/KG	0.04	1.0
		Beryllium, Total	0.35	MG/KG	0.04	1.0
		Bismuth, Total	1.3 u	MG/KG	1.3	1.0
		Calcium, Total	85100	MG/KG	1.9	1.0
		Cadmium, Total	0.23	MG/KG	0.15	1.0
		Cobalt, Total	6.5	MG/KG	0.26	1.0
		Chromium, Total	11.6	MG/KG	0.33	1.0
		Copper, Total	16.4	MG/KG	0.17	1.0
		Iron, Total	14000	MG/KG	18.8	1.0
		Mercury, Total	0.05 u	MG/KG	0.05	1.0
		Potassium, Total	1400	MG/KG	5.9	1.0
		Magnesium, Total	41800	MG/KG	1.9	1.0
		Manganese, Total	500	MG/KG	0.22	1.0
		Sodium, Total	161	MG/KG	29.0	1.0
		Nickel, Total	11.4	MG/KG	0.57	1.0
		Lead, Total	15.2	MG/KG	0.39	1.0
		Antimony, Total	0.74	MG/KG	0.65	1.0
		Selenium, Total	0.92 u	MG/KG	0.92	1.0
		Thallium, Total	0.94	MG/KG	0.87	1.0
		Vanadium, Total	18.3	MG/KG	0.20	1.0
		Zinc, Total	56.7	MG/KG	0.11	1.0

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 09/19/96

CLIENT: EG&G MOUND WESTON BATCH #: 96091137

WORK ORDER: 05376-069-001-0700-02

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT	DILUTION FACTOR
-005	000005	Silver, Total	0.19 u	MG/KG	0.19	1.0
		Aluminum, Total	10000	MG/KG	2.5	1.0
		Arsenic, Total	8.0	MG/KG	0.85	1.0
		Barium, Total	67.8	MG/KG	0.04	1.0
		Beryllium, Total	0.47	MG/KG	0.04	1.0
		Bismuth, Total	1.2 u	MG/KG	1.2	1.0
		Calcium, Total	55000	MG/KG	1.8	1.0
		Cadmium, Total	0.15	MG/KG	0.15	1.0
		Cobalt, Total	8.1	MG/KG	0.25	1.0
		Chromium, Total	13.4	MG/KG	0.31	1.0
		Copper, Total	15.9	MG/KG	0.17	1.0
		Iron, Total	17100	MG/KG	17.9	1.0
		Mercury, Total	0.05 u	MG/KG	0.05	1.0
		Potassium, Total	1560	MG/KG	5.7	1.0
		Magnesium, Total	13900	MG/KG	1.9	1.0
		Manganese, Total	610	MG/KG	0.21	1.0
		Sodium, Total	85.1	MG/KG	27.7	1.0
		Nickel, Total	13.8	MG/KG	0.54	1.0
		Lead, Total	16.7	MG/KG	0.37	1.0
		Antimony, Total	0.62 u	MG/KG	0.62	1.0
		Selenium, Total	0.87 u	MG/KG	0.87	1.0
		Thallium, Total	0.96	MG/KG	0.83	1.0
		Vanadium, Total	21.5	MG/KG	0.19	1.0
		Zinc, Total	73.9	MG/KG	0.10	1.0

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 09/19/96

CLIENT: EG&G MOUND WESTON BATCH #: 9609L137

WORK ORDER: 05376-069-001-0700-02

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT	DILUTION FACTOR
-006	000006	Silver, Total	0.20 u	MG/KG	0.20	1.0
		Aluminum, Total	9900	MG/KG	2.6	1.0
		Arsenic, Total	7.9	MG/KG	0.90	1.0
		Barium, Total	53.7	MG/KG	0.04	1.0
		Beryllium, Total	0.44	MG/KG	0.04	1.0
		Bismuth, Total	1.3 u	MG/KG	1.3	1.0
		Calcium, Total	70400	MG/KG	1.9	1.0
		Cadmium, Total	0.15 u	MG/KG	0.15	1.0
		Cobalt, Total	8.8	MG/KG	0.26	1.0
		Chromium, Total	13.1	MG/KG	0.33	1.0
		Copper, Total	16.0	MG/KG	0.17	1.0
		Iron, Total	18300	MG/KG	18.8	1.0
		Mercury, Total	0.05 u	MG/KG	0.05	1.0
		Potassium, Total	1710	MG/KG	6.0	1.0
		Magnesium, Total	20500	MG/KG	1.9	1.0
		Manganese, Total	599	MG/KG	0.22	1.0
		Sodium, Total	109	MG/KG	29.1	1.0
		Nickel, Total	14.9	MG/KG	0.57	1.0
		Lead, Total	13.8	MG/KG	0.39	1.0
		Antimony, Total	0.66 u	MG/KG	0.66	1.0
		Selenium, Total	0.92 u	MG/KG	0.92	1.0
		Thallium, Total	0.92	MG/KG	0.87	1.0
		Vanadium, Total	19.5	MG/KG	0.20	1.0
		Zinc, Total	81.6	MG/KG	0.11	1.0

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 09/19/96

CLIENT: EG&G MOUND WESTON BATCH #: 9609L137

WORK ORDER: 05376-069-001-0700-02

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT	DILUTION FACTOR
-007	000007	Silver, Total	0.19 u	MG/KG	0.19	1.0
		Aluminum, Total	4970	MG/KG	2.5	1.0
		Arsenic, Total	6.4	MG/KG	0.85	1.0
		Barium, Total	42.7	MG/KG	0.04	1.0
		Beryllium, Total	0.20	MG/KG	0.04	1.0
		Bismuth, Total	1.2 u	MG/KG	1.2	1.0
		Calcium, Total	86000	MG/KG	1.8	1.0
		Cadmium, Total	0.19	MG/KG	0.15	1.0
		Cobalt, Total	5.0	MG/KG	0.25	1.0
		Chromium, Total	7.5	MG/KG	0.31	1.0
		Copper, Total	11.9	MG/KG	0.17	1.0
		Iron, Total	11000	MG/KG	17.9	1.0
		Mercury, Total	0.05 u	MG/KG	0.05	1.0
		Potassium, Total	1030	MG/KG	5.7	1.0
		Magnesium, Total	30100	MG/KG	1.9	1.0
		Manganese, Total	402	MG/KG	0.21	1.0
		Sodium, Total	120	MG/KG	27.7	1.0
		Nickel, Total	10.1	MG/KG	0.54	1.0
		Lead, Total	9.2	MG/KG	0.37	1.0
		Antimony, Total	0.62 u	MG/KG	0.62	1.0
		Selenium, Total	0.87 u	MG/KG	0.87	1.0
		Thallium, Total	0.95	MG/KG	0.83	1.0
		Vanadium, Total	13.0	MG/KG	0.14	1.0
		Zinc, Total	42.1	MG/KG	0.10	1.0

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 09/19/96

CLIENT: EG&G MOUND WESTON BATCH #: 96091137

WORK ORDER: 05376-069-001-0700-02

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT	DILUTION FACTOR
-008	000008	Silver, Total	0.18 u	MG/KG	0.18	1.0
		Aluminum, Total	6630	MG/KG	2.4	1.0
		Arsenic, Total	7.9	MG/KG	0.83	1.0
		Barium, Total	53.3	MG/KG	0.04	1.0
		Beryllium, Total	0.30	MG/KG	0.04	1.0
		Bismuth, Total	1.2 u	MG/KG	1.2	1.0
		Calcium, Total	69100	MG/KG	1.8	1.0
		Cadmium, Total	0.20	MG/KG	0.14	1.0
		Cobalt, Total	6.3	MG/KG	0.24	1.0
		Chromium, Total	10.1	MG/KG	0.30	1.0
		Copper, Total	15.3	MG/KG	0.16	1.0
		Iron, Total	14000	MG/KG	17.4	1.0
		Mercury, Total	0.05 u	MG/KG	0.05	1.0
		Potassium, Total	1320	MG/KG	5.5	1.0
		Magnesium, Total	23900	MG/KG	1.8	1.0
		Manganese, Total	486	MG/KG	0.20	1.0
		Sodium, Total	106	MG/KG	26.8	1.0
		Nickel, Total	12.2	MG/KG	0.52	1.0
		Lead, Total	13.7	MG/KG	0.36	1.0
		Antimony, Total	0.61 u	MG/KG	0.61	1.0
		Selenium, Total	0.86 u	MG/KG	0.85	1.0
		Thallium, Total	0.81	MG/KG	0.81	1.0
		Vanadium, Total	16.3	MG/KG	0.18	1.0
		Zinc, Total	54.3	MG/KG	0.10	1.0

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 09/19/96

CLIENT: EG&G MOUND WESTON BATCH #: 9609J137

WORK ORDER: 05376-069-001-0700-02

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT	DILUTION FACTOR
-009	000009	Silver, Total	0.19 u	MG/KG	0.19	1.0
		Aluminum, Total	11000	MG/KG	2.6	1.0
		Arsenic, Total	7.8	MG/KG	0.87	1.0
		Barium, Total	75.7	MG/KG	0.04	1.0
		Beryllium, Total	0.54	MG/KG	0.04	1.0
		Bismuth, Total	1.3 u	MG/KG	1.3	1.0
		Calcium, Total	60600	MG/KG	1.9	1.0
		Cadmium, Total	0.15 u	MG/KG	0.15	1.0
		Cobalt, Total	9.3	MG/KG	0.25	1.0
		Chromium, Total	14.0	MG/KG	0.32	1.0
		Copper, Total	16.5	MG/KG	0.17	1.0
		Iron, Total	19300	MG/KG	18.3	1.0
		Mercury, Total	0.05 u	MG/KG	0.05	1.0
		Potassium, Total	2040	MG/KG	5.8	1.0
		Magnesium, Total	14600	MG/KG	1.9	1.0
		Manganese, Total	740	MG/KG	0.21	1.0
		Sodium, Total	93.8	MG/KG	28.2	1.0
		Nickel, Total	16.7	MG/KG	0.55	1.0
		Lead, Total	16.8	MG/KG	0.38	1.0
		Antimony, Total	0.64 u	MG/KG	0.64	1.0
		Selenium, Total	0.89 u	MG/KG	0.89	1.0
		Thallium, Total	1.1	MG/KG	0.85	1.0
		Vanadium, Total	23.3	MG/KG	0.19	1.0
		Zinc, Total	57.0	MG/KG	0.11	1.0

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 09/19/96

CLIENT: BG&G MOUND WESTON BATCH #: 9609L137

WORK ORDER: 05376-069-001-0700-02

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT	DILUTION FACTOR
-010	000010	Silver, Total	0.19 u	MG/KG	0.19	1.0
		Aluminum, Total	9260	MG/KG	2.6	1.0
		Arsenic, Total	7.9	MG/KG	0.87	1.0
		Barium, Total	66.1	MG/KG	0.04	1.0
		Beryllium, Total	0.43	MG/KG	0.04	1.0
		Bismuth, Total	1.3 u	MG/KG	1.3	1.0
		Calcium, Total	79100	MG/KG	1.9	1.0
		Cadmium, Total	0.17	MG/KG	0.15	1.0
		Cobalt, Total	8.4	MG/KG	0.26	1.0
		Chromium, Total	13.7	MG/KG	0.32	1.0
		Copper, Total	16.4	MG/KG	0.17	1.0
		Iron, Total	16700	MG/KG	18.3	1.0
		Mercury, Total	0.05 u	MG/KG	0.05	1.0
		Potassium, Total	1500	MG/KG	5.8	1.0
		Magnesium, Total	26900	MG/KG	1.9	1.0
		Manganese, Total	628	MG/KG	0.21	1.0
		Sodium, Total	121	MG/KG	28.3	1.0
		Nickel, Total	14.1	MG/KG	0.55	1.0
		Lead, Total	16.9	MG/KG	0.38	1.0
		Antimony, Total	0.64 u	MG/KG	0.64	1.0
		Selenium, Total	0.89 u	MG/KG	0.89	1.0
		Thallium, Total	0.85 u	MG/KG	0.85	1.0
		Vanadium, Total	20.1	MG/KG	0.10	1.0
		Zinc, Total	63.5	MG/KG	0.11	1.0

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 09/19/96

CLIENT: EG&G MOUND WESTON BATCH #: 9609L137

WORK ORDER: 05376-069-001-0700-02

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT	DILUTION FACTOR
-023	000012	Silver, TCLP Leachate	0.90 u	UG/L	0.90	1.0
		Arsenic, TCLP Leachate	4.1 u	UG/L	4.1	1.0
		Barium, TCLP Leachate	576	UG/L	0.20	1.0
		Cadmium, TCLP Leachate	1.2	UG/L	0.70	1.0
		Chromium, TCLP Leachate	1.5	UG/L	1.5	1.0
		Mercury, TCLP Leachate	1.2	UG/L	0.20	1.0
		Lead, TCLP Leachate	10.0	UG/L	1.8	1.0
		Selenium, TCLP Leachate	4.2 u	UG/L	4.2	1.0

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 09/19/96

CLIENT: EG&G MOUND WESTON BATCH #: 9609L137

WORK ORDER: 05276-069-001-0700-02

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT	DILUTION FACTOR
-024	000013	Silver, TCLP Leachate	0.90 u	UG/L	0.90	1.0
		Arsenic, TCLP Leachate	4.1 u	UG/L	4.1	1.0
		Barium, TCLP Leachate	576	UG/L	0.20	1.0
		Cadmium, TCLP Leachate	0.76	UG/L	0.70	1.0
		Chromium, TCLP Leachate	1.6	UG/L	1.5	1.0
		Mercury, TCLP Leachate	0.20 u	UG/L	0.20	1.0
		Lead, TCLP Leachate	3.8	UG/L	1.8	1.0
		Selenium, TCLP Leachate	4.2 u	UG/L	4.2	1.0

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 09/19/96

CLIENT: EG&G MOUND WESTON BATCH #: 9609L137

WORK ORDER: 05376-069-001-0700-02

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT	DILUTION FACTOR
-025	000014	Silver, TCLP Leachate	0.90	u	UG/L	0.90	1.0
		Arsenic, TCLP Leachate	4.1	u	UG/L	4.1	1.0
		Barium, TCLP Leachate	713		UG/L	0.20	1.0
		Cadmium, TCLP Leachate	1.1		UG/L	0.70	1.0
		Chromium, TCLP Leachate	1.5	u	UG/L	1.5	1.0
		Mercury, TCLP Leachate	0.20	u	UG/L	0.20	1.0
		Lead, TCLP Leachate	4.1		UG/L	1.8	1.0
		Selenium, TCLP Leachate	4.2	u	UG/L	4.2	1.0

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 09/19/96

CLIENT: EG&G MOUND WESTON BATCH #: 9609L137

WORK ORDER: 05376-069-001-0700-02

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT	DILUTION FACTOR
-026	000015	Silver, TCLP Leachate	0.90 u	UG/L	0.90	1.0
		Arsenic, TCLP Leachate	4.1 u	UG/L	4.1	1.0
		Barium, TCLP Leachate	557	UG/L	0.20	1.0
		Cadmium, TCLP Leachate	0.70 u	UG/L	0.70	1.0
		Chromium, TCLP Leachate	1.5 u	UG/L	1.5	1.0
		Mercury, TCLP Leachate	0.20 u	UG/L	0.20	1.0
		Lead, TCLP Leachate	4.9	UG/L	1.8	1.0
		Selenium, TCLP Leachate	4.2 u	UG/L	4.2	1.0

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 09/19/96

CLIENT: EG&G MOUND WESTON BATCH #: 9609L137

WORK ORDER: 05376-069-001-0700-02

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT	DILUTION FACTOR
-027	000011	Silver, TCLP Leachate	0.90 u	UG/L	0.90	1.0
		Arsenic, TCLP Leachate	4.1 u	UG/L	4.1	1.0
		Barium, TCLP Leachate	667	UG/L	0.20	1.0
		Cadmium, TCLP Leachate	1.1	UG/L	0.70	1.0
		Chromium, TCLP Leachate	1.5 u	UG/L	1.5	1.0
		Mercury, TCLP Leachate	0.20 u	UG/L	0.20	1.0
		Lead, TCLP Leachate	4.3	UG/L	1.8	1.0
		Selenium, TCLP Leachate	4.6	UG/L	4.2	1.0

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 09/19/96

CLIENT: ECEG MOUND WESTON BATCH #: 9609L137

WORK ORDER: 05376-069-001-0700-02

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT	DILUTION FACTOR
-028	000017	Silver, TCLP Leachate	0.90 u	UG/L	0.90	1.0
		Arsenic, TCLP Leachate	4.1 u	UG/L	4.1	1.0
		Barium, TCLP Leachate	258	UG/L	0.20	1.0
		Cadmium, TCLP Leachate	0.70 u	UG/L	0.70	1.0
		Chromium, TCLP Leachate	1.5 u	UG/L	1.5	1.0
		Mercury, TCLP Leachate	0.20 u	UG/L	0.20	1.0
		Lead, TCLP Leachate	23.4	UG/L	1.8	1.0
		Selenium, TCLP Leachate	4.2 u	UG/L	4.2	1.0

ROY F. WESTON INC.

INORGANICS METHOD BLANK DATA SUMMARY PAGE 09/19/96

CLIENT: EG&G MOUND WESTON BATCH #: 9609L137

WORK ORDER: 05376-069-001-0700-02

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT	DILUTION FACTOR
BLANK1	96L2121-MB1	Silver, Total	0.18 u	MG/KG	0.18	1.0
		Aluminum, Total	2.4 u	MG/KG	2.4	1.0
		Arsenic, Total	0.82 u	MG/KG	0.82	1.0
		Barium, Total	0.04 u	MG/KG	0.04	1.0
		Beryllium, Total	0.04 u	MG/KG	0.04	1.0
		Bismuth, Total	1.2 u	MG/KG	1.2	1.0
		Calcium, Total	3.7	MG/KG	1.8	1.0
		Cadmium, Total	0.14 u	MG/KG	0.14	1.0
		Cobalt, Total	0.24 u	MG/KG	0.24	1.0
		Chromium, Total	0.30 u	MG/KG	0.30	1.0
		Copper, Total	0.23	MG/KG	0.16	1.0
		Iron, Total	17.2 u	MG/KG	17.2	1.0
		Potassium, Total	5.5 u	MG/KG	5.5	1.0
		Magnesium, Total	1.8 u	MG/KG	1.8	1.0
		Manganese, Total	0.20 u	MG/KG	0.20	1.0
		Sodium, Total	26.6 u	MG/KG	26.6	1.0
		Nickel, Total	0.52 u	MG/KG	0.52	1.0
		Lead, Total	0.36 u	MG/KG	0.36	1.0
		Antimony, Total	0.60 u	MG/KG	0.60	1.0
		Selenium, Total	0.84 u	MG/KG	0.84	1.0
		Thallium, Total	0.80 u	MG/KG	0.80	1.0
		Vanadium, Total	0.18 u	MG/KG	0.18	1.0
		Zinc, Total	0.21	MG/KG	0.10	1.0
BLANK1	96C0738-MB1	Mercury, Total	0.05 u	MG/KG	0.05	1.0
BLANK1	96L2111-MB1	Silver, TCLP Leachate	0.90 u	UG/L	0.90	1.0
		Arsenic, TCLP Leachate	4.1 u	UG/L	4.1	1.0
		Barium, TCLP Leachate	0.20 u	UG/L	0.20	1.0
		Cadmium, TCLP Leachate	0.70 u	UG/L	0.70	1.0
		Chromium, TCLP Leachate	1.5 u	UG/L	1.5	1.0
		Lead, TCLP Leachate	5.4	UG/L	1.8	1.0
		Selenium, TCLP Leachate	4.2 u	UG/L	4.2	1.0
BLANK2	96L2111-MB2	Silver, TCLP Leachate	0.90 u	UG/L	0.90	1.0
		Arsenic, TCLP Leachate	4.1 u	UG/L	4.1	1.0
		Barium, TCLP Leachate	111	UG/L	0.20	1.0
		Cadmium, TCLP Leachate	0.70 u	UG/L	0.70	1.0
		Chromium, TCLP Leachate	1.7	UG/L	1.5	1.0
		Lead, TCLP Leachate	5.3	UG/L	1.8	1.0

ROY F. WESTON INC.

INORGANICS METHOD BLANK DATA SUMMARY PAGE 09/19/96

CLIENT: RG&G MOUND WESTON BATCH #: 96091137

WORK ORDER: 05376-069-001-0700-02

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT	DILUTION FACTOR
BLANK2	96L2111-MB2					1.0
						1.0
						1.0
						1.0
						1.0
						1.0
		Selenium, TCLP Leachate	4.2 u	UG/L	4.2	1.0
BLANK1	96C0740-MB1	Mercury, Total	0.10 u	UG/L	0.10	1.0

ROY F. WESTON INC.

INORGANICS ACCURACY REPORT 09/19/96

CLIENT: EG&G MOUND WESTON BATCH #: 9609L137

WORK ORDER: 05376-069-001-0700-02

SAMPLE	SITE ID	ANALYTE	SPIKED SAMPLE	INITIAL RESULT	SPIKED AMOUNT	%RECOV	DILUTION FACTOR(SPK)
-001	000001	Silver, Total	11.9	0.21u	11.9	100	1.0
		Silver, Total MSD	11.9	0.21u	11.9	100	1.0
		Aluminum, Total	16300	11900	476	719.0*	1.0
		Aluminum, Total MSD	16200	11900	476	909.3*	1.0
		Arsenic, Total	472	8.8	476	97.2	1.0
		Arsenic, Total MSD	471	8.8	476	97.1	1.0
		Barium, Total	545	78.5	476	97.9	1.0
		Barium, Total MSD	549	78.5	476	98.8	1.0
		Beryllium, Total	12.1	0.63	11.9	96.4	1.0
		Beryllium, Total MSD	12.1	0.63	11.9	96.4	1.0
		Bismuth, Total	1180	1.4 u	1190	99.0	1.0
		Bismuth, Total MSD	1180	1.4 u	1190	99.1	1.0
		Calcium, Total	23500	21100	5950	40.2	1.0
		Calcium, Total MSD	23000	21100	5950	32.6	1.0
		Cadmium, Total	11.3	0.17u	11.9	95.0	1.0
		Cadmium, Total MSD	11.3	0.17u	11.9	95.0	1.0
		Cobalt, Total	127	10.9	119	97.1	1.0
		Cobalt, Total MSD	126	10.9	119	96.8	1.0
		Chromium, Total	62.5	15.3	47.6	99.2	1.0
		Chromium, Total MSD	63.6	15.3	47.6	101.3	1.0
		Copper, Total	75.9	17.5	59.5	98.2	1.0
		Copper, Total MSD	75.4	17.5	59.5	97.3	1.0
		Iron, Total	19200	20400	238	-540. *	1.0
		Iron, Total MSD	21100	20400	238	292.8*	1.0
		Mercury, Total	0.60	0.06u	0.60	101.3	1.0
		Mercury, Total MSD	0.59	0.06u	0.60	99.3	1.0
		Potassium, Total	8070	1380	5950	112.4	1.0
		Potassium, Total MSD	8180	1380	5950	113.8	1.0
		Magnesium, Total	11500	5070	5950	108.4	1.0
		Magnesium, Total MSD	11200	5070	5950	103.1	1.0
		Manganese, Total	719	750	119	-26. *	1.0
		Manganese, Total MSD	717	750	119	-27. *	1.0
		Sodium, Total	6140	71.8	5950	102.0	1.0
		Sodium, Total MSD	6110	71.8	5950	101.4	1.0
		Nickel, Total	128	15.7	119	94.5	1.0
		Nickel, Total MSD	129	15.7	119	95.0	1.0
		Lead, Total	132	16.3	119	96.8	1.0
		Lead, Total MSD	131	16.3	119	96.1	1.0
		Antimony, Total	63.2	0.71u	119	53.1	1.0
		Antimony, Total MSD	67.2	0.71u	119	56.4	1.0

ROY F. WESTON INC.

INORGANICS ACCURACY REPORT 09/19/96

CLIENT: EG&G MOUND WESTON BATCH #: 9609L137

WORK ORDER: 05376-069-001-0700-02

SAMPLE	SITE ID	ANALYTE	SPIKED SAMPLE	INITIAL RESULT	SPIKED AMOUNT	%RECOV	DILUTION FACTOR(SPK)
-001	000001	Selenium, Total	463	1.0 U	476	97.1	1.0
		Selenium, Total MSD	462	1.0 U	476	97.1	1.0
		Thallium, Total	460	2.3	476	96.2	1.0
		Thallium, Total MSD	461	2.3	476	96.3	1.0
		Vanadium, Total	145	25.7	119	99.8	1.0
		Vanadium, Total MSD	147	25.7	119	101.7	1.0
		Zinc, Total	178	54.4	119	103.5	1.0
		Zinc, Total MSD	179	54.4	119	104.2	1.0

ROY F. WESTON INC.

INORGANICS ACCURACY REPORT 09/19/96

CLIENT: RG&G MOUND WESTON BATCH #: 9609L137

WORK ORDER: 05376-069-001-0700-02

SAMPLE	SITE ID	ANALYTE	SPIKED SAMPLE	INITIAL RESULT	SPIKED AMOUNT	%RECOV	DILUTION FACTOR(SPK)
-023	000012	Silver, TCLP Leachate	3770	0.90u	5000	75.5	1.0
		Arsenic, TCLP Leachate	4850	4.1 u	5000	96.9	1.0
		Barium, TCLP Leachate	93400	576	100000	92.8	2.0
		Cadmium, TCLP Leachate	920	1.2	1000	91.9	1.0
		Chromium, TCLP Leachat	4560	1.5	5000	91.2	1.0
		Mercury, TCLP Leachate	163	1.2	200	80.9	100
		Lead, TCLP Leachate	4680	10.0	5000	93.3	1.0
		Selenium, TCLP Leachat	949	4.2 u	1000	94.9	1.0

ROY F. WESTON INC.

INORGANICS DUPLICATE SPIKE REPORT 09/19/96

CLIENT: EG&G MOUND WESTON BATCH #: 9609L137

WORK ORDER: 05376-069-001-0700-02

SAMPLE	SITE ID	ANALYTE	SPIKE#1 %RECOV	SPIKE#2 %RECOV	%DIFF
-001	000001	Silver, Total	100	100	0.00
		Aluminum, Total	719.0	909.3*	NC
		Arsenic, Total	97.2	97.1	0.19
		Barium, Total	97.9	98.8	0.96
		Beryllium, Total	96.4	96.4	0.00
		Bismuth, Total	99.0	99.1	0.12
		Calcium, Total	40.2	32.6	20.8
		Cadmium, Total	95.0	95.0	0.00
		Cobalt, Total	97.1	96.8	0.35
		Chromium, Total	99.2	101.3	2.1
		Copper, Total	98.2	97.3	0.86
		Iron, Total	-540.	292.8*	NC
		Mercury, Total	101.3	99.3	2.0
		Potassium, Total	112.4	113.8	1.3
		Magnesium, Total	108.4	103.1	5.0
		Manganese, Total	-26.	-27. *	NC
		Sodium, Total	102.0	101.4	0.54
		Nickel, Total	94.5	95.0	0.44
		Lead, Total	96.8	96.1	0.78
		Antimony, Total	53.1	56.4	6.1
		Selenium, Total	97.1	97.1	0.065
		Thallium, Total	96.2	96.3	0.087
		Vanadium, Total	99.6	101.7	1.8
		Zinc, Total	103.5	104.2	0.65

ROY F. WESTON INC.

INORGANICS PRECISION REPORT 09/19/96

CLIENT: EG&G MOUND WESTON BATCH #: 9609L137

WORK ORDER: 05376-069-001-0700-02

SAMPLE	SITE ID	ANALYTE	INITIAL RESULT	REPLICATE	RPD	DILUTION FACTOR(REP)
-001REP	000001	Silver, Total	0.21u	0.21u	NC	1.0
		Aluminum, Total	11900	11100	6.9	1.0
		Arsenic, Total	8.8	8.7	1.1	1.0
		Barium, Total	78.5	74.0	5.9	1.0
		Beryllium, Total	0.63	0.55	16.0	1.0
		Bismuth, Total	1.4 u	1.4 u	NC	1.0
		Calcium, Total	21100	37800	56.8	1.0
		Cadmium, Total	0.17u	0.17u	NC	1.0
		Cobalt, Total	10.9	9.7	11.7	1.0
		Chromium, Total	15.3	15.3	0.00	1.0
		Copper, Total	17.5	14.8	16.7	1.0
		Iron, Total	20400	19500	4.7	1.0
		Mercury, Total	0.06u	0.06u	NC	1.0
		Potassium, Total	1380	1350	2.2	1.0
		Magnesium, Total	5070	14100	94.5	1.0
		Manganese, Total	750	658	13.0	1.0
		Sodium, Total	71.8	84.4	16.1	1.0
		Nickel, Total	15.7	13.7	13.6	1.0
		Lead, Total	16.3	16.5	1.2	1.0
		Antimony, Total	0.71u	0.71u	NC	1.0
		Selenium, Total	1.0 u	1.0 u	NC	1.0
		Thallium, Total	2.3	1.1	70.6	1.0
		Vanadium, Total	25.7	25.0	2.8	1.0
		Zinc, Total	54.4	52.2	4.1	1.0

ROY F. WESTON INC.

INORGANICS LABORATORY CONTROL STANDARDS REPORT 09/19/96

CLIENT: EG&G MOUND WESTON BATCH #: 9609L137

WORK ORDER: 05376-069-001-0700-02

SAMPLE	SITE ID	ANALYTE	SPIKED SAMPLE	SPIKED AMOUNT	UNITS	%RECOV
LCS1	96L2121-LC1	Silver, LCS	100	100	MG/KG	100
		Aluminum, LCS	1010	1000	MG/KG	100.8
		Arsenic, LCS	1970	2000	MG/KG	98.7
		Barium, LCS	975	1000	MG/KG	97.5
		Beryllium, LCS	48.4	50.0	MG/KG	96.8
		Bismuth, LCS	989	1000	MG/KG	98.9
		Calcium, LCS	4880	5000	MG/KG	97.6
		Cadmium, LCS	48.5	50.0	MG/KG	97.0
		Cobalt, LCS	497	500	MG/KG	99.3
		Chromium, LCS	98.4	100	MG/KG	98.4
		Copper, LCS	244	250	MG/KG	97.8
		Iron, LCS	982	1000	MG/KG	98.2
		Potassium, LCS	5250	5000	MG/KG	105.0
		Magnesium, LCS	4920	5000	MG/KG	98.6
		Manganese, LCS	151	150	MG/KG	100.7
		Sodium, LCS	4890	5000	MG/KG	97.8
		Nickel, LCS	383	400	MG/KG	95.8
		Lead, LCS	491	500	MG/KG	98.2
		Antimony, LCS	590	600	MG/KG	98.3
		Selenium, LCS	1970	2000	MG/KG	98.4
		Thallium, LCS	2000	2000	MG/KG	99.8
		Vanadium, LCS	495	500	MG/KG	99.0
		Zinc, LCS	196	200	MG/KG	98.0
LCS1	96C0738-LC1	Mercury, LCS	1.5	1.5	MG/KG	96.7
LCS1	96L2111-LC1	Silver, LCS	493	500	UG/L	98.5
		Arsenic, LCS	9770	10000	UG/L	97.7
		Barium, LCS	4930	5000	UG/L	98.6
		Cadmium, LCS	254	250	UG/L	101.6
		Chromium, LCS	509	500	UG/L	101.8
		Lead, LCS	2540	2500	UG/L	101.6
		Selenium, LCS	9430	10000	UG/L	94.3
LCS1	96C0740-LC1	Mercury, LCS	5.0	5.0	UG/L	100.2

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 09/19/96

CLIENT: EG&G MOUND WESTON BATCH #: 96091137

WORK ORDER: 05376-069-001-0700-02

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT	DILUTION FACTOR
-001	000001	% Solids	84.0	%	0.10	1.0
-002	000002	% Solids	85.4	%	0.10	1.0
-003	000003	% Solids	95.7	%	0.10	1.0
-004	000004	% Solids	91.8	%	0.10	1.0
-005	000005	% Solids	96.0	%	0.10	1.0
-006	000006	% Solids	91.5	%	0.10	1.0
-007	000007	% Solids	96.1	%	0.10	1.0
-008	000008	% Solids	99.1	%	0.10	1.0
-009	000009	% Solids	94.2	%	0.10	1.0
-010	000010	% Solids	94.0	%	0.10	1.0

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 09/19/96

CLIENT: EG&G MOUND WESTON BATCH #: 9609L137

WORK ORDER: 05376-069-001-0700-02

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT	DILUTION FACTOR
-011	000012	% Solids	96.6	%	0.10	1.0
-012	000013	% Solids	92.0	%	0.10	1.0
-013	000014	% Solids	88.9	%	0.10	1.0
-014	000016	% Solids	92.3	%	0.10	1.0
-016	000011	% Solids	93.6	%	0.10	1.0
-017	000017	Petroleum Hydrocarbons	2.6 u	MG/L	2.6	1.0

ROY F. WESTON INC.

INORGANICS METHOD BLANK DATA SUMMARY PAGE 09/19/96

CLIENT: EG&G MOUND WESTON BATCH #: 9609L137

WORK ORDER: 05376-069-001-0700-02

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT	DILUTION FACTOR
BLANK10	96LHC083-MB1	Petroleum Hydrocarbons	1.0	u	MG/L	1.0	1.0

ROY F. WESTON INC.

INORGANICS ACCURACY REPORT 09/19/96

CLIENT: EG&G MOUND WESTON BATCH #: 9609L137

WORK ORDER: 05376-069-001-0700-02

SAMPLE	SITE ID	ANALYTE	SPIKED SAMPLE	INITIAL RESULT	SPIKED AMOUNT	%RECOV	DILUTION FACTOR(SPK)
BLANK10	96LHC083-MB1	Petroleum Hydrocarbons	2.9	1.0 u	4.2	92.6	1.0

ROY F. WESTON INC.

INORGANICS PRECISION REPORT 09/19/96

CLIENT: EG&G MOUND

WESTON BATCH #: 9609L137

WORK ORDER: 05376-069-001-0700-02

SAMPLE	SITE ID	ANALYTE	INITIAL RESULT	REPLICATE	RPD	DILUTION FACTOR (REP)
-011REP	000012	% Solids	95.6	95.9	0.66	1.0

WESTON
MANAGERS DESIGNERS·CONSULTANTS
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CINCINNATI, OH 45240-1640
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TO: Denny Gault
BE&G

Recipient's Telecopy Telephone #
Recipient's Telephone #

FROM: G Horn

Originator's Telephone #

TOTAL PAGES: 7 (incl. cover sheet)

DATE: 9/24

W.O. #:

COMMENTS:

Call me if you can't read any of the numbers.

G Horn

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- Construction/Remediation
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55 Offices Worldwide

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RFW 01-02-005/A-04/94

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 09/23/96

CLIENT: EG&G MOUND WESTON BATCH #: 9609L137
WORK ORDER: 05376-069-001-0700-02

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT	DILUTION FACTOR
-001	000001	% Solids	84.0	%	0.10	1.0
		Petroleum Hydrocarbons	37.2	MG/KG	4.0	1.0
-002	000002	% Solids	85.4	%	0.10	1.0
		Petroleum Hydrocarbons	1650	MG/KG	39.0	10.0
-003	000003	% Solids	95.7	%	0.10	1.0
		Petroleum Hydrocarbons	96.9	MG/KG	3.5	1.0
-004	000004	% Solids	91.8	%	0.10	1.0
		Petroleum Hydrocarbons	550	MG/KG	36.3	10.0
-005	000005	% Solids	96.0	%	0.10	1.0
		Petroleum Hydrocarbons	1190	MG/KG	34.7	10.0
-006	000006	% Solids	91.5	%	0.10	1.0
		Petroleum Hydrocarbons	386	MG/KG	36.4	10.0
-007	000007	% Solids	96.1	%	0.10	1.0
		Petroleum Hydrocarbons	4780	MG/KG	86.7	25.0
-008	000008	% Solids	99.1	%	0.10	1.0
		Petroleum Hydrocarbons	749	MG/KG	33.6	10.0
-009	000009	% Solids	94.2	%	0.10	1.0
		Petroleum Hydrocarbons	92.2	MG/KG	3.5	1.0
-010	000010	% Solids	94.0	%	0.10	1.0
		Petroleum Hydrocarbons	55.7	MG/KG	3.5	1.0

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 09/23/96

CLIENT: EG&G MOUND WESTON BATCH #: 9609L137
WORK ORDER: 05376-069-001-0700-02

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT	DILUTION FACTOR
-011	000012	% Solids	96.6	%	0.10	1.0
		Petroleum Hydrocarbons	88.3	MG/KG	3.5	1.0
-012	000013	% Solids	92.0	%	0.10	1.0
		Petroleum Hydrocarbons	1110	MG/KG	36.2	10.0
-013	000014	% Solids	88.9	%	0.10	1.0
		Petroleum Hydrocarbons	1140	MG/KG	37.5	10.0
-014	000015	% Solids	92.3	%	0.10	1.0
		Petroleum Hydrocarbons	876	MG/KG	36.1	10.0
-016	000011	% Solids	93.6	%	0.10	1.0
		Petroleum Hydrocarbons	1340	MG/KG	35.6	10.0
-017	000017	Petroleum Hydrocarbons	2.6 u	MG/L	2.6	1.0

ROY F. WESTON INC.

INORGANICS METHOD BLANK DATA SUMMARY PAGE 09/23/96

CLIENT: EG&G MOUND WESTON BATCH #: 9609L137
WORK ORDER: 05376-069-001-0700-02

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT	DILUTION FACTOR
BLANK10	96LHC086-MB1	Petroleum Hydrocarbons	4.9		MG/KG	3.3	1.0
BLANK10	96LHC087-MB1	Petroleum Hydrocarbons	3.3	u	MG/KG	3.3	1.0
BLANK10	96LHC083-MB1	Petroleum Hydrocarbons	1.0	u	MG/L	1.0	1.0

ROY F. WESTON INC.

INORGANICS ACCURACY REPORT 09/23/96

CLIENT: EG&G MOUND WESTON BATCH #: 9609L137
WORK ORDER: 05376-069-001-0700-02

SAMPLE	SITE ID	ANALYTE	SPIKED SAMPLE	INITIAL RESULT	SPIKED AMOUNT	%RECOV	DILUTION FACTOR(SPK)
-002	000002	Petroleum Hydrocarbons	2930	1650	1310	98.3	50.0
		Petroleum Hydrocarbons	3000	1650	1310	103.3	50.0
BLANK10	96LHC086-MS1	Petroleum Hydrocarbons	137	4.9	140	94.2	1.0
BLANK10	96LHC082-MS1	Petroleum Hydrocarbons	3.9	1.0 u	4.2	92.6	1.0

ROY F. WESTON INC.

INORGANICS DUPLICATE SPIKE REPORT 09/23/96

CLIENT: EG&G MOUND WESTON BATCH #: 9609L137
WORK ORDER: 05376-069-001-0700-02

SAMPLE	SITE ID	ANALYTE	SPIKE#1 %RECOV	SPIKE#2 %RECOV	%DIFF
-002	000002	Petroleum Hydrocarbons	98.3	103.3	4.9

ROY F. WESTON INC.

INORGANICS PRECISION REPORT 09/23/96

CLIENT: BG&G MOUND WESTON BATCH #: 9609L127

WORK ORDER: 05376-069-001-0700-02

SAMPLE	SITE ID	ANALYTE	INITIAL RESULT	REPLICATE	RPD	DILUTION FACTOR (REP)
-011REP	000012	% Solids	96.6	95.9	0.66	1.0

PetroFLAG™

Hydrocarbon Test Kit - Field Data Sheet

Date: 10-24-96
Operator: D. Gault
Location: PRS-40B

Calibration Time/Date: _____
Calibration Temperature: 17.3°C

No.	Sample ID	Weight	Time/Date	Reading (ppm)	DF[1]	RF[2]	Actual (ppm)	Comments
1	Blank	10gm	/10-24	Ø	1	7	Ø	
2	Cal.	10gm	/10-24	1000	1	7	1000	
3	#7 6"	1gm	/10-24	Ø	10	7	Ø	Sand
4	#7 14"	1gm	/10-24	Ø	10	7	Ø	Light Clay
5	#7 26"	10gm	/10-24	Ø	1	7	Ø	Light Clay & Water
6	#7 36"	10gm	/10-24	7	1	7	7	Dark Clay
7	#7 48"	10gm	/10-24	Ø	1	7	Ø	Dark Clay Rock
8	#7 55	10gm	/10-24	Ø	1	7	Ø	Rock Wet Clay
9								
10	Blank			Ø	1	7	Ø	
11	Cal.			1342	1	7	1342	
12								
13								
14								
15								
16								
17								
18								
19								
20								

[1]DF = Dilution Factor, e.g., for 5 gram soil sample DF=10g/5g=2, and actual concentration equals reading times DF (reading (ppm) x DF = actual concentration).

[2]RF = Response Factor, selected for the hydrocarbon contamination at the site.

PetroFLAG™

Hydrocarbon Test Kit - Field Data Sheet

Date: 10/28/96
Operator: D. GAULT
Location: PRS 408

Calibration Time/Date: 0720 / 10-28-96
Calibration Temperature: 17.9°C

No.	Sample ID	Weight	Time/Date	Reading (ppm)	DF[1]	RF[2]	Actual (ppm)	Comments
1	BLANK	10gm	0721	Ø	1	7	Ø	
2	CAL.	"	0721	1000	1	7	1000	
3	#2 2"	"	0722	409	1	7	409	SAND + CLAY
4	#2 10"	"	0722	593	1	7	593	SAND
5	#2 15"	"	0723	1942	1	7	1942	SAND + CLAY
6	#2 20"	"	0723	233	1	7	233	"
7	#2 29"	"	0724	Ø	1	7	Ø	CLAY
8	#2 39"	"	0725	Ø	1	7	Ø	CLAY & ROCK
9	#5 4"	"	0725	113	1	7	113	SAND
10	#5 15"	"	0726	Ø	1	7	Ø	SAND & CLAY
11	#5 28"	"	0727	Ø	1	7	Ø	CLAY
12	#5 40"	"	0727	Ø	1	7	Ø	CLAY
13	#5 50"	"	0728	Ø	1	7	Ø	CLAY
14	#5 60"	"	0728	Ø	1	7	Ø	BLACK CLAY
15								
16	BLANK		0729	Ø	1	7	Ø	
17	CAL		0729	1280	1	7	1280	
18								
19								
20								

[1]DF = Dilution Factor, e.g., for 5 gram soil sample DF=10g/5g=2, and actual concentration equals reading times DF (reading (ppm) x DF = actual concentration).

[2]RF = Response Factor, selected for the hydrocarbon contamination at the site.

PetroFLAG™

Hydrocarbon Test Kit - Field Data Sheet

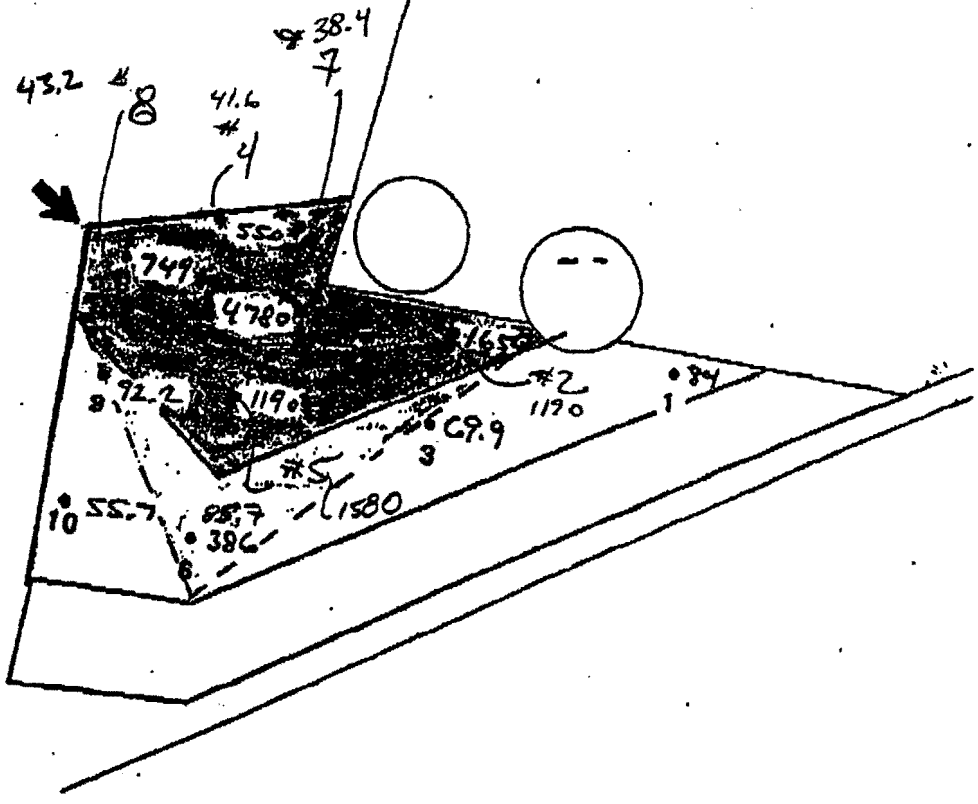
Date: 10/28/96
Operator: D. GAULT
Location: PRS 408

Calibration Time/Date: 0822 / 10-28-96
Calibration Temperature: 18.1°C

No.	Sample ID	Weight	Time/Date	Reading (ppm)	DF[1]	RF[2]	Actual (ppm)	Comments
1	BLANK	10 gm	0822	Ø	1	7	Ø	
2	CAL.	"	0822	1000	1	7	1000	
3	#8 6"	"	0824	Ø	1	7	Ø	SAND & CLAY
4	#8 12"	"	0824	Ø	1	7	Ø	"
5	#8 26"	"	0825	Ø	1	7	Ø	"
6	#8 36"	"	0825	Ø	1	7	Ø	CLAY
7	#6 12"	"	0826	Ø	1	7	Ø	
8	#6 24"	"	0826	Ø	1	7	Ø	
9	#4 12"	"	0826	Ø	1	7	Ø	
10	#4 24"	"	0827	33	1	7	33	
11								
12	BLANK	"	0827	Ø			Ø	
13	CAL	"	0828	1326			1326	
14	#4 24"		0828	31			31	
15								
16								
17								
18								
19								
20								

[1]DF = Dilution Factor, e.g., for 5 gram soil sample DF=10g/5g=2, and actual concentration equals reading times DF (reading (ppm) x DF = actual concentration).

[2]RF = Response Factor, selected for the hydrocarbon contamination at the site.



000021 - #2 (MS/MSD)
000022 - #4
000023 - #7
000024 - #5
000025 - #6
000026 - #8
000027 - FIELD BLANK
000028 - Dup of #2

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 12/02/96

CLIENT: FG&G MOUND WESTON BATCH #: 9611L373
WORK ORDER: 05376-069-001-0700-02

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT	DILUTION FACTOR
-001	000021 (2)	% Solids	89.3	%	0.10	1.0
		Petroleum Hydrocarbons	1190	MG/KG	18.7	5.0
-002	000022 (4)	% Solids	93.8	%	0.10	1.0
		Petroleum Hydrocarbons	41.6	MG/KG	3.6	1.0
003	000023 (7)	% Solids	81.8	%	0.10	1.0
		Petroleum Hydrocarbons	38.4	MG/KG	4.1	1.0
-004	000024 (5)	% Solids	89.4	%	0.10	1.0
		Petroleum Hydrocarbons	1580	MG/KG	37.3	10.0
-005	000025 (6)	% Solids	85.7	%	0.10	1.0
		Petroleum Hydrocarbons	137	MG/KG	3.9	1.0
-006	000026 (8)	% Solids	85.9	%	0.10	1.0
		Petroleum Hydrocarbons	43.2	MG/KG	3.9	1.0
-007	000027	Petroleum Hydrocarbons	1.0 u	MG/L	1.0	1.0
-008	000028 (2)	% Solids	88.2	%	0.10	1.0
		Petroleum Hydrocarbons	1240	MG/KG	18.9	5.0

PRELIMINARY

ROY F. WESTON INC.

INORGANICS METHOD BLANK DATA SUMMARY PAGE 12/02/96

CLIENT: EG&G MOUND WESTON BATCH #: 96111373

WORK ORDER: 05376-069-001-0700-02

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT	DILUTION FACTOR
BLANK10	96LHC133-MB1	Petroleum Hydrocarbons	3.4	MG/KG	3.3	1.0
BLANK10	96LHC135-MB1	Petroleum Hydrocarbons	1.0 u	MG/L	1.0	1.0

DRAFT REPORT

ROY F. WESTON INC.

INORGANICS ACCURACY REPORT 12/02/96

CLIENT: EG&G MOUND WESTON BATCH #: 96111373

WORK ORDER: 05376-069-001-0700-02

SAMPLE	SITE ID	ANALYTE	SPIKED SAMPLE	INITIAL RESULT	SPIKED AMOUNT	%RECOV	DILUTION FACTOR(SPK)
001	000021	Petroleum Hydrocarbons	1250	1190	1250	4.6	25.0
		Petroleum Hydrocarbons	1300	1190	1250	8.9	25.0
BLANK10	96LHC133-MB1	Petroleum Hydrocarbons	133	3.4	140	92.9	1.0
BLANK10	96LHC135-MB1	Petroleum Hydrocarbons	4.2	1.0 u	4.2	99.5	1.0

PRELIMINARY

ROY F. WESTON INC.

INORGANICS DUPLICATE SPIKE REPORT 12/02/96

CLIENT: EG&G MOUND WESTON BATCH #: 9611T373

WORK ORDER: 05376-069-001-0700 02

SAMPLE	SITE ID	ANALYTE	SPIKE#1 %RECOV	SPIKE#2 %RECOV	%DIFF
001	000021	Petroleum Hydrocarbons	4.6	8.9	62.7

DRAFT PRELIMINARY

ROY F. WESTON INC.

INORGANICS PRECISION REPORT 12/02/96

CLIENT: EG&G MOUND WESTON BATCH #: 96110373

WORK ORDER: 05376-069-001-0700-02

SAMPLE	SITE ID	ANALYTE	INITIAL RESULT	REPLICATE	RPD	DILUTION FACTOR(REP)
-001REP	000021	% Solids	89.3	86.8	2.9	1.0

PRELIMINARY

WESTON
MANAGERS DESIGNERS/CONSULTANTS
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Lionville, Pennsylvania 19341-1225
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208 Laboratory - 2nd Floor
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TO: Dennis Gauert / Mound
Craig Stoll / Weston CIN

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Telephone # agreed
Recipient's Telephone #

FROM: Judy Stone

Originator's Telephone #

TOTAL PAGES: 6 (incl. cover sheet)

DATE: 12/2/96

W.O.#: 9611L373

COMMENTS:

TPH data

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From: "Horn, Gordon" <HORNG@cinpost.rfweston.com>
To: "'Denny Gault'" <gauldj@doe-md.gov>
Date: 12/27/96 2:27pm
Subject: PRS 408 Sample Results

05376-069-001 File 4.1

Denny:

We received the results of the latest round of sampling at PRS 408.

Location #2 497 mg/kg
212 mg/kg duplicate

Location #5 27.8 mg/kg

Give me a call and we can discuss the next step.

Thanks,

GSH

CC: Mound Files <MOUND@cinpost.rfweston.com>

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 12/26/96

CLIENT: EG&G MOUND WESTON BATCH #: 9612L718
WORK ORDER: 05376-069-001-0700-02

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT	DILUTION FACTOR
-001	000029	% Solids	80.8	%	0.10	1.0
		Petroleum Hydrocarbons	497	MG/KG	41.2	10.0
-002	000030	% Solids	86.2	%	0.10	1.0
		Petroleum Hydrocarbons	27.8	MG/KG	3.9	1.0
-003	000031	% Solids	79.2	%	0.10	1.0
		Petroleum Hydrocarbons	212	MG/KG	4.2	1.0
-004	000032	Petroleum Hydrocarbons	0.96 u	MG/L	0.96	1.0

ROY F. WESTON INC.

INORGANICS METHOD BLANK DATA SUMMARY PAGE 12/26/96

CLIENT: EG&G MOUND WESTON BATCH #: 9612L748

WORK ORDER: 05376-069-001-0700-02

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT	DILUTION FACTOR
BLANK10	96LHC152-MB1	Petroleum Hydrocarbons	5.9	MG/KG	3.3	1.0
BLANK10	96LHC153-MB1	Petroleum Hydrocarbons	1.0 U	MG/L	1.0	1.0

ROY F. WESTON INC.

INORGANICS ACCURACY REPORT 12/26/96

CLIENT: B&G MOUND

WESTON BATCH #: 9612L748

WORK ORDER: 05376-069-001-0700-02

SAMPLE	SITE ID	ANALYTE	SPIKED SAMPLE	INITIAL RESULT	SPIKED AMOUNT	%RECOV	DILUTION FACTOR(SPK)
-002	000030	Petroleum Hydrocarbons	1270	27.8	1300	95.6	10.0
		Petroleum Hydrocarbons	1210	27.8	1300	90.6	10.0
BLANK10	96LHC152-MB1	Petroleum Hydrocarbons	128	5.9	140	87.1	1.0
BLANK10	96LHC153-MB1	Petroleum Hydrocarbons	3.8	1.0 u	4.2	90.1	1.0

ROY F. WESTON INC.

INORGANICS DUPLICATE SPIKE REPORT 12/26/96

CLIENT: EG&G MOUND WESTON BATCH #: 9612L748

WORK ORDER: 05376-069-001-0700-02

SAMPLE	SITE ID	ANALYTE	SPIKE#1 %RECOV	SPIKE#2 %RECOV	%DIFF
-002	000030	Petroleum Hydrocarbons	95.6	90.6	5.3

ROY F. WESTON INC.

INORGANICS PRECISION REPORT 12/26/96

CLIENT: EG&G MOUND WESTON BATCH #: 9612L748

WORK ORDER: D5376-069-001-0700-02

SAMPLE	SITE ID	ANALYTE	INITIAL RESULT	REPLICATE RPD		DILUTION FACTOR (REP)
-002REP	000030	% Solids	86.2	86.1	0.070	1.0