Environmental Restoration Program

OPERABLE UNIT 5
OPERATIONAL AREA PHASE I INVESTIGATION
AREA 13 FIELD REPORT

MOUND PLANT
MIAMISBURG, OHIO

VOLUME II - APPENDICES A-D

June 1995

Final (Revision 1)

U.S. Department of Energy
Ohio Field Office

EG&G Mound Applied Technologies

Appendix A

APPENDIX A

FIELD LOGBOOKS

A.1

A.1 SITE MANAGER LOGBOOK

EG&G MOUND

OU5

SITE MANAGER LOGBOOK

OPS AREA PHASE I

NEW PROP EXTND PHASE

Russ Tussings 4800 3400

SITE MANAGER LOG BOOK

PROJECT TITLE: EG&G MOUND OU5 OPERATIONAL AREA PHASE I RI/FS FIELD INVESTIGATIONS

WORK SITE: *MOUND PLANT*
Miamisburg, Ohio
OU5 New Property

ACTIVITY: *Mound OU5 OPERATIONAL AREA Phase 1 RI/FS Field Investigations*

CONTRACT #: *BOA 52264*
TASK ORDER: *34896*

PROJECT MANAGER: *Thomas Tank*
COMPANY NAME / ADDRESS: *Science Applications International Corporation*
4031 Colonel Glenn Hwy ,Dayton, Ohio 45431
TELEPHONE NUMBERS: *(513) 429-2699*

SUPERVISORS: *OU5 Manager: Alan Spesard (513)865-3859*
SAIC Proj. Manager: Thomas Tank (513)429-2699

EMERGENCY RESPONCE: *Police / Ambulance / Fire 911 or 865-4040*

PROCEDURES: *SOP 1.1*

START DATE: 5/11/94
END DATE:

TABLE OF CONTENTS: SITE MANAGER LOGBOOK

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 PROJECT NO: 3489

PAGE	FIELD LOG		PAGE	FIELD LOG	
1	TASK TEAM ACTIV. SHEET	5/11/94	31	TASK TEAM ACTIV. SHEET	6/16/94
2	"	5/12/94	32	"	"
3	"	5/16/94	33	"	6/20/94
4	"	5/17/94	34	"	6/21/94
5	"	5/18/94	35	"	"
6	"	5/19/94	36	"	6/22/94
7	"	5/23/94	37	"	"
8	"	5/23/94	38	"	"
9	"	5/24/94	39	"	6/23/94
10	"	5/24/94	40	"	"
11	"	5/25/94	41	"	"
12	"	5/26/94	42	"	6/27/94
13	"	5/26/94	43	"	"
14	"	5/31/94	44	"	"
15	"	6/1/94	45	"	6/28/94
16	"	6/1/94	46	"	"
17	"	6/2/94	47	"	"
18	"	6/2/94	48	"	6/29/94
19	"	6/6/94	49	"	"
20	"	6/7/94	50	"	"
21	"	6/8/94	51	"	6/30/94
22	"	6/9/94	52	"	"
23	"	6/13/94	53	"	"
24	"	"	54	"	7/5/94
25	"	6/14/94	55	"	"
26	"	"	56	"	7/6/94
27	"	"	57	"	"
28	"	6/15/94	58	"	7/7/94
29	"	"	59	"	"
30	"	"	60	"	"

TABLE OF CONTENTS: SITE MANAGER LOGBOO

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 PROJECT NO: 34

PAGE	FIELD LOG		
61	TASK TEAM ACTIV. SHEET	;	7/8/94
62	"	;	7/11/94
63	"	;	"
64	"	;	7/12/94
65	"	;	7/13/94
66	"	;	"
67	"	;	7/14/94
68	"	;	"
69	"	;	"
70	"	;	7/15/94
71	"	;	7/18/94
72	"	;	"
73	"	;	7/19/94
74	"	;	"
75	"	;	7/20/94
76	"	;	"
77	NEW PROP. GEOTECH. SAMPLE SUMMARY		
78	"		
79	"		
80	NEW PROP DRILLING - MULTIPLE HOLE SUMMARY		
81	Task Team Activity Sheet	;	7/21/94
82	"	;	7/22/94
83	"	;	7/25/94
84	"	;	"
85	"	;	"
86	"	;	7/26/94
87	"	;	"
88	"	;	7/27/94
89	"	;	7/28/94
90	"	;	8/1/94

PAGE	FIELD LOG		
91	Task Team Activity Sheet	;	8/2/94
92	"	;	8/3/94
93	"	;	8/4/94
94	"	;	8/8/94
95	"	;	8/9/94
96	"	;	8/10/94
97	"	;	8/11/94
98	Task Team Activity Sheet	;	8/15/94
99	"	;	8/16/94
100	"	;	8/17/94
101	"	;	8/18/94
102	"	;	8/22/94
103	"	;	8/23/9-
104	"	;	8/24/94
105	"	;	8/25/9-
106	Task Team Activity Sheet	;	8/29/94
107	"	;	8/30/94
108	"	;	8/31/94
109	"	;	9/1/94
110	"	;	9/6/94
111	"	;	9/7/94
112	"	;	9/8/94
113	"	;	9/12/94
114	"	;	9/13/94
115	Task Team Activity Sheet		9/14/94
116			
117			
118			
119			
120			

PAGE	FIELD LOG	PAGE	FIELD LOG
121		151	
122		152	
123		153	
124		154	
125		155	
126		156	
127		157	
128		158	
129		159	
130		160	
131		161	
132		162	
133		163	
134		164	
135		165	
136		166	
137		167	
138		168	
139		169	
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145		175	
146		176	
147		177	
148		178	
149		179	
150		180	

TABLE OF CONTENTS SITE MANAGER LOGBOOK

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 PROJECT NO: 34896

PAGE	FIELD LOG	PAGE	FIELD LOG
181		211	
182		212	
183		213	
184		214	
185		215	
186		216	
187		217	
188		218	
189		219	
190		220	
191		221	
192		222	
193		223	
194		224	
195		225	
196		226	
197		227	
198		228	
199		229	
200		230	
201		231	
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204		234	
205		235	
206		236	
207		237	
208		238	
209		239	
210		240	

TABLE OF CONTENTS: SITE MANAGER LOGBOOK

P. V

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 PROJECT NO: 34896

PAGE	FIELD LOG	PAGE	FIELD LOG
241	TAILGATE SAFETY FORM; 5/11/94	271	TAILGATE SAFETY FORM; 7/6/94
242	" ; 5/12/94	272	" ; 7/12/94
243	" ; 5/16/94	273	" ; 7/13/94
244	" ; 5/17/94	274	" ; 7/14/94
245	" ; 5/18/94	275	" ; 7/18/94
246	" ; 5/19/94	276	" ; 7/21/94
247	" ; 5/23/94	277	" ; 7/27/94
248	" ; 5/24/94	278	" ; 8/22/94
249	" ; 5/25/94	279	" ; 8/23/94
250	" ; 5/26/94	280	" ; 8/25/94
251	" ; 5/31/94	281	" ; 8/29/94
252	" ; 6/1/94	282	" ; 9/1/94
253	" ; 6/2/94	283	NO ENTRY
254	" ; 6/6/94	284	
255	" ; 6/7/94	285	
256	" ; 6/8/94	286	
257	" ; 6/9/94	287	
258	" ; 6/13/94	288	
259	" ; 6/14/94	289	
260	" ; 6/15/94	290	
261	" ; 6/16/94	291	
262	" ; 6/20/94	292	
263	" ; 6/21/94	293	
264	" ; 6/22/94	294	
265	" ; 6/23/94	295	
266	" ; 6/27/94	296	
267	" ; 6/28/94	297	
268	" ; 6/29/94	298	TAILGATE SAFETY FORM; 9/6/94
269	" ; 6/30/94	299	" ; 9/7/94
270	" ; 7/5/94	300	" ; 9/8/94

TABLE OF CONTENTS

SITE MANAGER LOGBOOK ? VI

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1

PROJECT NO: 34896

PAGE	FIELD LOG	PAGE	FIELD LOG
301	TAILGATE SAFETY FORM; 9/12/94	331	NA
302	" ; 9/13/94	332	
303	" ; 9/14/94	333	
304	END OF ACTIVITIES - NO MORE	334	
305	ENTRIES IN THIS BOOK	335	
306	NA	336	
307		337	
308		338	
309		339	
310		340	
311		341	
312		342	
313		343	
314		344	
315		345	
316		346	
317		347	
318		348	
319		349	
320		350	
321		351	
322		352	
323		353	
324		354	
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326		356	
327		357	
328		358	
329		359	
330		360	

TASK TEAM ACTIVITY LOG SHEET — SITE MANAGER LOGBOOK P. 1

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 — TASK NO: 34896

Date (mm/dd/yy): 5/11/94 TIME: 0700 PAGE 1 OF 1

Task Team Members:

JOHN DAVIS	SAIC	BERNARD KIENOW	SITRAW, WEISS, DENNIPLES
ERIC SAYLOR	SAIC	ART TURPIN	
EVELYN MEAGHER-	SAIC	JEFF KUNKA	
		JOHN HALEY	

Narrative (include time and location):

@ MOUND POST Z @ 0700. ES, EM & SURVEY CREW ATTEND MOUND ORIENTATION. JD to trailer to prep for briefing and first day of clearing/staking.

0800 Begin briefing

0900 Complete briefing. Out to Post Z (grid point 050) to get surveyors started. Joyce Geisler on site. Find error on site map; 1W on map is really 0W, 2W = 1W, etc. Put in a few pins in SE corner by Post Z. Surveyors leave site to cut pins in half

1200 Break for lunch.

1300 Return from lunch. Per K. McMahon, surveyors can have their 2-way radios on site w/o permit. KM will try to be onsite tomorrow morn. Continue working in SE corner on North lines 1-6. Surveyors leave about 1500 to pick up equip. @ trailer.

1700 Logbook entries. Prep for tomorrows work.

LAST ENTRY

Daily Weather Conditions: A.M. cool, clear, sl. hazy, 45°F

P.M. cloudy, windy, 65°F

Recorded By [signature] QA Checked By Laura M. Morrison 8/15/94

TASK TEAM ACTIVITY LOG SHEET — SITE MANAGER LOGBO

P. Z

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 — TASK NO: 34896

Date (mm/dd/yy): 5/12/94 TIME: 0700 PAGE 1 OF 1

Task Team Members:

JOHN DAVIS	(SMC)	BERNARD KIENOW	(SWD)
ERIC SAYLOR	(SMC)	ART TURPIN	(SWD)
EVELYN MEACHER	(SMC)	JEFF KUNKA	(SWD)

Narrative (include time and location):

0700 @ trlr @ 0700. Conduct Tailgate briefing. K. McMahon onsite briefly. Says that 2-way radio and phones are completely unrestricted. Discuss work plans w/ SWD. They will work to the water tank then west off the hill. Prep equipment. build weedwh

0815 At site w/ SWD. Continue working in SE corner of OU5. Identify several HP and restricted zones.

1200 Break for lunch. T. Tank on site

1245 Back fm lunch. SWD have truck problems (yesterday also); they return to site around 1400. Move to SW corner of OU5 - heavily vegetated.

1730 Back to trailer, clean up, prep equip. for Monday.

1800 Offsite - EOD

Last entry

Daily Weather Conditions: A.M. Clear cool calm 45°F

P.M. Warm, sunny 75°F

Recorded By [signature] QA Checked By Laura M. Morrison 8/15/94

TASK TEAM ACTIVITY LOG SHEET

P. 3

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 TASK NO: 34896

Date (mm/dd/yy): 5/16/94 MON TIME: 0700 PAGE 1 OF 1

Task Team Members:

JOHN DAVIS	(SMC)	BERNARD KIENOW	(SWD)
ERIC SAYLOR	↓	ANT TURPIN	↓
EVELYN MEALHER		JEFF LUNKA	

Narrative (include time and location):

@ tailgate @ 0700. Prep equip. Conduct Tailgate meeting. Discuss days activities; SWD will try to work on NONAOC grid by Area 13 to establish control. ES & EM will continue cutting 3N line. JD in trailer doing paperwork.

0800 @ site. Work on 2N & 3N line around 16W. Also work in NE corner of site.

1200 Break for lunch

1230 Continue cut 16W line clearing so SWD can put in points & at angles.

NOTE: JD prepared forms, drop off 2 wk look ahead to J Wisler. JD off site @ 1230.

1800 Back @ trailer (ES, EM). Prep for tomorrow. off site @ 1815

Last Entry

Daily Weather Conditions: A.M. clear cool & calm 50°F

P.M. Same warming to 70°F

Recorded By [signature] QA Checked By Laura M. Morrison 8/15/94

TASK TEAM ACTIVITY LOG SHEET — SITE MANAGER LOGBOOK p. 4

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 — TASK NO: 34896

Date (mm/dd/yy): 5/17/94 TIME: 0700 PAGE 1 OF 1

Task Team Members:

JOHN DAVIS (SMC)	BERNIE KIENOW (SWD)
ERIC SAYLOR ↓	ART TURPIN ↓
EVELYN MEAGHER	JEFF KUNKA

Narrative (include time and location):

0700 @ trailer. Conduct Tailgate Safety Mtg. J. Geisler on site. She doesnt want us working N. of Area J in D&D zone until she talks w/ HP. Discuss work plan will continue cutting 16W line.

0800 @ site.

0830 Mike O'Donoghue & Roy Mowen @ t/r. Discuss HP coverage. Will schedule HP coverage for A22 first of next week - will use Jeff Tackett. Re D&D: they say were OK here as long as we stay out of red rope.

- Continue working in SW corner on lines 5N, 6N, 7N, 8N mostly clearing.

1200 Break for lunch

1230 Back for lunch. Start cutting on 9N for 6W to give surveyors control.

NOTE: JD off site @ 1630

1800 Back to t/r (ES, SM). EOD

LAST ENTRY

Daily Weather Conditions: A.M. Clear cool breezy 50°F

P.M. Sunny, warming to 60°F

Recorded By [signature] QA Checked By Laura M. Morrison 8/13/94

TASK TEAM ACTIVITY LOG SHEET

SITE MANAGER LOGBOOK P.5

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1

TASK NO: 34896

Date (mm/dd/yy): 5/18/94 TIME: 07 00 PAGE 1 OF 1

Task Team Members:

JOHN DAVIS	SAIC	BERNARD KLENOW	SWD
ERIC SAYLOR	↓	ART TURPIN	↓
EVELYN MEAGHER		JEFF KUNKA	

Narrative (include time and location):

0700 @ t/r. Conduct Tailgate Meeting. Discuss days work orders. JD works on snow maintenance.
Note: J. Geisler on site @ 0800. Updates her map.
JD tells her about HP mtg yesterday - she concurs.

0800 @ site. Work in area mound area J cleaning on 19N and 9N
Note: JD offsite @ 1200. Drop off chains @ Miamisburg for sharpening. Call R. Tusing to set up security escort for tomorrow.

1200 Break for lunch

1230 Continue working around area J.

1700 Back to t/r. Prep for tomorrows activities.

1730 Offsite

Last Entry

Daily Weather Conditions: A.M. Sunny breezy, 50°F

P.M. Same. warming to 65°F

Recorded By [signature] QA Checked By Laura M. Morrison 8/15/94

TASK TEAM ACTIVITY LOG SHEET — SITE MANAGER LOGE

P. 6

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 — TASK NO: 3489

Date (mm/dd/yy): 5/19/94 TIME: 0700 PAGE 1 OF 1

Task Team Members:

JOHN DAVIS	SAIC	BERNARD KIENOW	SWD
ERIC SMYLOR	↓	ART TURPIN	↓
EVELYN MEAGHER		JEFF KUNKA	

Narrative (include time and location):

0700 @ site. (HR). Load truck w/supplies

0730 Meet guards @ Bldg 23 by Area 13. SWD surveys around Bunkers &

Note: @ 0900 JD leaves site to attend New Prop. Extended Pha

kickoff Mtg @ OSE Bldg.

1130 left Bunker area w/guards

1200 Break for lunch

1400 JD meets K. McMahan and Hoppy? Out to A21 to try to define boundary. Find center of bunker but can't find perime due to hvy vegetation and lack of deep soil on surface. FIDLER readings 10-15K above background in bunker area. KM suggests that to properly define boundary, its necessary to dig subsurface soil samples w/ appropriate PPE and HP support which is not in our scope of work.

1500 JD walks lines IN thru 7N (West half). Some cutting on 6N. Contact Tim Pedro and put Shannon Kreitemeyer on Access List, Orientation for Monday.

Last Entry

Daily Weather Conditions: A.M. cool, hazy clear 50°F

P.M. Some clouds 60°F

Recorded By [signature] QA Checked By Laura M. Hamilton 8/15/94

TASK TEAM ACTIVITY LOG SHEET — SITE MANAGER LOGBOOK P.7

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 — TASK NO: 34896

Date (mm/dd/yy): 5/23/94 MON TIME: 0700 PAGE 1 OF 2

Task Team Members:

JOHN DAVIS	SAIC	BRAD RICHARDSON	SAIC
EVELYN MEACHER	↓	CHRIS HALLEY	↓
SHARON KRECKEMEYER	↓	BERNARD KLENOW	SWD
		ART TURPIN	↓
		JEFF KUNKA	↓

Narrative (include time and location):

0700 @ trailer. Prep equipment.

0730 give orientation to SK, BR, CH. Do Tailgate Safety meeting. Arrange crews; BR & CH working on lines 2N-7N; EM, SK w/ surveyors in Area 22. JD calls HP & arranges for HP coverage in A22. K. McMahan on site; says they will collect soil spls in A21 to determine hazard, then suggests we stake/clr as planned. J. Geisler on site; updates her map, disc. permitting. JD tells her will do all stake/clr before 6/13, then will do field investigations.

NOTE: JD offsite @ 0930.

1130 Brad R. & Chris H. back at trailer; between 9:15-11:30 Chopped 4N Line between 15 W and 19 W; Also staked these locations

5/23/94 1700 This afternoon we staked 1N 23W, 5N 17W, 5N/3W, 6N 17W and points along 6N Line from 11W to 15 W. Then we chopped 14N Line from 10W to 13W.

1715 Cut surveyors line-of sights in Areas 22 + 21 this morning + afternoon.

Daily Weather Conditions: A.M. SI overcast, 65°F, humid

P.M. Mostly sunny, 88°F, humid, breeze 5-10 mph

Recorded By [signature] QA Checked By Laura M. Monahan 8/15/94

TASK TEAM ACTIVITY LOG SHEET — SITE MANAGER LOGBOOK P. 8

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 — TASK NO: 34896

Date (mm/dd/yy): 5/23/94 TIME: 10:00 PAGE 2 OF 2

Task Team Members:

John Davis SAIC
Evelyn Meagher Hartzell ↓
Sharon Kriedemeyer ↓
Brad Richardson SAIC
Chris Holley ↓
Bernard Kienow SWD
Art Turpin ↓
Jeff Kunka

Narrative (include time and location):

1000 Health Physics arrived at Area 22 to let us into the area (Sharon & Evelyn). The HP representative was Henry Robinson. He gave us brief instructions, including: 1) do not dig in the dirt, 2) do not place stakes in the ground then move them 3) do not stay in the area any more than necessary, especially on the mounds of dirt. He explained that the area contained buried debris, including cobalt, that was giving off some gamma rays. We were told that we didn't have to wear the rubber boots as long as we rinsed our boot after leaving the area. He gave us permission to enter the area unaccompanied during the day.

LMT Entry

Daily Weather Conditions: A.M. NA

P.M. NA

Recorded By EVELYN MEAGHER QA Checked By

8/15/94

TASK TEAM ACTIVITY LOG SHEET

SITE MANAGER LOGBOOK P.9

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 TASK NO: 34896

Date (mm/dd/yy): 5/24/94 TUES TIME: 0700 PAGE 1 OF 2

Task Team Members:

JOHN DAVIS	SAIC	EVELYN MEACHER	SAIC
BRAD RICHARDSON	↓	SHARON KREITENMEYER	↓
CHRIS HALEY		BERNARD KIENOW	SWD
		ART TURPIN	
		JEFF KUNICA	↓

Narrative (include time and location):

0700 @ the. Prep for days activities. Tune status. Conduct safety mtg.

0730 Surveyors to Bldg 49 to meet Security; JD left message w/ Russ Tusing yesterday for escort. EM & SK to A22 to cut lines; JD, BR, CH to AJ to stake, cut lines. NOTE: J. Geisler @ the. Discuss intrusive permitting in Ops Area. JD gives JG activity sched. JG will permit in "blocks", prob. starting in SE corner and permitting 400x400' blocks. JG says she's getting swamped. JD asks to stake KG borings in A7 so she can permit those.

1700 Brad and Chris team back. Today in Area J Staked J-A-13 thru J-E-1; J-F-13 thru J-F-5; and J-G-13 thru J-G-9; Cut lines down hillside on west side of Area J. (along 13, 12, 11, 10, 9, 8, 7 and part of 6 where I encountered ~~alot~~ of poison ivy. For the surveyors we chop 21-A-4 thru 21-A-1; Also chopped 13-A-3 thru 13-A-6.

Daily Weather Conditions: A.M. OVERCAST, MUGGY, 75°F

P.M. Partly Sunny, Scattered Showers, 85°F, Wind 15-20 mph W

Recorded By [signature] QA Checked By Laura M. Morrison 8/15/94

TASK TEAM ACTIVITY LOG SHEET

SITE MANAGER LOGBOOK P.10

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1

TASK NO.: 34896

Date (mm/dd/yy): 5/24/94 TIME: NA PAGE 2 OF 2

Task Team Members:

Brad Richardson
Chris Halley
Evelyn Meagher-Hartzell
Sharon Krietemeyer

Narrative (include time and location):

continued: Safety Officer, Eddie Magness gave us a safety visit. Also a maintenance man said that there will be work done on the H_2O tower next month and that they will be cordoning-off a portion of Area J

morning

Sharon + Evelyn worked in Area 20 again. This time Health Physics sent Ray + Jeff, who wanted to check us each time we left the area. They were not concerned about us going between the area and the truck, but ~~they ch~~ Jeff did check our boots + hands with the FIDLER when we left for lunch. Had difficulties starting the chainsaw most of the morning.

1230 After lunch, ~~the~~ Evelyn + Sharon's chain saw would not start. Worked on it until about 2:30, when Greg got it running but not very well. Evelyn made arrangements to get it worked on + took it to be serviced. Sharon staked in Area J.

LAST ENTRY

Daily Weather Conditions: A.M. NA

P.M. NA

Recorded By [signature] QA Checked By [signature] 8/15/94

TASK TEAM ACTIVITY LOG SHEET

SITE MANAGER LOGBOOK P. 11

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 TASK NO: 34896

Date (mm/dd/yy): 5/25/94 TIME: 07 00 PAGE 1 OF 1

Task Team Members:

JOHN DAVIS
BRAD RICHARDSON
CHRIS HALLEY
EVELYN MEAGHER
SHARON KALKEMEYER

Narrative (include time and location):

0700 @ H/R. Surveyors not here today. Conduct Tailgate Briefing. Assign work; BR & CH to A22, EM, SM to A22 JD to town to pick up chains etc.

1500 Brad & Chris chopped and cleared Line M in Area J Between 7 & 1. Then up to Area 21: Staked perimeter From A-1 to A-7 to J-7 To J-1; then Chopped Lines I & H; started chopping Lines G & F (continued tomorrow). Leave for meeting @ Dayton Off.

0730 Sharon & Evelyn cleared & staked in Area 22. Jeff from H&P checked our hands & boots for radiation before lunch (1130) & after we finished Area 22 (1300).

1500 Sharon & Evelyn staked in Area J.

1600 Evelyn left site to ~~drop~~ THD 5/25/94 pick up chainsaw

1730 Sharon left site to go home

LAST ENTRY

Daily Weather Conditions: A.M. overcast, sl. rain, then clearing 70°F

P.M. SAME, warming to 75°F

Recorded By [signature] QA Checked By Laura M. Morman 8/15/94

TASK TEAM ACTIVITY LOG SHEET

SITE MANAGER LOGBOOK P.12

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 TASK NO: 34896

Date (mm/dd/yy): 5/26/94 TIME: 0700 PAGE 1 OF 2

Task Team Members:

Brad Richardson
Chris Halley
John Davis
Evelyn Meagher-Hartzell
Sharon Krietemeyer

Narrative (include time and location):

0730 - On Site; Surveyors here today. Conduct Health and Safety briefing. Assign work BR & CH clearing on Area 21; EM & SK going w/ security to access - sensitive areas.

1040 - Brad & Chris back @ trailer. From 8:00 to 8:30 chopped Lines 6 & F and started on E in Area 21; Surveyor asked us to chop lines 1 & 5 in Area J; At 9:30 we were done chopping line 5 when Chris said that he had cut his finger: Chris' narrative on the event: Was clearing sides of excess brush. Laid machette to the side to pull branches down. Lost balance and placed hand down to stop fall. Machette cut through glove and finger (right index finger). Took off to hospital. Realized cut was not that bad. Washed cut out at home and applied sterile gauze. No problem.

Sharon & Evelyn: Met security @ 0730 & ~~stacked~~ EMH staked in fence-in secure areas til 11:30

Daily Weather Conditions: A.M. Mostly Cloudy, 55°F, Wind 10-15 NNW.

P.M. NA

Recorded By Brad Richardson QA Checked By [illegible]

TASK TEAM ACTIVITY LOG SHEET

SITE MANAGER LOGBOOK P-13

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 TASK NO: 34896

Date (mm/dd/yy): 5/26/94 TIME: NA PAGE 2 OF 2

Task Team Members:

NA

Narrative (include time and location):

11:30 Sharon & Evelyn Lunch

1650 Back @ Trailer: Finished Lines A B C D & E in Area 21 [not staked yet. Next week can finish staking Area 21 then ~~run~~ AJBR 5/26/94 chop in other direction]

1230 - Staked in secure areas w/ security escorts until 1700 (Sharon & Evelyn)

1730 left site (Sharon & Evelyn)

LAST ENTRY

Daily Weather Conditions: A.M. NA

P.M. Mostly sunny, 65°F, Wind 10-15 NNW

Recorded By [signature] QA Checked By [signature]

TASK TEAM ACTIVITY LOG SHEET — SITE MANAGER LOGBOOK P. 14

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 — TASK NO: 34896

Date (mm/dd/yy): 5/31/94 TUES TIME: 07 00 PAGE 1 OF 1

Task Team Members:

JOHN DAVIS	SAIC	SHARON KREITHLOW	SAIC
CHRIS HALLEY	↓	BERNARD KLENOW	SWD
EVELYN MEACHER	↓	ANT TURPIN	↓
		JEFF KUNKA	↓

Narrative (include time and location):

0700 @ trailer. Conduct Tailgate mtgs. Discuss work plans. J. Geisler on site: says SWD can go to Bldg 27 (explosives) but must be done by 9:00. SWD expects to finish today.

- Note: JD expecting Tim Bohmer for Bowker-Morner today but no-show.
- Note: Chris Halley offsite @ 0800.

EM & SK will work closely w/ surveyors so they have all cutting they need.

0800 On site EM, SK near A3, then move to A21 to finish clearing/staking. CH back on site around 930. JD & CH stake A7 (soil gas) and boreholes.

1200 Both crews @ t/k for lunch

1300 Continue work. EM & SK back to A21. CH offsite again. JD to A7 to continue staking. Note: K. McMahan out till 6/1

NOTE: Surveyors done work. Offsite @ approx 1030A.

1700 All back @ trailer to clean up. Offsite @ 1730.

LAST ENTRY

Daily Weather Conditions: A.M. Clear, Cool, Calm, 50°F

P.M. Sunny, warming to 76°F

Recorded By [signature] QA Checked By Laura M. Morrison 8/15/94

TASK TEAM ACTIVITY LOG SHEET — SITE MANAGER LOGBOOK P.15

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 — TASK NO: 34896

Date (mm/dd/yy): 6/1/94 TIME: 07:00 PAGE 1 OF 2

Task Team Members:

JOHN DAVIS	SMC	SHARON KREITEMEYER	SMC
EVELYN MEACHER	↓	BRAD RICHARDSON	↓
CHRIS HALLEY			

Narrative (include time and location):

0700 @ HR. Prep equip. for day. Conduct Tailgate Mtg. J. Geisler on site; discuss util. clearances; Rod will start permitting today in SE corner. For Monthly Safety Report: CH's cut finger is NOT OSHA reportable.

0830-0930: JD takes Tim Boehmer to A7 to look @ borehole locs. All look OK if hole in HP area is on Road. Then to New Property. TB wants to scrape rd fm Benner Road, across creek, into meadow, and to Powerline Rd. Also scrape perimeter fence road. Also Hole in fence Road. All locs OK except B401 needs to be moved inside fence, B405 to Powerline Road.

0800 SK + EM to Area 21 to clear.

1115 SK + EM off site for lunch

1200 SK + EM back onsite. Went to Area 13 to stake and clear.

~~0930~~ 1430 EM slipped on steep hill, SK. She hit a stump (~1" diameter), which knocked her visor up + poked her in the eye. SK drove her to the emergency room. The doctor said she had three scratches SK on her cornea SK but ~~had not~~ SK did not appear to have pierced the eye. The

Daily Weather Conditions: A.M. Warm + Sunny, ~75°F

P.M. Warm + Sunny, ~80°F

Recorded By Sharon Kreitemeyer QA Checked By [signature]

TASK TEAM ACTIVITY LOG SHEET

SITE MANAGER LOGBOOK P.16

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 TASK NO: 34896

Date (mm/dd/yy): 6/1/94 TIME: NA : PAGE 2 OF 2

Task Team Members:

John Davis
Sharon Krietemeyer
Evelyn Meagher
Brad Richardson
Chris Halley

Narrative (include time and location):

doctor gave her antibiotic eye drops and patches and released her.

1600 JK - EM + SK ~~returned~~ JK returned to site.

1615 EM left the site for the day.

1700 SK left the site for the day.

1700 BR & CH clearing on Area J hillside all day. Poison Ivy was very thick; wore Tyvek suit which slowed down work rate Did Lines 1, 2, 3, 4, 5.

1705 BR & CH left site

LAST ENTRY

Daily Weather Conditions: A.M. See previous page

P.M. " " "

Recorded By Sharon Krietemeyer QA Checked By. [illegible]

TASK TEAM ACTIVITY LOG SHEET

SITE MANAGER LOGBOOK P-17

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1

TASK NO: 34896

Date (mm/dd/yy): 6/2/94 TIME: 07 00 PAGE 1 OF 2

Task Team Members:

JOHN DAVIS
SHARON KRIETEMEYER
BRAD RICHARDSON
CHRIS HALLEY

Narrative (include time and location):

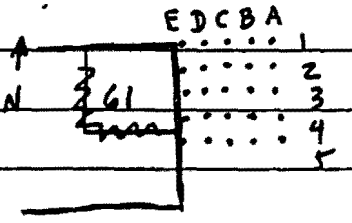
0700 @ t/r. Conduct H&S Mtg. Work assignments; SK, BR, & CH will all work together. Finish stake AJ, then to 3/SDB.

-NOTE: J. Geisler on site. JD discusses clearances. Informs JG of 6/13 start for soil gas and drilling in New Prop; 6/20 start for A7 drillings; 6/8-6/9 dozer work in New Prop. Arrange to meet here 10:30A Monday.

- NOTE: per disc. btwn Tom Tank & Alan Spearand

1) in wooded AOCs w/ difficult access - no FIDLER (which eliminates need for bi-directional lines); specifically hill-side of AJ, all of A21, and wooded portions of A22. Also applies to wooded area of A13

2) Place a 100'x100' grid w/ 25-ft centers all Bldg 61.



JD completes forms for J. Geisler & drops off. Finishes locating A7 holes.

Daily Weather Conditions: A.M. sl. cloudy, cool, & breezy.

P.M. same

Recorded By [signature] QA Checked By Laura M. Morrison 8/15/94

TASK TEAM ACTIVITY LOG SHEET — SITE MANAGER LOGBOOK P. 18

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 — TASK NO: 34896

Date (mm/dd/yy): 6/2/94 TIME: NA PAGE 2 OF 2

Task Team Members:

NA

Narrative (include time and location):

1100 K. McMahan onsite talking about details of injury incident. J. Davis offsite.

1100 SK, BR, + CH not able to do line 16 because no HP person was available

Chopped + staked line 15 N, staked 15N 7W.

Chopped 14N + staked 14N 7W to 14N 13N.

Chopped a little on line 10N.

1630 SK off site.

Last Entry

Daily Weather Conditions: A.M. NA

P.M. NA

Recorded By [signature] QA Checked By Laura M. Marlen 8/15/94

TASK TEAM ACTIVITY LOG SHEET — SITE MANAGER LOGBOOK P.19

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 — TASK NO: 34896

Date (mm/dd/yy): 6/6/94 MO TIME: 0730 PAGE 1 OF 1

Task Team Members:

JOHN DAVIS — MATT OBLOY.
BRAD RICHARDSON
CHRIS HALLEY

Narrative (include time and location):

0730 ONSITE. SOME delay due to some required REGIONAL soil work. J. GEISLER ONSITE - WANTS medical update on Evelyn. DISCUSS clearances - NO word yet from A. Spoke to REGARDING blanket approval for soil gas emplacem. Conduct HAS briefing.

0830 BR, CH, MO to AREA 3/SDB to begin staking there. JD to HP Bldg to discuss coverage for dozer work in New Property. Talk w/ Roy Mowen; tell him dozer work on Wed 1 Thurs - his only concerned w/ contamination in Area 1. Discuss scheduling - tell him New Property drilling to start 6/13 w/ 2 RIGS AND soil gas survey IN Ops Area to start 6/14. He thinks they might not be able to provide HP coverage for all.

1030 JD meets J. Geisler IN A7 - show her the 15 A7 boring locations. Then stake Bldg 61 100' x 100'.

1200 JD offsite.

1400 BR, MO, & CH Staked most of Area 3; It began to storm at 1400 and continues now.

LAST ENTRY

Daily Weather Conditions: A.M. Sunny / Mostly Cloudy 78°F, West Wind
P.M. Severe Storms 75°F, Gusting Winds

Recorded By [signature] QA Checked By Laura M. Morrison 8/15/94

TASK TEAM ACTIVITY LOG SHEET — SITE MANAGER LOGBOOK

P.20

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 — TASK NO.: 34896

Date (mm/dd/yy): 6/7/94 TIME: 0730 PAGE 1 OF 1

Task Team Members:

Brad Richardson

Chris Halley

Narrative (include time and location):

0730 Onsite; BR & CH to finish staking Area 3 and then proceed on staking SDB Area. J. Geisler on site she said in area 3, locations G15, G14, F14, E14, D14, E13 may be directly over sanitary line. In area 3 Joyce said they will try to get a variance for everything other than telephone, electric and fire lines. Also in the wooded area, when intrusive procedures begins she or Ron will be with the crews.

1700 In morning BR & CH chopped Lines A & B & C in Area 3 and staked those lines also. In afternoon began chopping additional lines in Area J (10 foot spacing.

LAST ENTRY

Daily Weather Conditions: A.M. Sunny, 65°F, Calm

P.M. " 85°F,

Recorded By [signature] QA Checked By [signature]

TASK TEAM ACTIVITY LOG SHEET — SITE MANAGER LOGBOOK P.21

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 — TASK NO: 34896

Date (mm/dd/yy): 6/8/94 TIME: 0715 PAGE 1 OF 1

Task Team Members:

Brad Richardson
Chris Halley
Eric Saylor

Narrative (include time and location):

0715 On Site; Eric Saylor's already here. Loading up van

0735 We are set up to have a guard escort us tomorrow from 0730-1530 inside the security areas. First thing tomorrow morning we have to contact our escort guard throug guard post 2

0800 JOHN DAVIS ON SITE. MISC. PAPERWORK IN TRAILER, THEN to New Property to stake surface water/sediment sampling locations.

1700 BR, CH & ES left site; Today we cleared 5 more lines in Area J for the geophysical survey. Approx. 3½ more lines to clear in Area J for tommorrow. B.R. was off-site for another Project's meeting from 0830 to ~~2~~ 1430

LAST ENTRY

BRR 6/8/94

Daily Weather Conditions: A.M. Mostly Cloudy, 60°F,

P.M. " " "

Recorded By [signature] QA Checked By [signature]

TASK TEAM ACTIVITY LOG SHEET — SITE MANAGER LOGBOO P.22

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 — TASK NO: 34896

Date (mm/dd/yy): 06/09/94 TIME: 0715 PAGE 1 OF 1

Task Team Members:

A Brad Richardson — Matt Oblog
Chris Halley
Eric Saylor

Narrative (include time and location):

0715 B.R. & E.S. on site.
0730 CH on site; B.R & E.S will go back to Area J and finishish clearing the geophysical lines. CH and M.O will go around w/ security and finishin staking w/in secure areas.
0800 J Geisler says there are some points near Area 7 and Area 3/SDB that will have to be move due to utility.
0830 CH + MO to stake secure areas 7; SM/PP; and 13. BD + ES to finish geophysical lines in Area J. (12N15-1
1200 Lunch
1245 CH + MO to Area 3/SDB to stake. BR + ES to stake and finish Area 3.
245-315 To Walmart for supplies (paint, bar oil, etc) CH + M
0315 Both crews at Area 3/SDB to finish staking/c.
LAST ENTRY

Daily Weather Conditions: A.M. Mostly Sunny 60°F, Calm
P.M. " " 80°F, Slight wind

Recorded By [signature] QA Checked By [signature]

TASK TEAM ACTIVITY LOG SHEET — SITE MANAGER LOGBOOK P.23

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 — TASK NO: 34896

Date (mm/dd/yy): 06/13/94 TIME: 0715 PAGE 1 OF 2

Task Team Members:

Eric Saylor, Mike Klidjecz, Mark Howard, Bowser-Morner Crew
Chris Halley, Martha Cramer, Jolitha Humpert
John Davis, Mike Monroe

Narrative (include time and location):

0730 ES, GH + JD on site.

0745 Rest of SAIC crew and Bowser-Morner attend Contractor Orientation and a H/S. JD gives site orientation briefing. See H&S Tailgate mtg form.

0930: dozer operator to New Prop via Benner Road - starts working on South part of property. Tim Boehnen of B-M back to yard to pick up hydropunches. SA

SAIC crews established:

Susan Austin, Martha Cramer: Cable tool
Mike Klidjecz, Eric Saylor: HSA
Mark Howard, Mike Monroe: Soil Gas.

Crews mending procedures, prepping for drilling. Waiting on fedx delivery from office.

- Per phone call fm Tom Tank: OK to do dozer work on Perimeter Road. Wells 397 & 398 sited OK. OK to doze a 10'x10' site.
- Blanket approval for soil gas for sanitary, sewer, water.

Other notes & interest:

per T. Tank; if its necessary to skid rig to collect a sample, decon of augers not necessary.

per Roy Mowen, excavation permit needs to be posted on rig.

Daily Weather Conditions: A.M. Sunny 70°F Calm

P.M. NA

Recorded By [signature] QA Checked By Laura M. Morrison 8/15/94

TASK TEAM ACTIVITY LOG SHEET SITE MANAGER LOGBOOK P.24

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 TASK NO: 34896

Date (mm/dd/yy): 6/13/94 TIME: NA PAGE 2 OF 2

Task Team Members:

NA

Narrative (include time and location):

Also per Roy Mowen, last sample of day needs to be a SSF @ 3:45 - HP quit @ 4:30.

per J. Geisler; cable on HSA is smashed - needs replacement before drilling. Cones need to go in road around 399 location.

per Hr Sm A. Spesard; - excavate as necessary on perimeter road W. of Bldg 21 culvert w/ HP coverage. R. Mowen there @ 1400 so dozer can do that work.

- per J. Geisler; HP is off @ 430 No exceptions. HSA came up steep road - Not allowed

- No drill start today due to lack of procurement. Field crew to Rentzel place for hammer and generator (hammer too small), crew to Meijers for misc, and Davis to Hazco (misc supplies and to change DVAs). Still missing radios, phones and other items.

6/13/94 MD

~~1500~~ One vehicle delivered about 1130, 2nd vehicle @ 130.

1800 All crews offsite.

Last Entry

Daily Weather Conditions: A.M. NA

P.M. humid, hot to 90°F

Recorded By [signature] QA Checked By Laura M. Morrison 8/15/94

TASK TEAM ACTIVITY LOG SHEET

P.25

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 TASK NO: 34896

Date (mm/dd/yy): 6/14/94 TIME: 0700 PAGE 1 OF 3

Task Team Members:

JOHN DAVIS JOLETTA HUMPERT MARK ~~MIKE~~ HOWARD JTD 6/14/94

Mike Klidjece ERIC SAYLOR (HSA) Mike MONROE

SUSAN ~~AUSTIN~~ ABSTON MARTHA CRAMER (CABLE TOOL) BOWSER-MORNER CREW

JTD 8/12/94

Narrative (include time and location):

0700 all staff @ HR. Conduct HAS Meeting. Drill crews still prepping equipment. One of the OVA probes is working, will use Regional Soil HNU until replacement probe is found.

0830 Crews out to rigs. Waiting on drill permit for HSA

0915 Soil gas crew starts near Ground Post 2 but drill too small. Joletta will call Procurement for a larger drill. Crew to rental store for larger drill.

0945 Cable tool waiting on adaptor to drive 1st spoon for soil sample.

1035 JD delivers bailer & misc. supplies to HSA. Crew prepping to collect surface sample. Not drilling yet

1045 JD @ cable tool. Drilling. Crew has collected surf sample and is hammering to 3' to collect bedrock spl

Cable tool hit bedrock @ 3.8' @ W399. Missed sample - will skid rig and collect after well is installed.

1200 JD @ HSA. Surf. sample collected. Drilling to water table.

1200-1300 Break for lunch.

Daily Weather Conditions: A.M. hot humid clear 90°F

P.M. Same

Recorded By [signature] QA Checked By Laura M. Morrison 8/15/94

TASK TEAM ACTIVITY LOG SHEET — SITE MANAGER LOGBOOK P. 26

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 — TASK NO: 34896

Date (mm/dd/yy): 6/14/94 TIME: NA PAGE 2 OF 3

Task Team Members:

NA

Narrative (include time and location):

per J. Geisler; for soil gas, only first four lines have been utility-cleared (1-4N); Rod is accompanying SG crew as they install. J. Geisler thinks this will slow us down. In A7, SG Block 3 (on grassy hill) is cleared. Block 1 (N. of pond) is nearly cleared - JG moved a few locations in line 3 1-3' N. or S. - moves are acceptable.

For A7 drilling:

#1: JG moved 6' N to accept. location - OK

#2: JG moved 5' S " " - OK

#3: In leach field. Is that what we want? yes. Not cleared

#4: Not cleared

#5: loc as staked OK

#6, 7: Need to be moved.

#8, 9, 10, 11: loc as staked OK

#12, 13, 14: Not cleared

#15: In D1D area. May require additional D1D support.

1400 JD @ cable tool. Poss. water @ ≐ 20'

1430 JD @ HSA: water @ ≐ 22'. Crew collecting soil sample, then will attempt Hydropunch.

Daily Weather Conditions: A.M. NA

P.M. NA

Recorded By [signature] QA Checked By Laura M. Morrison 8/15/94

TASK TEAM ACTIVITY LOG SHEET

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 TASK NO: 34896

Date (mm/dd/yy): 6/14/94 TIME: NA PAGE 3 OF 3

Task Team Members:

NA

Narrative (include time and location):

per T. Tank; Borehole #3 goes in leach field, just make sure we miss holding tank - J. Geisler should have map.

1600 HSA finishes B401; driller is bringing appropriate equipment tomorrow to collect grab water sample; depth @ ≐ 30'

Cable tool @ ≐ 30.' Might have water. Will leave hole open overnight. If there's water in the hole in the morning, will install well @ Site Geologist discretion

1700 Crew back to trailer. Misc chores; decon, spl mgt, etc.

1800 All personnel offsite.

LAST ENTRY

Daily Weather Conditions: A.M. NA

P.M. NA

Recorded By [signature] QA Checked By Laura M. Morrissey 8/15/94

TASK TEAM ACTIVITY LOG SHEET

SITE MANAGER LOGBOOK P. 28

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 TASK NO: 34896

Date (mm/dd/yy): 6/15/94 TIME: 0700 PAGE 1 OF 3

Task Team Members:

JOHN DAVIS JOLETTA HUMPERT
JEFF DEVAUGHN
SUSAN ABSTON MARTH CRAMER (CABLE TOOL)
MIKE KLIDJECZ EVELYN MEACHER (HSA)
MIKE MONROE MARK HOWARD (SC)
BOWSER - MORNER CREW

Narrative (include time and location):

0700 All personnel @ H/R. Conduct H&S briefing.
Crews gathering equipment.
Joyce Miller @ H/R. D&D requirements for drilling Borehole #15 in A7:

- 40 hr HAZWOPER w/ refresher & medical
- Wear rad blues & booties. (supplied by Mound)
- Rad Worker Permit (no respirator necessary)
- D&D Orientation
- 8 hr Rad II Training - computer. Mike Klidjecz & Mark Howard have it. Drillers will need it

Per Tim Boehmer (B-M); Gene Wolf needs addendum for grab water sampling. Written up per hour + equipment.
0800 Jeff DeVaughn on site. Evelyn Meacher onsite

Cable tool on standby waiting on IDM drums. They've been procured but not bar coded.
1000 JD @ HSA. Crew purging water for screen prior to sampling. Water v. murky

Daily Weather Conditions: A.M. warm 80°F humid
P.M. NA

Recorded By [signature] QA Checked By Laura M. Morrison 8/15/94

TASK TEAM ACTIVITY LOG SHEET

SITE MANAGER LOGBOOK P.29

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 TASK NO: 34896

Date (mm/dd/yy): 6/15/94 TIME: NA PAGE 2 OF 3

Task Team Members:

NA

Narrative (include time and location):

1015 @ Cable tool. Still waiting on IDM drums. Standing water in hole @ approx 6' Bedrock @ approx 1' (can see it in hole) So no bedrock sample (soil) collected since its the same material as the surface sample.

1100 @ Bldg 61 pick up 8 open top IDM drums. Deliver to cable tool.

1330 @ cable tool. Waiting on tremie pipe. 6" hole not big enough for stabilizers and tremie. Since procedure says stabilizers is optional, will use tremie. For next well, will probably drill an 8" hole.

1430 Start tremie #5 sand / slurry in W399.

Note: Per Tim Bochmer, A7 rig will not be available on Mon because Security not until to support remaining Regional Soil Drilling

1500. Tremie sand and bentonite completed. Alec Berry and Alan Spesard @ Cable tool. Per A. Berry; sand slurry is required. Also, its not allowed to let water flow out of well. Per A. Spesard; A7 drilling priority is 5 holes around Bldg 29.

1530 Note: SC crew reports that hammer drill is broken

Daily Weather Conditions: A.M. NA

P.M. V. hot and humid 95°F

Recorded By [signature] QA Checked By Laura M. Morrison 8/15/94

TASK TEAM ACTIVITY LOG SHEET — SITE MANAGER LOGBOOK P. 30

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 — TASK NO.: 34896

Date (mm/dd/yy): 6/15/94 TIME: 0700 PAGE 3 OF 3

Task Team Members:

NA

Narrative (include time and location):

1700 E. Jackson delivers supplies to trailer and takes back broken equipment.

EOD summary:

HSA: B401 abandoned. Rig deconned and set up on B408.

CABLE TOOL: W399 has sand and bentonite. Will set grout tomorrow after bentonite is cured. Rig breaken down ready to decon

SOIL GAS: hammer broken. Slow progress. All three samplers in for NON AOC.

1800 All personnel offsite.

Last Entry

Daily Weather Conditions: A.M. NA

P.M. NA

Recorded By [signature] QA Checked By Laura M. Morrison 8/15/94

TASK TEAM ACTIVITY LOG SHEET

P-31

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 TASK NO: 34896

Date (mm/dd/yy): 6/16/94 TIME: 0700 PAGE 1 OF 2

Task Team Members:

JOHN DAVIS JOLETTA MINARD
MARK HOWARD MIKE MONROE (SG)
MIKE KLIDJECZ, ERIC SAYLOR (HSA)
CHRIS HALLEY, JEFF DEVAULHAN (STAKE)
SUSAN ABSTON, MARTHA CRAMER (CABLE)
BOWSER MORNER CREWS

Narrative (include time and location):

0715 Staff onsite. Conduct H&S Briefing. Crews prepping for days activities.

Note: per A. Spesard, he approved a verbal change order to use a screen without a packer to collect grab water samples in soil borings.

1330 Meet T. Tarok, B. Stanley, A. Spesard in Area 7. Locate Boring #16. As approves 5' shift to get off utilities. As wants 4 soil gas points, 1 on each side of fuel tanks on S. end of Area 7. Also, moved Borehole #15 outside of HP rope.

EOD SUMMARY

HSA: Set up on B408. Drilled to 42.1 FBLS. H2O @ 35.5 FBLS. Surf spl & wtr table sample (soil) collected. Geotech spl @ surf collected; 1 5gal bucket and 1 Shelby tube from zone 1

SOIL GAS: Installed 11 samplers in woods (south portion) - hand auger. [AM] Installed 4 samplers. Some downtime for Mound construction.

~~CABLE TOOL:~~ Inspector. Also downtime due to equipment failure

CABLE TOOL: W399 - water in hole, bailed and recharged. Grouted to

Daily Weather Conditions: A.M. Warm humid sl hazy 85°F

P.M. Same

Recorded By [signature] QA Checked By Laura M. Morrison 8/15/94

TASK TEAM ACTIVITY LOG SHEET

SITE MANAGER LOGBOOK P. 32

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1

TASK NO: 34896

Date (mm/dd/yy): 6/16/94 TIME: NA PAGE 2 OF 2

Task Team Members:

NA

Narrative (include time and location):

SURFACE. Cut off well. W397 - drilled to 36', poss H_2O @ 31-36 FBLS. Will let sit over weekend to see if hole is making water. No soil or water samples collected. Bedrock @ approx 1-3' FBLS.

Note: JD runs alkalinity on B401 wtr sample. Couldnt complete 2nd run - surpassed 24-hr holding time.

Last Entry

Daily Weather Conditions: A.M. NA

P.M. NA

Recorded By [signature]

QA Checked By Laura M. Morrison 8/15/94

TASK TEAM ACTIVITY LOG SHEET

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 TASK NO: 34896

Date (mm/dd/yy): 6/20/94 TIME: 0700 PAGE 1 OF 1

Task Team Members:

JOHN DAVIS JOLETTA MINARD ERIC SAYLOR MIKE KLIDZETC EVELYN MEACHER (NP HSA
GREG LODER JEFF DEVAULN (A7 HSA) SALLY BROWN CRAIG PATTERSON (FIDLER)
SUSAN ABSTON MARTHA CRAMER (CABLE TOOL) MIKE MONROE MARK HOWARD (SOIL GAS)

Narrative (include time and location):

0730 all personnel @ HR. Conduct H&S Briefing. Conduct site orientation and assign training to SB, CP.
A7 HSA set up on B1.
FIDLER crew begins equip. & site familiarization.
HAZCO delivers new OVA - old one was leaking Hz
Broadway barricade delivers flashing highway barrels for A7.
0945 to Bldg 91 pick up 3 open top IDM drums & deliver to Cable tool. Support truck is stuck. Crew collecting soil sample. J. Minard collects ambient. Waiting to see if hole makes water.
0930 @ A7 HSA. Set up on B1. Waiting on drill permit from J. Leisler and shelby tubes for drillers.
NOTE: Village Rental delivers drill for soil gas crew.
NOTE: per Mike Donahue, may have trouble supporting all drills - HP coverage.
DAVIS off site @ 1030
FOD SUMMARY:
A7 HSA: @ 32' B1. No water or bedrock
NP HSA: Moved to B407
CABLE TOOL: Water @ W397. Setting well

Daily Weather Conditions: A.M. hot humid hazy 90°F
P.M. RAIN

Recorded By [signature] QA Checked By Laura M. Morrison 8/15/94

TASK TEAM ACTIVITY LOG SHEET	SITE MANAGER LOGBOOK P.34
PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1	TASK NO: 34896

Date (mm/dd/yy): 6/21/94 TIME: 0700: PAGE 1 OF 2

Task Team Members:

JOHN DAVIS JOLETTA HUMPERT ERIC SAYLOR GREG LODER JEFF DEVAUGN (A7 HSA)
MARK ~~MONROE~~ HOWARD, MIKE ~~HOWARD~~ MONROE (SC) 6/21/94 SUSAN ABSTON MARTHA CRAMER (CABLE TOOL)
MIKE KLIDJECZ EVELYN MEACHER (NP HSA) SALLY BROWN CRAIG PATTERSON (FIDLER)

Narrative (include time and location):

0730 all personnel on site. Conduct H&S Briefing. Crews prep for days activities.
- Discuss need for vehicles & another site w/ T. Tank. Site to be set up in Contract. Parking lot for storage & decon. No electricity.

0830 Call for A7 HSA. No HP on site.
Per T. Tank; only 1/2 bucket required for all geotech samples.

0915 Cable tool support vehicle stuck on W397 - ATV HSA comes up to unstick it.

0930 A7 HSA has high OVM readings. Run detector tubes; neg. on benzene, vinyl chloride. Resume drilling.

1430 on A7B2, driller noticed vent for Asbestos Abatement in Bldg 29. Driller wants personal air monitor. J. Geisler contacted Indust. Hygiene - 3 filters in place but driller not comfortable. J. Geisler working w/ I.H. to see if they can supply monitoring.

~1400 JD on Bldg 91 to pick up IDW barrels but none available.

1545 Call to Sandy Geibel - I. Hygiene:
- wants opinion on Level D clothing. "Street" clothes OK but shouldn't leave site. Coveralls required? If so, amendment to HSP.

Daily Weather Conditions: A.M. hot, hazy, humid 95°F
P.M. SAME

Recorded By [signature] QA Checked By [signature] 8/15/94

TASK TEAM ACTIVITY LOG SHEET — SITE MANAGER LOGBOOK P35

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 — TASK NO: 34896

Date (mm/dd/yy): 6/21/94 TIME: NA PAGE 2 OF 2

Task Team Members:

NA

Narrative (include time and location):

- should exclusion zones be posted? Signs saying Do Not Enter 40 HR TRNG REQUIRED
- re Asbestos. She will set up an area monitor by vent and will get results by Thurs. Samples analyzed inside building are below background. Activities inside bldg include wall & floor washing not asbestos removal per se.

EOD SUMMARY

CABLE TOOL: set up on W398. Drilled to 23'. Dry

NP HSA: completed B407 to TD 13.5 Dry. Deconned.

OA HSA: completed B2. TD @ ≐ 7' Hole grouted

FIDLER: 1 FIDLER down; otherwise good progress

JTD 6/21/94 ~~SOIL GAS~~: 1N, 2N lines completed. Portions of 3N, 4N completed

SOIL GAS: Good progress

Last Entry

Daily Weather Conditions: A.M. NA

P.M. NA

Recorded By [signature] QA Checked By Laura M. Morrison 8/15/94

TASK TEAM ACTIVITY LOG SHEET — SITE MANAGER LOGBOOK P.36

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 — TASK NO: 34896

Date (mm/dd/yy): 6/22/94 TIME: 0715 PAGE 1 OF 3

Task Team Members:

John Davis Joletta Humpert Eric Taylor Greg Loden Jeff Devaughn (OAHSA) Susan Alston Martha Cramer (Cable tool) Mark Howard Mike Monroe (SL) Mike Klidzejs Evelyn Mercher (NPHSA) Greg Patterson Sally Brown (Fidlett)

Narrative (include time and location):

0715 All personnel on site. Low on OVA - pump switch broken on one. JD took it to Hazco last nite & they wouldn't fix it w/o a PO #. This morn, another OVA wouldn't calibrate w/ methane.
- Crews prepping for activities.

0800-0900 JD chasing around 10M drums. Find K. McMahan. Load up 8 used (empty) Weston brands in Bldg 91. Deliver to Rigs.

Cable tool continues drilling on W398. NP HSA set up on B405. OA HSA set up on B4.

Disc. w/ T. Trask. Mound wants 4 add'l borings around Bldg 24 for full rad/chem suite. 5' samples, hand augered. K. McMahan knows locations.

Disc. w/ T. Tonkj for B16 (A7). only rad spls need to be collected. Wants a Soil Screening Facility spl ≐ 2'.
- Drill rig crew notices that B16 as located is under power lines. Try to find Bob Stanley or A. Spessard to relocate but unavailable so rig goes to B5.

Daily Weather Conditions: A.M. hot hazy humid 90°F

P.M. same, some clouds

Recorded By [signature] QA Checked By Laura M. Morrison 8/15/94

TASK TEAM ACTIVITY LOG SHEET

SITE MANAGER LOGBOOK P-37

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 TASK NO: 34896

Date (mm/dd/yy): 6/22/94 TIME: NA : PAGE 2 OF 3

Task Team Members:

NA

Narrative (include time and location):

J. Geisler shows spot for trailer - by stop sign. No tiedowns required if its only a storage trailer. J. Geisler has no problem w/ outside decon.

J Geisler & JDavis relocate A7B9 - About 15'N of orig location per J. Geisler; holes 3, 7, 8, 6 are cleared. A7HSA will barricade off B3 and B7 for tomorrows drilling.

per T. Tenk: ok to move A7B9 to north 15' to clear line.

@ 1530 A7B5 had to move rig approx 3' to finish collecting sample. JD contacted J. Geisler about to move. No utility lines encountered.

- Call fm Dan Garrison Mound Safety. JD asked to make postings for exclusion zone. DG says coveralls (invisible control) required = Level D. DG is checking on if Mound will supply coveralls. JD will check to see if SAIC will supply coveralls.

- Call fm K. McMahan. A7B16 on hold. Re broken FIDER - suggested switching cables. Also said high heat can affect readings.
- G. Loder reports that A7B7 will need to be moved to clear.

Daily Weather Conditions: A.M. NA

P.M. NA

Recorded By [signature] QA Checked By Laura M. Morrison 8/15/94

TASK TEAM ACTIVITY LOG SHEET — SITE MANAGER LOGBOOK P. 38

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 — TASK NO: 34896

Date (mm/dd/yy): 6/22/94 TIME: NA : _____ PAGE 3 OF 3

Task Team Members:

NA

Narrative (include time and location):

stem lines.

EOD SUMMARY:

A7 HSA: B5 completed. TD approx 7'. Hole grouted.

NP HSA: B405 completed and grouted. TD ≐ 14'. No water encountered. Set up on B406. Collected surf. sample.

NP Cable tool: W398 drilled to about 39' No water. Will let sit overnite.

SOIL GAS: AOC 22: 2 timers installed, 34 tubes on perimeter. Need urinalysis to get inside A22. Good productive day.

FIDLER: good progress. 1 FIDLER still down but not really affecting production

LAST ENTRY

Daily Weather Conditions: A.M. NA

P.M. NA

Recorded By [signature] QA Checked By Laura M. Morrison 8/15/94

TASK TEAM ACTIVITY LOG SHEET — SITE MANAGER LOGBOOK 839

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 — TASK NO.: 34896

Date (mm/dd/yy): 6/23/94 TIME: 0700 PAGE 1 OF 3

Task Team Members:

JOHN DAVIS, JOLETTA HUMPERT, EVELYN MEAGHER, GREG LODER, JEFF DEVAUGN (OAHSA)
MIKE KLIDZEJS, ERIC SAYLOR (NPHSA), MARK HOWARD, MIKE MONROE (SG)
SUSAN ABSTON, MARTHA CRANER (CABLE TOOL), SALLY BROWN, CRAIG PATTERSON (FIDLER)

Narrative (include time and location):

0730 all personnel on site. Conduct H&S Briefing.
J. Geisler and Bill Stoff (4768) @ HR. BS will be JG replacement next week. Discuss misc. items. Again to drill A7B8, A7B9 on Mon.
- Call to Gene Wolfe Bowen-Morner. GW agrees to drill W400 w/ cable tool @ nuger prices. Set up B-M man (Jim) for drum staging today - will meet Denny Craft @ 0900 @ Guard Post 2. Re pump for well develop. - B-M will supply pump and generator @ no cost but will charge for manpower. B-M will try to supply enough tubing to dedicate to each well. B-M coveralls and work uniforms are rentals and are laundered commercially.

Note: per K. McMahan, bumper guards on wells not necessary - none in high traffic areas.

1300. Only one OVA operational. Hazco delivers one and takes back 2 bad ones.
G. Loder reports poss. high OVA on A7B3 @ 17.5'. Also wet

Daily Weather Conditions: A.M. hazy, overcast, humid, 80°F
P.M. rain and lightning

Recorded By: [signature] QA Checked By: Laura M. Morrison 8/15/94

TASK TEAM ACTIVITY LOG SHEET

SITE MANAGER LOGBOOK P.40

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 TASK NO: 34896

Date (mm/dd/yy): 6/23/94 TIME: NA PAGE 2 OF 3

Task Team Members:

NA

Narrative (include time and location):

NCRs to write up:
- 6" hole on W399
- No 2nd Alk. run on B401 water sample
- No continuous coring on B1, B2
- delay in waxing geotech shelby tubes sample them. Concern about cross-contamination. Discuss w/ T. Tank. Discuss w/ Alec Berry. He says to make sure its not just a methane hit.

1300 lightning alert. All crews @ t/r. Release drillers.
Note: cable tool moved to W400

1500 Alec Berry & Alan Spesard @ t/r. Their decision re A7 soil borings: drill all borings to bedrock. Collect rad/chem spls to 30' @ 5' intvls. Collect geotech spls to TD @ discreete lithologic horizons. They would like to be contacted when a boring gets to around 40' w/ no bedrock.

Note: crews report that Mound HP has requested all sampling

Daily Weather Conditions: A.M. NA

P.M. NA

Recorded By [signature] QA Checked By Laura M. Morrison 8/15/94

TASK TEAM ACTIVITY LOG SHEET

SITE MANAGER LOGBOOK P.41

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 TASK NO: 34896

Date (mm/dd/yy): 6/23/94 TIME: NA : PAGE 3 OF 3

Task Team Members:

NA

Narrative (include time and location):

completed @ 330p (it was 345 before)

Per T. Tank; B402 to be converted to A well. No replacement for W398

LAST ENTRY

Daily Weather Conditions: A.M. NA

P.M. NA

Recorded By [signature] QA Checked By Laura M. Morrison 8/15/94

TASK TEAM ACTIVITY LOG SHEET — SITE MANAGER LOGBOOK P.42

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 — TASK NO: 34896

Date (mm/dd/yy): 6/27/94 TIME: 07 30 PAGE 1 OF 3

Task Team Members:

JOHN DAVIS, JOLETTA HUMPERT, GEORGE WAHL, Craig Loder, Jeff DeVaughn (AHHS), Mike Klidzejs, ERIC SAYLOR (NPHSA), MARK Howard, Mike MONROE (SC), SUSAN ABSTON, MARTHA CRAMER (Cable tool), Sally BROWN, Craig PATTERSON (FIDLER), PAUL PARRISH, DAVE CUMMINGS (GEOP)

Narrative (include time and location):

0730. Sta'd @ HR. Conduct H&S BRIEFING.

Per K. McMahan - drums next week? B-M will have to supply until then.

Per T. Tank, A. Berry: ON B3 (AT) drill only enough to collect last soil sample and water sample. If hole is showing true OVA hits (not methane) grout and abandon. If hole is clean, continue drilling to bedrock.

- Call R. Tusing to set up FIDLER security escort for tomorrow - 730-430. Meet @ Post 2.
- Call for DAVE Keeter. Surveillance sched. for ~~tomor~~ 6/27 Thurs. Needs copy of OU5 SAP. Call Will Kegley 615-481-8738

1000 @ Cable tool Rig. Rig can't get to map location - B400. Call T. Tank - OK to drill 130' W. Change order has been done for this. NO radio communic. - approx 1 hr downtime waiting for necessary communications.

1015 @ NPHSA. NO water yet @ ≐45. Drillers have augers to 55'.

1030 @ AHHSA B3. Pursing wtr to collect grab sample. Thin floater on top of water indicated

Daily Weather Conditions: A.M. overcast, cool, humid

P.M. same, pleasant

Recorded By [signature] QA Checked By Laura M. Marsan 8/15/94

TASK TEAM ACTIVITY LOG SHEET

SITE MANAGER LOGBOOK P43

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1

TASK NO: 34896

Date (mm/dd/yy): 6/27/94 TIME: NA PAGE 2 OF 3

Task Team Members:

NA

Narrative (include time and location):

by interface probe

1330 @ NP HSA B406. Current depth is 60'. No water encountered. Poss bedrock. Refusal @ 60' - without shale? Trying to auger through it. Cont spl collected @ 45'. Question is what is total depth in this situation? Auger refusal @ 63'. Decide this is bedrock. Cont soil sample @ 45' which is 20' above bedrock. This spl collected based on damp core but hole didnt make water.

@ 1330 A7 HSA B3, collected grab water sample. No VOC hits. Continue drilling.

1430 Call fm B3 HSA: current depth @ 30.0, no bedrock. JD calls A. Bray. A Bray says to go to 45 and call again.

1400 M. Cramer onsite. Deliver hex to cable tool.

1600. Call fm A7B3: to date.

17-24 w. sorted gravel, water @ 17

24-33 brn cly moist @ top then drying

33-36 TDTD gry cly, dry. VOC hit @ 34-36 10ppm neg meth, v. chloride, benzene.

Daily Weather Conditions: A.M. NA

P.M. NA

Recorded By [signature] QA Checked By Laura M. Morrison 8/15/94

TASK TEAM ACTIVITY LOG SHEET — SITE MANAGER LOGBOOK P. 44

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 — TASK NO: 34896

Date (mm/dd/yy): 6/27/94 TIME: NA : _____ PAGE 3 OF 3

Task Team Members:

NA

Narrative (include time and location):

NO spl collected @ 20' - CPSE GRAVEL, NO FINES.

1600 per Bill Stott; per Kathy Kaylor, OK to deliver the onsite. JD Mech truck driven, position trailer @ stopsign south of Bldg 105 as directed by B. Stott.

1700 Call A. Berry inform him of B3 situation

EOD SUMMARY: B3: drilled to 36' (SEE PG 44)

B406: drilled to 63' auger refusal No water. Grouted and Abandoned

B400 drilled to 24' No wtr. Poss ovA hit.

FIDLER: 45 points in NONAOC 213 to date

SOIL GM: good progress

GEOPHYSC: continue EM 31

GMT Entry

Daily Weather Conditions: A.M. NA

P.M. NA

Recorded By [signature] QA Checked By Laura M. Morrison 8/15/94

TASK TEAM ACTIVITY LOG SHEET — SITE MANAGER LOGBOOK

P45

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 — TASK NO: 34896

Date (mm/dd/yy): 6/28/94 TIME: 0730 PAGE 1 OF 3

Task Team Members:

JOHN DAVIS JOLETTA HUMPERT GEORGE WAHL GREG LODER JEFF DEVAUGHN (A7HSA)
MIKE KLIDZETS ERIC SAYLOR (NDHSA) MARK HOWARD MIKE MONROE (SG)
SUSAN ABSTON MARTHA CRAMER (CABLE) SALLY BROWN CRAIG PATTERSON (FIDLER)
PAUL PARRISH DAVE CUMMINGS (GEOPHYS)

Narrative (include time and location):

0730 all personnel onsite. Conduct HTS Briefing. Crews prepping for activities.

Per T. Tank. "Delete" Field Change 05-NP-005 re location of B409. Want B409 drilled as located on map. Will need another FC to put it back to orig. location.

NCR items: NO spl @ 20' intvl in B3. Coarse gravels, fines washed out.

- well log placement in W399, W397.
- geotech spls unwaxed.

0830 disc w/ Bill Stott: reemphasize safety glasses. Wants sign on HR (semi) w/ ph. numbers. Make sure exclusion zones are posted.

0830 Call fm A. Bray: B3 - keep drilling. BVA not a concern. Call him @ 45'. B400 - anticip. 5' above water table. If hit is methane, keep going. Otherwise, Notify.

Per A. Bray: move B402 60' N toward fence. Confirm w/ A. Spesard.

0930 @ A7B3 w/ K. McNaghan & A. Bray. Depth @ 40' gives 10% LEL

Daily Weather Conditions: A.M. humid and warm

P.M. same

Recorded By [signature] QA Checked By Laura M. Morrison 8/15/94

TASK TEAM ACTIVITY LOG SHEET

SITE MANAGER LOGB P. 46

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1

TASK NO.: 34896

Date (mm/dd/yy): 6/28/94 TIME: NA PAGE 2 OF

Task Team Members:

NA

Narrative (include time and location):

per K. McMahon, A. Beary, & T. Tank, Abandon & grout.

- Then to B409. Moving back to ORIS. location. Then to B400. Anticipate Bedrock @ 2-5 Water @ approx 25'. Per A. Beary, set the top of the well @ water level to avoid a dry hole during groundwater fluctuation. With A. Beary, pick a new location for well @ B402. (SEE Pg. 45)

- Call to Hazco: the OVA methane probe lets methane through; i.e. blocks volatiles other than methane.

1100 @ B409 Bedrock @ 14'. Missed subsurf. spl so will skid RIS and drill to get sample.

1130 Davis offsite. Back to Dayton office for misc. Project paperwork.

- New Prop drilling on schedule if all drilling and pad construct. completed by 6/30

- Call fm A. Beary. He's found a spot for the Soils Disp. Well. Also wants to move B402 in Soils Disp. Zone.

Daily Weather Conditions: A.M. NA

P.M. NA

Recorded By [signature] QA Checked By Laura M. Morrison 8/15/94

TASK TEAM ACTIVITY LOG SHEET — SITE MANAGER LOGBOOK P47

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 — TASK NO: 34896

Date (mm/dd/yy): 6/28/94 TIME: NA PAGE 3 OF 3

Task Team Members:

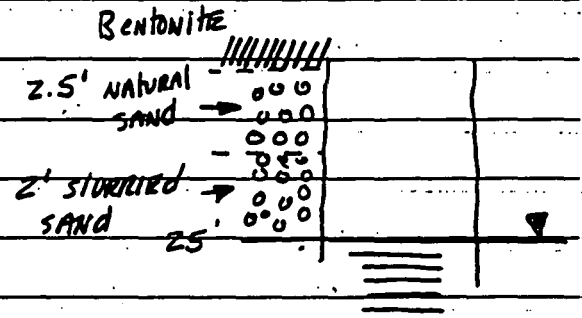
NA

Narrative (include time and location):

Drill new well in SDZ FIRST - midafternoon tomorrow.

1630 Call fm S. Abston. While setting the well in B400, about 2 1/2 ft of natural inplace sand fell in on the 2' of sand filter, essentially giving about 4' of sand pack. Discussed situation w/ SAIC hydrologists - decide integrity and structure of well not compromised. Told her to set bentonite.

NCR ITEM: EXCESSIVE SAND



NOTE: per P. Parrish, Geophy. crew completed EM-31 survey today.

Last Entry

Daily Weather Conditions: A.M. NA

P.M. NA

Recorded By [signature] QA Checked By Laura M. Morrison 8/15/94

TASK TEAM ACTIVITY LOG SHEET — SITE MANAGER LOGBOO P. 48

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 — TASK NO: 34896

Date (mm/dd/yy): 6/29/94 TIME: 0730 PAGE 1 OF 3

Task Team Members:

John Davis, Joletta Humphrey, George Wahl, Gary Loder, Jeff DeVaughn (A7HSA), Susan Ahston, Martha Crawford (CABLE), Mike Klidzejz, Eric Saylor (NPHRA), Sally Brown, Craig Parrish (ADVEN), Mark Howard, Mike Monroe (S6), Paul Parrish, Dave Cummings (GEOP)

Narrative (include time and location):

0715 All personnel on site. Conduct H&S Briefing. Give Site Orientation Briefing to P. Parrish, D. Cummings, G. Wahl. Call for Bill Stott. 12 locks required for B16 lockout. Dave Weimer (3323) is head electrician. Mast must be down and street lites unlocked by 430. Need security escort for service of the substations.

0900 @ A7B7. G. Loder reports OVA hit of 60 ppm downhole. Call to Steve Davis Div H&S - SAIC. He said Action levels are set to breathing zone. Downhole hits of 60 ppm are "no big deal". G. Loder documents <1 ppm in breath zone. Breezy today also. Drillers shouldn't keep heads around top of auger flights. According to S. Davis, OK to drill. Still must observe Action Levels in BZ

Steve Davis 615 481-4755

1000 G. Loder reports 15% LEL @ B7. A. Berry on site. Decide to grout and abandon due to exceeding LEL Action Levels.

Kip Weaver (Mound Developing) planning a trench work @ B16. Proposes a new location for B16 based on different idea of

Daily Weather Conditions: A.M. Warm & clear 75°F

P.M. Same w/ some rain

Recorded By [signature] QA Checked By Laura M. Morrison 8/15/94

TASK TEAM ACTIVITY LOG SHEET — SITE MANAGER LOGBOOK P49

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 — TASK NO: 34896

Date (mm/dd/yy): 6/29/94 TIME: NA PAGE 2 OF 3

Task Team Members:

NA

Narrative (include time and location):

where septic tank is.

1100. Cable tool off of B400 and being decomm'd. Go w/ A. Berry & stake relocation of B402 = approx 110' N of orig. location; in SDZ.

- Told A. Berry about small "cave-in" @ B400. He was alright with it.

1200 Call for T. Tank. Informed me that we shouldn't have put in soil gas sampling in AZ1 per Change Order

1230 @ B16 for meeting to determine proper location Bob Stanley (3885). Relocate B16 approx 15' S. of orig. location. This loc. believed to be middle of tank. Tank believed to be @ ≐ 20', sitting on bedrock. Spls scheme is RAD spls only @ 5' intvls w/ VOA spls @ OVA hits. Want to penetrate tank. Bill Stott checking to see if lockout is necessary - loc. approx 15' for overhead lines. Actinium is in tank. B. Stott says loc is ok no overheads. He'll write the clearance permit

Daily Weather Conditions: A.M. NA

P.M. NA

Recorded By: [signature] QA Checked By: Laura M. Morrison 8/15/94

TASK TEAM ACTIVITY LOG SHEET — SITE MANAGER LOGBOO P. 50

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE I — TASK NO: 34896

Date (mm/dd/yy): 6/29/94 TIME: NA PAGE 3 OF 3

Task Team Members:

NA

Narrative (include time and location):

1430 @ B16, K. McMahan says rig will shut down if any elevated FIDLER readings are recorded. A spl will be analyzed @ SSF to determine further action.

per B. Stott; clearance permits done for B6, B13, B14, B10, B11, B12 B16. B10 will require a street light lockout.

B12 relocated approx 12' SW per K. McMahan to avoid overheads.

- All A7 boring cleared except B15.

EOD Summary

A7B16: TDID = 12' K. McMahan shut rig down @ 1600 due to high rads - will analyze @ SSF

NP HSA: completed 403, 404. HSA done

NP Cable: TDID = 20.0 Dry.

Last Entry

Daily Weather Conditions: A.M. NA

P.M. NA

Recorded By [signature] QA Checked By Laura M Morrison 8/15/94

TASK TEAM ACTIVITY LOG SHEET — SITE MANAGER LOGBOOK P.51

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 — TASK NO: 34896

Date (mm/dd/yy): 6/30/94 TIME: 0730 PAGE 1 OF 3

Task Team Members:

John Davis Joletta Hampton George Wahl Greg Lodge Jeff DeVaughn (A7HSA)
Mike Klidzejz Eric Saylor (NPHSA) Sally Brown Craig Patterson (FIDLER)
Susan Abston Martha Cramer (NPCABLE) Mark Howard Mike Monroe (SG)
Paul Parrish ~~Dave Cummings~~ (GEOPH)
TTD 6/30/94 George Wahl

Narrative (include time and location):

0730 all personnel onsite. Call Roy Mowen to arrange wipes to release NP ATU HSA rig. TTD 6/30/94
- T. Tank arranges for A7HSA thru ~~7/1~~ 7/12. Will also add cable tool in A7.

Per K. McMahan: SSF results fm last B16 spl = 16.9 pc thorium-232. Limit is 25 pc

0930 Call fm A7B16. Hit water @ 16.7' Cuttings fm 14-16 quite hot. No one working in SSF due to Retirement Party. Rad water sample only? Water sample at all? Field parameters if rad only? ~~Th 232~~

Call fm K. McMahan who's @ SSF. Spl fm 16-18 avg. 25 pc. Mound HP allows work to 25 pc w/ coveralls. Fm 25-50, th232 add Tyvex or blue smocks. Need Rad Work Permit. OK to drill next 2 ft

- Call T. Tank. He confirms collect. of water sample - Rad only. Also do SOP 2.2 parameters.

1100 Collecting water spl. Per R. Mowen, action levels determined by actinium levels, not thorium. Actinium test may take sev. days.

NOTE: Sally Brown offsite @ ≐ 1000 (bad back). Eric Saylor fills in

Daily Weather Conditions: A.M. (00) clear 70° pleasant

P.M. SAME

Recorded By [signature] QA Checked By Laura M. Morrison 8/15/94

TASK TEAM ACTIVITY LOG SHEET — SITE MANAGER LOGBOOK P.52

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 — TASK NO: 34896

Date (mm/dd/yy): 6/30/94 TIME: NA : _____ PAGE 2 OF 3

Task Team Members:

NA

Narrative (include time and location):

Note: per K. McMahon, work shut down on B16, at least for today. Respirator fits may be required.
Rig and barricade must be offsite by EOD w/ augers in hole.
IDMs must be marked radioactive. IDMs must be moved.

1440 Mtg w/ A. Berry, A. Spreand, T. Tiwak @ OSE Bldg.

- July 20 issue NPPI FR
- Poss. necessary of areas.
- Add ≐ 4 soil gas around fuel tanks - A. Berry/Spreand will locate
- wants bedrock on all A7 boreholes - need to circumvent LEL. Need SSF samples at all intvls. Need to research how to lower LEL.

Paul Parrish reports mag/grad completed. To date EM31 and mag/grad are completed. May not be necessary for EM34

Daily Weather Conditions: A.M. NA

P.M. NA

Recorded By [signature] QA Checked By Laura M. Morrison 8/15/94

TASK TEAM ACTIVITY LOG SHEET — SITE MANAGER LOGBOOK P.53

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 — TASK NO: 34896

Date (mm/dd/yy): 6/30/94 TIME: NA PAGE 3 OF 3

Task Team Members:

NA

Narrative (include time and location):

EOD SUMMARY

NPHSA: Finished last HSA boring B404 (yesterday). M. Klidzeja working on logbooks today.

A7HSA: Shut down by Mound HP @ 1100 due to high rad hits.
TDTD = 18' WATER spld @ ≐16'

NPCABLE TOOL: WELL SET AND BENTONITE SEAL. ON B402. TD = 33.'
SCREEN @ ≐ 21-31' WTR @ 22.09
LAST ENTRY

Daily Weather Conditions: A.M. NA
P.M. NA

Recorded By [signature] QA Checked By Laura M. Morrison 8/15/94

TASK TEAM ACTIVITY LOG SHEET — SITE MANAGER LOGBOOK P. 54

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 — TASK NO: 34896

Date (mm/dd/yy): 7/5/94 TIME: 0715 PAGE 1 OF 2

Task Team Members:

JOHN DAVIS JOLETTA MINARD CRAIG PATTERSON SALLY BROWN (FIDLER)
GREG LODER JEFF DEVAUGN (ATHSA) CHRIS HALLEY, ERIC SMYBER GEORGE WAHL
SUSAN ABSTON MARTHA CRAMER (CABLE) (SED SPLG)

Narrative (include time and location):

0715 all personnel onsite. Conduct H&S Briefing.
J. Geisler onsite. Review last weeks activities w/her.
Alert her that B410 will require a LOTO.
- Get sediment sampling crew going. They go to office for logbook.
- Greg Schanle onsite for SAIC QA surveillance.
• MATE QAAP 12.1 - Not necessary. QAAPs are guidelines. QAPjP takes precedence. Get rid of MATE Usage Log - NO ENTRIES.
- Not recording lot numbers of calib. gases on MATE Log.
- All pages numbered in logbooks. Cont Entry. Blank pages crossed out & dated

- Note: Drillers helpers for Cable tool sick today. Decide to start well development.

1000 to A7 B13 w/ G. Schanle to observe operations.
1030 to Bldg 61 w/ G. Schanle to observe FIDLER
1130 to NON-AOC w/ G. Schanle to observe soil gas retrieval.

Daily Weather Conditions: A.M. humid, clear, 80°F
P.M. NR

Recorded By [signature] QA Checked By Laura M. Morrison 8/15/94

TASK TEAM ACTIVITY LOG SHEET

SITE MANAGER LOGBOOK P.55

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 TASK NO: 34896

Date (mm/dd/yy): 7/5/94 TIME: NA PAGE 2 OF 2

Task Team Members:

NA

Narrative (include time and location):

NOTE: per M. Carman; she heard from A. Meyer that Compuchem is getting chloroform hits (20ppb) from ambients.

1400 w/ G. Schank to sediment sample site SD014. He suggests we write a FC to initiate COC as Spl tkr w/ Spl Mgr, i.e. life of sample begins w/ Spl Mgr. This requires that Sample Log Sheets be completed in field and transfer is documented in Activ. Log.

- G. Schank notes that sample bottles are not labelled. "Not good enough" that bags are labelled.

JMP 7-5-94

1430

~~1630~~ w/ G. Schank to W399 to observe well pursing.

1515 Call fm G. Loder as yd JMD 7/5/94 B13. Water in hole at 31.3 TDTD = 34. 0-28 = cly 28-30 = sand, 30-34 = cly and a little gravel in spoon below 34. Instruct G. Loder to pump for grab water sampling.

LAST ENTRY

Daily Weather Conditions: A.M. NA

P.M. v. humid and hot 90°F

Recorded By [signature] QA Checked By Laura M. Morrison 8/15/94

TASK TEAM ACTIVITY LOG SHEET — SITE MANAGER LOGBOOK P. 56

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 — TASK NO: 34896

Date (mm/dd/yy): 7/6/94 TIME: 0730: PAGE 1 OF 2

Task Team Members:

John Davis, Joletta Humpert, Tanya Pfaff, Ron Smith, Juan Alvarez (SEEP), Greg Loder, Jeff Devausen (ATHSA), Chris Halley, Eric Taylor (SED), Susan Abston, Martha Cramer (CABLE), Mike Monroe, George Wahl (SG), Sally Brown, Craig Patterson (FIDLER)

Narrative (include time and location):

0730 All personnel onsite. Conduct H&S briefing.

G. Loder reports that water in B13 up to ≈ 15 BLS. Purging w/ bailer.

- Cable tool crew back.

Give Site Overview briefing to Chris Halley, Ron Smith, Tanya Pfaff

0900: @ HSA A7. Collecting water sample

0930 @ Cable tool. Grouting B402 & pulling casing.

M. Cramer wants to establish work/rest cycles today due to heat.

Debrief w/ G. Schank. Will leave Procedure checklists

- FC for Compuchem boxes. JH doing it.
- FC to eliminate methanol wipe on bottles
- FC to cover label w/ clear tape.
- FC to use teflon instead of parafilm
- FC to check VOAs for and cyanide for chlorine & sulfides.
- FC for temp blanks in lab coolers. Use temp strips instead
- Confirm that split spoons are checked w/ OVA.

Daily Weather Conditions: A.M. hot 90°F humid sl. overcast

P.M. SAME

Recorded By: [signature] QA Checked By: Laura M. Monroe 8/15/94

TASK TEAM ACTIVITY LOG SHEET

SITE MANAGER LOGBOOK

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1

TASK NO: 34896

Date (mm/dd/yy): 7/6/94 TIME: NA PAGE 2 OF 2

Task Team Members:

NA

Narrative (include time and location):

- No personnel decon. Take 5 gal of water. BMP
- Use stickies on sample bottles w/ IDs.
- JD will lineout & initial end of page. in logbooks.
- Lack of training for drillers. Use Attendance Record.

1500 call fm J. Geisler. RWP required to enter bldg for LOTO. for B410. in Penthouse. Bring 6 locks. Bowser driller needs to attend LOTO. Need 4 locks each. Set up for 700a tomorrow = security escort.

1700 @ B13. G. Loder reports TDTD = 62. Water encountered @ 59. Per A. Berry, do not collect a water spl @ this interval due to comingling of water; this intvl and intvl @ 31.

Last Entry

Daily Weather Conditions: A.M. NA

P.M. NA

Recorded By [signature] QA Checked By Laura M. Morrison

8/15/94

TASK TEAM ACTIVITY LOG SHEET — SITE MANAGER LOGBOOK P-58

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 — TASK NO: 34896

Date (mm/dd/yy): 7/7/94 TIME: 0700: PAGE 1 OF 3

Task Team Members:

John Davis Jolitha Hompert
Tanya Pfaff, Juan Alvarado (SEEP)
Susan Alston Martha Cramer (CABLE)
Greg Locker Jeff DeVausen (HSA)
Sally Brown Craig Patterson (FIDLER)
Mike Monroe George Wahl (SG)
Chris Halley Eric Taylor (SED.

Narrative (include time and location):

0700 all personnel onsite.
0700 Meet S.C. Patterson, J. Geisler @ Bldg 102 for Security escort to Bldg 50 for LOTO.
0800 Security arrives
0830 Complete LOTO @ Bldg 50 - start lites then to substation near B10 for LOTO of main street lites.
0900 Complete LOTO. Cable tool starts on B410
0945 G. Locker reports that B13 is completed. TD @ 70' @ bedrock
0900 T. Trask on site. Discuss schedule.
1100 Call T. Pedro leave msg. for FRI access
D. Sink, D. Work, J. Iteger : B-M
G. Locker, J. DeVausen, J. Davis, J. Minard, J. Alvarez : SAIC
1030 G. Locker reports B13 completed @ 70.0 bedrock
1430 @ OSE Bldg for mtg w/ T. Trask, A. Spaulding, A. Barry, K. McMahan
- B-M offsite by COB 7/15 if they cant finish. w/ if Burlington can come on.
- B16 Actinium @ 20 pc/g.
- Will need Rad Worker II Tech (1-dm) w/ respirator fit.
- We have SSF coverage tomorrow until 330. Last spl to SSF by 300: for B14.

Daily Weather Conditions: A.M. hot, humid, 92°F
P.M. SAME

Recorded By [signature] QA Checked By Laura M. Morrison 8/15/94

TASK TEAM ACTIVITY LOG SHEET

SITE MANAGER LOGBOOK P.59

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 TASK NO: 34896

Date (mm/dd/yy): 7/7/94 TIME: NA : PAGE 2 OF 3

Task Team Members:

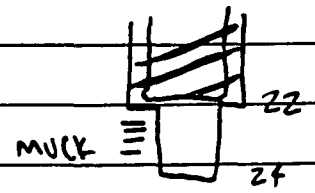
NA

Narrative (include time and location):

- re LEL; Adding water is first choice to reduce LEL.
- B16 water will go back in hole.

1400 @ cable tool. @ 17', clean rounded gravels, no water.
1415 @ HSA B14. Start drilling.

1545 After Mtg., back to BA10. Skester lowers mast then accompanies me to Bldg 50 for removal of LOTO.
1600 @ Bldg 50 for LOTO.
1615 to substation. Complete removal of LOTO.
1630 G. Coder reports @ B14 @ 22-24', drill into a black muck, damp, OVA= >1000ppm DH, <1 ppm BZ (breezy) and LEL = 85% O_2 = 16%. Shut down Rig.
Also poor recovery. No spl @ 5', 10', spld 12-18
Auger @ 22'



Daily Weather Conditions: A.M. NA
P.M. NA

Recorded By [signature] QA Checked By Laura M. Morrison 8/15/94

TASK TEAM ACTIVITY LOG SHEET

SITE MANAGER LOGBOOK P.60

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 TASK NO: 34896

Date (mm/dd/yy): 7/7/94 TIME: NA PAGE 3 OF 3

Task Team Members:

NA

Narrative (include time and location):

EOD SUMMARY: Cable tool (B410) @ 26'. Dry.

HSA: @ 24' High LEL

SEEP: sampled 1 SEEP, SO1001; spl, dupe, MS/MSD

SEDS: Good progress. Approx 20 sed spls collected to date. No surface water encountered.

1830 All personnel offsite.

last entry

Daily Weather Conditions: A.M. NA

P.M. NA

Recorded By [signature] QA Checked By Laura M. Marson 8/15/94

TASK TEAM ACTIVITY LOG SHEET

SITE MANAGER LOGBOOK P.61

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 TASK NO: 34896

Date (mm/dd/yy): 7/8/94 FRI TIME: 0700 PAGE 1 OF 1

Task Team Members:

JOHN DAVIS JOLETTA Humpert

Chris Loder Jeff DeVaugn (HSA A7)

JUAN ALVARADO

Narrative (include time and location):

0700 ONsite. HSA CREW @ B14. LEL FROM yesterday (mid OVA) has dissipated. Continue drilling.

0815 @ HSA B14. MINOR LEL hits around 8%. Prepping to collect grab water sample. Lite in Augers @ ≐ 21.7. @ 28-30', OVA @ >1000 ppm DH, LEL = 24%.

Spend rest of day purging well & collecting water spl.

No pump available.

- Stake several more sed spls points in Ops Area
- Complete tlx inventory
- QA logbooks.

1530 JD offsite

Last Entry

Daily Weather Conditions: A.M. overcast, cool, v. sl. drizzle intermittent, 75°F

P.M. clearing and warm

Recorded By [signature] QA Checked By Laura M Morrison 8/15/94

TASK TEAM ACTIVITY LOG SHEET

SITE MANAGER LOGBOOK P. 62

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 TASK NO.: 34896

Date (mm/dd/yy): 7/11/94 MON TIME: 0700 PAGE 1 OF 2

Task Team Members:

JOHN DAVIS JOLETTA HUMPHRY MIKE MONROE GEORGE WAHL (SC)
GREG LODER JEFF DEVINEN (AZTECA) JUAN ALVARADO TONYA PFAH (SEEP)
SUSAN ALSTON MARTHA CRAMER (CABLE) CRAIG PATTERSON SUZY BROWN (FIDELITY)

Narrative (include time and location):

0700 all personnel on site
0730 Meet J. Weisler & S.C. Patterson for LOTO. Go to Bldg 50, run deep wells
0800 LOTO completed. To B14. LEL has dissipated over weekend. Continue drlg.
- FINISH staking sed spls locs.
1000 @ B410 w/ A. Berry. Water tentatively tagged @ ≐ 31'. per A. Berry; set screen 2' above wtr but drill to bedrock. If necessary, grout w/ bentonite in sump to set well.
1530 @ B410. Wtr @ 30.95'. TDTD = ~~39~~ 41' THD 7-11-94 Will set screen 29-39 tomorrow. Lowering mast for LOTO.
1535 @ B14. TDTD = 74.4ft. No bedrock. In clean w-sorted River gravel.
1615 @ Bldg 102 for LOTO. Cleared there @ 1645. To Bldg 50 and deep wells
1700 LOTO completed.

Daily Weather Conditions: A.M. cool, clear, balmy, 75°F
P.M. warming to 85°F

Recorded By [signature] QA Checked By Laura M. Marton 8/15/94

TASK TEAM ACTIVITY LOG SHEET

SITE MANAGER LOGBOOK P.63

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 TASK NO: 34896

Date (mm/dd/yy): 7/11/94 TIME: NA PAGE 2 OF 2

Task Team Members:

NA

Narrative (include time and location):

EOD SUMMARY:

CABLE TOOL: TD = 41.2' WTR @ 30.95. CASING IN hole

AT HSA: still on B14. TDTD = 76.0

SEEPS: Spld remaining flowing seep. Total of 2 seeps sampled. 3 more potentials but all dry.

SEDS: Good progress. Will complete tomorrow.

SG: IN SDB.

FIDLER: starting A22

Daily Weather Conditions: A.M. NA

P.M. NA

Recorded By [signature] QA Checked By Laura M. Marsden 8/15/94

TASK TEAM ACTIVITY LOG SHEET — SITE MANAGER LOGBOOK P. 64

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 — TASK NO. 34896

Date (mm/dd/yy): 7/12/94 TUES TIME: 0715 PAGE 1 OF 1

Task Team Members:

John Davis, Joletta Humpert, Mike Monroe, George Wehl (SG), Gary Loder, Eric Saylor (AZ HSA), Sally Brown, Craig Patterson (FIDELER), Susan Abston, Martha Cramer (CABLE), Chris Halley (SED)

Narrative (include time and location):

0715 All personnel on site. Conduct H&S briefing.
0715 @ bldg 102 for LOTO w/ S.C. Patterson
0815 Guard shows up. To bldg 50
0830 R. Konig (electrician) shows up. Do bldg 50 LOTO
0845 @ pumphouse. Complete LOTO.

0845. Sed spls completed. 27 sed locs. No flowing water.
JD to office for misc. paperwork

1600 Call fm G. Loder. @ B14, heaving sands @ 108. Difficulty keeping sand out of augers - no pilot bit in augers.
GL calls A. Berry who says its ok just to auger to bedrock - no split-spoon sampling required.
Last Entry

Daily Weather Conditions: A.M. warm, humid, clear, 85°F
P.M. Same

Recorded By [signature] QA Checked By Laura M. Morrison 8/15/94

TASK TEAM ACTIVITY LOG SHEET

SITE MANAGER LOGBOOK P.65

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 TASK NO: 34896

Date (mm/dd/yy): 7/13/94 Wed TIME: 07 : 00 PAGE 1 OF 2

Task Team Members:

John Davis, Joletta Humpert, Sally Brown, Craig Patterson (FIDCER), Greg Loder, Eric Saylor (A7 HSA), Mike Monroe, George Wahl (SL), Susan Abston, Martha Cramer (CAPE), Juan Alvarado

Narrative (include time and location):

0700 all personnel on site.

0830 Complete B14, TD @ 114.0 auger refusal. @ bedrock.
Setting up on B8.
- S. Abston, M. Cramer developing, pursing, and sampling W397.
- Note: J. Humpert Juan Alvarado pulling soil gas tubes in A22.

0900 Call T. Pedro. Put D. Sink, D. Work, J. Heger, S. Abston, M. Cramer, J. Davis on access list for Fri 7/15
Also call M. O'Donahue. He will arrange HP coverage (Henry Robinson) and SSF support for 7/15, A7 drilling.

0915 Chris Holley onsite to replace Sally Brown on FIDCER

1000 Stake bldg PH holes w/ K. McMahan. PH1, PH2 in front, PH3, PH4 in back. Locs can be moved as necessary for utilities clearance.
- KM also wants to schedule Rad II training on Fri 7/15 or Fri 7/22

1100 Call for K. McMahan. Per OU5 Mgrs, its OK to dump New Prop cuttings @ site if there is no OVA hits.

1500 Lightning Alert per Henry Robinson

1530 Cable tool support truck gets stuck on perimeter road in New Prop.

Daily Weather Conditions: A.M. warm humid clear 85°F

P.M. heavy rains in afl.

Recorded By [signature] QA Checked By Laura M. Monahan 8/15/94

TASK TEAM ACTIVITY LOG SHEET — SITE MANAGER LOGBOOK P. 66

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 — TASK NO. 34896

Date (mm/dd/yy): 7-13-94 TIME: NA: PAGE 2 OF 2

Task Team Members:

NA

Narrative (include time and location):

EOD Summary:

Cable tool: Grouted B410 continue developing 397. Slow recovery.

HSA: complete B14 @ 114'. ~~Move to~~ 310 7/13/94.

Difficulty grouting - holes run out of grout due to washouts from heaving sands. Move to B8

Soil Gas: installing in Area 3

FIDLER: working in A7

Last Entry

Daily Weather Conditions: A.M. NA

P.M. NA

Recorded By [signature] QA Checked By Laura M. Marion 8/15/94

TASK TEAM ACTIVITY LOG SHEET

SITE MANAGER LOGBOOK P.67

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 TASK NO.: 34896

Date (mm/dd/yy): 7-14-94 THURS TIME: 07:00 PAGE 1 OF 3

Task Team Members:

JOHN DAVIS JOLETHA HUMPERT GREG LODER ERIC SAYLOR (HSA)
MIKE MONROE GEORGE WAHL (SG) SUSAN ABSTON MARTHA CRAMER (CABLE)
SALLY BROWN CRAIG PATTERSON (FIDLER)

Narrative (include time and location):

0700 all personnel on site. Conduct HAS Briefing.
Scan trash bags from drill rigs w/ FIDLER and OVA.
No detects on either so throw in dumpster.

0830 @ HSA @ A7, B8. Drilling nicely but poor recovery; in clay;
@ about 8'.
- Then to Bldg 19 and pick up 6 poly 10M water drums for
well develop.

0900 call for K. McMahon. Need 1 training set for tomorrow

0930 call K. McMahon. Give him names for training: Also S. Willis for
J. Davis, S. Abston, M. Cramer (SMC) ACCESS:
DENNIS SINK D. WORK (B-M)

depth @ 12'. high OVA (pegged) downhole. 35ppm 1 foot
above casing. 0ppm in BZ. Neg. on draeger tubes.
- D. Sink wants to send rig to yard on Fri to fix leaking hydraulic line.

NOTE: due to muddy conditions (inaccessible) to W397, Martha and
Susan are developing 8400.

Daily Weather Conditions: A.M. overcast, sl. drizzle, humid, 80°F
P.M. clearing some and warmer.

Recorded By [signature] QA Checked By Laura M McMahon
8/15/94

TASK TEAM ACTIVITY LOG SHEET

SITE MANAGER LOGBOOK P. 68

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1

TASK NO: 34896

Date (mm/dd/yy): 7/14/94 TIME: NA : _____ PAGE 2 OF 3

Task Team Members:

NA

Narrative (include time and location):

0945: Call from A. Meyer. Requirement for soil pH is analysis w/i 48 hrs but Singleton didn't do it because pH wasn't in their SOW. Amy wanted to know if we could recollect. I said NO because samples came from depth and holes are grouted.

1030 Call fm. G. Coder; @ B8, @ 14 ft, OVA and LEL pegged. Decide to let hole sit over lunch to dissipate.

1230 @ B8. G. Coder reports that after lunch, LEL was still high so added water to augers; to groundsurface (approx 10 gal), drove a spoon, and LEL dropped below action level.

Note: re OVA hit @ 16': 120 ppm w/o methane probe, 85 ppm w/ probe = 35 ppm non-methane volatiles. Neg. benzene & vinyl chloride on dräger tubes.

1330 Spoon refusal @ 26' on B8. Will move to B9 next

Daily Weather Conditions: A.M. NA

P.M. NA

Recorded By [signature] QA Checked By Laura M. Morrison 8/15/94

TASK TEAM ACTIVITY LOG SHEET

SITE MANAGER LOGBOOK P.69

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 TASK NO: 34896

Date (mm/dd/yy): 7/14/94 TIME: NA PAGE 3 OF 3

Task Team Members:

NA

Narrative (include time and location):

1430 @ OSE for mtg w/ A. Spesard, T. Trank, K. McMahan, A. Berry.

- Discussion of Level D. What should we be wearing? Need to call SAIC Corporate. A. Spesard says disregard D. Garrison and S. Weibel. SAIC can wear coveralls if we want but not that Mound is forcing us to wear them. Disregard above paragraph. Continue wearing coveralls in AZ. per A. Spesard. Get copies of 3-dy supervised training for field staff.
- NPPI FR due 7/27. Get a copy.
- If we drill a boring 30-40' below water table, grab a water sample. 100 ml.

S. Abston & M. Cremen develop, purge & sample B400.

Last Entry

Daily Weather Conditions: A.M. NA

P.M. NA

Recorded By [signature] QA Checked By Laura M. Morrison 8/15/94

TASK TEAM ACTIVITY LOG SHEET

SITE MANAGER LOGE P.70

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 TASK NO: 3489

Date (mm/dd/yy): 7/15/94 FRI TIME: 0900 PAGE 1 OF 1

Task Team Members:

JOHN DAVIS	SAIC	DENNIS SINK	BOWER MORRIS
SUSAN ABSTON	↓	DWIGHT WACK	↓
MARTHA CRAMER			

Narrative (include time and location):

@ OSE blg @ 0800; J. DAVIS, S. ABSTON, M. CRAMER, D. WACK, D. SINK for Red Walker II TRAINING

LAST ENTRY

Daily Weather Conditions: A.M. NA

P.M. NA

Recorded By: [signature] QA Checked By: Laura M. Morrison 8/15/94

TASK TEAM ACTIVITY LOG SHEET

SITE MANAGER LOGBOOK P. 71

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 TASK NO: 34896

Date (mm/dd/yy): 7/18/94 MON TIME: 07 00 PAGE 1 OF 2

Task Team Members:

G. Loder, G. Wahl (AZHSA)
S. Alston, M. Cramer (CAHE)
J. Alvarado, C. Helley (SG)
C. Patterson (FIDLER)
J. Davis J. Humphrey.

Narrative (include time and location):

0700 all personnel onsite. Call from K. McMahon - he says that if we have respirator fit cards, may not need Mound fit testing.

G. Loder late, so release B-M crew to drill geotechnical holes on Main Hill - D. Sink estimates 3-4 hrs for completion.

Note: T. Tank pulled Sally Brown into office - no support for Cramer P.

- S. Alston & M. Cramer purging and sampling W397 today.
- Note: Suggestions to speed up A7 drilling:
  - for shallow holes, no rig decon between holes.
  - for deep holes, discontinue spooning at some depth and auger to bedrock
  - if we get LEL hit, flood hole immediately.

1315 K. MacMahan called - HEPA ~~cartridge~~ OK 7/18/94 cartridge good - we can have OV cartridges onhand if we want but is not necessary. Not required to have Mound fit-testing -

Daily Weather Conditions: A.M. warm & humid

P.M. same

Recorded By [signature] QA Checked By [signature] 8/15/94

TASK TEAM ACTIVITY LOG SHEET

SITEMANAGER LOGBOO

P. 72

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1

TASK NO: 34896

Date (mm/dd/yy): 7/18/94 TIME: NA PAGE 2 OF 2

Task Team Members:

J.H.

Narrative (include time and location):

as long as everyone is fittested by company and can provide cards.

Last Entry

Daily Weather Conditions: A.M. NA

P.M. NA

Recorded By J. Humpert QA Checked By Laura M. Marian 8/15/94

TASK TEAM ACTIVITY LOG SHEET

SITE MANAGER LOGBOOK P.73

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 — TASK NO: 34896

Date (mm/dd/yy): 7-19-94 TIME: NA PAGE 1 OF 2

Task Team Members:

Craig Patterson - Sally Brown (ADLSC) Martha Cramer - Susan Abston (NP) Juan Alvarado - Chris Halley (Soil gas) Joe Schultheis, Elisa Jackson, Greg Loder - George Wahl (Area 7) Dave Cummings (Geophysical)

Narrative (include time and location):

0715 Onsite. All personnel present. K. MacMahan at trailer asking for copy of respirator fit cards for SAIC. Also inquiring about whether we ship soil screening results. He's worried that that may potentially be a conflict of interest because the lab may be able to falsify a result within 20%. I said we sometimes sent a copy of results or had a verbal that everything was OK to ship. He asked for a complete copy of results to date. I don't have a complete set because sometimes HP only gives one copy and I have to ship it. I explained to K.M. that it would be hard for the lab to use soil screening since those results are only for Th-232 and Pu-238. I told K.M. that we could stop sending the results if he wanted - he said he'd get back to us on it. Also took respirator cards and papers to copy.

0800 Ran ambient blank to G. Loder at B09. S. Abston and M. Cramer collecting W397001 at B397 w/ bailer.

Daily Weather Conditions: A.M. Sunny, 70°F

P.M. NA

Recorded By J. Humpert QA Checked By [illegible] 7/21/94

TASK TEAM ACTIVITY LOG SHEET

SITE MANAGER LOGBOOK P. 74

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 TASK NO: 34896

Date (mm/dd/yy): ~~7-18-94~~ 7-19-94 JHD 7-20-94 TIME: NA PAGE 2 OF 2

Task Team Members: J. Humpert et al.

Narrative (include time and location):

0930 MCramer and S. Alston not able to sample due to high levels of silt. Bailed well dry and still high level of silts. Called T. Tank for guidance.

1200 G Loder to trailer - at point of collecting last sample (B0905). Will finish hole after lunch.

1300 S. Alston and M. Cramer getting stable readings at B397 - will sample well.

1405 G. Loder finishes B09. Moving to B12 and is skipping decon of rig with approval from T. Tank.

1430 K. MacMahan called. EG&G fidler guy out today - only one that has key for room where FIDLERS are kept. He will get us a new calibrated FIDLER on Wed. morning. Also said we should stop sending soil screening results to lab as directed by EG&G. Just give labs verbal everything OK.

LAST ENTRY

Daily Weather Conditions: A.M. NA

P.M. Sunny 88°F

Recorded By Juletta Humpert QA Checked By [illegible] 7/21/94

TASK TEAM ACTIVITY LOG SHEET — SITE MANAGER LOGBOOK 875

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 — TASK NO: 34896

Date (mm/dd/yy): 7/20/94 TIME: 0700 PAGE 1 OF 2

Task Team Members:

John Davis, Joletta Humphrey, Martha Cremin, Susan Abston (QW spls), Greg Loder, George Wahl (AFHSA), Sally Brown, Craig Patterson (FIDLER), Juan Alvarado, Chris Halley (SG)

Narrative (include time and location):

0700 all personnel on site
- J. Alvarado reports that 3 points in SDB exceeded FIDLER background, scanned for soil gas implacement. Did not drill there. He's checkg w/ HP to determine background. OU5 HSP says Action level is 3x background.
- G. Loder drillg B12
- S. Abston, M. Cremin samplg B402.
- K. McMahon onsite. Decide to finish B16 on Mon 7/25

0830 call fm K. McMahon. Approval fm A. Spesard, A. Berry - No need to decon back of rig between shallow holes. Need to use clean cutters.
- also ok to just ream below 30' unless lithology changes.

1000 @ B402. Splg crew finishing samplg there.
1015 @ B12. Just completed. TD = 22' Moving to B10
1030 @ B10 w/ J. Geiske. Move hole approx 10' S. to avoid a LOD. Scanned ok.

Daily Weather Conditions: A.M. hot and humid 90°F

P.M. same

Recorded By [signature] QA Checked By Laura M. Morrison 8/15/94

TASK TEAM ACTIVITY LOG SHEET — SITE MANAGER LOGB

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 — TASK NO: 34896

Date (mm/dd/yy): 7/20/94 TIME: NA PAGE 2 OF 2

Task Team Members:

NA

Narrative (include time and location):

1300 @ B10. Just getting started.

1330 Call S. Willis for FRI access:

J. Davis, J. Minard, L. Coder, G. Wahl (SMIC)

D. Sink Dwork (B-M).

1400 Call from K. McMahan. He wants to stage all IDM drums in A7.

1500 G. Coder completes B10 @ 13.5'.

NOTE: FIDLER crew reports that field tests and disc. w/ Roy Mowen indicate that sweeping w/ OUT channel does not detect plutonium i.e. that its possible to get a hit on CH1 w/o a corresponding hit on OUT channel. Also found that to get a hit on CH1, FIDLER must be stationary and on the ground to a max. 2" above ground — not conducive to field screening.

Last Entry

Daily Weather Conditions: A.M. NA

P.M. NA

Recorded By [signature] QA Checked By Laura M. Morrison 8/15/94

TASK TEAM ACTIVITY LOG SHEET

SITE MANAGER LOGBOOK 0.77

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 TASK NO: 34896

Date (mm/dd/yy): NA TIME: NA PAGE 1 OF 4

Task Team Members:

NA

Narrative (include time and location):

NOTE: The following is a summary of geotechnical sampling performed in the New Property, extended Phase. All samples were collected w/ the HSA auger

Lithologic Zones:

ZONE 1: surface Mostly silty clays; clayey silty soil

ZONE 2: subsurface silty clays, commonly w/ fairly abundant limestone fragments; may be weathered bedrock in places

ZONE 3: BVA? sand, gravel, well graded, possible BVA material

NOTE: ZONE 2 consists of silty clays. In area of higher elevations, clay grades downward to weathered bedrock (either shale or fossiliferous limestone)

Samples Collected

ZONE 1: B40521 B40721 B40821

ZONE 2: B40421 B40621 B40723

ZONE 3: B40622 B40822

Daily Weather Conditions: A.M. NA

P.M. NA

Recorded By [signature] QA Checked By Laura M. Morrison 8/15/94

TASK TEAM ACTIVITY LOG SHEET

SITE MANAGER: LOGE

P.78

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1

TASK NO: 3489

Date (mm/dd/yy): NA TIME: NA PAGE 2 OF 4

Task Team Members:

NA

Narrative (include time and location):

GEOTECHNICAL SAMPLING (CONT.)

HOLE	SPL COLLECTED			
B401	NONE			
B403	NONE			
B404	B40421	BUCKET	2-8'	silty clay (ZONE 2)
B405	B40521	bucket	0.0-1.3	silty clay (ZONE 1)
		Shelby	0.0-1.5	
B406	B40621	bucket	6.0-24.0	clay (ZONE 2)
		Shelby	10.0-12.0	
	B40622	bucket	30.0-38.0	BVA (ZONE 3)
B407	B40723	bucket	6.0-10.0	silty clay (ZONE 2)
			3.0-11.0 (FM B405)	
	B40721	bucket	0.0-0.5	clayey to silty soil (ZONE 1)
		Shelby	0.0-2.0	
B408	B40821	bucket	0.0-0.5	silty soil (ZONE 1)
		Shelby	0.0-2.0	
	B40822	bucket	17.0-34.0	BVA (ZONE 3)
		Shelby	16.0-18.0	

Daily Weather Conditions: A.M. NA

P.M. NA

Recorded By [signature] QA Checked By Laura M. Morrison 8/15/94

TASK TEAM ACTIVITY LOG SHEET — SITE MANAGER LOGBOOK

P. 79

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 — TASK NO: 34896

Date (mm/dd/yy): NA TIME: NA PAGE 3 OF 4

Task Team Members:

NA

Narrative (include time and location):

B409 NONE.

SAMPLE SUMMARY

ZONE 1	3 buckets	3 Shelbys
ZONE 2	3 buckets	1 Shelby
ZONE 3	2 buckets	1 Shelby

SOIL - silty clays, clayey silts (ZONE 1)

GRADES FIRM CLAYS (ZONE 2)

weathered shale or limestone. (PARTS of ZONE 2)

BVA ZONE 3

Daily Weather Conditions: A.M. NA

P.M. NA

Recorded By [signature] QA Checked By Laura M. Morrison 8/15/94

TASK TEAM ACTIVITY LOG SHEET — SITE MANAGER LOGBOOK P. 80

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 — TASK NO: 34896

Date (mm/dd/yy): NA TIME: NA PAGE 4 OF 4

Task Team Members:

NA

Narrative (include time and location):

SUMMARY OF NEW PROPERTY EXTENDED PHASE DRILLING - MULTIPLE HOLES

B407 2 HOLES; 2ND to COLLECT SUBSURFACE SAMPLE
B409 2 HOLES; 2ND to COLLECT SUBSURFACE SAMPLE
B408 1 HOLE
B404 3 HOLES; 2ND to COLLECT SUBSURFACE SAMPLE
3RD to COLLECT SUBSURFACE DUPLICATE
B405 2 HOLES; 2ND to COLLECT SUBSURFACE SAMPLE
B406 1 HOLE
B403 3 HOLES;

B402 1 HOLE
B401 1 HOLE

LAST ENTRY

Daily Weather Conditions: A.M. NA
P.M. NA

Recorded By [signature] QA Checked By Laura M. Morrison 8/15/94

TASK TEAM ACTIVITY LOG SHEET — SITE MANAGER LOGBOOK P. 81

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 — TASK NO.: 34896

Date (mm/dd/yy): 7/21/94 THURS TIME: 0700 PAGE 1 OF 1

Task Team Members:

JOHN DAVIS JOLETTA HUMPERT GALE LOCKER GEORGE WAHL (A7HSA)
JUAN ALVARADO CHAS HALLEY (SC) SUSAN ALSTON MARTHA CRAMER (GW SPL)
SALLY BROWN CRAIG PATTERSON (FIDLER)

Narrative (include time and location):

0700 all personnel on site. Conduct HAS briefing.
A7HSA set up on B11
K. McMahan and J. Geisler on site. Discuss concrete specs for well pads:
- 3000 psi
- max 2 hr to pour (from start of mix in yard to pour)
- need to keep concrete wet for several days.

Discuss w/ Skeeter Patterson. He wants to pour next Mon.
- Evaluate B-M invoice for A7HSA thru 6/30; their invoice agrees with our logbooks.

- A7HSA completes B11; TD @ 20.5 (bdek); water sampled @ 12.5
- S. Alston collects water spl @ B410. Then to W399 — difficulty pumping - v. slow recharge

Last Entry

Daily Weather Conditions: A.M. humid. overcast 80°F
P.M. Sunny warming to 90°F

Recorded By [signature] QA Checked By Laura M. Morrison 8/15/94

TASK TEAM ACTIVITY LOG SHEET — SITE MANAGER LOGBOOK P-82

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 — TASK NO.: 34896

Date (mm/dd/yy): 7/22/94 TIME: 07 00 PAGE 1 OF 1

Task Team Members:

Greg Loder George Wahl
Joletta Minard John Davis

Narrative (include time and location):

0700 G. Loder, G. Wahl on site.
Drill B6; TD @ 16' NO WATER ENCOUNTERED.
JD on site @ 1030 after resp. fit test in Dayton.

1300 Drillers back from lunch. Send them to 17 to stage
10M drums

Daily Weather Conditions: A.M. overcast, sl. humid 80°F
P.M. Clearing some

Recorded By [signature] QA Checked By Laura M. Morillon 8/15/94

TASK TEAM ACTIVITY LOG SHEET

0-83

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 TASK NO: 34896

Date (mm/dd/yy): 7-25-94 TIME: NA PAGE 1 OF 3

Task Team Members:

Joletta Humpert Sally Brown Craig Patterson (FIDLER)
Susan Abston Martha Cramer (B16)
Juan Alvarado Chris Halley (Soil Gas)

Narrative (include time and location):

0715 All personnel onsite at sample trailer.
Getting S. Abston and M. Cramer ready for B16.
S. Abston reviewing logbook from previous drilling.
0800 K. MacMahan stopped by - EG&G is now saying we can't use our own respirator fits. Also mentioned Allen Spesard was going to stop by to talk to crew.
0810 Called A. Spesard. - he doesn't need to speak to crew. Said we start without respirators but Henry Robinson and Keith MacMahan will be monitoring (w/ Fidler) to ensure we don't exceed the Actinium Action level of 60 pCi/g. If we exceed the action level, EG&G will not accept our respirator fit tests and we'll probably have to get fit test by Mound. (Keith's beeper #. ~~8-267-1170~~) JH 7/25/94
0830 K. MacMahan called - informed him they were starting B16. He's heading down right now.
Call B. Gault - leave message to call about what needs to be done with drums outside Bldg 19.

Daily Weather Conditions: A.M. Sunny, 70°F
P.M. NA

Recorded By J. Humpert QA Checked By Laura M. Morrison 8/15/94

TASK TEAM ACTIVITY LOG SHEET

SITE MANAGER LOGBOOK P. 84

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 TASK NO.: 34896

Date (mm/dd/yy): 7-25-94 TIME: NA PAGE 2 OF 3

Task Team Members:

J. Humpert

Narrative (include time and location):

Talked to drillers - they're trying to line up concrete truck to come in tomorrow (Tues.) at 9:00 am and 1:00 pm. Rod Long said they will need to get a pour card from Joyce tomorrow morning.

Skeeter and Steve will decon rig and equipment and get with me to line up HP to come and take wipes so they can get equipment back to yard. Also informed them concerning drums - waiting for call from D. Gault.

0840 D. Gault returned call - drums can be placed on pallets and set inside loading dock at Bldg 19. Bldg 19 is open and the pallets are inside. Empty barrels need to be cleaned out (deconned) and can also be placed inside loading dock.

1300 Martha reported they're done collecting samples at B16 - will continue doing lithologic descriptions until hitting sand layer and then will auger to bedrock (instructions per K. McMahan).

Skeeter & Steve working on blass pias and deconning (cleaning) and moving barrels. Still very little

Daily Weather Conditions: A.M. NA

P.M. Sunny, humid, 85°F

Recorded By J. Humpert QA Checked By Laura M. Massian 8/15/94

TASK TEAM ACTIVITY LOG SHEET

SITE MANAGER LOGBOOK p. 85

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 TASK NO: 34896

Date (mm/dd/yy): 7-25-94 TIME: NA PAGE 3 OF 3

Task Team Members:

J.H

Narrative (include time and location):

water coming out of B399 per Skeeter & Steve. Concrete truck will be here tomorrow morning at 8:30am and 1:00 pm. Will need to get pour card from Joyce Geisler - left message on her voice mail.

Juan A. informed me that Chris H. will be out with Kusmer (surveying) for OU9 tomorrow @ 10:30 am. Either myself or possibly Laura M. will fill in.

1400 G. Loder called - will come down tomorrow to fill in for C. Halley on soil gas crew. Asking if we had developed a second team yet. Will probably need Loder on Wed. to pull Area 21 with me.

1600 B16 complete - tagged bedrock at 48'. No rad hits during drilling. No water below 18'. Will pull & wipe augers Tues.
Offsite to deliver to fedex.
East Entry

Daily Weather Conditions: A.M. NA

P.M. NA

Recorded By J. Humpert QA Checked By Laura M. Morrison 8/15/94

TASK TEAM ACTIVITY LOG SHEET

SITE MANAGER LOGBOOK P.86

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 TASK NO: 34896

Date (mm/dd/yy): 7/26/94 TUES TIME: 0700 PAGE 1 OF 2

Task Team Members:

Jolitta Humpert John Davis Sally Brown Craig Patterson (FI
Greg Loder Juan Alvarado (SG)
Susan Abston Martha Cremer (A7 HSA)

Narrative (include time and location):

0700 all personnel on site.
- HSA auger team grouts B16. V. slow recharge on W399 - unable to sample.

1015 @ B16. Crew waiting on Health Physics for results of dirty wipes on augers. Must wait for results before deconning equipment

- Note: S.C. Patterson and S. Belt pouring well pads today. J. Geisler drops off permits for concrete - one for morning pour and one for afternoon pour.

- 1500 All pads are poured. Patterson and Belt pitting Broom finishes on pads. Will be completed today

Note: unable to set up on B15 today. Waiting on wipes, then drillers decon all equip. (No 2nd wipe required).
No HP coverage past 1500 (H. Robinson in training)

Note: discussion w/ K. McMahan re FIDLER detection of plutonium; out channel does pick up plutonium tho not as well as CH. 1. But to do it effectively in either channel, FIDLER must be stationary or moved v. slowly and must be 1-2" max

Daily Weather Conditions: A.M. overcast, cool, 70°F
P.M. warming to 85°F

Recorded By [signature] QA Checked By Laura M. Mosier 8/15/94

TASK TEAM ACTIVITY LOG SHEET

SITE MANAGER LOGBOOK

P.87

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1

TASK NO: 34896

Date (mm/dd/yy): 7/26/94 TIME: NA PAGE 2 OF 2

Task Team Members:

NA

Narrative (include time and location):

Above ground. KM opinion that FIDLER isn't a good instrument used in a sweep, for plutonium detection.

LAST ENTRY

Daily Weather Conditions: A.M. NA

P.M. NA

Recorded By [signature] QA Checked By Laura M. Morrison 8/15/94

TASK TEAM ACTIVITY LOG SHEET

SITE MANAGER LOGBOO p. 88

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1

TASK NO: 34896

Date (mm/dd/yy): 7/27/94 WED TIME: 0700 PAGE 1 OF 1

Task Team Members:

JOHN DAVIS JOLETTA HUMPERT SUSAN ABSTON MARTHA CRAMER (A7 HSA)
CHRIS HALLEY JUAN ALVARADO (SG)
SALLY BROWN CRAIG PATTERSON (FIDLER)

Narrative (include time and location):

~~AMD~~ 7/27/94

0700 ~~All site on personne~~ All personnel on site. Conduct HSS Briefing.

- HSA crew set up on B15. Good progress.
- JD + JH to New Property to pick up drums.
- Call T. Tank and give weekly update.
- Call for A. Bray. Discuss lack of water w/ W399. He suggests we do more surging, with a surge block. Also said we shouldn't dump groundwater from IDW to ground.

1400 Complete B15 w/ 19' No water. Drillers then decontain rig and washing barrels out. DRILLING COMPLETE!

LAST ENTRY

Daily Weather Conditions: A.M. cool, overcast, quite pleasant

P.M. Same w/ some clearing

Recorded By [signature] 7/27/94 QA Checked By Laura M. Morrum 8/15/94

TASK TEAM ACTIVITY LOG SHEET

SITE MANAGER LOGBOOK: p.89

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 TASK NO: 34896

Date (mm/dd/yy): 7/28/94 Thurs TIME: 0700 PAGE 1 OF 1

Task Team Members:

John Davis, Joletta Humpert, Susan Alston
Chris Halley, Juan Alvarado (SG), Greg Loder
Craig Patterson, Sally Brown (FIDLER), Martha Cramer

Narrative (include time and location):

0700 all personnel on site.
G. Loder, S. Alston work on completing logbooks.
M. Cramer calibrates TLC meter.
J. Mingrd, G. Loder pulling soil gas samplers.
J. Davis QAs logbooks.
1400 Joe Schultheis on site to look @ AOC J geophysical grid.
1430 @ OSE Bldg for mtg w/ K. McMahan, A. Spessard, T. Tank.
Jim Zahora
- small sg grid around A7 gas tanks. Research w/ Petrex
- PH holes scheduled for Tues, Wed next week
- A21; not sure what contaminant is there. Will run FIDLER. per A. Spessard.
- FIDLER methodology to remain the same.

Last Entry

Daily Weather Conditions: A.M. Calm, clear, nice, 80°F
P.M. SAME

Recorded By [signature] QA Checked By Laura M. Marsden 8/15/94

TASK TEAM ACTIVITY LOG SHEET

SITE MANAGER LOGBOOK P.90

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 TASK NO: 34896

Date (mm/dd/yy): 8/1/94 MON TIME: 0730: PAGE 1 OF 1

Task Team Members:

John Davis Joletta Humphrey Sally Brown Craig Patterson (FID)
Juan Alvarado Chris Halley (SC)
Martha Cramer (SC)

Narrative (include time and location):

0730 all personnel on site.
FIDLER working in 3/SDB. Soil gas in A7.
1200 JD to office to discuss misc project details w/ T. Tank
LMH Entry

Daily Weather Conditions: A.M. humid overcast 80°F
P.M. same

Recorded By [signature] QA Checked By Laura M. Morrison 8/15/94

TASK TEAM ACTIVITY LOG SHEET

SITE MANAGER LOGBOOK R-91

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 TASK NO: 34896

Date (mm/dd/yy): 8/2/94 TUES TIME: 0730 PAGE 1 OF 1

Task Team Members:

JOHN DAVIS Jolette Humpert Martha Crouch

Juan Alvarado Chris Holley (SG)

Sally Brown Craig Patterson (FIDLER)

Narrative (include time and location):

0730 all personnel on site. FIDLER crew to 3/SDB, soil gas to A7. Yesterday, Jolette & Martha staked new prop. holes for As-builts Surveyors. Also put locks on wells & removed plastic. Checked for trash and IDM - one soil IDM left @ B409

0900 To H2O IDM staging area to cover drums. Then check scanned locations & PH holes; #1 & #2 moved N to edge & road approx 12' from edge of PH Bldg.

1200 JD to office. Evaluate Bowen-Morrow invoices. Look @ ODCs.

1700 Word from trailer - FIDLER survey completed!

Last Entry

Daily Weather Conditions: A.M. overcast, humid, 85°F, sl. breeze.

P.M. same.

Recorded By [signature] QA Checked By Laura M. Morrison 8/15/94

TAILGATE SAFETY MEETING LOG FORM — SITE MANAGER LOGBOOK

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 — TASK NO: 34896

DATE: 5/11/94 Su M Tu (W) Th F Sa TIME: 08 00

WEATHER: Clear, sunny, warm 50°F

WORKING CONDITIONS: good.

REQUIRED PPE: steel toed boots & safety glasses when staking. Add cleaning PPE when cleaning.

NOTES: Brief personnel on OU5 details esp. Site-Specific H&S Checklists. Discuss & use of cleaning equip. & associated hazards. Discuss rudimentary first aid, heat exhaustion, and tick dangers. Discuss slip, trip, and fall hazards as well as brief initial discussion of specific AOC hazards.

Last entry

The following individuals attended the daily "tailgate" safety meeting: (Signatures)

Eric Saylor		
[illegible]		
[illegible]		
[illegible]		
[illegible]		

JOHN H. DAVIS

SITE HEALTH & SAFETY OFFICER

TAILGATE SAFETY MEETING LOG FORM

SITE MANAGER LOGBOOK P. 242

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1

TASK NO: 3489

DATE: 5/12/94 Su M Tu W (Th) F Sa TIME: 0730

WEATHER: clear crisp calm 45°F

WORKING CONDITIONS: good

REQUIRED PPE: glasses, boots. Add clearing PPE when clearing

NOTES: Discussed slip trip fall hazards. Discussed entry into decommissioned buildings. Discuss work plan for the day.

Last Entry

The following individuals attended the daily "tailgate" safety meeting: (Signatures)

Bernard D Kunz		
[illegible]		
[illegible]		
[illegible]		
Eric [illegible]		

JOHN H. DAVIS

SITE HEALTH & SAFETY OFFICER

TAILGATE SAFETY MEETING LOG FORM

SITE MANAGER LOGBOOK: 8-2A3

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1

TASK NO.: 34896

DATE: 5/16/94 Su (M) Tu W Th F Sa TIME: 0730

WEATHER: clear cool sl breeze 50°F

WORKING CONDITIONS: good

REQUIRED PPE: boots, glasses, add cleaning PPE when cleaning.

NOTES:

Discuss:

- slip, trip, fall esp. on steep hillsides
- poison ivy
- ticks - use of Permanone
- saw & machete safety esp. in thick vegetation & steep slopes
- remind surveyors to always wear glasses and wear hardhats when in wooded area

Last Entry

The following individuals attended the daily "tailgate" safety meeting: (Signatures)

[illegible]		
Jeff Tinka		
Eric Taylor		
[illegible]		
[illegible]		

Joni Davis

SITE HEALTH & SAFETY OFFICER

TAILGATE SAFETY MEETING LOG FORM

SITE MANAGER LOGBOOK: P.244

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1

TASK NO: 3489

DATE: 5/17/94 Su M (Tu) W Th F Sa TIME: 0730

WEATHER: clear cool breezy 50°F

WORKING CONDITIONS: good

REQUIRED PPE: boots, glasses, add cleaning PPE when cleaning

NOTES: Discuss:

- ticks & permanone
- cleaning equipment safety
- HP coverage; per J. Geisler. she'll check the area D DYD to see if its ok to go in.

Last Entry

The following individuals attended the daily "tailgate" safety meeting: (Signatures)

[illegible]		
[illegible]		
[illegible]		
[illegible]		
Eric Saylor		

[illegible]

SITE HEALTH & SAFETY OFFICER

TAILGATE SAFETY MEETING LOG FORM — SITE MANAGER LOGBOOK P.245

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 — TASK NO: 34896

DATE: 5/18/94 — Su M Tu (W) Th F Sa — TIME: 07:30

WEATHER: clear cool breezy 50°F

WORKING CONDITIONS: good

REQUIRED PPE: glasses, boots, add cleaning PPE when cleaning

NOTES:

Discuss:

- cleaning tool safety
- drink plenty of water
- safety breaks

Unit Entry

The following individuals attended the daily "tailgate" safety meeting: (Signatures)

Eric Taylor		
[illegible]		
[illegible]		
Bernard D [illegible]		
D. H [illegible]		

SITE HEALTH & SAFETY OFFICER

TAILGATE SAFETY MEETING LOG FORM SITE MANAGER LOGBOOK P-246

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 TASK NO: 3480

DATE: 5/19/94 Su M Tu W (Th) F Sa TIME: 7:25

WEATHER: cool, breezy, sunny, 50°F

WORKING CONDITIONS: good

REQUIRED PPE: glasses, boots, add clearing PPE when clearing

NOTES: Discuss
* cutting tool safety
* taking rest breaks as needed & drinking H_2O
* cautioned regarding fall & trip hazards

LAST ENTRY

The following individuals attended the daily "tailgate" safety meeting: (Signatures)

Eric Saylor		
[illegible]		
[illegible]		
[illegible]		
Bernard D Rump		

SITE HEALTH & SAFETY OFFICER

TAILGATE SAFETY MEETING LOG FORM — SITE MANAGER LOGBOOK P. 247

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 — TASK NO.: 34896

DATE: 5/23/94 Su (M) Tu W Th F Sa TIME: 07:30

WEATHER: good - sl overcast, 65°F

WORKING CONDITIONS: good

REQUIRED PPE: hook + glasses; add cleaning PPE when cleaning.

NOTES:

Discuss
- chemistry + molecule safety
- familiarizing 1st aid
- ticks
- heat exhaustion
- slip, trip, fall

Last Entry

The following individuals attended the daily "tailgate" safety meeting: (Signatures)

[illegible]	[illegible]	
[illegible]		
[illegible]		
[illegible]		
[illegible]		
[illegible]		

SITE HEALTH & SAFETY OFFICER

TAILGATE SAFETY MEETING LOG FORM

SITE MANAGER LOGBOOK P.248

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1

TASK NO: 3489

DATE: 5-24-94 Su M (Tu) W Th F Sa TIME: 7:3t

WEATHER: OVERCAST, MUGGY, 75°F

WORKING CONDITIONS: good

REQUIRED PPE: glasses, boots, add PPE cleaning.

NOTES:

DISCUSS

- chainsaw safety - idling chain. Don't walk on steep hills if saw is not operating correctly.
- drink lots of water.

LAST ENTRY

The following individuals attended the daily "tailgate" safety meeting: (Signatures)

[illegible]	Sharon Kristensen	
[illegible]		
[illegible]		
[illegible]		
[illegible]		
[illegible]		

SITE HEALTH & SAFETY OFFICER

TAILGATE SAFETY MEETING LOG FORM

SITE MANAGER LOGBOOK p. 249

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1

TASK NO: 34896

DATE: 5-25-94 Su M Tu (W) Th F Sa TIME: 7:30

WEATHER: overcast, rainy, 65-70° F

WORKING CONDITIONS: Fair, slightly slippery

REQUIRED PPE: glasses, boots, Add PPE for clearing

NOTES:

Discuss
- slip/trip/fall hazards
- rattlesnake first aid
- cautioned workers regard slippery conditions

Last Entry

The following individuals attended the daily "tailgate" safety meeting: (Signatures)

Cindy Montgomery		
Sharon Kretzenger		
Brad Richards		
Chris D Holly		

SITE HEALTH & SAFETY OFFICER

TAILGATE SAFETY MEETING LOG FORM

SITE MANAGER LOGBOOK P. 250

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1

TASK NO: 34896

DATE: 5-26-94 Su M Tu W (Th) F Sa TIME: 7:30

WEATHER: hazy w/ some sun, some rain,

WORKING CONDITIONS: good

REQUIRED PPE: glasses, boots, add clear PPE when clear.

NOTES:

DISCUSS:

Be safe - its tough out there!

Last Entry

The following individuals attended the daily "tailgate" safety meeting: (Signatures)

[illegible]	[illegible]	
[illegible]		
Shawn Kristenmeyer		
[illegible]		
[illegible]		
[illegible]		

SITE HEALTH & SAFETY OFFICER

TAILGATE SAFETY MEETING LOG FORM — SITE MANAGER LOGBOOK P. 251

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 — TASK NO: 34896

DATE: 5/31/94 Su M (Tu) W Th F Sa TIME: 0730

WEATHER: clear cool 50°F calm

WORKING CONDITIONS: Good.

REQUIRED PPE: glasses & steel toed boots, Add clearing PPE when clearing

NOTES:

Discuss

- Mound PPE requirements. Always glasses & boots. Add hardhat when in construction zone or in woods.
- Clearing PPE: hardhat, hearing protect, gloves, face shield, glasses, boots, chaps, vest.
- Chainsaw, machete safety.
- Ticks: use Permanone & insect spray.

Last Entry

The following individuals attended the daily "tailgate" safety meeting: (Signatures)

Art Lupe		
Jeff Kl[illegible]		
Cathy Mc[illegible]		
Sharon Kr[illegible]		
Bernard D. K[illegible]		
Chris J. [illegible]		

SITE HEALTH & SAFETY OFFICER

TAILGATE SAFETY MEETING LOG FORM

SITE MANAGER LOGBOOK P. 252

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1

TASK NO: 3480

DATE: 6/1/94 Su M Tu W Th F Sa TIME: 07:00

WEATHER: 70° F, sunny

WORKING CONDITIONS: good

REQUIRED PPE: glasses + steel toed boots, add clearing equipment when clearing

NOTES:

Discuss

- Safety in Area 3/SDB.

Last Entry

The following individuals attended the daily "tailgate" safety meeting: (Signatures)

[illegible]		
[illegible]		
[illegible]		
[illegible]		

SITE HEALTH & SAFETY OFFICER

TAILGATE SAFETY MEETING LOG FORM

SITE MANAGER LOGBOOK P-253

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE-1

TASK NO.: 34896

DATE: 6/2/94 Su M Tu W (Th) F Sa TIME: 07:30

WEATHER: 60°F Sunny

WORKING CONDITIONS: good

REQUIRED PPE: glasses + steel toed boots, add clearing equipment when clears

NOTES:

Discuss:

- eye scratch incident of Evelyn Meagher yesterday
  Eye protection v. important. Stress dangers of slip trip fall

Last Entry

The following individuals attended the daily "tailgate" safety meeting: (Signatures)

[illegible]		
[illegible]		
[illegible]		

SITE HEALTH & SAFETY OFFICER

TAILGATE SAFETY MEETING LOG FORM SITE MANAGER LOGBOOK p. 254

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 TASK NO: 34896

DATE: 6-6-94 Su M Tu W Th F Sa TIME: 0800

WEATHER: overcast, humid, 60° F

WORKING CONDITIONS: good

REQUIRED PPE: see below

NOTES:

Discuss:

- Mound PPE requirement; glasses & hook always, hard hats in construction zones. Also discuss cleaning PPE
- Poison ivy. Lots of it at MEA J. Where its thick, recommended PPE is taped up tyvek w/ nitrile gloves.

Last Entry

The following individuals attended the daily "tailgate" safety meeting: (Signatures)

Matt Oblay		
[illegible]		
Chris Hurley		

SITE HEALTH & SAFETY OFFICER

TAILGATE SAFETY MEETING LOG FORM — SITE MANAGER LOGBOOK

P. 255

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 — TASK NO: 34896

DATE: 6/7/94 Su M (Tu) W Th F Sa TIME: 08:00

WEATHER: Sunny humid 65°F

WORKING CONDITIONS: good

REQUIRED PPE: See below

NOTES:

Discuss:
- Safety in Area 3 / SDB
  Last Entry

The following individuals attended the daily "tailgate" safety meeting: (Signatures)

Brad Richards		
Ken D Hall		

SITE HEALTH & SAFETY OFFICER

TAILGATE SAFETY MEETING LOG FORM

SITE MANAGER LOGBO
P. 256

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1

TASK NO.: 34

DATE: 6/8/94 Su M Tu (W) Th F Sa TIME: 07:30

WEATHER: Mostly Cloudy, 60°F

WORKING CONDITIONS: Good

REQUIRED PPE: See below

NOTES:

Discuss:

- Concerns w/ area J.
  - Ticks (Tape Pants legs to boots)
  - Poison Ivy (where encountered tape up and wear tyvek if necessary)
  - Steep slope dangers

LAST ENTRY

The following individuals attended the daily "tailgate" safety meeting: (Signatures)

Eric Taylor		
Bud [illegible]		

SITE HEALTH & SAFETY OFFICER

TAILGATE SAFETY MEETING LOG FORM — SITE MANAGER LOGBOOK p. 257

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 — TASK NO: 34896

DATE: 6/9/94 Su M Tu W (Th) F Sa TIME: 07:30

WEATHER: Mostly Sunny 60°F, Calm

WORKING CONDITIONS: Good

REQUIRED PPE: See below

NOTES:

Discuss Concerns w/ Area J
- Ticks
- Poison Ivy
- Steep slopes

Discuss Mounds PPE Requirements
- safety shoes
- safety glasses
- Hard Hats in construction area.

Last Entry

The following individuals attended the daily "tailgate" safety meeting: (Signatures)

[illegible]		
Eric Saylor		
[illegible]		
[illegible]		

SITE HEALTH & SAFETY OFFICER

TAILGATE SAFETY MEETING LOG FORM SITE MANAGER: Lo[illegible]

P: 258

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 TASK NO: [illegible]

DATE: 6/13/94 Su/M Tu W Th F Sa TIME: 07:3[illegible]

WEATHER: Sunny 70°F

WORKING CONDITIONS: Good

REQUIRED PPE: See below

NOTES: Concerns

- Hard hats in construction areas
- Safety Glasses
- Wet side slopes
- Discuss Mound PPE: glasses & boots always, hardhats around drill rigs.
- JSA's for drill rigs.
- biological hazards in New Prop; ticks, etc.
- Site-Specific Checklist for New Prop

Last Entry

The following individuals attended the daily "tailgate" safety meeting: (Signatures)

[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	
[illegible]	[illegible]	
[illegible]	[illegible]	

SITE HEALTH & SAFETY OFFICER

TAILGATE SAFETY MEETING LOG FORM — SITE MANAGER LOGBOOK P. 259

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 — TASK NO: 34896

DATE: 6/14/94 Su M (Tu) W Th F Sa TIME: 0730

WEATHER: SUNNY humid 85°F

WORKING CONDITIONS: good

REQUIRED PPE: boots, glasses, hardhats

NOTES:

Discuss
- use of PPE
- heat stress - drink lots of water
- 1-ton limit on "Steep Hill" Road by Design Pond. Rigs must go around.

Last Entry

The following individuals attended the daily "tailgate" safety meeting: (Signatures)

[illegible]	[illegible]	
[illegible]	Mark T. [illegible]	
Eric Taylor	[illegible]	
Martha Cramer		
Susan L Alston		
L C Patterson		

SITE HEALTH & SAFETY OFFICER

TAILGATE SAFETY MEETING LOG FORM

SITE MANAGER LOGBOOK P. 260

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1

TASK NO: 34896

DATE: 6/15/94 Su M Tu (W) Th F Sa TIME: 0730

WEATHER: warm 80°F humid Clear

WORKING CONDITIONS: good.

REQUIRED PPE: glasses, boots, hardhats in exclusion zones

NOTES:

Discuss:

- Mound speed limit of 15 MPH
- heat stress - drink lots of water, take safety breaks
- PPE in exclusion zones
- use of hardhats for soil gas; applicable if in H&S Checklists

Last Entry

The following individuals attended the daily "tailgate" safety meeting: (Signatures)

[illegible]	[illegible]	
[illegible]		
[illegible]		
[illegible]		
[illegible]		
[illegible]		

SITE HEALTH & SAFETY OFFICER

TAILGATE SAFETY MEETING LOG FORM — SITE MANAGER LOGBOOK p. 261

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 — TASK NO: 34896

DATE: 6/16/94 Su M Tu W (Th) F Sa TIME: 07:30

WEATHER: hot humid hazy 90°F

WORKING CONDITIONS: good

REQUIRED PPE: glasses, boots, handhats IN EXCLUSION ZONES

NOTES:

Discussed

- anticipated 96°F weather today - heat stress. Safety breaks and drink lots of water. Awnings will be supplied if necessary
- Safety glasses will be replaced as necessary.

Last Entry

The following individuals attended the daily "tailgate" safety meeting: (Signatures)

Susan L Alston	Mark Stanford	
[illegible]	[illegible]	
[illegible]		
S C Patterson		
Joe [illegible]		
Eric Taylor		

SITE HEALTH & SAFETY OFFICER

TAILGATE SAFETY MEETING LOG FORM

SITE MANAGER LOGBOOK P. 262

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1

TASK NO: 34896

DATE: 6-20-94 Su (M) Tu W Th F Sa TIME: 0730

WEATHER: humid, hazy, warm

WORKING CONDITIONS: good

REQUIRED PPE: boots & glasses, add hardhat in construction zones & exclusion zones.

NOTES: Discussed

- speed limit of 15 MPH
- Must wear seat belt
- No parking or storage w/i 8' of security fence
- Mound PPE; glasses & boots.

LAST ENTRY

The following individuals attended the daily "tailgate" safety meeting: (Signatures)

[illegible]	Susan Hilton	Eric [illegible]
[illegible]	Joletta Humpert	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible] 6/20/94
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	

SITE HEALTH & SAFETY OFFICER

TAILGATE SAFETY MEETING LOG FORM — SITE MANAGER LOGBOOK P. 263

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 — TASK NO: 34896

DATE: 6-21-94 Su M (Tu) W Th F Sa TIME: 0730

WEATHER: hazy, overcast humid 75°F

WORKING CONDITIONS: good but wet

REQUIRED PPE: glasses, boots, hardhat in exclusion zones, construction zones

NOTES:

Discussed

- lightening alerts. Mound HP passes to board.
- tick precautions and what to do if find an imbedded tick
- Drilling in A7: radiological concerns. Stay upwind of dust. No eating, drinking, chewing in exclusion zone. Inhalation, ingestion are primary exposure routes.
- If hits are recorded on monitoring equip (OVA, O2/LEL) Mound will supply work coveralls and will launder.
- Slippery driving conditions in new property
- Heat stress

Last entry

The following individuals attended the daily "tailgate" safety meeting: (Signatures)

[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]

SITE HEALTH & SAFETY OFFICER

TAILGATE SAFETY MEETING LOG FORM

SITE MANAGER LOGBOOK P. 264

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1

TASK NO: 3489

DATE: 6/22/94 Su M Tu (W) Th F Sa TIME: 0730

WEATHER: WARM, humid, 90°F, clear

WORKING CONDITIONS: good

REQUIRED PPE: glasses, boots, handwear as required.

NOTES:

Discussed

- training forms
- Don't let drillers start rig, put up mast, etc until exclusion zone is established
- Get urine samples turned in
- Chiggers are bothersome. Need more insect spray
- Heat stress – drink water and safety breaks.

Last Entry

The following individuals attended the daily "tailgate" safety meeting: (Signatures)

[illegible]	[illegible]	
[illegible]	[illegible]	
Juletta Humpert	[illegible]	
Yantra Cramer	[illegible]	
[illegible]	Sally A Brown	
Eric Taylor		

[illegible]

SITE HEALTH & SAFETY OFFICER

TAILGATE SAFETY MEETING LOG FORM — SITE MANAGER LOGBOOK P. 265

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 — TASK NO: 34896

DATE: 6/23/94 Su M Tu W (Th) F Sa TIME: 0730

WEATHER: hazy & overcast, lightning alert in aft.

WORKING CONDITIONS: good

REQUIRED PPE: glasses, boots, hardhats as required

NOTES: Discussed

- earplugs, sign on exclusion zone, coveralls, training records to be turned in, urine samples, teflon tape on soil samples plastic under rig and drums

LAST ENTRY

The following individuals attended the daily "tailgate" safety meeting: (Signatures)

Eric Taylor	Maurice L. Cramer	S.C. Patterson
Susan J. Galston	[illegible]	[illegible]
[illegible]	Craig [illegible]	[illegible]
[illegible]	Sally S. Brown	[illegible]
[illegible]	Juletta Hampert	
[illegible]	Steve [illegible]	

SITE HEALTH & SAFETY OFFICER

TAILGATE SAFETY MEETING LOG FORM: SITE MANAGER LOGBOOK P.266

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 TASK NO: 348

DATE: 6/27/94 Su (M) Tu W Th F Sa TIME: 0730

WEATHER: overcast, sl. drizzle 65°F

WORKING CONDITIONS: wet, slippery.

REQUIRED PPE: glasses, boots. Add hardhats in exclusion zones and construction zones

NOTES: Discussed:

- drill crews to wear coveralls
- wet driving conditions

Last Entry

The following individuals attended the daily "tailgate" safety meeting: (Signatures)

[illegible]	[illegible]	
Eric Taylor	[illegible]	
[illegible]	George Wahl	
Susan J. Alston	[illegible]	
[illegible]	[illegible]	
[illegible]		

SITE HEALTH & SAFETY OFFICER

TAILGATE SAFETY MEETING LOG FORM — SITE MANAGER LOGBOOK P. 267

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 — TASK NO: 34896

DATE: 6/28/94 Su M (Tu) W Th F Sa TIME: 0730

WEATHER: hazy, overcast, cool

WORKING CONDITIONS: good

REQUIRED PPE: glasses and boots; add hardhats in exclusion zones and construction sites

NOTES: Discussed:

- Logbook protocol: line outs, signatures, blank spaces, Abandonment Log
- Audit on Thursday - Audit protocol, housekeeping
- decon station - flammables in cabinet w/ EOD
- tape (teflon) soil jars w/ Rig.
- Wear earplugs w/ Rig
- Action levels > 1 ppm on OVA
- Glove changes
- Joletta Humpert in charge when JDavis not here.

Last Entry

The following individuals attended the daily "tailgate" safety meeting: (Signatures)

Sallie A Brown	Eric Taylor	
[illegible]	Joletta Humpert	
Guy Patterson		
Marla L Crow		
Susan L Alder		
[illegible]		

SITE HEALTH & SAFETY OFFICER

TAILGATE SAFETY MEETING LOG FORM SITE MANAGER LOGBOOK P. 268

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 TASK NO: 34896

DATE: 6/29/94 Su M Tu (W) Th F Sa TIME: 0730

WEATHER: clear, sl. humid 80°F

WORKING CONDITIONS: GOOD

REQUIRED PPE: glasses and boots, hardhats as required.

NOTES:

Discussed:

Action levels. Level D is <1 ppm OVA. Level C is 1-5 ppm w/o benzene or vinyl chloride. Level B is >5 ppm or >1 ppm w/ benzene or vinyl chloride.

10% LEL: >10% LEL must be intrinsically safe environment which drilling is not.

Safety glasses: Always wear them!

Last Entry

The following individuals attended the daily "tailgate" safety meeting: (Signatures)

Sally A Brown	Jeff DeVaughn	[illegible]
[illegible]	[illegible]	[illegible]
Susan I Alston	[illegible]	[illegible]
Mantaz Cramer	[illegible]	Joletta Humpert
[illegible]	SC Patterson	[illegible]
Eric Taylor	[illegible]	

SITE HEALTH & SAFETY OFFICER

TAILGATE SAFETY MEETING LOG FORM — SITE MANAGER LOGBOOK P.269

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 — TASK NO: 34896

DATE: 6/30/94 Su M Tu W (Th) F Sa TIME: 1200

WEATHER: clear cool breezy 70° F

WORKING CONDITIONS: good

REQUIRED PPE: glasses and boots, hardhats as required

NOTES: Discussed:

- chigger protection
- Action levels w/ B16. Mound HP will determine working levels and will issue stopwork as necessary

LAST Entry

The following individuals attended the daily "tailgate" safety meeting: (Signatures)

[illegible]		
[illegible]		
[illegible]		
[illegible]		
[illegible]		

[illegible]

SITE HEALTH & SAFETY OFFICER

TAILGATE SAFETY MEETING LOG FORM

SITE MANAGER LOGBOOK P. 270

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1

TASK NO: 34896

DATE: 7/5/94 Su M (Tu) W Th F Sa TIME: 0730

WEATHER: CLEAR, humid, 80°F

WORKING CONDITIONS: good

REQUIRED PPE: glasses, boots, hardhats as required

NOTES:

Discussed

- drilling schedule to finish by 7/12
- PPE protection: ingestion, inhalation. No eating, drinking, smoking in exclusion zone. Stay upwind of borehole. If dusty conditions occur, water the hole
- New Property sediment sampling: ticks & poison ivy

Last Entry

The following individuals attended the daily "tailgate" safety meeting: (Signatures)

Susan L Alston	Alan D Hall	
George Wahl	Martha L Crames	
[illegible]	Juletta Thompson	
[illegible]	[illegible]	
[illegible]		
Sally A Brown		

SITE HEALTH & SAFETY OFFICER

TAILGATE SAFETY MEETING LOG FORM — SITE MANAGER LOGBOOK P. 271

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 — TASK NO: 34896

DATE: 7/6/94 Su M Tu (W) Th F Sa TIME: 0730

WEATHER: sl. overcast, humid, warm

WORKING CONDITIONS: good

REQUIRED PPE: glasses & boots, handbooks as required.

NOTES: Discussed

- weather conditions

Lift Entry

The following individuals attended the daily "tailgate" safety meeting: (Signatures)

Craig Patterson	Juletta Humpert	
Susan L Alder	George Wahl	
Martha Cramer	Steve C. Bell	
Sally A Brown	Sheila Patterson	
[illegible]	[illegible]	
[illegible]		

SITE HEALTH & SAFETY OFFICER

TAILGATE SAFETY MEETING LOG FORM

SITE MANAGER LOGBOOK P. 272

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1

TASK NO: 348

DATE: 7-12-94 Su M (Tu) W Th F Sa TIME: 0800

WEATHER: warm clear humid 80°F

WORKING CONDITIONS: good

REQUIRED PPE: handwarts as required, glasses and boots

NOTES:

Discussed:
scheduling
heat stress
chiggers

Last entry

The following individuals attended the daily "tailgate" safety meeting: (Signatures)

[illegible]	Eric Taylor	
Sally S Brown		
George Wahl		
[illegible]		
Susan L Alston		
[illegible]		

SITE HEALTH & SAFETY OFFICER

TAILGATE SAFETY MEETING LOG FORM — SITE MANAGER LOGBOOK P-273

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 — TASK NO: 34896

DATE: 7/13/94 — Su M Tu (W) Th F Sa — TIME: 0730

WEATHER: warm clear humid 85°F

WORKING CONDITIONS: good

REQUIRED PPE: g/mises, boots, handlens as required

~~Discussed~~ JHD 7/13/94

NOTES:

Discussed:

chigger protection

tick protection

OSHA medical surveillance - required for all intrusive activities

Last entry

The following individuals attended the daily "tailgate" safety meeting: (Signatures)

[illegible]	[illegible]	
Eric Taylor		
George Wall		
[illegible]		
Guy Patterson		
[illegible]		

SITE HEALTH & SAFETY OFFICER

TAILGATE SAFETY MEETING LOG FORM

SITE MANAGER LOGBOOK P. 274

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1

TASK NO: 34896

DATE: 7/14/94 Su M Tu. W (Th) F Sa TIME: 0730

WEATHER: overcast sl drizzle humid 75°F

WORKING CONDITIONS: slippery

REQUIRED PPE: glasses & boots; hardhats as required

NOTES: Discussed

- poison ivy. Clean w/ Clorox.
- OSHA medical required
- slippery driving conditions

Last Entry

The following individuals attended the daily "tailgate" safety meeting: (Signatures)

[illegible]	Juliette Humpert	
George Wahl	George Wahl	
[illegible]		
Sally Brown		
Susan L Alden		
Maureen Cramer		

SITE HEALTH & SAFETY OFFICER

TAILGATE SAFETY MEETING LOG FORM

SITE MANAGER LOGBOOK P 275

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1

TASK NO: 34896

DATE: 7/18/94 Su (M) Tu W Th F Sa TIME: 0730

WEATHER: WARM, 80°F, CLEAR

WORKING CONDITIONS: good

REQUIRED PPE: glasses and boots, handhole as required

NOTES:

Discussed:

- keep vehicles gassed up
- watch for POISON IVY.

LAST ENTRY

The following individuals attended the daily "tailgate" safety meeting: (Signatures)

J. Humpert		
[illegible]		
Gary Patton		
Chris D. Hale		

SITE HEALTH & SAFETY OFFICER

TAILGATE SAFETY MEETING LOG FORM

SITE MANAGER LOGBOO

P. 276

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1

TASK NO: 3489

DATE: 7/21/94 Su M Tu W (Th) F Sa TIME: 0700

WEATHER: overcast, humid

WORKING CONDITIONS: good

REQUIRED PPE: glasses and boots; add hardhat as required.

NOTES:

Discussed

- all intrusive personnel must submit a pre-work urine sample.
- humid conditions and possible lightning alert

LAST ENTRY

The following individuals attended the daily "tailgate" safety meeting: (Signatures)

[illegible]		
Jolette Humpert		
[illegible]		
SB [illegible] Sally Brown		
[illegible]		
[illegible]		

SITE HEALTH & SAFETY OFFICER

TAILGATE SAFETY MEETING LOG FORM — SITE MANAGER LOGBOOK P-272

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 — TASK NO: 34896

DATE: 7/27/94 Su M Tu (W) Th F Sa TIME: 0715

WEATHER: overcast, cool

WORKING CONDITIONS: good

REQUIRED PPE: glasses, boots; handlat as required

NOTES:

Discussed:

- all personnel must read the HAS Site Specific Checklist before going into an area. (AOC)

The following individuals attended the daily "tailgate" safety meeting: (Signatures)

[illegible]		
[illegible]		
[illegible]		
[illegible]		
[illegible]		

7/27/94

SITE HEALTH & SAFETY OFFICER

A.2

A.2 FIDLER SURVEY LOGBOOK

E649 MOUND

OU5 OPS AREA

PHASE I

FIDLER

LOGBOOK

AOC 7

AOC 13

BLDG 61

AOC FIDLER SURVEY LOG BOOK

PROJECT TITLE: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 RI/FS FIELD INVESTIGATIONS

WORK SITE: *MOUND PLANT*
Miamisburg, Ohio
OU5 Operational Area

ACTIVITY: *Mound OU5 Operational Area Phase 1 RI/FS Field Investigations*

CONTRACT #: *BOA 52264*
TASK ORDER: *34896*

PROJECT MANAGER: *Thomas Tank*
COMPANY NAME / ADDRESS: *Science Applications International Corporation*
4031 Colonel Glenn Hwy ,Dayton, Ohio 45431
TELEPHONE NUMBERS: *(513) 429-2699*

SUPERVISORS: *OU5 Manager: Alan Spesard (513)865-3859*
SAIC Proj. Manager: Thomas Tank (513)429-2699

EMERGENCY RESPONCE: *Police / Ambulance / Fire 911 or 865-4040*

PROCEDURES: *SOP 1.1, SOP 6.7*

START DATE: 7-5-1994
END DATE: 7-26-1994

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142		172	~~AOC13 Measurement Data~~ 7/26 SB - ~~7-21-94~~ No Entry DCK 7-26
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144		174	AOC13 Measurement Data - 7-21-94 7-25-94
145		175	No Entry
146		176	
147		177	
148		178	
149		179	
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PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA, PHASE 1 PROJECT NO: 34896

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183	AOC 13 Fidler Readings. "	213	
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187		217	" " " "
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210	Building 61 Measurement Data 7-5-91	240	

TASK TEAM ACTIVITY LOG SHEET — FIDLER

PG 162 — AOC 13

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA, PHASE 1 — TASK NO.: 34896

Date (mm/dd/yy): 7/21/94 TIME: 13 : 23 PAGE 1 OF 1

Task Team Members:
Sally Brown
Craig Patterson

Numerical values recorded for CH2 and OUT channel were not multiplied by 1000. Calculations included a factor of 1000.

Narrative (include time and location): Go to Area @ - 11:15 need permission to enter area security guard tries, go back to trailer & make calls. No luck.

STD BKGD CHK - NEAR D3 @ 1323

CH1 - 190, 180, 190, 190, 175 - 925 ÷5 = 185.0 ×3 = ~~555~~ ~~185.0~~ = ~~240.5~~ 225.8 (SB 3-21-94; QH 4/27/95; 3xsd = 40.8)

CH2 - 10.5, 10.0, 9.5, 10.5, 10.5 - 51.0 ÷5 = 10.2 ×3 = ~~30.6~~ ~~10.2~~ = ~~13.26~~ 19.78 (QH 4/27/95; 3xsd = 9.58)

OUT - 10.5, 11.0, 11.0, 11.0, 11.5 - 55.0 ÷5 = 11.0 ×3 = ~~3.30~~ ~~55.0~~ = ~~5~~ ~~11.3~~ 20.94 (SB 7-21-94; 11.0; SB 7-21-94; QH 4/27/95; 3xsd = 9.94)

CH1 - Th - 1250 Pu^{238} - 8500

CH2 - Th - 15.5 Pu^{238} - 5.0

See below. QH 5/12/95

1300 - PICK UP SECURITY GUARD AT GATE TO TEST FIRE AREA.
GUARD CALLS BUILD. 49 MANAGER FOR PERMISSION TO ENTER ARE13 WHICH IS BEHIND THE BUILD. PERMISSION GRANTED FOR TODAY AND FOR MONDAY THE 25th.

1323 - TAKE BKGD CHK NEAR D3.

1400 - BEGIN TAKING READINGS. AREA IS FLAT & EASILY SERPENTINED. SOME BLOCKS ARE DIVIDED BY A FENCE.

1500 - SECURITY GUARD'S SHIFT IS OVER. WE MUST LEAVE THE AREA.

CH2 CC: $\bar{X}$ = 10,200 sd = 101 3sd = 303

303 + 10200 = ~~2~~ 10,503 cpm (≈ 10.5 Kcpm) QH 5/12/95

OUT CC: $\bar{X}$ = 11,000 sd = 104 3sd = 312

312 + 11000 = 11312 cpm (≈ 11.3 Kcpm) QH 5/12/95

Daily Weather Conditions: A.M.

P.M. Hot, Humid, Sunny

Recorded By Sally Brown QA Checked By [signature]

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TASK TEAM ACTIVITY LOG SHEET — FIDLER

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA, PHASE 1 — Pg 163 — AOC 13 — TASK NO.: 34896

Date (mm/dd/yy): 7/25/94 TIME: 7 : 48 PAGE 1 OF 1

Task Team Members:

SALLY BROWN
CRAIG PATERSON

Numerical values recorded for CH2 and Out channels multiplied by 1000. Calculations included a factor of 1000.

Narrative (include time and location):

PU 238 THORIUM CHECKS IN HP OFFICE BLDG 30

CH 1 – 190, 170, 180, 190, 180 – 910 ÷5 = 182 ×3 ~~5.46 + 182 =~~ ~~(2316.0)~~ ~~sd = 13.49 3×sd = 40.4 +182 = (222.47)~~ 9H 5/12/95

PU 238 – 25,000 TH – 4,500 See below.

CH 2 – 9.5, 9.0, 9.0, 9.5, 9.5 – 46.5 ÷5 = 9.3 ×3 ~~2.79 + 9.3 = (12.09)~~ ~~3×sd = 9.14 +9.3 = (18.44)~~ 9H 5/12/95

~~PU 238 – 4,500~~ CP 7/25 TH – 39.0 PU 238 – 6.0 See below.

OUT – 10.5, 10.5, 10.5, 10.5, 10.5 = 10.5 ×3 ~~3.15 + 10.5 = (13.65)~~ sd = 9.24 3×sd = 9.72 ~~(20.22)~~ 9H 5/12/95 See below.

1200 - trailer - ~~attacht~~ assemble a long handle for the fidler as instructed by Ray Mohen & Keith MacMahan.

7:35 - pick up SECURITY GUARD.

7:45 - SIGN IN AT TEST FIRE GATE

7:48 - TAKE BKGD CHK NEAR C3

8:20 - START TAKING READINGS. ~~FINISH~~ SB 7-25-94

9:30 - FINISH TAKING READINGS INSIDE THE FENCE. LEAVE AREA. GO to AREA 7.

12:30 - START TAKING READINGS OUTSIDE OF FENCE. TERRAIN CONSISTS OF THICK WEEDS, WOODS, PILES OF RUBBLE. VERY DIFFICULT. NOT ABLE TO GET SERPENNE READINGS FOR EVERY BLOCK.

1640 - FINISH AREA 13. GO IN to TRAILER.

CH1 CC = 222.47 Out CC:

CH2 CC: $\bar{x}$ = 9300 sd = 96 3sd = 288 + 9300 = 9588 cpm ≈ 9.6 Kcpm

Out CC: $\bar{x}$ = 10,500 sd = 102 3sd = 306 + 10500 = 10806 cpm ≈ 10.8 Kcpm
≈ 11.0 Kcpm

Daily Weather Conditions: A.M. cool, wet grass

P.M.

Recorded By Sally A Brown QA Checked By [signature]

FIDLER MEASUREMENT DATA — FIDLER

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA, PHASE 1 PG 17A — PROJECT NO.: 34896 ADC 13

FACILITY CODE: MND 13 — LOGGER CODE: SAIC

LOG DATE: 7-21-94 — FIELD REP: Sally Brown

ACCEPTANCE CODE: A — FIDLER NO.: 1

RATEMETER/SCALER:

MODEL NO.: 3712 — SERIAL NO.: B891G — CALIBRATION DATE: 6/15/94

WINDOW: out — THRESHOLD: NA — VOLTAGE: 1.21 — BATTERY: 94%

NaI PROBE:

MODEL NO.: 3713 — SERIAL NO.: B586N — CALIBRATION DATE: 6/15/94

CHECK SOURCE: Calibrated against FIDLER No. 2

ISOTOPE: Pu-238 — ACTIVITY: 0.5 μcuries ~~DPM~~ JPH 10/25/94 — SERIAL NO.: 31

SOURCE CHECK:

METER READING: 18,600 — COUNTS/ 1 — MIN = 18,600 CPM

(WITHIN ± 3 STANDARD DEVIATIONS? (Y/N) Y

CONTAMINATION CRITERIA: OUT 11.3 Kcpm ~~14.3~~ ~~20.94~~ JH 5/12/95 — CH1 225.8 ~~240.5~~ — CH2 ~~19.78~~ JH 5/12/95 ~~13.260~~ JH 4/27/95

COMMENTS: STD BKGD DATA pg 162 — 10.5 Kcpm

FACILITY CODE: MND 13 — LOGGER CODE: SAIC

LOG DATE: 7/25/94 — FIELD REP: Sally Brown

ACCEPTANCE CODE: A — FIDLER NO.: 2 CP 9/13/94

RATEMETER/SCALER:

MODEL NO.: 3712 — SERIAL NO.: B891G — CALIBRATION DATE: 6/15/94

WINDOW: out — THRESHOLD: NA — VOLTAGE: 1.21 — BATTERY: 100%

NaI PROBE:

MODEL NO.: 3713 — SERIAL NO.: B586N — CALIBRATION DATE: 6/15/94

CHECK SOURCE: Calibrated against Fidler No. 2

ISOTOPE: Pu-238 — ACTIVITY: 0.5 μcuries ~~DPM~~ JPH 10/25/94 — SERIAL NO.: 31

SOURCE CHECK:

METER READING: 18,600 — COUNTS/ 1 — MIN = 186,000 CPM

(WITHIN ± 3 STANDARD DEVIATIONS? ~~(Y/N)~~ Y)

CONTAMINATION CRITERIA: OUT 10.8 JH 11.0 Kcpm ~~13.65~~ ~~30.22~~ JH 5/12/95 — CH1 222.47 ~~230.6~~ — CH2 ~~18.44~~ JH 5/12/95 ~~12.09~~ JH 4/27/95

COMMENTS: STD BKGD DATA ON pg 163 — 9.6 Kcpm

ACCEPTANCE CODES: A - ACCEPTABLE, R - RECONNAISSANCE, U - UNACCEPTABLE, N - NOT DETERMINED

COMPLETE BOLDED DATA FOR ENTRY INTO TIMS

Sally Brown 7/21/94 — FORM COMPLETED BY / DATE 7/25/94 — TECHNICAL REVIEWER / DATE

FIDLER SURVEY

AOC 13

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA, PHASE 1 — PROJECT NO.: 34896

LOCATION GRID ID	DATE OF SURVEY	FIDLER No.	OUTCHANNEL READING (X1000)	AUDIBLE (Y/N)	CONTAMINATED? Y/N	CONTAMINATED? SECTOR	REF	COMMENTS
13A01								
13A01-01	7/25/94	1	8.0	N	N	NA	NA	
13A01-02	↓	↓	8.0	↓	↓	↓	↓	
13A01-03	↓	↓	SB 7-25-94 9.0	↓	↓	↓	↓	
13A01-04	↓	↓	SB 7-25-94 9.0	↓	↓	↓	↓	
13A01-05	7/25/94	1	SB 7-25-94 ~~8.0~~ 9.5	N	N	NA	NA	
13A01-06	7/25/94	1	10.0	N	N	NA	NA	
13A01-07	↓	↓	8.0	↓	↓	↓	↓	
13A01-08	↓	↓	8.0	↓	↓	↓	↓	
13A01-09	↓	↓	7.5	↓	↓	↓	↓	
13A01-10	↓	↓	6.0	↓	↓	↓	↓	
13A01-11	↓	↓	6.5	↓	↓	↓	↓	
13A01-12	↓	↓	8.5	↓	↓	↓	↓	
13A01-13	↓	↓	8.5	↓	↓	↓	↓	
13A01-14	↓	↓	10.0	↓	↓	↓	↓	
13A01-15	7/25/94	1	10.0	N	N	NA	NA	
13A01-16	7/25/94	1	9.5	N	N	NA	NA	
13A01-17	↓	↓	10.0	↓	↓	↓	↓	
13A01-18	↓	↓	7.5	↓	↓	↓	↓	
13A01-19	↓	↓	6.5	↓	↓	↓	↓	
13A01-20	↓	↓	7.0	↓	↓	↓	↓	
13A01-21	↓	↓	8.0	↓	↓	↓	↓	
13A01-22	↓	↓	8.5	↓	↓	↓	↓	
13A01-23	↓	↓	8.0	↓	↓	↓	↓	
13A01-24	7/25/94	1	9.5	N	↓	↓	↓	
13A01-25	7/25/94	1	9.0	N	N	NA	NA	
13B01								
3B01-01	7/25/94	1	7.5	N	N	NA	NA	
3B01-02	↓	↓	7.0	↓	↓	↓	↓	
3B01-03	↓	↓	7.0	↓	↓	↓	↓	
3B01-04	↓	↓	8.0	↓	↓	↓	↓	
3B01-05	7/25/94	1	SB 7-25-94 ~~8.5~~ 8.0	N	N	NA	NA	
3B01-06	7/25/94	1	SB 7-25-94 ~~7.0~~ 6.0	N	N	NA	NA	
3B01-07	7/25/94	1	6.0	N	N	NA	NA	

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FIDLER SURVEY

AOC 13

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA, PHASE 1 PROJECT NO.: 34

LOCATION GRID ID	DATE OF SURVEY	FIDLER No.	OUTCHANNEL READING (X1000)	AUDIBLE (Y/N)	CONTAMINATED? Y/N	CONTAMINATED? SECTOR	REF	COMMENTS
13B01-08	7/25/94	1	6.0	N	N	NA	NA	
13B01-09			6.5	N				
13B01-10			11.0					
13B01-11			8.5					
13B01-12			6.5					
13B01-13			6.5					
13B01-14			6.5					
13B01-15	7/25/94	1	SB 7-25-94 ~~10.0~~ 6.5	N	N	NA	NA	
13B01-16	7/25/94	1	SB 7-25-94 ~~9.0~~ 6.0	N	N	N	NA	
13B01-17			6.5					
13B01-18			6.5					
13B01-19			6.0					
13B01-20			7.0					
13B01-21			6.0					
13B01-22			6.5					
13B01-23			6.5					
13B01-24			5.5					
13B01-25			6.0					
13C01								
13C01-01	7/25/94	1	6.5	N	N	NA	NA	
13C01-02			7.0					
13C01-03			6.5					
13C01-04	7/25/94	1	6.5	N	N	NA	NA	
13C01-05			7.0					
13C01-06			6.0					
13C01-07			6.5					
13C01-08			6.0					
13C01-09			6.5					
13C01-10			5.5					
13C01-11			6.5					
13C01-12			6.5					
13C01-13			6.5					
13C01-14			6.0					
13C01-15			6.5					

FIDLER SURVEY

AOC 13

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA, PHASE 1 PROJECT NO.: 34896

LOCATION GRID ID	DATE OF SURVEY	FIDLER No.	OUTCHANNEL READING (X1000)	AUDIBLE (Y/N)	CONTAMINATED? Y/N	CONTAMINATED? SECTOR	REF	COMMENTS
13C01-16	7/25/94	1	6.5	N	N	NA	NA	
13C01-17			6.0					
13C01-18			6.0					
13C01-19			6.0					
13C01-20			6.0					
13C01-21			6.0					
13C01-22			6.5					
13C01-23			6.5					
13C01-24			6.5					
13C01-25			6.5					
13D01								
13D01-01	7/21/94	1	6.0	N	N	NA	NA	
13D01-02			6.0					
13D01-03			5.5					
13D01-04			6.0					
13D01-05			5.5					
13D01-06			5.5					
13D01-07			5.5					
13D01-08			6.0					
13D01-09			6.0					
13D01-10			6.0					
13D01-11			6.0					
13D01-12			5.5					
13D01-13			5.5					
13D01-14			6.0					
13D01-15			6.0					
13D01-16			5.5					
13D01-17			6.0					
13D01-18			5.5					
13D01-19			5.5					
13D01-20			5.5					
13D01-21			6.0					
13D01-22			5.0					
13D01-23			5.5					

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FIDLER SURVEY

AOC 13

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA, PHASE 1 PROJECT NO.: 348

LOCATION GRID ID	DATE OF SURVEY	FIDLER No.	OUTCHANNEL READING (X1000)	AUDIBLE (Y/N)	CONTAMINATED? Y/N	CONTAMINATED? SECTOR	REF	COMMENTS
13D01-24	7/21/94	1	6.0	N	N	NA	NA	
13D01-25	↓	↓	6.0	↓	↓	↓	↓	
13E01								
13E01-01	7/21/94	1	6.0	N	N	NA	NA	
13E01-02			6.0					
13E01-03			6.0					
13E01-04			5.0					
13E01-05			5.5					
13E01-06			5.5					
13E01-07			5.5					
13E01-08			6.0					
13E01-09			6.0					
13E01-10			6.0					
13E01-11			6.0					
13E01-12			5.5					
13E01-13			6.0					
13E01-14			5.5					
13E01-15			6.0					
13E01-16			6.0					
13E01-17			6.0					
13E01-18			6.0					
13E01-19			6.0					
13E01-20			6.0					
13E01-21			6.5					
13E01-22			6.5					
13E01-23			6.0					
13E01-24			5.5					
13E01-25	↓	↓	5.5	↓	↓	↓	↓	
13F01								
13A02								
13A02-01	7/25/94	1	8.0	N	N	NA	NA	
13A02-02	↓	↓	7.5	↓	↓	↓	↓	

FIDLER SURVEY

AOC 13

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA, PHASE 1 — PROJECT NO.: 34896

LOCATION GRID ID	DATE OF SURVEY	FIDLER No.	OUTCHANNEL READING (X1000)	AUDIBLE (Y/N)	CONTAMINATED? Y/N	CONTAMINATED? SECTOR	REF	COMMENTS
13A02-03	7/25/94	1	7.5	N	N	NA	NA	
13A02-04	↓	↓	8.0	↓	↓	↓	↓	
13A02-05	7/25/94	1	9.5	N	N	NA	NA	
13A02-06	7/25/94	1	9.0	N	N	NA	NA	
13A02-07			9.0					
13A02-08			8.5					
13A02-09			7.5					
13A02-10			7.5					
13A02-11			8.0					
13A02-12			9.0					
13A02-13			9.5					
13A02-14			9.0					
13A02-15	7/25/94	1	10.0	N	N	NA	NA	
13A02-16	7/25/94	1	9.0	N	N	NA	NA	
13A02-17			10.0					
13A02-18			9.5					
13A02-19			9.5					
13A02-20			10.0					
13A02-21			10.0					
13A02-22			cp 7/25/94 ~~10.0~~ 9.5					
13A02-23			9.5					
13A02-24			9.5					
13A02-25	7/25/94	1	9.5	N	N	NA	NA	
13B02								
13B02-01	7/21/94	1	5.0	N	N	NA	NA	
13B02-02			5.5					
13B02-03			5.5					
13B02-04			6.0					
13B02-05			6.0					
13B02-06			6.0					
13B02-07			6.0					
13B02-08			6.0					
13B02-09			6.0					
13B02-10			6.5					

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FIDLER SURVEY

AOC 13

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA, PHASE 1 PROJECT NO.: 340

LOCATION GRID ID	DATE OF SURVEY	FIDLER No.	OUTCHANNEL READING (X1000)	AUDIBLE (Y/N)	CONTAMINATED? Y/N	CONTAMINATED? SECTOR	REF	COMMENTS
13B02-11	7/21/94	1	6.0	N	N	NA	NA	
13B02-12			6.5					
13B02-13			5.5					
13B02-14			5.5					
13B02-15			5.5					
13B02-16			NA					in building
13B02-17								
13B02-18								
13B02-19			5.5					
13B02-20			6.5					
13B02-21			7.0					
13B02-22			6.0					
13B02-23			5.5					
13B02-24			5.0					
13B02-25			6.0					
13C02								
13C02-01	7/21/94	1	5.5	N	N	NA	NA	
13C02-02			5.5					
13C02-03			5.5					
13C02-04			5.5					
13C02-05			5.0					
13C02-06			5.0					
13C02-07			5.5					
13C02-08			5.5					
13C02-09			5.5					
13C02-10			5.5					
13C02-11			5.5					
13C02-12			6.0					
13C02-13			5.5					
13C02-14			6.0					
13C02-15			6.0					
13C02-16			6.0					
13C02-17			6.0					
13C02-18			6.0					

FIDLER SURVEY

AOC 13

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA, PHASE 1 PROJECT NO.: 34896

LOCATION GRID ID	DATE OF SURVEY	FIDLER No.	OUTCHANNEL READING (X1000)	AUDIBLE (Y/N)	CONTAMINATED? Y/N	CONTAMINATED? SECTOR	REF	COMMENTS
13C02-19	7/21/94	1	6.5	N	N	NA	NA	
13C02-20			6.0					
13C02-21			6.0					
13C02-22			6.5					
13C02-23			6.0					
13C02-24			6.5					
13C02-25			6.5					
13D02								
13D02-01	7/21/94	1	6.0	N	N	NA	NA	
13D02-02			6.0					
13D02-03			5.5					
13D02-04			5.5					
13D02-05			5.5					
13D02-06			5.5					
13D02-07			6.0					
13D02-08			5.5					
13D02-09			6.0					
13D02-10			5.5					
13D02-11			5.5					
13D02-12			6.5					
13D02-13			6.0					
13D02-14			6.0					
13D02-15			6.0					
13D02-16			5.0					
13D02-17			6.0					
13D02-18			6.5					
13D02-19			6.5					
13D02-20			6.0					
13D02-21			6.5					
13D02-22			6.5					
13D02-23			6.5					
13D02-24			6.0					
13D02-25			5.5					

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FIDLER SURVEY

AOC 13

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA, PHASE 1 PROJECT NO.: 348

LOCATION GRID ID	DATE OF SURVEY	FIDLER No.	OUTCHANNEL READING (X1000)	AUDIBLE (Y/N)	CONTAMINATED? Y/N	CONTAMINATED? SECTOR	REF	COMMENTS
13E02								
13E02-01	7/21/94	1	5.5	N	N	NA	NA	
13E02-02			5.5					
13E02-03			6.0					
13E02-04			6.0					
13E02-05			6.0					
13E02-06			6.0					
13E02-07			6.0					
13E02-08			6.5					
13E02-09			5.5					
13E02-10			5.5					
13E02-11			5.0					
13E02-12			6.0					
13E02-13			6.5					
13E02-14			6.0					
13E02-15			6.5					
13E02-16			6.0					
13E02-17			5.5					
13E02-18			6.5					
13E02-19			5.5					
13E02-20			5.5					
13E02-21			5.0					
13E02-22			6.5					
13E02-23			6.5					
13E02-24			6.0					
13E02-25			6.0					
13F02								
13A03								
13A03-01	~~7~~ 7/25/94	1	10.5	N	N	NA	NA	
13A03-02			10.5					
13A03-03			9.5					
13A03-04			9.0					
13A03-05	7/25/94	1	10.0	N	N	NA	NA	

FIDLER SURVEY

AOC 13

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA, PHASE 1 — PROJECT NO.: 34896

LOCATION GRID ID	DATE OF SURVEY	FIDLER No.	OUTCHANNEL READING (X1000)	AUDIBLE (Y/N)	CONTAMINATED? Y/N	CONTAMINATED? SECTOR	REF	COMMENTS
13A03-06	7/25/94	1	11.0	N	N	NA	NA	
13A03-07			10.0					
13A03-08			10.5					
13A03-09			10.5					
13A03-10			10.5					
13A03-11			NA		NA	NA	NA	Brushpile
13A03-12								
13A03-13								
13A03-14			10.0					
13A03-15	7/25/94	1	10.5	N	N	NA	NA	
13A03-16			SB 9-25-94 ~~10.0~~ 9.5					
13A03-17			SB 9-25-94 ~~9.5~~ 10.0					
13A03-18			NA	NA	NA	NA	NA	Brush pile
13A03-19								
13A03-20								
13A03-21								
13A03-22								
13A03-23								
13A03-24			9.0	N	N	NA	NA	
13A03-25			10.0					
13B03								
13B03-01	7/25/94	1	9.0	N	N	NA	NA	
13B03-02			8.5					
13B03-03			9.5					
13B03-04			8.0					
13B03-05			7.0					
13B03-06			10.0					
13B03-07			10.0					
13B03-08			11.0					
13B03-09			10.5					
13B03-10			10.5					
13B03-11			11.0					
13B03-12			11.0					
13B03-13			11.0					

FIDLER SURVEY

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PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA, PHASE 1 PROJECT NO.: 34896

LOCATION GRID ID	DATE OF SURVEY	FIDLER No.	OUTCHANNEL READING (X1000)	AUDIBLE (Y/N)	CONTAMINATED? Y/N	CONTAMINATED? SECTOR	REF	COMMENTS
13B03-14	7/25/94	1	10.5	N	N	NA	NA	
13B03-15	↓	↓	10.0	↓	↓	↓	↓	
13B03-16	7/25/94	1	9.5	N	N	NA	NA	
13B03-17			9.5					
13B03-18			9.5					
13B03-19			10.0					
13B03-20			10.0					
13B03-21			9.0					
13B03-22			~~9.0~~ 8.5					
13B03-23			CP 7/25/94 8.5					
13B03-24			6.0					
13B03-25	↓	↓	6.0	↓	↓	↓	↓	
13C03								
13C03-01	7/25/94	1	8.0	N	N	NA	NA	
13C03-02			8.5					
13C03-03			8.0					
13C03-04			9.5					
13C03-05			10.0					
13C03-06			11.5		Y			
13C03-07			11.0		N			
13C03-08			11.5		↓			
13C03-09			10.0		N			
13C03-10			11.0					
13C03-11			10.5					
13C03-12			10.0					
13C03-13			11.0					
13C03-14			11.0					
13C03-15	↓	↓	11.5	↓	~~N~~ Y 5/12/95	↓	↓	
13C03-16	7/25/94	1	8.0	N	N	NA	NA	
13C03-17			9.0					
13C03-18			9.0		↓	↓	↓	
13C03-19			NA		NA	NA	NA	heavy brush
13C03-20								
13C03-21	↓	↓	↓	↓	↓	↓	↓	↓

FIDLER SURVEY

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PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA, PHASE 1 PROJECT NO.: 34896

LOCATION GRID ID	DATE OF SURVEY	FIDLER No.	OUTCHANNEL READING (X1000)	AUDIBLE (Y/N)	CONTAMINATED? Y/N	CONTAMINATED? SECTOR	REF	COMMENTS
13C03-22	7/25/94	1	NA	N	NA	NA	NA	heavy brush
13C03-23			8.0		N	NA	NA	
13C03-24			7.0					
13C03-25			7.0					
13D03								
13D03-01	7/25/94	1	9.0	N	N	NA	NA	
13D03-02			9.5					
13D03-03			9.5					
13D03-04			9.0					
13D03-05			8.0					
13D03-06			10.0					
13D03-07			10.0					
13D03-08			10.0					
13D03-09			10.5					
13D03-10			11.0					
13D03-11			11.0					
13D03-12			11.5		Y			
13D03-13			10.5		N			
13D03-14			10.0					
13D03-15			10.5					
13D03-16			10.0					
13D03-17			10.5					
13D03-18			11.0					
13D03-19			10.5					
13D03-20			11.0					
13D03-21	7/25/94	1	10.0	N	N	NA	NA	
13D03-22			9.5					
13D03-23	7/25/94	1	11.0	N	N	NA	NA	
13D03-24			10.0					
13D03-25			10.0					
13E03								
13E03-01	7/21/94	1	8.0	N	N	NA	NA	
13E03-02	7/21/94	1	7.0	N	N	NA	NA	

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FIDLER SURVEY

AOC 13

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA, PHASE 1 PROJECT NO.: 3488

LOCATION GRID ID	DATE OF SURVEY	FIDLER No.	OUTCHANNEL READING (X1000)	AUDIBLE (Y/N)	CONTAMINATED? Y/N	CONTAMINATED? SECTOR	REF	COMMENTS
13E03-03	7/21/94	1	7.0	N	N	NA	NA	
13E03-04			6.5					
13E03-05			6.5					
13E03-06			6.5					
13E03-07			6.0					
13E03-08			8.0					
13E03-09			8.0					
13E03-10			10.0					
13E03-11			7.0					
13E03-12			7.5					
13E03-13			7.5					
13E03-14			6.5					
13E03-15			6.0					
13E03-16			7.5					
13E03-17			6.5					
13E03-18			7.5					
13E03-19			9.0					
13E03-20			9.5					
13E03-21			9.0					
13E03-22			8.5					
13E03-23			7.5					
13E03-24			8.5					
13E03-25			8.5					
13F03								
13A04	7/25/94	1	10.0	N	N	NA	NA	heavy brush
13A04-01								
13A04-02								
13A04-03								
13A04-04			TMP					
13A04-05			8/26/94					
13A04-06								
13A04-07								
13A04-08								

FIDLER SURVEY

AOC 13

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA, PHASE 1 PROJECT NO.: 34896

LOCATION GRID ID	DATE OF SURVEY	FIDLER No.	OUTCHANNEL READING (X1000)	AUDIBLE (Y/N)	CONTAMINATED? Y/N	CONTAMINATED? SECTOR	REF	COMMENTS
13A04-09								
13A04-10								
13A04-11								
13A04-12								
13A04-13								
13A04-14								
13A04-15								
13A04-16			PMP					
13A04-17			8/26/94					
13A04-18								
13A04-19								
13A04-20								
13A04-21								
13A04-22								
13A04-23								
13A04-24								
13A04-25								
13B04	7/25/94	1	9.5	N	N	NA	NA	heavy brush
13B04-01								
13B04-02								
13B04-03								
13B04-04								
13B04-05								
13B04-06								
13B04-07			PMP					
13B04-08			8/26/94					
13B04-09								
13B04-10								
13B04-11								
13B04-12								
13B04-13								
13B04-14								
13B04-15								
13B04-16								

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FIDLER SURVEY

AOC 13

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA, PHASE 1 PROJECT NO.: 34896

LOCATION GRID ID	DATE OF SURVEY	FIDLER No.	OUTCHANNEL READING (X1000)	AUDIBLE (Y/N)	CONTAMINATED? Y/N	CONTAMINATED? SECTOR	REF	COMMENTS
13B04-17								
13B04-18								
13B04-19								
13B04-20								
13B04-21			8/26/94					
13B04-22								
13B04-23								
13B04-24								
13B04-25								
13C04	7/25/94	1	5.5	N	N	NA	NA	heavy brush
13C04-01								
13C04-02								
13C04-03								
13C04-04								
13C04-05								
13C04-06								
13C04-07								
13C04-08								
13C04-09								
13C04-10								
13C04-11			8/26/94					
13C04-12								
13C04-13								
13C04-14								
13C04-15								
13C04-16								
13C04-17								
13C04-18								
13C04-19								
13C04-20								
13C04-21								
13C04-22								
13C04-23								
13C04-24								

FIDLER SURVEY

AOC 13

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA, PHASE 1 PROJECT NO.: 34896

LOCATION GRID ID	DATE OF SURVEY	FIDLER No.	OUTCHANNEL READING (X1000)	AUDIBLE (Y/N)	CONTAMINATED? Y/N	CONTAMINATED? SECTOR	REF	COMMENTS
13C04-25								
13D04								
13D04-01	7/25/94	1	10.0	N	N	NA	NA	
13D04-02	7/25/94	1	9.0	N	N	NA	NA	
13D04-03	7/25/94	1	9.5	N	N	NA	NA	
13D04-04	↓	↓	10.0	↓	↓	↓	↓	
13D04-05			8.5					
13D04-06			8.5					
13D04-07			9.0					
13D04-08	↓	↓	9.0	↓	↓	↓	↓	
13D04-09	7/25/94	1	10.0	N	N	NA	NA	
13D04-10	↓	↓	11.0	↓	↓	↓	↓	
13D04-11			9.5					
13D04-12	↓	↓	8.0	↓	↓	↓	↓	
13D04-13	7/25/94	1	8.5	N	N	NA	NA	
13D04-14	↓	↓	9.0	↓	↓	↓	↓	
13D04-15			8.5					
13D04-16			9.0					
13D04-17			9.0					
13D04-18			9.0					
13D04-19	↓	↓	8.5	↓	↓	↓	↓	
13D04-20	7/25/94	1	9.5	N	N	NA	NA	
13D04-21	7/25/94	1	9.5	N	N	NA	NA	
13D04-22	7/25/94	1	8.5	N	N	NA	NA	
13D04-23	↓	↓	10.0	↓	↓	↓	↓	
13D04-24			9.0					
13D04-25	↓	↓	9.0	↓	↓	↓	↓	
13E04								
13E04-01	7/21/94	1	8.0	N	N	NA	NA	
13E04-02	↓	↓	7.5	↓	↓	↓	↓	
13E04-03			8.0					
13E04-04			8.5					
13E04-05	↓	↓	8.5	↓	↓	↓	↓	

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FIDLER SURVEY

AOC 13

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA, PHASE 1 PROJECT NO.: 3486

LOCATION GRID ID	DATE OF SURVEY	FIDLER No.	OUTCHANNEL READING (X1000)	AUDIBLE (Y/N)	CONTAMINATED? Y/N	CONTAMINATED? SECTOR	REF	COMMENTS
13E04-06	7/21/94	1	7.5	N	N	NA	NA	
13E04-07			8.0					
13E04-08			7.5					
13E04-09			8.0					
13E04-10			8.0					
13E04-11			8.0					
13E04-12			7.5					
13E04-13			8.0					
13E04-14			9.0					
13E04-15			7.5					
13E04-16			8.0					
13E04-17			8.5					
13E04-18			7.5					
13E04-19			8.0					
13E04-20			8.0					
13E04-21			8.0					
13E04-22			7.5					
13E04-23			7.5					
13E04-24			8.0					
13E04-25			7.5					
13F04								
13A05	7/25/94	1	9.5	N	N	NA	NA	heavy brush
13A05-01								
13A05-02								
13A05-03								
13A05-04								
13A05-05								
13A05-06								
13A05-07								
13A05-08								
13A05-09								
13A05-10								
13A05-11								

DM 8/26/94

FIDLER SURVEY

AOC 13

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA, PHASE 1 PROJECT NO.: 34896

LOCATION GRID ID	DATE OF SURVEY	FIDLER No.	OUTCHANNEL READING (X1000)	AUDIBLE (Y/N)	CONTAMINATED? Y/N	CONTAMINATED? SECTOR	REF	COMMENTS
13A05-12								
13A05-13								
13A05-14								
13A05-15								
13A05-16								
13A05-17			PM					
13A05-18			8/26/94					
13A05-19								
13A05-20								
13A05-21								
13A05-22								
13A05-23								
13A05-24								
13A05-25								
13B05	7/25/94	1	9.0	N	N	NA	NA	heavy brush
13B05-01								
13B05-02								
13B05-03								
13B05-04								
13B05-05								
13B05-06								
13B05-07			PM					
13B05-08			8/26/94					
13B05-09								
13B05-10								
13B05-11								
13B05-12								
13B05-13								
13B05-14								
13B05-15								
13B05-16								
13B05-17								
13B05-18								
13B05-19								

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FIDLER SURVEY

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA, PHASE 1

ADC 13

PROJECT NO.: 3488

LOCATION GRID ID	DATE OF SURVEY	FIDLER No.	OUTCHANNEL READING (X1000)	AUDIBLE (Y/N)	CONTAMINATED? Y/N	CONTAMINATED? SECTOR	REF	COMMENTS
13B05-20								
13B05-21								
13B05-22			PMD					
13B05-23			8/26/94					
13B05-24								
13B05-25								
13C05	7/25/94	1	6.0	N	N	NA	NA	heavy brush
13C05-01			NA	NA	NA	NA	NA	heavy brush
13C05-02								
13C05-03								
13C05-04	7/25/94	1	9.5	N	N	NA	NA	
13C05-05			9.5					
13C05-06			8.0					
13C05-07			9.5					
13C05-08			NA	NA	NA	NA	NA	
13C05-09								
13C05-10			CP					
13C05-11			7/25/94					
13C05-12								
13C05-13	7/25/94	1	10.0	N	N	NA	NA	
13C05-14			9.0					
13C05-15			8.0					
13C05-16			9.0					
13C05-17			9.0					
13C05-18			8.5					
13C05-19			8.5					
13C05-20			10.0					
13C05-21			9.5					
13C05-22			8.5					
13C05-23			8.5					
13C05-24			8.0					
13C05-25			8.0					
13D05								

FIDLER SURVEY

AOC 13

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA, PHASE 1 PROJECT NO.: 34896

LOCATION GRID ID	DATE OF SURVEY	FIDLER No.	OUTCHANNEL READING (X1000)	AUDIBLE (Y/N)	CONTAMINATED? Y/N	CONTAMINATED? SECTOR	REF	COMMENTS
13D05-01	7/25/94	1	10.0	N	N	NA	NA	
13D05-02			9.5					
13D05-03			9.5					
13D05-04			9.5					
13D05-05			9.0					
13D05-06			9.0					
13D05-07			9.0					
13D05-08			9.5					
13D05-09			9.0					
13D05-10			8.0					
13D05-11			8.0					
13D05-12			9.0					
13D05-13			9.0					
13D05-14			8.5					
13D05-15			8.0					
13D05-16			8.0					
13D05-17			8.0					
13D05-18			9.5					
13D05-19			9.0					
13D05-20			8.0					
13D05-21			8.5					
13D05-22			8.0					
13D05-23			8.5					
13D05-24			8.0					
13D05-25			8.0					
13E05								
13E05-01	7/21/94	1	7.5	N	N	NA	NA	
13E05-02			7.5					
13E05-03			8.0					
13E05-04			7.5					
13E05-05			7.5					
13E05-06			7.5					
13E05-07			7.5					
13E05-08			7.0					

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FIDLER SURVEY

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PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA, PHASE 1 PROJECT NO.: 34896

LOCATION GRID ID	DATE OF SURVEY	FIDLER No.	OUTCHANNEL READING (X1000)	AUDIBLE (Y/N)	CONTAMINATED? Y/N	CONTAMINATED? SECTOR	REF	COMMENTS
13E05-09	7/21/94	1	7.0	N	N	NA	NA	
13E05-10			7.5					
13E05-11			8.0					
13E05-12			7.5					
13E05-13			8.0					
13E05-14			8.5					
13E05-15			8.5					
13E05-16			8.5					
13E05-17			8.0					
13E05-18			8.0					
13E05-19			7.5					
13E05-20			7.0					
13E05-21			7.0					
13E05-22			7.5					
13E05-23			7.5					
13E05-24			7.0					
13E05-25			6.5					
13F05								
	7/25/94							
13A06	~~7/21/94~~	1	9.5	N	N	NA	NA	
13B06	7/25/94	1	12.0	N	~~N~~ Y 5/12/95	NA	NA	
13C06	7/25/94	1	11.0	N	N	NA	NA	
13D06								
13E06								
13F06			PAD 8/26/94					

A.3 SOIL GAS SURVEY LOGBOOK

Soil Gas Logbook

AOCs: AREA 22
AREA 21
AREA 3
AREA 7
AREA J
AREA SDB
AREA 61
AREA 12

SOIL GAS
LOG BOOK

PROJECT TITLE: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 RI/FS FIELD INVESTIGATIONS

WORK SITE: *MOUND PLANT*
Miamisburg, Ohio
OU5 New Property

ACTIVITY: *Mound OU5 Operational Area Phase 1 RI/FS Field Investigations*

CONTRACT #: *BOA 52264*
TASK ORDER: *34896*

PROJECT MANAGER: *Thomas Tank*
COMPANY NAME / ADDRESS: *Science Applications International Corporation*
4031 Colonel Glenn Hwy ,Dayton, Ohio 45431
TELEPHONE NUMBERS: *(513) 429-2699*

SUPERVISORS: *OU5 Manager: Alan Spesard (513)865-3859*
SAIC Proj. Manager: Thomas Tank (513)429-2699

EMERGENCY RESPONCE: *Police / Ambulance / Fire 911 or 865-4040*

PROCEDURES: *SOP 1.1, SOP 2.2, SOP 3.1, SOP 5.1, SOP 6.1, SOP 6.3*

START DATE: 06/22/94
END DATE:

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8	Task Team Activity 6/23/94	38	
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20	Task Team Activity 6/28/94	50	Task Team Activity 7/18/94
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66		96	Task Team Activity 8/3/94
67	Task Team Activity 7/25/94	97	
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69		99	
70		100	
71		101	Task Team Activity 8/4/94
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74		104	
75		105	
76	Task Team Activity 7/27/94	106	
77		107	Task Team Activity 8/8/94
78		108	
79		109	
80	Task Team Activity 7/28/94	110	
81		111	
82		112	Task Team Activity 8/9/94
83	Task Team Activity 7/28/94	113	
84		114	
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88	Task Team Activity 8/1/94	118	Task Team Activity 8/10/94
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SOIL GAS

P. III

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PROJECT NO.: 34896

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128	Task Team Activity 8/11/94	158	Task Team Activity 8/25/94
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132		162	Task Team Activity 8/29/94
133	Task Team Activity 8/15/94	163	Task Team Activity 8/30/94
134		164	Task Team Activity 9/1/94
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138	~~Task Team Activity~~ SPH 8/18/94 Blank Page	168	Task Team Activity 9/7/94
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141	Task Team Activity 8/15/94	171	NO ENTRY
142		172	
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145	Task Team Activity 8/16/94	175	
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SOIL GAS

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA, PHASE 1

PROJECT NO: 34896

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PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA, PHASE 1 PROJECT NO: 34896

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TASK TEAM ACTIVITY LOG SHEET SOILGAS

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA, PHASE 1 TASK NO.: 34896

Date (mm/dd/yy): 8/16/94 TIME: NA PAGE 6 OF 6

Task Team Members:

see page 1 of pg. 150

JPH 8/22/94

Narrative (include time and location):

1526 Setup Area 13 B1; in rock & gravel
1530 Install Area 13 B1; 16"; bag 37; #832
1531 Setup Area 13 C1; in rock & gravel
1534 Install A13 C1; 15"; bag 37; #833
Last Entry

Daily Weather Conditions: A.M. NA

P.M. see page 4 of 6

Recorded By Mark L Crane QA Checked By Joletta Humpert

TASK TEAM ACTIVITY LOG SHEET — SOILGAS

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA, PHASE 1 — TASK NO.: 34896

Date (mm/dd/yy): 08/16/94 TIME: NA PAGE 4 OF 6

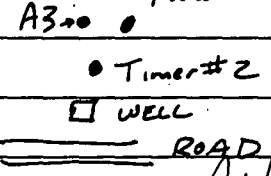
Task Team Members:

See page 1 of 6 pg. 148

JPH 8/22/94

Narrative (include time and location):

1325 Setup Area 13 A1; in low traffic gravel & rock road.
1340 Install A13 A1; 12"; bag 36; #818
1341 Setup Area 13 A2; weeds, rocky soil
1349 Install A13 A2; Full; bag 36; #819
1352 Setup Area 13 A3; weeds; rocky soil
1359 Install A13 A3; Full; bag 37; #820
1404 Install Timer #1; Full; #820 Time Test
1404 Install Timer #2 Full; #820 Time Test



1410 Setup Area 13 A4, in weeds almost in brush pile.
1415 Install A13 A4; Full; bag 37; #821
1416 Setup Area 13 A5 in soil in weeds
1420 Install A13 A5; Full; bag 37; #822
1421 Setup Area 13 A6; in wooded area in soil.
1425 Install A13 A6; Full; bag 37; #823
1427 Setup Area 13 B4; in grass/weeds

Daily Weather Conditions: A.M. NA

P.M. Clear, Sunny, slight breeze ~ 80°F

Recorded By Mark L Cramer QA Checked By Joletta Humpert

TASK TEAM ACTIVITY LOG SHEET — SOILGAS

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA, PHASE 1 — TASK NO.: 34896

Date (mm/dd/yy): 8/16/94 TIME: NA PAGE 5 OF 6

Task Team Members:

see page 1 of 6 Pg. 149

gpH 8/22/94

Narrative (include time and location):

In rocky soil

1435 Install A13 B4; Full; bag 37; # 824

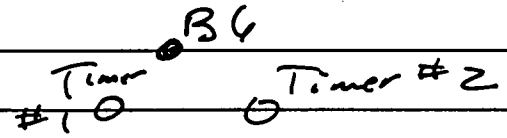
1437 Install A13 B5; Full; bag 37; #825

1439 Setup Area 13 B6 in wooded area; in soil

1442 Install A13 B6; 12"; bag 37; #826

1445 Install A13 B6 Timer #1; Full; #826; Time test

1447 Install Timer #2; 15"; #826; Time Test



1448 Setup Area 13 C4; in Rocks, moved to weeds

1450 Install A13 C4; Full; bag 37; #827

1457 Setup Area 13 C5; in weeds, rocky soil

1502 Install A13 C5; Full; bag 37; #828

1505 Setup Area 13 C6; in weeds

1514 Setup Install A13 C6; Full; bag 37; #829

1515 Setup Area 13 D5; in weeds, rocky soil

1517 Install A13 D5; Full; bag 37; #830

1518 Setup Area 13 D4; in weeds, rocky soil

1524 Install A13 D4; Full; bag 37; # 831

Daily Weather Conditions: A.M. NA

P.M. see page 4 of 6

Recorded By [signature] QA Checked By [signature]

TASK TEAM ACTIVITY LOG SHEET — SOILGAS

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA, PHASE 1 — TASK NO.: 34896

Date (mm/dd/yy): 8/16/94 TIME: NA PAGE 2 OF 6

Task Team Members:

see page 1 of 6 pg. 146

JPH 8/22/94

Narrative (include time and location):

0921 Install 13 F4; Full; bag 36; #801
0922 Setup Area 13 F5; in gravel/rocks
0926 Install 13 F5; Full; bag 36; #802
0928 Setup Area 13 F6; in gravel/rocks, on corner of sidewalk
0933 Install A13 F6; Full; bag 36; ~~#802~~ 803 MJC 8/16/94
0940 Setup Area 13 E6; on slope in rocky area & weeds.
0946 Install A13 E6; Full; bag 36; #804
0947 Setup Area 13 E5; in weeds/gravel
0953 Install A13 E5; Full; bag 36; #805
0954 Setup Area 13 E4; weeds/grass; rocky soil
0959 Install A13 E4; Full; bag 36; #806
1001 Setup Area 13 E3; in gravel/rocky area
1005 Install A13 E3; full; bag 36; #807
1006 Setup Area 13 E2; in gravel/rocky; collapse
1009 Install A13 E2; 10"; bag 36; #808
1010 Setup Area 13 E1; in gravel; rocky soil
1020 Install Area 13 E1; 12"; bag 36; #809
1021 Setup Area 13 D1; in gravel, rocky soil

Daily Weather Conditions: A.M. see page 1 of

P.M. NA

Recorded By Mark L Cramer QA Checked By Julitta Hampert

TASK TEAM ACTIVITY LOG SHEET SOILGAS

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA, PHASE 1 TASK NO.: 34896

(mm/dd/yy): 8/16/94 TIME: NA PAGE 3 OF 6

Task Team Members:

see page 1 of 6 pg. 147

JPH 8/22/94

Narrative (include time and location):

1026 Install A13 D1; 12"; bag 36; #810
1030 Set up area 13 D2; gravel/rocky soil
1036 Install A13 D2; 10"; bag 36; #811
1039 Set up A13 D3; gravel/rocky soil.
~~1053~~ Hitting rock
1102 Install A13 D3; Full; bag 36; #812
1103 Set up Area 13 D6; in weeds/grassy area
1112 Install A13 D6; full; bag 36; #813
13 Set up Area 13 C2; gravel, rocky soil
1115 Install A13 C2; full; bag 36; #814
1116 Set up Area 13 C3; gravel, rocky soil
1119 Install Area 13 C3; full; bag 36; #815
1120 Set up Area 13 B2; in weeds; rocky soil
1124 Install A13 B2; Full; bag 36; #816
1125 Set up Area 13 B3; in weeds; rocky soil
1129 Install A13 B3; Full; bag 36; #817
1135 Scanned feet & hands & returning to trailer
1310 At HP to secure H. Robinson for afternoon
1317 Arrive at Area 13 to finish points outside of secured area

Daily Weather Conditions: A.M. See page 1 of
P.M. NA

Recorded By Martha L Crum QA Checked By Joletta Humpert

TASK TEAM ACTIVITY LOG SHEET SOILGAS

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA, PHASE 1 TASK NO.: 34896

(mm/dd/yy): 8/16/94 TIME: NA PAGE 1 OF 6

Task Team Members: pg. 145

M. Cramer H. Robinson (HP)

C. Halley

Narrative (include time and location):

0700 At trailers to load equipment & prepare for day
0718 J. Geisler signs burn permit
0750 leave to meet H. Robinson & Security Escort at Area 13 (Bldg. 49)
0755 At Area 13, waiting to meet rest of crew
0810 Going to find security & HP.
0830 Everyone located at Area 13.
0835 On site preparing to drill
0850 Setup Area 13 F1' Next to building; in rocky, gravel area. hole collapsed, moving it out
0859 Install 13 F1; Full; bag 36; # 798
0902 SETUP AREA 13 F2' next to building in gravel & rock. Hard time getting hole to stay open. Tried 4 times & collapse.
0906 Install A13 F2; 8"; bag 36; # 799
0907 Setup Area 13 F3; on sidewalk next to building
0913 Install 13 F3; 16"; bag 36; # 800
0914 Setup Area 13 F4; on sidewalk next to building.

Daily Weather Conditions: A.M. Clear, Sunny, ~66°F

P.M. NA

Recorded By Mark L. Cramer QA Checked By Joletta Humpert

TASK TEAM ACTIVITY LOG SHEET — SOILGAS

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA, PHASE 1 — TASK NO.: 34896

Date (mm/dd/yy): 9/6/94 TIME: NA PAGE 1 OF 2

Task Team Members: pg. 166

Joletta Humpert

Paul Parrish

Narrative (include time and location):

0730 J.H onsite at sample trailer. Working with installation crew to plan day's/week's activities.

0830 Catching ~~up~~ JPH 9/6/94 up on logbooks. Waiting for P.P. to arrive. Will pull in Area 61, Area 13 and nonADC today.

0930 Call from P.P. - will be onsite in 20 minutes.

1000 P.P. arrives - load truck.

1015 Onsite @ Area 61.

1016 Pull B5/787 - in asphalt; high traffic

1017 Pull B4/786 - in asphalt

1018 Pull B3/785 - in asphalt; traffic light

1020 Pull C1/784 - in asphalt; traffic light

1022 Pull C2/783 - in bedding beside road; light traffic

1027 Pull C3/782 - in bedding; light traffic

1030 Pull C4/781 - in asphalt JPH 9/6/94

1031 Pull C5/780 - in sand next to road

1034 Pull E5/770 - in asphalt - parking lot

1035 Pull E4/771 - in asphalt - parking lot

1037 Pull E3/772 - in asphalt - parking lot.

1042 Pull E2/773 - in asphalt - parking lot

Daily Weather Conditions: A.M. Overcast, @ 65°F, Light drizzle.

P.M. NA

Recorded By Joletta Humpert. QA Checked By

TASK TEAM ACTIVITY LOG SHEET — SOILGAS

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA, PHASE 1 — TASK NO.: 34896

D (mm/dd/yy): 9/6/94 TIME: NA PAGE 2 OF 2

Task Team Members:

J. Humpert
P. Parrish

pg. 167

JPH 9/6/94

Narrative (include time and location):

1044 Pull E1/774 - in parking lot - asphalt
1047 Pull D1/775 - in bedding
1047 Pull D2/776 - in asphalt parking lot
1049 Pull D3/777 - in asphalt parking lot
1052 Pull ~~D2~~ ~~9/6/94~~ D4/778 - in asphalt parking lot
1054 Pull D5/779 - in asphalt parking lot
1100 Area ~~lot~~ complete.
1105 Pulling 8N27/965 - timer #1 in nonAOC West
12 Pulling 9N10/960 - timer #1 in nonAOC West
1117 Pulling 9N7/918 - timer #2 in non-AOC Secure
1123 Pulling 20N4/917 - timer #2 in nonAOC Secure
1132 Pulling 19N6/888
1134 Pulling 19N7/889
1136 Pulling 20N6/886
1139 Pulling 20N7/887
1145 Pulling 17N6/891
1148 Pulling 17N7/892
1149 Pulling 17N8/893
1158 Pulling 16N6/896. Brought tubes to HP for scanning. Break for lunch. On to office to work. Fedexing timers - airbill # 1558921210. Last Entry

Daily Weather Conditions: A.M. NA

P.M. NA

Recorded By Joletta Humpert QA Checked By

TASK TEAM ACTIVITY LOG SHEET — SOILGAS

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA, PHASE 1 — TASK NO.: 34896

Date (mm/dd/yy): 9/7/94 TIME: NA PAGE 1 OF ~~2~~ 3

Task Team Members: pg. 168 VMD 11-4-94

Joletta Humpert

Paul Parrish

Narrative (include time and location):

0730 Onsite at sample trailer. Prepping equipment.
0800 At gate at Bldg 35. Waiting for escort to show up so we can pull area 13.

0815 Pull F1/798
0817 Pull F2/799
0818 Pull F3/800
0819 Pull F4/801
0820 Pull F5/802
0822 Pull F6/803
0825 Pull E6/804
0827 Pull E5/805
0829 Pull E4/806
0830 Pull E3/807
0832 Pull E2/808
0834 Pull E1/809
0835 Pull D1/810
0837 Pull D2/811
0839 Pull C2/814
0841 Pull B2/816

Daily Weather Conditions: A.M. Sunny, @ 54°F

P.M. NA

Recorded By Joletta Humpert QA Checked By

TASK TEAM ACTIVITY LOG SHEET — **SOILGAS**

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA, PHASE 1 — **TASK NO.: 34896**

Date (mm/dd/yy): 9-7-94 TIME: NA PAGE 2 OF ~~1~~ 3

Task Team Members: pg. 169 MD 11-4-94

J. H.

P. P.

Narrative (include time and location):

0843 Pull B3/817
0845 Pull C3/815
0847 Pull D3/812
0849 Pull D6/813 - All tubes in security area pulled - leaving with guard. Moving to outside unsecure part of Area 13.
0855 Pull A1/818
0858 Pull C1/833
0900 Pull A2/819
0902 Pull B1/832
0905 Pull A3/820
0907 Pull A4/821
0909 Pull A5/822
0911 Pull A6/823
0913 Pull B6/826
0918 Pull B5/825
0920 Pull B4/824
0922 Pull C4/827
0924 Pull D4/831
0926 Pull D5/830

Daily Weather Conditions: A.M. NA

P.M. NA

Recorded By Joletta Humpert QA Checked By [signature]

TASK TEAM ACTIVITY LOG SHEET SOILGAS

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA, PHASE 1 TASK NO.: 34896

Date (mm/dd/yy): 9/7/94 TIME: NA PAGE 3 OF 3

Task Team Members:

J.H. pg. 170

P.P.

JPH 9/7/94

Narrative (include time and location):

0930 Pull C6/829
0932 Pull C5/828
Completed Area 13. Moving to Non-AOC North to pull samplers
0945 Pull 15N13/900 - in parking lot (asphalt
0948 Pull 15N12/901 - in grass
0958 Pull 19N9/899 - in grass, weeds
1005 Pull 19N8/889
1008 Pull 18N8/890
1013 Pull 26N9/904
1017 Pull 15N6/897. Drop Area 13 tubes to HP to scan.
1025 Pull 16N8/894
1037 Pull 16N7/895. Hiking, rockclimbing to 15N9
1054 Pull 15N9/903 - attempted. "Guy wire" broke.
1100 Pull 15N10/902.
1110 15N9/903 Sacrificed - unable to ~~locate~~ JPH 9/7/94 locate tube.
Return to HP to pick up Area 61 tubes - OK to ship
1115 Return to sample trailer. Packing up Area 61 for shipment. Airbill # 155892195. Waiting for Area 13 from HP
LAST ENTRY

Daily Weather Conditions: A.M. NA

P.M. NA

Recorded By Joletta Humpert QA Checked By [signature]

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA, PHASE 1 PG 221 PROJECT NO.: 34896

LOCATION GRID ID	MOUND SAMPLE NUMBER	PETREX NUMBER	DATE / TIME PLACE	DATE / TIME RETRIEVE	FIDLER READING (CPM) CH1	FIDLER READING (CPM) CH2 x (1000)	COC NUMBER	COMMENTS
JMØ3		754	8/11/94 Ø855	8/29/94 Ø839	ND	ND		full; bag 29
JMØ4		75Ø	8/11/94 Ø914	8/29/94 Ø836	ND	ND		full; bag ~~28~~ 29 JPH 8/29/94
JMØ5		745	8/11/94 Ø819	8/29/94 Ø843	ND	ND		full; bag 28
JMØ6		742	8/10/94 1545	8/25/94 Ø9Ø4	ND	ND		full; bag 28
JMØ7		74Ø	8/10/94 1526	8/25/94 Ø858	ND	ND		full; bag 28
JMØ8		738	8/10/94 15Ø9	8/25/94 Ø9ØØ	ND	ND		full; bag 28
JMØ9		737	8/10/94 15Ø2	8/25/94 Ø853	ND	ND		full; bag 28
JM1Ø								
JM11								
JM12			JPH 8/22/94					
JM13								
				JPH 8/22/94				
13AØ1		818	8/16/94 1340	9/7/94 Ø855	ND	ND		12"; bag 36
13AØ2		819	8/16/94 1349	9/7/94 Ø9ØØ	ND	ND		full; bag 36
13AØ3		820	8/16/94 1359	9/7/94 Ø9Ø5	ND	ND		Full; bag 37
13AØ4		821	8/16/94 1415	9/7/94 Ø9Ø7	ND	ND		full; bag 37
13AØ5		822	8/16/94 1420	9/7/94 Ø9Ø9	ND	ND		full; bag 37
13AØ6		823	8/16/94 1425	9/7/94 Ø911	ND	ND		full; bag 37

SOIL GAS SURVEY (PETREX)

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA, PHASE 1 PG. 222 PROJECT NO.: 34896

LOCATION GRID ID	MOUND SAMPLE NUMBER	PETREX NUMBER	DATE / TIME PLACE	DATE / TIME RETRIEVE	FIDLER READING (CPM) CH1	FIDLER READING (CPM) CH2 x (1000)	COC NUMBER	COMMENTS
13AØ3		829	8/16/94 1404	8/23/94 1343	ND	ND		full; Timer #1
13AØ3		820	8/16/94 1408	8/29/94 1656	ND	ND		full; Timer #2
				JPH 8/22/94				
13BØ1		832	8/16/94 1530	9/7/94 0902	ND	ND		16"; bag 37
13BØ2		816	8/16/94 1124	9/7/94 0841	ND	ND		full; bag 36
13BØ3		817	8/16/94 1129	9/7/94 0843	ND	ND		full; bag 36
13BØ4		824	8/16/94 1435	9/7/94 0920	ND	ND		full; bag 37
13BØ5		825	8/16/94 1437	9/7/94 0918	ND	ND		full; bag 37
13BØ6		826	8/16/94 1442	9/7/94 0913	ND	ND		12"; bag 37
13BØ6		826	8/16/94 1445	8/23/94 1345	ND	ND		full; Timer #1
13BØ6		826	8/16/94 1447	8/29/94 1659	ND	ND		15" Timer #2
			JPH 8/22/94					
13CØ1		833	8/16/94 1534	9/7/94 0858	ND	ND		15"; bag 37
13CØ2		814	8/16/94 1115	9/7/94 0839	ND	ND		full; bag 36
13CØ3		815	8/16/94 1119	9/7/94 0845	ND	ND		full; bag 36
13CØ4		827	8/16/94 1455	9/7/94 0922	ND	ND		full; bag 37
13CØ5		828	8/16/94 1502	9/7/94 0932	ND	ND		full; bag 37
13CØ6		829	8/16/94 1514	9/7/94 0930	ND	ND		full; bag 37

No Entry JPH 8/22/94

SOIL GAS SURVEY (PETREX)

PROJECT N[redacted]E: EG&G MOUND OU5 OPERATIONAL AREA, PHASE 1 [redacted] PG. 223 PROJECT [redacted] 34896

LOCATION GRID ID	MOUND SAMPLE NUMBER	PETREX NUMBER	DATE / TIME PLACE	DATE / TIME RETRIEVE	FIDLER READING (CPM) CH1	FIDLER READING (CPM) CH2 x (1000)	COC NUMBER	COMMENTS
				JPH 8/22/94				
13DØ1		81Ø	8/16/94 1024	9/7/94 Ø835	ND	ND		12"; bag 36
13DØ2		811	8/16/94 1036	9/7/94 Ø837	ND	ND		10"; bag 36
13DØ3		812	8/16/94 11Ø2	9/7/94 Ø847	ND	ND		full; bag 36
13DØ4		831	8/16/94 1524	9/7/94 Ø924	ND	ND		full; bag 37
13DØ5		83Ø	8/16/94 1517	9/7/94 Ø926	ND	ND		full; bag 37
13DØ6		813	8/16/94 1112	9/7/94 Ø849	ND	ND		full; bag 36
			JPH 8/22/94					
13EØ1		8Ø9	8/16/94 1Ø2Ø	9/7/94 Ø834	ND	ND		12"; bag 36
13EØ2		8Ø8	8/16/94 1Ø09	9/7/94 Ø832	ND	ND		10"; bag 36
13EØ3		8Ø7	8/16/94 1Ø05	9/7/94 Ø83Ø	ND	ND		full; bag 36
13EØ4		886	8/16/94 0959	9/7/94 Ø829	ND	ND		full; bag 36
13EØ5		8Ø5	8/16/94 0953	9/7/94 Ø827	ND	ND		full; bag 36
13EØ6		8Ø4	8/16/94 0946	9/7/94 Ø825	ND	ND		full; bag 36
			JPH 8/22/94					

SOIL GAS SURVEY (PETREX)

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA, PHASE 1 PG. 224 PROJECT NO.: 34896

LOCATION GRID ID	MOUND SAMPLE NUMBER	PETREX NUMBER	DATE / TIME PLACE	DATE / TIME RETRIEVE	FIDLER READING (CPM) CH1	FIDLER READING (CPM) CH2 x (1000)	COC NUMBER	COMMENTS
				QPH 8/22/94				
13FØ1		798	8/16/94 Ø859	9/7/94 Ø815	ND	ND		full ; bag 36
13FØ2		799	8/16/94 Ø906	9/7/94 Ø817	ND	ND		8" ; bag 36
13FØ3		8ØØ	8/16/94 Ø913	9/7/94 Ø818	ND	ND		16" ; bag 36
13FØ4		8Ø1	8/16/94 Ø921	9/7/94 Ø819	ND	ND		full ; bag 36
13FØ5		8Ø2	8/16/94 Ø926	9/7/94 Ø82Ø	ND	ND		full ; bag 36
13FØ6		8Ø3	8/16/94 Ø933	9/7/94 Ø822	ND	ND		full ; bag 36
				QPH 8/22/94				
3A12								
3A13		366	7/18/94 Ø952	8/1Ø/94 1425	ND	ND		Bag #14 ; 14"
3A14		367	7/18/94 Ø955	8/1Ø/94 1419	ND	ND		Bag #14 ; full
3A15		436	7/25/94 0931	8/17/94 1112	ND	ND		Bag 16 ; 14"
3A16		437	7/25/94 0936	8/17/94 1114	ND	ND		Bag 16 ; 12"
3A17		438	7/25/94 0943	8/17/94 1115	ND	ND		Bag 16 ; 14"
3A18		439	7/25/94 0948	8/17/94 1118	ND	ND		Bag 16 ; 14"
3A19		389	7/19/94 1Ø4Ø	8/10/94 1505	ND	ND		Bag 26 ; 14"
3A2Ø		390	7/19/94 1Ø52	8/10/94 1515	ND	ND		Bag 26 ; full

Plate

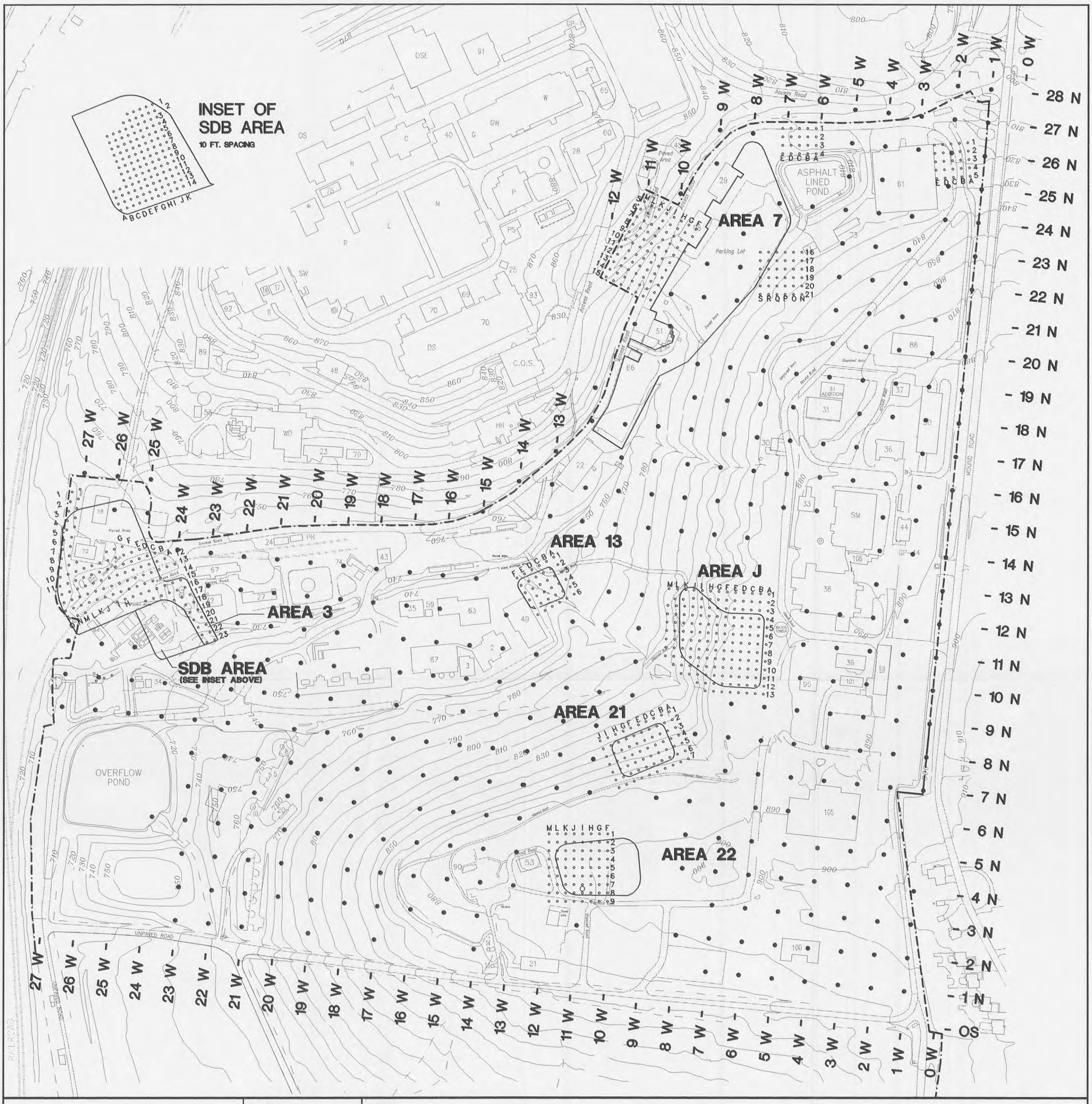


FIGURE:

PLATE 1

TITLE:

MOUND PLANT OPERABLE UNIT 5 PHASE 1 RI/FS OPERATIONAL AREA

LOCATIONS OF AREAS OF CONCERN

LEGEND

- Structures
- Plant Boundary
- Paved/Unpaved Roadway
- Ephemeral Stream
- 700 Contour Line
- OU5 Boundary
- ● Non-AOC Operational Area Sampling and Survey Locations: Soil Gas Samples, Mound Soil Screening Facility Radiological Samples, and FIDLER Survey (Proposed)
- ○ AOC Sampling and Survey Locations: Soil Gas Samples, Mound Soil Screening Facility Radiological Samples, and FIDLER Survey (Proposed)
- 1 N - 1 W - Grid Lines

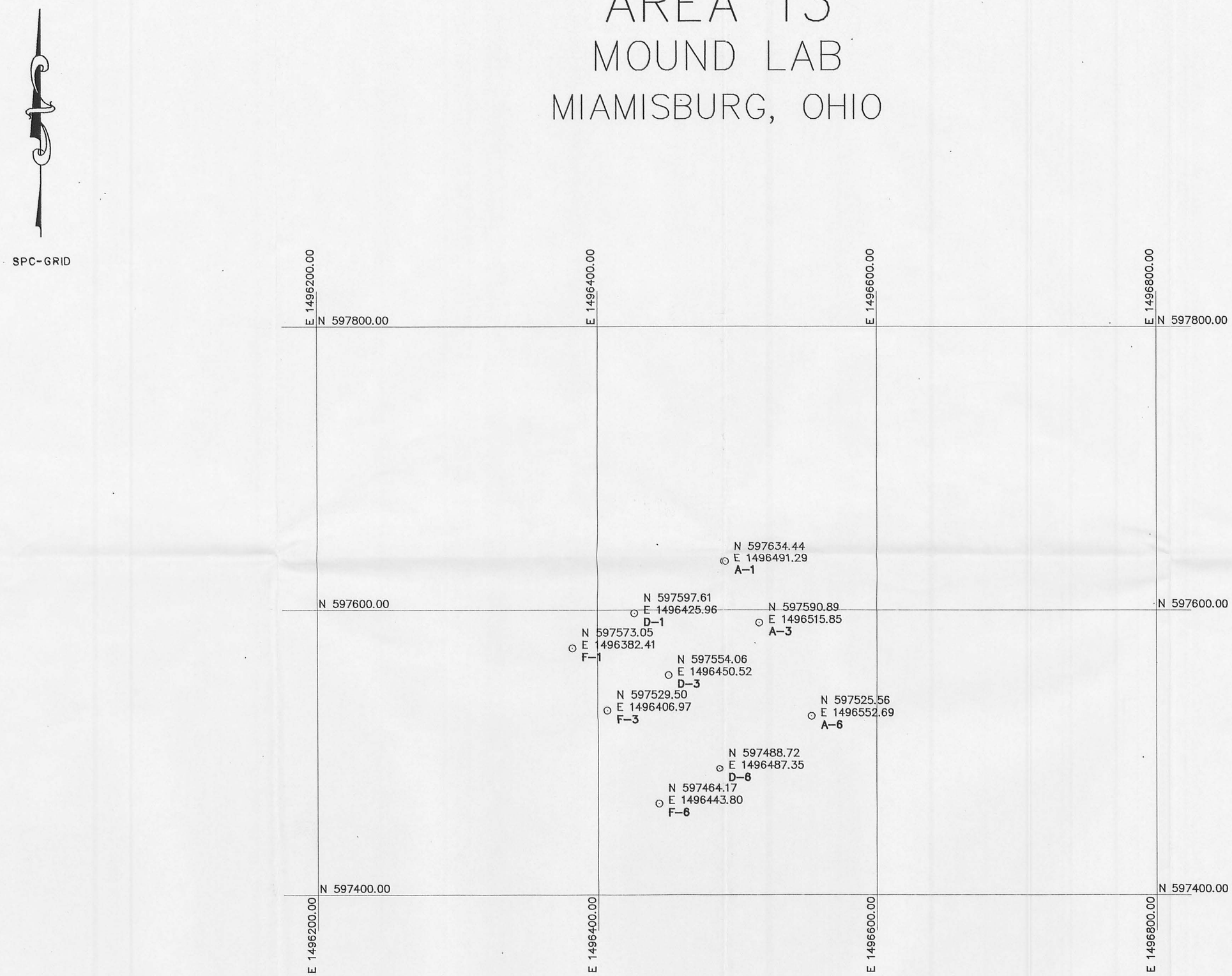
Note: Information on Basemap is Derived from the Weston OU9 Site Scoping Report, 1993, & Referenced to the 1927 Ohio State Plane Coordinate System

E:\MAPS\MOUND\MSC.DWG 8/31/94

APPENDIX B

SURVEY MAPS

AREA 13
MOUND LAB
MIAMISBURG, OHIO



GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.

APPENDIX B

PLATE 1 SURVEY MAP
OHIO STATE PLANE COORDINATE SYSTEM

LEGEND

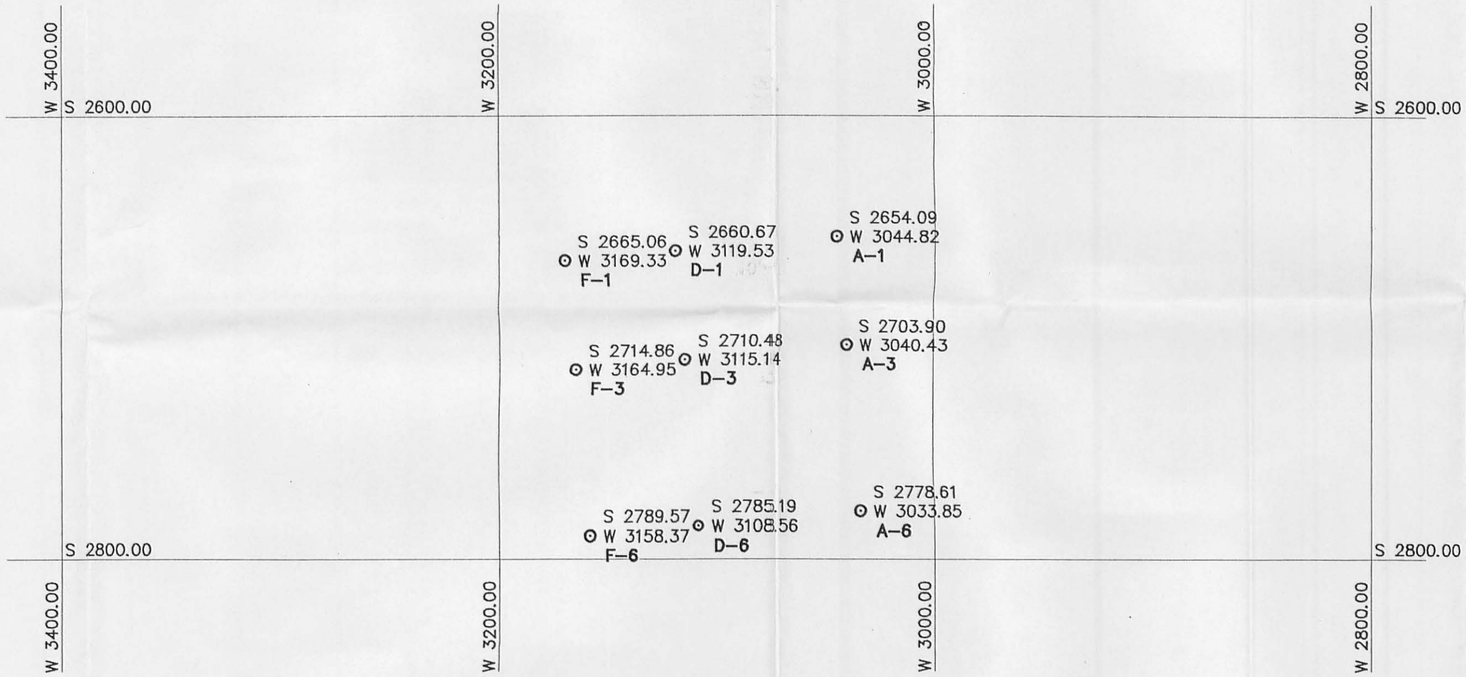
⊙ LOCATED POINT A-1 GRID LOCATION

Shaw Weiss & DeNaples
Engineers & Environmental Scientists
14 West First Street • Dayton, Ohio 45402

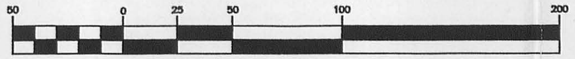
SCALE 1"=50'	DRAWN SBM	CHECKED JPH
DATE 7/11/94	JOB NO. L2952	

AREA 13
MOUND LAB
MIAMISBURG, OHIO

PLANT GRID



GRAPHIC SCALE



(IN FEET)
1 inch = 50 ft.

APPENDIX B

PLATE 2 SURVEY MAP
MOUND PLANT COORDINATE SYSTEM

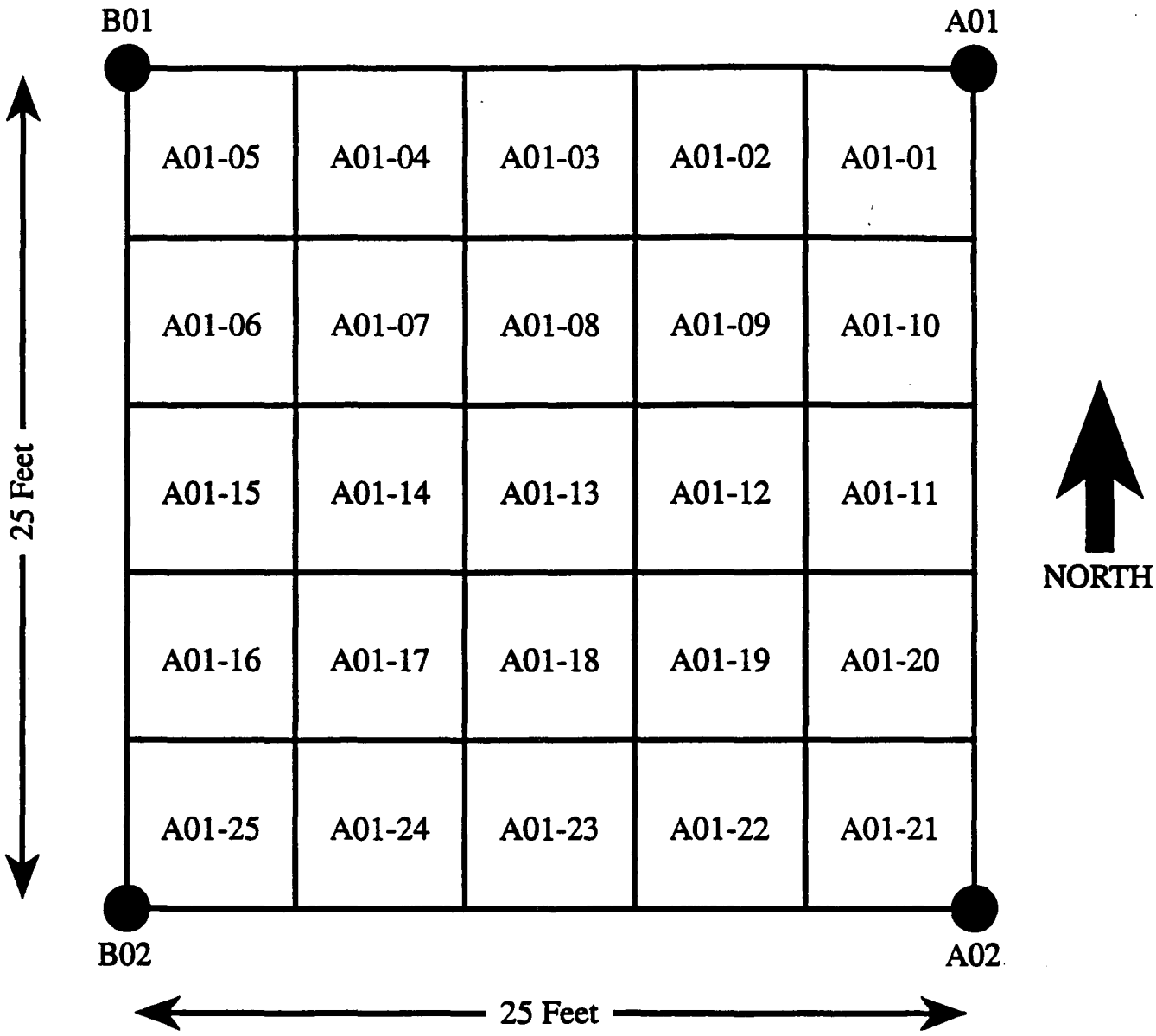
LEGEND

⊙ LOCATED POINT A-1 GRID LOCATION

Shaw Weiss & DeNaples
Engineers & Environmental Scientists
14 West First Street • Dayton, Ohio 45402

SCALE	1"=50'	DRAWN	SBM	CHECKED	JPH
DATE	7/19/94	JOB NO.	L2952		

Appendix C



Operable Unit 5, Operational Area, Phase 1 Investigation - Generic Sampling Identification Scheme for the FIDLER survey conducted in Area 13

APPENDIX C
RADIOLOGICAL DATA (FIDLER SURVEY MOUND SOIL SCREENING FACILITY DATA)

	FIDLER SURVEY DATA						MOUND SOIL SCREENING FACILITY DATA	
SMPID	Contamination Criteria CH1	FIDLER Readings CH1	Contamination Criteria CH2	FIDLER Readings CH2	Contamination Criteria Out Channel	FIDLER Readings Out Channel	Plutonium - 238	Thorium - 232
	Units: CPM	Units: CPM	Units: KCPM	Units: KCPM	Units: KCPM	Units: KCPM	Units: pCi/g	Units: pCi/g
	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS
13A01	NA	NA	NA	NA	NA	NR	NS	NS
13A01-01	236.6	NA	12.09	NA	13.65	8.0	NC	NC
13A01-02	236.6	NA	12.09	NA	13.65	8.0	NC	NC
13A01-03	236.6	NA	12.09	NA	13.65	9.0	NC	NC
13A01-04	236.6	NA	12.09	NA	13.65	9.0	NC	NC
13A01-05	236.6	NA	12.09	NA	13.65	9.5	NC	NC
13A01-06	236.6	NA	12.09	NA	13.65	10.0	NC	NC
13A01-07	236.6	NA	12.09	NA	13.65	8.0	NC	NC
13A01-08	236.6	NA	12.09	NA	13.65	8.0	NC	NC
13A01-09	236.6	NA	12.09	NA	13.65	7.5	NC	NC
13A01-10	236.6	NA	12.09	NA	13.65	6.0	NC	NC
13A01-11	236.6	NA	12.09	NA	13.65	6.5	NC	NC
13A01-12	236.6	NA	12.09	NA	13.65	8.5	NC	NC
13A01-13	236.6	NA	12.09	NA	13.65	8.5	NC	NC
13A01-14	236.6	NA	12.09	NA	13.65	10.0	NC	NC
13A01-15	236.6	NA	12.09	NA	13.65	10.0	NC	NC
13A01-16	236.6	NA	12.09	NA	13.65	9.5	NC	NC
13A01-17	236.6	NA	12.09	NA	13.65	10.0	NC	NC
13A01-18	236.6	NA	12.09	NA	13.65	7.5	NC	NC
13A01-19	236.6	NA	12.09	NA	13.65	6.5	NC	NC
13A01-20	236.6	NA	12.09	NA	13.65	7.0	NC	NC
13A01-21	236.6	NA	12.09	NA	13.65	8.0	NC	NC
13A01-22	236.6	NA	12.09	NA	13.65	8.5	NC	NC
13A01-23	236.6	NA	12.09	NA	13.65	8.0	NC	NC
13A01-24	236.6	NA	12.09	NA	13.65	9.5	NC	NC
13A01-25	236.6	NA	12.09	NA	13.65	9.0	NC	NC
13A02	NA	NA	NA	NA	NA	NR	21	0.5
13A02-01	236.6	NA	12.09	NA	13.65	8.0	NC	NC
13A02-02	236.6	NA	12.09	NA	13.65	7.5	NC	NC
13A02-03	236.6	NA	12.09	NA	13.65	7.5	NC	NC

APPENDIX C
RADIOLOGICAL DATA (FIDLER SURVEY MOUND SOIL SCREENING FACILITY DATA)

	FIDLER SURVEY DATA						MOUND SOIL SCREENING FACILITY DATA	
SMPID	Contamination Criteria CH1	FIDLER Readings CH1	Contamination Criteria CH2	FIDLER Readings CH2	Contamination Criteria Out Channel	FIDLER Readings Out Channel	Plutonium - 238	Thorium - 232
	Units: CPM	Units: CPM	Units: KCPM	Units: KCPM	Units: KCPM	Units: KCPM	Units: pCi/g	Units: pCi/g
	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS
13A02-04	236.6	NA	12.09	NA	13.65	8.0	NC	NC
13A02-05	236.6	NA	12.09	NA	13.65	9.5	NC	NC
13A02-06	236.6	NA	12.09	NA	13.65	9.0	NC	NC
13A02-07	236.6	NA	12.09	NA	13.65	9.0	NC	NC
13A02-08	236.6	NA	12.09	NA	13.65	8.5	NC	NC
13A02-09	236.6	NA	12.09	NA	13.65	7.5	NC	NC
13A02-10	236.6	NA	12.09	NA	13.65	7.5	NC	NC
13A02-11	236.6	NA	12.09	NA	13.65	8.0	NC	NC
13A02-12	236.6	NA	12.09	NA	13.65	9.0	NC	NC
13A02-13	236.6	NA	12.09	NA	13.65	9.5	NC	NC
13A02-14	236.6	NA	12.09	NA	13.65	9.0	NC	NC
13A02-15	236.6	NA	12.09	NA	13.65	10.0	NC	NC
13A02-16	236.6	NA	12.09	NA	13.65	9.0	NC	NC
13A02-17	236.6	NA	12.09	NA	13.65	10.0	NC	NC
13A02-18	236.6	NA	12.09	NA	13.65	9.5	NC	NC
13A02-19	236.6	NA	12.09	NA	13.65	9.5	NC	NC
13A02-20	236.6	NA	12.09	NA	13.65	10.0	NC	NC
13A02-21	236.6	NA	12.09	NA	13.65	10.0	NC	NC
13A02-22	236.6	NA	12.09	NA	13.65	9.5	NC	NC
13A02-23	236.6	NA	12.09	NA	13.65	9.5	NC	NC
13A02-24	236.6	NA	12.09	NA	13.65	9.5	NC	NC
13A02-25	236.6	NA	12.09	NA	13.65	9.5	NC	NC
13A03	NA	NA	NA	NA	NA	NR	14	1.1
13A03-01	236.6	NA	12.09	NA	13.65	10.5	NC	NC
13A03-02	236.6	NA	12.09	NA	13.65	10.5	NC	NC
13A03-03	236.6	NA	12.09	NA	13.65	9.5	NC	NC
13A03-04	236.6	NA	12.09	NA	13.65	9.0	NC	NC
13A03-05	236.6	NA	12.09	NA	13.65	10.0	NC	NC
13A03-06	236.6	NA	12.09	NA	13.65	11.0	NC	NC
13A03-07	236.6	NA	12.09	NA	13.65	10.0	NC	NC
13A03-08	236.6	NA	12.09	NA	13.65	10.5	NC	NC

APPENDIX C
RADIOLOGICAL DATA (FIDLER SURVEY MOUND SOIL SCREENING FACILITY DATA)

	FIDLER SURVEY DATA						MOUND SOIL SCREENING FACILITY DATA	
SMPID	Contamination Criteria CH1	FIDLER Readings CH1	Contamination Criteria CH2	FIDLER Readings CH2	Contamination Criteria Out Channel	FIDLER Readings Out Channel	Plutonium - 238	Thorium - 232
	Units: CPM	Units: CPM	Units: KCPM	Units: KCPM	Units: KCPM	Units: KCPM	Units: pCi/g	Units: pCi/g
	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS
13A03-09	236.6	NA	12.09	NA	13.65	10.5	NC	NC
13A03-10	236.6	NA	12.09	NA	13.65	10.5	NC	NC
13A03-11	NA	NA	NA	NA	NA	NR	NC	NC
13A03-12	NA	NA	NA	NA	NA	NR	NC	NC
13A03-13	NA	NA	NA	NA	NA	NR	NC	NC
13A03-14	236.6	NA	12.09	NA	13.65	10.0	NC	NC
13A03-15	236.6	NA	12.09	NA	13.65	10.5	NC	NC
13A03-16	236.6	NA	12.09	NA	13.65	9.5	NC	NC
13A03-17	236.6	NA	12.09	NA	13.65	10.0	NC	NC
13A03-18	NA	NA	NA	NA	NA	NR	NC	NC
13A03-19	NA	NA	NA	NA	NA	NR	NC	NC
13A03-20	NA	NA	NA	NA	NA	NR	NC	NC
13A03-21	NA	NA	NA	NA	NA	NR	NC	NC
13A03-22	NA	NA	NA	NA	NA	NR	NC	NC
13A03-23	NA	NA	NA	NA	NA	NR	NC	NC
13A03-24	236.6	NA	12.09	NA	13.65	9.0	NC	NC
13A03-25	236.6	NA	12.09	NA	13.65	10.0	NC	NC
13A04	236.6	NA	12.09	NA	13.65	10.0	13	1.0
13A05	236.6	NA	12.09	NA	13.65	9.5	12	0.7
13A06	236.6	NA	12.09	NA	13.65	9.5	19	0.7
13B01	NA	NA	NA	NA	NA	NR	NS	NS
13B01-01	236.6	NA	12.09	NA	13.65	7.5	NC	NC
13B01-02	236.6	NA	12.09	NA	13.65	7.0	NC	NC
13B01-03	236.6	NA	12.09	NA	13.65	7.0	NC	NC
13B01-04	236.6	NA	12.09	NA	13.65	8.0	NC	NC
13B01-05	236.6	NA	12.09	NA	13.65	8.0	NC	NC
13B01-06	236.6	NA	12.09	NA	13.65	6.0	NC	NC
13B01-07	236.6	NA	12.09	NA	13.65	6.0	NC	NC
13B01-08	236.6	NA	12.09	NA	13.65	6.0	NC	NC
13B01-09	236.6	NA	12.09	NA	13.65	6.5	NC	NC
13B01-10	236.6	NA	12.09	NA	13.65	11.0	NC	NC

APPENDIX C
RADIOLOGICAL DATA (FIDLER SURVEY MOUND SOIL SCREENING FACILITY DATA)

	FIDLER SURVEY DATA						MOUND SOIL SCREENING FACILITY DATA	
SMPID	Contamination Criteria CH1	FIDLER Readings CH1	Contamination Criteria CH2	FIDLER Readings CH2	Contamination Criteria Out Channel	FIDLER Readings Out Channel	Plutonium - 238	Thorium - 232
	Units: CPM	Units: CPM	Units: KCPM	Units: KCPM	Units: KCPM	Units: KCPM	Units: pCi/g	Units: pCi/g
	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS
13B01-11	236.6	NA	12.09	NA	13.65	8.5	NC	NC
13B01-12	236.6	NA	12.09	NA	13.65	6.5	NC	NC
13B01-13	236.6	NA	12.09	NA	13.65	6.5	NC	NC
13B01-14	236.6	NA	12.09	NA	13.65	6.5	NC	NC
13B01-15	236.6	NA	12.09	NA	13.65	6.5	NC	NC
13B01-16	236.6	NA	12.09	NA	13.65	6.0	NC	NC
13B01-17	236.6	NA	12.09	NA	13.65	6.5	NC	NC
13B01-18	236.6	NA	12.09	NA	13.65	6.5	NC	NC
13B01-19	236.6	NA	12.09	NA	13.65	6.0	NC	NC
13B01-20	236.6	NA	12.09	NA	13.65	7.0	NC	NC
13B01-21	236.6	NA	12.09	NA	13.65	6.0	NC	NC
13B01-22	236.6	NA	12.09	NA	13.65	6.5	NC	NC
13B01-23	236.6	NA	12.09	NA	13.65	6.5	NC	NC
13B01-24	236.6	NA	12.09	NA	13.65	5.5	NC	NC
13B01-25	236.6	NA	12.09	NA	13.65	6.0	NC	NC
13B02	NA	NA	NA	NA	NA	NR	NS	NS
13B02-01	240.5	NA	13.26	NA	14.3	5.0	NC	NC
13B02-02	240.5	NA	13.26	NA	14.3	5.5	NC	NC
13B02-03	240.5	NA	13.26	NA	14.3	5.5	NC	NC
13B02-04	240.5	NA	13.26	NA	14.3	6.0	NC	NC
13B02-05	240.5	NA	13.26	NA	14.3	6.0	NC	NC
13B02-06	240.5	NA	13.26	NA	14.3	6.0	NC	NC
13B02-07	240.5	NA	13.26	NA	14.3	6.0	NC	NC
13B02-08	240.5	NA	13.26	NA	14.3	6.0	NC	NC
13B02-09	240.5	NA	13.26	NA	14.3	6.0	NC	NC
13B02-10	240.5	NA	13.26	NA	14.3	6.5	NC	NC
13B02-11	240.5	NA	13.26	NA	14.3	6.0	NC	NC
13B02-12	240.5	NA	13.26	NA	14.3	6.5	NC	NC
13B02-13	240.5	NA	13.26	NA	14.3	5.5	NC	NC
13B02-14	240.5	NA	13.26	NA	14.3	5.5	NC	NC
13B02-15	240.5	NA	13.26	NA	14.3	5.5	NC	NC

APPENDIX C
RADIOLOGICAL DATA (FIDLER SURVEY MOUND SOIL SCREENING FACILITY DATA)

	FIDLER SURVEY DATA						MOUND SOIL SCREENING FACILITY DATA	
SMPID	Contamination Criteria CH1	FIDLER Readings CH1	Contamination Criteria CH2	FIDLER Readings CH2	Contamination Criteria Out Channel	FIDLER Readings Out Channel	Plutonium - 238	Thorium - 232
	Units: CPM	Units: CPM	Units: KCPM	Units: KCPM	Units: KCPM	Units: KCPM	Units: pCi/g	Units: pCi/g
	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS
13B02-16	NA	NA	NA	NA	NA	NR	NC	NC
13B02-17	NA	NA	NA	NA	NA	NR	NC	NC
13B02-18	NA	NA	NA	NA	NA	NR	NC	NC
13B02-19	240.5	NA	13.26	NA	14.3	5.5	NC	NC
13B02-20	240.5	NA	13.26	NA	14.3	6.5	NC	NC
13B02-21	240.5	NA	13.26	NA	14.3	7.0	NC	NC
13B02-22	240.5	NA	13.26	NA	14.3	6.0	NC	NC
13B02-23	240.5	NA	13.26	NA	14.3	5.5	NC	NC
13B02-24	240.5	NA	13.26	NA	14.3	5.0	NC	NC
13B02-25	240.5	NA	13.26	NA	14.3	6.0	NC	NC
13B03	NA	NA	NA	NA	NA	NR	NS	NS
13B03-01	236.6	NA	12.09	NA	13.65	9.0	NC	NC
13B03-02	236.6	NA	12.09	NA	13.65	8.5	NC	NC
13B03-03	236.6	NA	12.09	NA	13.65	9.5	NC	NC
13B03-04	236.6	NA	12.09	NA	13.65	8.0	NC	NC
13B03-05	236.6	NA	12.09	NA	13.65	7.0	NC	NC
13B03-06	236.6	NA	12.09	NA	13.65	10.0	NC	NC
13B03-07	236.6	NA	12.09	NA	13.65	10.0	NC	NC
13B03-08	236.6	NA	12.09	NA	13.65	11.0	NC	NC
13B03-09	236.6	NA	12.09	NA	13.65	10.5	NC	NC
13B03-10	236.6	NA	12.09	NA	13.65	10.5	NC	NC
13B03-11	236.6	NA	12.09	NA	13.65	11.0	NC	NC
13B03-12	236.6	NA	12.09	NA	13.65	11.0	NC	NC
13B03-13	236.6	NA	12.09	NA	13.65	11.0	NC	NC
13B03-14	236.6	NA	12.09	NA	13.65	10.5	NC	NC
13B03-15	236.6	NA	12.09	NA	13.65	10.0	NC	NC
13B03-16	236.6	NA	12.09	NA	13.65	9.5	NC	NC
13B03-17	236.6	NA	12.09	NA	13.65	9.5	NC	NC
13B03-18	236.6	NA	12.09	NA	13.65	9.5	NC	NC
13B03-19	236.6	NA	12.09	NA	13.65	10.0	NC	NC
13B03-20	236.6	NA	12.09	NA	13.65	10.0	NC	NC

APPENDIX C
RADIOLOGICAL DATA (FIDLER SURVEY MOUND SOIL SCREENING FACILITY DATA)

	FIDLER SURVEY DATA						MOUND SOIL SCREENING FACILITY DATA	
SMPID	Contamination Criteria CH1	FIDLER Readings CH1	Contamination Criteria CH2	FIDLER Readings CH2	Contamination Criteria Out Channel	FIDLER Readings Out Channel	Plutonium - 238	Thorium - 232
	Units: CPM	Units: CPM	Units: KCPM	Units: KCPM	Units: KCPM	Units: KCPM	Units: pCi/g	Units: pCi/g
	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS
13B03-21	236.6	NA	12.09	NA	13.65	9.0	NC	NC
13B03-22	236.6	NA	12.09	NA	13.65	8.5	NC	NC
13B03-23	236.6	NA	12.09	NA	13.65	8.5	NC	NC
13B03-24	236.6	NA	12.09	NA	13.65	6.0	NC	NC
13B03-25	236.6	NA	12.09	NA	13.65	6.0	NC	NC
13B04	236.6	NA	12.09	NA	13.65	9.5	11	0.8
13B05	236.6	NA	12.09	NA	13.65	9.0	15	0.7
13B06	236.6	NA	12.09	NA	13.65	12.0	24	0.8
13C01	NA	NA	NA	NA	NA	NR	NS	NS
13C01-01	236.6	NA	12.09	NA	13.65	6.5	NC	NC
13C01-02	236.6	NA	12.09	NA	13.65	7.0	NC	NC
13C01-03	236.6	NA	12.09	NA	13.65	6.5	NC	NC
13C01-04	236.6	NA	12.09	NA	13.65	6.5	NC	NC
13C01-05	236.6	NA	12.09	NA	13.65	7.0	NC	NC
13C01-06	236.6	NA	12.09	NA	13.65	6.0	NC	NC
13C01-07	236.6	NA	12.09	NA	13.65	6.5	NC	NC
13C01-08	236.6	NA	12.09	NA	13.65	6.0	NC	NC
13C01-09	236.6	NA	12.09	NA	13.65	6.5	NC	NC
13C01-10	236.6	NA	12.09	NA	13.65	5.5	NC	NC
13C01-11	236.6	NA	12.09	NA	13.65	6.5	NC	NC
13C01-12	236.6	NA	12.09	NA	13.65	6.5	NC	NC
13C01-13	236.6	NA	12.09	NA	13.65	6.5	NC	NC
13C01-14	236.6	NA	12.09	NA	13.65	6.0	NC	NC
13C01-15	236.6	NA	12.09	NA	13.65	6.5	NC	NC
13C01-16	236.6	NA	12.09	NA	13.65	6.5	NC	NC
13C01-17	236.6	NA	12.09	NA	13.65	6.0	NC	NC
13C01-18	236.6	NA	12.09	NA	13.65	6.0	NC	NC
13C01-19	236.6	NA	12.09	NA	13.65	6.0	NC	NC
13C01-20	236.6	NA	12.09	NA	13.65	6.0	NC	NC
13C01-21	236.6	NA	12.09	NA	13.65	6.0	NC	NC
13C01-22	236.6	NA	12.09	NA	13.65	6.5	NC	NC

APPENDIX C
RADIOLOGICAL DATA (FIDLER SURVEY MOUND SOIL SCREENING FACILITY DATA)

	FIDLER SURVEY DATA						MOUND SOIL SCREENING FACILITY DATA	
SMPID	Contamination Criteria CH1	FIDLER Readings CH1	Contamination Criteria CH2	FIDLER Readings CH2	Contamination Criteria Out Channel	FIDLER Readings Out Channel	Plutonium - 238	Thorium - 232
	Units: CPM	Units: CPM	Units: KCPM	Units: KCPM	Units: KCPM	Units: KCPM	Units: pCi/g	Units: pCi/g
	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS
13C01-23	236.6	NA	12.09	NA	13.65	6.5	NC	NC
13C01-24	236.6	NA	12.09	NA	13.65	6.5	NC	NC
13C01-25	236.6	NA	12.09	NA	13.65	6.5	NC	NC
13C02	NA	NA	NA	NA	NA	NR	NS	NS
13C02-01	240.5	NA	13.26	NA	14.3	5.5	NC	NC
13C02-02	240.5	NA	13.26	NA	14.3	5.5	NC	NC
13C02-03	240.5	NA	13.26	NA	14.3	5.5	NC	NC
13C02-04	240.5	NA	13.26	NA	14.3	5.5	NC	NC
13C02-05	240.5	NA	13.26	NA	14.3	5.0	NC	NC
13C02-06	240.5	NA	13.26	NA	14.3	5.0	NC	NC
13C02-07	240.5	NA	13.26	NA	14.3	5.5	NC	NC
13C02-08	240.5	NA	13.26	NA	14.3	5.5	NC	NC
13C02-09	240.5	NA	13.26	NA	14.3	5.5	NC	NC
13C02-10	240.5	NA	13.26	NA	14.3	5.5	NC	NC
13C02-11	240.5	NA	13.26	NA	14.3	5.5	NC	NC
13C02-12	240.5	NA	13.26	NA	14.3	6.0	NC	NC
13C02-13	240.5	NA	13.26	NA	14.3	5.5	NC	NC
13C02-14	240.5	NA	13.26	NA	14.3	6.0	NC	NC
13C02-15	240.5	NA	13.26	NA	14.3	6.0	NC	NC
13C02-16	240.5	NA	13.26	NA	14.3	6.0	NC	NC
13C02-17	240.5	NA	13.26	NA	14.3	6.0	NC	NC
13C02-18	240.5	NA	13.26	NA	14.3	6.0	NC	NC
13C02-19	240.5	NA	13.26	NA	14.3	6.5	NC	NC
13C02-20	240.5	NA	13.26	NA	14.3	6.0	NC	NC
13C02-21	240.5	NA	13.26	NA	14.3	6.0	NC	NC
13C02-22	240.5	NA	13.26	NA	14.3	6.5	NC	NC
13C02-23	240.5	NA	13.26	NA	14.3	6.0	NC	NC
13C02-24	240.5	NA	13.26	NA	14.3	6.5	NC	NC
13C02-25	240.5	NA	13.26	NA	14.3	6.5	NC	NC
13C03	NA	NA	NA	NA	NA	NR	NS	NS
13C03-01	236.6	NA	12.09	NA	13.65	8.0	NC	NC

APPENDIX C
RADIOLOGICAL DATA (FIDLER SURVEY MOUND SOIL SCREENING FACILITY DATA)

	FIDLER SURVEY DATA						MOUND SOIL SCREENING FACILITY DATA	
SMPID	Contamination Criteria CH1	FIDLER Readings CH1	Contamination Criteria CH2	FIDLER Readings CH2	Contamination Criteria Out Channel	FIDLER Readings Out Channel	Plutonium - 238	Thorium - 232
	Units: CPM	Units: CPM	Units: KCPM	Units: KCPM	Units: KCPM	Units: KCPM	Units: pCi/g	Units: pCi/g
	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS
13C03-02	236.6	NA	12.09	NA	13.65	8.5	NC	NC
13C03-03	236.6	NA	12.09	NA	13.65	8.0	NC	NC
13C03-04	236.6	NA	12.09	NA	13.65	9.5	NC	NC
13C03-05	236.6	NA	12.09	NA	13.65	10.0	NC	NC
13C03-06	236.6	NA	12.09	NA	13.65	11.5	NC	NC
13C03-07	236.6	NA	12.09	NA	13.65	11.0	NC	NC
13C03-08	236.6	NA	12.09	NA	13.65	11.5	NC	NC
13C03-09	236.6	NA	12.09	NA	13.65	10.0	NC	NC
13C03-10	236.6	NA	12.09	NA	13.65	11.0	NC	NC
13C03-11	236.6	NA	12.09	NA	13.65	10.5	NC	NC
13C03-12	236.6	NA	12.09	NA	13.65	10.0	NC	NC
13C03-13	236.6	NA	12.09	NA	13.65	11.0	NC	NC
13C03-14	236.6	NA	12.09	NA	13.65	11.0	NC	NC
13C03-15	236.6	NA	12.09	NA	13.65	11.5	NC	NC
13C03-16	236.6	NA	12.09	NA	13.65	8.0	NC	NC
13C03-17	236.6	NA	12.09	NA	13.65	9.0	NC	NC
13C03-18	236.6	NA	12.09	NA	13.65	9.0	NC	NC
13C03-19	NA	NA	NA	NA	NA	NR	NC	NC
13C03-20	NA	NA	NA	NA	NA	NR	NC	NC
13C03-21	NA	NA	NA	NA	NA	NR	NC	NC
13C03-22	NA	NA	NA	NA	NA	NR	NC	NC
13C03-23	236.6	NA	12.09	NA	13.65	8.0	NC	NC
13C03-24	236.6	NA	12.09	NA	13.65	7.0	NC	NC
13C03-25	236.6	NA	12.09	NA	13.65	7.0	NC	NC
13C04	236.6	NA	12.09	NA	13.65	5.5	8	0.6
13C05	236.6	NA	12.09	NA	13.65	6.0	10	0.5
13C05-01	NA	NA	NA	NA	NA	NR	NC	NC
13C05-02	NA	NA	NA	NA	NA	NR	NC	NC
13C05-03	NA	NA	NA	NA	NA	NR	NC	NC
13C05-04	236.6	NA	12.09	NA	13.65	9.5	NC	NC
13C05-05	236.6	NA	12.09	NA	13.65	9.5	NC	NC

APPENDIX C
RADIOLOGICAL DATA (FIDLER SURVEY MOUND SOIL SCREENING FACILITY DATA)

	FIDLER SURVEY DATA						MOUND SOIL SCREENING FACILITY DATA	
SMPID	Contamination Criteria CH1	FIDLER Readings CH1	Contamination Criteria CH2	FIDLER Readings CH2	Contamination Criteria Out Channel	FIDLER Readings Out Channel	Plutonium - 238	Thorium - 232
	Units: CPM	Units: CPM	Units: KCPM	Units: KCPM	Units: KCPM	Units: KCPM	Units: pCi/g	Units: pCi/g
	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS
13C05-06	236.6	NA	12.09	NA	13.65	8.0	NC	NC
13C05-07	236.6	NA	12.09	NA	13.65	9.5	NC	NC
13C05-08	NA	NA	NA	NA	NA	NR	NC	NC
13C05-09	NA	NA	NA	NA	NA	NR	NC	NC
13C05-10	NA	NA	NA	NA	NA	NR	NC	NC
13C05-11	NA	NA	NA	NA	NA	NR	NC	NC
13C05-12	NA	NA	NA	NA	NA	NR	NC	NC
13C05-13	236.6	NA	12.09	NA	13.65	10.0	NC	NC
13C05-14	236.6	NA	12.09	NA	13.65	9.0	NC	NC
13C05-15	236.6	NA	12.09	NA	13.65	8.0	NC	NC
13C05-16	236.6	NA	12.09	NA	13.65	9.0	NC	NC
13C05-17	236.6	NA	12.09	NA	13.65	9.0	NC	NC
13C05-18	236.6	NA	12.09	NA	13.65	8.5	NC	NC
13C05-19	236.6	NA	12.09	NA	13.65	8.5	NC	NC
13C05-20	236.6	NA	12.09	NA	13.65	10.0	NC	NC
13C05-21	236.6	NA	12.09	NA	13.65	9.5	NC	NC
13C05-22	236.6	NA	12.09	NA	13.65	8.5	NC	NC
13C05-23	236.6	NA	12.09	NA	13.65	8.5	NC	NC
13C05-24	236.6	NA	12.09	NA	13.65	8.0	NC	NC
13C05-25	236.6	NA	12.09	NA	13.65	8.0	NC	NC
13C06	236.6	NA	12.09	NA	13.65	11.0	17	1.0
13D01	NA	NA	NA	NA	NA	NR	NS	NS
13D01-01	240.5	NA	13.26	NA	14.3	6.0	NC	NC
13D01-02	240.5	NA	13.26	NA	14.3	6.0	NC	NC
13D01-03	240.5	NA	13.26	NA	14.3	5.5	NC	NC
13D01-04	240.5	NA	13.26	NA	14.3	6.0	NC	NC
13D01-05	240.5	NA	13.26	NA	14.3	5.5	NC	NC
13D01-06	240.5	NA	13.26	NA	14.3	5.5	NC	NC
13D01-07	240.5	NA	13.26	NA	14.3	5.5	NC	NC
13D01-08	240.5	NA	13.26	NA	14.3	6.0	NC	NC
13D01-09	240.5	NA	13.26	NA	14.3	6.0	NC	NC

APPENDIX C
RADIOLOGICAL DATA (FIDLER SURVEY MOUND SOIL SCREENING FACILITY DATA)

	FIDLER SURVEY DATA						MOUND SOIL SCREENING FACILITY DATA	
SMPID	Contamination Criteria CH1	FIDLER Readings CH1	Contamination Criteria CH2	FIDLER Readings CH2	Contamination Criteria Out Channel	FIDLER Readings Out Channel	Plutonium - 238	Thorium - 232
	Units: CPM	Units: CPM	Units: KCPM	Units: KCPM	Units: KCPM	Units: KCPM	Units: pCi/g	Units: pCi/g
	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS
13D01-10	240.5	NA	13.26	NA	14.3	6.0	NC	NC
13D01-11	240.5	NA	13.26	NA	14.3	6.0	NC	NC
13D01-12	240.5	NA	13.26	NA	14.3	5.5	NC	NC
13D01-13	240.5	NA	13.26	NA	14.3	5.5	NC	NC
13D01-14	240.5	NA	13.26	NA	14.3	6.0	NC	NC
13D01-15	240.5	NA	13.26	NA	14.3	6.0	NC	NC
13D01-16	240.5	NA	13.26	NA	14.3	5.5	NC	NC
13D01-17	240.5	NA	13.26	NA	14.3	6.0	NC	NC
13D01-18	240.5	NA	13.26	NA	14.3	5.5	NC	NC
13D01-19	240.5	NA	13.26	NA	14.3	5.5	NC	NC
13D01-20	240.5	NA	13.26	NA	14.3	5.5	NC	NC
13D01-21	240.5	NA	13.26	NA	14.3	6.0	NC	NC
13D01-22	240.5	NA	13.26	NA	14.3	5.0	NC	NC
13D01-23	240.5	NA	13.26	NA	14.3	5.5	NC	NC
13D01-24	240.5	NA	13.26	NA	14.3	6.0	NC	NC
13D01-25	240.5	NA	13.26	NA	14.3	6.0	NC	NC
13D02	NA	NA	NA	NA	NA	NR	NS	NS
13D02-01	240.5	NA	13.26	NA	14.3	6.0	NC	NC
13D02-02	240.5	NA	13.26	NA	14.3	6.0	NC	NC
13D02-03	240.5	NA	13.26	NA	14.3	5.5	NC	NC
13D02-04	240.5	NA	13.26	NA	14.3	5.5	NC	NC
13D02-05	240.5	NA	13.26	NA	14.3	5.5	NC	NC
13D02-06	240.5	NA	13.26	NA	14.3	5.5	NC	NC
13D02-07	240.5	NA	13.26	NA	14.3	6.0	NC	NC
13D02-08	240.5	NA	13.26	NA	14.3	5.5	NC	NC
13D02-09	240.5	NA	13.26	NA	14.3	6.0	NC	NC
13D02-10	240.5	NA	13.26	NA	14.3	5.5	NC	NC
13D02-11	240.5	NA	13.26	NA	14.3	5.5	NC	NC
13D02-12	240.5	NA	13.26	NA	14.3	6.5	NC	NC
13D02-13	240.5	NA	13.26	NA	14.3	6.0	NC	NC
13D02-14	240.5	NA	13.26	NA	14.3	6.0	NC	NC

APPENDIX C
RADIOLOGICAL DATA (FIDLER SURVEY MOUND SOIL SCREENING FACILITY DATA)

	FIDLER SURVEY DATA						MOUND SOIL SCREENING FACILITY DATA	
SMPID	Contamination Criteria CH1	FIDLER Readings CH1	Contamination Criteria CH2	FIDLER Readings CH2	Contamination Criteria Out Channel	FIDLER Readings Out Channel	Plutonium - 238	Thorium - 232
	Units: CPM	Units: CPM	Units: KCPM	Units: KCPM	Units: KCPM	Units: KCPM	Units: pCi/g	Units: pCi/g
	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS
13D02-15	240.5	NA	13.26	NA	14.3	6.0	NC	NC
13D02-16	240.5	NA	13.26	NA	14.3	5.0	NC	NC
13D02-17	240.5	NA	13.26	NA	14.3	6.0	NC	NC
13D02-18	240.5	NA	13.26	NA	14.3	6.5	NC	NC
13D02-19	240.5	NA	13.26	NA	14.3	6.5	NC	NC
13D02-20	240.5	NA	13.26	NA	14.3	6.0	NC	NC
13D02-21	240.5	NA	13.26	NA	14.3	6.5	NC	NC
13D02-22	240.5	NA	13.26	NA	14.3	6.5	NC	NC
13D02-23	240.5	NA	13.26	NA	14.3	6.5	NC	NC
13D02-24	240.5	NA	13.26	NA	14.3	6.0	NC	NC
13D02-25	240.5	NA	13.26	NA	14.3	5.5	NC	NC
13D03	NA	NA	NA	NA	NA	NR	NS	NS
13D03-01	236.6	NA	12.09	NA	13.65	9.0	NC	NC
13D03-02	236.6	NA	12.09	NA	13.65	9.5	NC	NC
13D03-03	236.6	NA	12.09	NA	13.65	9.5	NC	NC
13D03-04	236.6	NA	12.09	NA	13.65	9.0	NC	NC
13D03-05	236.6	NA	12.09	NA	13.65	8.0	NC	NC
13D03-06	236.6	NA	12.09	NA	13.65	10.0	NC	NC
13D03-07	236.6	NA	12.09	NA	13.65	10.0	NC	NC
13D03-08	236.6	NA	12.09	NA	13.65	10.0	NC	NC
13D03-09	236.6	NA	12.09	NA	13.65	10.5	NC	NC
13D03-10	236.6	NA	12.09	NA	13.65	11.0	NC	NC
13D03-11	236.6	NA	12.09	NA	13.65	11.0	NC	NC
13D03-12	236.6	NA	12.09	NA	13.65	11.5	NC	NC
13D03-13	236.6	NA	12.09	NA	13.65	10.5	NC	NC
13D03-14	236.6	NA	12.09	NA	13.65	10.0	NC	NC
13D03-15	236.6	NA	12.09	NA	13.65	10.5	NC	NC
13D03-16	236.6	NA	12.09	NA	13.65	10.0	NC	NC
13D03-17	236.6	NA	12.09	NA	13.65	10.5	NC	NC
13D03-18	236.6	NA	12.09	NA	13.65	11.0	NC	NC
13D03-19	236.6	NA	12.09	NA	13.65	10.5	NC	NC

APPENDIX C
RADIOLOGICAL DATA (FIDLER SURVEY MOUND SOIL SCREENING FACILITY DATA)

	FIDLER SURVEY DATA						MOUND SOIL SCREENING FACILITY DATA	
SMPID	Contamination Criteria CH1	FIDLER Readings CH1	Contamination Criteria CH2	FIDLER Readings CH2	Contamination Criteria Out Channel	FIDLER Readings Out Channel	Plutonium - 238	Thorium - 232
	Units: CPM	Units: CPM	Units: KCPM	Units: KCPM	Units: KCPM	Units: KCPM	Units: pCi/g	Units: pCi/g
	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS
13D03-20	236.6	NA	12.09	NA	13.65	11.0	NC	NC
13D03-21	236.6	NA	12.09	NA	13.65	10.0	NC	NC
13D03-22	236.6	NA	12.09	NA	13.65	9.5	NC	NC
13D03-23	236.6	NA	12.09	NA	13.65	11.0	NC	NC
13D03-24	236.6	NA	12.09	NA	13.65	10.0	NC	NC
13D03-25	236.6	NA	12.09	NA	13.65	10.0	NC	NC
13D04	NA	NA	NA	NA	NA	NR	17	0.8
13D04-01	236.6	NA	12.09	NA	13.65	10.0	NC	NC
13D04-02	236.6	NA	12.09	NA	13.65	9.0	NC	NC
13D04-03	236.6	NA	12.09	NA	13.65	9.5	NC	NC
13D04-04	236.6	NA	12.09	NA	13.65	10.0	NC	NC
13D04-05	236.6	NA	12.09	NA	13.65	8.5	NC	NC
13D04-06	236.6	NA	12.09	NA	13.65	8.5	NC	NC
13D04-07	236.6	NA	12.09	NA	13.65	9.0	NC	NC
13D04-08	236.6	NA	12.09	NA	13.65	9.0	NC	NC
13D04-09	236.6	NA	12.09	NA	13.65	10.0	NC	NC
13D04-10	236.6	NA	12.09	NA	13.65	11.0	NC	NC
13D04-11	236.6	NA	12.09	NA	13.65	9.5	NC	NC
13D04-12	236.6	NA	12.09	NA	13.65	8.0	NC	NC
13D04-13	236.6	NA	12.09	NA	13.65	8.5	NC	NC
13D04-14	236.6	NA	12.09	NA	13.65	9.0	NC	NC
13D04-15	236.6	NA	12.09	NA	13.65	8.5	NC	NC
13D04-16	236.6	NA	12.09	NA	13.65	9.0	NC	NC
13D04-17	236.6	NA	12.09	NA	13.65	9.0	NC	NC
13D04-18	236.6	NA	12.09	NA	13.65	9.0	NC	NC
13D04-19	236.6	NA	12.09	NA	13.65	8.5	NC	NC
13D04-20	236.6	NA	12.09	NA	13.65	9.5	NC	NC
13D04-21	236.6	NA	12.09	NA	13.65	9.5	NC	NC
13D04-22	236.6	NA	12.09	NA	13.65	8.5	NC	NC
13D04-23	236.6	NA	12.09	NA	13.65	10.0	NC	NC
13D04-24	236.6	NA	12.09	NA	13.65	9.0	NC	NC

APPENDIX C
RADIOLOGICAL DATA (FIDLER SURVEY MOUND SOIL SCREENING FACILITY DATA)

	FIDLER SURVEY DATA						MOUND SOIL SCREENING FACILITY DATA	
SMPID	Contamination Criteria CH1	FIDLER Readings CH1	Contamination Criteria CH2	FIDLER Readings CH2	Contamination Criteria Out Channel	FIDLER Readings Out Channel	Plutonium - 238	Thorium - 232
	Units: CPM	Units: CPM	Units: KCPM	Units: KCPM	Units: KCPM	Units: KCPM	Units: pCi/g	Units: pCi/g
	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS
13D04-25	236.6	NA	12.09	NA	13.65	9.0	NC	NC
13D05	NA	NA	NA	NA	NA	NR	13	0.9
13D05-01	236.6	NA	12.09	NA	13.65	10.0	NC	NC
13D05-02	236.6	NA	12.09	NA	13.65	9.5	NC	NC
13D05-03	236.6	NA	12.09	NA	13.65	9.5	NC	NC
13D05-04	236.6	NA	12.09	NA	13.65	9.5	NC	NC
13D05-05	236.6	NA	12.09	NA	13.65	9.0	NC	NC
13D05-06	236.6	NA	12.09	NA	13.65	9.0	NC	NC
13D05-07	236.6	NA	12.09	NA	13.65	9.0	NC	NC
13D05-08	236.6	NA	12.09	NA	13.65	9.5	NC	NC
13D05-09	236.6	NA	12.09	NA	13.65	9.0	NC	NC
13D05-10	236.6	NA	12.09	NA	13.65	8.0	NC	NC
13D05-11	236.6	NA	12.09	NA	13.65	8.0	NC	NC
13D05-12	236.6	NA	12.09	NA	13.65	9.0	NC	NC
13D05-13	236.6	NA	12.09	NA	13.65	9.0	NC	NC
13D05-14	236.6	NA	12.09	NA	13.65	8.5	NC	NC
13D05-15	236.6	NA	12.09	NA	13.65	8.0	NC	NC
13D05-16	236.6	NA	12.09	NA	13.65	8.0	NC	NC
13D05-17	236.6	NA	12.09	NA	13.65	8.0	NC	NC
13D05-18	236.6	NA	12.09	NA	13.65	9.5	NC	NC
13D05-19	236.6	NA	12.09	NA	13.65	9.0	NC	NC
13D05-20	236.6	NA	12.09	NA	13.65	8.0	NC	NC
13D05-21	236.6	NA	12.09	NA	13.65	8.5	NC	NC
13D05-22	236.6	NA	12.09	NA	13.65	8.0	NC	NC
13D05-23	236.6	NA	12.09	NA	13.65	8.5	NC	NC
13D05-24	236.6	NA	12.09	NA	13.65	8.0	NC	NC
13D05-25	236.6	NA	12.09	NA	13.65	8.0	NC	NC
13D06	NA	NA	NA	NA	NA	NR	NS	NS
13E01	NA	NA	NA	NA	NA	NR	NS	NS
13E01-01	240.5	NA	13.26	NA	14.3	6.0	NC	NC
13E01-02	240.5	NA	13.26	NA	14.3	6.0	NC	NC

APPENDIX C
RADIOLOGICAL DATA (FIDLER SURVEY MOUND SOIL SCREENING FACILITY DATA)

	FIDLER SURVEY DATA						MOUND SOIL SCREENING FACILITY DATA	
SMPID	Contamination Criteria CH1	FIDLER Readings CH1	Contamination Criteria CH2	FIDLER Readings CH2	Contamination Criteria Out Channel	FIDLER Readings Out Channel	Plutonium - 238	Thorium - 232
	Units: CPM	Units: CPM	Units: KCPM	Units: KCPM	Units: KCPM	Units: KCPM	Units: pCi/g	Units: pCi/g
	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS
13E01-03	240.5	NA	13.26	NA	14.3	6.0	NC	NC
13E01-04	240.5	NA	13.26	NA	14.3	5.0	NC	NC
13E01-05	240.5	NA	13.26	NA	14.3	5.5	NC	NC
13E01-06	240.5	NA	13.26	NA	14.3	5.5	NC	NC
13E01-07	240.5	NA	13.26	NA	14.3	5.5	NC	NC
13E01-08	240.5	NA	13.26	NA	14.3	6.0	NC	NC
13E01-09	240.5	NA	13.26	NA	14.3	6.0	NC	NC
13E01-10	240.5	NA	13.26	NA	14.3	6.0	NC	NC
13E01-11	240.5	NA	13.26	NA	14.3	6.0	NC	NC
13E01-12	240.5	NA	13.26	NA	14.3	5.5	NC	NC
13E01-13	240.5	NA	13.26	NA	14.3	6.0	NC	NC
13E01-14	240.5	NA	13.26	NA	14.3	5.5	NC	NC
13E01-15	240.5	NA	13.26	NA	14.3	6.0	NC	NC
13E01-16	240.5	NA	13.26	NA	14.3	6.0	NC	NC
13E01-17	240.5	NA	13.26	NA	14.3	6.0	NC	NC
13E01-18	240.5	NA	13.26	NA	14.3	6.0	NC	NC
13E01-19	240.5	NA	13.26	NA	14.3	6.0	NC	NC
13E01-20	240.5	NA	13.26	NA	14.3	6.0	NC	NC
13E01-21	240.5	NA	13.26	NA	14.3	6.5	NC	NC
13E01-22	240.5	NA	13.26	NA	14.3	6.5	NC	NC
13E01-23	240.5	NA	13.26	NA	14.3	6.0	NC	NC
13E01-24	240.5	NA	13.26	NA	14.3	5.5	NC	NC
13E01-25	240.5	NA	13.26	NA	14.3	5.5	NC	NC
13E02	NA	NA	NA	NA	NA	NR	NS	NS
13E02-01	240.5	NA	13.26	NA	14.3	5.5	NC	NC
13E02-02	240.5	NA	13.26	NA	14.3	5.5	NC	NC
13E02-03	240.5	NA	13.26	NA	14.3	6.0	NC	NC
13E02-04	240.5	NA	13.26	NA	14.3	6.0	NC	NC
13E02-05	240.5	NA	13.26	NA	14.3	6.0	NC	NC
13E02-06	240.5	NA	13.26	NA	14.3	6.0	NC	NC
13E02-07	240.5	NA	13.26	NA	14.3	6.0	NC	NC

APPENDIX C
RADIOLOGICAL DATA (FIDLER SURVEY MOUND SOIL SCREENING FACILITY DATA)

	FIDLER SURVEY DATA						MOUND SOIL SCREENING FACILITY DATA	
SMPID	Contamination Criteria CH1	FIDLER Readings CH1	Contamination Criteria CH2	FIDLER Readings CH2	Contamination Criteria Out Channel	FIDLER Readings Out Channel	Plutonium - 238	Thorium - 232
	Units: CPM	Units: CPM	Units: KCPM	Units: KCPM	Units: KCPM	Units: KCPM	Units: pCi/g	Units: pCi/g
	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS
13E02-08	240.5	NA	13.26	NA	14.3	6.5	NC	NC
13E02-09	240.5	NA	13.26	NA	14.3	5.5	NC	NC
13E02-10	240.5	NA	13.26	NA	14.3	5.5	NC	NC
13E02-11	240.5	NA	13.26	NA	14.3	5.0	NC	NC
13E02-12	240.5	NA	13.26	NA	14.3	6.0	NC	NC
13E02-13	240.5	NA	13.26	NA	14.3	6.5	NC	NC
13E02-14	240.5	NA	13.26	NA	14.3	6.0	NC	NC
13E02-15	240.5	NA	13.26	NA	14.3	6.5	NC	NC
13E02-16	240.5	NA	13.26	NA	14.3	6.0	NC	NC
13E02-17	240.5	NA	13.26	NA	14.3	5.5	NC	NC
13E02-18	240.5	NA	13.26	NA	14.3	6.5	NC	NC
13E02-19	240.5	NA	13.26	NA	14.3	5.5	NC	NC
13E02-20	240.5	NA	13.26	NA	14.3	5.5	NC	NC
13E02-21	240.5	NA	13.26	NA	14.3	5.0	NC	NC
13E02-22	240.5	NA	13.26	NA	14.3	6.5	NC	NC
13E02-23	240.5	NA	13.26	NA	14.3	6.5	NC	NC
13E02-24	240.5	NA	13.26	NA	14.3	6.0	NC	NC
13E02-25	240.5	NA	13.26	NA	14.3	6.0	NC	NC
13E03	NA	NA	NA	NA	NA	NR	NS	NS
13E03-01	240.5	NA	13.26	NA	14.3	8.0	NC	NC
13E03-02	240.5	NA	13.26	NA	14.3	7.0	NC	NC
13E03-03	240.5	NA	13.26	NA	14.3	7.0	NC	NC
13E03-04	240.5	NA	13.26	NA	14.3	6.5	NC	NC
13E03-05	240.5	NA	13.26	NA	14.3	6.5	NC	NC
13E03-06	240.5	NA	13.26	NA	14.3	6.5	NC	NC
13E03-07	240.5	NA	13.26	NA	14.3	6.0	NC	NC
13E03-08	240.5	NA	13.26	NA	14.3	8.0	NC	NC
13E03-09	240.5	NA	13.26	NA	14.3	8.0	NC	NC
13E03-10	240.5	NA	13.26	NA	14.3	10.0	NC	NC
13E03-11	240.5	NA	13.26	NA	14.3	7.0	NC	NC
13E03-12	240.5	NA	13.26	NA	14.3	7.5	NC	NC

APPENDIX C
RADIOLOGICAL DATA (FIDLER SURVEY MOUND SOIL SCREENING FACILITY DATA)

	FIDLER SURVEY DATA						MOUND SOIL SCREENING FACILITY DATA	
SMPID	Contamination Criteria CH1	FIDLER Readings CH1	Contamination Criteria CH2	FIDLER Readings CH2	Contamination Criteria Out Channel	FIDLER Readings Out Channel	Plutonium - 238	Thorium - 232
	Units: CPM	Units: CPM	Units: KCPM	Units: KCPM	Units: KCPM	Units: KCPM	Units: pCi/g	Units: pCi/g
	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS
13E03-13	240.5	NA	13.26	NA	14.3	7.5	NC	NC
13E03-14	240.5	NA	13.26	NA	14.3	6.5	NC	NC
13E03-15	240.5	NA	13.26	NA	14.3	6.0	NC	NC
13E03-16	240.5	NA	13.26	NA	14.3	7.5	NC	NC
13E03-17	240.5	NA	13.26	NA	14.3	6.5	NC	NC
13E03-18	240.5	NA	13.26	NA	14.3	7.5	NC	NC
13E03-19	240.5	NA	13.26	NA	14.3	9.0	NC	NC
13E03-20	240.5	NA	13.26	NA	14.3	9.5	NC	NC
13E03-21	240.5	NA	13.26	NA	14.3	9.0	NC	NC
13E03-22	240.5	NA	13.26	NA	14.3	8.5	NC	NC
13E03-23	240.5	NA	13.26	NA	14.3	7.5	NC	NC
13E03-24	240.5	NA	13.26	NA	14.3	8.5	NC	NC
13E03-25	240.5	NA	13.26	NA	14.3	8.5	NC	NC
13E04	NA	NA	NA	NA	NA	NR	NS	NS
13E04-01	240.5	NA	13.26	NA	14.3	8.0	NC	NC
13E04-02	240.5	NA	13.26	NA	14.3	7.5	NC	NC
13E04-03	240.5	NA	13.26	NA	14.3	8.0	NC	NC
13E04-04	240.5	NA	13.26	NA	14.3	8.5	NC	NC
13E04-05	240.5	NA	13.26	NA	14.3	8.5	NC	NC
13E04-06	240.5	NA	13.26	NA	14.3	7.5	NC	NC
13E04-07	240.5	NA	13.26	NA	14.3	8.0	NC	NC
13E04-08	240.5	NA	13.26	NA	14.3	7.5	NC	NC
13E04-09	240.5	NA	13.26	NA	14.3	8.0	NC	NC
13E04-10	240.5	NA	13.26	NA	14.3	8.0	NC	NC
13E04-11	240.5	NA	13.26	NA	14.3	8.0	NC	NC
13E04-12	240.5	NA	13.26	NA	14.3	7.5	NC	NC
13E04-13	240.5	NA	13.26	NA	14.3	8.0	NC	NC
13E04-14	240.5	NA	13.26	NA	14.3	9.0	NC	NC
13E04-15	240.5	NA	13.26	NA	14.3	7.5	NC	NC
13E04-16	240.5	NA	13.26	NA	14.3	8.0	NC	NC
13E04-17	240.5	NA	13.26	NA	14.3	8.5	NC	NC

APPENDIX C
RADIOLOGICAL DATA (FIDLER SURVEY MOUND SOIL SCREENING FACILITY DATA)

	FIDLER SURVEY DATA						MOUND SOIL SCREENING FACILITY DATA	
SMPID	Contamination Criteria CH1	FIDLER Readings CH1	Contamination Criteria CH2	FIDLER Readings CH2	Contamination Criteria Out Channel	FIDLER Readings Out Channel	Plutonium - 238	Thorium - 232
	Units: CPM	Units: CPM	Units: KCPM	Units: KCPM	Units: KCPM	Units: KCPM	Units: pCi/g	Units: pCi/g
	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS
13E04-18	240.5	NA	13.26	NA	14.3	7.5	NC	NC
13E04-19	240.5	NA	13.26	NA	14.3	8.0	NC	NC
13E04-20	240.5	NA	13.26	NA	14.3	8.0	NC	NC
13E04-21	240.5	NA	13.26	NA	14.3	8.0	NC	NC
13E04-22	240.5	NA	13.26	NA	14.3	7.5	NC	NC
13E04-23	240.5	NA	13.26	NA	14.3	7.5	NC	NC
13E04-24	240.5	NA	13.26	NA	14.3	8.0	NC	NC
13E04-25	240.5	NA	13.26	NA	14.3	7.5	NC	NC
13E05	NA	NA	NA	NA	NA	NR	NS	NS
13E05-01	240.5	NA	13.26	NA	14.3	7.5	NC	NC
13E05-02	240.5	NA	13.26	NA	14.3	7.5	NC	NC
13E05-03	240.5	NA	13.26	NA	14.3	8.0	NC	NC
13E05-04	240.5	NA	13.26	NA	14.3	7.5	NC	NC
13E05-05	240.5	NA	13.26	NA	14.3	7.5	NC	NC
13E05-06	240.5	NA	13.26	NA	14.3	7.5	NC	NC
13E05-07	240.5	NA	13.26	NA	14.3	7.5	NC	NC
13E05-08	240.5	NA	13.26	NA	14.3	7.0	NC	NC
13E05-09	240.5	NA	13.26	NA	14.3	7.0	NC	NC
13E05-10	240.5	NA	13.26	NA	14.3	7.5	NC	NC
13E05-11	240.5	NA	13.26	NA	14.3	8.0	NC	NC
13E05-12	240.5	NA	13.26	NA	14.3	7.5	NC	NC
13E05-13	240.5	NA	13.26	NA	14.3	8.0	NC	NC
13E05-14	240.5	NA	13.26	NA	14.3	8.5	NC	NC
13E05-15	240.5	NA	13.26	NA	14.3	8.5	NC	NC
13E05-16	240.5	NA	13.26	NA	14.3	8.5	NC	NC
13E05-17	240.5	NA	13.26	NA	14.3	8.0	NC	NC
13E05-18	240.5	NA	13.26	NA	14.3	8.0	NC	NC
13E05-19	240.5	NA	13.26	NA	14.3	7.5	NC	NC
13E05-20	240.5	NA	13.26	NA	14.3	7.0	NC	NC
13E05-21	240.5	NA	13.26	NA	14.3	7.0	NC	NC
13E05-22	240.5	NA	13.26	NA	14.3	7.5	NC	NC

APPENDIX C
RADIOLOGICAL DATA (FIDLER SURVEY MOUND SOIL SCREENING FACILITY DATA)

	FIDLER SURVEY DATA						MOUND SOIL SCREENING FACILITY DATA	
SMPID	Contamination Criteria CH1	FIDLER Readings CH1	Contamination Criteria CH2	FIDLER Readings CH2	Contamination Criteria Out Channel	FIDLER Readings Out Channel	Plutonium - 238	Thorium - 232
	Units: CPM	Units: CPM	Units: KCPM	Units: KCPM	Units: KCPM	Units: KCPM	Units: pCi/g	Units: pCi/g
	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS
13E05-23	240.5	NA	13.26	NA	14.3	7.5	NC	NC
13E05-24	240.5	NA	13.26	NA	14.3	7.0	NC	NC
13E05-25	240.5	NA	13.26	NA	14.3	6.5	NC	NC
13E06	NA	NA	NA	NA	NA	NR	NS	NS
13F01	NA	NA	NA	NA	NA	NR	NS	NS
13F02	NA	NA	NA	NA	NA	NR	NS	NS
13F03	NA	NA	NA	NA	NA	NR	NS	NS
13F04	NA	NA	NA	NA	NA	NR	NS	NS
13F05	NA	NA	NA	NA	NA	NR	NS	NS
13F06	NA	NA	NA	NA	NA	NR	NS	NS

CH1 - Channel 1
CH2 - Channel 2
NR - Reading not recorded.
NC - No sample collected, location not at grid point.
NA - Reading not taken; contamination criteria for the out channel not exceeded.
NS - No sample collected; insufficient soil volume due to gravel/rocky soil conditions.
CPM - Counts per minute
KCPM - Counts per minute x 1000
pCi/g - Picocuries per gram
SMPID - Sample identification number.

Appendix D

APPENDIX D

SOIL GAS SURVEY REPORT

FINAL REPORT OF FINDINGS
OF THE PETREX SOIL GAS SURVEY
AT AREA OF CONCERN -13 / OPERABLE UNIT -5
U. S. DEPARTMENT OF ENERGY MOUND FACILITY
MIAMISBURG, OHIO

PREPARED BY: DATE:

Paul C. Bedard, Project Manager — October 27, 1994

APPROVED BY: DATE:

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1.0 EXECUTIVE SUMMARY

SAIC and NERI performed a Petrex passive soil gas survey at AOC-13 / OU-5 on the grounds of the USDOE Mound Facility in Miamisburg, Ohio. The purpose of this survey was to assess the potential for the presence of subsurface contamination by volatile and semivolatile organic compounds, particularly hydrocarbons from petroleum products such as fuel oil, diesel fuel, and other combustibles, and halogenated organic compounds, such as chlorinated solvents, which may have been used in chemical or fabrication processes nearby.

This survey was designed and conducted by SAIC with guidance by NERI as part of an investigation of the entire OU-5 area. Field operations were performed by SAIC personnel between August 16 and September 7, 1994. All Petrex soil gas samples collected in the field were returned to NERI for standard Thermal Desorption - Mass Spectrometry analysis.

Survey results indicate:

1. Elevated levels of petroleum hydrocarbons derived from medium weight fuels exist in the subsurface at AOC-13 and likely have the most impact on the northern and western sectors of the AOC. Petroleum hydrocarbons likely exist in the dissolved phase and at low levels across the majority of the site. These hydrocarbons likely issue from source areas located near the northern and western borders of the AOC and at points along the path of the drainage ditch. Their distribution in the soil gas is consistent with derivation from the leaching of petroleum products or product residue from low level, above ground releases including potential releases of contaminated run-off water from the drainage ditch.

2. Halogenated hydrocarbons, principally the chlorinated organics TCE and PCE, exist in the subsurface and likely impact the western sector of the site the most. These compounds likely derive from multiple nearby source areas, particularly to the west and north.

3. Quantitative testing of soil and groundwater from the Petrex soil gas sampling points at grid coordinates C1, C4, E1, F1, F4, and F6 is recommended as the first step in determining the environmental significance of these survey results.

2.0 INTRODUCTION

With the aid of Northeast Research Institute LLC (NERI), Science Applications International Corporation (SAIC) recently completed a Petrex soil gas survey of Area of Concern -13 (AOC-13) within Operable Unit -5 (OU-5) of the U. S. Department of Energy's Mound Facility in Miamisburg, Ohio. The survey of AOC-13 was performed as part of a larger soil gas survey of the entire OU-5 area. AOC-13 is situated approximately in the center of OU-5 and borders the northeast corner of Building No. 49. AOC-13 was formerly used as a storage location for materials from demolished buildings which were potentially contaminated with radiological wastes. AOC-13 was also used for the limited burning of debris. Petroleum may have been applied to the debris to aid incineration.

The purpose of this survey was to locate areas within AOC-13 which exhibit potential soil and/or groundwater contamination by volatile and semivolatile organic compounds (VOC's and SVOC's), particularly components of petroleum (and potentially other chemical products) which may have been applied to wastes burned on-site. The information generated by this survey could then be used to 1) locate potential sources areas of contaminants affecting AOC-13, and 2) strategically plan quantitative testing of subsurface media to determine the regulatory significance of OU-5 site investigation results.

3.0 OBJECTIVES

The technical objectives of the Petrex soil gas survey at AOC-13 were to:

1. Collect and identify VOC's and SVOC's in the subsurface.

2. Report results for targeted VOC's and SVOC's and illustrate their areal distribution on-site through mapping of results.

3. Infer the location of possible source areas, trends in contaminant migration, and areas meriting quantitative investigation from the areal distribution and relative level in the soil gas of the targeted compounds.

4.0 OVERVIEW OF THE PETREX TECHNIQUE

Each Petrex soil gas sampler consists of two or three activated charcoal adsorption elements (collectors) housed in a resealable glass container in an inert atmosphere.

Soil gas sample collection is performed by unsealing the sampler and exposing the collector to the soil gas of the subsurface environment at the base of a shallow bore hole. Sample collection proceeds via free vapor diffusion through the opening of the uncapped sampler container. Following a controlled period of time, the sampler is retrieved from the bore hole, resealed, and submitted for analysis.

One collector from each soil gas sampler is analyzed by Thermal Desorption - Mass Spectrometry (TD-MS). Selected second collectors may be analyzed by Thermal Desorption - Gas Chromatography/Mass Spectrometry (TD-GC/MS) for compound confirmation. At least ten percent of samplers used in any project contain three collectors. The third collector is used for setting instrument sensitivity prior to analysis.

Compounds are identified by comparison to standard reference spectra derived from the same instrument. The mass spectral ion count of the appropriate indicator peak(s) for each compound or group of compounds is then plotted as relative response on a map and contoured using a variety of standard geostatistical analyses.

For a more detailed and technical discussion of the method, please refer to Appendix A, Petrex Protocol.

5.0 SCOPE OF WORK

This soil gas survey consisted of the collection and analysis of soil gas samples from a total of thirty-six (36) sample collection points. These sample collection points were arrayed at intervals of twenty-five feet in a uniform rectangular grid covering the area of concern (see Plate 1, appendix E).

One soil gas sample from each sampling point was analyzed by Thermal Desorption-Mass Spectrometry (TD-MS). Approximately ten percent of Petrex samplers used in this survey contained an additional soil gas collector for the purpose of yielding a duplicate soil gas sample for QA/QC verification. These duplicate samples were also analyzed by TD-MS in the same analytical run (see results under subsection 7.4).

6.0 FIELD ACTIVITIES

AOC-13 is located approximately in the center of OU-5 and is situated just east of and adjacent to a cluster of structures including Buildings No. 2, No. 49, and No. 63. The terrain encompassed by AOC-13 slopes gently to the northwest and is bisected diagonally toward the northwest by an open storm water drainage ditch. The ditch lies in a mild topographic depression which channels surface run-off water toward the ditch and toward the northwest. The ditch may be a significant controlling factor in the introduction and distribution of contaminants on-site due to related topography and its direction of effluent through AOC-13 from off-site areas to the southeast. The boundaries delineating AOC-13 describe an area of approximately 15,625 square feet.

All field operations were organized and performed by SAIC personnel. Petrex soil gas samplers were installed on August 16, 1994. An electric rotary hammer drill equipped with a 1½ inch diameter drill bit was employed to create the shallow bore hole into which each Petrex soil gas sampler was installed. Petrex samplers were installed at depths of eight to eighteen inches below grade.

To avoid potential cross contamination of sampling locations, the drill bit was decontaminated between use at each location. Decontamination of the drill bits consisted of thorough scrubbing in a laboratory grade detergent solution followed by repeated rinsing with distilled water. The drill bits were then allowed to completely air dry prior to reuse.

A series of four extra Petrex samplers (supplied specifically for this purpose) were used in this survey to determine the approximate length of time samplers should be exposed in the field to collect levels of VOC's and SVOC's best suited for analysis. These "time test" samplers were installed at two different locations (at sampling grid coordinates A3 and B6) within AOC-13 at the commencement of field operations. One time test sampler from each of these locations was then retrieved from the field and submitted to NERI for analysis after exposures of one and two weeks.

Samplers exposed for one week collected low to moderate levels of light weight (C_4 to C_8) petroleum hydrocarbons including the aromatics benzene, toluene, and ethylbenzene/xylenes. These samples also contained very low relative levels of the halogenated organic compounds tetrachloroethene and trichloroethene. On the basis of this information it was determined that the samplers in the field might benefit from a slightly longer exposure to increase the opportunity to collect higher levels of less volatile compounds which might also be present in the area. SAIC field operatives were informed that the two remaining time test samplers should be retrieved and analyzed after an exposure of approximately two weeks.

These two time test samplers were duly submitted for analysis after an exposure of thirteen days. However, due to temporary instrument malfunction in the analytical laboratory, they were not successfully analyzed. SAIC field operatives were informed of this condition and it was decided that, on the basis of the earlier exposure test results, the samplers in the field should be retrieved after receiving an exposure on the order of three weeks.

Thus, on September 7, 1994, after an exposure of twenty-two days, SAIC personnel retrieved all samplers from the field and submitted them for analysis.

These Petrex soil gas samplers were shipped as a batch via overnight courier. All samplers were received in good condition and were logged-in by NERI's laboratory on September 8, 1994 (see sample submittal and chain of custody documents). TD-MS soil gas sample analysis was performed on October 7,1994.

7.0 QUALITY ASSURANCE/QUALITY CONTROL

7.1 Analytical Method

Please see the Petrex Protocol for a description of analytical method QA/QC procedures.

7.2 Lot Control

Quality assurance/quality control (QA/QC) collectors from each lot manufactured by NERI were analyzed by TD-MS to ensure that they were contaminant free before the lot of collectors used in the field was released from the Petrex laboratory. No compounds were detected above background on the QA/QC collectors.

7.3 Travel Blanks

Two Petrex soil gas samplers (labeled #834 and #835) were incorporated into this survey as travel blanks. These travel blanks remained sealed and traveled with the survey samplers from the laboratory to the field and back to the laboratory. The purpose of the travel blanks was to indicate the potential for contamination of the soil gas samplers in shipping and storage. The travel blanks were analyzed under the same instrument conditions as the soil gas samples collected in the field. Results of TD-MS analyses of the travel blanks for the targeted compounds are provided in Table 1.

Analysis of each travel blank sample yielded no response to ions by which the targeted compounds are reported. These findings indicate that the Petrex soil gas samples collected in the field were not subjected to contaminating atmospheres in shipping and handling.

7.4 Sample Duplicates

Of the thirty-six samples installed in the field, five (14%) contained an additional soil gas collector element for the purpose of yielding a duplicate sample for QA analysis. These five duplicates were analyzed via TD-MS in the same analytical run during which all other soil gas samples were analyzed.

Comparison of the results of analysis of duplicate pairs indicates the following:

1. Response to targeted compounds varied by an average 21% from the mean.

2. Independent of the variation in magnitude of response, sample duplicate pairs demonstrated similar composition. Ions derived from the same targeted compounds were identifiable in each sample of the duplicate pair and occurred in the same patterns of relative abundance by which the target compounds were identified and reported (compare mass spectra of duplicate samples #809 and #2809)

Based on these findings it may be concluded that although analytical response to the soil gas environment varied, this variation did not exceed an order of magnitude, the basis on which most data sets are organized (and contoured on attach maps) and evaluated. Variation within the range observed for this data set does not affect interpretation of results or fulfillment of the stated objectives of this survey.

8.0 RESULTS

8.1 Presentation

Soil gas survey results were produced through TD-MS analysis of one soil gas sample from each sample collection point.

TD-MS analysis allows for the identification of general contaminant groups (e.g., light weight aromatics) and several typically recognizable species (e.g., toluene). TD-MS analysis also allows for rapid and cost effective determination of the relative level of identified VOC's in each sample so that comparisons of these levels may be made between all samples collected from the site.

All VOC's and SVOC's contained in a soil gas sample are subjected to ionization and fragmentation in the mass spectrometer during TD-MS analysis. Individual compounds or compound groups are then identified by their unique and consistent pattern of ion abundance. The abundance of ions of any one specific atomic mass (in AMU) is translated as a "peak" on the mass spectrum. The relative level of a compound in a sample is reported from the abundance of the molecular ion (or height of the reporting peak) in ion counts. Table 2, below, lists the ions (or peaks) used to report the levels in the soil gas samples of the target compounds.

Table 2
Target Compound Reporting Ions

Compound	Reported Ions (AMU)
Total Aromatic Hydrocarbons	sum of: 78, 92, 106, 120, 134, 148, 162, 176, 190, and 204.
Total Semivolatile Hydrocarbons	sum of: 128, 142, 153, 156, 178, 184, 198, 202, and 212.
Total C_5 to C_{11} Petroleum Hydrocarbons	sum of: 70, 72, 78, 84, 86, 92, 98, 100, 106, 110, 112, 114, 120, 124, 126, 128, 134, 138, 140, 142, 148, 152, 154, and 156.
Total Halogenated Hydrocarbons	sum of: 101, 130, 151, and 164.

The letter designation "ND" appears in the place of some data values in Table 1 and on Plates 2 through 5. The letters "ND" denote that no ions by which the targeted compounds are reported were detected in that sample. Reported survey results represent the combined TD-MS response to numerous compounds belonging to a targeted contaminant group (e.g., total aromatics). If any one component compound of the targeted contaminant group (e.g., C_9 aromatics) was not identified in a sample, a response value of zero was added in its place.

TD-MS response to target compounds displayed in Plates 2, 3, 4, and 5 is highlighted by isopleths (contour lines). The sole purpose of these isopleths is to highlight naturally occurring differences (e.g., breaks or lows) in the range of analytical response to the target compounds. Population groupings by which isopleths were chosen are displayed in histograms of the data sets (see Appendix D). These isopleths help define areas of the site which exhibit elevated levels of the targeted compounds in the soil gas and, by doing so, aid in the interpretation of survey results.

Survey results via TD-MS analysis are presented in Table 1 and in Soil Gas Sample Mass Spectra in Appendices B and C, respectively. Plates 1 through 5, which illustrate the areal distribution of targeted compounds in the soil gas, are presented in Appendix E.

8.2 Findings

Sample analysis indicated the occurrence of light and medium weight (C_4 to C_{11}) petroleum hydrocarbons, and the halogenated hydrocarbons tetrachloroethene (PCE), trichloroethene (TCE), trichloroethane (TCA), trichlorofluoromethane (Freon-11), and trichlorotrifluoroethane (Freon-113) in the soil gas.

The majority of the samples exhibited a combination of petroleum hydrocarbon compounds of which C_6 to C_{10} aromatics and C_4 to C_9 cycloalkanes/alkenes were the most prominent. C_4 to C_9 alkanes, C_4 to C_{11} cycloalkenes/dienes, and the semivolatile compounds naphthalene and methylnaphthalene were also present in the majority of samples, but at less pronounced levels relative to the combination.

All of these compounds are common constituents of most petroleum fuels, heating oils, some light lubricating oils, and many other petroleum based products. However, the combinations of these hydrocarbon compounds observed in the majority of the samples (exemplified by the mass spectrum of sample #801) are most typical of the composition of vapor derived from the dilute residue of variously weathered fuel-like petroleum products in the subsurface.

TCE and PCE were the most frequently detected halogenated organic compounds in the soil gas (see the mass spectra of samples #809 and #827). The other halogenated hydrocarbons, named above, were detected much less frequently. TCA was confidently detected only in samples #803, #818, #828, and #832 (see mass spectrum of sample #832). Freon-11 and Freon-113 were confidently detected, and generally at only very low relative levels, in samples #800, #803 and #832. Dichloroethene (DCE) was not confidently identified in any sample; however, samples #799, #803, and #828 did exhibit the potential to contain low relative levels of this compound. No other halogenated compounds were detected in the soil gas. The highest relative levels of PCE and TCE were both detected in sample #803.

Results for the targeted compound groups and their areal distribution on-site are discussed in greater detail in section 9.0, below.

The high sensitivity to VOC's inherent in the Petrex Technique must be considered in the evaluation of these findings. Elevated relative levels of VOC's and SVOC's in the soil gas detected in this Petrex survey may derive from concentrations of these VOC's and SVOC's in soil and/or groundwater which are below the threshold of detection of most quantitative analyses.

9.0 DISCUSSION

9.1 Distribution of Total Aromatic Hydrocarbons

Total Aromatic Hydrocarbons are reported as the combined level of C_6 to C_{15} aromatic (benzene based) hydrocarbon compounds detected in the soil gas samples. The majority of the samples contained only the light and medium weight compounds benzene, toluene, ethylbenzene/xylenes, and C_9 and C_{10} aromatics (such as trimethylbenzene, tetramethylbenzene, etc.). Very few samples were observed to contain elevated levels of C_{11} and heavier aromatics.

The areal distribution of Total Aromatic Hydrocarbons in the soil gas at AOC-13 is displayed by Plate 2. Mildly elevated levels of total aromatics occurred in the soil gas throughout the central, north, south, and western portions of the site. The most pronounced levels of aromatics were present on the northern and western border of the AOC at the collection points of samples #798, #801, and #833 (sampling grid coordinates F1, F4, and C1, respectively).

Except for the overall higher relative levels detected, the composition of the soil gas at these three points is similar to that across much of the rest of the site. The lack of heavier aromatics (and heavier cycloalkanes/alkenes and cycloalkenes/dienes) in the soil gas is notable. These heavier hydrocarbons are components of heavy fuel-like products. Their absence suggests that the aromatics (as well as the other petroleum hydrocarbons) observed here principally derive from light and medium weight fuels such as gasoline, diesel fuel, kerosene, #1 and #2 heating oils, etc.

The three "hot spots" on the margins of the AOC may correspond to the location of source areas of petroleum or points on the periphery of source areas which may lie beyond study area boundaries to the north and west. Sources could include areas where petroleum fuels leached into the soil from stockpiled wastes prepared for incineration.

The larger zone in which anomalous yet less elevated levels of aromatics were detected may indicate the area over which dissolved components of fuels have dispersed and migrated. However, given the gentle downward slope of the terrain to the north and west, it is unlikely that the aromatic hydrocarbons in this larger zone derive in great part from potential source areas in the north and west. Thus, these findings suggest that releases of fuels may also have taken place in areas near the central, southern, and eastern portions of the site. The absence of apparent hot spots in these regions of the site may indicate that any releases in these areas were small in volume and that products released have undergone significant degradation. These findings also suggest that potential source areas of petroleum similar to those indicated to the north and west may exist beyond study area boundaries to the south and east.

9.2 The Distribution of Total Semivolatile Hydrocarbons

Total semivolatile hydrocarbons are reported as the combined response to naphthalene, C_{11} through C_{15} alkyl naphthalenes, and C_{12}, C_{14}, and C_{16} polycyclic hydrocarbons (including acenapthene, anthracene, and pyrene) . These compounds are constituents of creosote, coal tar, and other heavy, high boiling point fraction petroleum products. Naphthalene, and C_{11} and C_{12} alkyl naphthalenes (e.g., methylnaphthalene and ethyl or dimethylnaphthalene) may also be found in medium to heavy weight fuels and fuel oil-like products. A review of the mass spectra of all samples which yielded an elevated response to semivolatiles indicated that very few semivolatile compounds over C_{11} in molecular weight may be present in the soil gas, and that the majority of the responses derive from low levels of naphthalenics.

The areal distribution of Total Semivolatile Hydrocarbons is displayed in Plate 3. Elevated levels of semivolatile hydrocarbons, principally naphthalene and methylnaphthalene, were only detected in samples containing an assortment of other hydrocarbons (especially aromatics and cycloalkanes/alkenes) characteristic of weathered medium weight fuels. This is made apparent through examination of sample mass spectra (see the mass spectrum of sample #801). This finding suggests that the petroleum hydrocarbons detected across much of the site may derive, in part, from medium weight fuels.

Response to semivolatiles in the soil gas at AOC-13 is low overall. This finding supports the inference that the hydrocarbons detected derive principally from medium weight fuels and not from products in which semivolatiles are more abundant. The highest responses to semivolatiles were yielded by samples #798, #801, #808, #809, and #812 (at grid coordinates F1, F4, E2, E1, and D3) from the northern and western extremes of the study area and from along the course of the drainage ditch leading from the center of the site to the northwest corner. As the mobility of chemical compounds generally decreases with increasing molecular weight, the occurrence of high relative levels of C_{10} and C_{11} naphthalenics in the soil gas may be more specific to the location of points of product release. Thus, the distribution of the highest levels of semivolatiles on-site may indicate that one or more source areas of petroleum exist near the drainage ditch toward the center of the site as well as on the northern and western borders of the study area.

9.3 The Distribution of Total C_5 to C_{11} Petroleum Hydrocarbons

Total C_5 to C_{11} petroleum hydrocarbons reported here include aromatics, alkanes, cycloalkanes, alkenes, cycloalkenes, dienes, and naphthalene and alkyl naphthalenes. In various combinations, these compounds, together, make up the bulk of most petroleum fuels, oils, and lubricants. Although C_4 hydrocarbons were also detected in most samples, the levels of C_4 compounds are excluded from reporting as they (and lighter weight species) are commonly found in most environments.

The areal distribution of total C_5 to C_{11} petroleum hydrocarbons in the soil gas on-site, displayed in Plate 4, was nearly identical to that of aromatics alone (discussed in subsection 9.1, above). This finding indicates that the majority of the soil gas samples from AOC-13 which contained moderate to high relative levels of hydrocarbons were nearly uniform in composition. This composition may be described as proportionately high levels of C_6 through C_{10} aromatics, C_5 to C_9 cycloalkanes/alkenes, and C_5 to C_8 alkanes, and proportionately lower levels of cycloalkenes/dienes, naphthalene and methylnaphthalene. Vapor of this composition (with some variation) is typical of that derived from weathered fuel-like petroleum products. No combination of hydrocarbons was detected in the soil gas within AOC-13 which was distinctly uncharacteristic of fuels.

The observed distribution of total C_5 to C_{11} petroleum hydrocarbons in the soil gas supports inferences formulated on the basis of the distribution of aromatics and semivolatiles. Namely, potential source areas of petroleum may exist at points along the northern and western margins of the study area and along the drainage ditch northwest of the center of the site. The widespread occurrence of petroleum hydrocarbons in the soil gas across much of the central, southern and eastern portions of the site likely represents dilute low levels of hydrocarbons dissolved in groundwater. These compounds may originate through dispersion from one or more past, small scale releases of petroleum products in these regions including areas beyond current study area boundaries to the south and east.

The areal distribution of total C_5 to C_{11} petroleum hydrocarbons also suggests that the northwestern flow of surface water toward and along the course of the ditch may contribute to the dispersion and transport of petroleum hydrocarbons toward the northwest from potential source areas located near the ditch in the center of the study area. Effluent from off-site areas carried by the drainage ditch, but not fully contained by the ditch (especially if the ditch is not fully lined with an impermeable material), may also contribute to the distribution of petroleum hydrocarbons in the subsurface within AOC-13.

9.4 The Distribution of Total Halogenated Hydrocarbons

Total Halogenated Hydrocarbons are reported as the combined levels of tetrachloroethene (PCE), trichloroethene (TCE), trichloroethane (TCA), trichlorofluoromethane (Freon-11), and trichlorotrifluoroethane (Freon-113) in the soil gas. These compounds are volatile liquids commonly used as solvents, cleaning agents, and refrigerants.

TCE and PCE were detected much more frequently in the soil gas than were the other halogenated organics. Thus, the majority of the elevated responses to Total Halogenated Hydrocarbons shown in Table 1 and on Plate 5 principally reflect the presence of TCE and PCE in the soil gas.

Elevated levels of halogenated organics occurred principally in a zone occupying the western margin of the site and extending from southern to northern study area boundaries. However, a pronounced level of halogenated hydrocarbons (principally TCE) was also detected at a single point in the central portion of the study area (at grid coordinates C4). This distribution suggests that halogenated organics may derive from one or more source areas within and bordering AOC-13.

The location of the large zone of elevated levels of halogenated organics may correspond to the location of sources of these compounds within or near these border areas to the north, west and south (including within Building No. 49 or neighboring structures to the west). The highest levels of total halogenated hydrocarbons were detected in the soil gas at the collection points of samples #799, #803, #809, and #827 (sampling grid coordinates F2, F6, E1, and C4, respectively). The coincidence of hot spots of these compounds in the soil gas in the northwest with hot spots of petroleum hydrocarbons (compare Plates 4 and 5) may indicate that halogenated hydrocarbons and petroleum hydrocarbons in the northwest of AOC-13 originate from the same sources. Although chlorinated solvents, refrigerants, and petroleum fuels are used for dissimilar purposes and are not components of one another, they may be mixed together in a common liquid waste prior to disposal. The presence of an isolated hot spot of halogenated hydrocarbons in the soil gas in the central portion of the study area suggests that halogenated hydrocarbons on-site may also originate from localized small scale releases.

10.0 CONCLUSIONS

The following conclusions may be drawn from the findings of this Petrex soil gas survey:

1. Petroleum hydrocarbons derived from light and medium weight fuels exist in the subsurface within AOC-13 and may also exist in the subsurface immediately beyond AOC-13 limits particularly to the north and west. The northern and western boundaries of the study area demonstrate the greatest potential influence by these compounds. The balance of the site may only demonstrate very low levels of dissolved hydrocarbons.

2. Potential source areas of petroleum fuels likely exist on or nearby the northern and western borders of the site. Small scale releases of petroleum may have taken place at one or more points in the central, southern, and eastern portions of the site. Petroleum hydrocarbons may have also been transported to the site as components of run-off water carried by the drainage ditch. The existence of the drainage ditch may also strongly affect directional trends in the dispersion and migration of petroleum hydrocarbons in the subsurface.

3. Halogenated hydrocarbons, particularly TCE and PCE, exist in the subsurface within AOC-13 and likely exist in the subsurface immediately beyond AOC-13 boundaries to the west, northwest, and southwest. Subsurface media within the western portion of AOC-13 likely demonstrate the greatest influence by these compounds.

4. Numerous potential source areas of halogenated hydrocarbons may exist in or nearby AOC-13. Primary potential source areas may be located on or nearby the western border of the AOC (including within neighboring buildings), and in the northwest of the study area. Releases of halogenated compounds may be related to suspected releases of petroleum products in the northwest of the site. Halogenated compounds may also originate from one or more past, small scale, localized releases of chlorinated solvents in the central portion of the AOC.

5. Any verification of soil gas results for petroleum hydrocarbons should begin with testing of soil and groundwater (if reasonably accessible) from the collection points of samples #798, #801, and #833 (grid coordinates F1, F4, and C1). Each of these locations exhibited the highest levels of petroleum hydrocarbons in the soil gas.

6. Any verification of soil gas results for halogenated hydrocarbons should begin with testing of soil and groundwater (particularly at the interface with bedrock or other confining units, if reasonably accessible) from the collection points of samples #803, #809, and #827 (grid coordinates F6, E1, and C4). These locations exhibited the highest combined levels in the soil gas of the halogenated hydrocarbons detected on-site.

7. The environmental significance of the existence of petroleum hydrocarbons and halogenated hydrocarbons in the subsurface can only be evaluated through quantitative testing of soil and groundwater.

11.0 LIMITATIONS

This report represents NERI's professional interpretation and judgment based on technical information gathered during investigative activities. Professional judgments expressed herein are restricted to facts available within the established limits of the scope of work, budget, and schedule. NERI assumes no responsibility for the existence or disclosure of conditions which did not come to its knowledge, or conditions not generally recognized as environmentally unacceptable, at the time this report was prepared.

It is NERI's specific intent that all observations and conclusions presented will be used as a guide and not necessarily a firm course of action unless explicitly stated as such. No warranties are expressed or implied and the information included in this report is not to be construed as legal advice.

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APPENDIX A
PETREX PROTOCOL

REVISED SEPTEMBER 1993

PETREX ENVIRONMENTAL SOIL GAS PROTOCOL

INTRODUCTION

The PETREX Technique provides a means by which trace quantities of gases from subsurface derived organic contaminants can be detected and collected at the earth's surface. The Technique is integrative, thereby eliminating the short-term variations associated with other gas/vapor detection methods. The PETREX Technique directly collects and records a broad range of organic compounds emanating from subsurface sources.

SOIL GAS COLLECTOR PREPARATION

Adsorption collector wires (after construction) are cleaned by heating to 358° C in a high vacuum system. Wires are packed under an inert atmosphere in glass culture tubes. One collector out of every batch of thirty is checked for cleanliness by mass spectrometry. Another collector from the batch is checked for adsorptive capability. Based on the results, the batch of collectors is approved for release into the field.

SOIL GAS SAMPLER INSTALLATION

The sampler consists of two or three collectors, each a ferromagnetic wire coated with an activated charcoal adsorbent in a screw top glass culture tube. Each sampler is typically placed in a shallow hole, 14-18 inches deep. The hole is backfilled and the location is marked. The sampler is left in the ground from one to thirty days, then retrieved and sealed for transportation back to the laboratory for analysis.

The PETREX soil gas sampling technique is adaptable to various surface conditions commonly encountered within survey areas. These surfaces typically include concrete, asphalt, grass, and gravel. Two installation methods are routinely utilized to adapt to these surface conditions.

The first method utilizes a coring shovel for sampler installations in grass or otherwise loosely consolidated soil conditions. The shovel cores a 14 inch deep by 2 inch diameter hole in the surface soils.

PETREX soil gas samplers are placed (open end down) at the bottom of each core hole. The samplers are then backfilled with an aluminum foil plug and the original excavated soil. To complete installation, sample locations are marked with ribbon flagging and a numbered pin flag, as well as entered into a field notebook and plotted on a field map.

The second method of sampler installation utilizes an electric rotary hammer, equipped with an 18 inch by 1.5 inch diameter drill bit, for sampler installations under concrete, asphalt, or otherwise consolidated conditions. A hole is drilled through the surface to the dimensions of the drill bit equipped to the rotary hammer.

PETREX soil gas samplers are placed at the bottom of each drilled hole. For retrieval purposes, a cleaned galvanized steel wire is attached to each sampler. Aluminum foil is used to plug each hole to approximately two inches below grade. Then each hole is capped to grade with hydraulic cement. The hydraulic cement serves as protection from the external surface environment.

To complete sampler installation, sampler locations are marked with paint (where applicable), entered into a field notebook, and plotted on a field map.

SOIL GAS SAMPLER RETRIEVAL

PETREX soil gas samplers are retrieved following a time period that has allowed for the soil gas emanating from the subsurface environment of a survey area to equilibrate with the installed PETREX samplers. This time integration period is determined for each PETREX soil gas survey based on time calibration data or site conditions.

Retrieval operations are dependent on surface conditions and routinely consist of the following two methods.

The first method applies to grass covered or loosely consolidated soil conditions. A trowel is utilized to expose the backfilled samplers; then with a pair of tongs, the samplers are brought to the surface. At the surface, the samplers are sealed, cleaned, and labeled. Following retrieval, all debris are gathered and the core hole is backfilled with original material.

The second method applies to concrete, asphalt, or other consolidated surface conditions. A hammer and chisel is utilized to remove the hydraulic cement plug and expose the sampler. By means of the pre-attached retrieval wire, the sampler is brought to the surface. At the surface, the retrieval wire is removed and the sampler is sealed, cleaned, and labeled. Following retrieval, each drill hole is backfilled and patched with cement or asphalt.

TIME CALIBRATION SAMPLERS

Time calibration samplers are included in PETREX soil gas surveys, as appropriate. These samplers are included as a means of monitoring the loading rates of volatile and semivolatile organic compounds (VOCs and SVOCs) emanating from the soil gas at a survey area onto the PETREX collectors.

During PETREX sampler installation, two sets of three to five time calibration samplers are also installed at survey sample locations that best represent the range of soil gas response for the survey area. These representative locations are determined based on previous soils and/or groundwater studies and other site specific conditions such as gradient and potential source areas.

The first set of time calibration samplers are generally retrieved within a week or less following the initial installation and the second set one week later. Often, permanent on-site personnel are instructed to perform time calibration sampler retrieval.

Lengths of exposure periods of the survey samplers for each survey are determined based on the results of each respective set of time calibration samplers. Time calibration samplers are usually analyzed within 24 hours upon receipt at the laboratory. At the first indication of significant relative ion count intensities and significant total ion count values, the decision is made to retrieve the entire complement of survey samplers.

If there are no significant relative ion count intensities detected from the second set of time calibration samplers, then the survey samplers are allowed to equilibrate in the field for a maximum time period of up to 30 days. The average environmental PETREX soil gas survey requires a collector integration period of one day to two weeks.

METHOD QA/QC

Within every survey sampler, the two or three collector wires should have adsorbed identical compounds. Like compounds on separate collectors relate an acceptable quality assurance (QA) during the survey's analysis. The first wire is analyzed by Thermal Desorption/Mass Spectrometry (TD/MS). The data from the first wire is reported on the relative response maps. The second wire is retained for analysis by Thermal Desorption-Gas Chromatography/Mass Spectrometry (TD-GC/MS), if warranted by the initial TD/MS analysis of the second wire.

Approximately ten percent of the total PETREX survey samplers contain three collector wires. The third collector wire, a QC collector wire, is used by the operator to test the mass spectrometer's operating conditions prior to survey analysis. Some of these quality control (QC) collectors are also used to check the mass spectrometer sensitivity during survey analysis. In addition, the QC collector may be used to compare the reproducibility of the detected VOCs.

TRAVEL BLANKS

Two PETREX samplers, each containing a single collector wire, are included with each PETREX soil gas survey as travel blanks. These blanks are analyzed with the survey samplers to indicate whether there may have been contamination introduced to the survey samplers during installation or shipment. If compounds other than normal atmospherics (e.g., CO_2, H_20, N_2, and Ar) are detected on the blanks, these results are taken into consideration in the data presentation. This process, an initial step to data interpretation, involves the correction of ion count values of the detected blank contaminants from the entire survey's data set. The resulting ion count values are provided on the relative response maps.

MASS SPECTROMETER TUNING

An Extranuclear Quadrupole C-50 Mass Spectrometer or similar instrument, equipped with a Curie-point pyrolysis/thermal desorption inlet, is used for collector analysis. Mass assignment and resolution are manually adjusted using a Perfluorotributylamine (PFTBA) standard or a built-in tuning program, depending on the instrument. A linear correction, based on the known spectrum of PFTBA, is calculated. This correction is applied to a second PFTBA spectrum. If correct mass (M/Z) values are obtained, the operator proceeds to the next tuning step. If not, Step 1 is repeated until correct masses are obtained.

Peak intensity ratios are set from the major peaks in the PFTBA spectrum using the following values:

Mass (M/Z)		Spectrum Intensities
69	=	100%
131	=	48% $\pm$ 5%
219	=	50% $\pm$ 5%

During tuning, the ion signal for mass (M/Z) 69 of PFTBA is measured at a preset sample pressure and detector voltage and compared to previous values at the same setting.

Electron energy is set to 70 electron volts. All other operating parameters, such as scans, scan range, and mass offset, are established in the computer program. These values may only be changed by the laboratory manager.

Tuning is performed at the beginning of a run so that an individual survey is analyzed at the same set of instrument conditions. The samplers are analyzed in random order.

LABORATORY ANALYSIS

Periodic machine background and blank PETREX collector analyses are performed to assure that there is no carry-over between successive collectors. If there are peaks present which are not related to atmospheric gases, the supervisor is notified and the mass spectrometer is shut down and cleaned as necessary.

A written sample number record is kept during the analysis to prevent accidental cross numbering. The mass spectrometer control program contains appropriate "flag statements" that prompt the operator with a warning if an input sample number has already been analyzed. The operator then checks the current number, along with the disk storage location of the previously entered number to identify the true numbering situation.

COMPOUND IDENTIFICATION

Compound identification is based on molecular weight, compound fragmentation, and isotope distribution, as applicable. Each VOC exhibits a unique mass spectral signature. NERI maintains a large library of spectra of individual compounds, accessible by computer. In addition, the company maintains a large library of mass spectra of commonly used chemical mixtures; e.g., gasolines, diesels, industrial oils and solvents, coatings, plastics, etc. These spectra are used to assist in both compound and mixture identifications.

The ion count response of an indicator peak(s), representative of the compound and away from interference by other compounds, is extracted for data presentation and mapping.

INTERPRETATION OF SOIL GAS DATA

Soil gas data (including PETREX) reflect volatile and semivolatile organics collected at a point in the near surface. The sources of these volatile organics may be in the stratigraphic column and/or in groundwater below the collection point. Thus, the organics can be derived from surface spills, deposition, or migration into the deeper vadose zone, and groundwater. The soil gas survey reveals the areal extent of contamination and is the optimum guide in identifying areas in order to develop a vertical profile, including the drilling of soil borings and monitoring wells.

Soil gas data are always semi-quantitative in that multiple sources in soil and/or groundwater cannot be differentiated. However, the higher ion responses are representative of higher concentrations in the subsurface, given that geologic conditions are relatively consistent.

Due to chemical differences between individual compounds, including their ability to both adsorb and desorb from the charcoal PETREX collector element, it is invalid to compare the ion count of a compound at one sampling location to that of another compound.

Patterns of compound distribution in the soil gas, as detected at the surface, can be strongly influenced by irregularities in the near surface and subsurface environment through which the soil gas diffuses. These irregularities include subsurface man-made structures, such as concrete foundations, drainage systems, and wells, and such naturally occurring structures as fractured and unfractured bedrock, clay, and shale lenses.

Other factors influencing the soil gas signal include ground and surface water, the free carbon content of soils, microbiotic activity in the soil, and natural and synthetic ground cover.

All of these factors indicate that the most powerful use of soil gas data is in reconnaissance; identifying and mapping the relative abundance of the widest array of chemical species and mixtures. Efforts to relate soil gas response directly to groundwater or soil contaminant concentrations is generally not regarded as productive owing to the assumptions that are required for heterogeneity and source distribution.

RELATIVE RESPONSE DETERMINATION AND MAPPING

The relative response values are reported as the ion counts of indicator peaks for any given compound or mixture. Sample locations on a base map are digitized as X-Y coordinates and ion counts for the reported compounds are plotted at respective locations.

Mapping of the ion counts occurs after contour intervals for each compound or component class are determined. In order to establish the contour intervals, factors such as statistical analysis of ion count distribution, physiochemical considerations, and component-source material relationships (if known) are taken into account for each compound or class, in each area, on an individual basis. Each map is then contoured by hand. The resultant contour zones for each compound or component class in each area are color coded on a relative basis depending on whether the data are interpreted to be of high, moderate to high, moderate, etc., intensity. The response values found on each of the response maps are color coded and contoured on this basis.

APPENDIX B
TABLE 1

Table 1: AOC-13 Petrex Soil Gas Survey Results

NERI Project: 2114-9E
Site: Operable Unit -5, USDOE Mound Facility
Analysis: Thermal Desorption - Mass Spectrometry
Date of Analysis: 10/7/94
Units: Ion Counts

Sample #	Total Aromatic Hydrocarbons (a)	Total Semivolatile Hydrocarbons (b)	Total C5 to C11 Petroleum Hydrocarbons (c)	Total Halogenated Hydrocarbons (d)
798	5,049,373	148,638	11,736,665	403,807
799 (f)	43,194	ND	144,631	875,428
800	16,481	788	27,030	46,793
2800 (e)	24,125	1,072	42,196	60,028
801	6,262,476	190,343	15,056,938	124,292
802	2,241,578	45,881	5,323,359	425,095
803 (f)	1,021,570	11,964	4,175,025	2,883,809
804	857,713	25,086	2,806,255	113,660
805	576,806	1,150	837,259	ND
806	1,094,363	23,561	1,331,928	90,767
807	1,316,211	20,838	3,683,164	247,220
808	3,086,374	193,004	10,937,559	159,590
809	3,151,090	131,046	10,058,992	1,104,830
2809 (e)	1,772,509	59,515	4,453,498	710,555
810	2,195,770	31,289	4,966,376	19,615
811	147,430	ND	394,326	ND
812	3,257,891	107,865	7,037,308	ND
2812 (e)	2,788,853	67,290	6,405,967	ND
813	2,441,123	27,528	4,432,160	ND
814	1,036,038	24,689	2,106,544	ND
815	1,475,121	52,323	3,562,239	9,478
816	843,538	9,439	2,057,277	6,528
817	2,591,759	50,394	4,655,535	ND

Table 1 (cont'd)

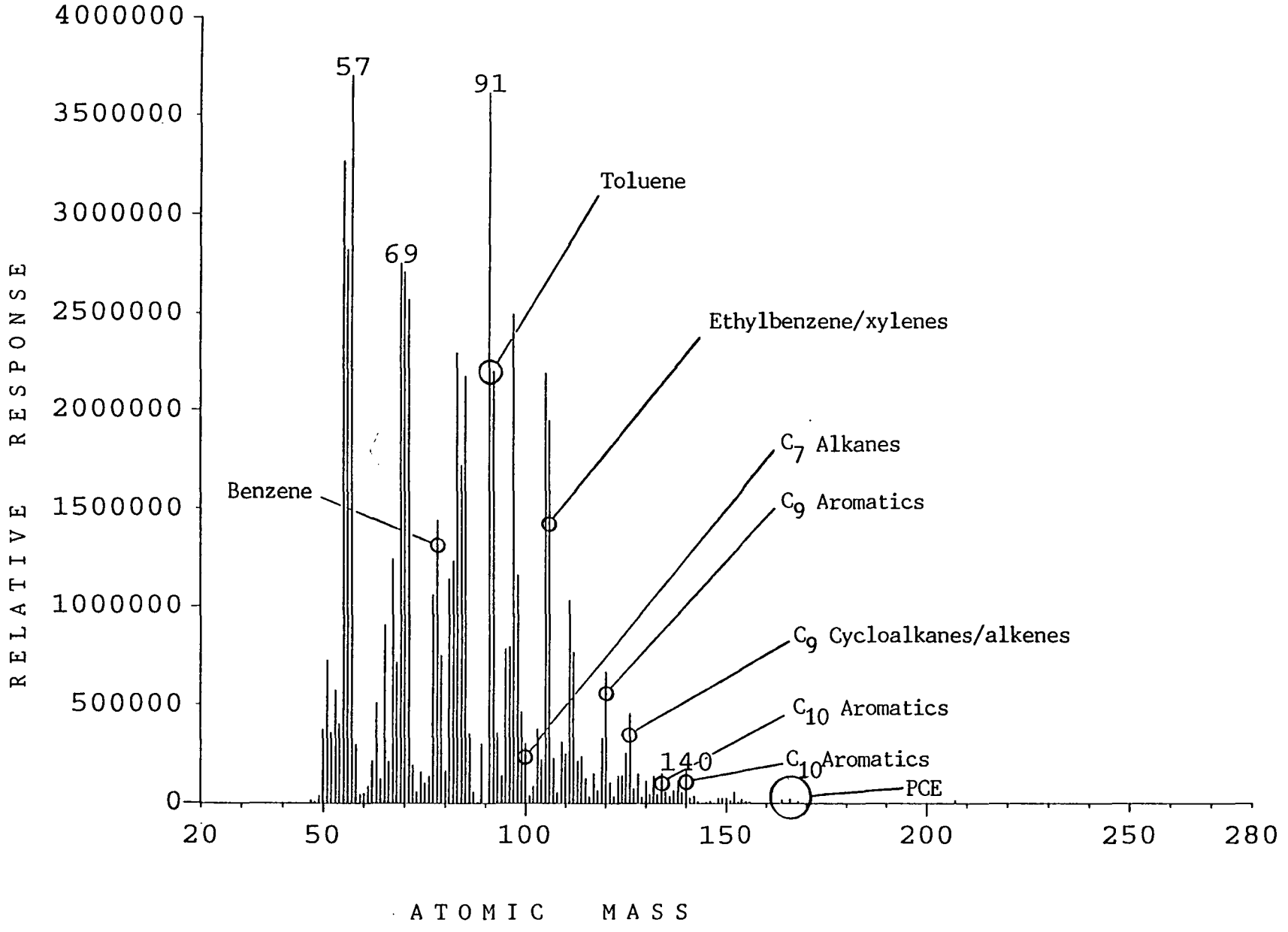
Sample #	Total Aromatic Hydrocarbons (a)	Total Semivolatile Hydrocarbons (b)	Total C5 to C11 Petroleum Hydrocarbons (c)	Total Halogenated Hydrocarbons (d)
818	1,274,406	41,910	4,935,688	20,527
819	914,388	13,330	2,295,413	15,927
820	335,977	ND	661,898	9,132
821	966,116	4,689	2,152,944	7,629
822	69,752	ND	90,468	21,487
823	122,367	ND	218,403	ND
824	877,553	6,071	2,012,293	44,412
825	13,830	ND	25,051	ND
826	24,065	ND	45,266	ND
827	1,220,581	16,165	2,804,326	808,681
828 (f)	1,399,477	22,453	3,817,904	12,778
829	449,916	3,907	977,331	4,201
830	1,385,354	12,564	2,797,133	ND
831	169,924	ND	366,143	ND
2831 (e)	92,706	ND	194,877	ND
832	1,245,232	4,404	1,724,207	115,083
833	5,941,344	45,463	12,148,810	ND
2833 (e)	4,341,237	35,775	8,830,530	ND
834 •	ND	ND	ND	ND
835 •	ND	ND	ND	ND

Key: (a) Intensity of response to ions of atomic masses 78, 92, 106, 120, 134, 148, 162, 176, 190, and 204.
(b) Intensity of response to ions of atomic masses 128, 142, 153, 156, 178, 184, 198, 202, and 212.
(c) Intensity of response to ions of atomic masses 70, 72, 78, 84, 86, 92, 98, 100, 106, 110, 112, 114, 120, 124, 126, 128 134, 138, 140, 142, 148, 152, 154, and 156.
(d) Intensity of response to ions of atomic masses 101, 130, 151, and 164.
(e) Duplicate of preceding sample.
(f) Sample exhibits potential to contain a low level of dichloroethene.
ND Target compounds were not detected in this sample.
• Travel Blank

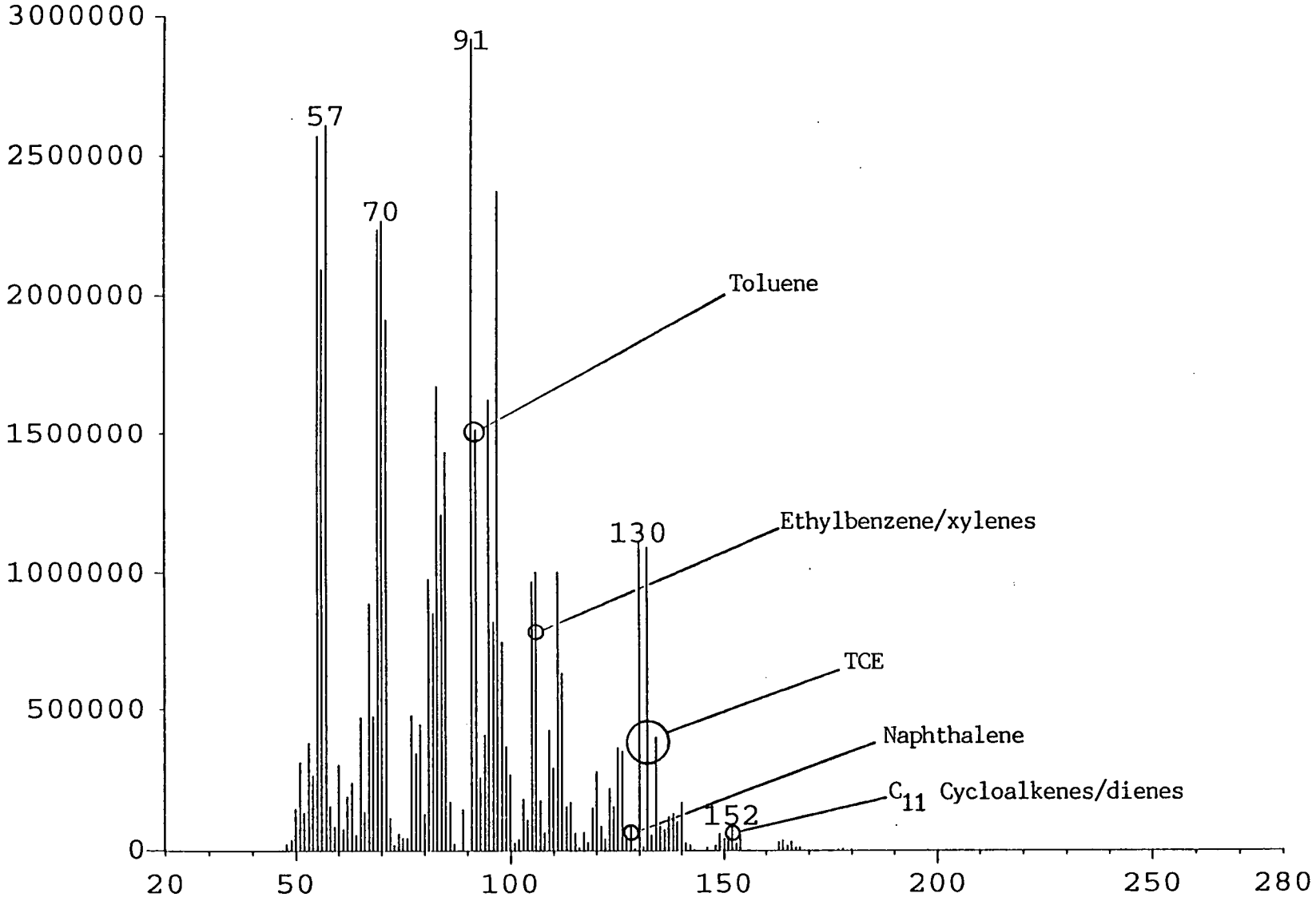
APPENDIX C
SAMPLE MASS SPECTRA

Sample Number

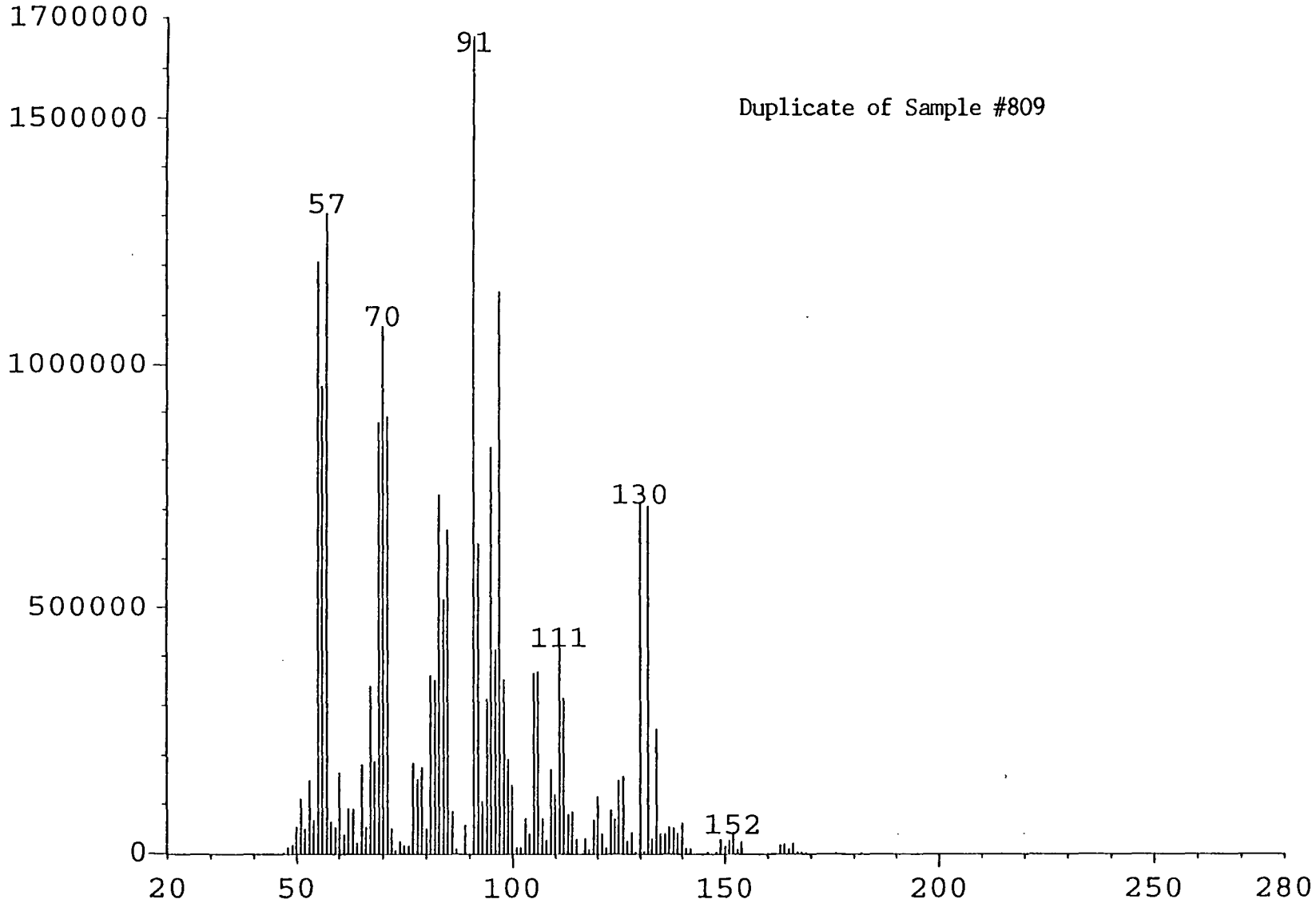
C:\DATA\2114-9\0801.TKF: Scan Avg 1-20 (0.01 - 0.14 min)



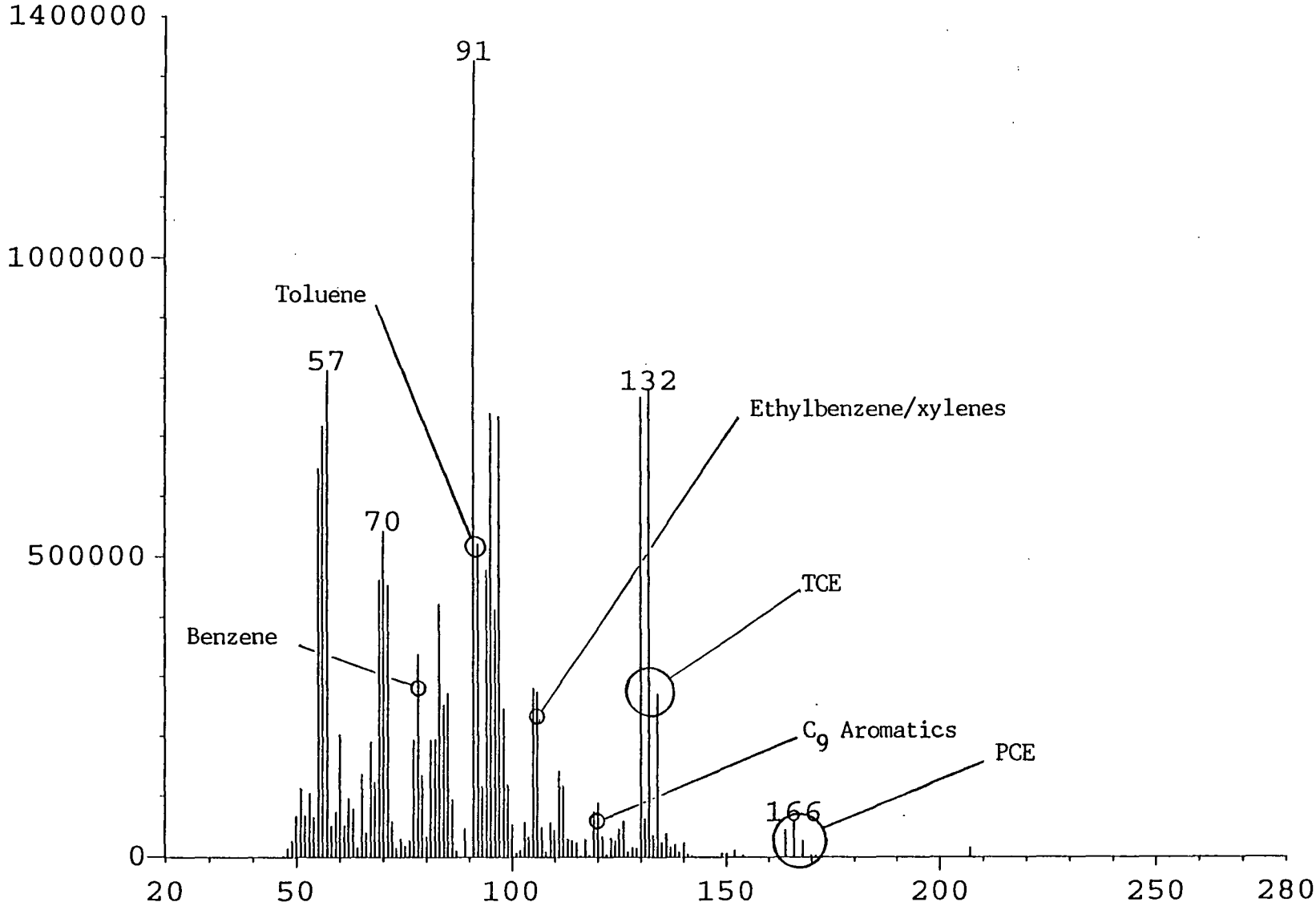
C:\DATA\2114-9\0809.TKF: Scan Avg 1-20 (0.01 - 0.14 min)



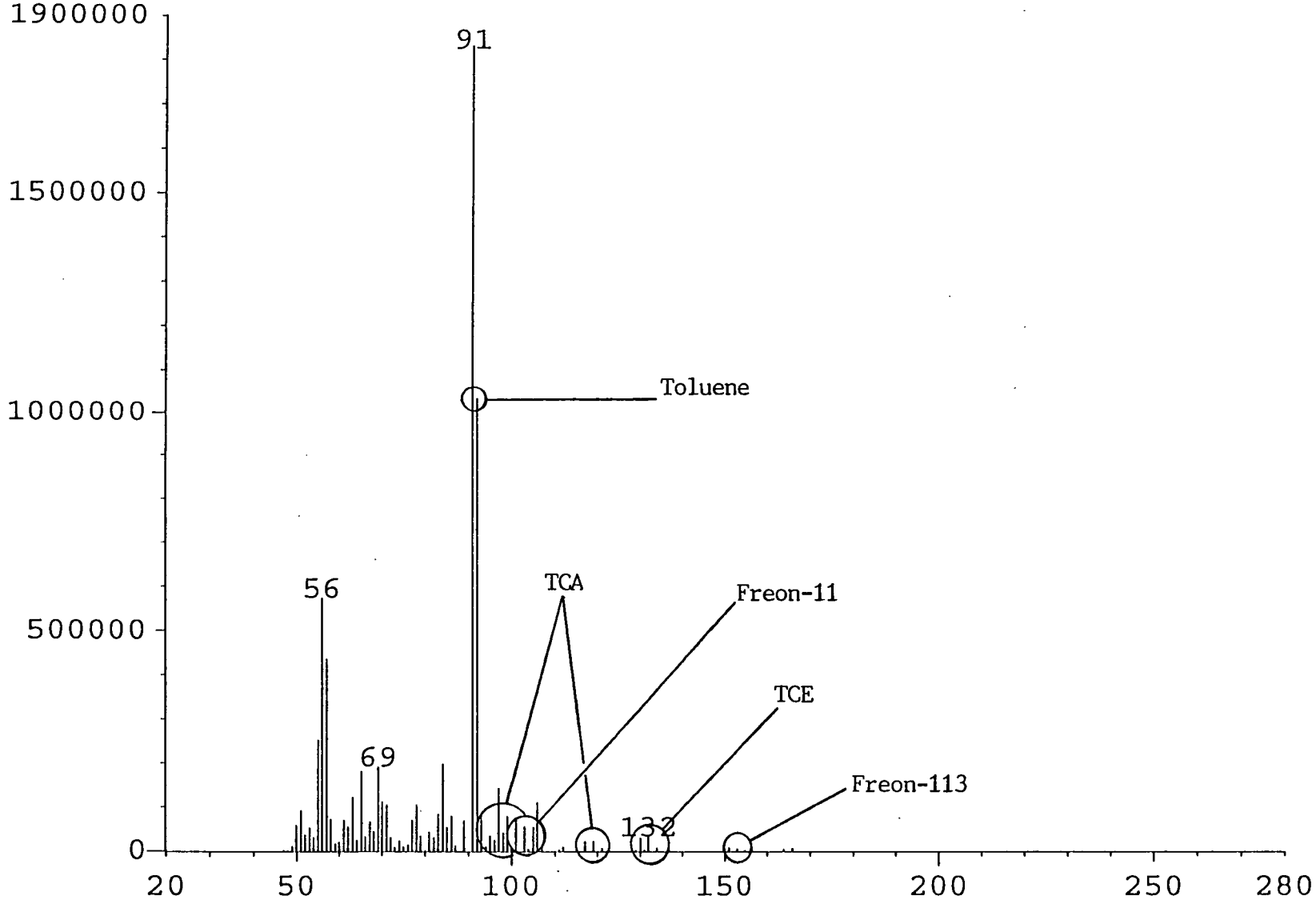
C:\DATA\2114-9\2809.TKF: Scan Avg 1-20 (0.01 - 0.14 min)



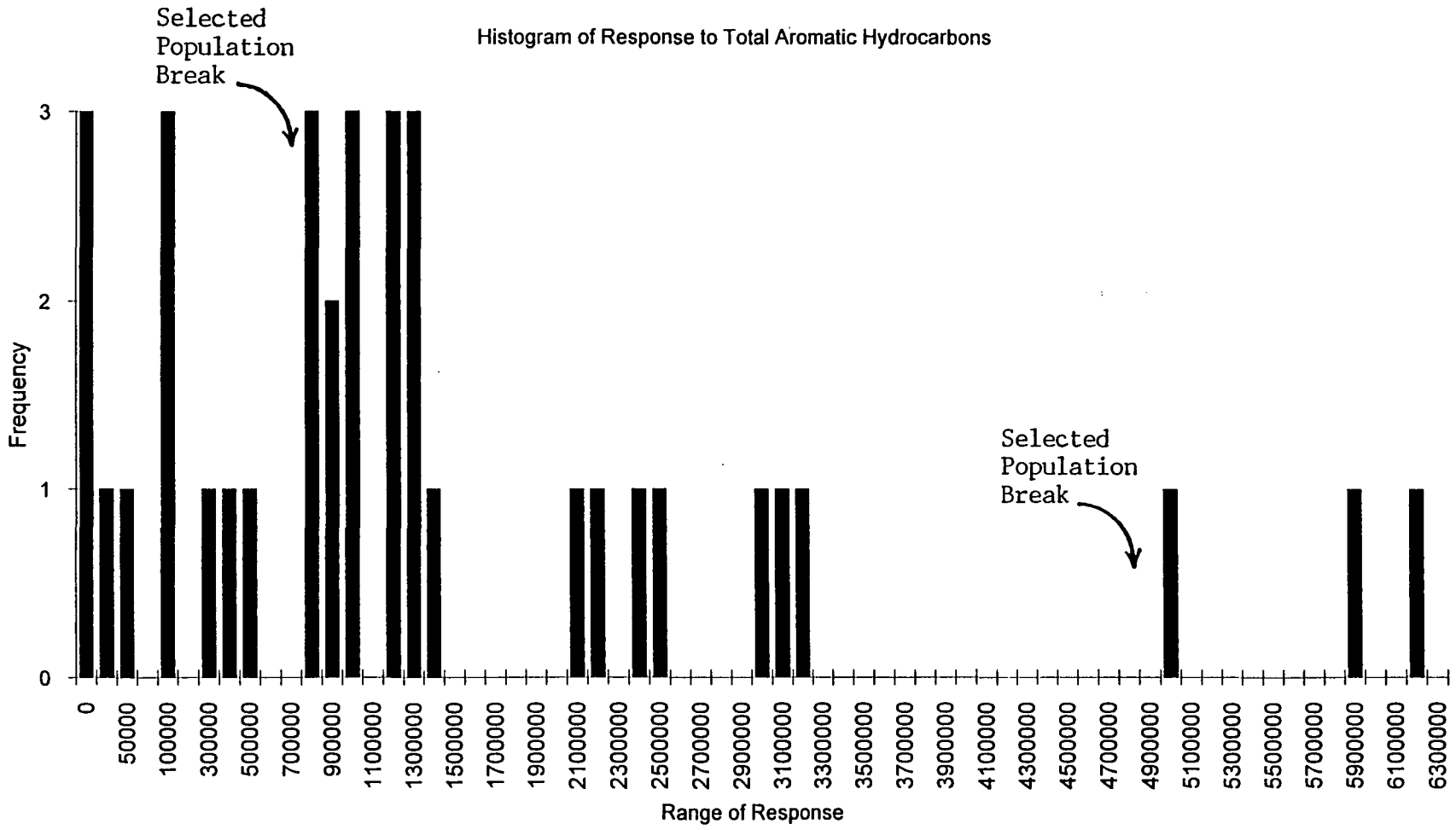
C:\DATA\2114-9\0827.TKF: Scan Avg 1-20 (0.01 - 0.14 min)



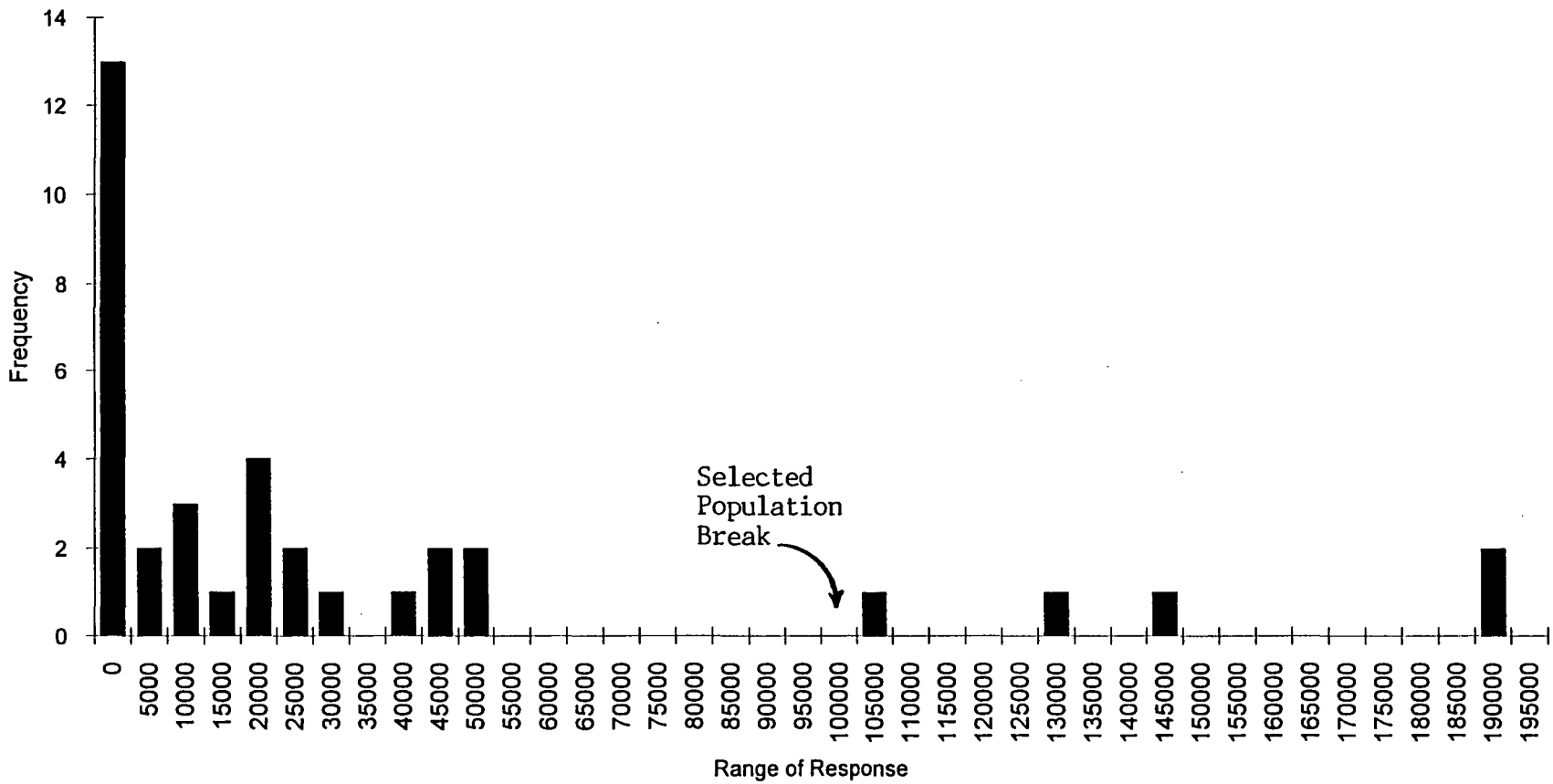
C:\DATA\2114-9\0832.TKF: Scan Avg 1-20 (0.01 - 0.14 min)



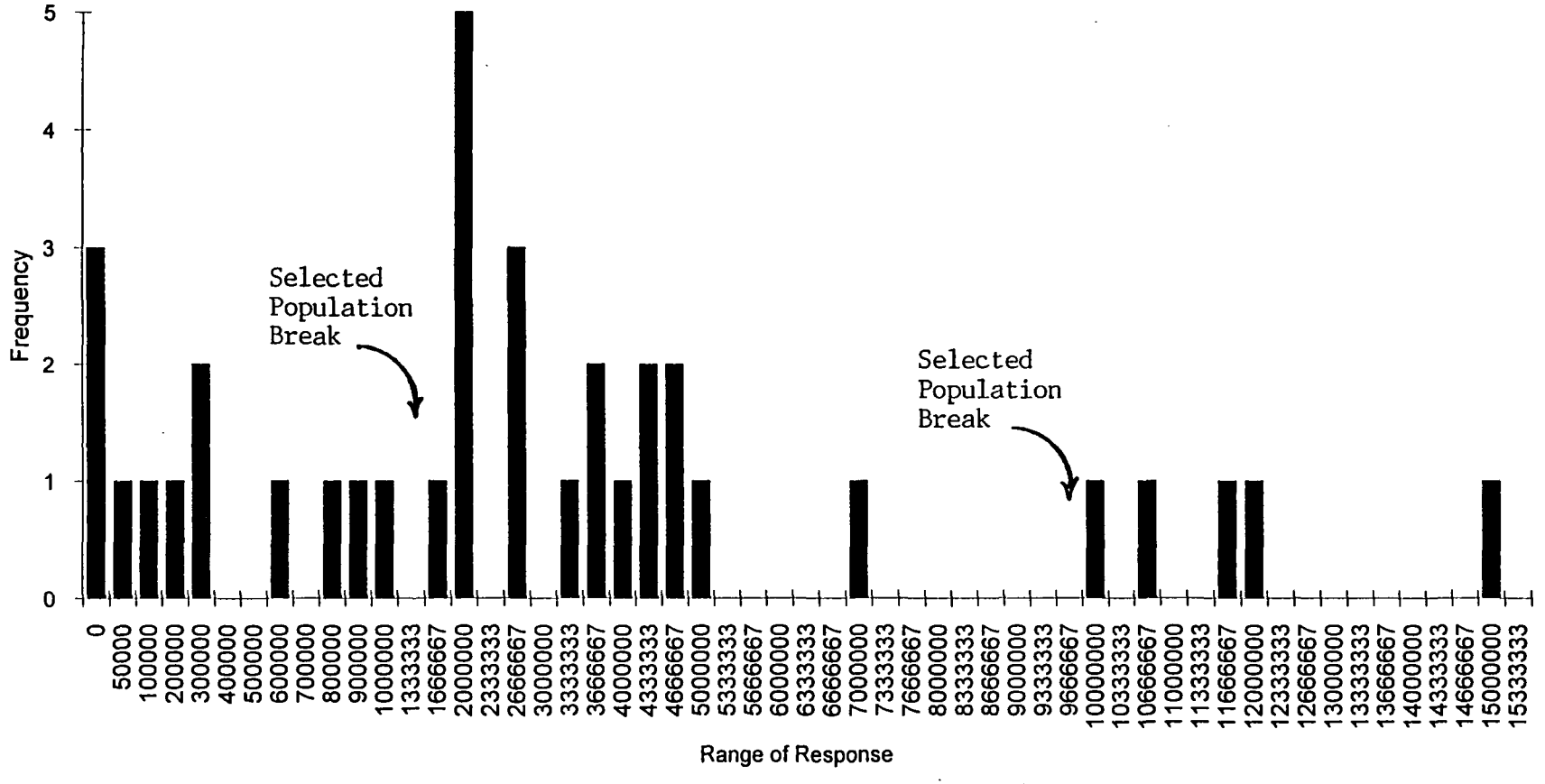
APPENDIX D
HISTOGRAMS OF DATA SETS


Histogram of Response to Total Aromatic Hydrocarbons
Selected Population Break
Selected Population Break
Frequency
0
1
2
3
0
50000
100000
300000
500000
700000
900000
1100000
1300000
1500000
1700000
1900000
2100000
2300000
2500000
2700000
2900000
3100000
3300000
3500000
3700000
3900000
4100000
4300000
4500000
4700000
4900000
5100000
5300000
5500000
5700000
5900000
6100000
6300000
Range of Response

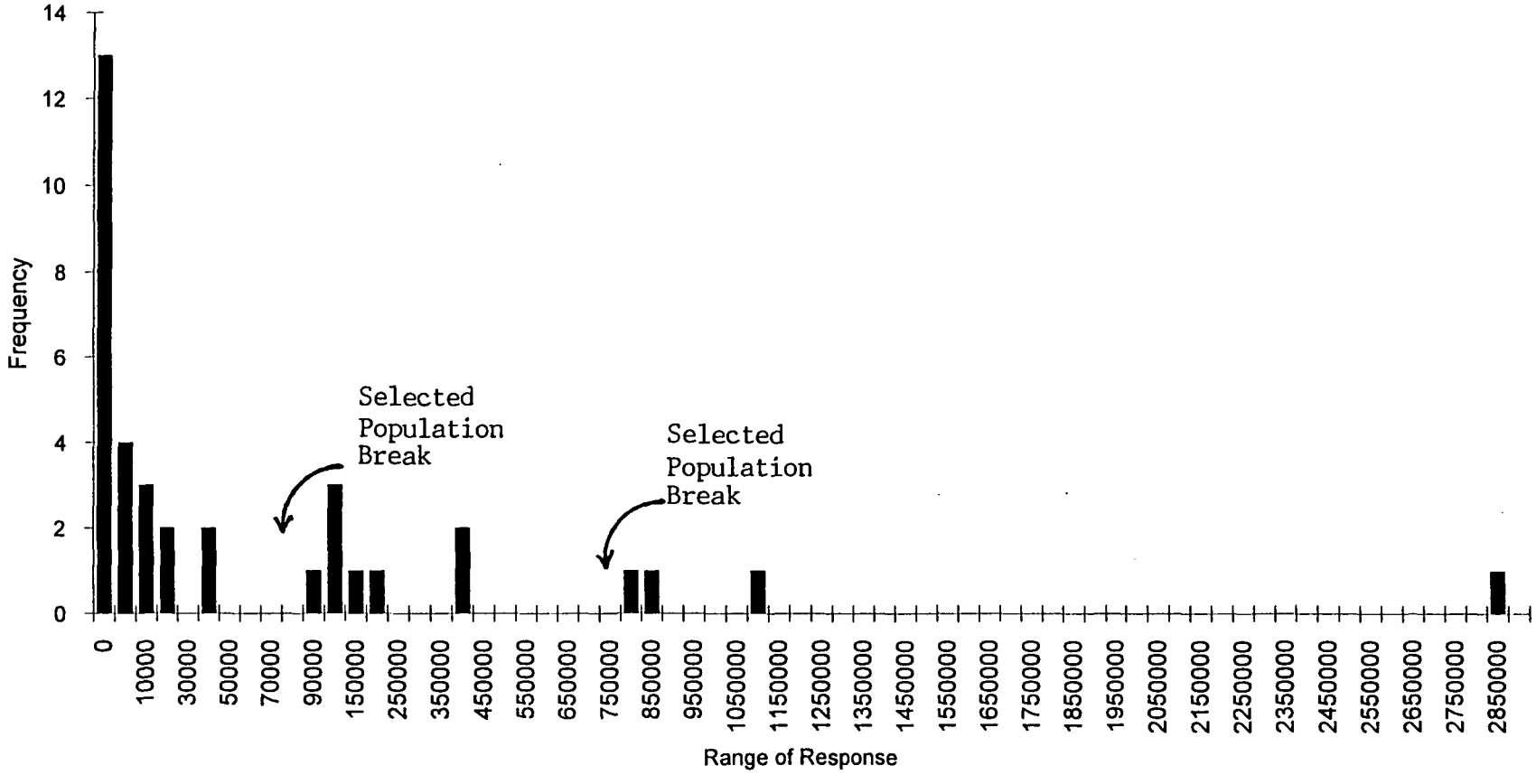
Histogram of Response to Total Semivolatile Hydrocarbons



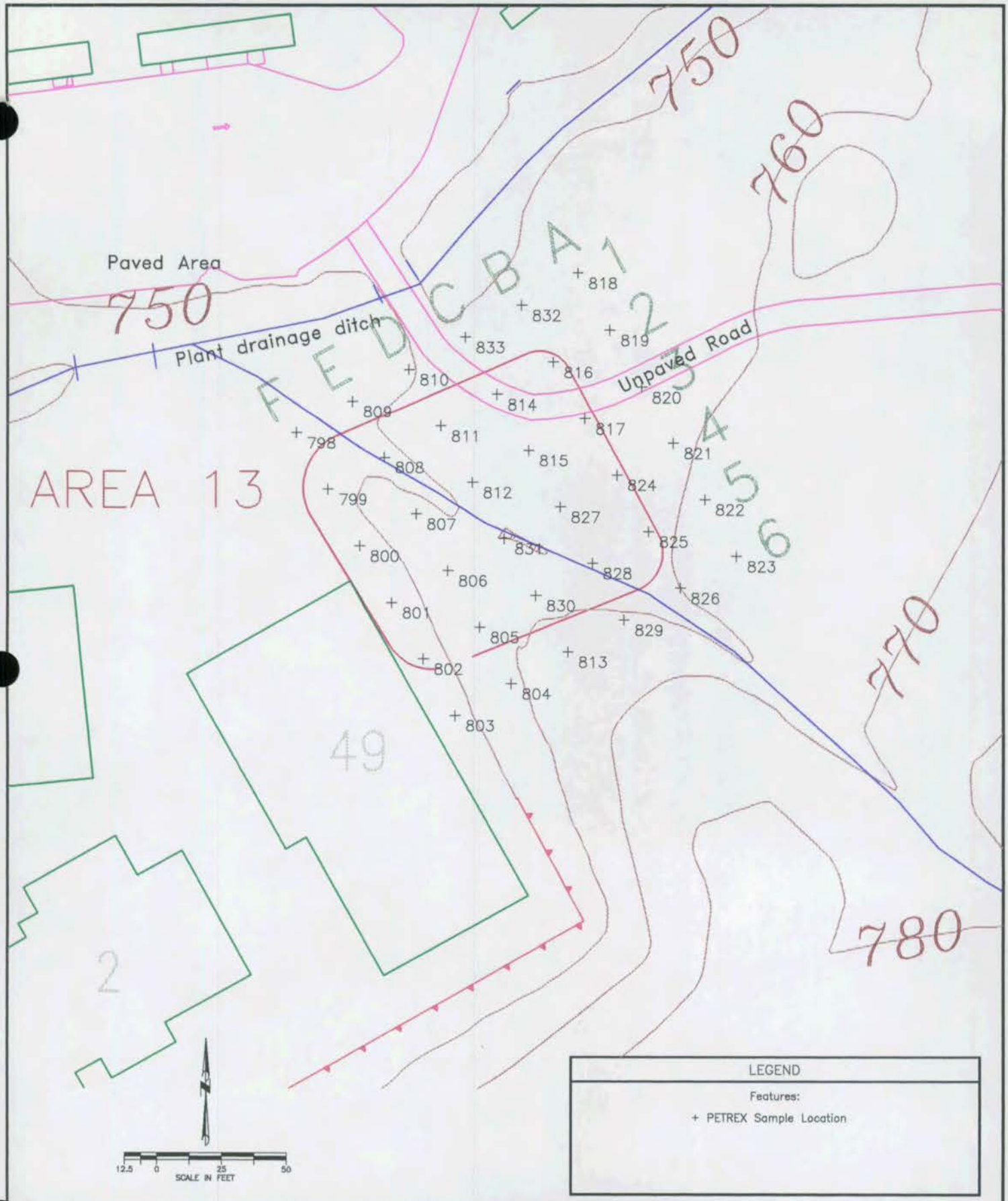
Histogram of Response to Total C5 to C11 Petroleum Hydrocarbons



Histogram of Response to Total Halogenated Hydrocarbons



APPENDIX E
PLATES 1 THROUGH 5



LEGEND

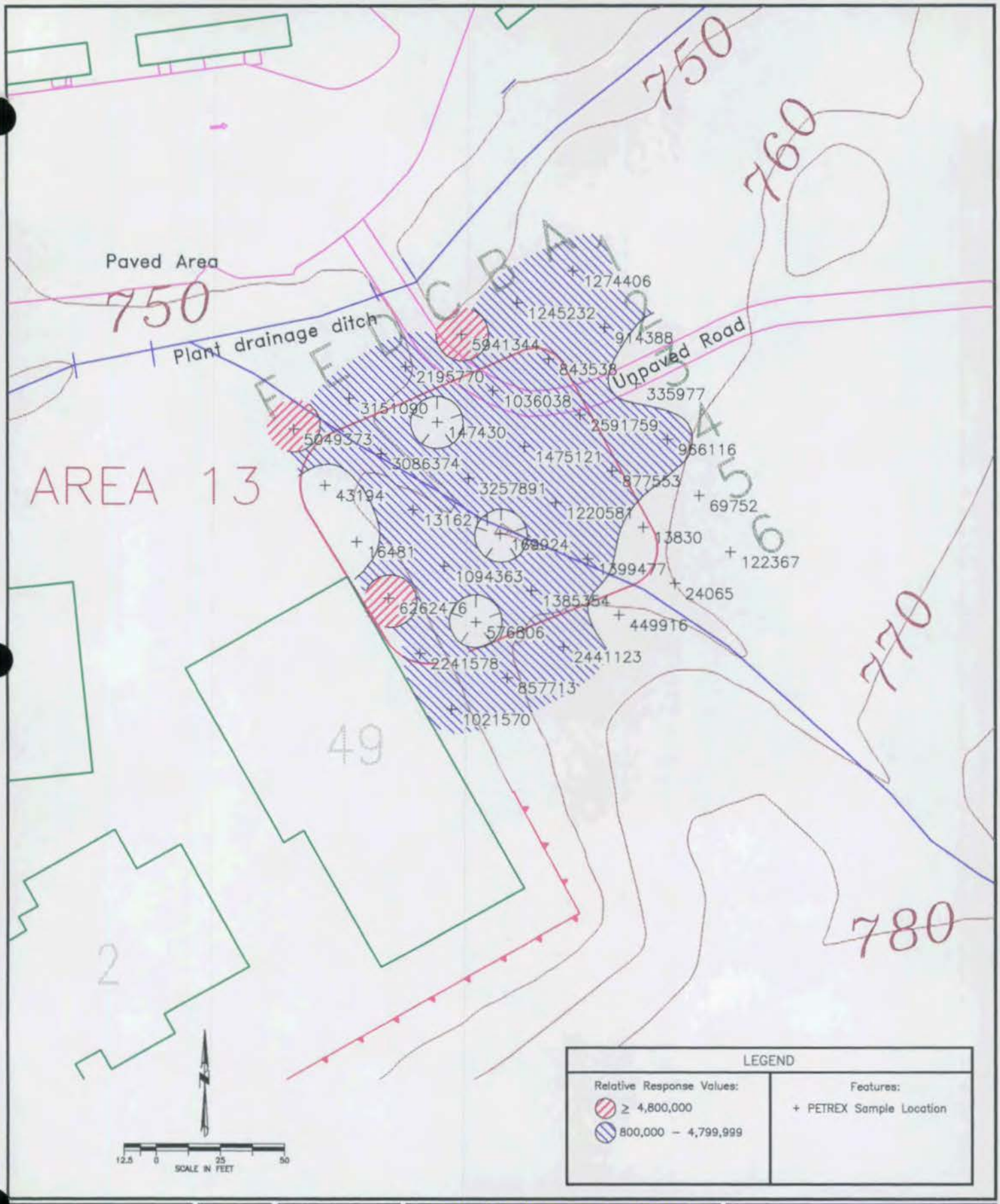
Features:

+ PETREX Sample Location

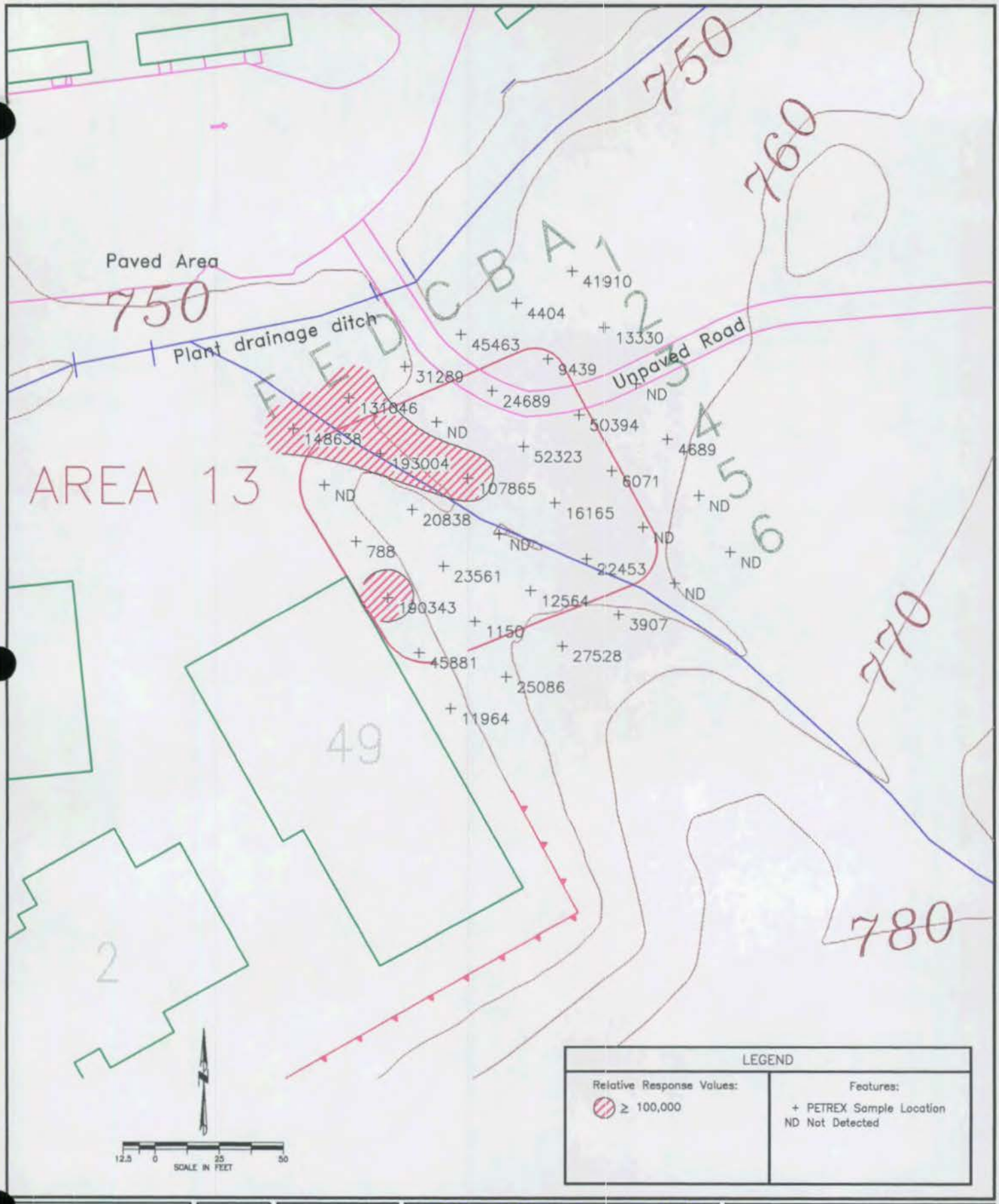
Prepared by: Northeast Research Institute LLC 605 Parfet Street Suite 100 Lakewood, Colorado 80215 (303) 238-0090	Drawn By: JCS Checked By: Project Manager: PCB	Project #: 2114E Date: October 10, 1994 File Name: 13-1.dwg	AOC-13/Operable Unit-5 USDOE Mound Facility Miamisburg, Ohio PETREX FINGERPRINT TECHNOLOGY®

Sample Locations

Plate 1



Prepared by: Northeast Research Institute LLC 605 Parfet Street Suite 100 Lakewood, Colorado 80215 (303) 238-0090	Drawn By: JCS Checked By: Project Manager: PCB	Project #: 2114E Date: October 10, 1994 File Name: 13-2.dwg	AOC-13/Operable Unit-5 USDOE Mound Facility Miamisburg, Ohio PETREX FINGERPRINT TECHNOLOGY®	Relative Response Total Aromatic Hydrocarbons Plate 2



Prepared by:
Northeast Research Institute LLC
605 Parfet Street
Suite 100
Lakewood, Colorado 80215
(303) 238-0090

Drawn By: JCS	Project #: 2114E	
Checked By:	Date: October 10, 1994	
Project Manager: PCB	File Name: 13-3.dwg	

AOC-13/Operable Unit-5

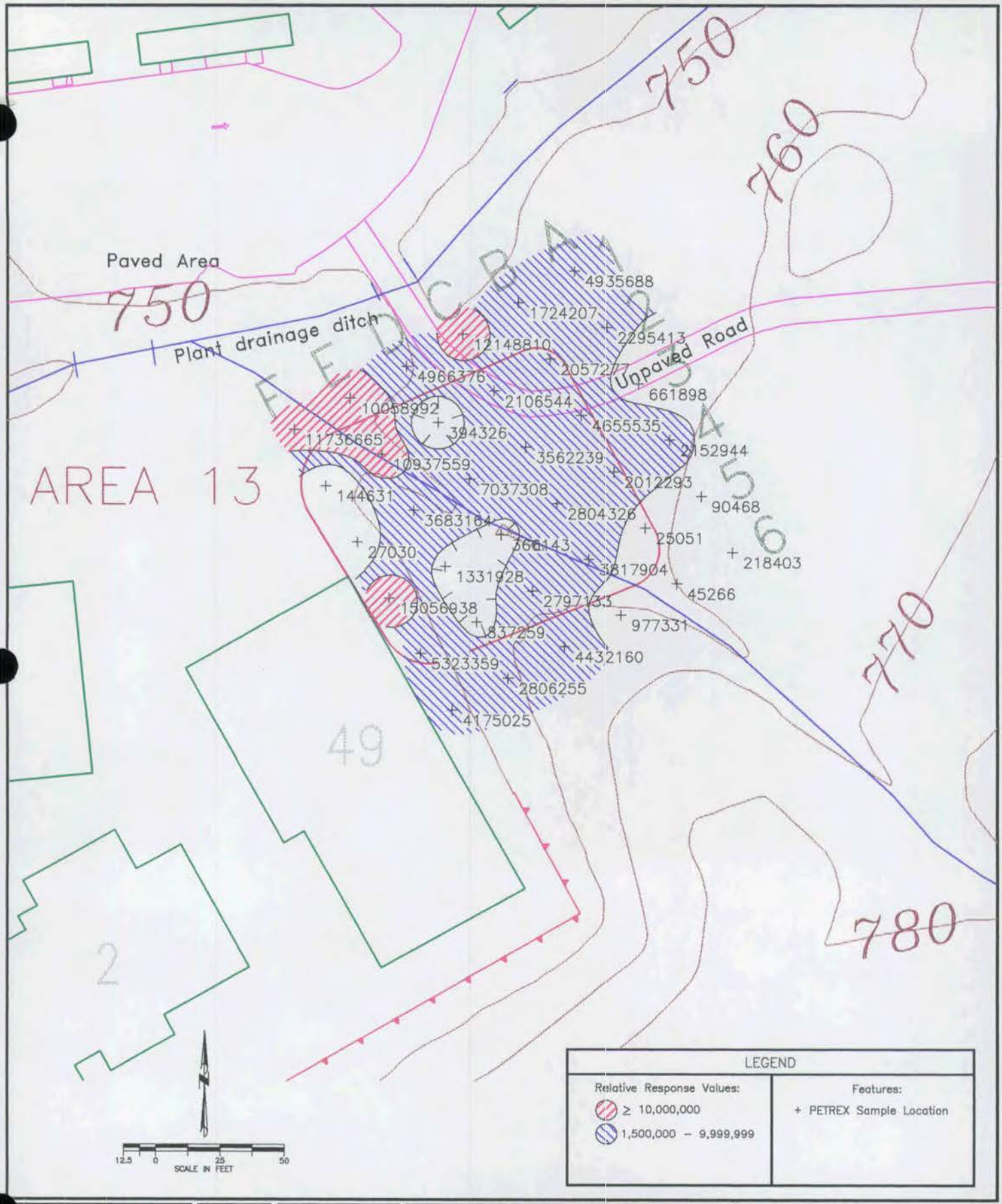
USDOE Mound Facility
Miamisburg, Ohio

PETREX FINGERPRINT TECHNOLOGY®

Relative Response

Total Semivolatile Hydrocarbons

Plate 3



Prepared by:
Northeast Research Institute LLC
605 Parfet Street
Suite 100
Lakewood, Colorado 80215
(303) 238-0090

Drawn By: JCS	Project #: 2114E
Checked By:	Date: October 10, 1994
Project Manager: PCB	File Name: 13-4.dwg

AOC-13/Operable Unit-5

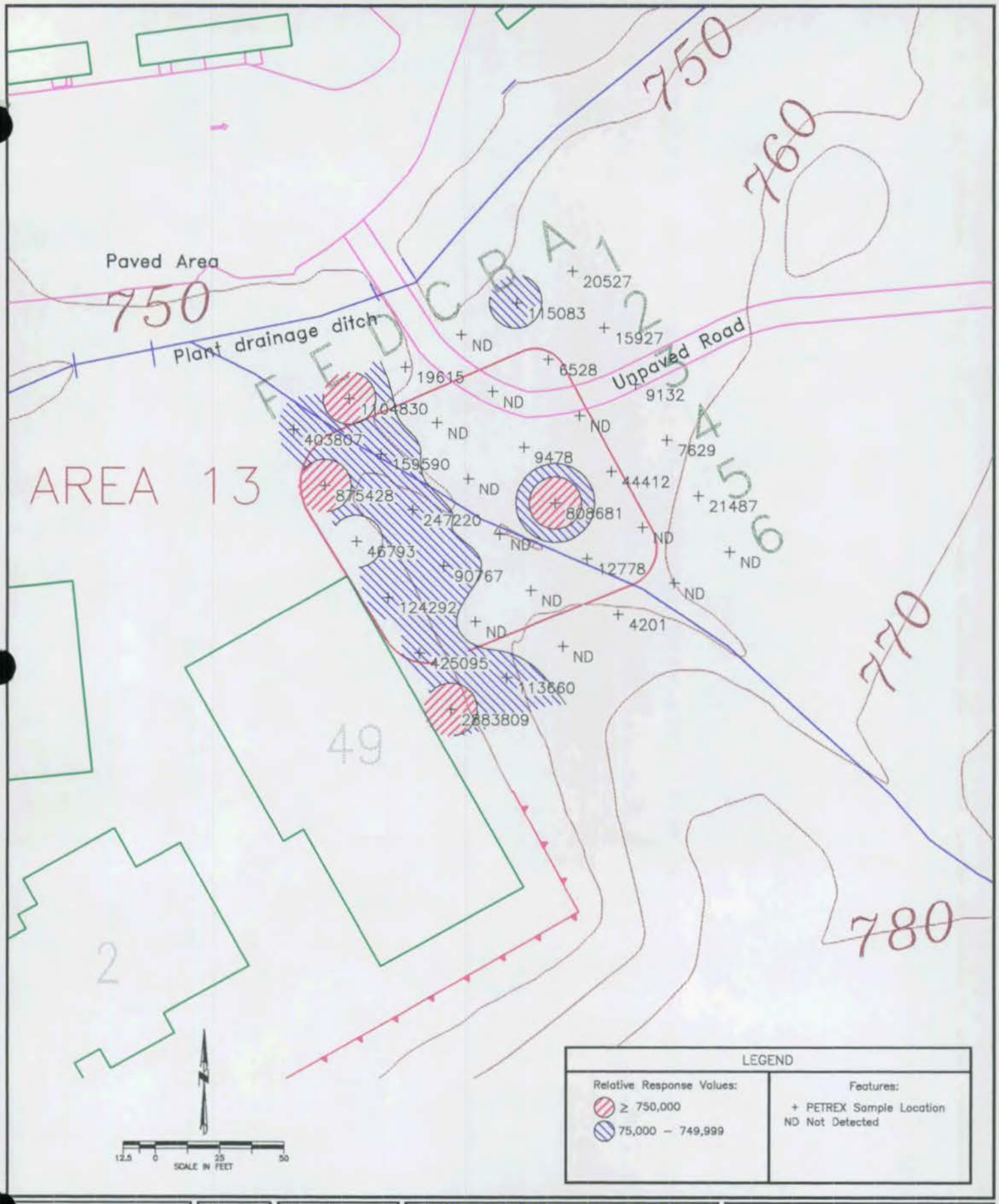
USDOE Mound Facility
Miamisburg, Ohio

PETREX FINGERPRINT TECHNOLOGY®

Relative Response

Total C5-C11
Petroleum Hydrocarbons

Plate 4



Prepared by:
Northeast Research Institute LLC
605 Parfet Street
Suite 100
Lakewood, Colorado 80215
(303) 238-0090

Drawn By: JCS	Project #: 2114E	
Checked By:	Date: October 10, 1994	
Project Manager: PCB	File Name: 13-5.dwg	

AOC-13/Operable Unit-5

USDOE Mound Facility
Miamisburg, Ohio

PETREX FINGERPRINT TECHNOLOGY®

Relative Response

Total Halogenated Hydrocarbons

Plate 5

APPENDIX F
SAMPLE SUBMITTAL & CHAIN OF CUSTODY FORMS

NERI

Sample Submittal Form

Project Number: 2114-9 Project Manager: PCB

Date Samples Received : 9-8-94 Date(s) Samples Analyzed : 10-7-94

Number of Tubes Submitted: 36+2

Number of Calibration Samples : 4

List: 806 (1806), 811 (1811), 826 (1826), 832 (1832)

True Dups 5 = 800 (2800), 809 (2809, 812 (2812)
831 (2831), 833 (2833)

Number of Travel Blanks : 2

List: 834/Bag 35 or 36, 835/Bag 37 or 38

Greatest Sample Number: 833

Total Number of Missing Samples: Ø

List:

Number of Other Samples Analyzed : 10

Total Number of Samples Analyzed : 48

Information Received (Maps, Notes, Etc.) : CCC + map to PCB

Sample Preparation and Analysis :

NERI, LLC.
605 Parfet St. Suite 100
Lakewood, CO. 80215
(303) 238-0090

PETREX ENVIRONMENTAL SURVEY
Chain of Custody Document

Job Number 2114E (Please refer to this job number with all correspondence and shipments)

FIELD DATA:
- Facility Mound Pland Area 13
- Location Miamisburg, OH
- Field Manager John Davis / Jolitta Humpert • Phone 513-429-2699

PYMS LAB DATA:

GC/MS LAB DATA:

Instrument

Operator

Phone

Sample Nos.

SAMPLE DATA:
- Number of Samples 36 (# 798-833)
- Date Shipped to Field Aug 1994
- Date Received in Field Aug 1994
- Condition as Recd. in Field Good
- Received By J. Humpert
- Date Shipped from Field 9/7/94
- Date Received from Field 9/8/94
- Conditions as Recd. in Lab Good

Number Received 38
Received By [illegible]

SAMPLE TRANSFER DATA:

Relinquished By:	Relinquished To:	Date:	Time:	Reason:
1. J. Humpert	NERI	9/7/94	1300	Analysis
2. [illegible]	CAS	9/8/94	10 AM	Analysis
3.				
4.				
5.				
6.				