EG&G MOUND-25-02-10-02--9511150015

Environmental Restoration Program

OPERABLE UNIT 5
OPERATIONAL AREA PHASE 1 INVESTIGATION
AREA SDB 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

FIELD LOGBOOKS

A.1 SITE MANAGER LOGBOOK
A.2 FIDLER LOGBOOK
A.3 SOIL GAS LOGBOOK

A.1

APPENDIX 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: 34890

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	"	"

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61	TASK TEAM ACTIV. SHEET; 7/8/94	91	TASK TEAM ACTIVITY SHEET; 8/2/94
62	" ; 7/11/94	92	" ; 8/3/94
63	" ; "	93	" ; 8/4/94
64	" ; 7/12/94	94	" ; 8/8/94
65	" ; 7/13/94	95	" ; 8/9/94
66	" ; "	96	" ; 8/10/94
67	" ; 7/14/94	97	" ; 8/11/94
68	" ; "	98	Task Team Activity Sheet; 8/15/94
69	" ; "	99	" ; 8/16/94
70	" ; 7/15/94	100	" ; 8/17/94
71	" ; 7/18/94	101	" ; 8/18/94
72	" ; "	102	" ; 8/22/94
73	" ; 7/19/94	103	" ; 8/23/94
74	" ; "	104	" ; 8/24/94
75	" ; 7/20/94	105	" ; 8/25/94
76	" ; "	106	Task Team Activity Sheet; 8/29/94
77	NEW PROP. GEOTECH. SAMPLE SUMMARY	107	" ; 8/30/94
78	"	108	" ; 8/31/94
79	"	109	" ; 9/1/94
80	NEW PROP DRILLING - MULTIPLE HOLE SUMMARY	110	" ; 9/6/94
81	Task Team Activity Sheet; 7/21/94	111	" ; 9/7/94
82	" ; 7/22/94	112	" ; 9/8/94
83	" ; 7/25/94	113	" ; 9/12/94
84	" ; "	114	" ; 9/13/94
85	" ; "	115	Task Team Activity Sheet 9/14/94
86	" ; 7/26/94	116	
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90	" ; 8/1/94	120	

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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	
248	" ; 5/24/94	278	
249	" ; 5/25/94	279	
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251	" ; 5/31/94	281	
252	" ; 6/1/94	282	
253	" ; 6/2/94	283	
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	
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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	SHAW, WEISS, DENNIPLES
ERIC SAYLOR	SAIC	ART TURPIN	
EVELYN MEAGHER	SAIC	JEFF KUNKA	
		JOHN HALEY	

Narrative (include time and location):

@ Mound Post 2 @ 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 2 (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 2. Surveyors leave site to cut pins in half

1200 Break for lunch.

1300 Return fm. 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. Logbook entries. Prep for tomorrows work.

1700 Last entry

Daily Weather Conditions: A.M. cool, clear, sl. breezy, 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 LOGB P. 2

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. McMahan onsite briefly. Says that 2-way radi and phones are completely unrestricted. Discuss work plans w/ SWD. They will work to the water tow 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 for 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: 07 00 PAGE 1 OF 1

Task Team Members:

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

Narrative (include time and location):

@ trlr @ 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 trlr doing paperwork.

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

1200 Break for lunch

1230 Continue clr 16W line clearing so SWD can put in points at rt angles.

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

1800 Back @ trlr (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 Mouren @ 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 Rad Rope.

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

1200 Break for lunch

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

NOTE: JD offsite @ 1630

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

LAST ENTRY

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

P.M. Same, warming to 60°F

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

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	↓	ALT TURPIN	↓
EVELYN MEACHER		JEFF KUNKA	

Narrative (include time and location):

0700 @ t/a. Conduct Tailgate Meeting. Discuss days work orders. JD works on SAW maintenance.
NOTE: J. Geisler on site @ 0800. Updates her map. JD tells her about HP mtg yesterday - she concurs.
0800 @ site. Work in area around 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/a. 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 SAYLOR	↓	ART TURPIN	↓
EVELYN MEAGHER		JEFF KUNKA	

Narrative (include time and location):

0700 @ site. (T/R). Load truck w/supplies

0730 Meet guards @ Bldg 23 by Area 13. SWD surveys around Bunker e

Note: @ 0900 JD leaves site to Attend New Prop. Extended Phase 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 perimeter 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 do 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, breezy 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 MEALHER	↓	CHRIS HALLEY	↓
SHARON KREITEMEYER	↓	BERNARD KIENOW	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 off site @ 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 13W, 6N 17W and points along 6N Line from 11W to 15W. 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. Morrison 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 Halley
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 KREITHMEYER	↓
CHRIS HALLEY		BERNARD KIENOW	SWD
		ART TURPIN	
		JEFF KUNICA	↓

Narrative (include time and location):

0700 w/ tlr. 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 w/ tlr. 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 agrees 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-6-13 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 15-20mph W

Recorded By [signature] QA Checked By [signature] 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 — Sharon Krietemeyer

Chris Holley

Evelyn Meagher-Hartzell

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 22 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 di~~ 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 stayed 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 MEACHER
SHARON KAUFFMEYER

Narrative (include time and location):

0700 @ H/R. Surveyors not here today. Conduct Tailgate Briefing. Assign work; BR & CH to A21, 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~~ JMD 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 1130

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~~ ABA 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 6

Task Team Members:

JOHN DAVIS	SAIC	SHARON KRUTHMEYER	SAIC
CHRIS HALLEY	↓	BERNARD KIENOW	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 off site @ 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 off site again. JD to A7 to continue staking. Note: K. McMahons out till 6/1

NOTE: Surveyors done work. Off site @ approx 1030A.

1700 All back @ trailer to clean up. Off site @ 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 [illegible]

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: N/A : 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 JVA

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:

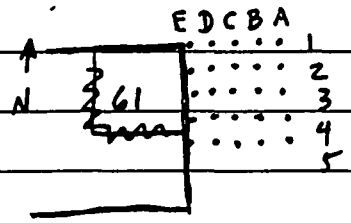
JOHN DAVIS
SHARON KLIETEMEYER
BRAD RICHARDSON
CLARIS HALLEY

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 Trask & 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. Marvin 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 HALLIEY

Narrative (include time and location):

0730 ONSITE. SOME delay due to some required MSIONed 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 emplacement. Conduct H&S 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 & 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'x100'.

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, HEN 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 LOGBOOK 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 cleaning 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. BR + 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 Wal-mart 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 A Brad Richardson QA Checked By

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 Klidjeez, Mark Howard, BOWSER-MORNER CREW
Chris Halley, Martha Cramer, Joletta Humpert
John Davis, Mike Monroe

Narrative (include time and location):

0730 ES, BH + JD on site.

0745 Rest of SAIC crew and Bowser-Morner attend Contractor Orientation and a H/R. 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 Klidjeez, Eric Saylor: HSA

Mark Howard, Mike Monroe: Soil Gas.

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

- Per phone call fm Tom Tank: OK to do dozer work on Pearmuter 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 Gm 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 Rentz place for hammer and generator (hammer too small), crew to Meijers for misc, and Davis to Hazco (misc supplies and to change DVRs). Still missing radios, phones and other items.

6/13/94 JMD

~~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 JHD 6/14/94, MIKE KLIDJECE, ERIC SAYLOR (HSA), MIKE MONROE, SUSAN ~~AUSTIN~~ ABSTON, MARTHA CRAMER (CABLE TOOL), BOWSER-MORNER CREW

JHD 8/24/94

Narrative (include time and location):

0700 all staff @ t/r. Conduct HGS 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 Guard 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 binder & 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 inline D&D 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 Crews 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. Morrison 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 DEVAULHN
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 w/ tlr. Conduct H&S briefing.
Crews gathering equipment.
Joyce Wisler w/ tlr. 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 w/ HSA. Crew pursing water for scan 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):

10/5 @ 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 ready to support remaining Regional Soil Drilling

1500. Tremie sand and bentonite completed. Alec Bray and Alan Spesard @ Cable tool Per A. Bray; 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 decontaminated and set up on B408.

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

SOIL GAS: hammer broken. Slow progress. All three samples 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 KLIDJIECZ, ERIC SAYLOR (HSA) CHRIS HALLEY, JEFF DEVAULHAS (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. Tank, 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

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

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

Task Team Members:

NA

Narrative (include time and location):

SURFACE. Cut off well. W397 - drilled to 36', poss H_2O @ 31-36 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. Morrisa 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 MEALHER (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 OVA readings. Run draeger 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 shouldnt 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 Laura M. Morrison 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 AMCA 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

JMD 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 Loder Jeff Devaughn (OAHSA) Susan Alston Martha Cramer (Cable tool) Mark Howard Mike Monroe (SL) Mike Klidzejs Evelyn Mercher (NPHSA) Craig Patterson Sally Brown (FIDLER)

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 preparing for activities.

0800-0900 JD chasing Mound IDM claims. Find K. McMahan. Load up 8 used (empty) Weston barrels in Bldg 91. Deliver to RIGS.

Cable tool continues drilling on W398. NPHSA set up on B405. OAHSA set up on 84.

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. Trask 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 tiedown 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 Fidgee - 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. Mahaffey 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):

steam 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 ZZ: 2 timers installed, 34 tubes on perimeter. Need urinalysis to get inside AZZ. 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 P.39

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) @ the. BS will be JG replacement next week. Discuss misc. items. Agree to drill A7B8, A7B9 on Mon.
- Call to Gene Wolfe Bowen-Morner. GW agrees to drill W400 w/ cable tool @ hourly prices. Set up B-M man (JIM) for drum staging today - will meet Denny Gault @ 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 rented 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 P40

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 nuisance hit.

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

1500 Alec Berry & Alan Spessard @ 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 P41

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, GREG LODER, JEFF DEVAUGHN (AHHS), MIKE KLIDZEJS, ERIC SAYLOR (NPHSA), MARK HOWARD, MIKE MONROE (SC), SUSAN ABSTON, MARTHA CRAMER (CABLE TOOL), SALLY BROWN, CRAIG PATTERSON (FIDCER), PAUL PARRISH, DAVE CUMMINGS (GEOP)

Narrative (include time and location):

0730. Start @ 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 (A7) drill only enough to collect last soil sample and water sample. If hole is showing true over hits (not methane) grout and abandon. If hole is clean, continue drilling to bedrock.
- Call R. Tusing to set up FIDCER security escort for tomorrow - 730-430. Meet @ Post 2.
- Call for Dave Keeter. Surveillance sched. for ~~tomorrow~~ 6/27 Thurs. Needs copy of OU5 SAP. Call Will Kegley 615-481-8738

1000 @ cable tool rig. Rig cant 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 wire 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. Marrison 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 intensive probe

1330 @ NP HSA B406. Current depth is 60'. No water encountered. Poss bedrock. Refusal @ 60' - wthrd shale? Trying to auger through it. Cant spl collected @ 45'. Question is what is total depth in this situation? Auger refusal @ 63'. Decide this is bedrock. Cant 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. Cremer onsite. Deliver bex 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 100ppm 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' - CESE GRAVEL, NO FINES.

1600 per Bill Stott; per Kathy Kaylor, OK to deliver t/e onsite. JD Mech truckdriver, positions 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
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.45

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 (ATHSA)
MIKE KLIDZETS ERIC SAYLOR (NDHSA) MARK HOWARD MIKE MONROE (SG)
SUSAN ABSTON MARTHA CRAMER (CARLE) SALLY BROWN CRAIG PATTERSON (FIDLER)
PAUL PARRISH DAVE CUMMINGS (GEOPHYS)

Narrative (include time and location):

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

Per T. Tank. "Delete" Field Change 05-NP-009 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: recemphasize safety glasses. Wants sign on HR (semi) w/ ph. numbers. Make sure exclusion zones are posted.

0830 Call fm A. Berry: 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. Berry: move B402 60' N toward fence. Confirm w/ A. Spessard.

0930 @ ATB3 w/ K. McMahan & A. Berry. 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 LOGE P. 46

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

TASK NO: 3489

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. Bray, & T. Tank, Abandon & grout.

- Then to B409. Moving back to orig. location. Ran to B400. Anticipate Bedrock @ 2-5 Water @ approx 25'. Per A. Bray, set the top of the well @ water level to avoid a dry hole during groundwater fluctuation. With A. Bray, 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 rig 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. Bray. Has 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 P.47

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:

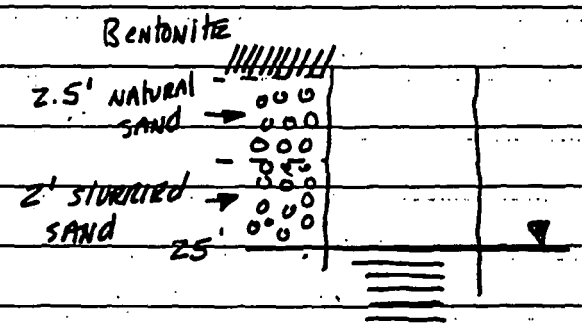
NA

Narrative (include time and location):

Drill new well in SDZ FIRST - midafternoon tomorrow.

1630 Call fm S. Abston. While setting the well @ 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 LOGBOOK 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 Humpert, George Wahl, Mike Klidzejz, Eric Saylor (NPIRA), Gary Loder, Jeff DeVaugn (A7HSA), Sally Brown, Craig Patterson (ADEQ), Susan Ashton, Martha Cramer (CAHLE), 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 P.49

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 sand "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 rand spls only @ 5' intvls w/ VOA spls @ OVA hits. Want to penetrate tank. Bill staff checking to see if lockout is necessary - loc. approx 15' for overhead lines. Actinium is in tank. B. Staff 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 LOGBOOK P. 50

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

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: TDD = 12' K. McMahan shut rig down @ 1600 due to high Rads - will analyze @ SSF

NP HSA: completed 403, 404. HSA done

NP Cable: TDD = 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 Humphrey George Wahl Greg Loder 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 ~~Dale Cummings~~ (GEOPH)
THD 6/30/94 George Wahl

Narrative (include time and location):

0730 all personnel onsite. Call Roy Mowen to arrange wipes to release NP ATV HSA rig. THD 6/30/94

- T. Tank arranges for A7HSA thru 7/12. Will also add cable tool in A7.

Per K. McMahan: SSF results for 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 RP 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. cool 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, were 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. Beary, A. Spreand, T. Thank @ OSE Bldg.

- July 20 issue NPDI FR
- Poss. necessity of areas.
- Add ≐ 4 soil gas around fuel tanks - A. Beary/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 Panzirsh reports mag/grad completed. To date EM31 and mag/grad CM 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. Elidzeja 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 (AZHISA) CHRIS HALLEY, ERIC STRYBR GEORGE (WAHI
SUSAN ABSTON MARTHA CRAMER (CABLE) (SED SPLG)

Narrative (include time and location):

0715 all personnel onsite. Conduct H&S Briefing.
J. Wissler 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 Schanke onsite for SAIC QA surveillance.
• M&TE QAAP 12.1 - not necessary. QAAPs are guidelines. QAPjP takes precedence. Get rid of M&TE usage log - no entries.
- Not recording lot numbers of calib. gases. on M&TE log.
- All pages numbered in logbooks. Last 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. Schanke to observe operations.
1030 to Bldg 61 w/ G. Schanke to observe FIDLER
1130 to NON-AOC w/ G. Schanke 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. Cramer; 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 at Spl Hlr 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 from G. Loder at WS 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 (AZHSA), Chris Halley, Eric Saylor (SED), Susan Abston, Martha Cremer (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. Cremer 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 P.57

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 Jolitta 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 lines 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. Heger : 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. Spissard, A. Barry, K. McMahan
- B-M offsite by COB 7/15 if they cant finish. & if Burlington can come on.
- B16 Actinium @ 20 pc/g.
- Will need Rad Worker II Tech (1-day) 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:

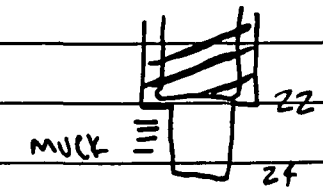
NA

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. Skelter 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, <1ppm 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, S01001; 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. Morrison 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

CMS Loder JEFF DeVAUGN (HSA A7)

JUAN ALVARADO

Narrative (include time and location):

0700 ON site. HSA CREW @ B14. LEL FROM yesterday (and OVA) has dissipated. Continue drilling.

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

Spend rest of day pumping well & collecting water spl. No pump available.

- Stake several more sed spls points in Ops area
- Complete tlr 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 HUMPERT MIKE MONROE GEORGE WAHL (SL)
GREG LODER JEFF DEVAUGEN (AZTECA) JUAN ALVARADO TONYA PFAH (SEED)
SUSAN ALSTON MARTIN CRAMER (CABLE) CRAIG PATTERSON SALLY BROWN (FIDUCIA)

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 dlrg.
- 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. Guard 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. Morton 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. Morrison 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 (AT HSA) Sally Brown Craig Patterson (FIDCER)
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 from G. Loder. @ B14, heaving sands @ 108. Difficulty keeping sand out of augers - no pilot bit in augers.
GL calls A. Beaty who says its ok just to auger to bedrock - no split-spoon sampling required.
CAM Entry

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

Recorded By [signature] QA Checked By Laura M. Monroe 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
Greg Loder Eric Taylor (A7 HSA)
Susan Abston Martha Cramer (CABLE)
Sally Brown Craig Patterson (FIDLER)
Mike Monroe George Wahl (SL)
Juan Alvarado

Narrative (include time and location):

0700 all personnel on site.
0830 Complete B14, TD @ 114.0 began 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 FIDLER
1000 Stake bldg PH holes w/ K. McMechan. 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. McMechan. 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 PM.

Recorded By [signature] QA Checked By Laura M. Monaghan
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 39'. Slow recharge.

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

Difficulty grouting - holes run out of grout due to without fine heavier 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

TAILGATE SAFETY MEETING LOG FORM — SITE MANAGER LOGBOOK P.2A

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: 0800

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 Taylor		
Kelly Meffert		
Bernard [illegible]		
Art Tuyn		
Jeff Tucker		

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 Kraft		
[illegible]		
[illegible]		
[illegible]		
Eric [illegible]		

JOHN H. DAVIS [signature]

SITE HEALTH & SAFETY OFFICER

TAILGATE SAFETY MEETING LOG FORM

SITE MANAGER LOGBOOK: P.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 Sayler		
[illegible]		
[illegible]		

Joni Davis

SITE HEALTH & SAFETY OFFICER

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 JOLETTA 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. Rad 1 training set for tomorrow
0930 call K. McMahon. Give him names for training: Also S. Willis for ACCESS:
J. Davis, S. Abston, M. Cramer (SAIC)
Dennis Sink D. Work (B-M)
depth @ 12'. high OVA (pegged) downhole. 35ppm a 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 B400.

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': 120ppm w/o methane probe, 85ppm w/ probe = 35ppm non-methane volatiles. Neg. benzene & vinyl chloride on drager tubes.

1330 Spoon retrieved @ 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. Tank, K. McMahon, 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 A7. per A. Spesard. Get copies of 3-dy supervised tang 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. Alston & M. Cremen develop, purge & sample B400.
Last Entry

Daily Weather Conditions: A.M. NA

P.M. NA

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

TASK TEAM ACTIVITY LOG SHEET

SITE MANAGER LOGB
P.70

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

TASK NO: 34896

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 WORK	↓
MARTHA CRAMER			

Narrative (include time and location):

at OSE bldg at 0900; J. DAVIS, S. ABSTON, M. CRAMER, D. WORK, D. SINK for Rad Worker II TRAINING

CAM 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. Abston, M. Cramer (CAHE)
J. Alvarado, C. Helley (SG)
C. Patterson (FIDLER)
J. Davis J. Humpal.

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 Crazy P.

- S. Abston & 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~~ JPT 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

SITE MANAGER 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 W39701 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. Abston 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. Abston 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 8.75

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 Cramer, 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, screened for soil gas implacement. Did not drill there. Hes checkg w/ HP to determine background. OU5 HSP says Action level is 3x background.
- G. Loder drillg B12
- S. Abston, M. Cramer 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 augers.
- also ok to just auger below 30' unless lithology changes.

1000 @ B402. Spls crew finishing samplg there.
1015 @ B12. Just completed. TD = 22' Moving to B10
1030 @ B10 w/ J. Geiska. 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 LOGBOOK 0.76

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. Wehl (SAIC)

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 P.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 areas 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

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 LOGBO
P. 80

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

TASK NO.: 348963

Date (mm/dd/yy): NA TIME: NA

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 GALL LOCKER GEORGE WAHL (AZHSA)
JUAN ALVARADO CHAS HALLEY (SC) SUSAN ABSTON MARTHA CRAMER (GW SPL)
SALLY BROWN CRAIG PATTERSON (FIDLER)

Narrative (include time and location):

0700 all personnel on site. Conduct H&S briefing.
AZHSA 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/ Skeiter Patterson. He wants to pour next Mon.
- Evaluate B-M invoice for AZHSA thru 6/30; their invoice agrees with our logbooks.

- AZHSA completes B11; TD @ 20.5 (bdrk); water sampled @ 12.5
- S. Abston 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

Joette Minand 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

P. 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 #: ~~8-267-1470~~ JPH 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 9:00am 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 brass pins 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. Morrison 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.
Last Entry

Daily Weather Conditions: A.M. NA

P.M. NA

Recorded By J. Humpert QA Checked By Laura M. Morales 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 (FED
Greg Loder Juan Alvarado (SG)
Susan Abston Martha Cremer (AT 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 putting 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. Morrison 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 LOGBOOK 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):

0700 ~~All site on personnel~~ ATD 7/27/94 All personnel on site. Conduct Hys Briefings.

- 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. Berry. Discuss lack of water @ 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 @ 19' No water. Drillers then deconnin rig and washing barrels out. DRILLING COMPLETE!

LAST ENTRY

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

P.M. Stormy 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 Abston

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. Abston work on completing logbooks.

M. Cramer calibrates TLC meter.

J. Minard, 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. McMahon, A. Spesard, 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. Spesard.
- 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. Morrison 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 Humpert Sally Brown Craig Patterson (FIDL
Juan Alvarado Chris Halley (SG)
Martha Cramer (SG)

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. Trank
1mt 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 P.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 Helley (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 of 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: P.244

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

TASK NO: 34896

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 & poison ivy
- cleaning equipment safety
- HP coverage; per J. Geisler, she'll check the area D D4D to see if its ok to go in.

Last Entry

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

[illegible]		
[illegible]		
[illegible]		
[illegible]		
[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 Saylor		
[illegible]		
[illegible]		
[illegible]		
[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: 348

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 [illegible]		

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 clothing PPE when cleaning.

NOTES:

Discuss
- chainsaw + muscle safety
- quadrumulting 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]		

[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: 348

DATE: 5-24-94 Su M (Tu) W Th F Sa TIME: 7:30

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 Kristenmeyer	
[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		
Chr D Holly		

SITE HEALTH & SAFETY OFFICER

TAILGATE SAFETY MEETING LOG FORM

SITE MANAGER LOGBOOK p. 750

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]		
Sharon Kriettemeyer		
[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 Kelp		
Cindy Mecklenborg		
Sharon Kirkeberg		
Bernard D Kunk		
Chris J Tilley		

SITE HEALTH & SAFETY OFFICER

TAILGATE SAFETY MEETING LOG FORM

SITE MANAGER LOGBO[illegible]
P. 252

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

TASK NO: 348[illegible]

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 Mengle 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 in AREA 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 Oxley		
[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
  Light Entry

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

Brad Richards		
Wm D Hall		

SITE HEALTH & SAFETY OFFICER

TAILGATE SAFETY MEETING LOG FORM SITE MANAGER LOGB
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

LATE 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 Taylor		
[illegible]		
[illegible]		

SITE HEALTH & SAFETY OFFICER

TAILGATE SAFETY MEETING LOG FORM SITE MANAGER LOG P. 258

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

DATE: 6/13/94 Su/M Tu W Th F Sa TIME: 07:3

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.
- JSAs 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)

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 Decon Pad. Rigs must go around.

LAST ENTRY

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

[illegible]	[illegible]	
[illegible]	Mark T. [illegible]	
Eric [illegible]	[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: 3489

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 Stegner	
[illegible]	[illegible]	
Stan C [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, hardhats in exclusion zones, construction zones

NOTES:

Discussed

- lightening alerts. Mound HP passes the word.
- 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)

Mandy Cramer	Juletta Dumpert	G C Patterson
Susan L Udow	[illegible]	[illegible]
Sally A Brown	Tom Rayburn	[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: 348

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, hardhats 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]	
Yantha Cramer	[illegible]	
[illegible]	Sally A Brown	
Eric Taylor		

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, signs 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	[illegible]
Susan J. Gilbert	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	Sally A. Brown	Mark T. [illegible]
[illegible]	Jolitta Humpert	
[illegible]	Steve C. Bell	

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 Saylor	[illegible]	
[illegible]	George Wahl	
Susan J. Alston	[illegible]	
[illegible]	Juliette Hunyport	
[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 hardhat 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)

Sally A Brown	Eric Saylor	
[illegible]	Joletta Humpert	
[illegible]		
Marbo L Cross		
Susan L Alden		
[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 Brown	Jeff DeLaughter	[illegible]
[illegible]	George Wahl	[illegible]
Susan I Alston	[illegible]	[illegible]
Mountaz Cramer	[illegible]	Joletta Humphrey
[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 stop work 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, headhats as required

NOTES:

Discussed

- drilling schedule to finish by 7/12
- and 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	Chris D Hall	
George Wahl	Martha L Cravens	
[illegible]	Juletta Thompson	
[illegible]	[illegible]	
[illegible]		
Sally A Brown		

[illegible]

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, handwarts as required.

NOTES: Discussed

- weather conditions
- site entry

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

Guy Patterson	Juletta Hunnicutt	
Susan L Alston	George Wahl	
Martin Cramer	Steve C. Bell	
Sally A Brown	Skeeter Patterson	
[illegible]	[illegible]	
[illegible]		

SITE HEALTH & SAFETY OFFICER

TAILGATE SAFETY MEETING LOG FORM SITE MANAGER LOGBO
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: handwants 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: glasses, boots, hardhats 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 Wahl		
[illegible]		
Guy Patterson		
Susan J Alexander		

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]	Juletta Humpert	
George Wahl	George Wahl	
[illegible]		
Sally Brown		
Susan L Alden		
Marsha L 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, hardhats 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]		
[illegible]		
[illegible]		

SITE HEALTH & SAFETY OFFICER

TAILGATE SAFETY MEETING LOG FORM — SITE MANAGER LOGBOOK P.276

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 — TASK NO: 3485

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]		
Juletta Humpert		
[illegible]		
SB [illegible] Sally A Brown		
[illegible]		
Marla Z Crane		

[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

APPENDIX A.2

FIDLER LOGBOOK

EG&G MOUND

OUS OPS AREA

PHASE I

FIDLER

LOGBOOK

AOC 3

~~AOC SDB~~

AOC FIDLER SURVEY LOG BOOK

AOC 3

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: 7-20-94
END DATE:

TABLE OF CONTENTS FIDLER

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

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15		45	AOC3 Measurement Data - 7-20-94 7-26-94
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17		47	AOC3 " " - 8-1-94 8-2-94
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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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133		163	
[illegible]		164	
135		165	
136		166	
137		167	AOC SDB Activity Log Sheet - 7/20/94
138		168	AOC SDB " " " - 8/1/94
139		169	
140		170	No Entry
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[illegible]		178	
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AOC 3

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

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187		217	AC SDB Measurement Data - 7-20-94 8-1-94
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AOC 3

TASK TEAM ACTIVITY LOG SHEET — FIDLER

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

Date (mm/dd/yy): 7-20-94 TIME: 13 : 30 PAGE 1 OF 1

Task Team Members:

Sally Brown
Craig Patterson

Numerical values recorded for CH2 and Out Channels were not multiplied by 1000. Calculations included a factor of 1000.

Narrative (include time and location):

1250 - NEAR A22 STD BKGD CHK $\bar{x}$=172 sd=13.11 3xsd=39.33

CH1 - 170, 150, 190, 150, 200 - 860 ÷5 = 172.0 ×3 ~~51.6 + 172.0 = 223.6~~ 211.33

CH2 - 9.5, 9.5, 9.5, 9.5, 9.0 = Kcpm 47.0 ÷5 = 9.4 ×3 ~~12.82 + 9.4 = 12.77~~ $\bar{x}$=9.4 sd=3.06 3xsd=9.19 ~~18.59~~

OUT - 10.0, 10.0, 10.0, 10.5, 10.5 = Kcpm 51.0 ÷5 = 10.2 ×3 ~~5.06 + 10.2 = 13.26~~ sd=3.19 3xsd=9.58 + 10.2 = ~~19.78~~

CH1 - Pu^{238} - 14,500 Th - 950

CH2 - Pu^{238} - 5.5 Th - 13.5

See pg. 169

1325 - START READINGS. WOODED AREA SO ONLY OUT CHAN. READINGS ARE TAKEN AT THE STAKE. ALSO A WALK IS DONE BETWEEN STAKES.

1420 - I 10 - Roy ~~Mou~~ Mohen stops by to inform us of high readings at I 10, I 9, & I 8. Also tells us that most high readings won't be picked up by the out channel for Pu^{238}.

I 10 - CH1 - 220, CH2 - 7.5, Out - 8.5

~~I 11~~ I9 - CH1 - 600, CH2 - 7.0, Out - ~~10.0~~ 9.0

I 8 - Out - 7.5, CH2 - 6.0 CH1 - 260

1450 - Go to trailer to discuss problem w/ John Davis.

1520 - Go back to ~~SDB~~ AREA 3 & take readings. Very careful to go slowly & very close to ground.

1700 - Go to trailer. Work on Log Books.

Daily Weather Conditions: A.M.

P.M. Very hot, humid (very), very sunny

Recorded By Sally A Brown QA Checked By Paul Rich

TASK TEAM ACTIVITY LOG SHEET — FIDLER

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

Date (mm/dd/yy): 8/1/94 TIME: 14 : 30 PAGE 1 OF 2 SB 9/13/94

Task Team Members:

Sally Brown

Craig Patterson

Narrative (include time and location):

STD BKGD DATA TAKEN AT 8:49 NEAR ~~ADC7~~ ADC 3 C-16 CP 9/13/94

CH1 - 110, 115, 110, 125, 140 - 600 ÷5 = 120 ×3 = ~~36.0 + 156.0~~ SH 4/28/95

Pu^{238} - 20,000 Th - 3500 sd = 10.95 3×sd = 32.86 + 120 = 152.86

CH2 - 8.0, 7.5, 8.0, 8.0, 8.0 - 7.9 ×3 ~~2.37 + 7.9 = 10.27~~ SH 4/28/95 See pg 169

Pu^{238} - 6.0 Th - 43.0 sd = 2.81 3×sd = 8.43 + 7.9 = 16.33 SH 5/12/95

Out - 10.0, 9.0, 10.0, 9.5, 9.5 - 9.6 ×3 ~~2.88 + 9.6 = 12.48~~ SH 4/28/95 See pg. 169

sd = 3.09 3×sd = 9.27 + 9.6 = 18.87 SH 5/12/95

14:30 - DEFINE HOT SPOT

NEEDED to Define I-10, 9, 8 - did not define before because were needed to discuss problems w/ John D.

HOT SPOTS Defined -

~~Inner~~ 2ft North of I10

extends along river bed to 2ft north of I7

about 2ft wide towards I7

between I7 & I8

between I8 & I9 - 3ft wide

" " I9 & I10 - 4ft wide

hot Spot - 2ft South of I9

CH1 - 490 CH2 - 8.5 OUT - 12.0

EPICENTER AT 9.2

15:00 - START TAKING OTHER READINGS

Daily Weather Conditions: A.M.

P.M. very hot, very sunny, very humid, very unbearable

Recorded By Sally J Brown QA Checked By Paul Pinsky

TASK TEAM ACTIVITY LOG SHEET

FIDLER
ADC SDB

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

TASK NO.: 34896

Date (mm/dd/yy): 8/1/94 TIME: 15 : 00 PAGE 2 OF 2

Task Team Members:

SALLY BROWN

CRAIG PATTERSON

Narrative (include time and location):

15:05 - HARD TO CLIMB UP & DOWN STEEP GRAVEL HILL AT THE BACK OF THE SDB AREA. TAKES UP MUCH TIME. NOT ABLE TO SERPENTINE MOST BLOCKS DUE TO HILL OR THEY ARE LOCATED IN THE BASINS. TAKE READINGS IN REACHABLE AREAS AND AT CORNERS OF THE BLOCK.

SB 17:20 - FINISH THE SDB. GO IN FOR THE DAY.

FOR 7-20-94:

CH1 CC = 211.33 cpm

CH2 CC: $\bar{x}$ = 9400 sd. = 96.95

3sd = 290.85 + 9400 = 9,691 cpm

≈ 9.7 Kcpm

Out CC: $\bar{x}$ = 10,200 sd = 101 3 sd = 303

303 + 10200 = 10,503 cpm ≈ 10.5 Kcpm

FOR 8/1/94:

CH1 CC = 152.86 cpm

CH2 CC: $\bar{x}$ = 7900 sd. = 89 3sd = 267

267 + 7900 = 8167 Kpm ≈ 8.1 Kcpm

Out CC: $\bar{x}$ = 9600 sd = 98 3sd = 294

294 + 9600 = 9,894 cpm ≈ 9.9 Kcpm

Daily Weather Conditions: A.M.

P.M. HOT, SUNNY, HUMID

Recorded By Sally Brown QA Checked By Paul Panish

FIDLER MEASUREMENT DATA — FIDLER AOC SDB

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

FACILITY CODE: MND 03 — LOGGER CODE: SAIC
LOG DATE: 7/20/94 — 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: 1.22 — BATTERY: 95%

NaI PROBE:
MODEL NO.: 3713 — SERIAL NO.: B586N — CALIBRATION DATE: 6/15/94
CHECK SOURCE: Checked against FIDLER 2 (Model No. 3400)
ISOTOPE: Pu-238 — ACTIVITY: 0.5 μcuries ~~DPM~~ JPH 10/12/94 — SERIAL NO.: 31

SOURCE CHECK:
METER READING: 18600 — COUNTS/ 1 — MIN = 18600 CPM
(WITHIN ± 3 STANDARD DEVIATIONS? (Y/N) Y

CONTAMINATION CRITERIA: OUT 10.5 Kcpm ~~19.78~~ JH 5/12/95 ~~+3.26~~ — CH1 211.33 ~~223.6~~ — CH2 ~~18.57~~ JH 5/12/95 ~~12.22~~ JH 4/28/95 9.7 Kcpm

COMMENTS: STD BKGD DATA - pg 167

FACILITY CODE: MND 03 — LOGGER CODE: SAIC
LOG DATE: 8/1/94 — FIELD REP: Sally Brown
ACCEPTANCE CODE: A — FIDLER NO.: 3

RATEMETER/SCALER:
MODEL NO.: 3228 — SERIAL NO.: A701G — CALIBRATION DATE: 6/1/94
WINDOW: out — THRESHOLD: NA — VOLTAGE: 1.41 — BATTERY: 100%

NaI PROBE:
MODEL NO.: 3432 — SERIAL NO.: A736P — CALIBRATION DATE: 6/1/94
CHECK SOURCE:
ISOTOPE: Pu-238 — ACTIVITY: 0.5 μcuries ~~DPM~~ JPH 9/8/94 — SERIAL NO.: 29

SOURCE CHECK:
METER READING: 21000 — COUNTS/ 1 — MIN = 21000 CPM
(WITHIN ± 3 STANDARD DEVIATIONS? (Y/N) Y

CONTAMINATION CRITERIA: OUT 9.9 Kcpm ~~18.87~~ JH 5/12/95 ~~+2.48~~ — CH1 152.86 ~~156.0~~ — CH2 8.1 Kcpm ~~16.33~~ JH 5/12/95 ~~10.27~~ JH 4/28/95

COMMENTS: STD BKGD DATA - pg 168

ACCEPTANCE CODES: A - ACCEPTABLE, R - RECONNAISSANCE, U - UNACCEPTABLE, N - NOT DETERMINED

COMPLETE BOLDED DATA FOR ENTRY INTO TIMS

Sally Brown 7/20/94 — FORM COMPLETED BY / DATE 8/1/94

Paul Popowich 1/8/94 — TECHNICAL REVIEWER / DATE

FIDLER SURVEY

AOC SDB

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
SDBA01								NOT ON MAP
SDBA01-01								
SDBA01-02								
SDBA01-03								
SDBA01-04								
SDBB01								NOT ON MAP
SDBB01-01								
SDBB01-02								
SDBB01-03								
SDBB01-04								
SDBC01								NOT ON MAP
SDBC01-01								
SDBC01-02								
SDBC01-03								
SDBC01-04								
SDBD01								NOT ON MAP
SDBD01-01								
SDBD01-02								
SDBD01-03								
SDBD01-04								
SDBE01								NOT ON MAP
SDBE01-01								
SDBE01-02								
SDBE01-03								
SDBE01-04								
SDBF01								NOT ON MAP
SDBF01-01								
SDBF01-02								
SDBF01-03								
SDBF01-04								

pm 8/25/94

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FIDLER SURVEY

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

ADC SDB

PROJECT NO.: 34896

LOCATION GRID ID	DATE OF SURVEY	FIDLER No.	OUTCHANNEL READING (X1000)	AUDIBLE (Y/N)	CONTAMINATED? Y/N	CONTAMINATED? SECTOR	REF	COMMENTS
SDBG01	8/1/94 JMD 10/7/94							
SDBG01-01	~~8/2/94~~	3	5.5	N	N	NA	NA	
SDBG01-02	↓	↓	5.5	↓	↓	↓	↓	
SDBG01-03	↓	↓	5.5	↓	↓	↓	↓	
SDBG01-04	↓	↓	5.5	↓	↓	↓	↓	
SDBH01	8/1/94 JMD 10/7/94							SB 8-2-94 ~~under tool shed~~
SDBH01-01	~~8/2/94~~	3	5.5	N	N	NA	NA	
SDBH01-02	↓	↓	5.5	↓	↓	↓	↓	
SDBH01-03	↓	↓	5.5	↓	↓	↓	↓	
SDBH01-04	↓	↓	5.5	↓	↓	↓	↓	
SDBI01								under tool shed
SDBI01-01			PMP					
SDBI01-02			8/25/94					
SDBI01-03								
SDBI01-04								
SDBJ01	7/20/94	1	6.0	N	N	NA	NA	
SDBJ01-01								
SDBJ01-02			PMP					
SDBJ01-03			8/25/94					
SDBJ01-04								
SDBK01	7-20-94	1	7.5	N	N	NA	NA	
SDBA02								NOT ON MAP
SDBA02-01			PMP					
SDBA02-02			8/25/94					
SDBA02-03								
SDBA02-04								
SDBB02								NOT ON MAP
SDBB02-01								

FIDLER SURVEY

ADC SDB

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
SDBB02-02								
SDBB02-03								
SDBB02-04								
SDBC02								NOT ON MAP
SDBC02-01								
SDBC02-02								
SDBC02-03								
SDBC02-04								
SDBD02								NOT ON MAP
SDBD02-01								
SDBD02-02								
SDBD02-03			8/25/94					
SDBD02-04								
SDBE02								NOT ON MAP
SDBE02-01								
SDBE02-02								
SDBE02-03								
SDBE02-04								
SDBF02								IN WASTE TREATMT WR
SDBF02-01								
SDBF02-02								
SDBF02-03								
SDBF02-04								
SDBG02	8/1/94	10/7/94						
SDBG02-01	~~8/2/94~~	3	6.0	N	N	NA	NA	
SDBG02-02	↓	↓	6.5	↓	↓	↓	↓	
SDBG02-03	↓	↓	6.5	↓	↓	↓	↓	
SDBG02-04	↓	↓	5.5	↓	↓	↓	↓	
SDBH02								

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FIDLER SURVEY

AOC SDB

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
SDBH02-01	~~8/2/94~~	3	5.5	N	N	NA	NA	
SDBH02-02	8/1/94 TMD 10/7/94	↓	5.5	↓	↓	↓	↓	
SDBH02-03		↓	5.5	↓	↓	↓	↓	
SDBH02-04	↓	↓	5.5	↓	↓	↓	↓	
SDBI02	7/20/94	1	4.5	N	N	NA	NA	
SDBI02-01								
SDBI02-02			TMD					
SDBI02-03			8/25/94					
SDBI02-04								
SDBJ02	7/20/94	1	6.0	N	N	NA	NA	
SDBJ02-01								
SDBJ02-02			TMD					
SDBJ02-03			8/25/94					
SDBJ02-04								
SDBK02	7-20-94	1	5.5	N	N	NA	NA	
SDBA03								NOT ON MAP
SDBA03-01								
SDBA03-02			TMD					
SDBA03-03			8/25/94					
SDBA03-04								
SDBB03								NOT ON MAP
SDBB03-01								
SDBB03-02								
SDBB03-03								
SDBB03-04								
	8/1/94 TMD 10/7/94							
SDBC03	~~8/2/94~~	3	4.5	N	N	NA	NA	NO GRID
SDBC03-01								
SDBC03-02								
SDBC03-03								

FIDLER SURVEY

ADC SDB

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
SDBC03-04								
SDBD03								IN AERATION BASIN
SDBD03-01								
SDBD03-02								
SDBD03-03								
SDBD03-04								
SDBE03			8/25/94 DM					IN AERATION BASIN
SDBE03-01								
SDBE03-02								
SDBE03-03								
SDBE03-04								
SDBF03								IN AERATION BASIN
SDBF03-01								
SDBF03-02								
SDBF03-03								
SDBF03-04								
SDBG03								
SDBG03-01	8/1/94	3	5.5	N	N	NA	NA	
SDBG03-02	↓	↓	SB 8/1/94 ~~5.5~~ 4.5	↓	N	↓	↓	
SDBG03-03	↓	↓	NA	↓	NA	↓	↓	
SDBG03-04	↓	↓	5.5	↓	N	↓	↓	
SDBH03	8/1/94	3	SB 8/1/94 ~~5.5~~	N	N	NA	NA	
SDBH03-01	↓	↓	5.5	↓	↓	↓	↓	
SDBH03-02	↓	↓	5.5	↓	↓	↓	↓	
SDBH03-03	↓	↓	5.5	↓	↓	↓	↓	
SDBH03-04	↓	↓	5.5	↓	↓	↓	↓	
SDBI03	7/20/94	1	4.0	N	N	NA	NA	
SDBI03-01	8/1/94	3	5.5	N	N	NA	↓	
SDBI03-02	↓	↓	5.5	↓	↓	↓	NA	

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FIDLER SURVEY

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

LOCATION GRID ID	DATE OF SURVEY	FIDLER No.	OUTCHANNEL READING (X1000)	AUDIBLE (Y/N)	CONTAMINATED? Y/N	CONTAMINATED? SECTOR	REF	COMMENTS
SDBI03-03	8/1/94	3	5.5	N	N	NA	NA	
SDBI03-04	↓	↓	5.5	↓	↓	↓	↓	
SDBJ03	7/20/94	1	5.0	N	N	NA	NA	
SDBJ03-01								
SDBJ03-02			TMD					
SDBJ03-03			8/25/94					
SDBJ03-04								
SDBK03	7-20-94	SB 7-20-94 1	6.5	N	N	NA	NA	
SDBA04								NOT ON MAP
SDBA04-01								
SDBA04-02								
SDBA04-03			TMD					
SDBA04-04			8/25/94					
SDBB04								NOT ON MAP
SDBB04-01								
SDBB04-02								
SDBB04-03								
SDBB04-04								
	8/1/94 TMD	10/7/94						
SDBC04	8/2/94	3	5.0	N	N	NA	NA	NO GRID
SDBC04-01								
SDBC04-02								
SDBC04-03			TMD					
SDBC04-04			8/25/94					
SDBD04								
SDBD04-01	8/1/94	3	4.5	N	N	NA	NA	
SDBD04-02	↓	↓	5.0	↓	↓	↓	↓	
SDBD04-03			4.5					
SDBD04-04			5.0					

FIDLER SURVEY

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

LOCATION GRID ID	DATE OF SURVEY	FIDLER No.	OUTCHANNEL READING (X1000)	AUDIBLE (Y/N)	CONTAMINATED? Y/N	CONTAMINATED? SECTOR	REF.	COMMENTS
SDBE04								
SDBE04-01	8/1/94	3	5.0	N	N	NA	NA	
SDBE04-02			5.0					
SDBE04-03			5.0					
SDBE04-04			5.0					
SDBF04								
SDBF04-01	8/1/94	3	5.0	N	N	NA	NA	
SDBF04-02			5.0					
SDBF04-03			5.5					
SDBF04-04			5.0					
	8/1/94 JHD	10/7/94						
SDBG04	~~8/2/94~~	3	6.5	N	N	NA	NA	IN AERATION BASIN
SDBG04-01								
SDBG04-02			JHD					
SDBG04-03			8/25/94					
SDBG04-04								
SDBH04								
SDBH04-01	8/1/94	3	5.5	N	N	NA	NA	
SDBH04-02			5.5		N			
SDBH04-03			5.5		NA 8/8/94			
SDBH04-04			5.5		N			
SDBI04	7/20/94	1	5.0	N	N	NA	NA	
SDBI04-01	8/1/94	3	5.0	N	N	NA	NA	
SDBI04-02			5.5					
SDBI04-03			5.0					
SDBI04-04			5.5					
SDBJ04	7/20/94	1	5.5	N	N	NA	NA	
SDBJ04-01								
SDBJ04-02								
SDBJ04-03								
SDBJ04-04								

FIDLER SURVEY

AOC SDB

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
SDBK04	7-20-94	1	7.0	N	N	NA	NA	
SDBA05								NOT ON MAP
SDBA05-01								
SDBA05-02								
SDBA05-03			PMD					
SDBA05-04			8/25/94					
SDBB05								NOT ON MAP
SDBB05-01								
SDBB05-02								
SDBB05-03								
SDBB05-04								
	8/1/94 TMD 10/7/94							
SDBC05	~~8/2/94~~	3	5.5	N	N	NA	NA	NO GRID
SDBC05-01								
SDBC05-02			PMD					
SDBC05-03								
SDBC05-04			8/25/94					
SDBD05	8/1/94 TMD 10/7/94							
SDBD05-01	~~8/2/94~~	~~3~~ 3	5.5	N	N	NA	NA	
SDBD05-02	↓	↓	5.5	↓	↓	↓	↓	
SDBD05-03			6.5					
SDBD05-04	↓	↓	6.0	↓	↓	↓	↓	
SDBE05								
SDBE05-01	8/1/94	3	5.0	N	N	NA	NA	
SDBE05-02	↓	↓	5.0	↓	↓	↓	↓	
SDBE05-03			5.0					
SDBE05-04	↓	↓	4.5	↓	↓	↓	↓	
SDBF05								IN AERATION BASIN
SDBF05-01								

FIDLER SURVEY

AOC SDB

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
SDBF05-02								
SDBF05-03								
SDBF05-04								
SDBG05			8/25/94					IN AERATION BASIN
SDBG05-01			DMP					
SDBG05-02								
SDBG05-03								
SDBG05-04								
SDBH05								
SDBH05-01	8/1/94	3	5.5	N	N	NA	NA	
SDBH05-02	↓	↓	5.5	↓	N	↓	↓	
SDBH05-03	↓	↓	NA	↓	NA	↓	↓	
SDBH05-04	↓	↓	5.5	↓	N	↓	↓	
SDBI05	7/20/94	1	5.0	N	N	NA	NA	
SDBI05-01								
SDBI05-02			DMP					
SDBI05-03			8/25/94					
SDBI05-04								
SDBJ05	7/20/94	1	5.0	N	N	NA	NA	
SDBJ05-01								
SDBJ05-02			DMP					
SDBJ05-03			8/25/94					
SDBJ05-04								
SDBK05	7-20-94	1	8.0	N	N	NA	NA	
SDBA06								NOT ON MAP
SDBA06-01			DMP					
SDBA06-02			8/25/94					
SDBA06-03								
SDBA06-04								

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FIDLER SURVEY

AOC SDB

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
SDBB06								NOT ON MAP
SDBB06-01			PM					
SDBB06-02			8/25/94					
SDBB06-03								
SDBB06-04								
	8/1/94 MD 10/7/94							
SDBC06	~~8/2/94~~	3	5.0	N	N	NA	NA	NO GRID
SDBC06-01								
SDBC06-02			PM					
SDBC06-03			8/25/94					
SDBC06-04								
SDBD06								
SDBD06-01	8/1/94	3	5.0	N	N	NA	NA	
SDBD06-02	↓	↓	5.0	↓	↓	↓	↓	
SDBD06-03	↓	↓	5.5	↓	↓	↓	↓	
SDBD06-04	↓	↓	5.0	↓	↓	↓	↓	
SDBE06								IN AERATION BASIN
SDBE06-01								
SDBE06-02								
SDBE06-03			PM					
SDBE06-04								
			8/25/94					
SDBF06								IN AERATION BASIN
SDBF06-01								
SDBF06-02								
SDBF06-03								
SDBF06-04								
SDBG06								IN AERATION BASIN
SDBG06-01								
SDBG06-02								
SDBG06-03								

FIDLER SURVEY

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

LOCATION GRID ID	DATE OF SURVEY	FIDLER No.	OUTCHANNEL READING (X1000)	AUDIBLE (Y/N)	CONTAMINATED? Y/N	CONTAMINATED? SECTOR	REF	COMMENTS
SDBG06-04								
SDBH06	8/1/94	3	6.5	N	N	NA	NA	steep grade hill
SDBH06-01								
SDBH06-02			PMP					
SDBH06-03			8/25/94					
SDBH06-04								
SDBI06	7/20/94	1	6.0	N	N	NA	NA	
SDBI06-01								
SDBI06-02			PMP					
SDBI06-03			8/25/94					
SDBI06-04								
SDBJ06	7/20/94	1	8.5	N	N	NA	NA	
SDBJ06-01								
SDBJ06-02			PMP					
SDBJ06-03			8/25/94					
SDBJ06-04								
SDBK06	7-20-94	1	7.5	N	N	NA	NA	
SDBA07								NOT IN MAP
SDBA07-01								
SDBA07-02								
SDBA07-03			PMP					
SDBA07-04			8/25/94					
SDBB07								NOT IN MAP
SDBB07-01								
SDBB07-02								
SDBB07-03								
SDBB07-04								
SDBC07	8/2/94	3	6.0	N	N	NA	NA	NO GRID

FIDLER SURVEY

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

AOC SDB

PROJECT NO.: 34896

LOCATION GRID ID	DATE OF SURVEY	FIDLER No.	OUTCHANNEL READING (X1000)	AUDIBLE (Y/N)	CONTAMINATED? Y/N	CONTAMINATED? SECTOR	REF	COMMENTS
SDBC07-01								
SDBC07-02								
SDBC07-03			PM					
SDBC07-04			8/25/94					
SDBD07								
SDBD07-01	8/1/94	3	5.0	N	N	NA	NA	
SDBD07-02			5.5					
SDBD07-03			5.5					
SDBD07-04			5.5					
SDBE07								IN AERATION BASIN
SDBE07-01			PM					
SDBE07-02			8/25/94					
SDBE07-03								
SDBE07-04								
SDBF07								
SDBF07-01	8/1/94	3	5.5	N	N	NA	NA	
SDBF07-02			6.0					
SDBF07-03			6.5					
SDBF07-04			5.5					
SDBG07								
SDBG07-01	8/1/94	3	6.5	N	N	NA	NA	
SDBG07-02			5.5					
SDBG07-03			4.5					
SDBG07-04			5.0					
SDBH07	8/1/94	3	4.5	N	N	NA	NA	steep gravel hill
SDBH07-01								
SDBH07-02								
SDBH07-03								
SDBH07-04								

FIDLER SURVEY

AOC SDB

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
SDBI07	7/20/94	1	6.0	N	N	NA	NA	
SDBI07-01								
SDBI07-02			PM					
SDBI07-03			8/25/94					
SDBI07-04								
SDBJ07	7/20/94	1	8.5	N	N	NA	NA	
SDBJ07-01								
SDBJ07-02			PM					
SDBJ07-03			8/25/94					
SDBJ07-04								
SDBK07	7-20-94	1	6.5	N	N	NA	NA	
SDBA08								NOT ON MAP
SDBA08-01								
SDBA08-02			PM					
SDBA08-03								
SDBA08-04			8/25/94					
SDBB08								NOT ON MAP
SDBB08-01								
SDBB08-02								
SDBB08-03								
SDBB08-04								
SDBC08	8/2/94	3	6.0	N	N	NA	NA	NO GRID
SDBC08-01								
SDBC08-02			PM					
SDBC08-03			8/25/94					
SDBC08-04								
SDBD08								
SDBD08-01	8/1/94	3	5.0	N	N	NA	NA	
SDBD08-02	8/1/94	3	5.0	N	N	NA	NA	

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FIDLER SURVEY

AOC SDB

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
SDBD08-03	8/1/94	3	5.5	N	N	NA	NA	
SDBD08-04	8/1/94	3	5.0	N	N	NA	NA	
SDBE08								
SDBE08-01	8/1/94	3	4.5	N	N	NA	NA	
SDBE08-02			5.0					
SDBE08-03			5.0					
SDBE08-04			5.0					
SDBF08								
SDBF08-01	8/1/94	3	4.5	N	N	NA	NA	
SDBF08-02			4.5					
SDBF08-03			5.0					
SDBF08-04			5.0					
SDBG08	8/1/94	3	4.5	N	N	NA	NA	
SDBG08-01			5.5					
SDBG08-02			5.0					
SDBG08-03			4.5					
SDBG08-04			4.5					
SDBH08	8/1/94	3	5.0	N	N	NA	NA	
SDBH08-01								
SDBH08-02			PM					
SDBH08-03			8/25/94					
SDBH08-04								
			VTD 10/10/94					
SDBI08	7/20/94	1	~~6.0~~ 7.5	N	N	NA	pIGT	
SDBI08-01								
SDBI08-02			PM					
SDBI08-03			8/25/94					
SDBI08-04								
SDBJ08	7/20/94	1	8.0	N	N	NA	NA	
SDBJ08-01								

FIDLER SURVEY

ADC SDB

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
SDBJ08-02								
SDBJ08-03			PMD					
SDBJ08-04			8/25/94					
SDBK08	7-20-94	1	5.5	N	N	NA	NA	
SDBA09								NOT ON MAP
SDBA09-01								
SDBA09-02								
SDBA09-03			PMD					
SDBA09-04			8/25/94					
SDBB09								NOT ON MAP
SDBB09-01								
SDBB09-02								
SDBB09-03								
SDBB09-04								
	8/1/94 DMD	10/7/94						
SDBC09	~~8/2/94~~	3	5.5	N	N	NA	NA	
SDBC09-01								
SDBC09-02			PMD					
SDBC09-03			8/25/94					
SDBC09-04								
	8/1/94 DMD	10/7/94						
SDBD09	~~8/2/94~~	3	5.5	N	N	NA	NA	
SDBD09-01								
SDBD09-02			PMD					
SDBD09-03			8/25/94					
SDBD09-04								
	8/1/94 DMD	10/7/94						
SDBE09	~~8/2/94~~	3	5.5	N	N	NA	NA	steep gravel
SDBE09-01								
SDBE09-02								
SDBE09-03								
SDBE09-04								

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FIDLER SURVEY

AOC SDB

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

LOCATION GRID ID	DATE OF SURVEY	FIDLER No.	OUTCHANNEL READING (X1000)	AUDIBLE (Y/N)	CONTAMINATED? Y/N	CONTAMINATED? SECTOR	REF	COMMENTS
	8/1/94 TMD 10/7/94							
SDBF09	~~8/2/94~~	3	5.0	N	N	NA	NA	Wooded area
SDBF09-01								
SDBF09-02			TM					
SDBF09-03								
SDBF09-04			8/25/94					
SDBG09								
SDBG09-01	8/1/94	3	4.5	N	N	NA	NA	
SDBG09-02			4.5					
SDBG09-03			4.5					
SDBG09-04			4.5					
SDBH09	8/1/94	3	5.5	N	N	NA	NA	
SDBH09-01								
SDBH09-02			TM					
SDBH09-03			8/25/94					
SDBH09-04								
SDBI09	7/20/94	1	9.0	N	9/28/94 XN	NA	pg 167	
SDBI09-01								
SDBI09-02			TM					
SDBI09-03			8/25/94					
SDBI09-04								
SDBJ09	7/20/94	1	7.5	N	N	NA	NA	
SDBJ09-01								
SDBJ09-02			TM					
SDBJ09-03			8/25/94					
SDBJ09-04								
SDBK09	7/20/94	1	8.5	N	N	NA	NA	
SDBA10								NOT ON MAP
SDBA10-01								

FIDLER SURVEY

AOC SDB

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
SDBA10-02								
SDBA10-03								
SDBA10-04			PMD					
			8/25/94					
SDBB10								NOT ON MAP
SDBB10-01								
SDBB10-02								
SDBB10-03								
SDBB10-04								
	8/1/94 MD 10/7/94							
SDBC10	~~8/2/94~~	3	5.0	N	N	NA	NA	
SDBC10-01								
SDBC10-02			PMD					
SDBC10-03			8/25/94					
SDBC10-04								
	8/1/94 MD 10/7/94							
SDBD10	~~8/2/94~~	3	4.0	N	N	NA	NA	
SDBD10-01								
SDBD10-02			PMD					
SDBD10-03			8/25/94					
SDBD10-04								
	8/1/94 MD 10/7/94							
SDBE10	~~8/2/94~~	3	4.0	N	N	NA	NA	steep gravel
SDBE10-01								
SDBE10-02			PMD					
SDBE10-03								
SDBE10-04			8/25/94					
	8/1/94 MD 10/7/94							
SDBF10	~~8/2/94~~	3	5.5	N	N	NA	NA	wooded area
SDBF10-01								
SDBF10-02								
SDBF10-03			PMD					
SDBF10-04			8/25/94					
SDBG10	8/1/94	3	3.5	N	N	NA	NA	

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FIDLER SURVEY

ADC SDB

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

LOCATION GRID ID	DATE OF SURVEY	FIDLER No.	OUTCHANNEL READING (X1000)	AUDIBLE (Y/N)	CONTAMINATED? Y/N	CONTAMINATED? SECTOR	REF	COMMENTS
SDBG10-01								
SDBG10-02								
SDBG10-03								
SDBG10-04								
SDBH10	8/1/94	3	4.5	N	N	NA	NA	
SDBH10-01								
SDBH10-02								
SDBH10-03								
SDBH10-04								
SDBI10	7/20/94	1	8.5	N	N ~~N~~	NA	SB 7/20/94 ~~NA~~ pg 167	
SDBI10-01								
SDBI10-02								
SDBI10-03								
SDBI10-04								
SDBJ10	7/20/94	1	5.5	N	N	NA	NA	
SDBJ10-01								
SDBJ10-02								
SDBJ10-03								
SDBJ10-04								
SDBK10	7/20/94	1	5.0	N	N	NA	NA	
	8/1/94 JHO 10/7/94							
SDBA11	~~8/2/94~~	3	5.5	N	N	NA	NA	steep grad
SDBA11-01								
SDBA11-02								
SDBA11-03								
SDBA11-04								
	8/1/94 JHO 10/7/94							
SDBB11	~~8/2/94~~	3	5.5	N	N	NA	NA	steep grade
SDBB11-01								
SDBB11-02								
SDBB11-03								

FIDLER SURVEY

ADC SDB

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
SDBB11-04								
	8/1/94 MD 10/3/94							
SDBC11	~~8/2/94~~	3	4.5	N	N	NA	NA	
SDBC11-01								
SDBC11-02								
SDBC11-03								
SDBC11-04								
	8/1/94 MD 10/3/94							
SDBD11	~~8/2/94~~	3	5.0	N	N	NA	NA	
SDBD11-01								
SDBD11-02								
SDBD11-03								
SDBD11-04								
	8/1/94 MD 10/3/94							
SDBE11	~~8/2/94~~	3	5.0	N	N	NA	NA	wooded
SDBE11-01								
SDBE11-02								
SDBE11-03								
SDBE11-04								
	8/1/94 MD 10/3/94							
SDBF11	~~8/2/94~~	3	5.0	N	N	NA	NA	wooded area
SDBF11-01								
SDBF11-02								
SDBF11-03								
SDBF11-04								
SDBG11	8/1/94	3	4.0	N	N	NA	NA	
SDBG11-01								
SDBG11-02								
SDBG11-03								
SDBG11-04								
SDBH11	8/1/94	3	8.0	N	N	NA	NA	
SDBH11-01								
SDBH11-02								

FIDLER SURVEY

ADC SDB

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
SDBH11-03								
SDBH11-04								
SDBI11	7/20/94	1	8.5	N	N	NA	NA	
SDBI11-01								
SDBI11-02								
SDBI11-03								
SDBI11-04								
SDBJ11	7/20/94	1	5.5	N	N	NA	NA	
SDBJ11-01								
SDBJ11-02								
SDBJ11-03								
SDBJ11-04								
SDBK11	7/20/94	1	8.5	N	N	NA	NA	
	8/1/94 DTD 10/3/94							
SDBA12	~~8/2/94~~	3	6.5	N	N	NA	NA	wooded
SDBA12-01								
SDBA12-02								
SDBA12-03								
SDBA12-04								
	8/1/94 DTD 10/3/94							
SDBB12	~~8/2/94~~	3	6.0	N	N	NA	NA	wooded
SDBB12-01								
SDBB12-02								
SDBB12-03								
SDBB12-04								
	8/1/94 DTD 10/3/94							
SDBC12	~~8/2/94~~	3	6.5	N	N	NA	NA	
SDBC12-01								
SDBC12-02								
SDBC12-03								
SDBC12-04								

FIDLER SURVEY

AOC SDB

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
SDBD12	~~8/2/94~~	3	7.0	N	N	NA	NA	
SDBD12-01	8/1/94							
SDBD12-02	TMD 10/3/94							
SDBD12-03								
SDBD12-04								
	8/1/94 TMD 10/3/94							
SDBE12	~~8/2/94~~	3	7.5	N	N	NA	NA	wooded
SDBE12-01								
SDBE12-02								
SDBE12-03								
SDBE12-04								
	8/1/94 TMD 10/3/94							
SDBF12	~~8/2/94~~	3	6.5	N	N	NA	NA	wooded
SDBF12-01								
SDBF12-02								
SDBF12-03								
SDBF12-04								
SDBG12	8/1/94	3	5.0	N	N	NA	NA	
SDBG12-01								
SDBG12-02								
SDBG12-03								
SDBG12-04								
SDBH12	8/1/94	3	6.0	N	N	NA	NA	
SDBH12-01								
SDBH12-02								
SDBH12-03								
SDBH12-04								
SDBI12	7/20/94	1	5.0	N	N	NA	NA	
SDBI12-01								
SDBI12-02								
SDBI12-03								
SDBI12-04								

FIDLER SURVEY

AOC SDB

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
			~~0~~ CP					
SDBJ12	7/20/94	1	8.5	N	N	NA	NA	
SDBJ12-01								
SDBJ12-02								
SDBJ12-03								
SDBJ12-04								
SDBK12	7-20-94	1	9.5	N	N	NA	NA	
	8/1/94 TMD 10/7/97							
SDBA13	~~8/2/94~~	3	6.5	N	N	NA	NA	end point
SDBA13-01								
SDBA13-02								
SDBA13-03								
SDBA13-04								
	8/1/94 TMD 10/7/97							
SDBB13	~~8/2/94~~	3	7.0	N	N	NA	NA	
SDBB13-01	↓	↓	7.0	↓	↓	↓	↓	
SDBB13-02			6.5					
SDBB13-03			6.0					
SDBB13-04	↓	↓	6.0	↓	↓	↓	↓	
SDBC13	8/1/94 TMD 10/7/97							
SDBC13-01	~~8/2/94~~	3	6.0	N	N	NA	NA	
SDBC13-02	↓	↓	6.0	↓	↓	↓	↓	
SDBC13-03			6.0					
SDBC13-04	↓	↓	5.5	↓	↓	↓	↓	
	8/1/94 TMD 10/7/97							
SDBD13	~~8/2/94~~	3	6.5	N	N	NA	NA	
SDBD13-01								
SDBD13-02								
SDBD13-03								
SDBD13-04								
	8/1/94 TMD 10/7/97							
SDBE13	~~8/2/94~~	3	6.5	N	N	NA	NA	wooded
SDBE13-01								

FIDLER SURVEY

AOC SDB

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
SDBE13-02								
SDBE13-03								
SDBE13-04								
	8/1/94 TM 10/7/94							
SDBF13	~~8/2/94~~	3	6.0	N	N	NA	NA	wooded
SDBF13-01								
SDBF13-02								
SDBF13-03								
SDBF13-04								
SDBG13	8/1/94	3	5.5	N	N	NA	NA	
SDBG13-01	~~8/1~~ CP 8/1							
SDBG13-02								
SDBG13-03								
SDBG13-04								
SDBH13	7-20/94	1	5.5	N	N	NA	NA	
SDBH13-01								
SDBH13-02								
SDBH13-03								
SDBH13-04								
SDBI13	7-20/94	1	SB 7-20-94 ~~5.5~~ 5.0	N	N	NA	NA	
SDBI13-01								
SDBI13-02								
SDBI13-03								
SDBI13-04								
SDBJ13	7/20/94	1	9.0	N	N	NA	NA	
SDBJ13-01								
SDBJ13-02								
SDBJ13-03								
SDBJ13-04								
SDBK13	7-20-94	1	9.5	N	N	NA	NA	

FIDLER SURVEY

AOC SDB

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
	8/1/94 TTD 10/7/94							
SDBA14	~~8/2/94~~	3	6.0	N	N	NA	NA	
	8/1/94 TTD 10/7/94							
SDBB14	~~8/2/94~~	3	5.5	N	N	NA	NA	
	8/1/94 TTD 10/7/94							
SDBC14	~~8/2/94~~	3	4.5	N	N	NA	NA	
	8/1/94 TTD 10/7/94							
SDBD14	~~8/2/94~~	3	5.0	N	N	NA	NA	
	8/1/94 TTD 10/7/94							
SDBE14	~~8/2/94~~	3	4.0	N	N	NA	NA	
SDBF14	8/1/94	3	4.0	N	N	NA	NA	
SDBG14	8/1/94	3	4.5	N	N	NA	NA	
SDBH14	8/1/94	3	3.5	N	N	NA	NA	
SDBI14	7/20/94	1	6.0	N	N	NA	NA	
SDBJ14	7/20/94	1	7.0	N	N	NA	NA	
SDBK14	7/20/94	1	8.5	N	N	NA	NA	

A.3

APPENDIX A.3

SOIL GAS LOGBOOK

Soil Gas Logbook

AOCs: AREA 22
AREA 21
AREA 3
AREA 7
AREA J
AREA SDB
AREA 61

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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PROJECT NO: 34896

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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): 7/11/94 TIME: NA : NA PAGE 1 OF 2

Task Team Members:

Mike Monroe — pg. 31

George Wahl — MM 7/11/94

J TACKETT

Narrative (include time and location):

0738 - arrive area 22
0740 - pulled 22K9/P67
0742 - BEGIN TRYING TO PULL 22L8/P68. HOLE HAS CAVED IN.
0817 - PULLED 22L8/P68.
0800 - BEGIN TRYING TO PULL 22L9/P69. HOLE HAS CAVED IN.
0835 - PULLED 22L9/P69.
0942 - Pulled 22L3/P74
1237 - Pulled 22M4/P80
1241 - Pulled 22M3/P79
1243 - Pulled 22M2/P78
1246 - Pulled 22M5/P81
1253 - Pulled 22M6/P82
1256 - Pulled 22M7/P83
1315 - Pulled 22M8/P84
1330 - Pulled 22M9/P85
1423 - Setup on SDBK1/P266 begin drilling
1425 - Installed SDBK1/P266 full, bag #13
1429 - Setup on SDBK2/P267 begin drilling
1435 - Installed SDBK2/P267 full, bag #13
1439 - setup on SDBK3/P268 begin drilling

Daily Weather Conditions: A.M. 75°F

P.M. 80°F

Recorded By George Wahl 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): 7/11/94 TIME: NA : NA PAGE 2 OF 2

Task Team Members:

Mike Monroe — pg. 32

George Wahl — MM 7/11/94

JEFF JACKETT — GW 7/11/94

Narrative (include time and location):

~~14:45~~ - Installed SDBK3/P268 ~~Full~~ 10 inches bag #13
~~15:00~~ GW 7/11/94
14:49 GW 7/11/94

14:53 - Setup on SDBK4/P269

14:57 - Installed SDBK4/P269 full bag #13
sample P269 is closest to stake

15:00 - Setup on SDBK4/Timer #1 besin drilling

15:02 - Setup on SDBK4/Timer #2 besin drilling

15:03 - Install SDBK4/Timer #1 14 inches 2114E time test

15:19 - Setup on SDB G9/P270

15:27 - Install ~~SDBK4~~ GW 7/11/94 SDBG9/P270 12 inche bag #13

15:33 - Setup on SDBG13/P271 GW ~~Bar~~ Begin drilling
also Timer #1 and Timer #2
Sample is closest hole to stake

15:35 - Install SDBG13/P271 full bag #13

15:40 - Install SDBG13/P271 Timer 1 and 2 full

15:45 - Setup on SDBC8/P272 begin drilling

15:52 - Install SDBC8/P272 full bag #13

15:55 - Install SDBC8/P272 Timer 1 & Timer 2 both full

16:01 - Load equipment on truck

~~Last~~ Entry

Daily Weather Conditions: ~~AM~~ PM 80°F

~~PM~~ 7/11/94 NA

Recorded By George Wahl QA Checked By Jolotta Humpert

TASK TEAM ACTIVITY LOG SHEET — SOILGAS

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

Date (mm/dd/yy): 7/12/94 TIME: NA PAGE 1 OF 6

Task Team Members:

MIKE MONROE — pg. 33

GEORGE WALL — MM 7/12/94

JEFF TACKETT

Narrative (include time and location):

0700 - ARRIVE ON SITE AND ATTEND DAILY TAILGATE MEETING.

0715 - GET NEW BURN PERMIT from R. LONG.

0730 - GO TO HP HUT TO GET J. TACKETT.

0735 - GET TO SDB SITE AND PREPARE SAMPLE TUBES

0820 - SET UP ON SDB K5 / P273

0825 - INSTALL SDB K5 / P273. DEPTH ≈ 8 INCHES. BAG # 13

0835 - SET UP ON SDB K6 / P274

0840 - Install SDB K6 / P274 Depth 10 inches. Bag # 13

0850 - BREAK TO DECON BITS.

0852 - SET UP ON SDB K7 / P275

0854 - INSTALL SDB K7 / P275. DEPTH ≈ 10 INCHES BAG # 13

0855 - SET UP ON SDB K8 / P276

0900 - INSTALL SDB K8 / 276 DEPTH ~~FUCK 18~~ 14 INCHES. MM 7/12/94

0902 - MOVE & SET UP ON SDB J8 / P277.

0904 - BREAK TO DECON BITS

0908 - BEGIN DRILLING SDB J8 / P277.

0910 - INSTALL SDB J8 / 277. DEPTH APPROX. 12 INCHES.

0913 - SET UP ON SDB J7 / P278. HIT ROCK AS USUAL. HOWEVER GEORGE USES HIS SUPERHUMAN STRENGTH TO DRILL THROUGH THE ROCK.

Daily Weather Conditions: A.M. 75°F

P.M. NA

Recorded By George Wall QA Checked By Juletta Humpert

TASK TEAM ACTIVITY LOG SHEET SOILG

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA, PHASE 1 TASK NO.: 348

Date (mm/dd/yy): 07/12/94 TIME: NA : NA PAGE 2 OF 6

Task Team Members:

Mike Monroe pg. 34

George Wahl MM 7/12/94

Jeff Tackett

Narrative (include time and location):

0915 - Install SDBJ7/P278. Depth ≈ 12 inches Bag 18

0916 - Break to decon

~~Set up on SDBJ~~ MM 7/12/94

0928 - Set up on SDBJ9/P279 GW Depth 10 inches Bag 18

0933 - Install SDBJ9/P279 Depth 10 inches Bag 18

0934 - Setup on SDBJ6/P280 begin drilling

0937 - Install SDBJ6/P280 14 inches Bag 18

0943 - Break to get cold medicine for Mike

1023 - Break to get more nitrile gloves

1035 - Setup on SDBJ5/P281 Begin Drilling

1040 - Redrill SDBJ5/P281

1042 - Cannot install due to concrete slab

1045 - Setup on SDBJ1/P281 begin drilling

~~10~~ - ~~Install SDBJ1/P281~~ GW 7/12/94 bag 18

1052 - Redrill SDBJ1/P281 Fourth attempt

1053 - Break out of gas in generator

SDJ1 left, holes caved in, insufficient depth

1100 Screened hands & feet

1115 - filled generator gas tank

1232 - At building 30 meeting with HP personnel

Daily Weather Conditions: A.M. 75°F

P.M. NA

Recorded By George Wahl QA Checked By Jolitta Humpert

TASK TEAM ACTIVITY LOG SHEET — SOILGAS

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

Date (mm/dd/yy): 7/12/94 TIME: NA : NA PAGE 3 OF 6

Task Team Members:

Mike Monroe — pg. 35

George Wahl

JEFF TACKETT — MLM 7/12/94

Narrative (include time and location):

1249 - Set up on SDBJ2/P281 begin drilling

1252 - Redrill SDBJ2/P281 cave in @ <6" on 1st attempt

1255 Install SDBJ2/P281 8" depth, Bag 18

1258 Setup on SDBJ3/P282 begin drilling

Note SDBJ3 is on a concrete slab

1301 Install SDBJ3/P282 full depth Bag 18

1304 SET UP ON SDBJ4 / P283

1306 INSTALL SDBJ4/P283. DEPTH ≈ 11 INCHES.

1307 SET UP ON SDB I8. CHANNEL 1 ≈ 200 CPM OVER BACKGROUND. J. TACKETT WANTS TO TALK TO R. MOWEN BEFORE DRILLING

1310 SET UP ON SDB I9. CH. 1 ≈ 300 cpm ABOVE BACKGROUND J TACKETT WANTS TO TALK TO R. MOWEN BEFORE DRILLING.

1313 SET UP ON SDB I10 · CHANNEL 1 ≈ 200 ABOVE BACKGROUND. J TACKETT WANTS TO TALK TO R. MOWEN BEFORE DRILLING.

1315 SET UP ON SDB I7 / P284

1318 INSTALL SDB I7 / P284 - DEPTH ≈ 10 INCHES. HOLES STILL CAVING IN.

1320 BREAK TO DECON BITS.

1330 SET UP ON SDB I6/P285

Daily Weather Conditions: A.M. NA

P.M. 85°F

Recorded By George Wahl QA Checked By Juletta Hempert

TASK TEAM ACTIVITY LOG SHEET — SOILGAS

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

Date (mm/dd/yy): 7/12/94 TIME: NA : NA PAGE 4 OF 6

Task Team Members:

pg. 36

MIKE MONROE

GEORGE WAHL

JEFF TACKETT

MLM 7/12/94

Narrative (include time and location):

1331 - BEGIN DRILLING SDB I6/P285

1333 - INSTALL SDB I6/P285. DEPTH ~ 18 INCHES (FULL DEPTH)

1335 - SET UP ON SDB I5/P286

1340 - INSTALL SDB I5/P286. FULL DEPTH.

1341 - BREAK TO DECON BITS.

1347 - SET UP ON SDB I4/P287

1352 - INSTALL SDB I4/P287. DEPTH ~ 8 INCHES.

1353 - SET UP ON SDB I3/P288.

1356 - INSTALL SDB I3/P288. DEPTH ~ 13 INCHES

1357 - BREAK TO DECON BITS

14:05 - Set up on SDB I2/P289 begin drilling

14:08 - Install SDB I2/P289 Full depth bag 18

1411 - Setup on SDB H3/P290 begin drilling

1417 - Install SDB H3/P290 9 inches bag 18

1418 - Setup on SDB H4/P291

1421 - Install SDB H4/P291 12 inches bag 18

1430 - GO TO HP HUT FOR SODA BREAK. YEA!

1445 - SET UP ON SDB H5/P292

1449 - INSTALL SDB H5/P292 FULL DEPTH. BAG # 18

1450 - BREAK TO DECON

Daily Weather Conditions: A.M. NA

P.M. 85°F

Recorded By George Wahl QA Checked By Jolette Humpert

TASK TEAM ACTIVITY LOG SHEET — SOILGAS

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

Date (mm/dd/yy): 7/12/94 TIME: NA : NA PAGE 5 OF 6

Task Team Members:

pg. 37

Mike Monroe

George Wahl — MLM 7/12/94

Jeff Tackett

Narrative (include time and location):

14:59 - Set up on SDB H6/P293 Begin drilling
1501 - Install SDBH6/P293 full depth Bag 18
1502 - SET UP ON SDB G7/P294
1504 - INSTALL SDB G7/P294. DEPTH ≈ 12 INCHES. BAG # 18
1506 - SETUP ON SDB F7/P295
1510 - Install SDBF7/P295 Depth full Bag 18
1511 - Setup on SDBE8/P296
1514 - INSTALL SDBE8/P296. DEPTH ≈ 14 INCHES BAG # 18
1515 - SETUP ON SDBD8/P297.
1518 - Install SDBD8/P297 full depth Bag # 18
1520 - Setup on SDBD7/P298
1522 - INSTALL SDBD7/P298. DEPTH ≈ 14" BAG # 18
1524 - SET UP ON SDB ~~C7~~ C6T/P299 MLM 7/12/94
1526 - INSTALL SDB ~~D7~~ C7/P299. DEPTH ≈ 16" BAG # 18
1527 - Make up new tubes from bag 16
1538 - Setup on SDB C6/P300
1541 - Install SDBC6/P300 13 inches Bag 18
1542 - Setup on SDBD6/P301
1545 INSTALL SDBD6/P301. DEPTH ≈ 14 INCH. BAG # 16
1546 SETUP ON SDB C5/P302

Daily Weather Conditions: A.M. NA

P.M. 85 OF

Recorded By George Wahl QA Checked By Juletta Humpert

TASK TEAM ACTIVITY LOG SHEET — SOILGAS

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

Date (mm/dd/yy): 7/12/94 TIME: NA : NA PAGE 6 OF 6

Task Team Members:

Mike Monroe
George Wahl
Jeff Tackett

pg. 38

MLM 7/12/94

Narrative (include time and location):

1549 - Install SDB C5/P302 full bag 16
1551 - Setup on SDB D5/P303
1554 - INSTALL SDB D5/P303. DEPTH ≈ 9 INCHES BAG #1
1555 - SET UP ON SDB ~~D6~~ C4/P304 MLM 7/12/94
1559 - INSTALL SDB C4/P304 DEPTH ≈ 10 inches BAG #1
1600 - Setup on SDB C3/P305
1603 - INSTALL SDB C3/P305. DEPTH NN 8 INCHES BAG #
1605 - SETUP ON SDB E5/P306
1607 Install SDB E5/P306 full Bag 16

MLM 7/12/94

Daily Weather Conditions: A.M. NA
P.M. 85°F

Recorded By George Wahl QA Checked By Juliette Humpert

TASK TEAM ACTIVITY LOG SHEET — SOILGAS

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

Date (mm/dd/yy): 7/13/94 TIME: NA : NA PAGE 1 OF 4

Task Team Members:

pg. 39

George Wahl
Mike Monroe
Jeff Tackett

MLM 7/13/94

Narrative (include time and location):

0700 Load truck
0745 Met with J. Tackett at Building 30
0750 Start making tubes from bag 20 ready for installation
0800 J. Tackett left to get fiedler calibrated
0815 Finished preperation of bag 20 tubes
waiting on J. tackett to begin drilling
0826 Setup on SDBG1/P307
0829 Install SDBG1/P307 16 inches, bag #16
0831 Setup on SDBG2/P308
0834 - INSTALL SDBG2/P308. DEPTH ≈ 15 INCHES. BAG # 16.
0835 - SET UP ON SDBG3/P309
0838 - INSTALL SDBG3/P309. DEPTH ≈ 8 inches BAG # 16.
0844 - Setup on SDBG4/P310
0847 - Install SDBG4/P310, Depth ≈ 16 INCHES Bag #16
0848 - SET UP ON SDB F4/P311.
0852 INSTALL SDB F4/P311. DEPTH ≈ 16 inches BAG # 16
0853 Setup on SDBE4/~~P311~~ MM 7/13/94 P312.
~~0855~~ MM 7/13/94 0945 INSTALL SDBE4/P312. DEPTH ≈ 18 INCHES BAG # 16
0855 DRILL BIT GOT STUCK IN THE GROUND.
0900 GO TO TRAILERS TO GET A BAR TO PRY WITH. J. TACKETT WENT

Daily Weather Conditions: A.M. 75° F
P.M. 85°F

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.: 3489

Date (mm/dd/yy): 7/13/94 TIME: NA : NA PAGE 2 OF 4

Task Team Members: Pg. 40

George Wahl
Mike Monroe
Jeff Tackett

MLM 7/13/94

Narrative (include time and location):

TO HP HUT TO GET HIS FIDLER AND RETURN THE ONE HE BORROWED.

0925 RETURN TO SITE AND GET ~~BORE~~ BIT OUT OF GROUND. MM 7/13/94

0930 TAKE 1120 BREAK

0940 CLEAN HOLE OUT

0950 SET UP ON SDBF2/P313

0956 INSTALL SDBF2/P313. DEPTH ≈ 18 inches BAG #20

0958 move generator to reach remaining locations

1004 - SET UP ON SDBH7/P314

1010 - INSTALL SDBH7/P314 DEPTH ≈ 14 INCHES BAG #20

1011 - SETUP ON SDBH8/~~P315~~ MLM 7/13/94

GW 7/13/94 ~~10 Install SDBH8/P315 Depth ≈ Bag #20~~

1027 SDBH8 abandoned hole caved in < 6" deep

1028 Setup on SDBH9/P315

1034 INSTALL SDBH9/P315. DUE TO CAVE INS DEPTH ONLY ≈ 8 INCHES

BAG #20

1036 BREAK TO GET MORE GENERATOR GAS

1058 Setup on SDBH10/P316

1059 Install SDBH10/P316 Depth ≈ 18" Bag 2

1102 Setup on SDBH11/P317

1105 INSTALL SDBH11/P317. DEPTH ≈ 18 INCHES. BAG #

Daily Weather Conditions: A.M. 75°F

P.M. 95°F

Recorded By [signature] QA Checked By [signature]

TASK TEAM ACTIVITY LOG SHEET — SOIL/GAS

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

Date (mm/dd/yy): 07/13/94 TIME: NA : NA PAGE 3 OF 4

Task Team Members:

pg. 41

GEORGE WAHL

MIKE MONROE

JEFF TACKETT

MLM 7/13/94

Narrative (include time and location):

1108 SET UP ON SDB H12/P318

1110 INSTALL SDB H12/P318. DEPTH ≈ 18" INCHES. BAG # 20

1116 SET UP ON SDB H14/P319

1122 INSTALL SDB H14/P319. DEPTH ≈ 18". BAG # 20.

1124 SET UP ON SDB I13/P320.

1129 INSTALL SDB I13/P320. DEPTH ≈ 16 INCHES BAG # 20.

1130 SET UP ON SDB I11/P322 (~~P321~~) GPH 7/13/94 P321 is SDB K10.

1131 BREAK TO DECON BOTH BITS.

GW 7/13/94 1138 ~~1038~~ Set up on SDB I11/P322

1140 ~~1040~~ GW 7/13 Install SDB I11/P322 Depth = 12in, bag # 20

1142 ~~1042~~ GW 7/13 Setup on SDB J10/P323

1147 Install SDB J10/P323 Depth = 10in, bag # 20

1159 BREAK FOR LUNCH. YEA! YIPPEE!

1305 ARRIVE BACK ON SITE FROM LUNCH AND DECON BOTH BITS.

1310 ATTEMPT TO START DRILLING ACTIVITIES AGAIN AND THE RAINS CAME GW 7/13/94

1355 SET UP ON ~~SBD~~ SDB ~~J9~~ K9/P324 GW

1410 Install SDB K9/P324 Depth 18" bag # 20

1415 Decon drill bit GW 7/13/94

1417 Setup on SDB K11/P325

Note ~~SBD~~ SDB K10 is under water GW 7/13/94

Daily Weather Conditions: A.M.

P.M. 80°F light rain

Recorded By [signature] QA Checked By Jolotta Humpert

TASK TEAM ACTIVITY LOG SHEET — SOILGAS

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

Date (mm/dd/yy): 7/13/94 TIME: NA : NA PAGE 4 OF 4

Task Team Members:

pg. 42

George Wahl
Mike Monroe
Jeff Tackett

MLM 7/13/94

Narrative (include time and location):

1419 - Install ~~SBDK11~~ SDB GW 7/13/94 /P325 Depth 18" bag# 20
1422 - Setup on ~~SBDK12~~ /P326
1424 - Install ~~SBDK12~~ /P326, depth ≈ 10" bag#
~~1426 - Setup on SBDK13 / P327~~ GW 7/13/94
1430 - BREAK TO DECON BOTH BITS.
1439 - Setup on ~~SBDK13~~ SDB GW 7/13/94 /P327
1441 - Install ~~SBDK13~~ /P327 18inches, Bag# 20
1442 - Setup on ~~SBDJ13~~ /P328
1446 - Install ~~SBD~~ GW 7/13 SDBJ13 /P328 depth ≈ 16 inches Bag#
1447 - BREAK TO DECON BOTH BITS
1454 - Setup on SDBJ12 / P329
1456 - Install SDBJ12 / P329 Depth ≈ 10 in. Bag# 20
1459 - Setup on SDBK14 / P330
1501 - Install SDBK14 / P330 Depth ≈ 15 in. Bag# 20
1512 Install SDBJ14 / P331 Depth ≈ 16 in Bag# 20
1513 Install SDBJ14 / P332 Depth ≈ 12 in Bag# 20

MLM 7/13/94

Daily Weather Conditions: A.M.
P.M. 80°F light rain

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): 07/14/94 TIME: NA : NA PAGE 1 OF 5

Task Team Members:

pg. 43

GEORGE WAHL

MIKE MONROE — MLM 07/14/94

JEFF TACKETT

Narrative (include time and location):

0730 - ATTEND DAILY TAILGATE MEETING

0800 - ARRIVE AT INSTALLATION SITE

0806 - SET UP ON SDBF8/P333.

0813 - INSTALL SDBF8/P333. DEPTH ≈ 16 INCHES. BAG # 20

0815 - SET UP ON SDBF9/P334

0820 Install SDBF9/P334 Depth ≈ 16" Bag 20

0822 Setup on SDBF10/P335

0826 - BY THE APPEARENCE OF THE DRILL BIT IT SEEMS GEORGE HAS AGAIN USED HIS SUPERHUMAN STRENGTH TO DRILL THROUGH SOLID ROCK.

0828 - INSTALL SDBF10/P335. DEPTH ≈ 14 INCHES BAG # 20

0831 - SET UP ON SDBF11/P336

0838 INSTALL SDBF11/P336. DEPTH ≈ 12 inches BAG # 20

0840 Setup on SDBF12/P337

0845 Install SDBF12/P337 Depth ≈ 18 INCH Bag # 20

0846 SET UP ON SDBE1~~1~~2/P338 MM 7/14/94

0850 INSTALL SDBE1~~1~~2/P338. DEPTH ≈ 12 INCHES BAG # 20

0852 SET UP ON SDBE11/~~P339~~ MM 7/14/94

0903 DUE TO HOLE CAVING IN HAD TO ABANDON SDBE11.

0904 SET UP ON SDBE10

0905 BREAK TO DECON BOTH BITS

Daily Weather Conditions: A.M. 70°F, OVERCAST, HUMID

P.M. 85°F, OVERCAST, HUMID

Recorded By [signature] QA Checked By Juletta Humphrey

TASK TEAM ACTIVITY LOG SHEET SOILGAS

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

Date (mm/dd/yy): 07/14/94 TIME: NA : NA PAGE 2 OF 5

Task Team Members:

pg. 44

GEORGE WAHL

MIKE MONROE

JEFF TACKETT

MM 07/14/94

Narrative (include time and location):

0920 Setup on SDBE10/P339 Begin drilling

0924 Install SDBE10/P339 Depth ≈ 18 inches Bag 17

0926 Setup on SDBE9/P340

0930 Install SDBE9/P340 Depth ≈ 14 Bag #17

0931 SETUP ON SDBD9/P341

0934 Install SDBD9/P341 Depth ≈ 12" Bag #17

0936 Setup on ~~SDB10/P342~~ SDBD10 MM 7/14/94 ABANDON HOLE DUE TO CAVE INS.

0937 SET UP ON SDBC9. STAKE IS LABELED SDBI9

0945 INSTALL SDBC9 ~~DE~~ MCM 07/14/94 / P342 · DEPTH ≈ 12 IN. BAG #17

1023 Setup on SDB C10 / P343

1025 Install SDBC10/P343, Depth ≈ 18" BAG #17

1030 Setup on SDBD11 / P344

1035 INSTALL SDBD11/P344. DEPTH ≈ 8 IN. BAG #17

1036 RETRY SDB D10/P345 INSTALLED ≈ 8" BAG #17

1040 SET UP ON SDB D12/P346

1045 INSTALL SDB D12/P346. DEPTH ≈ 16" BAG #17

1046 BREAK TO DECON BOTH BITS

1051 Setup on SDB C11/P347

1058 Install SDBC11/P347 Depth 10" Bag #17

Daily Weather Conditions: A.M. 75°F cloudy

P.M. 85°F

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): 7/14/94 TIME: NA : NA PAGE 3 OF 5

Task Team Members:

George Wahl
Mike Monroe
Jeff Tackett

pg. 45

GW 7/14/94

Narrative (include time and location):

1100 SET UP ON SDBC12/~~P348~~ GW 7/14/94 P348. NO STAKE PRESENT
1105 INSTALL SDBC12/P348. DEPTH ≈ 18" BAG#17
1107 SET UP ON SDBB11/P349
1110 DECON BITS
1115 BREAK FOR LUNCH. YIPPEE!!
1215 ARRIVE BACK FROM LUNCH. BOO!!
1220 CALL MARK HOWARD IN TN. ABOUT WORKING NEXT WEEK.
1230 MEET J. TACKETT AT HP HWY.
1240 ARRIVE AT DRILL SITE
1250 SET UP ON SDBB11/P349
1256 INSTALL SDBB11/P349. DEPTH ≈ 18" BAG # 17
1259 Setup on SDBA11/~~P34~~ GW 7/14/94 P350
1304 Install SDBA11/P350 Depth ≈ 12" bag#17
1307 Setup on SDBB12/P351
1310 INSTALL SDBB12/P351. DEPTH ≈ 14" BAG #17
1311 SETUP ON SDBA12/P352.
1314 INSTALL SDBA12/P352. DEPTH ≈ 16" BAG #17
1315 BREAK TO DECON BOTH BITS.
1324 SET UP ON SDBG8/P353
1330 Install SDBG8/P353 Depth ≈ 16" bag#7

Daily Weather Conditions: A.M. 75°F
P.M. 85°F

Recorded By [signature] 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): 07/14/94 TIME: NA : NA PAGE ~~2~~ 4 OF 5 MLM 07/14/94

Task Team Members:

pg. 46

GEORGE WAHL

MIKE MONROE

JEFF TACKETT

MLM 07/14/94

Narrative (include time and location):

1334 - SET UP ON SDBG10/P354

1340 - INSTALL SDBG10/P354. DEPTH ≈ 9 in. BAG #17

1341 - SET UP ON SDBG11

1344 - Install SDBG11/P355 12 in Bag 17

1347 Setup on SDBG12/P356

1358 - Install SDBG12/P356 8 in Bag 17

1410 - DECON BOTH BITS GW 7/14/94 MLM 7/14/94

1415 - BREAK FOR H_2O

1435 - SET UP ON SDBA13/P357

1440 INSTALL SDBA13/P357 DEPTH ≈ 16" BAG 17

1441 SET UP ON SDBA14/P358

1445 INSTALL SDBA14/P358. DEPTH ≈ 14" Bag 17

1446 DECON BOTH BITS

1450 SET UP ON SDBB13/P359

1450 INSTALL SDBB13/P359 DEPTH 18" BAG 17 MLM 7/14/94

1451 SET UP ON SDBB14/P360

1454 INSTALL SDBB14/P360. DEPTH ≈ 11" BAG #17

1455 SET UP ON SDBC13/P361

1500 INSTALL SDBC13/P361. DEPTH ≈ 18" BAG #17

Daily Weather Conditions: A.M. NA

P.M. NA

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): 7/14/94 TIME: NA : NA PAGE 5 OF 5

Task Team Members:

George Wahl
Mike Monroe
Jeff Tackett

pg. 47

MLM 7/14/94

Narrative (include time and location):

~~1501 En~~ GW 7/14/94

1501 SET UP ON SDBC14/P362

1505 INSTALL SDBC14/P362. DEPTH ≈ 9" BAG #17

1506 SET UP ON SDBD13/P363

1510 INSTALL SDBD13/P363 DEPTH ≈ 18" BAG #17

1511 Decon drill bits, out of tubes

1520 MAKING NEW SAMPLE TUBES.

JPH 7/14/94

Daily Weather Conditions: A.M. NA

P.M. NA

Recorded By [signature] QA Checked By Juletta Humpert

TASK TEAM ACTIVITY LOG SHEET — SOILGAS

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 3

Task Team Members:

pg. 51

J. Alvarado

C. Hulley

JPH 8/22/94

Narrative (include time and location):

11:10 install TIMER 1# Area 3 N12 full 2nd tube south of state (2114E)

11:17 install TIMER 2# Area 3 N12 full tube west of state (2114E)

11:18 set up Area 3 O12

11:25 install Area 3 O12 # 370 bag 14 full

11:28 ~~Decon~~ Decon 1A 7-18-94 break for lunch

12:15 Prep work for installations

12:59 Pull Timer #1 SDB ~~#~~ 7-18-94 K4 (Timer #1 SDB K4)

13:04 Pulled Timer #1 SDB C8

13:09 Pulled Timer #1 SDB G13

13:20 Set up on SDB D14 (wait for health physics)

13:45 Installed SDB D14 # 371 bag # 14 full

13:50 set up on SDB E14

13:55 Install SDB E14 # 372 bag # 14 full

13:55 Set up on SDB F14

14:04 Install SDB F14 # 373 bag # 14 full

14:06 Set up SDB G14

14:14 Install SDB G14 # 374 bag # 14 full

14:20 Install SDB F13 # 375 bag # 14 full 7' from F12 (The 3' between jing-lept and Accumate glue was very low gravel)

14:26 Install SDB E13 # 376 bag # 14 6" (wall collapse)

tube installed 7' from F-12 in line with F-12 F-14

Daily Weather Conditions: A.M. NA

P.M. Mostly sunny 90°F

Recorded By [signature] 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): 7/18/94 TIME: NA PAGE 3 OF 3

Task Team Members:

J. Alvarado

C. Halley

pg. 52

Narrative (include time and location):

14:35 Set up H-13

~~14:14~~ 14:45 Installed SDB H-13 377 bag 14 full (6' from H-12 in line)

14:46 restring power line

14:55 Set up SDB I 12

15:01 Installed SDB I 12 bag 14 full # 378 (5' from I-12 WSW)

15:10 Set up SDB J11

15:14 Installed SDB J11 bag 14 full # 379 (2½' from J11 in line)

15:21 SDB I 8, 9, 10 have higher readings no sample (~700 pCi) moved truck for SDB J1

15:55 Installed SDB J 1; moved off by 2'; bag 14; full; # 380

16:00 load truck screen out gave 1st times on 7-18-94 SDB K4, C8, G13

16:10 unload truck organize for tommorow put together P-Tubes.

Samples ~~SDB 14; SDB~~ on 7-18-94 SDB D-14; E-14; F-14; G-14; F-13; E-13; H-13; I-12; J-11 were taken in river south ~~of SD~~ end of SDB area construction activities back-hoe and drilling was occuring during installation.

Last Entry

Daily Weather Conditions: A.M. NA

P.M. NA

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): 7/21/94 TIME: NA PAGE 1 OF 6

Task Team Members:

J. Alvarado

C. Halley

Pg. 61

JPH 8/22/94

Narrative (include time and location):

Arrive 0710

0711 Met with J. Geislir signed burn permit

0720 HP called due to broken equipment would not be able to support. SAIC decides to pull tubes

0730 Began to put ~~to get~~ SA 7-21-94 together "install p-tube kits". Determined which tubes to pull. Made map and listed stickers for tubes.

0810 Davis reminds us (Halley & Alvarado) about urine sample

0820 Call security to let us in building 105 @ 1300 (7-21-94)

0835 leave for field to pull p-tubes in SDB area 266-363

0900 Arrive @ SDB Area

~~0900~~ 0904 Pulled # 266 SDB K1

0908 Pulled # 267 SDB K2

~~0908~~ Pulled # 268 SDB K3

0911

0912 at SDB K4 timer in (2nd) should we pull? contact J. Humpert

Ok to pull everything per J. Humpert

0926 Pulled # 269 SDB K4

0929 Pulled # 269 Timer #2 SDB K4

0931 Pulled # 273 SDB K5

Daily Weather Conditions: A.M. NA

P.M. NA

Recorded By Jose A. Alvarado QA Checked By Juletta Humpert

TASK TEAM ACTIVITY LOG SHEET SOILGAS

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

Date (mm/dd/yy): 7/21/94 TIME: NA PAGE 2 OF 6

Task Team Members:

J. Alvarado pg. 62

C. Hallex

JPH 8/22/94

Narrative (include time and location):

0934 Pulled # 274 SDB K6

0936 Pulled # 275 SDB K7

0939 Pulled # 276 SDB K8 0940 tube broke while cutting wire

0946 Pulled # 324 SDB K9 ↳ put in new tube and sealed 0944

0949 Pulled # 325 SDB K11

0951 Pulled # 326 SDB K12

0954 Pulled # 327 SDB K13

0957 Pulled # 330 SDB K14

1002 Pulled # 331 SDB J14 Construction debris covered

1006 Pulled # 328 SDB J13

1009 Pulled # 329 SDB J12

1012 Pulled # 323 SDB J10

1014 Pulled # 279 SDB J9

1018 Pulled # 277 SDB J8

1021 Pulled # 278 SDB J7

1023 Pulled # 280 SDB J6

1026 ~~Pulled # 281 SDB J5~~ JA 7-21-94 confusion check log bag for J5

1031 Pulled # 283 SDB J4

1035 Pulled # 282 SDB J3

1037 Pulled # ~~282~~ 281 SDB J2

Daily Weather Conditions: A.M. NA

P.M. NA

Recorded By [signature] 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): 7/21/94 TIME: NA PAGE 3 OF 6

Task Team Members:

J. Alvarado

C. Hulley

pg. 63

JPH 8/22/94

Narrative (include time and location):

1039 #289 SDB I2 Pulled
1042 #288 SDB I3 Pulled
1044 Pulled #287 SDB I4
1046 Pulled #286 SDB I5
1050 Pulled #285 SDB I6
1053 Pulled #284 SDB I7
1056 Pulled #290 SDB H3
1058 Pulled #291 SDB H4
1059 Pulled #292 SDB ~~#~~ H5
1101 Pulled #293 SDB H6
1103 Pulled #314 SDB H7
1106 Pulled #315 SDB H9
1108 Pulled #316 SDB H10
1110 Pulled #317 SDB H11
1113 Pulled #318 SDB H12
1117 Pulled #~~332~~ 319 SDB ~~I~~ H14 JPH 7-21-94
1119 Pulled #332 SDB I14
1121 Pulled #320 SDB I13
1123 Pulled #322 SDB I11
1126 Pulled #271 SDB G13

Daily Weather Conditions: A.M. NA

P.M. NA

Recorded By Juan J. Alvarado QA Checked By Juletta Humpert

TASK TEAM ACTIVITY LOG SHEET SOILC

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

Date (mm/dd/yy): 7/21/94 TIME: NA PAGE 4 OF 6

Task Team Members:

J. Alvarado pg. 64

C. Hulley

JPH 8/22/94

Narrative (include time and location):

1128 Pulled # 271 Timer 2 ~~SOG~~ SOB G13
1131 Pulled # 356 SOB G12
1133 Pulled # 355 SOB G11
1135 Pulled # 354 SOB G10
1137 Pulled # 270 SOB G9
1138 Pulled # 353 SOB G8
1140 Pulled # 294 SOB G7
1142 Pulled # ~~275~~ 310 JA 7-21-94 SOB ~~F7~~ G4
1144 Pulled # ~~332~~ 309 JA 7-21-94 SOB ~~F8~~ G3
1146 Pulled # ~~334~~ 308 JA 7-21-94 SOB ~~F9~~ G2
1148 Pulled # ~~335~~ 307 JA 7-21-94 SOB ~~F10~~ G1
1152 Pulled # 313 SOB F2 JA 7-21-94
1153 Pulled # 311 SOB F4
1155 Pulled # 295 SOB F7
1157 Stop for lunch took tubes to be scanned
14:22 Pulled # 333 SOB F8
14:24 Pulled # 334 SOB F9
14:26 Pulled # 335 SOB F10
JA 7-21-94 ~~Pulled~~ # 336 SOB F11 can't Find
14:31 Pulled # 337 SOB F12

Daily Weather Conditions: A.M. NA

P.M. NA

Recorded By Jesus A. Alvarado QA Checked By Juletta Hampert

TASK TEAM ACTIVITY LOG SHEET — SOILGAS

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

Date (mm/dd/yy): 7/21/94 TIME: NA PAGE 5 OF 6

Task Team Members: pg. 65

J. Alvarado

C Hulley

JPH 8/22/94

Narrative (include time and location):

14:33 Pulled # 338 ~~SBA~~ SDB 1a 7-21-94 E12

E11 7-21-94 can't find (wasn't there)

14:40 Pulled # 339 ~~SBA~~ SDB 1a E10

14:41 Pulled # 340 ~~SBA~~ SDB E9

14:43 Pulled # 296 ~~SBA~~ SDB E8

14:46 Pulled # 306 ~~SBA~~ SDB 1a 7-21-94 E5

14:47 Pulled # 312 ~~SBA~~ SDB E4

1a 7-21-94 ~~14:50~~ 15:00 Pulled # 303 ~~SBA~~ SDB 1a 7-21-94 D5

14:52 Pulled 301 ~~SBA~~ D6

14:55 Pulled 298 ~~SBA~~ D7

14:56 Pulled 297 ~~SBA~~ D8

15:00 Pulled 341 ~~SBA~~ D9

15:03 Pulled 345 ~~SBA~~ D10

15:05 Pulled 344 ~~SBA~~ D11 Tube was broken when found rebattled in field.

15:09 Pulled 346 ~~SBA~~ D12

15:11 Pulled 363 ~~SBA~~ D13

15:13 Pulled 362 ~~SBA~~ C14

15:15 Pulled 361 ~~SBA~~ C13

15:18 Pulled 348 ~~SBA~~ C12

15:20 Pulled 347 ~~SBA~~ C11

Daily Weather Conditions: A.M. Overcast 75°F ~~slightly slightly~~ slight rain 1a 7-21-94

P.M. Overcast slight breeze 80°F

Recorded By [signature] QA Checked By Joletta Thompson

TASK TEAM ACTIVITY LOG SHEET — SOILGAS

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

Date (mm/dd/yy): 7/21/94 TIME: NA PAGE 6 OF 6

Task Team Members:

J. Alvarado

C. Holley

Pg. 66

JPH 8/22/94

Narrative (include time and location):

1522 Pulled #343	~~SOA~~ SOD JM 7-21-94	C10
1524 Pulled #342	~~SOA~~ SOD	C9
1526 Pulled #272	~~SOA~~ SOD JM 7-21-94	C8 JM 7-21-94
1527 Pulled # ~~299~~ 272	~~SOA~~ SOD	~~C7~~ C8 Timer 2
1530 Pulled 299	~~SOA~~ SOD	~~C6~~ C7 JM 7-21-94
1532 Pulled 300	~~SOA~~ SOD	~~C5~~ C6 JM 7-21-94
1534 Pulled 302	~~SOA~~ SOD	~~C4~~ C5 JM 7-21-94
1536 Pulled 304	~~SOA~~ SOD	~~C3~~ C4 JM 7-21-94
1538 Pulled 305	~~SOA~~ SOD	C3
1539 Pulled 349 JM 7-21-94	~~SOA~~ SOD	B11
1541 Pulled ~~351~~ 350 JM 7-21-94	~~SOA~~ SOD	~~B12~~ A11 JM 7-21-94
1543 Pulled ~~359~~ JM 7-21-94 352	~~SOA~~ SOD	~~B13~~ JM 7-21-94 A12
1546 Pulled ~~360~~ JM 7-21-94 351	~~SOA~~ SOD	~~B14~~ JM 7-21-94 B12
1548 Pulled 359	~~SOA~~ SOD	B13 Broke test tube taking off wire replaced in tube in field
1551 Pulled 360	~~SOA~~ SOD	B14
1553 Pulled 358	~~SOA~~ SOD	A14
1554 Pulled 357	~~SOA~~ SOB	A13

~~Last Entry~~ JM 7-21-94

Daily Weather Conditions: A.M. NA

P.M. NA

Recorded By: Jim J. Alvarado 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): 7/25/94 TIME: NA PAGE 1 OF 5

Task Team Members:

J. Alvarado Pg. 67

C. Hallex JPH 8/22/94

Narrative (include time and location):

0710 Arrive mound

0720 Load Truck

0730 sign burn permit

0735 Mark inverted tubes on map (Plan)

0800 building 22 (Sign digging permits)

0840 Arrive at SDB Area to install K10 and F11

K10 was installed but not recorded. K10 installed 7-18-94 approximate time 15:20 (p# 321)

0900 Set up Area SDB F-11 (could not find to pull re-set same number)

0912 Install Area SDB F-11 Full #336 bag 16

0915 Move to Area 3 - Had to get gas for generator

0925 Set up Area 3 A-15 # 436

0931 Installed Area 3 A-15; # 436; bag 16; 14"

0931 Set up Area 3 A-16; # 437

0936 Install Area 3 A-16; # 437; bag 16; 12" (collapse)

0937 Set up Area 3 A-17

0943 Install Area 3 A-17; # 438; bag 16; 14"

0945 Set up Area 3 A-18

0948 Install Area 3 A-18; # 439; bag 16; 14"

0952 Set up Area 3 A-18 (reset generator)

Daily Weather Conditions: A.M. 76°F 82% humidity, partly cloudy

P.M. NA

Recorded By James A. Alvarado 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): 7/26/94 TIME: NA PAGE 3 OF 4

Task Team Members:

J. Alvarado

G. Loder

pg. 74

JPH 8/22/94

Narrative (include time and location):

1351 Set up Area 7 G10 Timers

1357 Install Area 7 G10 14"; Bag 9; 480 closest to stake

1404 Install Area 7 G10 Timer #1 2114E 14" (Northeast) of

1408 Install Area 7 G10 Timer #2 2114 14" (Northwest) of

1410 move to other part of Area 7

1422 set up Area 7 Q16 Timers

1425 Install Area 7 Q16 closest to stake 481 Full

1431 Install Area 7 Q16 Timer #1 2114 North west Full

1440 Install Area 7 Q16 Timer #2 2114 South west Full

1442 move to SDB area

1455 Arrive set up SDB { I 10 60 channel 1 2,000 out
{ I 9 600 channel 1 3,000 out
{ I 8 700 channel 2000 out

HP gave this → in dpm disintegrations

per 7-28-94 ~~14~~ 1500 should be in cpm ???

1507 Install SDB I 8 Full; Bag 9; 482

1510 set up SDB I 9 per 7-28-94

1516 Install SDB I ~~10~~ 9 14"; Bag 9; 483

1519 Set up SDB I 10

1525 Install SDB I 10; 10"; Bag; 480

Daily Weather Conditions: A.M. NA

P.M. NA

Recorded By: Jesse A. Alvarado QA Checked By: Jolotta Humpert

TASK TEAM ACTIVITY LOG SHEET SOILGAS

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

(mm/dd/yy): 8-1-94 TIME: NA PAGE 4 OF 4

ask Team Members:

JA pg. 91

CH

JPH 8/22/94

arrative (include time and location):

1545 Set up Area 7 J9 underpavement High traffic Area!!!

1603 Install Area 7 J9 Bag 27; #552; 14"

1605 cement cap J-6; J-7; J-8; K-10; K-11; J-9

1610 clean back to trailer

Fast Entry JPH 8/1/94

8/1/94

1048 Pulled F11 in SDB Area / #336

1050 Pulled I8/482 in SDB

1054 Pulled I10/484 in SDB

1105 Pulled K10/321 in SDB

1120 Pulled I9/483 in SDB.

JPH 8/1/94

aily Weather Conditions: A.M. mostly sunny 82°F Humid

P.M. mostly cloudy 89°F

ecorded By [signature] QA Checked By Joletta Humpert

SOIL GAS SURVEY (PETREX)

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA, PHASE 1 PG. 233 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
3OØ6		4Ø4	7/19/94 1532	8/1Ø/94 Ø849	ND	ND		Bag 26; full
3OØ7		4Ø2	7/19/94 15Ø2	8/1Ø/94 Ø847	ND	ND		Bag 26; 14"
3OØ8		4ØØ	7/19/94 145Ø	8/1Ø/94 Ø845	ND	ND		Bag 26, 14" tube broken on retrieval - wires transferred
3OØ9		398	7/19/94 1432	8/1Ø/94 Ø842	ND	ND		Bag 26; 14"
3O1Ø		396	7/19/94 1408	8/1Ø/94 ~~Ø838~~ sacrificed	ND	ND		"guy" wire broke - lost tube Bag 26, full
3O11		395	7/19/94 1358	8/1Ø/94 Ø835	ND	ND		Bag 26; full
3O12		37Ø	7/18/94 11:25	8/1Ø/94 Ø833	ND	ND		Bag 14; full
3O13								
3O14								
3O15								
			JPH	8/22/94				
SDBA11		35Ø	7/14/94 13Ø4	7/21/94 1541	ND	ND		12in Bag #17
SDBA12		352	7/14/94 1314	7/21/94 1543	ND	ND		16" Bag #19
SDBA13		357	7/14/94 144Ø	7/21/94 1554	ND	ND		16" Bag #17
SDBA14		358	7/14/94 1442	7/21/94 1553	ND	ND		14" Bag #19
				JPH 8/22/94				

SOIL GAS SURVEY (PETREX)

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA, PHASE 1 PG. 234 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
No Entry JPH 8/22/94								
SDBB11		349	7/14/94 1356	7/21/94 1539	ND	ND		BAG #17 18"
SDBB12		351	7/14/94 1310	7/21/94 1546	ND	ND		14" BAG #17
SDBB13		359	7/14/94 1450	7/21/94 1548	ND	ND		18" BAG #17
SDBB14		360	7/14/90 1454	7/21/94 1551	ND	ND		11" BAG #17
			JPH 8/22/94					
SDBCØ3		3Ø5	Ø7/12/94 16Ø3	7/21/94 1538	ND	ND		BAG #16 8 INCHES
SDBCØ4		3Ø4	7/12/94 1559	7/21/94 1536	ND	ND		BAG #16 10 INCHES
SDBCØ5		3Ø2	7/12/94 1549	7/21/94 1534	ND	ND		BAG #16 FULL
SDBCØ6		3ØØ	7/12/94 1541	7/21/94 ~~7-27-94 1530~~ 4a 1532	ND	ND		BAG #18 13 INCHES
SDBCØ7	JPH 8/24/94	299 ~~298~~	7/12/94 1528	7/21/94 ~~7-27-94 1527~~ 4a 1530	ND	ND		BAG #16 14"
SDBCØ8		272	7/11/94 15:52	7/21/94 1526	ND	ND		full bag #13
SDBCØ9		342	7/14/94 Ø945	7/21/94 1524	ND	ND		12 in bag #17
SDBC1Ø		343	7/14/94 1Ø25	7/21/94 1522	ND	ND		18 IN. BAG #17
SDBC11		347	7/14/94 1Ø58	7/21/94 1520	ND	ND		10 in Bag #17
SDBC12		348	7/14/94 11Ø5	7/21/94 1518	ND	ND		18" BAG #17
SDBC13		361	7/14/94 15ØØ	7/21/94 1515	ND	ND		18" BAG #17
SDBC14		362	7/14/94 15Ø5	7/21/94 1513	ND	ND		9" BAG #17

SOIL GAS SU[illegible]Y (PETREX)

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA, PHASE 1 PG. 235 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
SBDC8		272	7/11/94 15:55	7/18/94 1304	ND	ND		Timer #1 Full
SBDC8		272	7/11/94 15:55	7/21/94 1527	ND	ND		Timer #2 Full
			JPH 8/22/94					
SDBDØ3								aeration basin
SDBDØ4								↓
SDBDØ5		3ØØ3	7/12/94 1554	7/21/94 1450	ND	ND		BAG #16 ~ 9 INCHES
SDBDØ6		3Ø1	7/12/94 1545	7/21/94 1452	ND	ND		BAG #16 14 INCHES
SDBDØ7		298	7/12/94 1522 1526 JPH 8/22/94	7/21/94 1455	ND	ND		BAG #16 16" 7/12/94
SDBDØ8		297	7/12/94 1518	7/21/94 1456	ND	ND		BAG #18 18"
SDBDØ9		341	7/14/94 1934	7/21/94 1500	ND	ND		BAG #17 12 INCHES
SDBD1Ø		345	7/14/94 1646	7/21/94 1502	ND	ND		~~DUE TO CAVE IN~~ 7/14/94 ~~SECOND HOLE~~ 8" BAG 17
SDBD11		344	7/14/94 1635	7/21/94 1505	ND	ND		8" BAG #17
SDBD12		346	7/14/94 1645	7/21/94 1509	ND	ND		16" BAG #17
SDBD13		363	7/14/94 1510	7/21/94 1511	ND	ND		18" BAG #17
SDBD14		321	7/18/94 13:45	7/27/94 1459	ND	ND		bag 14; full
			JPH 8/22/94					
SDBEØ3								aeration basin

SOIL GAS SURVEY (PETREX)

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA, PHASE 1 PG. 236 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
SDBEØ4		312	7/13/94 Ø945	7/21/94 1447	ND	ND		18" Bag #16
SDBEØ5		3Ø6	Ø7/12/94 16Ø7	7/21/94 1446	ND	ND		BAG #16 FULL
SDBEØ6								Installation blocked by
SDBEØ7								structure
SDBEØ8		296	7/12/94 1514	7/21/94 1443	ND	ND		BAG #18 14"
SDBEØ9		34Ø	7/14/94 Ø93Ø	7/21/94 1441	ND	ND		BAG #17 14 INCHES
SDBE1Ø		339	7/14/94 GW7/14 Ø924	7/21/94 1440	ND	ND		Bag #17 Full
SDBE11								CAVE INS COULD NOT INSTALL
SDBE12		338	Ø7/14/94 Ø85Ø	7/21/94 1439	ND	ND		BAG # 2Ø . 12 INCHES
SDBE13		326	7/18/94 1426	7/27/94 1451	ND	ND		bag 14 ; 6"
SDBE14		322	7/18/94 1355	7/27/94 1458	ND	ND		bag 14 ; full
				mlt 8/22/94				
SDBFØ2		313	7/13/94 Ø956	7/21/94 1152	ND	ND		18" Bag # 2Ø
SDBFØ3								aeration basin
SDBFØ4		311	7/13/94 Ø852	7/21/94 1153	ND	ND		16" Bag #16
SDBFØ5								aeration basin
SDBFØ6								+
SDBFØ7		295	7/12/94 151Ø	7/21/94 1157	ND	ND		BAG #18 18"

SOIL GAS SURVEY (PETREX)

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA, PHASE 1 PG. 237 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
SDBFØ8		333	7/13/94 0813	7/21/94 1422	ND	ND		16 INCHES BAG # 20
SDBFØ9		334	7/14/94 0820	7/21/94 1424	ND	ND		16 inches Bag #20
SDBF1Ø		335	7/14/94 0828	7/21/94 1426	ND	ND		14 INCHES BAG # 20
SDBF11	P=336 7-29-94 in P 7/25/94 0912	~~336~~	~~7/14/94 0838~~	8/1/94 1048 7-29-94	ND OK	ND OK 7-29-94		Full Bag 16 ~~12 inches Bag #20~~
SDBF12		337	7/14/94 0845	7/21/94 1431	ND	ND		18 INCHES BAG # 20
SDBF13		375	7/18/94 1420	7/27/94 1452	ND	ND		full; Bag 14
SDBF14		373	7/18/94 1404	7/27/94 1456	ND	ND		bag #14; full
			PH 8/22/94					
SDBGØ1		307	7/13/94 0829	7/21/94 1148	ND	ND		16", Bag #16
SDBGØ2		308	7/13/94 0834	7/21/94 1146	ND	ND		15" Bag #16
SDBGØ3		309	7/13/94 0838	7/21/94 1144	ND	ND		8" Bag #16
SDBGØ4		310	7/13/94 0847	7/21/94 1142	ND	ND		16" Bag #16
SDBGØ5								aeration basin
SDBGØ6								↓
SDBGØ7		294	7/12/94 1504	7/21/94 1140	ND	ND		12" BAG # 18
SDBGØ8		353	7/14/94 1330	7/21/94 1138	ND	ND		16 in bag 17
SDBGØ9		270	7/11/94 15:27	7/21/94 1137	ND	ND		12 inches bag 13
SDBG1Ø		354	7/14/94 1340	7/21/94 1135	ND	ND		9" BAG #17

SOIL GAS SURVEY (PETREX)

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA, PHASE 1 PG. 238 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
SDBG11		355	7/14/94 1344	7/21/94 1133	ND	ND		12" Bag #17
SDBG12		356	7/14/94 1358	7/21/94 1131	ND	ND		8" Bag #17
SDBG13		271	7/11/94 15:35	7/21/94 ~~1144~~ 1124	ND	ND		full bag #13
SDBG14		374	7/18/94 14:14	7/27/94 1454	ND	ND		bag 14; full
SDBG13		271	7/11/94 15:40	~~7/21/94 1126~~ 7/18/94 1309	ND	ND		Full Timer #1
SDBG13		271	7/11/94 15:40	7/21/94 1128	ND	ND		Full Timer #2
			gpH 8/22/94					
SDBHØ1								Structure blocking
SDBHØ2								these locations
SDBHØ3		290	7/12/94 1417	7/21/94 1056	ND	ND		9" Bag 18"
SDBHØ4		291	7/12/94 1421	7/21/94 1058	ND	ND		Bag #18 12"
SDBHØ5		292	7/12/94 1448	7/21/94 1059	ND	ND		Bag #18 18"
SDBHØ6		293	7/12/94 1581	7/21/94 1101	ND	ND		Bag #18 18"
SDBHØ7		314	7/13/94 1Ø1Ø	7/21/94 1103	ND	ND		14" Bag #20
SDBHØ8								Abandoned - cave in in gravel
SDBHØ9		315	7/13/94 1Ø34	7/21/94 1106	ND	ND		8" Bag #2Ø
SDBH1Ø		316	7/13/94 1Ø59	7/21/94 1108	ND	ND		18" Bag #2Ø
SDBH11		317	7/13/94 11Ø5	7/21/94 1110	ND	ND		18" Bag #20
SDBH12		318	7/13/94 111Ø	7/21/94 1113	ND	ND		18" Bag #2Ø
SDBH13		377	7/18/94 1445	7/27/94 1448	ND	ND		bag 14; full

SOIL GAS SU[illegible]Y (PETREX)

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA, PHASE 1 PG. 239 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
SDBH14		319	7/13/94 1122	7/21/94 1117	ND	ND		Bag #20 Full
			JPH 8/22/94					
SDBIØ1								aeration basin
SDBIØ2		289	7/12/94 14Ø8	7/21/94 1039	ND	ND		18" BAG 18
SDBIØ3		288	7/12/94 1356	7/21/94 1042	ND	ND		13" BAG 18
SDBIØ4		287	7/12/94 1352	7/21/94 1044	ND	ND		8" BAG 18
SDBIØ5		286	7/12/94 1348	7/21/94 1046	ND	ND		18" BAG 18
SDBIØ6		285	7/12/94 1333	7/21/94 1050	ND	ND		18" BAG 18
SDBIØ7		284	7/12/94 1318	7/21/94 1053	ND	ND		10" BAG 18
SDBIØ8	482	~~482~~	7-26-94 1507 ~~7/12/94 1302~~	8/1/94 1Ø5Ø	60	out channel 2,000		~~FIDLER TOO HIGH~~
SDBIØ9	483	~~483~~	7-26-94 1516 ~~7/12/94 1310~~	8/1/94 112Ø	600	out channel 3,000		~~FIDLER TOO HIGH~~
SDBI1Ø	484	~~484~~	7-26-94 1525 ~~7/12/94 1313~~	8/1/94 1Ø54	700	out channel 2,000		~~FIDLER TOO HIGH~~
SDBI11		322	7/13/94 114Ø	7/21/94 1123	ND	ND		Bag #2Ø, 12"
SDBI12		378	7/18/94 15Ø1	7/27/94 1446	ND	ND		full ; bag 14
SDBI13		32Ø	7/13/94 1129	7/21/94 1121	ND	ND		16" Bag #20
SDBI14		332	7/13/94 1513	7/21/94 1119	ND	ND		12" Bag #20
				JPH 8/22/94				

SOIL GAS SURVEY (PETREX)

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA, PHASE 1 PG. 24Ø PROJECT NO.: 34896

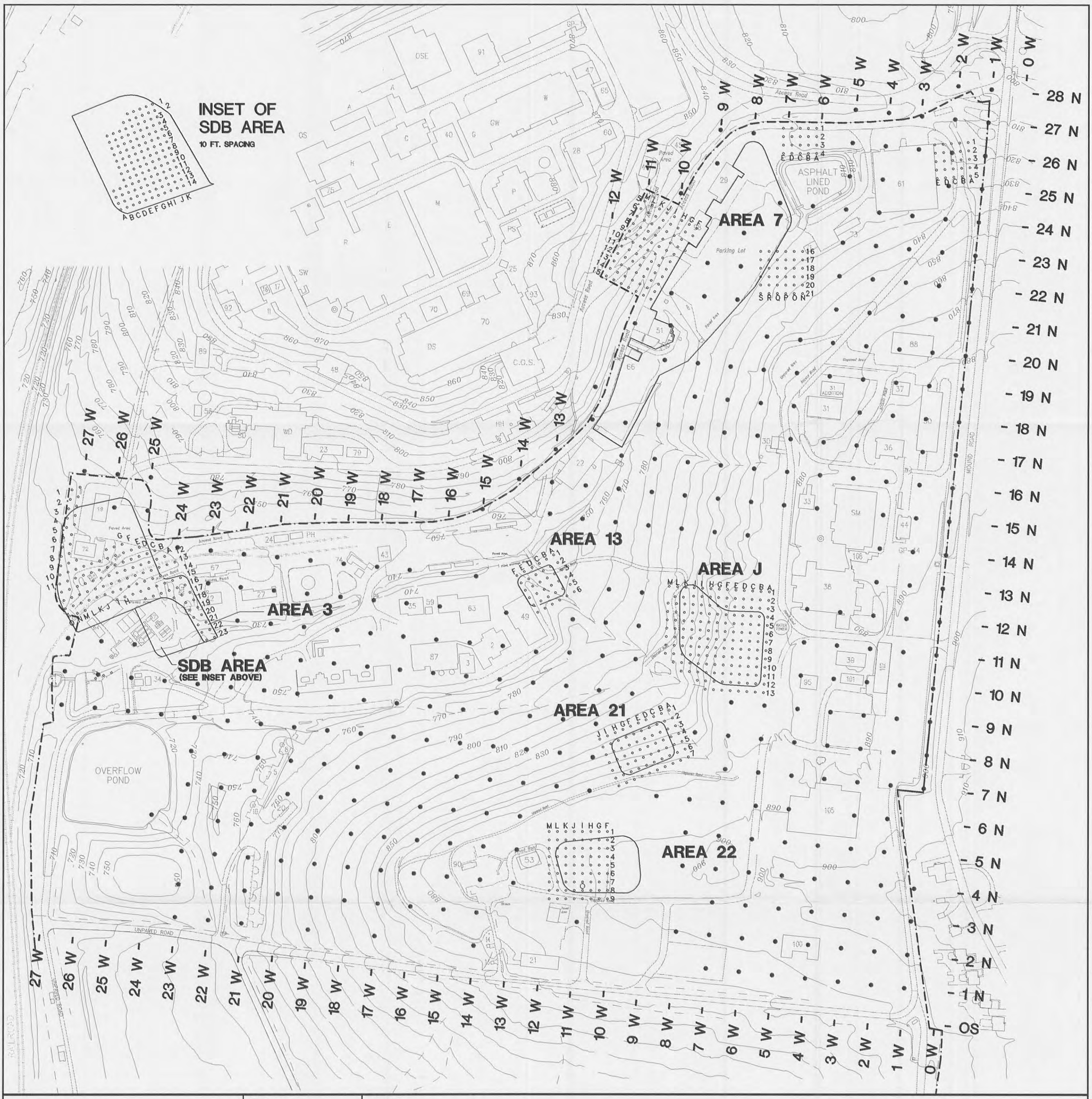
LOCATION GRID ID	MOUND SAMPLE NUMBER	PETREX NUMBER	DATE / TIME PLACE	DATE / TIME RETRIEVE	FIDLER READING (CPM) CH1	FIDLER READING (CPM) CH2 x (1000)	COC NUMBER	COMMENTS
			JPH 8/22/94					
SDBJØ1		~~281~~ 280	7/18/94 1555 ~~7/12/94 1555~~	7/27/94 1440	ND	ND		Bag 14; full
SDBJØ2		GW 7/12/94 281	GW 7/12/94 7/12/94 1255	7/21/94 1037	ND	ND		8" Bag 18
SDBJØ3		282	7/12/94 1301	7/21/94 1035	ND	ND		Full Bag 18
SDBJØ4		283	7/12/94 1306	7/21/94 1031	ND	ND		11" BAG 18
SDBJØ5		~~2~~	JPH 8/22/94 ~~7/12/94 1642~~	RE 9-28-94 ~~7/21/94~~	ND	ND		COULDN'T GET DEPTH REQUIRED
SDBJØ6		280	7/12/94 Ø937	7/21/94 1023	ND	ND		14" Bag 18
SDBJØ7		278	7/12/94 Ø915	7/21/94 1021	ND	ND		12" Bag 18
SDBJØ8		277	7/12/94 Ø910	7/21/94 1018	ND	ND		12" Bag 18
SDBJØ9		279	7/12/94 Ø933	7/21/94 1014	ND	ND		10" Bag 18
~~JPH 8/3/94 SDBJ10~~	See below GW 7/12/94	~~280~~	~~7/12/94 Ø937~~	~~7/21/94 1012~~				~~14" Bag 18~~ GW 7/12/94
SDBJ11		379	7/8/94 1514	7/27/94 1444	ND	ND		full; Bag 14
SDBJ12		329	7/13/94 1456	7/21/94 1009	ND	ND		bag # 20, 10"
SDBJ13		328	7/13/94 1446	7/21/94 1006	ND	ND		13", bag #2Ø
SDBJ14		331	7/13/94 1512 ~~1524~~ JPH 8/22/94	7/21/94 1002	ND	ND		16" bag #20
SDBJ1Ø		323	7/13/94 1147	7/21/94 1Ø12	ND	ND		Bag #20, 10"
			JPH 8/22/94					
SDBKØ1		266	7/11/94 14:25	7/21/94 0904	ND	ND		Full Bag #13

SOIL GAS SURVEY (PETREX)

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA, PHASE 1 PG. 241 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
SDBKØ2		267	7/11/94 14:35	7/21/94 0908	ND	ND		Full bag#13
SDBKØ3		268	7/11/94 ~~15:00~~ 14:49	7/21/94 0911				10 inches bag#13
SDBKØ4		269	7/11/94 14:57	7/21/94 0926				Full bag#13
SDBKØ5		~~270~~ 273	7/11/94 ~~15:27~~ Ø825	7/21/94 0931				12 inches bag#13
SDBKØ6		274	7/12/94 Ø848	7/21/94 0934				10 inches bag#13
SDBKØ7		275	7/12/94 Ø854	7/21/94 0936				10" BAG # 13
SDBKØ8		276	7/12/94 Ø9ØØ	7/21/94 0939				14" BAG # 13
SDBKØ9		324	7/13/94 141Ø	7/21/94 0946				Bag#20, Full
SDBK1Ø		321	7/13/94 1417	8/1/94 11Ø5				underwater.
SDBK11		325	7/13/94 1419	7/21/94 0949				18", bag#20
SDBK12		326	7/13/94 1424	7/21/94 0951				10", bag#20
SDBK13		327	7/13/94 1441	7/21/94 0954				Full, bag#20
SDBK14		33Ø	7/13/94 15Ø1	7/21/94 0957				Bag#20, 15"
SDBKØ4		269	7/11/94 15ØØ	7/18/94 1259				Timer#1
SDBKØ4		269	7/11/94 15Ø2	7/21/94 Ø928				Timer#2
			JPH 8/22/94					
7AØ1		612	8/4/94 Ø825	8/17/94 Ø848	ND	ND		Full; BAG#23
7AØ2		613	8/4/94 Ø834	8/17/94 Ø844	ND	ND		Full; BAG#23
7AØ3		614	8/4/94 Ø838	8/17/94 Ø852	ND	ND		Full; BAG#23
7AØ4		615	8/4/94 Ø846	8/17/94 Ø852	ND	ND		Full; BAG#23

Plate



Mound Plant

Location Map

True North

Contour Interval 10 ft.

100 0 100 200

SCALE (FEET)

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

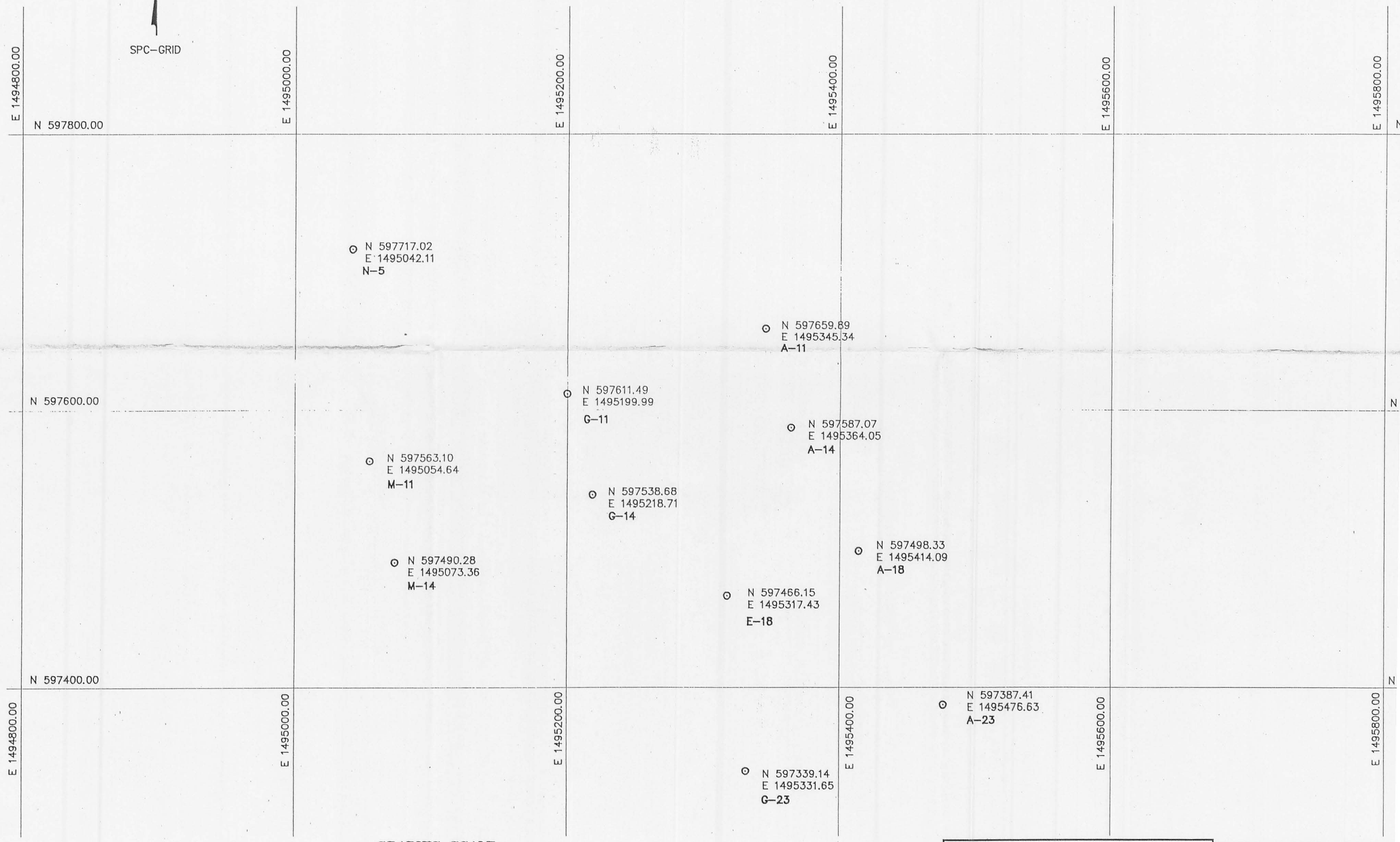
Note: Information on Basemap is Derived from the Weston OU9 Site Scoping Report, 1993, & Referenced to the 1927 Ohio State Plane Coordinate System

E:\MAPS\MOUND\M5C.DWG 8/31/94

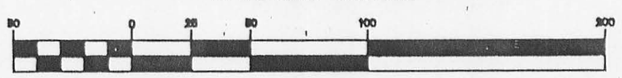
APPENDIX B

SURVEY MAPS

AREA 3/SDB
MOUND LAB
MIAMISBURG, OHIO



GRAPHIC SCALE



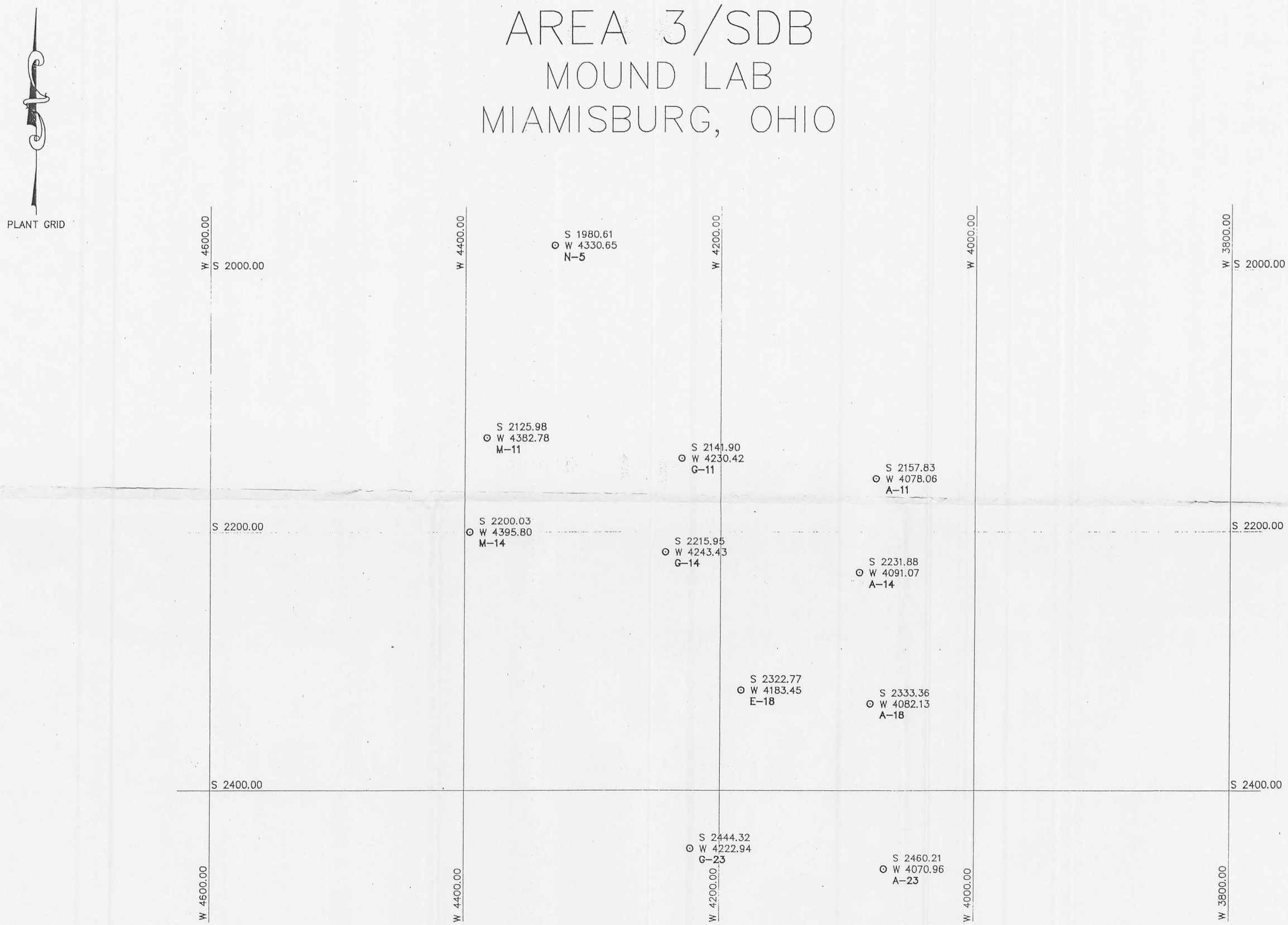
(IN FEET)
1 inch = 50 ft.

APPENDIX B
PLATE 1 SURVEY MAP OHIO STATE PLANE COORDINATE SYSTEM
LEGEND
⊙ LOCATED POINT A-1 GRID LOCATION

Shaw Weiss & DeNa
Engineers & Environmental Scientists
14 West First Street • Dayton, Ohio 4

SCALE 1"= 50'	DRAWN JPH
DATE 8/30/94	JOB NO.

AREA 3/SDB
MOUND LAB
MIAMISBURG, OHIO



GRAPHIC SCALE

(IN FEET)
1 inch = 50 ft.

APPENDIX B

PLATE 2 SURVEY MAP
MOUND PLANT COORDINATE SYSTEM

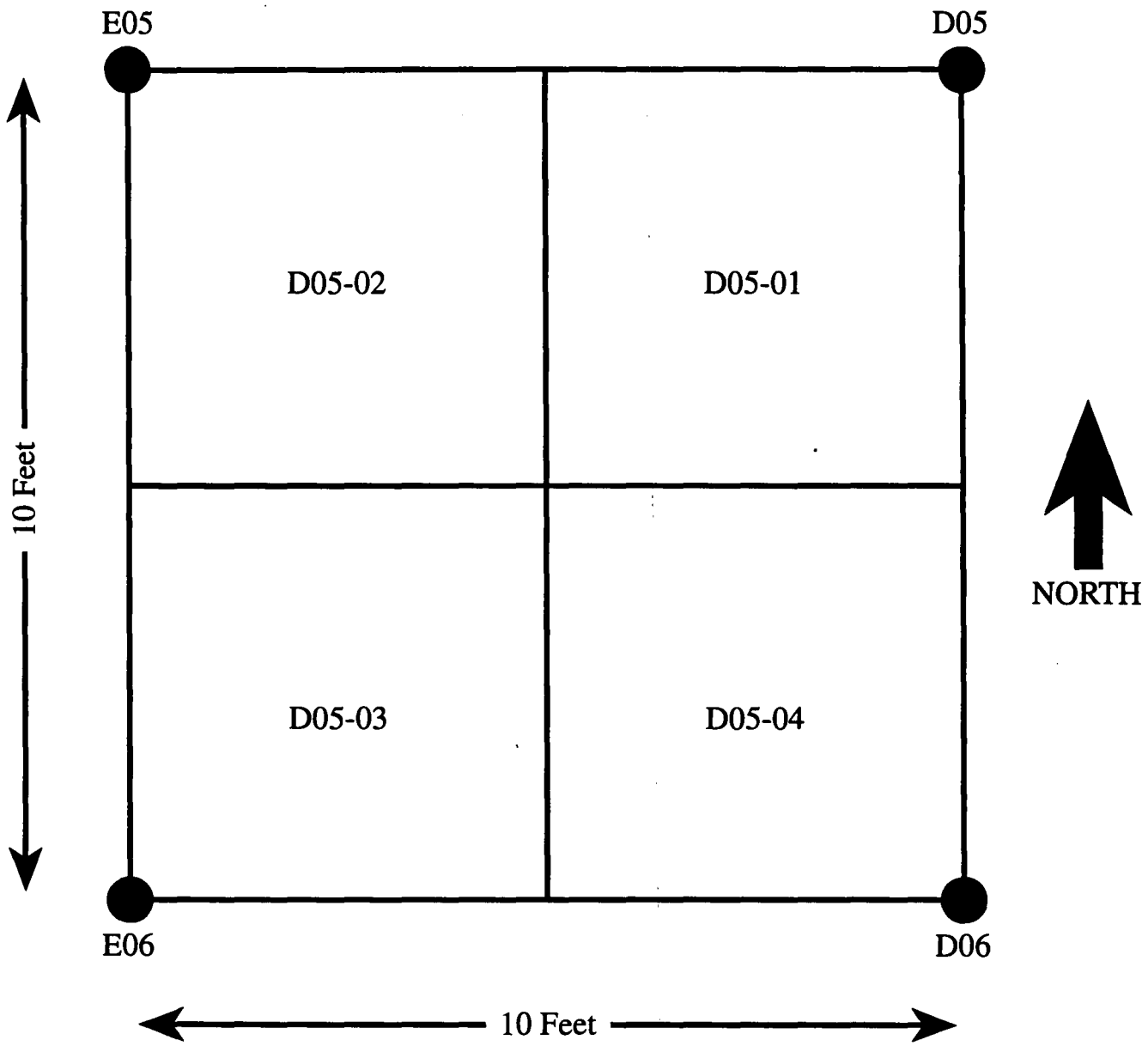
LEGEND

⊙ LOCATED POINT A-1 GRID LOCATION

Shaw Welss & DeNaples
Engineers & Environmental Scientists
14 West First Street • Dayton, Ohio 45402

SCALE 1"= 50'	DRAWN SBM	CHECKED
DATE 7/19/94	JOB NO. L2052	

Appendix C



Operable Unit 5, Operational Area, Phase 1 Investigation - Generic Sampling Identification Scheme for the FIDLER survey conducted in Area SDB

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	Note:	RESULTS	Note:
SDBA11	156.0	NA	10.27	NA	12.48	5.5	NS		NS	
SDBA12	156.0	NA	10.27	NA	12.48	6.5	NS		NS	
SDBA13	156.0	NA	10.27	NA	12.48	6.5	39	b	0.6	a
SDBA14	223.6	NA	12.22	NA	13.26	6.0	19	a	0.6	a
SDBB11	156.0	NA	10.27	NA	12.48	5.5	NS		NS	
SDBB12	156.0	NA	10.27	NA	12.48	6.0	31	b	0.5	a
SDBB13	156.0	NA	10.27	NA	12.48	7.0	31	b	0.3	a
SDBB14	223.6	NA	12.22	NA	13.26	5.5	24	a	0.3	a
SDBC03	156.0	NA	10.27	NA	12.48	4.5	NS		NS	
SDBC04	156.0	NA	10.27	NA	12.48	5.0	NS		NS	
SDBC05	156.0	NA	10.27	NA	12.48	5.5	NS		NS	
SDBC06	156.0	NA	10.27	NA	12.48	5.0	NS		NS	
SDBC07	156.0	NA	10.27	NA	12.48	6.0	NS		NS	
SDBC08	156.0	NA	10.27	NA	12.48	6.0	9	a	0	a
SDBC09	156.0	NA	10.27	NA	12.48	5.5	NS		NS	
SDBC10	156.0	NA	10.27	NA	12.48	5.0	NS		NS	
SDBC11	156.0	NA	10.27	NA	12.48	4.5	NS		NS	
SDBC12	156.0	NA	10.27	NA	12.48	6.5	31	b	0.6	a
SDBC13	156.0	NA	10.27	NA	12.48	NR	27	b	0.5	a
SDBC14	223.6	NA	12.22	NA	13.26	4.5	23	a	0.3	a
SDBD04	156.0	NA	10.27	NA	12.48	NR	NS		NS	
SDBD04-01	156.0	NA	10.27	NA	12.48	4.5	NC		NC	
SDBD04-02	156.0	NA	10.27	NA	12.48	5.0	NC		NC	
SDBD04-03	156.0	NA	10.27	NA	12.48	4.5	NC		NC	
SDBD04-04	156.0	NA	10.27	NA	12.48	5.0	NC		NC	
SDBD05	156.0	NA	10.27	NA	12.48	NR	NS		NS	
SDBD05-01	156.0	NA	10.27	NA	12.48	5.5	NC		NC	
SDBD05-02	156.0	NA	10.27	NA	12.48	5.5	NC		NC	
SDBD05-03	156.0	NA	10.27	NA	12.48	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	Note:	RESULTS	Note:
SDBD05-04	156.0	NA	10.27	NA	12.48	6.0	NC		NC	
SDBD06	156.0	NA	10.27	NA	12.48	NR	NS		NS	
SDBD06-01	156.0	NA	10.27	NA	12.48	5.0	NC		NC	
SDBD06-02	156.0	NA	10.27	NA	12.48	5.0	NC		NC	
SDBD06-03	156.0	NA	10.27	NA	12.48	5.5	NC		NC	
SDBD06-04	156.0	NA	10.27	NA	12.48	5.0	NC		NC	
SDBD07	156.0	NA	10.27	NA	12.48	NR	NS		NS	
SDBD07-01	156.0	NA	10.27	NA	12.48	5.0	NC		NC	
SDBD07-02	156.0	NA	10.27	NA	12.48	5.5	NC		NC	
SDBD07-03	156.0	NA	10.27	NA	12.48	5.5	NC		NC	
SDBD07-04	156.0	NA	10.27	NA	12.48	5.5	NC		NC	
SDBD08	156.0	NA	10.27	NA	12.48	NR	NS		NS	
SDBD08-01	156.0	NA	10.27	NA	12.48	5.0	NC		NC	
SDBD08-02	156.0	NA	10.27	NA	12.48	5.0	NC		NC	
SDBD08-03	156.0	NA	10.27	NA	12.48	5.5	NC		NC	
SDBD08-04	156.0	NA	10.27	NA	12.48	5.0	NC		NC	
SDBD09	156.0	NA	10.27	NA	12.48	5.5	NS		NS	
SDBD10	156.0	NA	10.27	NA	12.48	4.0	NS		NS	
SDBD11	156.0	NA	10.27	NA	12.48	5.0	NS		NS	
SDBD12	156.0	NA	10.27	NA	12.48	7.0	30	b	0.4	a
SDBD13	156.0	NA	10.27	NA	12.48	6.5	30	b	0.5	a
SDBD14	223.6	NA	12.22	NA	13.26	5.0	5	a	0.3	a
SDBE04	156.0	NA	10.27	NA	12.48	NR	NS		NS	
SDBE04-01	156.0	NA	10.27	NA	12.48	5.0	NC		NC	
SDBE04-02	156.0	NA	10.27	NA	12.48	5.0	NC		NC	
SDBE04-03	156.0	NA	10.27	NA	12.48	5.0	NC		NC	
SDBE04-04	156.0	NA	10.27	NA	12.48	5.0	NC		NC	
SDBE05	156.0	NA	10.27	NA	12.48	NR	NS		NS	
SDBE05-01	156.0	NA	10.27	NA	12.48	5.0	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	Note:	RESULTS	Note:
SDBE05-02	156.0	NA	10.27	NA	12.48	5.0	NC		NC	
SDBE05-03	156.0	NA	10.27	NA	12.48	5.0	NC		NC	
SDBE05-04	156.0	NA	10.27	NA	12.48	4.5	NC		NC	
SDBE08	156.0	NA	10.27	NA	12.48	NR	NS		NS	
SDBE08-01	156.0	NA	10.27	NA	12.48	4.5	NC		NC	
SDBE08-02	156.0	NA	10.27	NA	12.48	5.0	NC		NC	
SDBE08-03	156.0	NA	10.27	NA	12.48	5.0	NC		NC	
SDBE08-04	156.0	NA	10.27	NA	12.48	5.0	NC		NC	
SDBE09	156.0	NA	10.27	NA	12.48	5.5	NS		NS	
SDBE10	156.0	NA	10.27	NA	12.48	4.0	NS		NS	
SDBE11	156.0	NA	10.27	NA	12.48	5.0	NS		NS	
SDBE12	156.0	NA	10.27	NA	12.48	7.5	37	b	0.6	a
SDBE13	156.0	NA	10.27	NA	12.48	6.5	21	a	0.4	a
SDBE14	223.6	NA	12.22	NA	13.26	4.0	20	a	0.8	a
SDBF02	NA	NA	NA	NA	NA	NR	NS		NS	
SDBF04	156.0	NA	10.27	NA	12.48	NR	NS		NS	
SDBF04-01	156.0	NA	10.27	NA	12.48	5.0	NC		NC	
SDBF04-02	156.0	NA	10.27	NA	12.48	5.0	NC		NC	
SDBF04-03	156.0	NA	10.27	NA	12.48	5.5	NC		NC	
SDBF04-04	156.0	NA	10.27	NA	12.48	5.0	NC		NC	
SDBF07	156.0	NA	10.27	NA	12.48	NR	NS		NS	
SDBF07-01	156.0	NA	10.27	NA	12.48	5.5	NC		NC	
SDBF07-02	156.0	NA	10.27	NA	12.48	6.0	NC		NC	
SDBF07-03	156.0	NA	10.27	NA	12.48	6.5	NC		NC	
SDBF07-04	156.0	NA	10.27	NA	12.48	5.5	NC		NC	
SDBF08	156.0	NA	10.27	NA	12.48	NR	21	a	0.3	a
SDBF08-01	156.0	NA	10.27	NA	12.48	4.5	NC		NC	
SDBF08-02	156.0	NA	10.27	NA	12.48	4.5	NC		NC	
SDBF08-03	156.0	NA	10.27	NA	12.48	5.0	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	Note:	RESULTS	Note:
SDBF08-04	156.0	NA	10.27	NA	12.48	5.0	NC		NC	
SDBF09	156.0	NA	10.27	NA	12.48	5.0	6	a	0.2	a
SDBF10	156.0	NA	10.27	NA	12.48	5.5	NS		NS	
SDBF11	156.0	NA	10.27	NA	12.48	5.0	NS		NS	
SDBF12	156.0	NA	10.27	NA	12.48	6.5	39	b	0.6	a
SDBF13	156.0	NA	10.27	NA	12.48	6.0	35	b	0.8	a
SDBF14	223.6	NA	12.22	NA	13.26	4.0	38	b	0.4	a
SDBG01	156.0	NA	10.27	NA	12.48	NR	NS		NS	
SDBG01-01	156.0	NA	10.27	NA	12.48	5.5	NC		NC	
SDBG01-02	156.0	NA	10.27	NA	12.48	5.5	NC		NC	
SDBG01-03	156.0	NA	10.27	NA	12.48	5.5	NC		NC	
SDBG01-04	156.0	NA	10.27	NA	12.48	5.5	NC		NC	
SDBG02	156.0	NA	10.27	NA	12.48	NR	NS		NS	
SDBG02-01	156.0	NA	10.27	NA	12.48	6.0	NC		NC	
SDBG02-02	156.0	NA	10.27	NA	12.48	6.5	NC		NC	
SDBG02-03	156.0	NA	10.27	NA	12.48	6.5	NC		NC	
SDBG02-04	156.0	NA	10.27	NA	12.48	5.5	NC		NC	
SDBG03	156.0	NA	10.27	NA	12.48	NR	NS		NS	
SDBG03-01	156.0	NA	10.27	NA	12.48	5.5	NC		NC	
SDBG03-02	156.0	NA	10.27	NA	12.48	4.5	NC		NC	
SDBG03-03	156.0	NA	10.27	NA	12.48	NA	NC		NC	
SDBG03-04	156.0	NA	10.27	NA	12.48	5.5	NC		NC	
SDBG04	156.0	NA	10.27	NA	12.48	6.5	NS		NS	
SDBG07	156.0	NA	10.27	NA	12.48	NR	NS		NS	
SDBG07-01	156.0	NA	10.27	NA	12.48	6.5	NC		NC	
SDBG07-02	156.0	NA	10.27	NA	12.48	5.5	NC		NC	
SDBG07-03	156.0	NA	10.27	NA	12.48	4.5	NC		NC	
SDBG07-04	156.0	NA	10.27	NA	12.48	5.0	NC		NC	
SDBG08	156.0	NA	10.27	NA	12.48	4.5	NS		NS	

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	Note:	RESULTS	Note:
SDBG08-01	156.0	NA	10.27	NA	12.48	5.5	NC		NC	
SDBG08-02	156.0	NA	10.27	NA	12.48	5.0	NC		NC	
SDBG08-03	156.0	NA	10.27	NA	12.48	4.5	NC		NC	
SDBG08-04	156.0	NA	10.27	NA	12.48	4.5	NC		NC	
SDBG09	156.0	NA	10.27	NA	12.48	NR	17	a	0.1	a
SDBG09-01	156.0	NA	10.27	NA	12.48	4.5	NC		NC	
SDBG09-02	156.0	NA	10.27	NA	12.48	4.5	NC		NC	
SDBG09-03	156.0	NA	10.27	NA	12.48	4.5	NC		NC	
SDBG09-04	156.0	NA	10.27	NA	12.48	4.5	NC		NC	
SDBG10	156.0	NA	10.27	NA	12.48	3.5	NS		NS	
SDBG11	156.0	NA	10.27	NA	12.48	4.0	NS		NS	
SDBG12	156.0	NA	10.27	NA	12.48	5.0	NS		NS	
SDBG13	156.0	NA	10.27	NA	12.48	5.5	12	a	0.6	a
SDBG14	223.6	NA	12.22	NA	13.26	4.5	11	a	0.5	a
SDBH01	156.0	NA	10.27	NA	12.48	NR	NS		NS	
SDBH01-01	156.0	NA	10.27	NA	12.48	5.5	NC		NC	
SDBH01-02	156.0	NA	10.27	NA	12.48	5.5	NC		NC	
SDBH01-03	156.0	NA	10.27	NA	12.48	5.5	NC		NC	
SDBH01-04	156.0	NA	10.27	NA	12.48	5.5	NC		NC	
SDBH02	156.0	NA	10.27	NA	12.48	NR	NS		NS	
SDBH02-01	156.0	NA	10.27	NA	12.48	5.5	NC		NC	
SDBH02-02	156.0	NA	10.27	NA	12.48	5.5	NC		NC	
SDBH02-03	156.0	NA	10.27	NA	12.48	5.5	NC		NC	
SDBH02-04	156.0	NA	10.27	NA	12.48	5.5	NC		NC	
SDBH03	156.0	NA	10.27	NA	12.48	NR	NS		NS	
SDBH03-01	156.0	NA	10.27	NA	12.48	5.5	NC		NC	
SDBH03-02	156.0	NA	10.27	NA	12.48	5.5	NC		NC	
SDBH03-03	156.0	NA	10.27	NA	12.48	5.5	NC		NC	
SDBH03-04	156.0	NA	10.27	NA	12.48	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	Note:	RESULTS	Note:
SDBH04	156.0	NA	10.27	NA	12.48	NR	NS		NS	
SDBH04-01	156.0	NA	10.27	NA	12.48	5.5	NC		NC	
SDBH04-02	156.0	NA	10.27	NA	12.48	5.5	NC		NC	
SDBH04-03	156.0	NA	10.27	NA	12.48	5.5	NC		NC	
SDBH04-04	156.0	NA	10.27	NA	12.48	5.5	NC		NC	
SDBH05	156.0	NA	10.27	NA	12.48	NR	NS		NS	
SDBH05-01	156.0	NA	10.27	NA	12.48	5.5	NC		NC	
SDBH05-02	156.0	NA	10.27	NA	12.48	5.5	NC		NC	
SDBH05-03	156.0	NA	10.27	NA	12.48	NA	NC		NC	
SDBH05-04	156.0	NA	10.27	NA	12.48	5.5	NC		NC	
SDBH06	156.0	NA	10.27	NA	12.48	6.5	NS		NS	
SDBH07	156.0	NA	10.27	NA	12.48	4.5	NS		NS	
SDBH08	156.0	NA	10.27	NA	12.48	5.0	NS		NS	
SDBH09	156.0	NA	10.27	NA	12.48	5.5	NS		NS	
SDBH10	156.0	NA	10.27	NA	12.48	4.5	NS		NS	
SDBH11	156.0	NA	10.27	NA	12.48	8.0	256	b	0.7	a
SDBH12	156.0	NA	10.27	NA	12.48	6.0	57	b	0.4	a
SDBH13	223.6	NA	12.22	NA	13.26	5.5	54	b	0.7	a
SDBH14	223.6	NA	12.22	NA	13.26	3.5	NS		NS	
SDBI02	223.6	NA	12.22	NA	13.26	4.5	15	a	0.2	a
SDBI03	223.6	NA	12.22	NA	13.26	4.0	34	b	0.2	a
SDBI03-01	156.0	NA	10.27	NA	12.48	5.5	NC		NC	
SDBI03-02	156.0	NA	10.27	NA	12.48	5.5	NC		NC	
SDBI03-03	156.0	NA	10.27	NA	12.48	5.5	NC		NC	
SDBI03-04	156.0	NA	10.27	NA	12.48	5.5	NC		NC	
SDBI04	156.0	NA	10.27	NA	12.48	5.0	36	b	0.4	a
SDBI04-01	156.0	NA	10.27	NA	12.48	5.0	NC		NC	
SDBI04-02	156.0	NA	10.27	NA	12.48	5.5	NC		NC	
SDBI04-03	156.0	NA	10.27	NA	12.48	5.0	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	Note:	RESULTS	Note:
SDBI04-04	156.0	NA	10.27	NA	12.48	5.5	NC		NC	
SDBI05	223.6	NA	12.22	NA	13.26	5.0	22	a	0.7	a
SDBI06	223.6	NA	12.22	NA	13.26	6.0	NS		NS	
SDBI07	223.6	NA	12.22	NA	13.26	6.0	NS		NS	
SDBI08	223.6	NA	12.22	NA	13.26	7.5	1198	b	0.8	a
SDBI09	223.6	NA	12.22	NA	13.26	9.0	540	b	0.9	a
SDBI09.2	156.0	490	10.27	8.5	12.48	12	NC		NC	
SDBI10	223.6	NA	12.22	NA	13.26	8.5	180	b	0.9	a
SDBI11	223.6	NA	12.22	NA	13.26	8.5	15	a	1.2	a
SDBI12	223.6	NA	12.22	NA	13.26	5.0	28	b	0.5	a
SDBI13	223.6	NA	12.22	NA	13.26	5.0	16	a	0.3	a
SDBI14	223.6	NA	12.22	NA	13.26	6.0	24	a	0.4	a
SDBJ01	223.6	NA	12.22	NA	13.26	6.0	37	b	0.9	a
SDBJ02	223.6	NA	12.22	NA	13.26	6.0	NS		NS	
SDBJ03	223.6	NA	12.22	NA	13.26	5.0	NS		NS	
SDBJ04	223.6	NA	12.22	NA	13.26	5.5	37	b	0.4	a
SDBJ05	223.6	NA	12.22	NA	13.26	5.0	NS		NS	
SDBJ06	223.6	NA	12.22	NA	13.26	8.5	28	b	1.2	a
SDBJ07	223.6	NA	12.22	NA	13.26	8.5	0	a	0.6	a
SDBJ08	223.6	NA	12.22	NA	13.26	8.0	4	a	1	a
SDBJ09	223.6	NA	12.22	NA	13.26	7.5	27	b	0.9	a
SDBJ10	223.6	NA	12.22	NA	13.26	5.5	25	b	0.6	a
SDBJ11	223.6	NA	12.22	NA	13.26	5.5	25	b	0.6	a
SDBJ12	223.6	NA	12.22	NA	13.26	8.5	27	b	1.4	a
SDBJ13	223.6	NA	12.22	NA	13.26	9.0	27	b	0.8	a
SDBJ14	223.6	NA	12.22	NA	13.26	7.0	23	a	0.9	a
SDBK01	223.6	NA	12.22	NA	13.26	7.5	58	b	0.6	a
SDBK02	223.6	NA	12.22	NA	13.26	5.5	7	a	0.5	a
SDBK03	223.6	NA	12.22	NA	13.26	6.5	0	a	0.3	a

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	Note:	RESULTS	Note:
SDBK04	223.6	NA	12.22	NA	13.26	7.0	NS		NS	
SDBK05	223.6	NA	12.22	NA	13.26	8.0	24	a	0.8	a
SDBK06	223.6	NA	12.22	NA	13.26	7.5	11	a	0.7	a
SDBK07	223.6	NA	12.22	NA	13.26	6.5	20	a	0.6	a
SDBK08	223.6	NA	12.22	NA	13.26	5.5	13	a	0.4	a
SDBK09	223.6	NA	12.22	NA	13.26	8.5	26	b	0.8	a
SDBK10	223.6	NA	12.22	NA	13.26	5.0	25	b	1	a
SDBK11	223.6	NA	12.22	NA	13.26	8.5	25	b	1.2	a
SDBK12	223.6	NA	12.22	NA	13.26	9.5	26	b	1.2	a
SDBK13	223.6	NA	12.22	NA	13.26	9.5	30	b	1	a
SDBK14	223.6	NA	12.22	NA	13.26	8.5	10	a	0.6	a

NR - Not Recorded.
NC - No sample collected because location not an original grid point
NA - Reading not taken; contamination criteria not exceeded.
NS - No sample collected; grid point under asphalt or covered with gravel on a steep embankment.
a - Mound Soil Screening Facility detection level not exceeded.
b - Concentration at or above the Mound Soil Screening Facility detection level.
CPM - Counts per minute
KCPM - Counts per minute x 1000
pCi/g - Picocuires 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 THE SEWAGE DISPOSAL BUILDING AREA / OPERABLE UNIT 5
U. S. DEPARTMENT OF ENERGY MOUND FACILITY
MIAMISBURG, OHIO

PREPARED BY: DATE:

Paul C. Bedard, Project Manager 10/10/94

APPROVED BY: DATE:

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1.0 EXECUTIVE SUMMARY

SAIC and NERI performed a PETREX passive soil gas survey at Area SDB/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 solvents, thinners (for paint), and oils, halogenated organic compounds which may have been used in numerous chemical or fabrication processes, and styrene from polymer wastes.

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 July 11 and August 1, 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 common to fuels occur particularly in the north and west of the site in areas surrounding the aeration basins and adjoining the survey borders to the north and west. This finding may indicate the presence of source areas for petroleum in the north of Area SDB (in the vicinity of the aeration basins) or beyond Area SDB borders to the north or northwest.

2. Elevated levels of halogenated compounds commonly used as solvents occur in the north and east of the site. These compounds may derive from small scale spot releases in the east, and larger scale, possibly off-site source areas to the north.

3. Styrenes (from polymer wastes) and 2-butanone were not detected at elevated levels in the soil gas on site.

4. Quantitative testing of soil and groundwater from the PETREX soil gas sampling points at grid coordinates F10, H4, H11, I3, I7, J1, and K1 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 the Sewage Disposal Building Area (Area SDB) within Operable Unit - 5 (OU-5) of the U. S. Department of Energy's Mound Facility in Miamisburg, Ohio. The survey of Area SBD was performed as part of a larger soil gas survey of the entire OU-5 area. Area SDB adjoins and is situated to the south of Area of Concern - 3 (AOC-3) where waste oils, paints and paint thinners, halogenated and nonhalogenated solvents, and polymer wastes may have been released. Due to the proximity of these two sites it is thought that Area SDB may share the effects of potential subsurface contaminants from neighboring AOC-3.

The purpose of this survey was to locate areas within Area SDB which exhibit potential soil and/or groundwater contamination by Volatile and Semivolatile organic compounds (VOC's and SVOC's) particularly those suspected to have been released within nearby AOC-3. The information generated by this survey could then be used to 1) locate potential sources areas of contaminants, and 2) strategically plan quantitative testing of subsurface media as may be required.

3.0 OBJECTIVES

The technical objectives of the PETREX soil gas survey at Area SDB were:

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. From the areal distribution and relative level of the targeted compounds in the soil gas, infer the location of possible source areas or areas meriting quantitative investigation.

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 one hundred and eleven (111) sample collection points. These sample collection points were arrayed in a uniform rectangular grid at intervals of ten feet (see Plate 1 provided with this report).

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

Area SDB is located along the southern border of the larger AOC-3 in the western sector of OU-5. The site slopes gently to the south and houses several structures, including a building and several aeration basins. The boundaries delineating Area SDB describe an area of approximately one third of an acre in size.

All field operations were organized and performed by SAIC personnel. PETREX soil gas samplers were installed within a six day period beginning July 11, 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 six extra PETREX samplers (in addition to the one hundred and eleven survey samplers) was 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 three different locations (at sampling grid coordinates C8, G13, and K4) within Area SDB 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 a seven day exposure.

Analysis of the time test samplers from grid coordinates C8 and K4 indicated that pronounced levels of light and medium weight petroleum hydrocarbons were present in the soil gas in these areas and that an exposure on the order of seven days was sufficient for them to reach high relative levels in the PETREX samplers. On the other hand, after seven day's exposure the time test sampler from grid coordinates G13 yielded only trace levels of a few light hydrocarbons. SAIC field operatives were informed of these findings. Based upon these results it was concluded that the sampling area in the vicinity of grid coordinates G13 likely did not exhibit potential subsurface occurrences of VOC's and SVOC's of a magnitude observed elsewhere (near C8 and K4) and that all PETREX samplers installed with Area SDB should be retrieved after receiving an exposure of between seven and fourteen days.

All PETREX samplers were allowed an exposure of approximately ten days then retrieved from the field. Field crew were first mobilized for sampler retrieval on July 21, 1994.

All PETREX soil gas samplers were submitted via overnight courier to NERI for analysis on August 1, 1994. Samplers were received in good condition and were logged-in by NERI's laboratory on August 2, 1994 (see sample submittal and chain of custody documents). TD-MS soil gas sample analysis as performed on August 19, 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

Three PETREX soil gas samplers (labeled #488, #489, and #490) 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 it is unlikely that the PETREX soil gas samples collected in the field were subjected to contaminating environments in shipping and handling.

7.4 Sample Duplicates

Of the one hundred and eleven samples installed in the field, ten (9%) contained an additional soil gas collector element for the purpose of yielding a duplicate sample for QA analysis. These ten 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 15% from the mean. Percent variation in duplicate pair response values generally decreased (from 26% to 9%) with increasing magnitude of response. This phenomenon reflects the decreasing significance of low level instrument noise and background response relative to increasing response to targeted analytes.

2. Independent of the variation in magnitude of response, sample duplicates 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 #291 and #2291, and #330 and #2330)

Based on these findings it may be concluded that although analytical response to a particular soil gas environment may vary, this variation did not exceed an order of magnitude, the basis on which most data sets are organized (and contoured on attached maps) for evaluation. Variation within this range 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 VOCs 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, 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_4 alkyl benzenes) 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 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 petroleum hydrocarbons (generally compounds in the C_4 to C_{10} weight range), tetrachloroethene (PCE), trichlorofluoromethane (Freon-11), trichloroethene (TCE), and trichloroethane (TCA) in the soil gas.

Not all compounds were detected in all samples. The majority of the samples exhibited low to moderate relative levels of C_4 to C_{10} petroleum hydrocarbons belonging to the alkane, cycloalkane, and alkene groups, low to moderate levels of the C_6, and C_8 aromatics hydrocarbons benzene and ethylbenzene/xylenes, and pronounced levels of the C_7 aromatic hydrocarbon toluene. These compounds are common constituents of most petroleum fuels, heating oils, some light lubricating oils, and many other petroleum based products. The combinations of compounds observed in the majority of the samples (exemplified by the mass spectrum of sample #297) are typical of vapor derived from the weathered residue of products particularly high in aromatics such as fuels.

Seven samples, #274, #287, #290, #291, #295, #307, and #309, demonstrate high relative levels of C_6 to C_{10} aromatics and high to moderate relative levels of alkanes, cycloalkanes and alkenes (see mass spectrum of sample #287 and #291). The pronounced levels of the hydrocarbons in these seven samples suggest that they derived from the residue of fuels showing less of the effects of weathering. This finding likely indicates the presence of higher levels of fuel product residue in the subsurface which, in turn, may indicate the location of potential source areas of petroleum fuels.

Unlike all of the other samples, sample #352 only contained elevated levels of C_6 alkanes (e.g., hexane, methylpentane, etc.). The presence of a pronounced level of C_6 alkanes in the soil gas at this location suggests that a product high in C_6 alkanes, such as a solvent or liquid hexane, may have been released nearby this location.

Site history indicates that styrene (from polymer wastes) may have been released in the vicinity of Area SDB. Five soil gas samples, #302, #304, #305, #333, and #335, demonstrated the potential to contain low to moderate relative levels of styrene and C_1, C_2, and C_3 alkyl styrenes, but only as components of petroleum. No samples demonstrated pronounced levels of styrenes separate from petroleum, or combined with petroleum, but out of proportion with levels of other petroleum hydrocarbons which might indicate origin from a separate waste product. The tendency for styrenes to polymerize (form large, multi-molecule chains) on exposure may be a factor in these results. Polymerization may act to reduce the rate of vaporization of styrene from polymer wastes in the subsurface, and thus reduce the availability of styrene vapor for detection in the soil gas.

Site history similarly indicates that the solvent 2-butanone may have been released within or nearby Area SDB. All samples were examined for the presence of elevated levels of 2-butanone (methyl ethyl ketone), but no evidence of its existence was found. Like all ketones, 2-butanone is water soluble. In the presence of water (including soil moisture), water soluble organic compounds will preferentially enter solution and not disperse as a gas. This phenomenon severely restricts the potential for ketones (and other compounds such as alcohols and ethers) to be detected in the soil gas. Water soluble organic compounds are usually detected in the soil gas only when they have been recently released and occur at high concentrations in the near surface. Thus, although 2-butanone was not detected in any of the soil gas samples, this compound may still be present at levels of concern in subsurface media.

PCE was the most frequently detected halogenated organic compound in the soil gas. The other halogenated hydrocarbons named above were detected much less frequently. Freon-11 was confidently detected, and generally at only low relative levels, in samples #266, #276, #277, #311, #317, #321, #329, #330, #336, #344, 353, and #375 (see mass spectrum of sample #317). TCE was detected only in samples #266, #283, #284, #311, #313, #378 and #482 (see the mass spectrum of sample #284). TCA was detected only at low relative levels and only in samples #311, #312, and #375 (see mass spectrum of sample #312). Dichloroethene (DCE) was not confidently identified in any sample; however, samples #276 and #317 did exhibit the potential to contain low relative levels of this compound. Although numerous chlorinated solvents (including dichloromethane, dichloroethane, and carbon tetrachloride) were suspected to be present in the subsurface, no other halogenated compounds were detected in the soil gas. The highest relative levels of PCE, Freon-11, and TCE were detected in samples #380, #317, and #266, respectively.

Results for the targeted compound groups and their areal distribution on-site are discussed in greater detail in section 9.0, below.

Terpene compounds (likely derived from plant resins) were detected in sample #342 at levels sufficiently elevated to interfere with the reporting of Total Aromatic Hydrocarbons and Total C_5 to C_{11} Petroleum Hydrocarbons in the soil gas. The recorded response levels for these two groups of targeted compounds do not accurately reflect their level in the soil gas due to this interference. Thus, the data are excluded from reporting and replaced with the letter "T" in Table 1 and on Plates 2 and 4. Despite this interference, results indicate that only low relative levels of aromatics and other petroleum hydrocarbons may be present in the soil gas at this sampling location.

The high sensitivity to VOC's and SVOC'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 subsurface media 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 lighter weight (C_6 through C_9) aromatics. Very few samples were observed to contain C_{10} and heavier aromatic hydrocarbons.

The areal distribution of Total Aromatic Hydrocarbons in the soil gas at Area SDB is displayed by Plate 2. Elevated levels of aromatics are present principally in the northern half of the site surrounding the aeration basins (in the vicinity of grid coordinates E5 to G7) and bordering AOC-3 to the north and northwest.

The mixture and relative proportion of aromatics present in the soil gas samples from the northern, central, and western portions of the site (described in subsection 8.2, above) is typical of the composition of vapor which may derive from the residue of weathered fuel-like petroleum products (see the mass spectrum of sample #287 as an example of this sample composition). The highest levels of aromatics (and other hydrocarbons) were detected in the soil gas in the vicinity of the aeration basins and the AOC-3 border area. This finding suggests that the aeration basins may be source areas of petroleum, and/or the northern portion of Area SDB may be influenced by the dispersion/migration of residue of fuel-like products derived from source areas within nearby AOC-3.

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 heating oils.

The areal distribution of Total Semivolatile Hydrocarbons is displayed by Plate 3. Only elevated levels of naphthalene and C_{11} and C_{12} alkyl naphthalenes were detected, and only in samples containing a broad assortment of other hydrocarbons common to weathered fuels. A comparison of Plates 2 and 3, and observations of sample mass spectra illustrate this finding.

No heavier alkyl naphthalenes or other polycyclic compounds were detected in the soil gas samples from this site.

This finding suggests that petroleum product residue, the highest relative levels of which are found in the northern portion of the site, may derive, in part, from medium to heavy weight fuels containing naphthalene and light weight alkyl naphthalenes.

9.3 The Distribution of Total C_5 to C_{11} Petroleum Hydrocarbons

Total C_5 to C_{11} petroleum hydrocarbons reported here include alkanes, cycloalkanes, alkenes, cycloalkenes, dienes, aromatics, 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 common constituents of 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 similar to that of aromatics alone (discussed in subsection 9.1, above). This finding indicates that the majority of the soil gas samples from Area SDB 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_5 to C_8 cycloalkanes/alkenes, and toluene (methylbenzene), proportionately moderate levels of C_5 and C_6 alkanes, benzene, ethylbenzene/xylenes, and C_9 aromatics, and proportionately low to very low levels of naphthalene, C_{10} and C_{11} aromatics, and C_7 and C_8 alkanes, and C_9 cycloalkanes/alkenes. Vapor of this composition (with some variation) is typical of that derived from the residue of weathered fuel-like petroleum products. The most distinct variations in composition are observed among those samples collected from the southern portion of the site at grid coordinates C11, F10, G12, J12, and K12.

Findings of elevated levels of total C_5 to C_{11} petroleum hydrocarbons in the soil gas in zones surrounding the aeration basins (particularly at grid coordinates E7 through G5) and extending to northern and western borders of the site suggest that subsurface media within the northern half of Area SDB manifests the greatest impact by petroleum hydrocarbons. These findings also suggest that source areas for these hydrocarbons may be located within these zones or within border areas on neighboring OU-5 facility grounds to the north (within AOC-3) and west. Findings of the most variation in composition among several samples collected in the southern half of the site may indicated that the hydrocarbons in these samples derive from small scale isolated sources (spot surface spills) of various age which are unrelated to potentially larger source areas located to the north.

9.4 The Distribution of Total Halogenated Hydrocarbons

Total Halogenated Hydrocarbons are reported as the combined levels of tetrachloroethene (PCE), trichlorofluoromethane (Freon-11), trichloroethene (TCE), and trichloroethane (TCA) and in the soil gas. PCE, TCE, and TCA are volatile liquids commonly used as solvents and cleaning agents for petroleum based products. Freon-11 is a highly volatile liquid at temperatures under 24°C and is used widely as a refrigerant or as a solvent in vapor degreasers.

PCE was 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 PCE in the soil gas.

Elevated levels of halogenated organics occur in the soil gas in numerous zones scattered across the northern and eastern portions of the site. The presence of many points between the small zones in the east and northeast at which no halogenated compounds were detected (labeled "ND" on Plate 5) suggests that the occurrence of halogenated organic compounds in this portion of Area SDB derive from several small scale source areas which may be associated with local, on-site activities. However, zones of elevated levels of halogenated organics located to the north extend to the northern border of Area SDB and may be more laterally extensive. This finding, and the detection of some of the highest relative levels of halogenated organics in the northeast corner of the site (at grid coordinates J1 and K1) suggest that the halogenated compounds in the subsurface in the northern portion of Area SDB may derive from larger scale source areas located to the north beyond the current survey area.

10.0 CONCLUSIONS

From the findings of this PETREX soil gas survey the following conclusions may be drawn:

1. Petroleum hydrocarbons and halogenated organic compounds exist in the subsurface within Area SDB. The area surrounding the aeration basins (at grid coordinates E7 through G5) and extending north of the aeration basins to the northern survey area border demonstrates the greatest potential influence by these compounds.

2. The majority of the petroleum hydrocarbons detected in the soil gas likely derives from the residue of weathered fuel-like petroleum products in subsurface media. These products may have entered the subsurface in the southern portion of the site through several small scale, localized releases. The larger scale of the zones of elevated petroleum hydrocarbon levels in the northern portion of the site suggests that petroleum products (or product residue) may have been released from one or more large source areas coincident with the aeration basins (or neighboring structures) within Area SDB, and/or outside of Area SDB at locations to the north or northwest (including within AOC-3).

3. PCE, Freon-11, TCE, and TCA may derive from several small scale, localized releases within the southern half of Area SDB. However, halogenated compounds in the soil gas in the north of the site may derive from one or more large scale source areas located within or beyond the northern border of the current survey area.

4. Although no elevated levels of styrenes (from polymer wastes), and 2-butanone (used most often as a solvent and thinner) were detected in the soil gas on-site, the potential still exists for these compounds to be present in the subsurface (see section 9.0).

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 #288, #291, and #335 (grid coordinates I3, H4, and F10, respectively). 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 (if reasonably accessible) from the collection points of samples #266, #284, #317, and #380 (grid coordinates K1, I7, H11, and J1, respectively). 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% ± 5%
219	=	50% ± 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: SDB Area Petrex Survey Results

NERI Project: 2114-3E
Site: Operable Unit -5, U.S.D.O.E. Mound Facility
Analysis: Thermal Desorption - Mass Spectrometry
Date of Analysis: 8/19/94
Units: Ion Counts

Sample #	Total Aromatic Hydrocarbons (a)	Total Semivolatile Hydrocarbons (b)	Total C5 to C11 Petroleum Hydrocarbons (c)	Total Halogenated Hydrocarbons (d)
266	239,670	ND	547,608	507,883
267	74,206	2,185	157,821	5,465
268	107,797	ND	265,001	2,101
269	1,321,438	ND	2,543,817	ND
270	87,114	ND	141,619	ND
271	3,247	ND	14,138	ND
272	2,705,012	ND	4,503,685	ND
273	274,993	2,029	686,596	ND
2273 (e)	100,209	ND	360,445	ND
274	6,542,512	132,152	11,462,229	ND
275	3,601	ND	4,556	ND
276 (f)	361,377	1,594	705,444	103,504
277	60,297	ND	126,521	29,672
278	122,002	1,456	248,497	ND
279	ND	ND	12,333	ND
2279 (e)	3,506	ND	5,855	ND
280	12,340	ND	99,187	ND
281	1,061,557	ND	1,691,998	9,699
282	92,358	ND	113,358	4,028
283	62,622	1,576	203,812	60,646
284	294,825	ND	582,517	483,876

Table 1 (cont'd)

Sample #	Total Aromatic Hydrocarbons (a)	Total Semivolatile Hydrocarbons (b)	Total C5 to C11 Petroleum Hydrocarbons (c)	Total Halogenated Hydrocarbons (d)
285	406,423	5,913	1,122,679	6,156
286	20,457	ND	87,836	ND
287	1,866,220	47,608	4,406,384	12,472
288	9,867,833	57,560	14,815,262	35,179
2288 (e)	9,739,690	47,330	13,753,293	33,073
289	698,108	28,362	2,052,397	1,980
290	4,139,042	123,305	8,251,405	ND
291	13,359,953	233,302	21,922,938	11,039
2291 (e)	10,401,502	213,641	17,489,251	5,570
292	1,815,972	ND	4,051,161	ND
293	1,276,240	ND	1,711,101	ND
294	2,006,265	62,314	6,595,024	ND
295	1,106,080	24,324	2,382,588	ND
296	959,636	ND	1,655,223	ND
297	395,455	ND	711,237	2,710
298 (g)	1,045,047	ND	2,441,909	ND
299	4,444,527	1,532	5,736,597	1,508
300	1,789,097	2,205	3,213,323	ND
301	1,921,687	36,527	4,393,531	1,388
302 (g)	1,689,434	2,573	3,751,173	ND
2302 (e)(g)	1,300,777	ND	3,206,966	ND
303	957,861	ND	1,611,672	21,575
304 (g)	467,776	1,488	872,926	110,637
305 (g)	698,004	7,968	1,537,469	218,843
306	531,632	2,236	890,418	3,795
307	3,398,427	46,888	6,219,034	16,311
308	568,162	4,930	1,569,615	19,289

Table 1 (cont'd)

Sample #	Total Aromatic Hydrocarbons (a)	Total Semivolatile Hydrocarbons (b)	Total C5 to C11 Petroleum Hydrocarbons (c)	Total Halogenated Hydrocarbons (d)
309	2,270,542	ND	3,968,652	49,513
310	547,207	ND	1,361,965	ND
2310 (e)	502,559	ND	1,314,965	ND
311	1,778,449	ND	4,284,198	66,321
312	73,551	ND	179,550	9,438
313	347,487	ND	820,285	102,977
314	398,243	3,121	1,292,860	6,603
315	18,455	2,300	97,336	17,926
316	6,304	ND	13,613	ND
2316 (e)	3,934	ND	6,528	ND
317 (f)	179,082	ND	420,638	106,682
318	37,921	ND	95,421	ND
319	15,251	ND	80,245	ND
320	8,375	ND	21,650	ND
321	75,436	ND	275,463	6,082
322	4,266	ND	21,173	ND
323	260,246	ND	639,899	ND
324	3,017	ND	4,827	ND
325	10,016	ND	49,215	ND
326	280,720	ND	3,590,602	ND
327	511,272	ND	1,405,300	ND
328	31,553	ND	180,337	ND
329	4,521,011	7,008	8,095,420	110,824
330	441,681	ND	1,304,000	10,916
2330 (e)	548,671	1,294	1,745,900	14,538
331	9,965	ND	57,435	50,715
332	51,511	ND	98,484	ND
333 (g)	1,459,686	2,402	3,742,579	23,274

Table 1 (cont'd)

Sample #	Total Aromatic Hydrocarbons (a)	Total Semivolatile Hydrocarbons (b)	Total C5 to C11 Petroleum Hydrocarbons (c)	Total Halogenated Hydrocarbons (d)
334	833,760	1,204	1,727,148	ND
335 (g)	10,070,230	69,935	26,844,316	24,530
336	24,269	ND	57,420	3,354
337	12,926	ND	45,394	ND
338	ND	ND	28,123	ND
339	101,812	ND	221,182	ND
340	44,430	ND	70,469	2,627
341	43,458	ND	92,334	5,117
342	T	ND	T	15,009
343	200,190	ND	558,812	ND
344	110,917	1,111	191,325	5,448
2344 (e)	111,869	1,225	180,997	8,848
345	ND	ND	ND	ND
346	75,140	ND	253,709	ND
347	3,351,475	27,937	6,371,777	ND
348	1,126	ND	1,126	ND
349	8,081	2,171	30,690	ND
350	3,107	1,251	67,962	3,846
351	13,200	ND	137,184	ND
2351 (e)	16,936	ND	76,438	ND
352	67,732	ND	605,780	ND
353	161,796	ND	379,606	3,167
354	2,731	ND	7,940	ND
355	461,025	ND	943,527	ND
356	4,199,493	45,570	6,496,874	ND
357	5,068	ND	6,001	ND
358	163,885	ND	575,489	ND
359	10,824	ND	11,734	ND

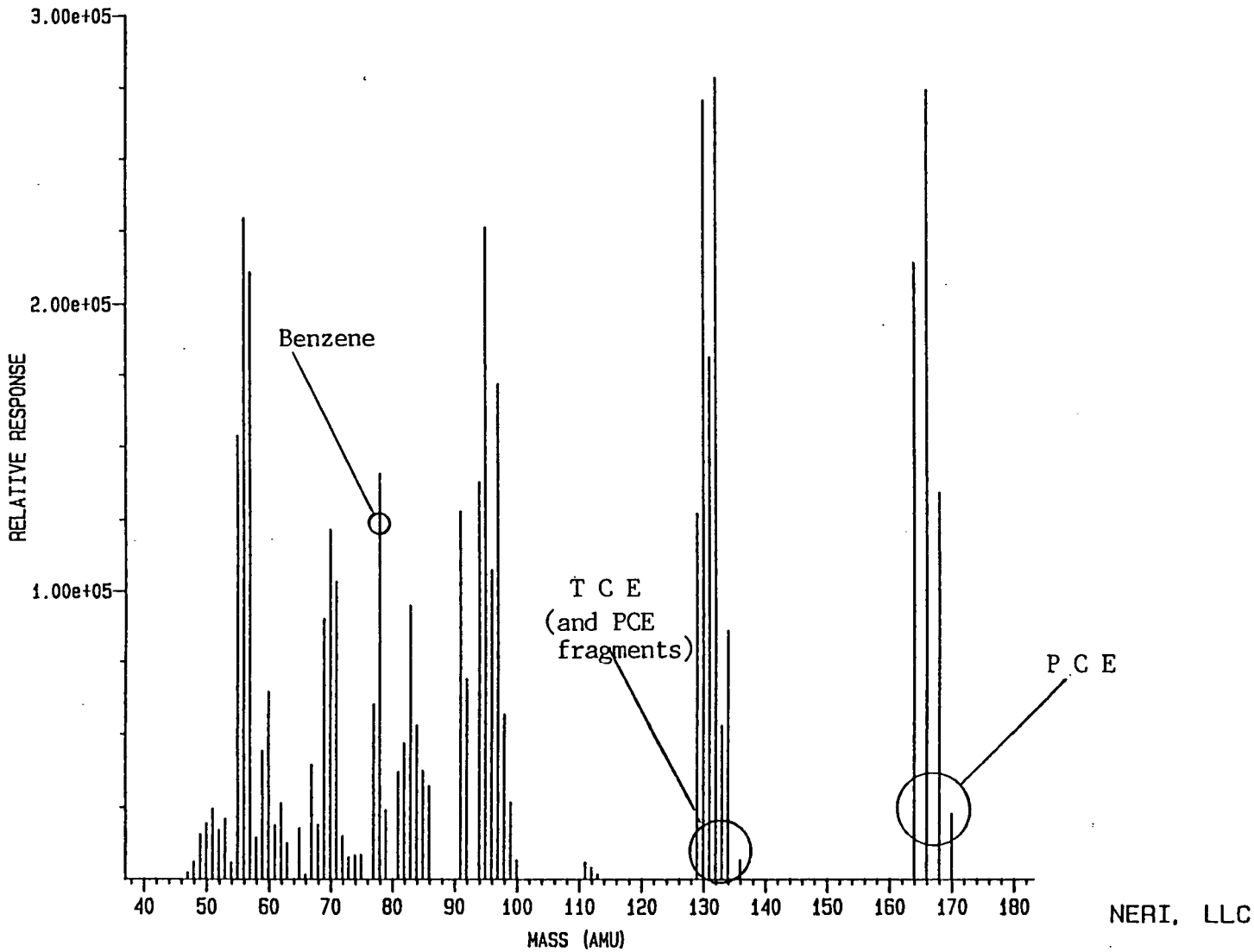
Table 1 (cont'd)

Sample #	Total Aromatic Hydrocarbons (a)	Total Semivolatile Hydrocarbons (b)	Total C5 to C11 Petroleum Hydrocarbons (c)	Total Halogenated Hydrocarbons (d)
360	220,208	ND	485,085	1,537
361	15,392	ND	43,035	ND
362	218,128	2,034	534,332	1,804
363	ND	ND	3,349	ND
371	184,689	7,921	736,427	ND
372	110,752	ND	155,757	ND
373	4,840	ND	35,208	ND
374	3,015	ND	6,863	ND
375	409,010	ND	1,275,433	23,707
376	8,319	ND	17,776	1,419
377	2,145	ND	61,028	ND
378	3,808	ND	10,768	4,701
379	3,724	ND	3,724	ND
380	360,964	ND	1,004,825	357,547
482	147,230	2,195	300,552	52,810
483	34,469	ND	69,099	2,990
484	137,858	2,671	309,632	ND
488 •	ND	ND	ND	ND
489 •	ND	ND	ND	ND
490 •	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, and 164.
(e) Duplicate of preceding sample.
(f) Sample exhibits the potential to contain a low level of dichloroethene.
(g) Sample exhibits the potential to contain low levels of styrenes as components of petroleum.
T Detection of the target compounds in this sample was interfered with by the occurrence of terpenes; see text.
ND Target compounds not detected in sample.
• Travel Blank

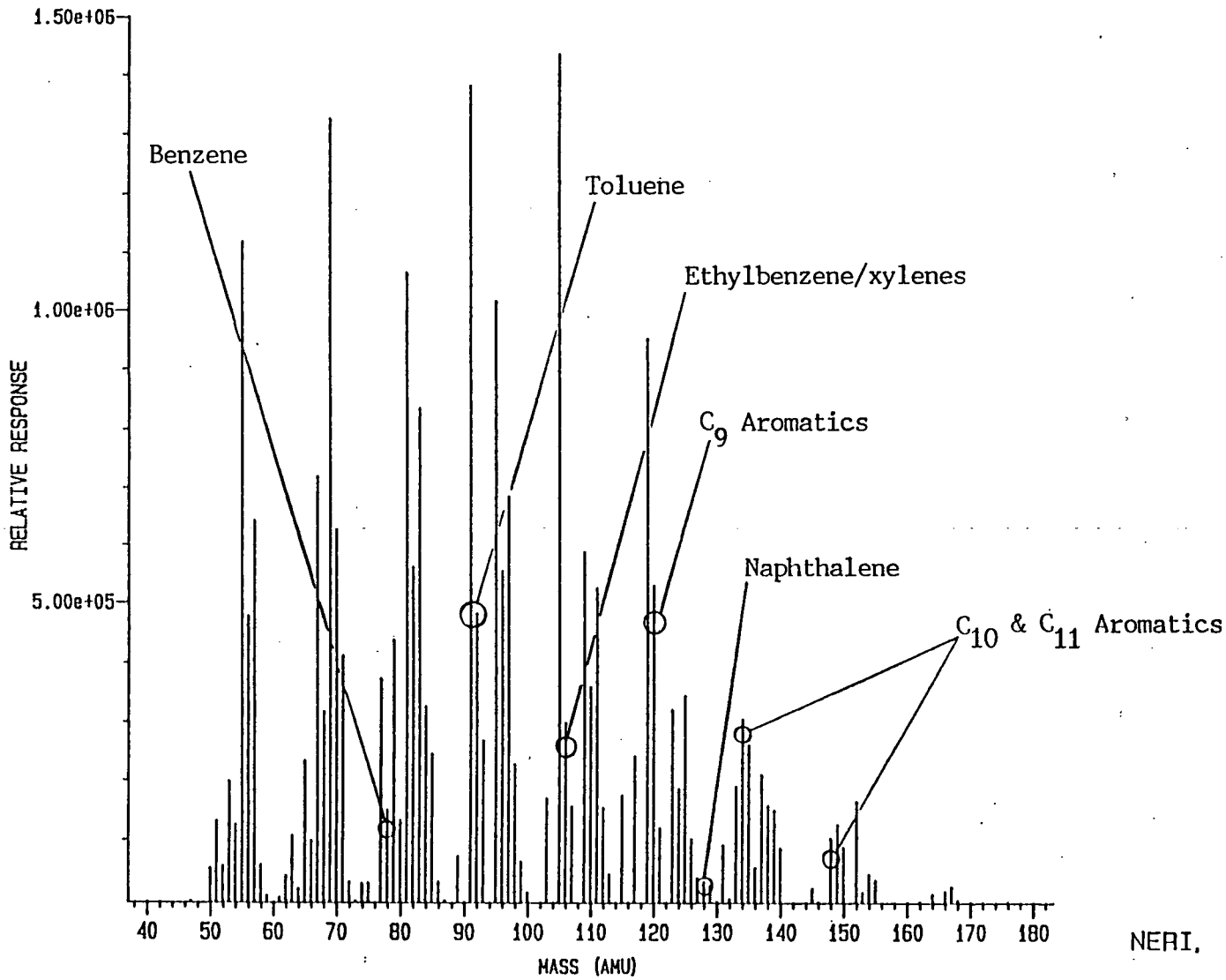
APPENDIX C
SAMPLE MASS SPECTRA

PETREX Soil Gas Survey at Area SDB/Operable Unit -5
Soil Gas Sample #284



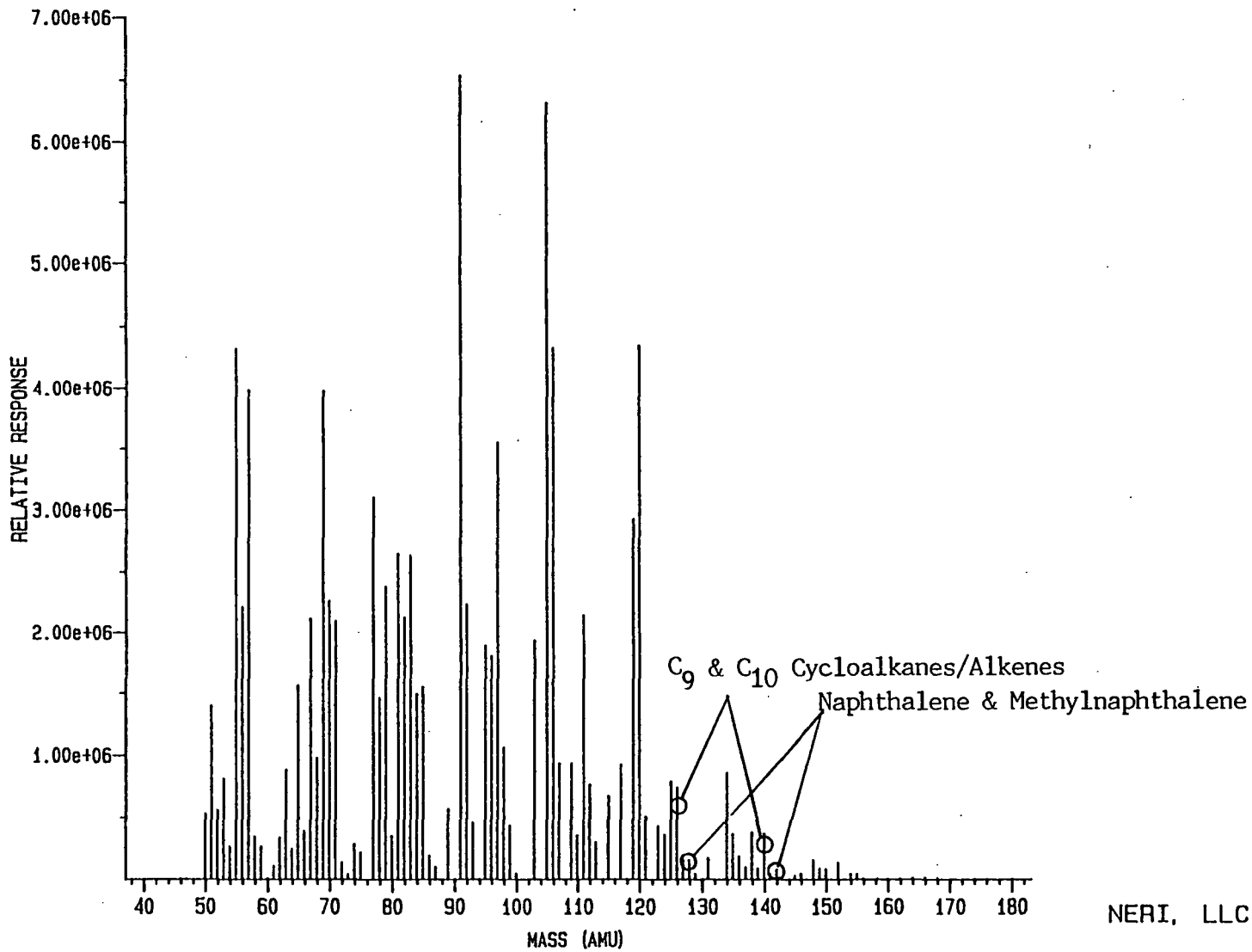
NERI, LLC

PETREX Soil Gas Survey at Area SDB/Operable Unit -5
Soil Gas Sample #287



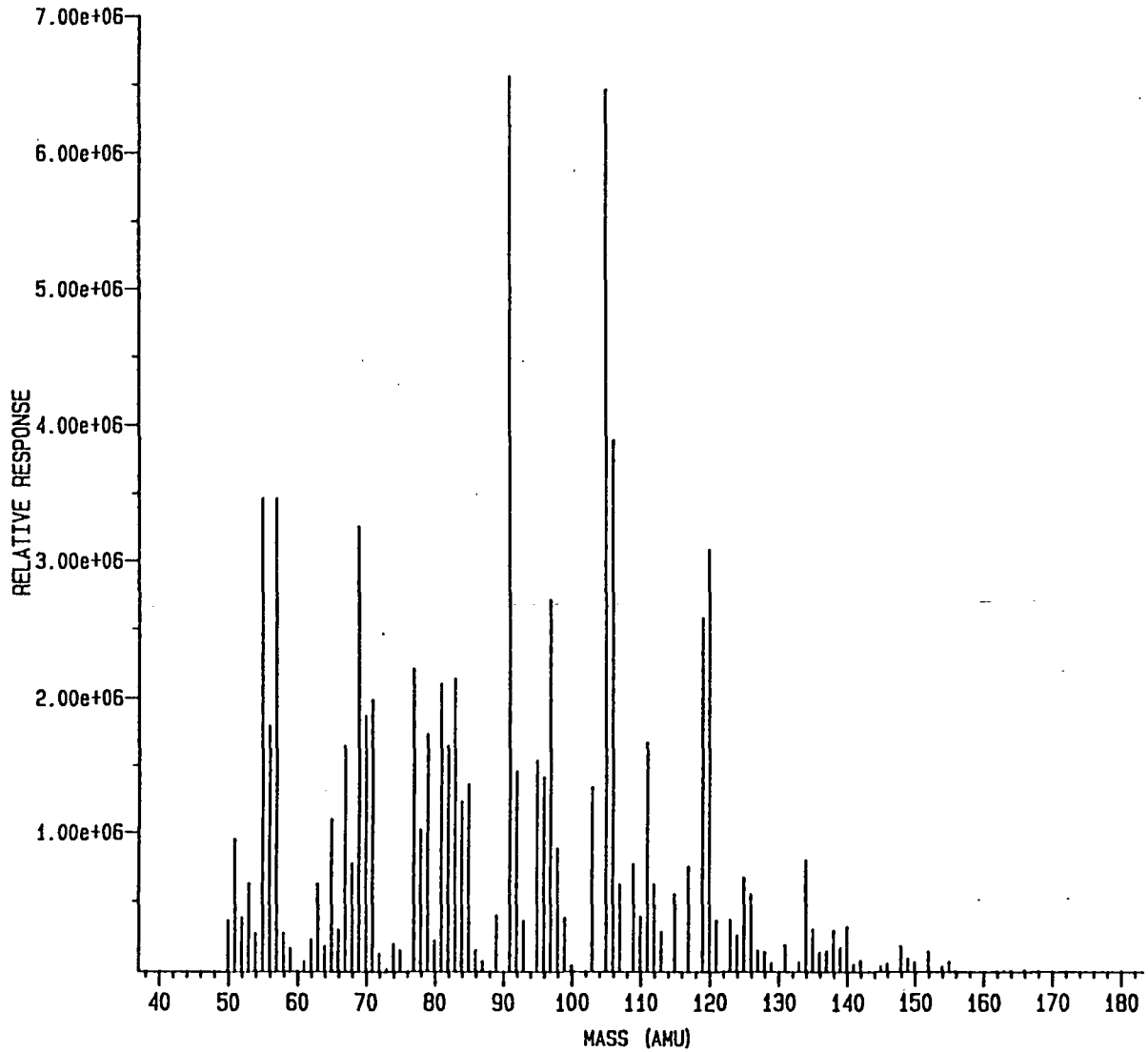
NERI, LLC

PETREX Soil Gas Survey at Area SDB/Operable Unit -5
Soil Gas Sample #291



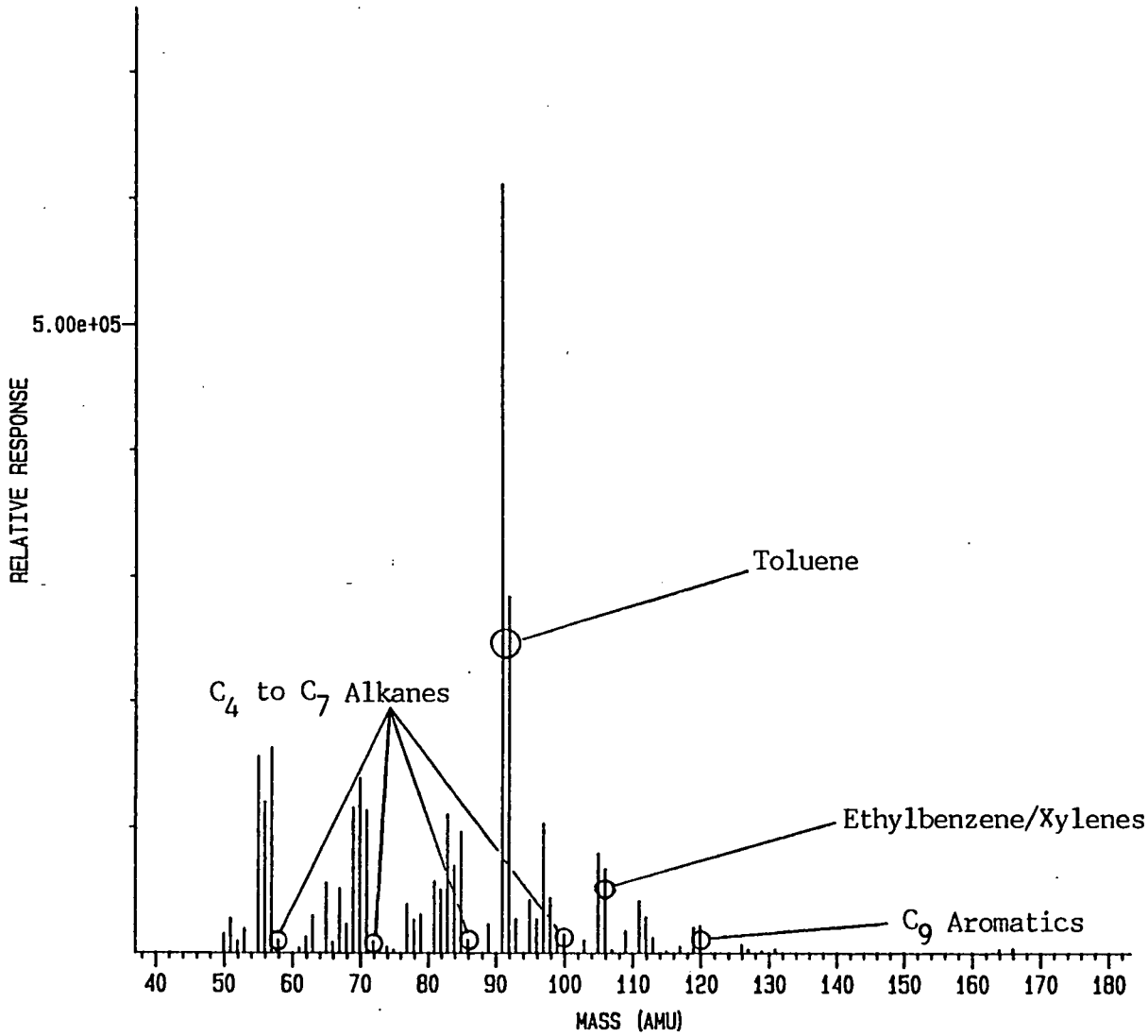
NERI, LLC

PETREX Soil Gas Survey at Area SDB/Operable Unit -5
Soil Gas Sample #2291
(duplicate of sample #291)



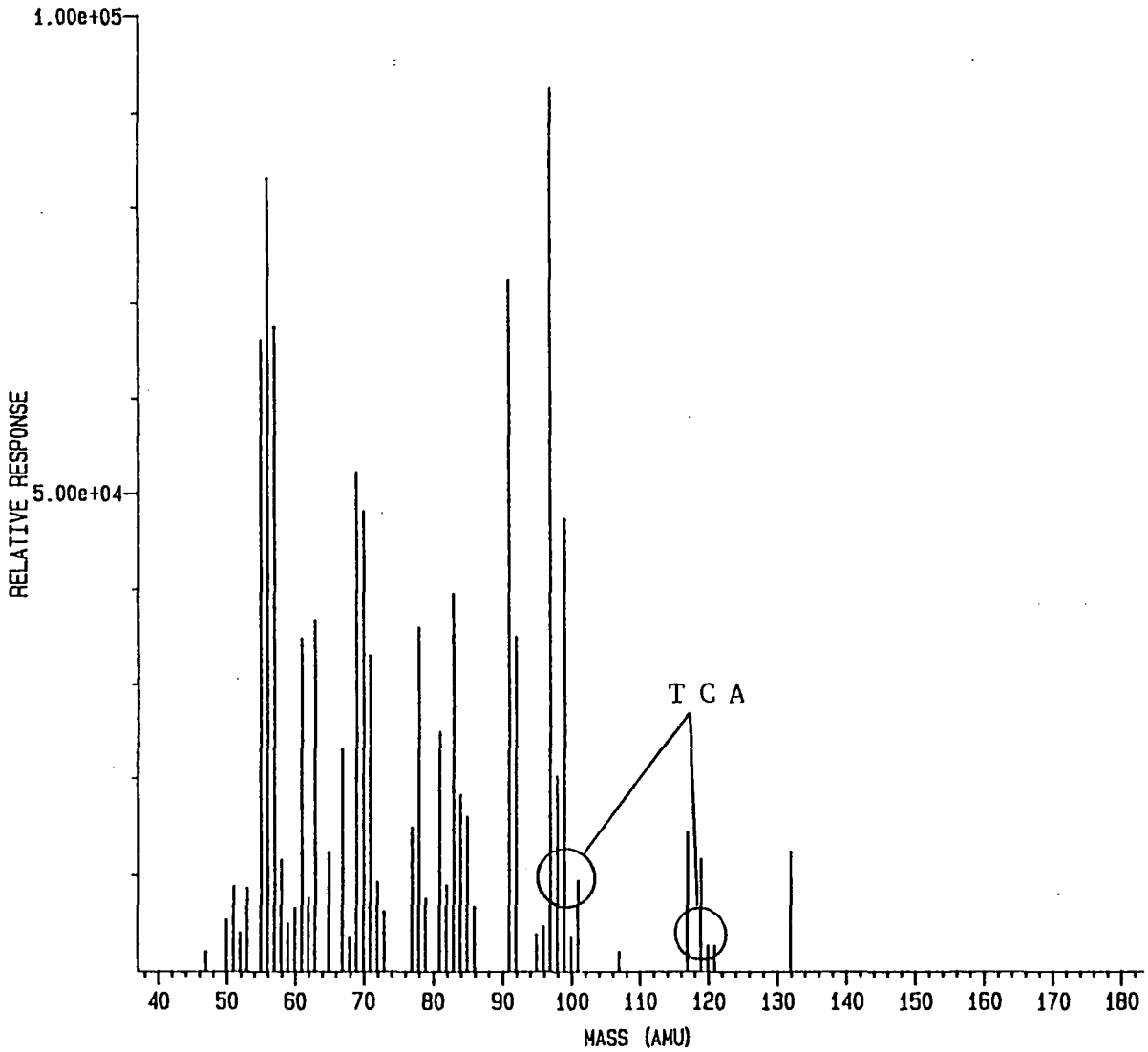
NERI, LLC

PETREX Soil Gas Survey at Area SDB/Operable Unit -5
Soil Gas Sample #297



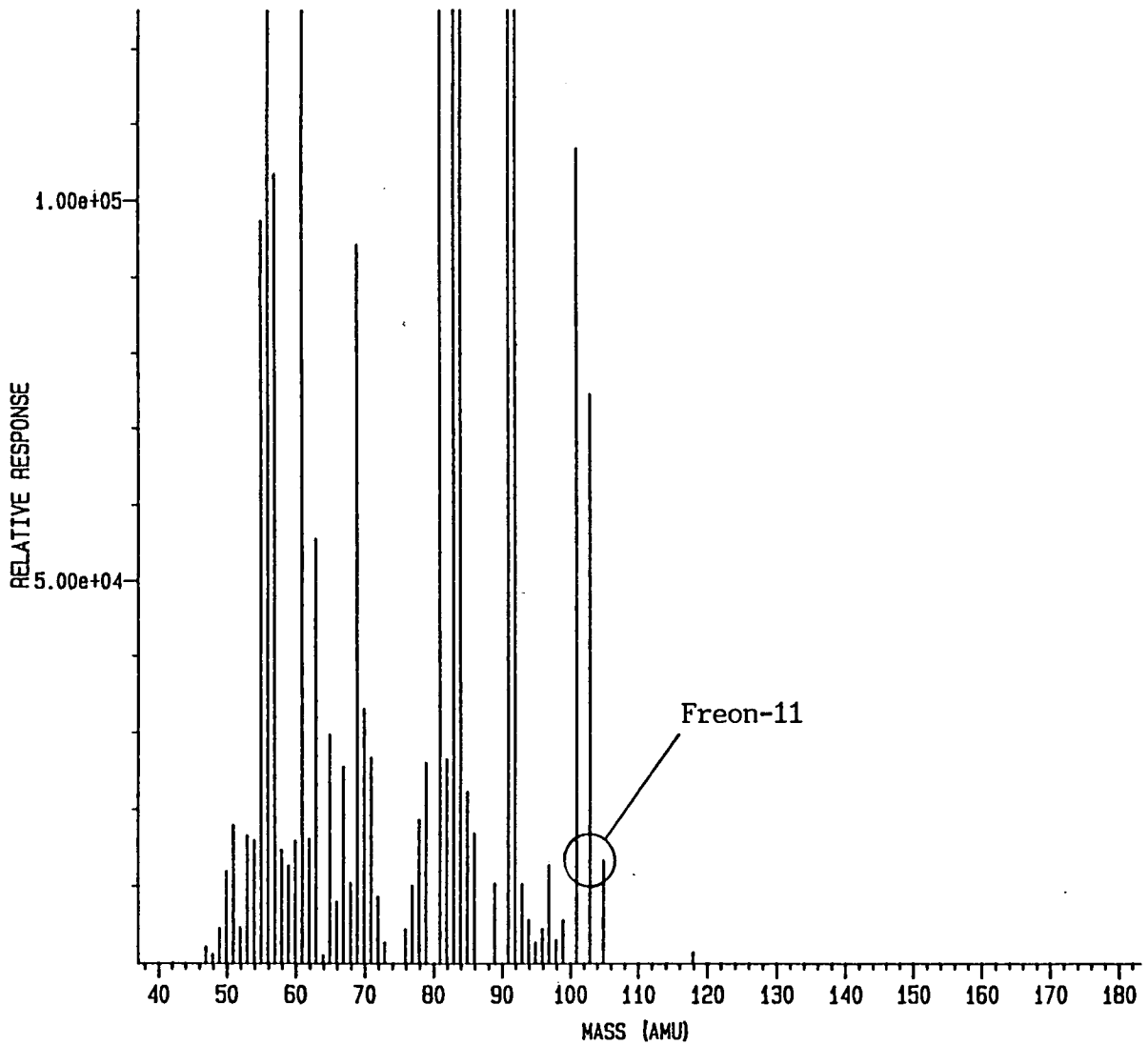
NERI, LLC

PETREX Soil Gas Survey at Area SDB/Operable Unit -5
Soil Gas Sample #312



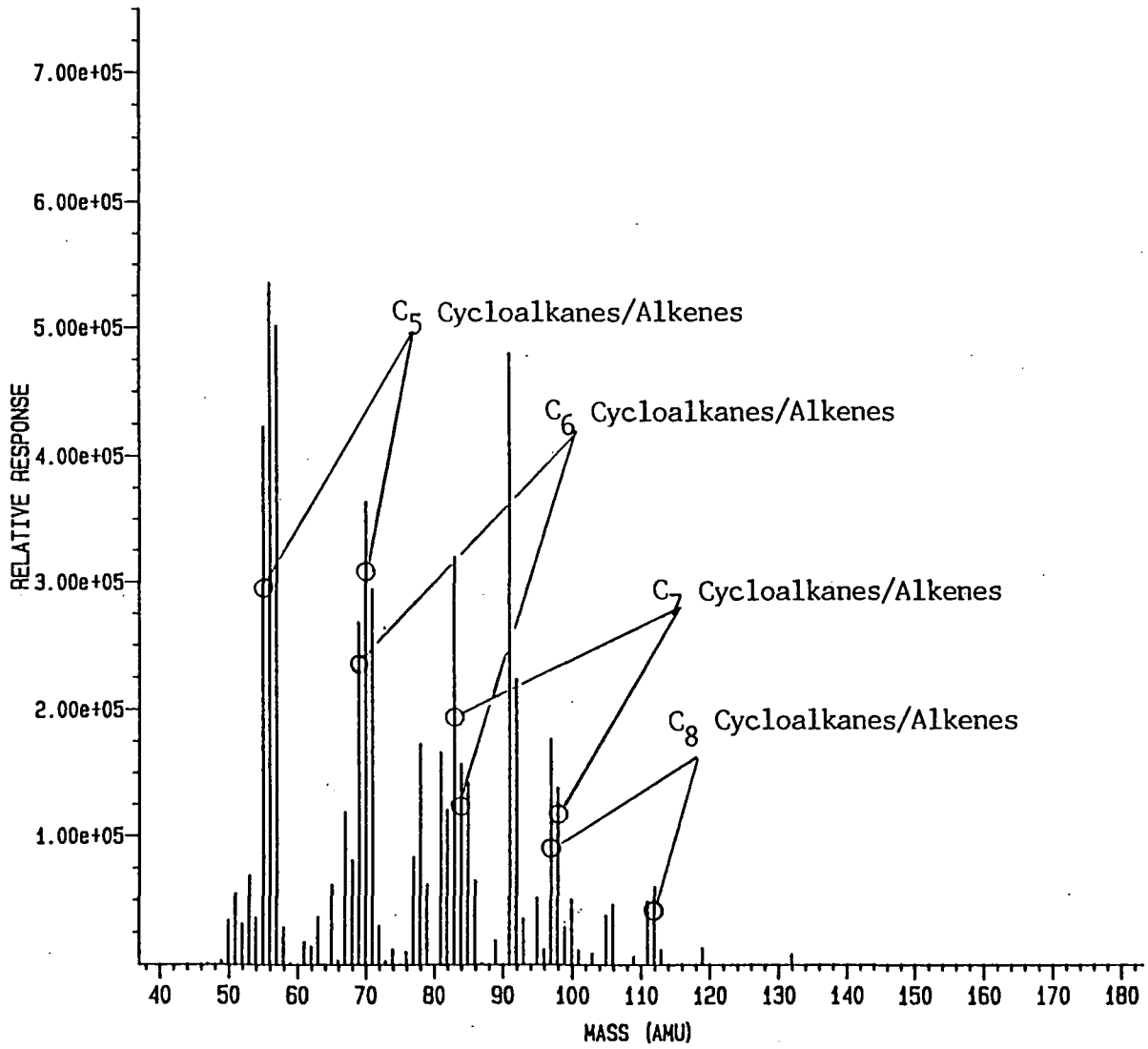
NERI, LLC

PETREX Soil Gas Survey at Area SDB/Operable Unit -5
Soil Gas Sample #317



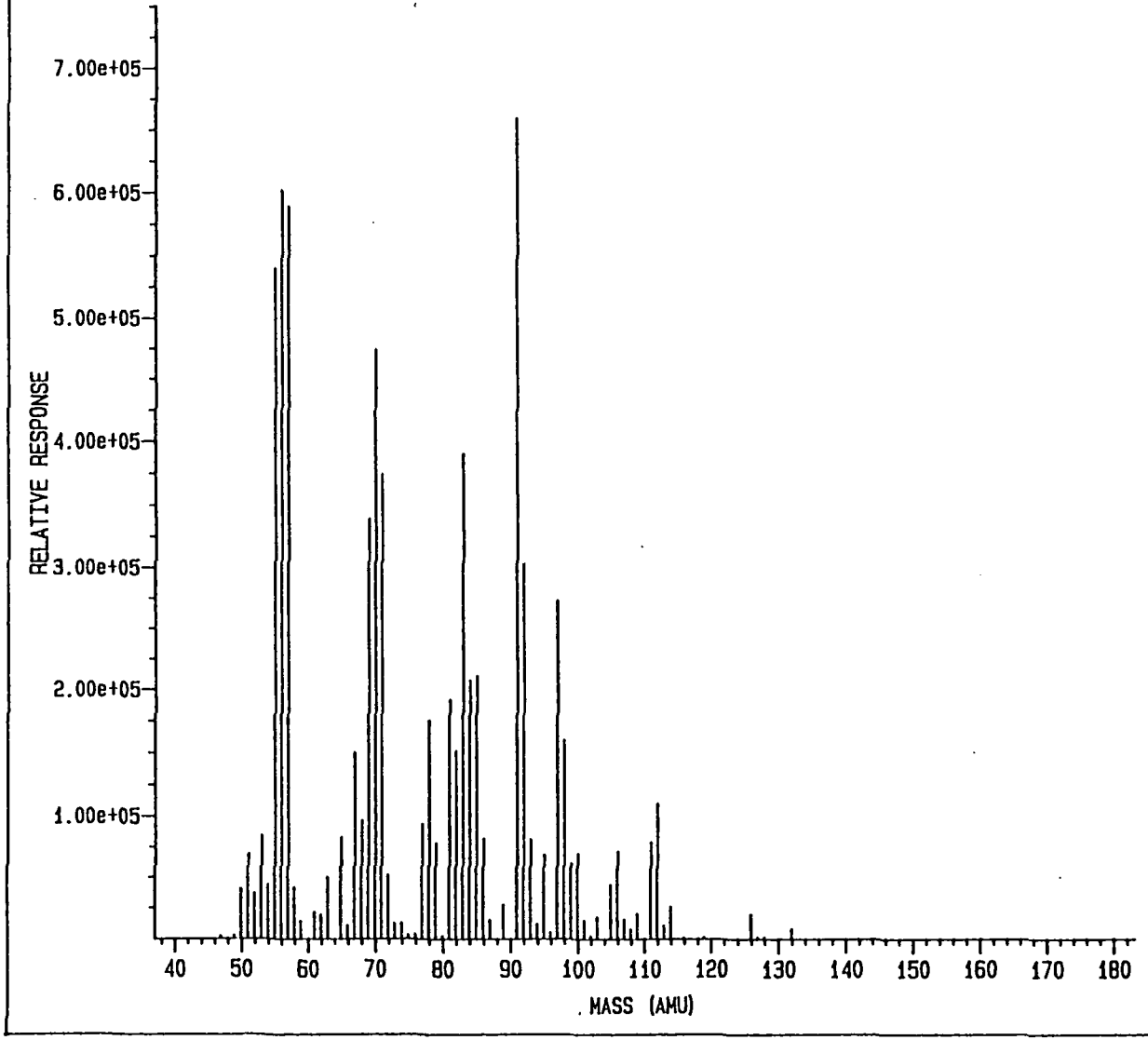
NERI, LLC

PETREX Soil Gas Survey at Area SDB/Operable Unit -5
Soil Gas Sample #330



NERI, LLC

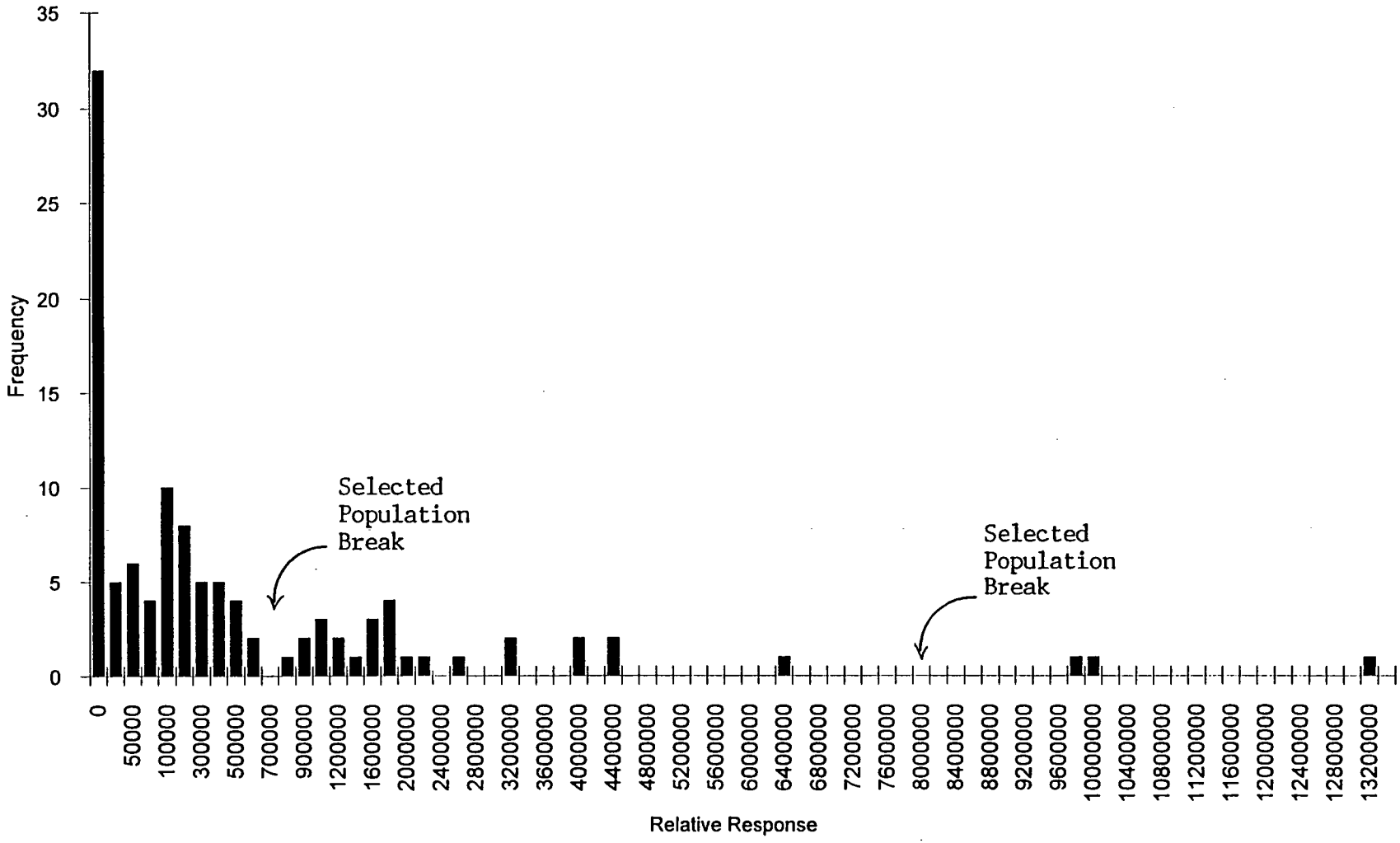
PETREX Soil Gas Survey at Area SDB/Operable Unit -5
Soil Gas Sample #2330
(duplicate of sample #330)



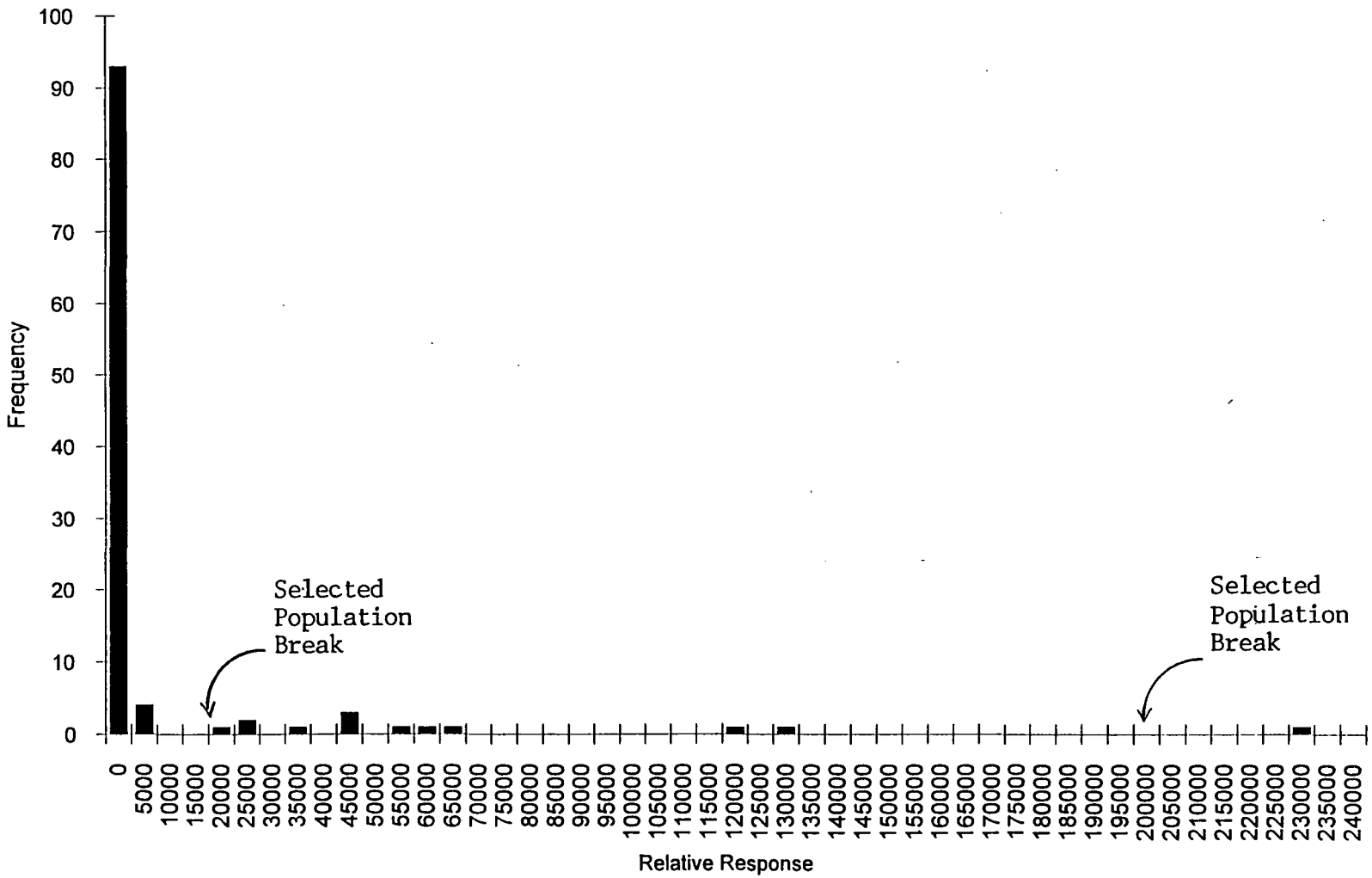
NERI, LLC

APPENDIX D
HISTOGRAMS OF DATA SETS

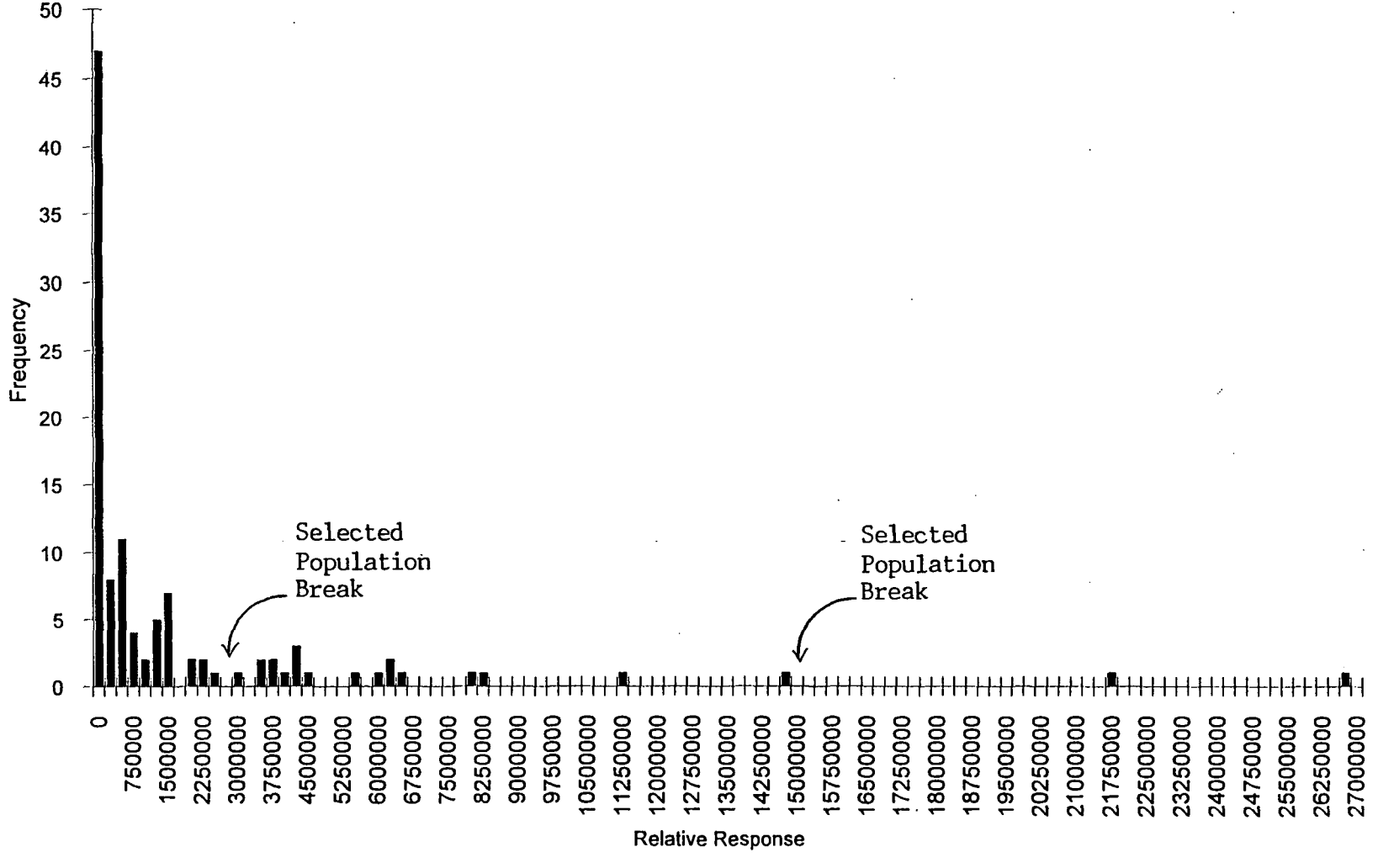
Histogram of Response to Total Aromatic Hydrocarbons



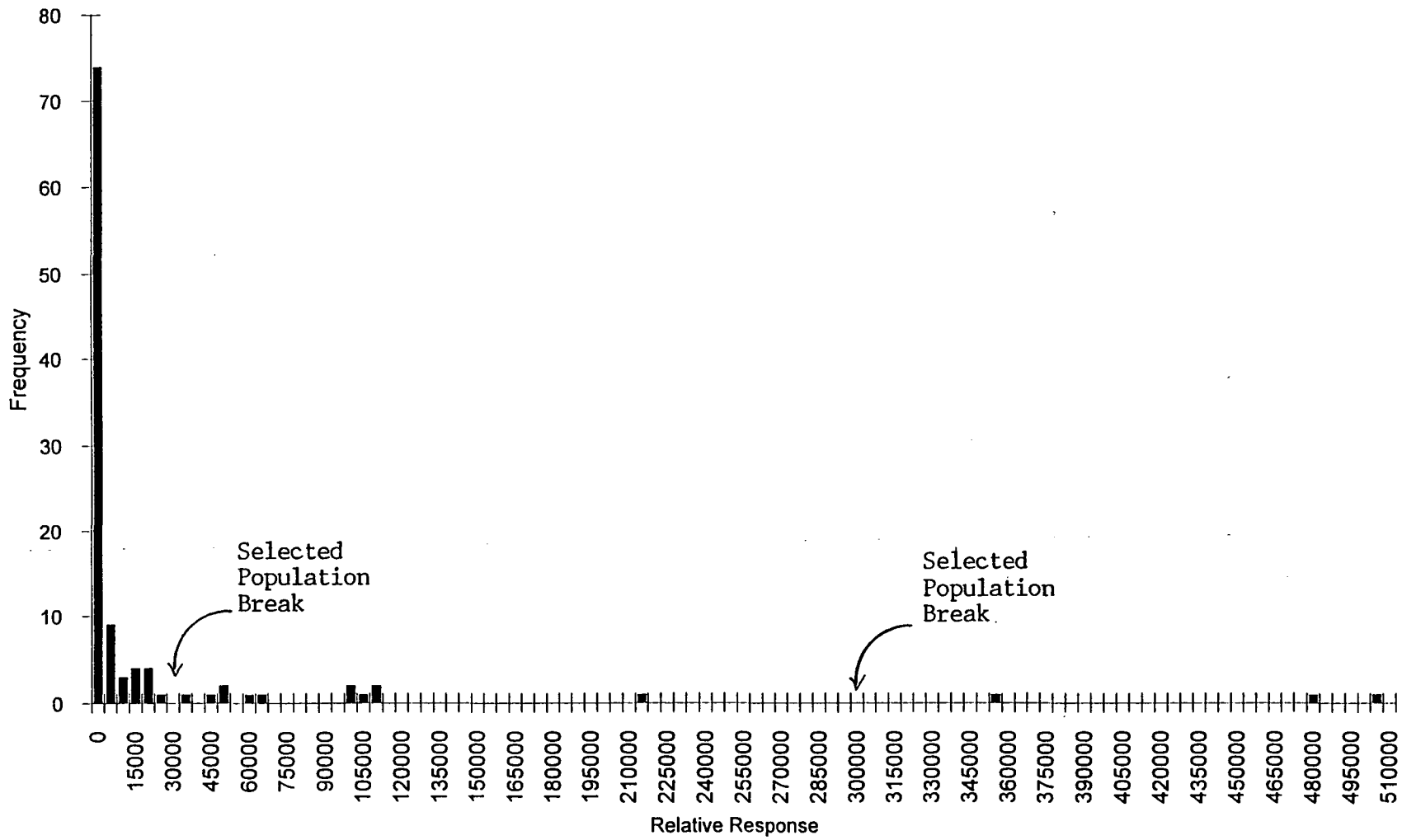
Histogram of Response to Total Semivolatile Hydrocarbons



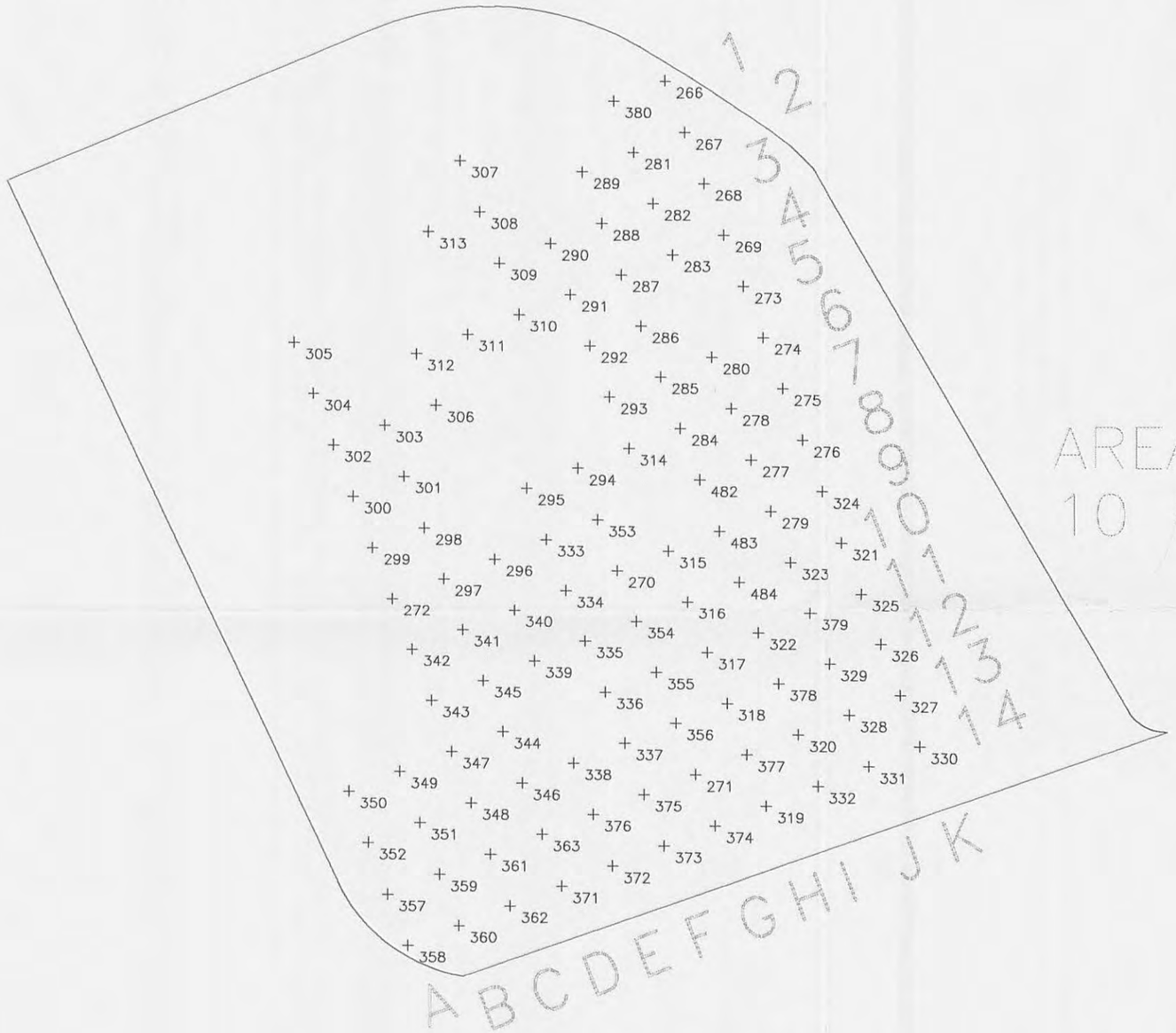
Histogram of Response to Total C5 to C11 Petroleum Hydrocarbons



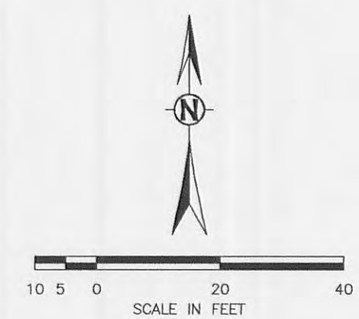
Histogram of Response to Total Halogenated Hydrocarbons



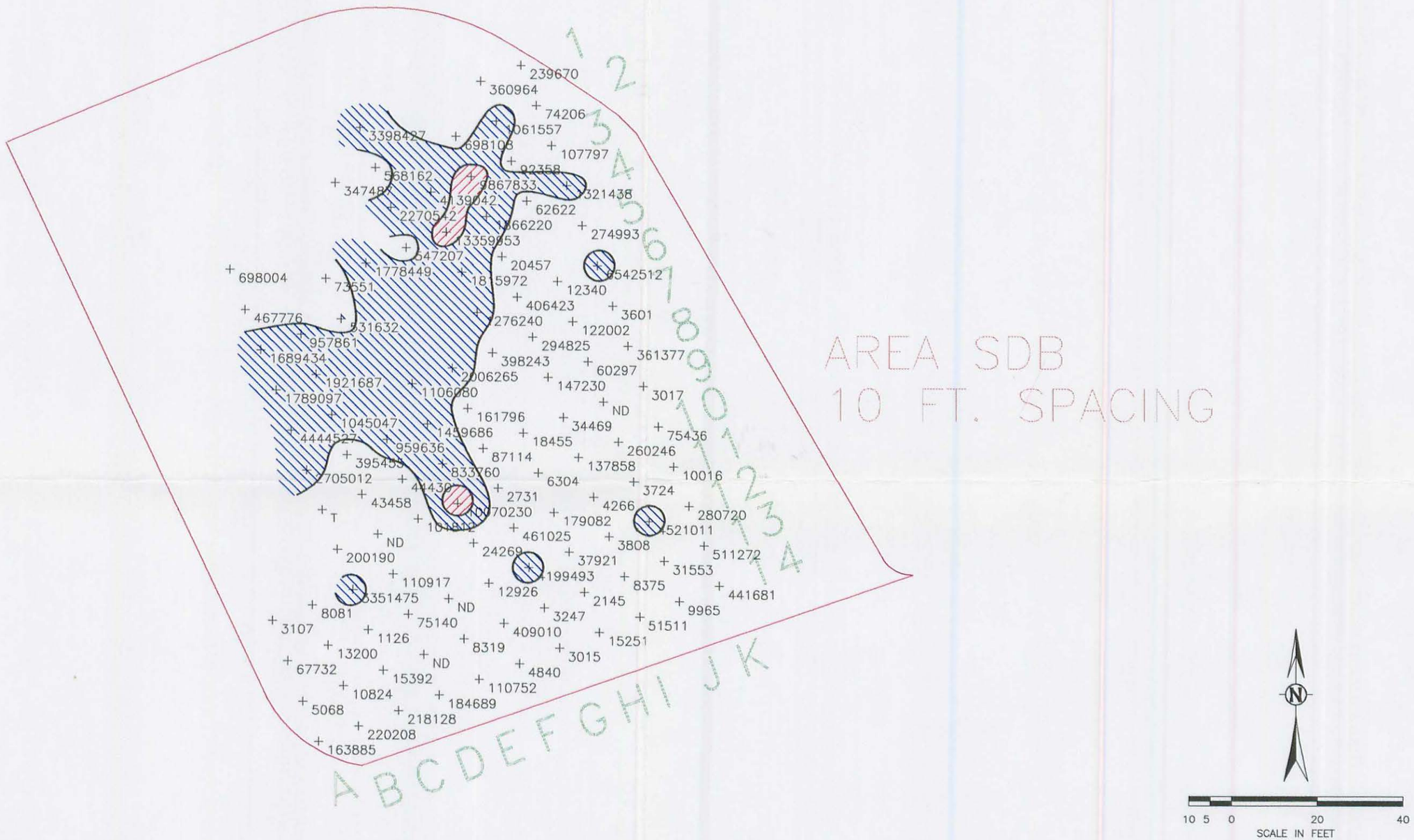
APPENDIX E
PLATES 1 THROUGH 5



AREA SDB
10 FT. SPACING



Produced 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: September 27, 1994 File Name: SDB_1.dwg	Area SDB/Operable Unit-5 U.S.D.O.E. Mound Facility Miamisburg, Ohio PETREX FINGERPRINT TECHNOLOGYe	LEGEND Features: + PETREX Sample Location	Sample Locations Plate 1



Produced by:

Northeast Research Institute LLC
605 Parfet Street
Suite 100
Lakewood, Colorado 80215
(303) 238-0090

Drawn By:	Project #:
JCS	2114E
Checked By:	Date: September 27, 1994
Project Manager: PCB	File Name: SDB_2.dwg

Area SDB/Operable Unit-5

U.S.D.O.E. Mound Facility

Miamisburg, Ohio

PETREX FINGERPRINT TECHNOLOGY®

LEGEND

Relative Response Values:

- ≥ 8,000,000
- 800,000 – 7,999,999

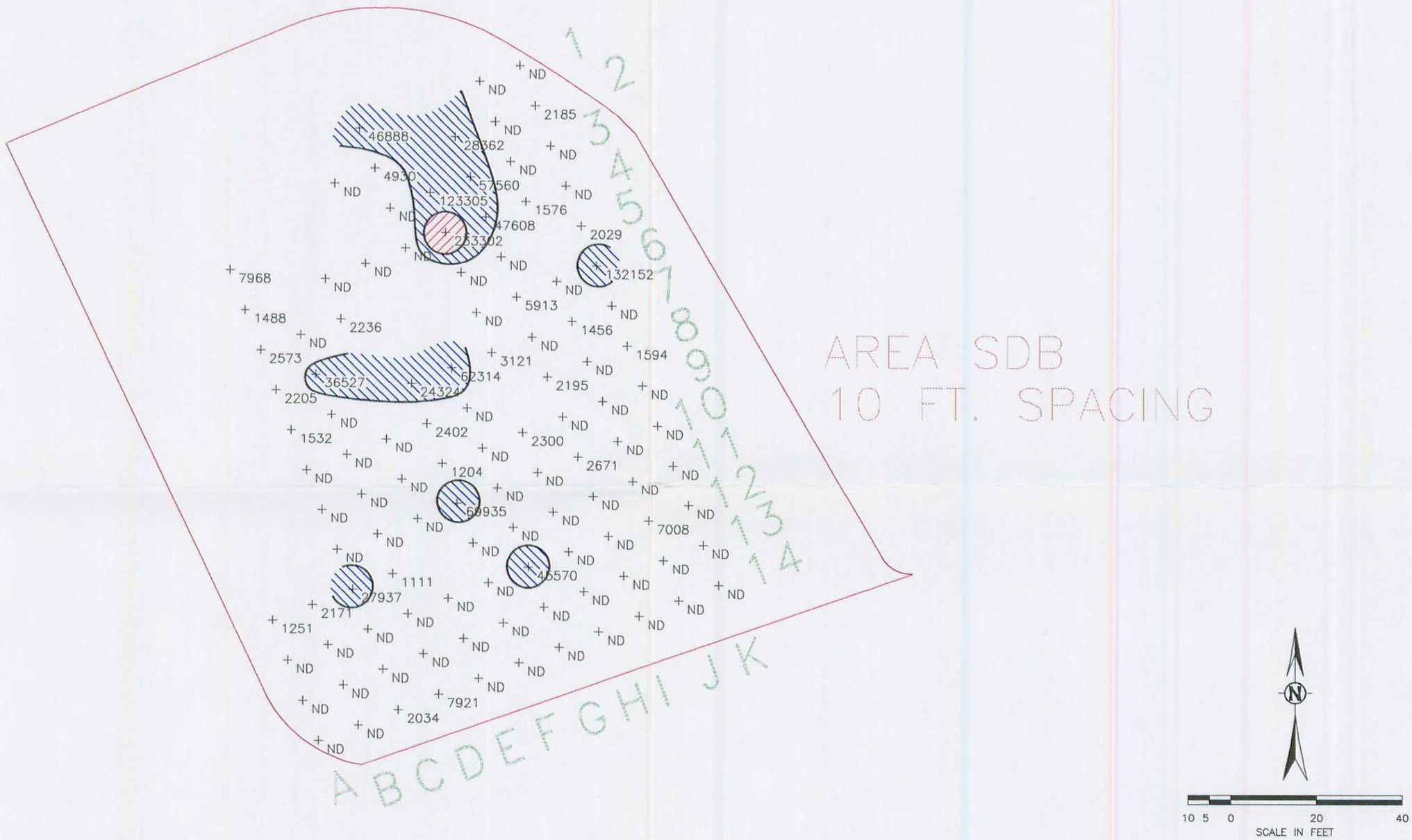
Features:

- + PETREX Sample Location
- ND Not Detected
- T Terpenes present in sample; see text.

Relative Response

Total Aromatic Hydrocarbons

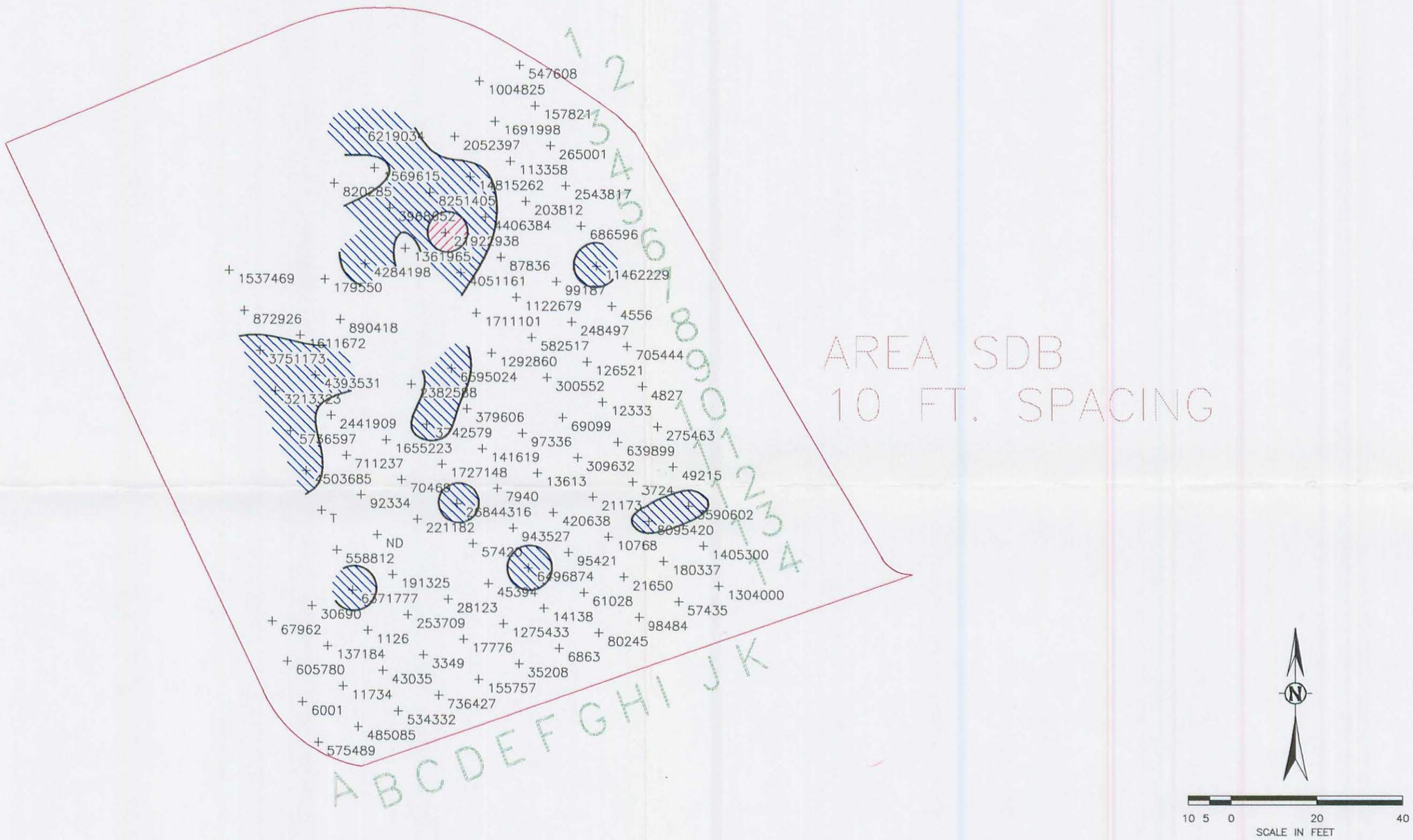
Plate 2



N

10 5 0 20 40
SCALE IN FEET

Produced 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: September 27, 1994 File Name: SDB_3.dwg	Area SDB/Operable Unit-5 U.S.D.O.E. Mound Facility Miamisburg, Ohio PETREX FINGERPRINT TECHNOLOGY®	LEGEND Relative Response Values: ≥ 200,000 20,000 – 199,999 Features: + PETREX Sample Location ND Not Detected	Relative Response Total Semivolatile Hydrocarbons Plate 3



Produced by:

Northeast Research Institute LLC
605 Parfet Street
Suite 100
Lakewood, Colorado 80215
(303) 238-0090

Drawn By:	Project #:
JCS	2114E
Checked By:	Date: September 27, 1994
Project Manager: PCB	File Name: SDB_4.dwg

Area SDB/Operable Unit-5

U.S.D.O.E. Mound Facility
Miamisburg, Ohio

PETREX FINGERPRINT TECHNOLOGY®

LEGEND

Relative Response Values:

- ≥ 15,000,000
- 3,000,000 – 14,999,999

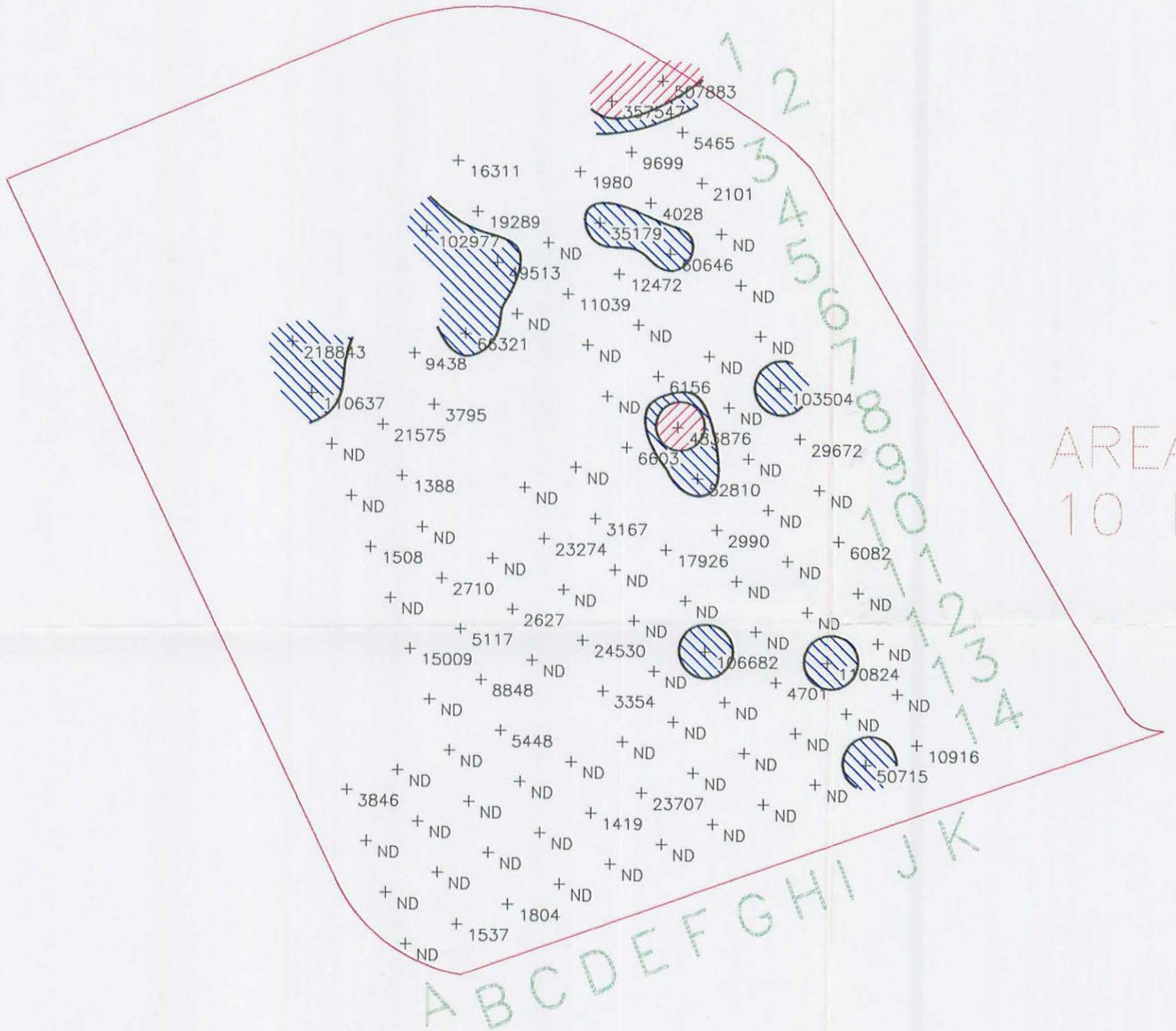
Features:

- + PETREX Sample Location
- ND Not Detected
- T Terpenes present in sample; see text.

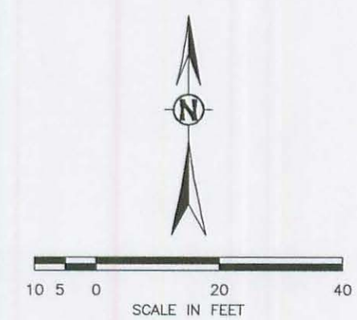
Relative Response

Total C5-C11 Petroleum Hydrocarbons

Plate 4



AREA SDB
10 FT. SPACING



Produced by:

Northeast Research Institute LLC
605 Parfet Street
Suite 100
Lakewood, Colorado 80215
(303) 238-0090

Drawn By:	Project #:
JCS	2114E
Checked By:	Date: September 27, 1994
Project Manager: PCB	File Name: SDB_5.dwg

Area SDB/Operable Unit-5

U.S.D.O.E. Mound Facility
Miamisburg, Ohio

PETREX FINGERPRINT TECHNOLOGY®

LEGEND

Relative Response Values:
- ≥ 300,000
- 30,000 – 299,999

Features:
- + PETREX Sample Location
- ND Not Detected

Relative Response
Total Halogenated Hydrocarbons

Plate 5

APPENDIX F
SAMPLE SUBMITTAL & CHAIN OF CUSTODY FORMS

NORTHEAST RESEARCH INSTITUTE, INC. (NERI)
SAMPLE SUBMITTAL CLIENT FORM

Please return this form with samples to:

NERI
605 Parfet Street
Suite 100
Lakewood, Colorado 80215

*** Call with any questions: (303) 238-0090 ***

NERI PROJECT NUMBER: 2114E

NERI PROJECT MANAGER: Paul Bedard

DATE SAMPLES SENT TO CLIENT: ~~8/1/94~~ July 94

Please provide the following information:

DATE SAMPLES SENT TO NERI: 8/1/94

TOTAL NUMBER OF TUBES ENCLOSED: SDB Area - 111 + 3 timers

GREATEST SAMPLE NUMBER: 484

MISSING SAMPLE NUMBERS:
0-265, 381-481

NOTES:
SDB Area: J5 is on a concrete slab - unable to install.
H8 & E11 - both caved in - abandonned due to insufficient depth.
K8, D11, & B13 - broken on retrieval - wires placed in clean tube immediately.
* Other sampling locations not sampled due to points being located within aeration basins.

PETREX ENVIRONMENTAL SURVEY
Chain of Custody Document

Job Number 2114 E (Please refer to this job number with all correspondence and shipments)

FIELD DATA:
Facility SAIC

Location 4031 Colonel Glenn Hwy Suite 300
Beaver Creek, OHIO 45431-1600

Field Manager _____ Phone 513-429-2689

PYMS LAB DATA:

Instrument _____

Operator _____

Phone _____

Sample Nos. _____

GC/MS LAB DATA:

SAMPLE DATA: Returned 111 samplers + 3 timers

Number of Samples 120 Doubles 30 Triples 10 Time Test 6 Trouble Blank
Date Shipped to Field 7-6-94
Date Received in Field 7-8-94
Condition as Recd. in Field Good
Received By J. Humpert
Date Shipped from Field 8-1-94
Date Received from Field 8/2/94
Conditions as Recd. in Lab O.K.

Number Received 117
Received By PGB

SAMPLE TRANSFER DATA:

Relinquished By:	Relinquished To:	Date:	Time:	Reason:
1. [signature]	Joletta Humpert	7-6-93		Field
2. Joletta Humpert		8-1-94		Analysis
3. [signature]	[illegible]	8/2/94		Analysis
4.				
5.				
6.				