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EG&G MOUND-25-02-10-02--9508170117

Environmental Restoration Program

OPERABLE UNIT 5
OPERATIONAL AREA PHASE I INVESTIGATION
AREA 21 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 B

FIELD LOGBOOKS

EG & G MOUND

OUS

SITE MANAGER

LOLESCK

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: 34896

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	
87	" ; "	117	
88	" ; 7/27/94	118	
89	" ; 7/28/94	119	
90	" ; 8/1/94	120	

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TASK ACTIVITY

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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	
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251	" ; 5/31/94	281	
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255	" ; 6/7/94	285	
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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	
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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): 5/11/94 TIME: 0700 PAGE 1 OF 1

Task Team Members:

JOHN DAVIS	SAIC	BERNARD KIENOW	SIMON, 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 from lunch. Per K. McMahon, surveyors can have their 2-way radios on site w/o permit. KM will try to be onsite tomorrow morn. Continue working in SE corner on North lines 1-6. Surveyors leave about 1500 to pick up equip. @ trailer. Logbook entries. Prep for tomorrows work.

1700 Last entry

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

P.M. cloudy, windy, 65°F

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

TASK TEAM ACTIVITY LOG SHEET — SITE MANAGER LOGBOOK

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 radios and phones are completely unrestricted. Discuss work plans w/ SWD. They will work to the water tower then west off the hill. Prep equipment. build weedwack

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 from 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

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

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

Task Team Members:

JOHN DAVIS	(SMC)	BERNARD KIENOW	(SWD)
ERIC SAYLOR	↓	ANT TURPIN	↓
EVELYN WEATHER		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 cl. 16W line clearing so SWD can put in points & at angles.

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

1800 Back @ 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

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 doesn't want us working N. of Area J in D&D zone until she talks w/ HP. Discuss work plan. Will continue cutting 16W line.

0800 @ site.

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

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

1200 Break for lunch

1230 Back 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 8/13/94

TASK TEAM ACTIVITY LOG SHEET

SITE MANAGER LOGBOOK: P.5

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

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

Task Team Members:

JOHN DAVIS	SAIC	BERNARD KIENOW	SWD
ERIC SAYLOR	↓	ART TURPIN	↓
EVELYN MEACHER		JEFF KUNKA	

Narrative (include time and location):

0700 @ t/r. Conduct Tailgate Meeting. Discuss days work orders. JD works on SWD 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/r. Prep for tomorrows activities.

1730 Offsite

Last Entry

Daily Weather Conditions: A.M. SUNNY BREEZY, 50°F

P.M. SAME. WARMING to 65°F

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

TASK TEAM ACTIVITY LOG SHEET — SITE MANAGER: LOGBOOK P. G

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

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

Task Team Members:

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

Narrative (include time and location):

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

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

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 cuttings on GN. 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. Johnson 8/15/94

TASK TEAM ACTIVITY LOG SHEET — SITE MANAGER LOGBOOK P7

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

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

Task Team Members:

JOHN DAVIS	SAIC	BRAD RICHARDSON	SAIC
EVELYN MEACHER	↓	CHRIS HALLEY	↓
SHARON KREITMEYER	↓	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. McMahon 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 15 W. Then we chopped 14N Line from 10W to 13W.

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

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

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

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

TASK TEAM ACTIVITY LOG SHEET — SITE MANAGER LOGBOOK

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

Date (mm/dd/yy): 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

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 HG 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 15-20 mph W

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

TASK TEAM ACTIVITY LOG SHEET — SITE MANAGER LOGBOOK P. 10

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

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

Task Team Members:

Brad Richardson — Sharon Krietemeyer

Chris Halley

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 20 again. This time Health Physics sent Roy + 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 P11

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 — EVELYN MEACHER

BRAD RICHARDSON — SHARON KREITMEYER

CHRIS HALLEY

Narrative (include time and location):

0700 @ HR. SURVEYORS NOT HERE today. CONDUCT TAILGATE BRIEFING. ASSIGN WORK; BR & CH to A22, EM, SM to A22 JD to TOWN to pick up chain 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. Marman 8/15/94

TASK TEAM ACTIVITY LOG SHEET — SITE MANAGER LOGBOOK R-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; Surveyors asked us to chop lines 1 & 5 in Area J; At 9:30 we were done chopping line 5 when Chris said that he had cut his finger: Chris' narrative on the event: Was clearing sides of excess brush. Laid machette to the side to pull branches down. Lost balance and placed hand down to stop fall. Machette cut through glove and finger (right index finger). Took off to hospital. Realized cut was not that bad. Washed cut out at home and applied sterile gauze. No problem.

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

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

P.M. NA

Recorded By Brad Richardson QA Checked By [signature]

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 1

Task Team Members:

JOHN DAVIS	SAIC	SHARON KRUTHAUPER	SAIC
CHRIS HALLEY	↓	BERNGARD KICNOW	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. Meacher 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. McMahan out till 6/14

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	SAIC	SHARON KEILKEMEYER	SAIC
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 Boehnke 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.

~~0230~~ 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 [signature] QA Checked By [signature]

TASK TEAM ACTIVITY LOG SHEET — SITE MANAGER LOGBOOK

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

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

Task Team Members:

John Davis — Sharon Krietemeyer
Evelyn Meagher — Brad Richardson
Chris Halley

Narrative (include time and location):

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

1600 JK - EM + SK ~~returned~~ JK returned to site.
1615 EM left the site for the day.
1700 SK left the site for the day.
1700 BR & CH clearing on Area J hillside all day. Poison Ivy was very thick; wore Tyvek suit which slowed down work rate Did Lines 1, 2, 3, 4, 5.
1705 BR & CH left site

LAST ENTRY

Daily Weather Conditions: A.M. See previous page
P.M. " " "

Recorded By Sharon Krietemeyer QA Checked By [illegible]

TASK TEAM ACTIVITY LOG SHEET

SITE MANAGER LOGBOOK P17

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 — CLINIS HALLEY

SHARON KRIETEMEYER

BRAD RICHARDSON

Narrative (include time and location):

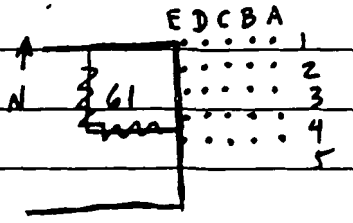
0700 @ t/r. Conduct H&S Mtg. Work assignments; SK, BR, & CH will all work together. Finish stake AJ, then to 3/SDB.

- 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 him 10:30A Monday.

- NOTE: per disc. btwn Tom Trank & Alan Spriand

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) Plan 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. McMahon 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. Morrison 8/15/94

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

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

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

Task Team Members:

JOHN DAVIS — MATT Obloy.
BRAD RICHARDSON
CHRIS HALLEY

Narrative (include time and location):

0730 ONSITE. SOME delay due to some required regional soil work. J. GEISLER ONSITE - WANTS medical update on Evelyn. DISCUSS clearances - NO word yet from A. Spesmad 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' x 100'.

1200 JD offsite.

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

LAST ENTRY

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

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

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

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 through guard post 2

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

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

B Brad Richardson — Matt Obley
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. (12N15-12
1200 Lunch
1245 CH + MO to Area 3/SDB to stake. BR + ES to stake and finish Area 3.
245-315 To Walmart for supplies (paint, bar oil, etc) CH + MO
0315 Both crews at Area 3/SDB to finish staking/cut
LAST ENTRY

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

Recorded By [signature] QA Checked By [signature]

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

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

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

Task Team Members:

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

Narrative (include time and location):

0730 ES, SH + JD on site.

0745 Rest of SAIC crew and Bowser-Morner attend Contractor Orientation and a HR. 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 Boehmer 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 mending procedures, prepping for drilling. Waiting on fedx delivery from office.

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

Other notes & intent:

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

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 from A. Spreand; - 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 Rentze place for hammer and generator (hammer too small), crew to Meijers for misc, and Davis to Hazco (misc supplies and to change OVAs). 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 HUMPHRY, MIKE KLIDJECZ, ERIC SAYLOR (HSA), SUSAN ~~AUSTIN~~ ABSTON, MARTHA CRAMER (CABLE TOOL), MARK ~~MIKE~~ HOWARD, MIKE MONROE, BOWSER-MORNER CREW

JTD 6/14/94

Narrative (include time and location):

JTD 8/21/94

0700 all staff @ HR. 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 bailer & misc. supplies to HSA. Crew prepping to collect surface sample. Not drilling yet

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

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

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

1200-1300 Break for lunch.

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

P.M. Same

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

TASK TEAM ACTIVITY LOG SHEET — SITE MANAGER LOGBOOK P.216

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

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

Task Team Members:

NA

Narrative (include time and location):

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

For A7 drilling:

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

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

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

#4: Not cleared

#5: loc as staked OK

#6, 7: Need to be moved.

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

#12, 13, 14: Not cleared

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

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

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

Daily Weather Conditions: A.M. NA

P.M. NA

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

TASK TEAM ACTIVITY LOG SHEET SITE MANAGER LOGBOOK P.27

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. Trank; 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. Morrissey 8/15/94

TASK TEAM ACTIVITY LOG SHEET

SITE MANAGER LOGBOOK P. 28

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

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

Task Team Members:

JOHN DAVIS JOCETTA HUMPERT
JEFF DEVAULHN
SUSAN ABSTON MARTY CRAMER (CABLE TOOL)
MIKE KLIDJECZ EVELYN MEAGHER (HSA)
MIKE MONROE MARK HOWARD (SC)
BOWSER-MORNER CREW

Narrative (include time and location):

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

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

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

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

Daily Weather Conditions: A.M. WARM 80°F HUMID
P.M. NA

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

TASK TEAM ACTIVITY LOG SHEET

SITE MANAGER LOGBOOK P29

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

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

Task Team Members:

NA

Narrative (include time and location):

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

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

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

1430 Start tremie #5 sand/slurry in W399.

Note: Per Tim Bochmer, AF RCS will not be available on MON because Security not avail to support alternating Regional Soil Drilling

1500. Tremie sand and bentonite completed. Alec Berry and Alan Spesard @ Cable tool. Per A. Berry; sand slurry is required. Also, its not allowed to let water flow out of well. Per A. Spesard; AF 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 decomed 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 trace 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. Mosiman 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 JOLETHA MINARD
MARK HOWARD MIKE MONROE (SG)
MIKE KLIDJECZ, ERIC SAYLOR (HSA)
CHRIS HALEY, JEFF DEVAULHIS (STAKE)
SUSAN ABSTON, MARTHA CRAMER (CABLE)
BOWSER MORNER CREWS

Narrative (include time and location):

0715 Staff onsite. Conduct HAS 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. Tack, B. Stanley, A. Spesard in Area 7. Locate Boring #16. As approves 5' shifts 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 LOG

P.32

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

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

Task Team Members:

NA

Narrative (include time and location):

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

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

Last Entry

Daily Weather Conditions: A.M. NA

P.M. NA

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

TASK TEAM ACTIVITY LOG SHEET

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

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

Task Team Members:

JOHN DAVIS JOLETTA MINARD ERIC SAYLOR MIKE KUDZETC EVELYN MEACHER (NP HSA)
GREG LODER JEFF DEVAUGN (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 HSS 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 hiway 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 - HR coverage.
DAVIS off site @ 1030
EOD 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. Marlan 8/15/94

TASK TEAM ACTIVITY LOG SHEET — SITE MANAGER LOGBOOK P-34

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

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

Task Team Members:

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

Narrative (include time and location):

0730 all personnel @ tlr. Conduct H&S Briefing. Crews prep for days activities.

- Discuss need for vehicles & another tlr w/ T. Tank. Tlr 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 @ 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 @ 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 @ 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 [signature] 8/15/94

TASK TEAM ACTIVITY LOG SHEET — SITE MANAGER LOGBOOK P35

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

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

Task Team Members:

NA

Narrative (include time and location):

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

EOD SUMMARY

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

NP HSA: completed BA07 to TD 13.5 Dry. Decomm'd.

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

FIDLER: 1 FIDLER down; otherwise good progress

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

SOIL GAS: Good progress

Last Entry

Daily Weather Conditions: A.M. NA

P.M. NA

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

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

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

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

Task Team Members:

John Davis, Joletta Humpert, Eric Saylor, Greg Loden, Jeff Dunnigan (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 Mazco last nite & they wouldn't fix it w/o a PO #. This morn, another OVA wouldn't calibrate w/ methane.
- Crews prepping for activities.

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

Cable tool continues drilling on W398. NPHSA set up on B405. OAHSA set up on B4.

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

Disc. w/ T. Trask; for B16 (A7), only rad spls need to be collected. Wants a Soil Screening Facility spl ≐ 2'.
- Drill rig crew notices that B16 M 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 R37

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 (nuisance 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 finger - suggested switching cables. Also said high heat can affect readings.
- G. Loden reports that A7B7 will need to be moved to clear

Daily Weather Conditions: A.M. NA

P.M. NA

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

TASK TEAM ACTIVITY LOG SHEET — SITE MANAGER LOGBOOK P 38

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

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

Task Team Members:

NA

Narrative (include time and location):

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

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

LAST ENTRY

Daily Weather Conditions: A.M. NA

P.M. NA

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

TASK TEAM ACTIVITY LOG SHEET — SITE MANAGER LOGBOOK P39

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 LODGE, JEFF DEVAUGHN (OAHSA)
MIKE KLIDZEJS, ERIC SAYLOR (NPHSA), MARK HOWARD, MIKE MONROE (SG)
SUSAN ABSTON, MARTHA CARRER (CABLE TOOL), SALLY BROWN, CRAIG PATTERSON (FIDLER)

Narrative (include time and location):

0730 All personnel on site. Conduct H&S Briefing.
J. Geisler and [redacted] (4768) @ HR. BS will be JG replacement next week. Discuss misc. items. Agree to drill A7B8, A7B9 on Mon.
- Call to Gene Wolfe Bowen-Morrow. GW agrees to drill W400 w/ cable tool @ hourly prices. Set up B-M man (JIM) for drum staging today - will meet Denny Grant @ 0800 @ Guard Post 2. Re pump for well develop. - B-M will supply pump and generator @ no cost but will charge for manpower. B-M will try to supply enough tubing to dedicate to each well. B-M coveralls and work uniforms are rentals and are laundered commercially.

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

1300. Only one OVA operational. Hazco delivers one and takes back 2 bad ones.
G. Lodge 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. Monroe 8/15/94

TASK TEAM ACTIVITY LOG SHEET — SITE MANAGER LOGBOOK P.40

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

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

Task Team Members:

NA

Narrative (include time and location):

NCRs to write up:
- 6" hole on W399
- NO 2nd Alk. RUN ON B401 water sample
- NO CONTINUOUS CORING ON B1, B2
- delay IN WAXING geotech shelby tubes

sample therm. Concern about cross-contamination. Discuss w/ T. Tank. Discuss w/ Alec Berry. He says to make sure its not just a methane hit.

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

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

Note: crews report that Mound HP has requested all sampling

Daily Weather Conditions: A.M. NA

P.M. NA

Recorded By [signature] QA Checked By Laura M. Mannion 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, GARY LODER, JEFF DEVAUGHN (ATHSA), MIKE KLIDZEJS, ERIC SAYLOR (NPHSA), MARK HOWARD, MIKE MONROE (SC), SUSAN ABSTON, MARTHA CRONIER (CABLE TOOL), SALLY BROWN, CRAIG PATTERSON (FINKER), 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 first soil sample and water sample. If hole is showing true OVA hits (not methane) grout and abandon. If hole is clean, continue drilling to bedrock.

- Call R. Tusing to set up FINKER security escort for tomorrow - 730-430. Meet @ Post 2. 6/27
- Call for DAVE Keeter. Surveillance sched. for ~~Wed.~~ 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 @ ATHSA B3. Pursing wire to collect grab sample. Thin floater on top of water indicated

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

P.M. sunny, 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: 348967

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

Task Team Members:

NA

Narrative (include time and location):

by intercom phone

1330 @ NP HSA B406. Current depth is 60'. No water encountered. Poss bedrock. Refusal @ 60' - unhard shale? Trying to auger through it. Can't spl collected @ 45'. Question is what is total depth in this situation? Auger refusal @ 63'. Decide this is bedrock. Can't soil sample @ 45' which is 20' above bedrock. This spl collected based on damp core but hole didn't make water.

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

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

1400 M. Cramer onsite. Deliver key 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

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' - CRSE GRAVEL, NO FINES.

1600 per Bill Stott; per Kathy Kaylor, OK to deliver t/e onsite. JD Mulh truckdriver, position trailer @ stopsign south of Bldg 105 as directed by B. Stott.

1700 Call A. Berry inform him of B3 situation

EOD SUMMARY: B3: drilled to 36' (SEE PG 44)
B406: drilled to 63' Auger refusal No water. Grouted and abandoned
B400 drilled to 24' No wtr. Poss OVA hit.
FIDLER: 45 points in NONADC 213 to date
SOIL GM: good progress
GEOPHYSC.: continue EM 31
LMH Entry

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

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

TASK TEAM ACTIVITY LOG SHEET

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

P45

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. Crew prepping for activities.

Per T. Tank. "Delete" Field Change OS-NP-009 re location of B409. Wants B409 drilled as located on map. Will need another FC to put it back to orig. location.

NCR items: no spl w/ 20' intvl in B3. Coarse gravels, fines washed out.

- well ~~loc~~ placement in W399, W397.
- geotech spls unwaxed.

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

0830 Call fm A. Berry: B3 - keep drilling. BVA not a concern. Call him w/ 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. Spesard.

0930 w/ ATB3 w/ K. McNaghan & A. Berry. Depth w/ 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 LOGBO

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 — TASK NO. 348963

Date (mm/dd/yy): 6/28/94 TIME: NA PAGE 2 OF 3

Task Team Members:

NA

Narrative (include time and location):

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

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

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

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

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

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

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

Daily Weather Conditions: A.M. NA

P.M. NA

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

TASK TEAM ACTIVITY LOG SHEET — SITE MANAGER LOGBOOK — PAT

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:

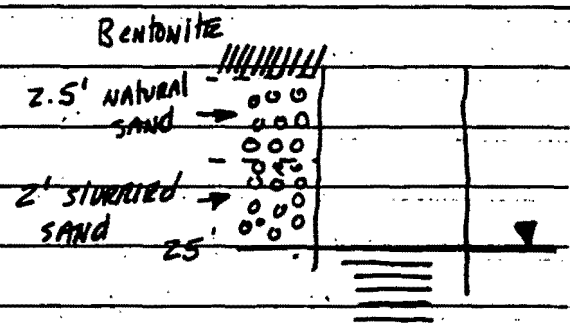
NA

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, essentialy 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 (NPKA), Gary Loder, Jeff DeVaugn (A7KSA), Sally Brown, Craig Patterson (ADEQ), Susan Ashton, Martha Carman (CABLE), Mark Howard, Mike Monroe (SG), Paul Parrish, Dale 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. [redacted] (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 - SNIC. He said Action levels are set to breathing zone. Downhole hit of 60 ppm are "no big deal". G. Loder documents <1 ppm in breath zone. Breezy today also. Drillers shouldn't keep hands 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 Drawings) planning a trench work @ B16. Proposes a new location for B16 based on different idea of

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

P.M. Same w/ some rain

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

TASK TEAM ACTIVITY LOG SHEET — SITE MANAGER LOGBOOK P49

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

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

Task Team Members:

NA

Narrative (include time and location):

where septic tank is.

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

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

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

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

Daily Weather Conditions: A.M. NA

P.M. NA

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

TASK TEAM ACTIVITY LOG SHEET — SITE MANAGER LOGBOOK

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

PS1

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

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

Task Team Members:

John Davis, Joletta Hampton, George Wahl, Greg Loder, Jeff DeVaughn (AFHSA), Mike Klidzeja, Eric Saylor (NPHSA), Sally Brown, Craig Patterson (FIDLER), Susan Alston, Marlon Cramer (NPCABLE), Mark Howard, Mike Monroe (SG), Paul Parrish, ~~Dave Cummings~~ (GEOPH) TTD 6/30/94 George Wahl

Narrative (include time and location):

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

- T. Tank arranges for AFHSA thru ~~Eff~~ 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

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

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

Task Team Members:

NA

Narrative (include time and location):

Note: per K. McMahon, work shut down on B16, at least for today. Respirator fit 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. Bray, A. Spicknall, T. Mark @ OSE Bldg.

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

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

Daily Weather Conditions: A.M. NA

P.M. NA

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

TASK TEAM ACTIVITY LOG SHEET

SITE MANAGER LOGBOOK P.53

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

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

Task Team Members:

NA

Narrative (include time and location):

EOD SUMMARY

NPHSA: Finished last HSA boring B404 (yesterday). M. Klidzejs 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 DeVausen (A7/HSA), Chris Halley, Eric Snyder, George Wahl (sed splg), Susan Abston, Martha Cramer (Cable)

Narrative (include time and location):

0715 All personnel onsite. Conduct H&S Briefing.
J. Chesler onsite. Review last weeks activities w/her.
Alert her that B410 will require a LOTO.
- Get sediment sampling crew going. They go to office for logbook.
- Greg Schanle onsite for SAIC QA surveillance.
  - MATE QAAP 12.1 - Not necessary. QAAP's are guidelines. QAPjP takes precedence. Get rid of MATE Usage Log - no entries.
  - Not recording lot numbers of calib. gases on MATE Log.
  - All pages numbered in logbooks. 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. Schanle to observe operations.
1030 to Bldg 61 w/ G. Schanle to observe FIDLER
1130 to NON-AOC w/ G. Schanle to observe soil gas retrieval.

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

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

TASK TEAM ACTIVITY LOG SHEET — SITE MANAGER LOGBOOK — P.55

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

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

Task Team Members:

NA

Narrative (include time and location):

NOTE: per M. 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 as spl tkr w/ Spl Mgr, i.e. life of sample begins w/ Spl Mgr. This requires that Sample Log Sheets be completed in field and transition 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 purging.

1515 Call fm G. Loder as yd TTD 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 DeVaughn (ATHSA), Chris Halley, Eric Taylor (SED), Susan Abston, Martha Cragmer (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. Cragmer 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 acid cyanide for chlorine & sulfides.
- FC for temp blanks in the coolers. Use temp strips instead
- Confirm that split spoons are checked w/ OVA.

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

P.M. SAME

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

TASK TEAM ACTIVITY LOG SHEET — SITE MANAGER LOGBOOK

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

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

Task Team Members:

NA

Narrative (include time and location):

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

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

1700 @ B13. G. Coder 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, Joletta Hompert, Greg Locker, Jeff DeVuysn (HSA), Tanya Pfaff, Juan Alvarado (SEEP), Sally Brown, Craig Patterson (FIDLER), Susan Alston, Martha Cramer (CABLE), Mike Monroe, George Wahl (SG), Chris Halley, Eric Saylor (SED.

Narrative (include time and location):

0700 all personnel onsite.

0700 Meet S.C. Patterson, J. Geisler @ Bldg 102 for Security escort to Bldg 50 for LOTO.

0800 Security arrives

0830 Complete LOTO @ Bldg 50 - start lites then to substation near B10 for LOTO of more 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. DeVuysn, 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. Spillard, 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. Cart 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:

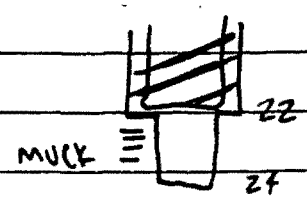
NA

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, <1 ppm BZ (breezy) and LEL = 85% O_2 = 16%. Shut down Rig.
Also poor recovery. No spl @ 5', 10', spld 12-18
Auger @ 22'



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

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

TASK TEAM ACTIVITY LOG SHEET — SITE MANAGER LOGBOOK P.60

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

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

Task Team Members:

NA

Narrative (include time and location):

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

HSA: @ 24' High LEL

SEEP: sampled 1 SEEP, S01001; spl, dupe, MS/MSD

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

1830 All personnel off site.

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

CHRIS 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. Wtr in augers @ ≐ 21.7. @ 28-30', OVA @ >1000 ppm DH, LEL = 24%.

Spend rest of day purging well & collecting water spl.

No pump available.

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

1530 JD offsite

LMT Entry

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

P.M. clearing and warm

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

TASK TEAM ACTIVITY LOG SHEET — SITE MANAGER LOGBOOK P.62

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

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

Task Team Members:

JOHN DAVIS JOLETTA HUMPHRY — MIKE MONROE GEORGE WAHL (SL)
GREG LODER JEFF DEVINGER (AZTECH) — JUAN ALVARADO TONYA PFAH (SEEP)
SUSAN ABSTON MARTHA CRAMER (CABLE) — CRAIG PATTERSON SWIFT BROWN (FIDELITY)

Narrative (include time and location):

0700 all personnel on site

0730 Meet J. Geisler & 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 = 74.94'. No bedrock. In clean w-sorted River gravel.

1615 @ Bldg 102 for LOTO. Guard team @ 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. Marston 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-A

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

A7 HSA: still on B14. TDTD = 76.0

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

SEDS: Good progress. Will complete tomorrow.

S6: IN SDB.

FIDLER: starting A22

Daily Weather Conditions: A.M. NA

P.M. NA

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

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

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

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

Task Team Members:

John Davis, Toletta Humpert, Mike Monroe, George Wehl (SG)
Gary Loder, Eric Taylor (AT HSA), Sally Brown, Carl 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 fm G. Loder. @ B14, heaving sands @ 108. Difficulty keeping sand out of augers - no pilot bit in augers.
GL calls A. Berry who says its ok just to auger to bedrock - no split-spoon sampling required.
Last Entry

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

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

TASK TEAM ACTIVITY LOG SHEET — SITE MANAGER LOGBOOK P65

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

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

Task Team Members:

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

Narrative (include time and location):

0700 all personnel on site.

0830 Complete B14, TD @ 114.0 Auger refusal. @ bedrock. Setting up on B8.

- S. Abston, M. Cramer developing, pursing, and sampling W397.
- Note: J. Humpert, Juan Alvarado pulling soil gas tubes in A22.

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

0915 Chris Holley onsite to replace Sally Brown on FIDCER

1000 Stake bldg PH holes w/ K. McMahan. PH1, PH2 in front, PH3, PH4 in back. Locs can be moved as necessary for utilities clearance.

- KM also wants to schedule Rad II training on Fri 7/15 or Fri 7/22

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

1500 Lightning Alert per Henry Robinson

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

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

P.M. heavy rains in 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 38%. Slow recharge.

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

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

Soil GAS: installing in AREA 3

FIDLER: working in A7

Last Entry

Daily Weather Conditions: A.M. NA

P.M. NA

Recorded By [signature] QA Checked By Laura M. Morrison 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 Saylor		
Cathy Mc[illegible]		
Bethel [illegible]		
Art Tuy[illegible]		
Jeff Tu[illegible]		

JOHN H. DAVIS

SITE HEALTH & SAFETY OFFICER

TAILGATE SAFETY MEETING LOG FORM

SITE MANAGER LOGBOOK P-242

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

TASK NO. 3489

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

WEATHER: clear crisp calm 45°F

WORKING CONDITIONS: good

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

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

Last Entry

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

Bernard D Kurz		
Art Lungi		
[illegible]		
[illegible]		
Eric [illegible]		

JOHN H. DAVIS

SITE HEALTH & SAFETY OFFICER

TAILGATE SAFETY MEETING LOG FORM — SITE MANAGER LOGBOOK 223

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 Tuttle		
Eric Taylor		
[illegible]		
[illegible]		

John 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 (CABE)
SALLY BROWN CRAIG PATTERSON (FIDLER)

Narrative (include time and location):

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

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

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

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

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

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

Daily Weather Conditions: A.M. overcast, sl. drizzle, humid, 80°F

P.M. clearing some and warmer.

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

TASK TEAM ACTIVITY LOG SHEET — SITE MANAGER LOGBOOK P-68

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

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

Task Team Members:

NA

Narrative (include time and location):

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

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

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

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

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

Daily Weather Conditions: A.M. NA

P.M. NA

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

TASK TEAM ACTIVITY LOG SHEET

SITE MANAGER LOGBOOK P.69

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

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

Task Team Members:

NA

Narrative (include time and location):

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

- Discussion of Level D. What should we be wearing? Need to call SAIC Corporate. A. Spesard says disregard D. Garrison and S. Weibel. SAIC can wear coveralls if we want but not that Mound is forcing us to wear them. Disregard above paragraph. Continue wearing coveralls in A7. per A. Spesard. Get copies of 3-dy supervised trng for field staff.
- NPPI FR due 7/27. Get a copy.
- If we drill a boring 30-40' below water table, grab a water sample. 100 ml.

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

Last Entry

Daily Weather Conditions: A.M. NA

P.M. NA

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

TASK TEAM ACTIVITY LOG SHEET

SITE MANAGER LOGBO
P70

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):

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

LAST ENTRY

Daily Weather Conditions: A.M. NA

P.M. NA

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

TASK TEAM ACTIVITY LOG SHEET — SITE MANAGER LOGBOOK

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) — C. Patterson (FIDLEE)
S. Alston, M. Cramer (CAHE) — J. Davis J. Humphrey
J. Alvarado, C. Hailey (SG)

Narrative (include time and location):

0700 all personnel onsite. Call from K. McMahan - 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. Alston & M. Cramer purging and sampling W397 today.
- Note: Suggestions to speed up AZ 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~~ 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 LOGBOOK

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. Hampert QA Checked By Laura M. Marion 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 (FDLEE) 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. Hempest QA Checked By [illegible] 7/21/94

TASK TEAM ACTIVITY LOG SHEET

SITE MANAGER LOGBOOK P. 74

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

TASK NO: 34896

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

Task Team Members:

J. Humpert et al.

Narrative (include time and location):

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

1200 G Loder to trailer - at point of collecting last sample (B09005). Will finish hole after lunch.

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

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

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

LAST ENTRY

Daily Weather Conditions: A.M. NA

P.M. Sunny 88°F

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

TASK TEAM ACTIVITY LOG SHEET

SITE MANAGER LOGBOOK

P.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, Monica Cramer, Susan Alston (GW 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 improvement. Did not drill there. He's checkg w/ HP to determine background. OU5 HSP says action level is 3x background.
- G. Loder drillg B12
- S. Alston, 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 # 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 D. Work (B-M).

1400 Call from K. McMahon. 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 scanning.

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.37

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 LOGBO P.73

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

TASK NO. 34896

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. Morillo 8/15/94

TASK TEAM ACTIVITY LOG SHEET — SITE MANAGER LOGBOOK 099

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

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

Task Team Members:

NA

Narrative (include time and location):

B409 NONE.

SAMPLE SUMMARY

ZONE 1 3 buckets 3 Shelbys

ZONE 2 3 buckets 1 Shelby

ZONE 3 2 buckets 1 Shelby

SOIL - silty clays
clayey silts (ZONE 1)

GRADES FIRM CLAYS (ZONE 2)

weathered shale or limestone.
(PARK 4 ZONE 2)

BVA
ZONE 3

Daily Weather Conditions: A.M. NA

P.M. NA

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

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

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

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

Task Team Members:

NA

Narrative (include time and location):

SUMMARY OF NEW PROPERTY EXTENDED PHASE DRILLING - MULTIPLE HOLES

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

B402 1 HOLE
B401 1 HOLE

LAST ENTRY

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

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

TASK TEAM ACTIVITY LOG SHEET — SITE MANAGER LOGBOOK: P-81

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

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

Task Team Members:

JOHN DAVIS JOLETTA HUMPERT — GALE LODER GEORGE WAHL (A7HSA)
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 HES briefing.
A7HSA set up on B11
K. McMahan and J. Geiska on site. Discuss concrete specs for well pads:
- 3000 psi
- max 2 hr to pour (from start of mix in yard to pour)
- need to keep concrete wet for several days.

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

- A7HSA completes B11; TD @ 20.5 (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. Some warming to 90°F

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: 34895

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

Task Team Members:

Greg Loden George Wahl

Joletta Minand John Davis

Narrative (include time and location):

0700- G. Loden, 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. Morrison 8/15/94

TASK TEAM ACTIVITY LOG SHEET

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

0 83

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 Spessard was going to stop by to talk to crew.

0810 Called A. Spessard. - 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 #: ~~8-267-1410~~) 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 blass pias and deconning (cleaning) and moving barrels. Still very little

Daily Weather Conditions: A.M. NA

P.M. Sunny, humid, 85°F

Recorded By J. Humpert QA Checked By Laura M. 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 DU9 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 8.86

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 Hompert John Davis Sally Brown Craig Patterson (FIDLER)
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 P87

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 pg 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 ALSTON, MARTHA CRAMER (A7 HSA)
CHRIS HALLEY, JUAN ALVARADO (SG)
SALLY BROWN, CRAIG PATTERSON (FIDLER)

Narrative (include time and location):

JTD 7/27/94

0700 ~~All site on personnel~~ All personnel on site. Conduct HTS Briefing.

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

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

LAST ENTRY

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

P.M. Same w/ some clearing

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

TASK TEAM ACTIVITY LOG SHEET

SITE MANAGER LOGBOOK

P.89

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

TASK NO: 34896

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

Task Team Members:

John Davis, Joletta Humpert, Susan 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. Mingard, G. Loder pulling soil gas samplers.
J. Davis QAs logbooks

1400 Joe Schultheis on site to look @ AOC J geophysical grid.

1430 @ OSE Bldg for mtg w/ K. McMahan, A. Spessard, T. Tank.
Jim Zahora

- small sg grid around A7 gas tanks. Research w/ Petrex
- PH holes scheduled for Tues, Wed next week
- A21; not sure what contaminant is there. Will run FIDLER. per A. Spessard.
- FIDLER methodology to remain the same.

Last Entry

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

P.M. SAME

Recorded By [signature] QA Checked By Laura M. Marsden 8/5/94

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 (FIDLER)
Juan Alvarado Chris Halley (SC)
Martha Cramer (SC)

Narrative (include time and location):

0730 all personnel on site.
FIDLER working in 3/SDB. Soil gas in A7.
1200 JD to office to discuss misc project details w/ T. Tank
1 MH 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 P91

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 Humphrey Martha Crouch

Juan Alvarado Chris Holley (SG)

Sally Brown Craig Patterson (FIDLER)

Narrative (include time and location):

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

0900 To H_2O 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-Monon 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: 3489

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

WEATHER: clear cool breezy 50°F

WORKING CONDITIONS: good

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

NOTES: Discuss:

- ticks & Permanone
- Cleaning equipment safety
- HP coverage; per J. Geisler, she'll check the area D DYD to see if its OK to go in.

Last Entry

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

[illegible]		
[illegible]		
[illegible]		
[illegible]		
[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: 348967

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

Last Entry

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

Eric Saylor		
[illegible]		
[illegible]		
Bernard D[illegible]		
Jeff [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.: 3486

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 cleaning PPE when cleaning.

NOTES:

Discuss
- chainsaw & mulch safety
- emergency 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: 3489

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, book, 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 Mostrantzell		
Sharon Kretzenger		
Brad Richards		
Chr D Holly		

SITE HEALTH & SAFETY OFFICER

TAILGATE SAFETY MEETING LOG FORM

SITE MANAGER LOGBOOK

P.250

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

TASK NO: 3489

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!

Cart 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. 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 Tsuya		
Jeff Kelsa		
Cindy McCullough		
Sharon Kristensen		
Bernard D Kunde		
Chris J Fitzsimmons		

SITE HEALTH & SAFETY OFFICER

TAILGATE SAFETY MEETING LOG FORM — SITE MANAGER LOGBOOK P-252

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

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 Meagle 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

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

TASK NO: 3486

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
  Unit Entry

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

Brad Richards		
Chris D. Hall		

SITE HEALTH & SAFETY OFFICER

TAILGATE SAFETY MEETING LOG FORM

SITE MANAGER LOGBOOK P.256

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

TASK NO: 3480

DATE: 6/8/94 Su M Tu (W) Th F Sa TIME: 07:30

WEATHER: Mostly Cloudy, 60°F

WORKING CONDITIONS: Good

REQUIRED PPE: See below

NOTES:

Discuss:

- Concerns w/ area J.
  - Ticks (Tape Pants legs to boots)
  - Poison Ivy (where encountered tape up and wear tyvek if necessary)
  - Steep slope dangers

LAST ENTRY

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

Eric Taylor		
Bud [illegible]		
[illegible]		

SITE HEALTH & SAFETY OFFICER

TAILGATE SAFETY MEETING LOG FORM — SITE MANAGER LOGBOOK

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		
Matt Otley		
[illegible]		

SITE HEALTH & SAFETY OFFICER

TAILGATE SAFETY MEETING LOG FORM

SITE MANAGER LOG P. 29

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:

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, hard hats 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.

East Entry

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

[illegible]	[illegible]	
[illegible]	Mark T. Hom	
Eric Zeigler	[illegible]	
Martha Crames		
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

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 — TASK NO: 34896 — P2261

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, handbats 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)

Duncan L Alston	Mark Stanford	
[illegible]	[illegible]	
[illegible]		
SC Patterson		
[illegible]		
[illegible]		

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]	S C [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, handwalk in exclusion zones, construction zones

NOTES:

Discussed

- lightening alerts. Mound HP passed 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)

Marsha L Cramer	Sheila Dumpert	S C Patterson
Susan L Nelson	[illegible]	[illegible]
Kelly A Brown	Tim Bergman	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]

SITE HEALTH & SAFETY OFFICER

TAILGATE SAFETY MEETING LOG FORM

SITE MANAGER LOGBOOK P.264

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

TASK NO: 3489

DATE: 6/22/94 Su M Tu (W) Th F Sa TIME: 0730

WEATHER: warm, humid, 90°F, clear

WORKING CONDITIONS: good

REQUIRED PPE: glasses, boots, 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]	
Yaunta Cramer	[illegible]	
Guy Patterson	Sally Brown	
Eric Taylor	[illegible]	

SITE HEALTH & SAFETY OFFICER

TAILGATE SAFETY MEETING LOG FORM — SITE MANAGER LOGBOOK P-ZGS

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, handwear 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	Marsha L. Cramer	S.C. Patterson
Susan J. Alston	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	Mark T. [illegible]
[illegible]	Juletta Humpert	
[illegible]	Steve [illegible]	

SITE HEALTH & SAFETY OFFICER

TAILGATE SAFETY MEETING LOG FORM

SITE MANAGER LOGBOOK P.266

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

TASK NO: 3488

DATE: 6/27/94 Su (M) Tu W Th F Sa TIME: 0730

WEATHER: overcast, sl. drizzle 65°F

WORKING CONDITIONS: wet, slippery.

REQUIRED PPE: glasses, boots. Add hardhats in exclusion zones and construction zones

NOTES: Discussed:

- drill crews to wear coveralls
- wet driving conditions

Last entry

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

[illegible]	[illegible]	
Eric Taylor	[illegible]	
[illegible]	George Wahl	
Susan J. Alston	[illegible]	
[illegible]	Juliette Humphrey	
[illegible]		

SITE HEALTH & SAFETY OFFICER

TAILGATE SAFETY MEETING LOG FORM — SITE MANAGER LOGBOOK

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, Abandment 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 Taylor	
[illegible]	Joletta Humpert	
[illegible]		
Marlo L [illegible]		
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: 3489

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 DeVaughn	[illegible]
[illegible]	George Ward	[illegible]
Susan T Alston	[illegible]	[illegible]
Mountaz Cramer	[illegible]	Joletta Humphrey
[illegible]	S C 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]		

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 Cearnes	
[illegible] Vaughn	Juletta Dumpert	
Eric Sayler	[illegible]	
Craig Pitt		
Sally A Brown		

SITE HEALTH & SAFETY OFFICER

TAILGATE SAFETY MEETING LOG FORM — SITE MANAGER LOGBOOK P. 271

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

DATE: 7/6/94 Su M Tu (W) Th F Sa TIME: 0730

WEATHER: sl. overcast, humid, warm

WORKING CONDITIONS: good

REQUIRED PPE: glasses & boots, handwarts as required.

NOTES: Discussed

- weather conditions

last entry

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

Guy Patterson	Juletta Hunnicutt	
Susan L Alston	George Wahl	
Martha Cramer	Steve C. Bell	
Shelley A Brown	Sheehe Patterson	
[illegible]	[illegible]	
[illegible]		

SITE HEALTH & SAFETY OFFICER

TAILGATE SAFETY MEETING LOG FORM

SITE MANAGER LOGBOOK P.272

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

TASK NO: 3480

DATE: 7-12-94 Su M (Tu) W Th F Sa TIME: 0800

WEATHER: warm clear humid 80°F

WORKING CONDITIONS: good

REQUIRED PPE: handwarts as required, glasses and boots

NOTES:

Discussed:

scheduling

heat stress

chiggers

LAST ENTRY

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

[illegible]	Eric Saylor	
Sally A Brown		
George Wahl		
[illegible]		
Susan L Alston		
[illegible]		

SITE HEALTH & SAFETY OFFICER

TAILGATE SAFETY MEETING LOG FORM — SITE MANAGER LOGBOOK PA273

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 Patton		
Susan J Alberts		

SITE HEALTH & SAFETY OFFICER

TAILGATE SAFETY MEETING LOG FORM

SITE MANAGER LOGBOOK P. 274

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

TASK NO.: 34896

DATE: 7/14/94 Su M Tu W (Th) F Sa TIME: 0730

WEATHER: overcast sl drizzle humid 75°F

WORKING CONDITIONS: slippery

REQUIRED PPE: glasses & boots; hardhats as required

NOTES: Discussed

- poison ivy. Clean w/ Clorox.
- OSHA medical required
- slippery driving conditions

Last Entry

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

[illegible]	Juliette Humpert	
George Wahl	George Wahl	
[illegible]		
Sally Brown		
Susan L Alston		
Marsha L Cramer		

SITE HEALTH & SAFETY OFFICER

TAILGATE SAFETY MEETING LOG FORM

SITE MANAGER LOGBOOK P 215

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, handbats as required

NOTES:

Discussed:

- keep vehicles gassed up
- watch for poison ivy.

LAST ENTRY

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

J. Humpert		
[illegible]		
Gary Pettman		
Chris D. Haley		

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: 34896

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 handhat 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]		
SD [illegible] Sally Brown		
[illegible]		
Marsha L Crane		

SITE HEALTH & SAFETY OFFICER

TAILGATE SAFETY MEETING LOG FORM — SITE MANAGER LOGBOOK P.27A

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; hardhat 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

EC-130 AROUND
US OPS AREA
PHASE I
DATA
ATTACK

MC J

AN-27

P-3

AOC FIDLER SURVEY LOG BOOK

PROJECT TITLE: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 RI/FS FIELD INVESTIGATIONS

WORK SITE: *MOUND PLANT*
Miamisburg, Ohio
OU5 Operational Area

ACTIVITY: *Mound OU5 Operational Area Phase 1 RI/FS Field Investigations*

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

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

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

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

PROCEDURES: *SOP 1.1, SOP 6.7*

START DATE: 7-5-94
END DATE:

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FIDLER

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PROJECT NO: 34896

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252		282	BLANK PAGE
253		283	ADC22 Activity Log Sheet - 7-12-94
254		284	ADC22 Activity Log Sheet - 7-13-94
255		285	No Entry
256		286	
257		287	
258		288	
259		289	
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261		291	
262		292	
263	ADC21 FIDLER MEASUREMENT DATA 8/2/94	293	
264	No Entry	294	
265		295	
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269		299	
270		300	

TABLE OF CONTENTS FIDLER

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

PAGE	FIELD LOG	PAGE	FIELD LOG
301	No Entry	331	AOC 22 FIDLER SURVEY READINGS
302		332	
303		333	
304		334	
305		335	
306		336	
307		337	
308		338	
309	FIDLER STD BKGD DATA - 7-12-94 AOC22	339	
310	" " " " - 7-13-94 AOC22	340	
311	No Entry	341	
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327	AOC 22 FIDLER SURVEY READINGS	357	
328		358	
329		359	
330		360	

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

PAGE	FIELD LOG	PAGE	FIELD LOG
361	AAC22 FIDLER SURVEY READINGS	391	No entries
362		392	
363		393	
364		394	
365		395	
366		396	
367		397	
368		398	
369		399	
370		400	
371		401	
372	Blank Page - last Page	402	
373	No further entries	403	
374		404	
375		405	
376		406	
377		407	
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388		418	
389		419	
390		420	

AOC J

TASK TEAM ACTIVITY LOG SHEET

FIDLER AOC 21

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

TASK NO.: 34896

Date (mm/dd/yy): 8/2/94 TIME: 12:47 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):

STD BKGD CHK - [1247] - NEAR J-7 - BATT - 98% HV - 143

CH1 - 120, 125, 110, 100, 125 - 580 ÷5 = 116 ×3 = ~~34.8 + 110~~ = 150.8 JH 4/28/95

x = 116 sd = 10.77

Pu 238 - Th - 3×sd = 32.31 + 116 = 148.31

CH2 - 9.0, 9.0, 9.0, 8.5, 9.0 - 44.5 ÷5 = 8.9 ×3 = ~~26.7 + 8.9~~ = ~~41.5~~ SB 8-2 JH 4/28/95 ~~11.57~~

~~JH 5/15/95~~ ~~Pu 238~~ x̄ = 8900 sd = 94 Th - ~~x̄ = 8.9 sd = 2.98~~

3sd = 282 + 8900 = 9182 ≈ ~~9.2 Kcpm~~ 3×sd = 8.94 + 8.9 = 17.84 JH 5/15/95

Out - 11.5, 11.0, 11.5, 11.5, 11.0 - 56.5 = 11.3 ×2 = ~~22.7 + 11.3~~ = 14.69 JH 4/28/95 x̄ = 11.3 sd = 3.36 3sd = 10.08 + 11.3 = 21.38 JH 5/15/95

x̄ = 11,300 sd = 106 3sd = 318 + 11300 = 11618 cpm ≈ 11.6 Kcpm SB 8-2-94

[1545] B2.5 - half way between B2 & ~~C2~~ B3

~~Out - C~~ Out - 26.0 CH2 - 22.0 CH1 - 215 SB 8-2-94

about 5ft West, 3ft east, 3ft south, ~~8ft~~ 12 north SB 8-2-94

B2 - part of the above described hot spot.

1247 - TAKE STD BKGD CHK NEAR J7.

1320 - START TAKING READINGS. AREA IS LOCATED COMPLETELY IN WOODED AREA SO NO SERPENTINING WAS DONE. OUT CHANNEL READINGS WERE TAKEN AT EACH STAKE AND AN OUT WALK WAS DONE ~~FROM~~ SB 8/2/94 ~~TO~~ 3/2/94 BETWEEN EACH STAKE.

1545 - FIND HOT SPOT. DESCRIBED ABOVE.

1615 - FINISH AREA 21. GO IN TO TRAILER.

Last Entry
Z

Daily Weather Conditions: A.M.

P.M. Sunny, hot, humid

Recorded By Sally Brown QA Checked By J. Humpert

FIDLER MEASUREMENT DATA

FIDLER: AOC 21

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

FACILITY CODE: MND31 LOGGER CODE: SAIC

LOG DATE: 8/2/94 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: 1.43 BATTERY: 98%

NaI PROBE:

MODEL NO.: 3432 SERIAL NO.: A736P CALIBRATION DATE: 6/1/94

CHECK SOURCE:

ISOTOPE: Pu-238 ACTIVITY: 0.5 microcuries ~~DPM~~ JPH 8/30/94 SERIAL NO.: ~~P3~~ JPH 8/30/94 29

SOURCE CHECK:

METER READING: 21,000 COUNTS/ 1 MIN = 21000 CPM

(WITHIN ± 3 STANDARD DEVIATIONS? (Y/N) Y)

CONTAMINATION CRITERIA: OUT ~~21.38~~ 11.6 kcpm JH 5/15/95 ~~14.69~~ CH1 ~~150.8~~ 148.31 cpm CH2 ~~17.84~~ JH 6/15/95 9.2 kcpm ~~11.57~~ JH 4/28/95

COMMENTS: STD BKGD DATA - pg 237

FACILITY CODE: LOGGER CODE:

LOG DATE: FIELD REP:

ACCEPTANCE CODE: FIDLER NO.:

RATEMETER/SCALER:

MODEL NO.: SERIAL NO.: CALIBRATION DATE:

WINDOW: THRESHOLD: VOLTAGE: BATTERY:

NaI PROBE:

MODEL NO.: SERIAL NO.: CALIBRATION DATE:

CHECK SOURCE:

ISOTOPE: ACTIVITY: DPM SERIAL NO.:

SOURCE CHECK:

METER READING: COUNTS/ 1 JPH 8/16/94 MIN = CPM

(WITHIN ± 3 STANDARD DEVIATIONS? (Y/N))

	OUT	CH1	CH2
CONTAMINATION CRITERIA:			

COMMENTS:

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

COMPLETE BOLDED DATA FOR ENTRY INTO TIMS

Sally Brown 8/2/94 — FORM COMPLETED BY / DATE

J. Humbert 8/30/94 — TECHNICAL REVIEWER / DATE

FIDLER SURVEY

AOC 21

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
21A01	8/2/94	3	11.0	N	N	NA	NA	
21B01			10.5					
21C01			11.5					
21D01			12.0		Y			
21E01			13.0					
21F01			12.5					
21G01			12.5					
21H01			12.0					
21I01			13.5					
21J01			13.5					
21A02	8/2/94	3	10.0	N	N	NA	NA	
21B02			18.0		Y	NA	pg 237	
21C02			12.5		Y	N	N	
21D02			12.0					
21E02			12.5					
21F02			12.5					
21G02			12.5					
21H02			12.0					
21I02			13.0					
21J02			13.5					
~~32.4~~ 32.5 SB8-2-94	8/2/94	3	26.0	N	Y	NA ~~1/4 down D&C~~ SB 8/2/94	pg 237	
21A03	8/2/94	3	12.0	N	Y	NA	NA	
21B03			12.0					
21C03			13.0					
21D03			12.5					
21E03			13.5					
21F03			11.5		N			
21G03			12.0		Y			
21H03			13.0					
21I03			13.5					
21J03			13.0					

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FIDLER SURVEY

AOC 21

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
21A04	8/2/94	3	13.0	N	~~N~~ Y	NA	NA	
21B04			12.0					
21C04			13.0					
21D04			13.0					
21E04			13.5					
21F04			12.0					
21G04			12.5					
21H04			11.5		N			
21I04			12.0		Y			
21J04			12.5					
21A05	8/2/94	3	12.5	N	~~N~~ Y	NA	NA	
21B05			12.5					
21C05			12.0					
21D05			12.5					
21E05			12.0					
21F05			~~12.5~~ 10.0		N			
21G05			10.0					
21H05			12.0		Y			
21I05			12.5					
21J05			11.0		N			
21A06	8/2/94	3	12.0	N	~~N~~ Y	NA	NA	
21B06			12.5					
21C06			12.5					
21D06			12.5					
21E06			13.0					
21F06			12.0					
21G06			11.5		N			
21H06			11.0					
21I06			12.0		Y			
21J06			11.5		N			

FIDLER SURVEY

AOC 21

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
21A07	8/2/94	3	12.0	N	~~N~~ Y	N/A	N/A	
21B07			12.5					
21C07			11.5		N			
21D07			12.0		Y			
21E07			11.5		N			
21F07			11.0					
21G07			9.5					
21H07			12.0		Y			
21I07			11.5		N			
21J07			11.0					

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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SOIL GAS

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

PROJECT NO: 34896

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

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71		101	Task Team Activity 8/4/94
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75		105	
76	Task Team Activity 7/27/94	106	
77		107	Task Team Activity 8/8/94
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80	Task Team Activity 7/28/94	110	
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88	Task Team Activity 8/1/94	118	Task Team Activity 8/10/94
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90		120	

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

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205	Soil Gas Survey Log Areas 22 + 21	235	
206	Soil Gas Survey Log Area 21	236	
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209		239	
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TASK TEAM ACTIVITY LOG SHEET — SOILGA

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

Date (mm/dd/yy): 06/23/94 TIME: NA PAGE 1 OF 6

Task Team Members:

Pg. 8

M. Hazed

M. Monroe — MM

R. Mowen — 06/23/94

Narrative (include time and location):

0600 - Arrive @ trailers. load truck w/ equipment for today's activities.

0630 - Met w/ R. Mowen and gave him our 24-hr analysis samples so he could take them to get gamma-scanned. He would then take them to the regular drop-off station.

0640 - Located AOC 21. Got timers ready for installation.

0700 - R. Mowen arrives. Drive to AOC 21. Choose points for timers.

0710 - Begin setting up equipment for 21C06/P96 & Timers

0719 - Begin drilling 21C06/P96 Full

0721 - Install 21C06/P96 Full

0722 - Drill Timer #1 21C06/P96

0723 - Install Timer #1 21C06/P96 Full

0724 - Drill Timer #2 21C06/P96

0725 - Install Timer #2 21C06/P96 Full

0748 - Set up on 21H02/P97 to install 2nd Timer Location.

0741 - Begin drilling 21H02/P97

0743 - Install 21H02/P97 Full

0744 - Drill Timer #1 21H02/P97 Full

0745 - Install Timer #1 21H02/P97 Full

0746 - Drill Timer #2 21H02/P97

0747 - Install Timer #2 21H02/P97 Full

Daily Weather Conditions: A.M. ~71°F Sunny clear

P.M. NA

Recorded By: [signature] QA Checked By: Jolette Humpert

TASK TEAM ACTIVITY LOG SHEET

SOIL GAS

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

TASK NO.: 34896

Date (mm/dd/yy): 06/23/94 TIME: N/A PAGE 2 OF 6

Task Team Members:

See 1 of 6

pg. 9

MTH 06/23/94

Narrative (include time and location):

0805 Set up on 21J07/P98 Begin drilling

0809 - Install 21J07/P98 Full

0811 - Decon Bit. Set up on 21J06/P99

0813 - Begin drilling 21J06/P99

0818 - 2nd attempt refusal.

0819 - 3rd attempt went full

0820 - Install 21J06/P99 Full

0822 - Decon bit. Set up on 21J05/P100 Begin drilling

0824 - Install 21J05/P100 Full

0825 - Decon Bit. Set up on 21I07/P101

0827 - Begin drilling 21I07/P101

0830 - Install MTH 21I07/P101 Full

0832 - Decon Bit. Setup on 21I06/P102 Begin drilling.

0835 - Install 21I06/P102 Full

0836 - Decon Bit. Setup on 21I05/P103 Begin drilling.

0839 - Install 21I05/P103 Full

0841 - Decon Bit Setup on 21H07/P104.

0844 - Begin drilling 21H07/P104.

0845 - Install 21H07/P104 Full

0847 - Decon Bit. Set up on 21H06/P105

Daily Weather Conditions: A.M. ~76°F Hot. clear

P.M. NA

Recorded By Mark Hanks QA Checked By Joletta Humpert

TASK TEAM ACTIVITY LOG SHEET — SOIL GAS

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

Date (mm/dd/yy): 06/23/94 TIME: N/A PAGE 3 OF 6

Task Team Members:

Sel / SL 6

Pg 10

MTH 06/23/94

Narrative (include time and location):

0850 - Begin drilling 21H05/P105

0853 - Install 21H06/P105 Full

0854 Decon Bit. Set up on 21H05/P106

0857 - Begin drilling 21H05/P106

0859 - Install 21H05/P106 Full

0901 - Decon Bit. Set up on 21G07/P107

0905 - Begin drilling 21G07/P107

0906 - Install 21G07/P107 Full → muddy soil.

0907 - Decon Bit. Set up on 21G06/P108

0910 - Begin drilling 21G06/P108

0912 - Install 21G06/P108 ~16" due to Rock

0913 - Decon Bit. Set up on 21G05/P109

0915 - Begin drilling 21G05/P109

0916 - Install 21G05/P109. Full.

0917 - Decon Bit. Set up on 21F07/P110

0920 - Begin drilling 21F07/P110.

0923 - Install 21F07/P110

0924 - Decon Bit. Set up on 21F06/P111.

0927 - Begin drilling 21F06/P111

0928 - Install 21F06/P111 Full

Daily Weather Conditions: A.M. ~80° F. Humid overcast

P.M. NA

Recorded By: Mark Hanes QA Checked By: Juletta Humpert

TASK TEAM ACTIVITY LOG SHEET

SOIL GAS

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

TASK NO: 34896

Date (mm/dd/yy): 06/23/94 TIME: NA PAGE 4 OF 6

Task Team Members:

See 1 of 6

pg 11

MTH
06/23/94

Narrative (include time and location):

0930 - Decon Bit. Set up on 21F05/P112.
0932 - Begin drilling 21F05/P112.
0934 - Second attempt went Full Install 21F05/P112.
0936 - Decon Bit. Break!
0950 - Decide on early Lunch b/c we need more generator gas & truck gas. will call R. Moren when ready to install.
1040 - Back to trailers. call R. Moren to meet us @ AOC 21
1112 - Set up 21E07/P113 Begin drilling.
1117 - 4th attempt went full.
1118 - Install 21E07/P113 Full
1119 - Decon Bit Set up on 21E06/P114 Begin drilling
1122 - Install 21E06/P114 Full
1123 - Decon Bit. Set up on 21E05/P115. Begin drilling.
1125 - Install 21E05/P115 Full
1127 - Decon Bit. Set up on 21D07/P116
1130 - Begin drilling 21D07/P116.
1133 - Install 21D07/P116 Full
1134 - Decon Bit. Set up on 21D06/P117.
1135 - Begin drilling 21D06/P117

Daily Weather Conditions: A.M. ~82°F HUMID & overcast

P.M. NA

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): 06/23/94 TIME: NA PAGE 5 OF 6

Task Team Members:

See 1 of 6

pg 12

MTH 06/23/94

Narrative (include time and location):

1136 - Install 21D06/P117 Full
1137 - Decon Bit. Set up on 21D05/P118.
1139 - Begin drilling 21D05/P118.
1141 - Install 21D05/P118.
1144 - Decon Bit. Set up on 21C07/P119.
1146 - Begin drilling 21C07/P119.
1148 - Install 21C07/P119 Full
1149 - Decon Bit. Set up on 21C05/P120.
1150 - Begin drilling 21C05/P120.
1153 - Install 21C05/P120. Full
1154 - Decon Bit. Set up on 21B07/P121.
1155 - Begin drilling 21B07/P121. Bumble Bee Nest 2' W of hole BE CAREFUL!!!
1156 - Install 21B07/P121 Full
1157 - Set up on 21B06/P122 Begin drilling
1158 - Install 21B06/P122 Full
1200 - Set up on 21B05/P123 Begin drilling
1203 - Install 21B05/P123 Full
1204 - Deconning Bits
1205 - Set up on 21A07/P124 Begin drilling.
1206 - Install 21A07/P124 Full

MTH 6/23/94

Daily Weather Conditions: A.M. ~ 84°F overcast/humid

P.M. NA

Recorded By: Mark Howard QA Checked By: Joletta Humpert

TASK TEAM ACTIVITY LOG SHEET — SOIL GAS

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

Date (mm/dd/yy): 06/23/94 TIME: NA PAGE 6 OF 6

Task Team Members:

See 1 of 6

pg 13

MTH 06/23/94

Narrative (include time and location):

1207 - Set up on 21A06/P125 Begin drilling

1211 - Install 21A06/P125 Full

1213 - Decon Bits. BE VERY CAREFUL - 2' W of 21B07/P121 is a Bumble Bee NEST. THOSE DAD GONE EYE BUNGERS! WATCH OUT!

MTH 6/23/94 ~~1330~~ = 1230 - Return to trailers. get equipment ready for Monday's activities

MTH 6/23/94

Daily Weather Conditions: A.M. NA

P.M. ~86°F Humid/OVERCAST

Recorded By MARK T. HOWARD QA Checked By Juletta Grimpert

TASK TEAM ACTIVITY LOG SHEET — SOIL GAS

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

Date (mm/dd/yy): 06/27/94 TIME: NA PAGE 1 OF 6

Task Team Members: pg 14

M. Howard

M. Monroe

J. Tackett

06/27/94

Narrative (include time and location):

0600 - Arrive @ SAIC trailers. Load equipment into truck for today's activities. Waiting for logbooks to arrive.

0630 - Logbooks arrive. Call R. Mowen (HP)

0705 - Drive to B-30 to pick up HP.

0720 - Arrive AOC 21. w/ J. Tackett. (Mr. HP)

0726 - Set up on 21A05/P126. Begin drilling

0732 - Install 21A05/P126. Full

0735 - Set up on 21A04/P127. Begin drilling

0740 - Install 21A04/P127. Full

0743 - Set up on 21A03/P128. Begin drilling

0745 - Install 21A03/P128. Full

0747 - Set up on 21A02/P129. Begin drilling

0751 - Install 21A02/P129. Full

0754 - Set up on 21A01/P130. Begin drilling

0757 - Install 21A01/P130. Full

0759 - Set up on 21B01/P131. Begin drilling

0804 - Install 21B01/P131. Full

0806 - Set up on 21B02/P132. Begin drilling

0810 - Install 21B02/P132. Full

0813 - Set up on 21B03/P133. Begin drilling

Daily Weather Conditions: A.M. ~66°F Drizzle

P.M. NA

Recorded By: Mark Howard 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): 06/27/94 TIME: ND PAGE 2 OF 6

Task Team Members:

See 1 of 6

Pg. 15

MM 06/27/94

Narrative (include time and location):

0816 - Install 21B03/P133. Full
0818 - Set up on 21B04/P134. Begin drilling
0826 - Install 21B04/P134. ~8" Refusal on Rock 4th at
0830 - Set up on 21C04/P135. Begin drilling
0834 - Install 21C04/P135 Full
0839 - Set up on 21C03/P136. Begin drilling
0841 - Install 21C03/P136 Full
0843 - Hike to truck. Decon Augers.
0913 - Move to points.
0914 - Set up on 21C02/P137. Begin drilling
0916 - Install 21C02/P137. Full
0920 - Set up on 21C01/P138. Begin drilling.
0922 - Install 21C01/P138. Full
0924 - Set up on 21D01/P139. Begin drilling. The stake on this point says 21F01 - It is really 21D01.
0928 - Install 21D01/P139. Full
0931 - Set up on 21D02/P140. Begin drilling
0936 - Install 21D02/P140. Full
0938 - Set up on 21D03/P141. Begin drilling
0943 - Install 21D03/P141. Full

Daily Weather Conditions: A.M. ~68°F Overcast

P.M. NA

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): 06/27/94 TIME: NA PAGE 3 OF 6

Task Team Members: See 1 of 6 pg. 16 MTH 06/27/94

Narrative (include time and location):

0944 - Set up on 21D04/P142. Begin drilling
0946 - Install 21D04/P142. ~16" Rock Refusal
0950 - Set up on 21E04/P143. Begin drilling
0952 - Install 21E04/P143. Full
0954 - Set up on 21E03/P144. Begin drilling
0956 - Install 21E03/P144. ~16" Refusal on Rock
1000 - Set up on 21E02/P145. Begin drilling
1002 - Install 21E02/P145. Full
1005 - Setup on 21E01/P146. Begin drilling
1007 - Install 21E01/P146. ~16" Refusal on Rock
1009 - Set up on 21F01/P147. Begin drilling.
1013 - Install 21F01/P147. Full
1017 - Decon Augers.
1035 - Set up on 21F02/P148. Begin drilling
1038 - Install 21F02/P148. ~14" 2nd attempt Rock
1040 - Set up on 21F03/P149. Begin drilling
1042 - Install 21F03/P149. ~13" Rock Refusal
1045 - Set up on 21F04/P150. Begin drilling.
1050 - 7th attempt ~14" Rock Refusal Install 21F04/P150.
1055 - Hike to truck Decon Augers

Daily Weather Conditions: A.M. ~68° F overcast but the berries are good
P.M. NA

Recorded By: MTH Qualified QA Checked By: Joletta Humpert

TASK TEAM ACTIVITY LOG SHEET — SOIL GAS

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

Date (mm/dd/yy): 06/27/94 TIME: N/A PAGE 4 OF 6

Task Team Members: pg. 17

See 1&6

MTH 06/27/94

Narrative (include time and location):

1100 - Break for lunch. More sample tubes needed. Will call HP Hut when ready to continue installation activities this afternoon.

1220 - Drove to HP Hut. J. Tackett will meet us deep in the forest @ AOC 21 ~ about 20 minutes. Getting sample tubes ready @ AOC 21

1255 - Ready to install tubes. Hike to sample points

1257 - Setup on 21G04/P151. Begin drilling

1302 - Install 21G04/P151. ~16" Rock Refusal

1304 - Set up on 21G03/P152. Begin drilling

1306 - Install 21G03/P152. Full

1307 - Set up on 21G02/P153. Begin drilling

1311 - Install 21G02/P153. Full

1314 - Set up on 21G01/P154. Begin drilling.

1317 - Install 21G01/P154. Full

1319 - Set up on 21H01/P155. Begin drilling

1322 - Install 21H01/P155 Full

1325 - Set up on 21H03/P156. Begin drilling

1328 - Install 21H03/P156. MTH 6/27/94 ~14" Refusal on Rock

1329 - Set up on 21H04/P157. Begin drilling

Daily Weather Conditions: A.M. ~69°F overcast

P.M. ~74°F partly cloudy - Humid.

Recorded By: [signature] QA Checked By: Joletta Humpert

TASK TEAM ACTIVITY LOG SHEET — SOIL GAS

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

Date (mm/dd/yy): 06/27/94 TIME: NA PAGE 5 OF 6

Task Team Members: See 1 of 6 pg. 18

MTH 06/27/94

Narrative (include time and location):

1333 - Install 21H04/P157. Full
1335 - Set up on 21I04/P158. Begin drilling
1339 - Install 21I04/P158. Full
1340 - Set up on 21I03/P159. Begin drilling
1343 - Install 21I03/P159. Full
1345 - Set up on 21I02/P160. Begin drilling
1347 - Install 21I02/P160. Full
1350 - Set up on 21I01/P161. Begin drilling
1356 - Install 21I01/P161. Full
1358 - Hike to truck
1400 - Decon Augers
1417 - Set up on 21J04/P162. Begin drilling.
1422 - Install 21J04/P162. Full
1424 - Set up on 21J03/P163. Begin drilling
1426 - Install 21J03/P163. Full
1430 - Set up on 21J02/P164. Begin drilling
1433 - Install 21J02/P164. Full
1435 - Set up on 21J01/P165. Begin drilling
1439 - Install 21J01/P165. Full
1441 - Hike to truck

Daily Weather Conditions: A.M. NA

P.M. ~81°F overcast

Recorded By: MARK T. HOWARD QA Checked By: Jolitta Humpert

TASK TEAM ACTIVITY LOG SHEET

SOIL GAS

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

TASK NO: 34896

Date (mm/dd/yy): 06/27/94 TIME: NA PAGE 6 OF 6

Task Team Members:

pg. 19

See 1526

MTH
06/27/94

Narrative (include time and location):

1445 - Decon Augers. Drive to AOC 22. b/c we have actually finished an area (AOC 21) YIPPEE!!! OH what fun!

1520 - unload truck & get sample tubes ready for activities on 06/28/94

MTH
06/27/94

Daily Weather Conditions: A.M. NA

P.M. ~86°F Partly Sunny

Recorded By Mark T. Hurst 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): 06/30/94 TIME: NA PAGE 1 OF 1

Task Team Members:

M. Howard

M. Monroe

Pg 27

MTH 06/30/94

Narrative (include time and location):

1205 - Leave SAIC trailers to pull timers @ AOC 21

1213 - Pull Timer #1 @ 21C06/P96

1216 - Pull Timer #1 @ 21H02/P97

1225 - HP scans sample tubes

1232 - give tubes to J. Humpert - fedexed out Airbill # 7272754801

MTH 06/30/94

Daily Weather Conditions: A.M. NA

P.M. ~78°F breezy & clear

Recorded By Mark T. Howard QA Checked By Juliette Humpert

TASK TEAM ACTIVITY LOG SHEET — SOIL GAS

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

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

Task Team Members: pg. 29

Mike Monroe

George Wahl

J Tackett

NM 7/7/94

Narrative (include time and location):

13:30 Removed 22G6/54 sample tube
13:31 Removed second timer 22G6/54
13:38 Removed second timer 22H2/55
13:40 Removed 22H2/55 sample tube
~~13:45~~ 14:45 7/7/94 Removed 22F9/56 sample tube
14:18 Removed 22F8/57 sample tube
14:21 - Removed 22G8/58 sample tube
14:24 - Removed 22G9/59 sample tube
14:35 ~~14:29~~ - Removed 22H8/60 sample tube
broke tube placed wires in new tube
14:39 - Removed 22H9/61 sample tube
14:42 - Removed 22I8/62 sample tube
15:55 - Removed 22I9/63 sample tube
16:48 - Removed 21C6/96 timer #2
16:52 - Removed 21H2/97 timer #2
Last Entry

Note: On 7/6/94 - talked to P. Bedard of NERI about Area 21 timers. Timer #1 (96) had low levels of Hydrocarbons and VERY low levels of TCE. Timer #1 (97) had low levels of HC. Tubes need longer. Need to pull #2 timers and send. J Humpert 7/8/94

Daily Weather Conditions: A.M. NA

P.M. 91°F

Recorded By George Wahl QA Checked By J. Humpert

TASK TEAM ACTIVITY LOG SHEET — SOIL GAS

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

Date (mm/dd/yy): 7-28-94 TIME: NA PAGE 1 OF 5

Task Team Members: Pg. 83

Joletta Humpert

~~George~~ JPH 7/28/94 Greg Loder. JPH 7/28/94

Narrative (include time and location):

Ø715 Onsite. Call received from P. Bedard on 7/27/94. For Area 3 timers (first set), the exposure results were as follows:

#369 and #364 - low to moderate levels of lightweight hydrocarbons, including toluene, BTEX, etc. Paul requested that we pull second timers and send on Thurs. 7/28/94.

Ø93Ø Went out with G. Loder to pull Area 21.

Ø938 Pulling Area 21 A7 / 124

Ø94Ø Pulling Area 21 A6 / 125

Ø942 Pulling Area 21 A5 / 126

Ø943 Pulling Area 21 A4 / 127

Ø945 Pulling Area 21 A3 / 128 JPH 7/28/94

Ø946 Pulling Area 21 A2 / 129

Ø948 Pulling Area 21 A1 / 13Ø

Ø951 Pulling Area 21 B1 / 131

Ø953 Pulling Area 21 B2 / 132

Ø956 Pulling Area 21 B3 / ~~B1~~ JPH 133

Ø958 Pulling Area 21 B4 / 134

1Ø1 Pulling Area 21 B5 / 123

Weather Conditions: A.M. Slightly overcast, 72°F

P.M. Partly Sunny, 78°F

By: Joletta Humpert QA Checked By: Laura M. Marcus

TASK TEAM ACTIVITY LOG SHEET — SOIL GAS

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

Date (mm/dd/yy): 7-28-94 TIME: NA PAGE 2 OF 5

Task Team Members:

JH pg. 84

GL

JPH 7/28/94

Narrative (include time and location):

1003 Pulling Area 21 B6/122
1004 Pulling Area 21 B7/121
1016 Pulling Area 21 C7/119
1018 Pulling Area 21 C6/96
1021 Pulling Area 21 C5/120
1025 Pulling Area 21 C3/136
1027 Pulling Area 21 C2/137
1028 Pulling Area 21 C4/135
1030 Pulling Area 21 C1/138
1032 Pulling Area 21 D1/139
1034 Pulling Area 21 D2/140
1036 Pulling Area 21 D3/141
1038 Pulling Area 21 D4/142
1040 Pulling Area 21 D5/118
1042 Pulling Area 21 D6/117
1045 Pulling Area 21 D7/116
1048 Attempted to pull E7; Tube held by swelled clay. Tube broke on retrieval, wires were not able to be found.
1100 Pulled Area 21 E6/114

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

Recorded By: Jolitta Humpert QA Checked By: Laura M. Morrison

TASK TEAM ACTIVITY LOG SHEET — SOIL GAS

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

Date (mm/dd/yy): 7-28-94 TIME: NA PAGE 3 OF 5

Task Team Members:

JH pg. 85

GL

JPH 7/28/94

Narrative (include time and location):

1102 Pulled Area 21 E5/115
1105 Pulled Area 21 E4/143
1108 Pulled Area 21 E3/144
1110 Pulled Area 21 E2/145
1113 Pulled Area 21 E1/146
Broke for lunch - went to H/P to get tubes scanned and wiped and hands and feet scanned.
1400 Return to Area 21 after wiping some tubes.
1408 Pulled Area 21 F7/110
1410 Pulled Area 21 F6/111
1412 Pulled Area 21 F5/112
1415 Pulled Area 21 F4/150
1417 Pulled Area 21 ~~F5~~ F3 /149 JPH 8/1/94
1418 Pulled Area 21 F2/148
1421 Pulled Area 21 F1/147
1425 Pulled Area 21 G1/154
1428 Pulled Area 21 G2/153
1431 Pulled Area 21 G3/152
1433 Pulled Area 21 G4/151
1435 Pulled Area 21 G5/109

JPH 7/28/94

Daily Weather Conditions: A.M. NA

P.M. NA

Recorded By Juletta Humpert QA Checked By: Laura M. Morrison

TASK TEAM ACTIVITY LOG SHEET — SOILGAS

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

Date (mm/dd/yy): 7-28-94 TIME: NA PAGE 4 OF 5

Task Team Members:

J.H. pg. 86

Gil

JPH 7/28/94

Narrative (include time and location):

1437 Pulled Area 21 G6 /108
1443 Pulled Area 21 G7 /107
1442 Pulled Area 21 H7 /104
1445 Pulled Area 21 H6 /105
1449 Pulled Area 21 H5 /106
1452 Pulled Area 21 H4 /157
1454 Pulled Area 21 H3/156
1455 Pulled Area 21 H2/97
1458 Pulled Area 21 H1/155
1501 Pulled Area 21 I1 /161
1503 Pulled Area 21 I2/160
1504 Pulled Area 21 I3 /159
1506 Pulled Area 21 I4 /158
1508 Pulled Area 21 I5 /103
1511 Pulled Area 21 I6 /102
1514 Pulled Area 21 I7 /101
1516 Pulled Area 21 J7/98
1520 Pulled Area 21 J6/99
1525 Pulled Area 21 J5/100
1528 Pulled Area 21 J4/162

Daily Weather Conditions: A.M. NA

P.M. NA

Recorded By Juletta Humpert QA Checked By Laura M. Morrison

TASK TEAM ACTIVITY LOG SHEET — SOIL GAS

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 — TASK NO: 348963

Date (mm/dd/yy): 7-28-94 TIME: NA PAGE 5 OF 5

Task Team Members:

J.H. pg. 87

G.L.

JH 7/28/94

Narrative (include time and location):

1530 Pulled Area 21 J3/163
1533 Pulled Area 21 J2/164
1535 Pulled Area 21 J1/165
Dropped tubes off at HP to be scanned. Also had Hands and feet scanned. Will wait for OK from T. Tank as to whether we should ship Area 21 tubes.
Last Entry

Daily Weather Conditions: A.M. NA

P.M. NA

Recorded By Joletta Humpert QA Checked By Lana M. Novick

22LØ5		12	06/22/94	0948	7/8/94	0831	ND	ND		Bag #5 Ful
22LØ6		71	06/22/94	0943	7/8/94	0834	ND	ND		Bag #3 Full

SOIL GAS SURVEY (PETREX)

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA, PHASE 1 PG. 2Ø5 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
22LØ7		70	06/22/94 0939	7/8/94 0838	ND	ND	NA	Bag #3 Full
22LØ8		68	06/22/94 0924	7/11/94 0817	ND	ND		Bag #3 Full
22LØ9		69	06/22/94 0928	7/11/94 0835	ND	ND		Bag #3 Full; under drums pt. moved 6'N
			JPH 8/18/94					
22MØ1		77	06/22/94 1057	7/8/94 0815	ND	ND	NA	Bag #4 Full
22MØ2		78	06/22/94 1111	7/11/94 1243	ND	ND		Bag #4 ~16"
22MØ3		79	06/22/94 1116	7/11/94 1241	ND	ND		Bag #4 Full
22MØ4		80	06/22/94 1123	7/11/94 12:57	ND	ND		Bag #4 ~16"
22MØ5		81	06/22/94 1130	7/11/94 12:46	ND	ND		Bag #4 Full
22MØ6		82	06/22/94 1138	7/11/94 12:53	ND	ND		Bag #4 Full
22MØ7		83	06/22/94 1143	7/11/94 12:56	ND	ND		Bag #4 Full
22MØ8		84	06/22/94 1145	7/11/94 13:15	ND	ND		Bag #4 Full
22MØ9		85	06/22/94 1152	7/11/94 13:30	ND	ND		Bag #4 Full; Pt. moved 5' W b/c of barrels.
			JPH 8/18/94					
21AØ1		130	06/27/94 0752	7/28/94 0948	ND	ND	NA	Bag #5 Full

SOIL GAS SURVEY (PETREX)

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA, PHASE 1 PG. 206 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
21AØ2		129	06/27/94 0751	7/28/94 0946	ND	ND	NA	Bag #5 Full
21AØ3		128	06/27/94 0745	7/28/94 0945	ND	ND		Bag #5 Full
21AØ4		127	06/27/94 0740	7/28/94 0943	ND	ND		Bag #5 Full
21AØ5		126	06/27/94 0732	7/28/94 0942	ND	ND		Bag #5 Full
21AØ6		125	06/23/94 1211	7/28/94 0940	ND	ND		Bag #7 Full
21AØ7		124	06/23/94 1206	7/28/94 0938	ND	ND		Bag #7 Full
			JPH 8/18/94					
21BØ1		131	06/27/94 0804	7/28/94 0951	ND	ND	NA	Bag #5 Full
21BØ2		132 ~~133~~	06/27/94 ~~0816~~ 0810	7/28/94 0953	ND	ND		Bag #5 Full
21BØ3		133 ~~132~~	06/27/94 ~~0810~~ 0816	7/28/94 0956	ND	ND		Bag #5 Full
21BØ4		134 ~~134~~	06/27/94 ~~0807~~ 0826	7/28/94 0958	ND	ND		Bag #5 ~~Full~~
21BØ5		123	06/23/94 1203	7/28/94 1001	ND	ND		Bag #7 Full
21BØ6		122	06/23/94 1158	7/28/94 1003	ND	ND		Bag #7 Full
21BØ7		121	06/23/94 1156	7/28/94 1004	ND	ND		Bag #7 Full
			JPH 8/18/94					

SOIL GAS SURVEY (PETREX)

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA, PHASE 1 PG. 207 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
21CØ1		138	06/27/94 0922	7/28/94 1Ø3Ø	ND	ND	NA	Bag #5 Full
21CØ2		137	06/27/94 0916	7/28/94 1Ø27	ND	ND		Bag #5 Full
21CØ3		136	06/27/94 0841	7/28/94 1Ø25	ND	ND		Bag #5 Full
21CØ4		135	06/27/94 0834	7/28/94 1Ø28	ND	ND		Bag #5 Full
21CØ5		12Ø	06/23/94 1153	7/28/94 1Ø21	ND	ND		Bag #7 Full
21CØ6		96	06/23/94 0721	7/28/94 1Ø18	ND	ND		Bag #4 Full
21CØ7		119	06/23/94 1148	7/28/94 1Ø16	ND	ND		Bag #7 Full
21CØ6		96	06/23/94 0723	06/30/94 1213	ND	ND		Timer #1 Full
21CØ6		96	06/23/94 0725	7/7/94 16:49	ND	ND		Timer #2 Full
			JPH 8/18/94					
21DØ1		139	06/27/94 0928	7/28/94 1Ø32	ND	ND	NA	Bag #5 Full
21DØ2		14Ø	06/27/94 0936	7/28/94 1Ø34	ND	ND		Bag #5 Full
21DØ3		141	06/27/94 0943	7/28/94 1Ø36	ND	ND		Bag #5 Full
21DØ4		142	06/27/94 0946	7/28/94 1Ø38	ND	ND		Bag #5 ~16"
21DØ5		118	06/23/94 1141	7/28/94 1Ø4Ø	ND	ND		Bag #7 Full
21DØ6		117	06/23/94 1136	7/28/94 1Ø42	ND	ND		Bag #7 Full
21DØ7		116	06/23/94 1133	7/28/94 1Ø45	ND	ND		Bag #7 Full
				JPH 8/18/94				

SOIL GAS SURVEY (PETREX)

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA, PHASE 1 PG. 208 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 8/18/94					
21EØ1		146	Ø6/27/94 1007	7/28/94 1113	ND	ND	NA	Bag #5 ~16"
21EØ2		145	Ø6/27/94 1002	7/28/94 111Ø	ND	ND		Bag #5 Full
21EØ3		144	Ø6/27/94 0956	7/28/94 11Ø8	ND	ND		Bag #5 ~16"
21EØ4		143	Ø6/27/94 0952	7/28/94 11Ø5	ND	ND		Bag #5 Full
21EØ5		115	Ø6/23/94 1125	7/28/94 11Ø2	ND	ND		Bag #7 Full
21EØ6		114	Ø6/23/94 1122	7/28/94 11ØØ	ND	ND		Bag #7 Full
21EØ7		113	Ø6/23/94 1118	7/28/94 11ØØ	ND	ND		Bag #7 Full
			JPH 8/18/94					
21FØ1		147	Ø6/27/94 1013	7/28/94 1421	ND	ND	NA	Bag #5 Full
21FØ2		148	Ø6/27/94 1038	7/28/94 1418	ND	ND		Bag #5 ~14"
21FØ3		149	Ø6/27/94 1042	7/28/94 1417	ND	ND		Bag #5 ~13"
21FØ4		15Ø	Ø6/27/94 1Ø5Ø	7/28/94 1415	ND	ND		Bag #5 ~14"
21FØ5		112	Ø6/23/94 0934	7/28/94 1412	ND	ND		Bag #7 Full
21FØ6		111	Ø6/23/94 0928	7/28/94 141Ø	ND	ND		Bag #7 Full
21FØ7		11Ø	Ø6/23/94 0923	7/28/94 14Ø8	ND	ND		Bag #7 Full
			JPH 8/18/94					

SOIL GAS SURVEY (PETREX)

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA, PHASE 1 PG. 209 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 8/18/94					
21GØ1		154	06/27/94 1317	7/28/94 1425	ND	ND	NA	Bag #8 Full
21GØ2		153	06/27/94 1311	7/28/94 1428	ND	ND		Bag #8 Full
21GØ3		152	06/27/94 1306	7/28/94 1431	ND	ND		Bag #8 Full
21GØ4		151	06/27/94 1302	7/28/94 1433	ND	ND		Bag #8 ~16"
21GØ5		109	06/23/94 0916	7/28/94 1435	ND	ND		Bag #7 Full
21GØ6		108	06/23/94 0912	7/28/94 1437	ND	ND		Bag #7 Full
21GØ7		107	06/23/94 0906	7/28/94 1443	ND	ND		Bag #7 Full
			JPH 8/18/94					
21HØ1		155	06/27/94 1322	7/28/94 1458	ND	ND	NA	Bag #8 Full
21HØ2		97	06/23/94 0743	7/28/94 1455	ND	ND		Bag #4 Full
21HØ3		156	06/27/94 1328	7/28/94 1454	ND	ND		Bag #8 ~14"
21HØ4		157	06/27/94 1333	7/28/94 1452	ND	ND		Bag #8 Full
21HØ5		106	06/23/94 0859	7/28/94 1449	ND	ND		Bag #7 Full
21HØ6		105	06/23/94 0853	7/28/94 1445	ND	ND		Bag #7 Full
21HØ7		104	06/23/94 0845	7/28/94 1442	ND	ND		Bag #7 Full
21HØ2		97	06/23/94 0745	6/30/94 1214	ND	ND		TIMER #1 Full

SOIL GAS SURVEY (PETREX)

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA, PHASE 1 PG. 21Ø 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
21H02		97	06/23/94 0747	7/7/94 16:52	ND	ND	NA	TIMER #2 Full
			JPH 8/18/94					
21I01		161	06/27/94 1356	7/28/94 1501	ND	ND	NA	Bag # 8 Full
21I02		160	06/27/94 1347	7/28/94 1503	ND	ND		Bag # 8 Full
21I03		159	06/27/94 1343	7/28/94 1504	ND	ND		Bag # 8 Full
21I04		158	06/27/94 1339	7/28/94 1506	ND	ND		Bag # 8 Full
21I05		103	06/23/94 0839	7/28/94 1508	ND	ND		Bag # 7 Full
21I06		102	06/23/94 0835	7/28/94 1511	ND	ND		Bag # 7 Full
21I07		101	06/23/94 0830	7/28/94 1514	ND	ND		Bag # 7 Full
			JPH 8/18/94					
21J01		165	06/27/94 1439	7/28/94 1535	ND	ND	NA	Bag # 8 Full
21J02		164	06/27/94 1433	7/28/94 1533	ND	ND		Bag # 8 Full
21J03		163	06/27/94 1426	7/28/94 1530	ND	ND		Bag # 8 Full
21J04		162	06/27/94 1422	7/28/94 1528	ND	ND		Bag # 8 Full
21J05		100	06/23/94 0824	7/28/94 1525	ND	ND		Bag # 4 Full
21J06		99	06/23/94 0820	7/28/94 1520	ND	ND		Bag # 4 Full
21J07		98	06/23/94 0809	7/28/94 1516	ND	ND		Bag # 4 Full

APPENDIX C

RADIOLOGICAL DATA

(FIDLER SURVEY & SOIL SCREENING FACILITY DATA)

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:
21A01	150.8	NA	11.57	NA	14.69	11.0	1.00	a	1.10	a
21A02	150.8	NA	11.57	NA	14.69	10.0	6.00	a	0.70	a
21A03	150.8	NA	11.57	NA	14.69	12.0	29.00	b	1.90	a
21A04	150.8	NA	11.57	NA	14.69	13.0	40.00	b	0.90	a
21A05	150.8	NA	11.57	NA	14.69	12.5	25.00	b	1.20	a
21A06	150.8	NA	11.57	NA	14.69	12.0	33.00	b	0.90	a
21A07	150.8	NA	11.57	NA	14.69	12.0	23.00	a	0.70	a
21B01	150.8	NA	11.57	NA	14.69	10.5	25.00	b	0.90	a
21B02	150.8	215	11.57	22.0	14.69	18.0	23.00	a	1.40	a
21B02.5	150.8	215	11.57	22.0	14.69	26.0	NC		NC	
21B03	150.8	NA	11.57	NA	14.69	12.0	0.00	a	1.20	a
21B04	150.8	NA	11.57	NA	14.69	12.0	30.00	b	0.70	a
21B05	150.8	NA	11.57	NA	14.69	12.5	NS		NS	
21B06	150.8	NA	11.57	NA	14.69	12.5	10.00	a	0.50	a
21B07	150.8	NA	11.57	NA	14.69	12.5	3.00	a	0.60	a
21C01	150.8	NA	11.57	NA	14.69	11.5	7.00	a	1.00	a
21C02	150.8	NA	11.57	NA	14.69	12.5	25.00	b	1.20	a
21C03	150.8	NA	11.57	NA	14.69	13.0	28.00	b	1.50	a
21C04	150.8	NA	11.57	NA	14.69	13.0	43.00	b	0.80	a
21C05	150.8	NA	11.57	NA	14.69	12.0	28.00	b	0.70	a
21C06	150.8	NA	11.57	NA	14.69	12.5	50.00	b	0.60	a
21C07	150.8	NA	11.57	NA	14.69	11.5	7.00	a	0.80	a
21D01	150.8	NA	11.57	NA	14.69	12.0	27.00	b	1.30	a
21D02	150.8	NA	11.57	NA	14.69	12.0	30.00	b	1.10	a
21D03	150.8	NA	11.57	NA	14.69	12.5	22.00	a	1.10	a
21D04	150.8	NA	11.57	NA	14.69	13.0	19.00	a	0.80	a
21D05	150.8	NA	11.57	NA	14.69	12.5	32.00	b	0.60	a
21D06	150.8	NA	11.57	NA	14.69	12.5	31.00	b	1.00	a
21D07	150.8	NA	11.57	NA	14.69	12.0	23.00	a	1.10	a
21E01	150.8	NA	11.57	NA	14.69	13.0	5.00	a	0.70	a
21E02	150.8	NA	11.57	NA	14.69	12.5	3.00	a	1.00	a
21E03	150.8	NA	11.57	NA	14.69	13.5	1.00	a	1.00	a
21E04	150.8	NA	11.57	NA	14.69	13.5	28.00	b	1.10	a
21E05	150.8	NA	11.57	NA	14.69	12.0	34.00	b	1.20	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:
21E06	150.8	NA	11.57	NA	14.69	13.0	9.00	a	0.80	a
21E07	150.8	NA	11.57	NA	14.69	11.5	17.00	a	0.80	a
21F01	150.8	NA	11.57	NA	14.69	12.5	24.00	a	1.20	a
21F02	150.8	NA	11.57	NA	14.69	12.5	26.00	b	0.70	a
21F03	150.8	NA	11.57	NA	14.69	11.5	22.00	a	0.70	a
21F04	150.8	NA	11.57	NA	14.69	12.0	26.00	b	0.50	a
21F05	150.8	NA	11.57	NA	14.69	10.0	7.00	a	0.50	a
21F06	150.8	NA	11.57	NA	14.69	12.0	43.00	b	0.70	a
21F07	150.8	NA	11.57	NA	14.69	11.0	14.00	a	1.20	a
21G01	150.8	NA	11.57	NA	14.69	12.5	5.00	a	0.70	a
21G02	150.8	NA	11.57	NA	14.69	12.5	0.00	a	1.20	a
21G03	150.8	NA	11.57	NA	14.69	12.0	24.00	a	1.10	a
21G04	150.8	NA	11.57	NA	14.69	12.5	2.00	a	0.70	a
21G05	150.8	NA	11.57	NA	14.69	10.0	20.00	a	1.10	a
21G06	150.8	NA	11.57	NA	14.69	11.5	4.00	a	0.80	a
21G07	150.8	NA	11.57	NA	14.69	9.5	0.00	a	0.50	a
21H01	150.8	NA	11.57	NA	14.69	12.0	37.00	b	1.50	a
21H02	150.8	NA	11.57	NA	14.69	12.0	40.00	b	0.80	a
21H03	150.8	NA	11.57	NA	14.69	13.0	27.00	b	0.70	a
21H04	150.8	NA	11.57	NA	14.69	11.5	22.00	a	1.50	a
21H05	150.8	NA	11.57	NA	14.69	12.0	22.00	a	0.90	a
21H06	150.8	NA	11.57	NA	14.69	11.0	33.00	b	1.30	a
21H07	150.8	NA	11.57	NA	14.69	12.0	10.00	a	0.40	a
21I01	150.8	NA	11.57	NA	14.69	13.5	9.00	a	1.00	a
21I02	150.8	NA	11.57	NA	14.69	13.0	25.00	b	0.90	a
21I03	150.8	NA	11.57	NA	14.69	13.5	37.00	b	1.00	a
21I04	150.8	NA	11.57	NA	14.69	12.0	34.00	b	1.10	a
21I05	150.8	NA	11.57	NA	14.69	12.5	31.00	b	0.70	a
21I06	150.8	NA	11.57	NA	14.69	12.0	19.00	a	1.60	a
21I07	150.8	NA	11.57	NA	14.69	11.5	35.00	b	1.10	a
21J01	150.8	NA	11.57	NA	14.69	13.5	36.00	b	1.20	a
21J02	150.8	NA	11.57	NA	14.69	13.5	34.00	b	1.00	a
21J03	150.8	NA	11.57	NA	14.69	13.0	0.00	a	0.90	a
21J04	150.8	NA	11.57	NA	14.69	12.5	1.00	a	1.00	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:
21J05	150.8	NA	11.57	NA	14.69	11.0	11.00	a	0.80	a
21J06	150.8	NA	11.57	NA	14.69	11.5	37.00	b	0.80	a
21J07	150.8	NA	11.57	NA	14.69	11.0	4.00	a	0.90	a

NC - No sample collected because location not an original grid point.
NA - Reading not taken; contamination criteria for the out channel not exceeded.
NS - Sample collected but not analyzed.
a - Mound Soil Screening Facility detection level not exceeded.
b - Concentration at or above the Mound Soil Screening Facility detection level.
KCPM - Counts per minute x 1000
CPM - Counts per minute
pCi/g - Picocuries per gram

APPENDIX D

SOIL GAS SURVEY REPORT

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FINAL REPORT OF FINDINGS OF THE PETREX SOIL GAS SURVEY AT AREA OF CONCERN -21 / OPERABLE UNIT 5 U. S. DEPARTMENT OF ENERGY MOUND FACILITY MIAMISBURG, OHIO

PREPARED BY: DATE:

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(relative response maps Plates 1 through 5 are provided separately and unbound)

1.0 EXECUTIVE SUMMARY

SAIC and NERI performed a PETREX passive soil gas survey at AOC-21 / 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 fuels, oils, tars and creosotes, and halogenated organic compounds which may have been used in numerous chemical or fabrication processes. Semivolatile hydrocarbons which may have leached from creosote treated timber (used to construct two buildings once located within AOC-21) are of particular interest at this site.

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 June 23 and July 28, 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, including components of fuels and some components of tar or creosote, and the halogenated hydrocarbons Freon-11, TCE, PCE and dichlorobenzene(s) are present in the soil gas within AOC-21.

2. Southern and southwestern portions of AOC-21 manifested the greatest potential influence by petroleum hydrocarbons. These hydrocarbons may derive from fuels released to the surface many years ago and may be migrating with groundwater to the north or northwest.

3. Four points isolated on the southern and northern margins of the AOC manifested the greatest potential influence by halogenated hydrocarbons. These compounds may have been released to the surface through small scale spills of solvents used or stored on-site. No large source areas for these compounds are in evidence.

4. The levels of both the petroleum hydrocarbons and the halogenated hydrocarbons detected in the soil gas were low overall and may reflect the presence of only very low concentrations of these compounds in soil and groundwater.

5. Quantitative testing of soil and groundwater from the PETREX soil gas sampling points at grid coordinates B6, G1, G3, and H7 is recommended as the first step in determining the environmental significance of these survey results.

2.0 INTRODUCTION

With the aid of Northeast Research Institute LLC (NERI), Science Applications International Corporation (SAIC) recently completed a PETREX soil gas survey of Area of Concern - 21 (AOC-21) within Operable Unit -5 (OU-5) of the U. S. Department of Energy's Mound Facility in Miamisburg, Ohio. The survey of AOC-21 was performed as part of a larger soil gas survey of the entire OU-5 area. Petroleum products and halogenated organic compounds may have been used, stored, or unintentionally released to the ground surface on-site during the Facility's history of operation. AOC-21, in particular, was the site of several structures (bunkers) used to house explosives and radioactive materials. These bunkers were built of creosote treated timber which may have been a source, through leaching, of polynuclear aromatics (PNAs) and other semivolatile hydrocarbons in the soil.

The purpose of this survey was to locate areas within the site in which soil and/or groundwater may be contaminated by petroleum hydrocarbons (including PNAs and other semivolatiles) and/or halogenated organic compounds. The information generated by this survey could then be used to 1) locate potential sources areas of contaminants (e.g., the bunkers), 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 AOC-21 were:

1. Collect and identify volatile and semivolatile organic compounds (VOCs and SVOCs) in the subsurface.

2. Report results for targeted VOCs and SVOCs 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 seventy (70) sample collection points. These sample collection points were arrayed in a uniform rectangular grid at intervals of twenty-five 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

AOC-21 is located between AOC-22 and AOC-J and borders an unpaved road to the south. The site consists of an open, northwest facing hillside with an average grade of 28%. The complete sampling plan of AOC-21 described an area approximately one acre in size.

All field operations were organized and performed by SAIC personnel. PETREX soil gas samplers were installed within a four day period beginning June 23, 1994. An electric rotary hammer drill equipped with a 1½ inch diameter drill bit was employed to create the shallow bore hole into which each PETREX soil gas sampler was installed. PETREX samplers were installed at depths of eight to eighteen inches below grade.

To avoid potential cross contamination of sampling locations, the drill bit was decontaminated between use at each location. Decontamination of the drill bits consisted of thorough scrubbing in a laboratory grade detergent solution followed by repeated rinsing with distilled water. The drill bits were then allowed to completely air dry prior to reuse.

A series of four extra PETREX samplers (in addition to the sixty-nine samplers from which survey results were to derive) were used in this survey to determine the approximate length of time samplers should be exposed in the field to collect levels of VOCs and SVOCs best suited for analysis. These "time test" samplers were installed at two different locations (at sampling grid coordinates C6 and H2) within AOC-21 at the commencement of field operations. The time tests were then retrieved from the field and submitted to NERI for analysis after exposures of seven and fourteen days.

Results indicated that even over a two week period the PETREX samplers had collected only low levels of light weight (C_4 - C_8) hydrocarbons and possible traces of tetrachloroethene (PCE) and trichlorofluoromethane (Freon-11). This finding was communicated to SAIC field operatives. Based upon these results it was inferred that either a combination of field conditions were acting to depress vapor migration and/or the time test sampling points coincided with areas possessing little or no potential contamination by VOCs or SVOCs. In either case, it was concluded that all of the PETREX soil gas samplers at AOC-21 required the longest practical exposure: an exposure of approximately four weeks.

According to field crew scheduling and site access restrictions, all PETREX samplers were uniformly allowed an exposure of approximately thirty-three (33) days (see field log sheets). All PETREX soil gas samplers (but #113) were retrieved from the field on July 28, 1994, and submitted via overnight courier to NERI for analysis. PETREX sampler #113 (installed at grid coordinates E7) was lost due to breakage in the bore hole.

Samplers were received in good condition and were logged-in by NERI's laboratory on August 3, 1994 (see sample submittal and chain of custody documents). TD-MS soil gas sample analysis was performed on August 22, 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 #166, #167, and #168) 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 travel blank samples #166 and #167 yielded very low responses to ions by which benzene and C_5 to C_7 cycloalkanes and alkenes are reported. No ions were detected in these blanks by which the other targeted compounds are reported. Analysis of travel blank sample #168 yielded only a trace response to ions by which C_5 alkanes are reported.

Responses to light weight hydrocarbons in the blanks are most likely the result of the detection of these common volatile compounds at trace levels in the ambient environment in which the samplers were handled, stored and prepared for analysis. Note that the response values derived from analysis of the travel blanks for total aromatic hydrocarbons and total C_5 to C_{11} petroleum hydrocarbons are one or more orders of magnitude less than the values highlighted as potentially anomalous on Plates 2 and 4. Any response to targeted compounds yielded by the blanks should be used as a background against which the soil gas sampling results are evaluated.

7.4 Sample Duplicates

Of the seventy samples installed in the field, eight (12%) contained an additional soil gas collector element for the purpose of yielding a duplicate sample for QA analysis. These eight 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 27% from the mean.

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 #154 and #2154, and #160 and #2160)

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 attach 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 VOCs and SVOCs 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, 146, and 164.

The letter designations "ND" and "NI" appear 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. The letters "NI" denote that the target compounds were not identified in the sample and that any analytical response was derived from the detection of other VOCs/SVOCs or fragments of other compounds generated in analysis.

TD-MS response to target compounds displayed in Plates 2, 3, 4, and 5 is highlighted by isopleths. The sole purpose of these isopleths is to accentuate naturally occurring aspects of the distribution of results. Population groupings by which isopleths were chosen are displayed in histograms of the data sets (see Appendix D).

Survey results via TD-MS analysis are presented in Table 1 and in Soil Gas Sample Mass Spectra in Appendices B and C, respectively. Results are also presented in Plates 1 through 5. These plates show the areal distribution of targeted compounds in the soil gas. As Plates 1 through 5 are oversized they are provided separately and unbound.

8.2 Findings

Sample analysis indicated the occurrence of petroleum hydrocarbons (generally compounds in the C_4 to C_8 weight range), trichlorofluoromethane (Freon-11), trichloroethene (TCE), tetrachloroethene (PCE), and dichlorobenzene(s) (DCB) in the soil gas.

Not all compounds were detected in all samples. The majority of the samples exhibited only low relative levels of C_4 to C_8 petroleum hydrocarbons belonging to the alkane, cycloalkane, and alkene groups, plus the C_6 and C_7 aromatics benzene and toluene (see the mass spectrum of sample #98). These compound 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 are typical of vapor derived from the well weathered residue of products particularly high in alkanes and aromatics such as fuels.

Only a small number of samples contained the semivolatile polynuclear aromatic hydrocarbons naphthalene or C_{11} -C_{13} alkyl naphthalenes. These compounds are significant components of heavy fuels, tars, and creosotes. Thus their presence in the soil gas may be telltale of the former location of creosote treated timbered structures. The highest levels of naphthalenes were detected in samples #104 and #152. Low relative levels of these compounds were detected in samples #98, #103, #111, #140, #143, #149, #156, and #161 (see the mass spectrum of sample #152)

PCE was the most abundant halogenated organic compound detected on-site. The other halogenated hydrocarbons named above were detected much less frequently. Elevated levels of Freon-11 were only detected in samples #102, #119, #122, #129, #130, and #140. Elevated levels of TCE were detected only in samples #122 and #130 (see the mass spectrum of sample #130). DCB was detected in sample #154 alone (see the mass spectrum of this sample).

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

The high sensitivity to VOCs inherent in the PETREX Method must be considered in the evaluation of these findings. Elevated relative levels of VOCs in the soil gas detected in this PETREX survey may derive from concentrations of these VOCs in soil and/or groundwater which are below the threshold of detection of most quantitative analyses.

9.0 DISCUSSION

9.1 Distribution of Total Aromatic Hydrocarbons

Total Aromatic Hydrocarbons are reported as the combined level of C_6 to C_{15} aromatic (benzene based) hydrocarbon compounds detected in the soil gas samples. As stated above, the majority of the samples contained only the light weight (C_6 and C_7) aromatics benzene and toluene. Very few samples were observed to contain C_9 and heavier aromatics.

The areal distribution of Total Aromatic Hydrocarbons in the soil gas at AOC-21 is displayed by Plate 2. Elevated levels of aromatics are present principally in the southern half of the AOC.

The mixture and relative proportion of aromatics present in the majority of the samples (described in subsection 8.2, above) including those in the southern portion of the site is typical of the composition of vapor which may derive from dilute levels of the residue of highly weathered and degraded fuel-like petroleum products (see the mass spectrum of sample #98 as an example of this sample composition). Only samples #104 and #122 are different. Along with elevated levels of aromatics, these two samples also demonstrated pronounced levels of light weight alkanes and cycloalkanes/alkenes (see mass spectrum of sample #104). This small distinction in composition (and the particularly high response to aromatics in sample #122) may indicate the location of points of historic petroleum product release.

Overall, findings of elevated levels of aromatics in the soil gas in the southern portion of AOC-21 may indicate the location of former source areas of fuel-like products and/or portions of the subsurface of the site influenced by the dispersion/migration of components of fuel-like products released nearby to the south and southwest. The unpaved road on the southern perimeter of AOC-21 may relate, to some degree, to the presence of hydrocarbons in the area: high vehicle traffic, the accidental release of transported petroleum products, or the spraying of roadside vegetation with petroleum based products could result in the release of aromatic hydrocarbons to the surface and near surface.

The hydrologic gradient at AOC-21 likely mimics the topographic gradient of the site such that any dissolved contaminants in the subsurface within or bordering the AOC would likely migrate to the northwest.

The levels of aromatic hydrocarbons in the soil gas samples from AOC-21 are low overall despite the four week long field exposure which they received. This finding suggests that the concentrations of aromatics (and hydrocarbons in general) in soil and/or groundwater from which the compounds in the soil gas derive are very low and may have originated from releases of petroleum products which transpired many years ago.

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 may be 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 heavy weight fuels or heating oils.

The only semivolatile hydrocarbons identified in the samples collected at AOC-21 were naphthalene and C_{11} through C_{13} alkyl naphthalenes. No other heavy or polycyclic compounds were detected. The areal distribution of Total Semivolatile Hydrocarbons is displayed by Plate 3. Elevated levels of these compounds were detected primarily at sampling points 104 and 152 (grid coordinates H7 and G3, respectively). Lower levels of naphthalenes occur in the soil gas at sampling points nearby. The majority of sampling points which manifested any occurrence of naphthalenes in the soil gas are clustered toward the western half of the AOC.

Samples which contained naphthalenes also contained an assortment of light weight alkanes, cycloalkanes, alkenes, and aromatics (as discussed above). As products high in these light weight compounds often do not contain appreciable levels of naphthalenes (levels of naphthalenes which may be detected after extensive product weathering and degradation), it is likely that the hydrocarbons in the soil gas in these samples derive from more than one source material. Thus, the occurrence of naphthalenes in the soil gas may relate to the suspected leaching of compounds from creosote treated timber structures, while the occurrence of light weight alkanes, cycloalkanes, alkenes, and aromatics may derive from possible historic releases of products such as fuels.

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 collected at AOC-21 were nearly uniform in composition; a finding which is verified by review of the sample mass spectra. Only minor differences in soil gas composition occurred. These are notable in a comparison of Plates 2 and 4. Specifically, the soil gas samples #122, #140, and #153 (from grid coordinates B6, D2, and G2, respectively) possessed more prominent levels of alkanes, cycloalkanes, and alkenes than aromatics, while the inverse was true of soil gas samples #101, #119, and #120 (from coordinates I7, C7, and C5).

Minor differences in sample composition may relate to proximity to points of product release or differences in composition between more than one released product. Despite minor differences in soil gas composition, the combinations of compounds observed are typical of vapor from the dilute residue of well weathered fuel-like petroleum products.

Elevated levels of total C_5 to C_{11} petroleum hydrocarbons occurred in the soil gas principally in the southern and southwestern portion of the AOC. This finding suggests that petroleum products (such as fuels) may have been released in the southern portion of the AOC or outside the AOC to the south and west. Two isolated points near the lower, northern margin of the study area, which are exceptions to the predominance of elevated occurrences in the south, may relate to the northward (downgradient) migration of dilute, aqueous phase product components from former points of product release to the south.

Given the high sensitivity of the sampling method, and the longer than usual sampler field exposure, it is apparent that the level of total C_5 to C_{11} petroleum hydrocarbons in the soil gas is low overall. This finding likely indicates that the levels of petroleum hydrocarbons in soil and groundwater at AOC-21 are also low overall and may be of little or no environmental significance.

9.4 The Distribution of Total Halogenated Hydrocarbons

Total Halogenated Hydrocarbons are reported as the combined levels of trichlorofluoromethane (Freon-11), trichloroethene (TCE), tetrachloroethene (PCE), and dichlorobenzene(s) (DCB) in the soil gas. TCE, PCE, and the 1,3- and 1,4- isomers of DCB are liquids commonly used as solvents and cleaning agents for petroleum based products (1,2-DCB is a solid under normal conditions and is used most often as a fumigant). Freon-11 is a highly volatile liquid at temperatures under 24°C and is used widely as a refrigerant.

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. However, three of the four sampling points (highlighted in Plate 5) which demonstrated the highest relative levels of halogenated hydrocarbons did not solely exhibit the occurrence of PCE. Both samples #122 and #130 contained Freon-11, TCE, and PCE. Sample #154 contained DCB and PCE. Although the presence of Freon-11, TCE, PCE, and DCB in the soil gas at these four points is anomalous, the levels of these halogenated organic compounds in the soil gas across AOC-21 are low overall.

Each of the four points which exhibited the highest levels of halogenated hydrocarbons occurred in isolated locations on the periphery of the AOC, separated from each other by over three hundred feet. Given this spotty occurrence and the low overall levels detected, it is unlikely that these halogenated compounds derive from any large scale subsurface source areas. It is more likely that they originated from small scale releases to the surface as a result of the former use or storage of these substances on-site.

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 AOC-21, but at concentrations which may be so low as to be of limited environmental significance.

2. The majority of the petroleum hydrocarbons detected in the soil gas likely derive from the residue of well weathered fuel-like petroleum products in soil and/or groundwater. These compounds may have been released to the subsurface through one or more on-site surface spills, or through migration with groundwater from source areas located off-site to the south and southwest. Some releases of petroleum may relate the existence of the access road along the southern margin of the AOC. It is unlikely that there has been any recent release of petroleum at or nearby AOC-21.

3. Semivolatile hydrocarbons (specifically naphthalene and alkyl naphthalenes) may have leached from creosote treated timber buildings (formerly located at AOC-21) into immediately surrounding soils. Any such leaching has likely affected soil quality over a very limited portion of the AOC only.

4. Freon-11, TCE, PCE, and DCB occur in the soil gas over very limited portions of AOC-21 and likely derive from small scale releases to the surface of products used or stored on-site.

5. Any verification of soil gas results for petroleum hydrocarbons (including aromatics and the semivolatiles) should begin with testing of soil and groundwater (if reasonably accessible) from the collection points of samples #104, #122, and #152 (grid coordinates H7, B6, and G3, 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 #122 and #154 (grid coordinates B6 and G1, respectively). These two locations exhibited the highest levels in the soil gas of the four 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: AOC-21 Petrex Survey Results

NERI Project : 2114-4E
Site: Operable Unit -5, U.S.D.O.E. Mound Facility
Analysis: Thermal Desorption - Mass Spectrometry
Date of Analysis: 8/22/94
Units: Ion Counts

Sample #	Total Aromatic Hydrocarbons (a)	Total Semivolatile Hydrocarbons (b)	Total C5 to C11 Petroleum Hydrocarbons (c)	Total Halogenated Hydrocarbons (d)
96	26,514	ND	61,886	9,869
97	38,869	ND	58,217	ND
98	283,213	2,303	590,614	ND
99	454,965	1,214	764,913	4,455
100	12,416	ND	11,155	ND
2100 (e)	28,837	ND	32,074	NI
101	149,088	ND	271,401	14,626
102	236,415	ND	450,050	16,424
103	90,510	2,231	136,906	ND
104	247,229	184,709	1,799,973	87,116
105	193,992	ND	410,140	ND
106	47,240	ND	65,106	3,800
107	260,258	ND	603,353	ND
108	216,081	ND	475,015	ND
109	45,680	ND	312,553	NI

Table 1 (cont'd)

Sample #	Total Aromatic Hydrocarbons (a)	Total Semivolatile Hydrocarbons (b)	Total C5 to C11 Petroleum Hydrocarbons (c)	Total Halogenated Hydrocarbons (d)
110	49,894	ND	72,403	NI
111	153,565	1,053	400,202	1,929
112	224,983	ND	384,829	7,511
114	11,592	1,296	37,748	NI
115	14,100	ND	15,308	ND
116	24,358	ND	33,274	ND
117	5,752	ND	8,675	NI
2117 (e)	9,101	ND	15,043	14,696
118	40,161	ND	69,501	4,602
119	216,831	ND	263,887	18,794
120	146,587	ND	177,446	7,073
121	6,546	ND	8,554	10,375
122	992,002	1,549	6,413,725	169,838
123	37,394	ND	47,432	ND
124	41,700	ND	63,344	7,269
125	21,460	ND	25,217	ND
126	3,998	ND	6,216	ND
127	52,955	ND	93,953	7,074
128	3,452	ND	16,281	ND
2128 (e)	6,429	ND	8,615	ND
129	21,393	ND	27,683	52,759
130	16,670	ND	71,026	91,627
131	31,830	ND	35,668	3,975
132	107,609	ND	161,250	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)
133	26,141	ND	33,227	11,981
134	40,511	ND	67,835	6,703
135	5,377	ND	15,938	4,822
136	29,835	ND	32,924	12,477
137	ND	ND	2,150	ND
138	10,134	ND	17,997	9,472
139	11,785	ND	49,669	19,836
140	104,125	1,438	699,581	38,684
141	12,430	ND	18,113	ND
2141 (e)	21,824	ND	25,596	NI
142	4,916	ND	15,826	ND
143	13,084	2,857	24,784	ND
144	33,241	ND	36,324	6,068
145	7,627	ND	12,203	7,448
146	20,766	ND	36,545	18,696
147	6,081	ND	8,097	ND
2147 (e)	16,841	ND	28,713	ND
148	7,896	ND	10,026	NI
149	53,289	3,472	100,105	5,286
150	11,717	ND	20,062	NI
151	46,089	ND	75,657	6,381
152	10,270	18,957	200,918	ND
153	113,061	ND	414,231	ND
154	86,363	ND	105,982	162,033
2154 (e)	185,304	1,664	225,460	251,528
155	18,251	ND	28,519	27,197

Table 1 (cont'd)

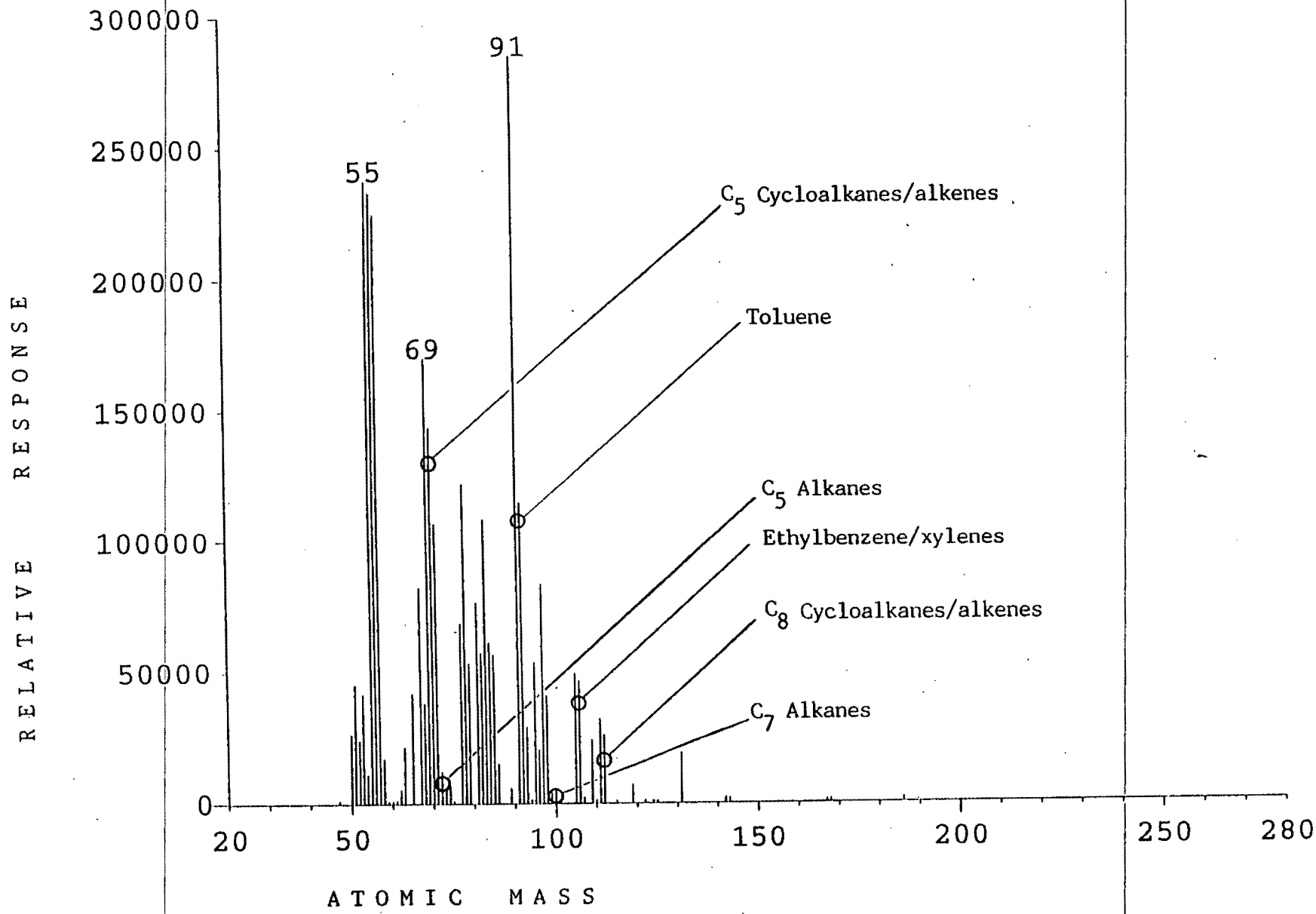
Sample #		Total Aromatic Hydrocarbons (a)	Total Semivolatile Hydrocarbons (b)	Total C5 to C11 Petroleum Hydrocarbons (c)	Total Halogenated Hydrocarbons (d)
156		78,315	1,146	177,368	ND
157		39,564	ND	162,477	NI
2157	(e)	41,893	ND	124,100	ND
158		49,942	ND	117,669	12,975
159		23,532	ND	46,398	ND
160		6,687	ND	11,527	7,075
2160	(e)	8,079	ND	15,739	5,946
161		15,094	1,540	58,648	15,344
162		9,314	ND	12,178	ND
163		7,785	ND	12,478	NI
164		20,881	ND	28,043	5,208
165		3,704	ND	23,027	5,066
166	*	22,132	ND	24,442	ND
167	*	6,656	ND	12,171	ND
168	*	ND	ND	864	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, 146, and 164.
(e) Duplicate of preceding sample.
NI Target compounds not identified in sample.
ND Target compounds not detected in sample.
* Denotes Travel Blank.

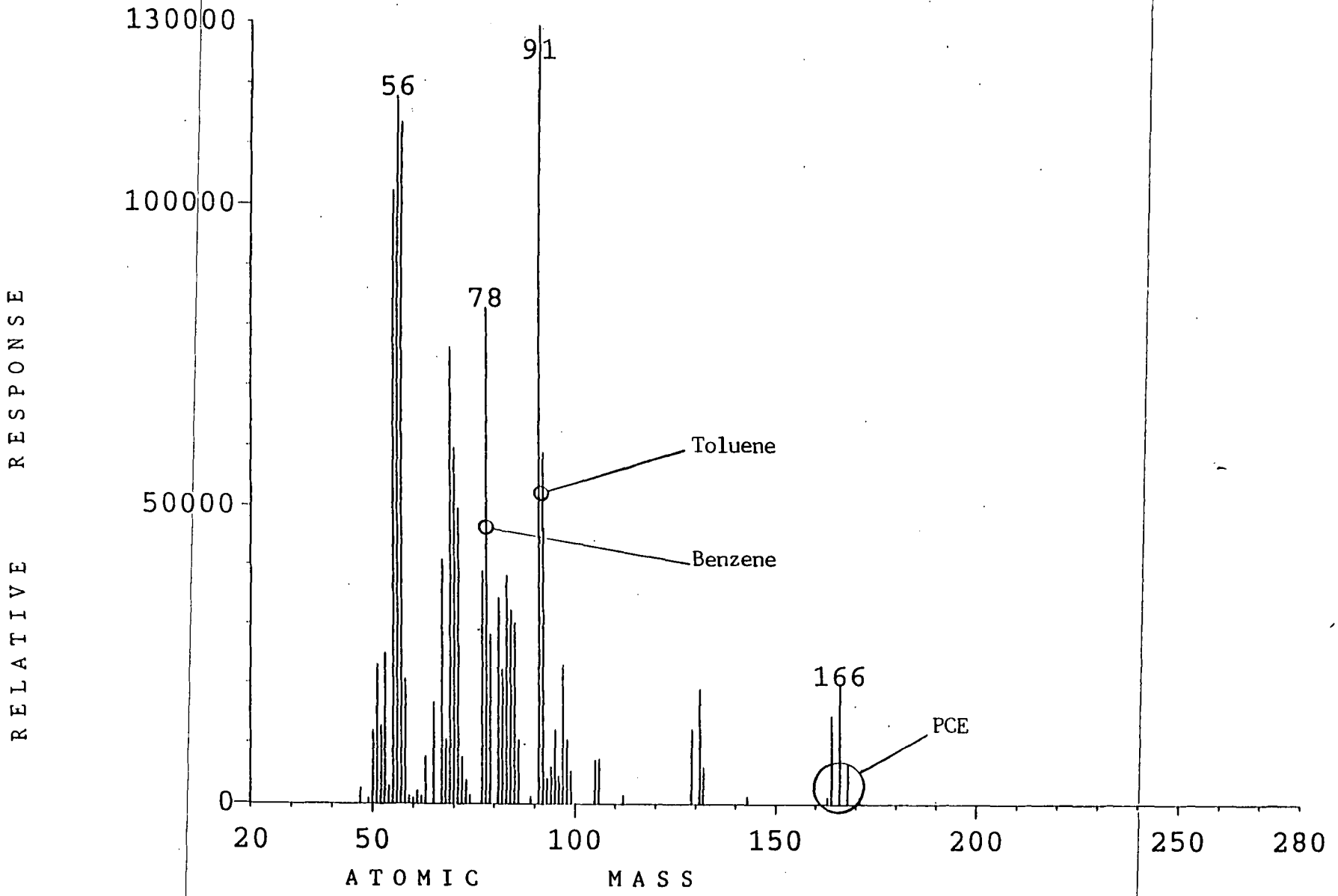
APPENDIX C
SAMPLE MASS SPECTRA

Sample Number

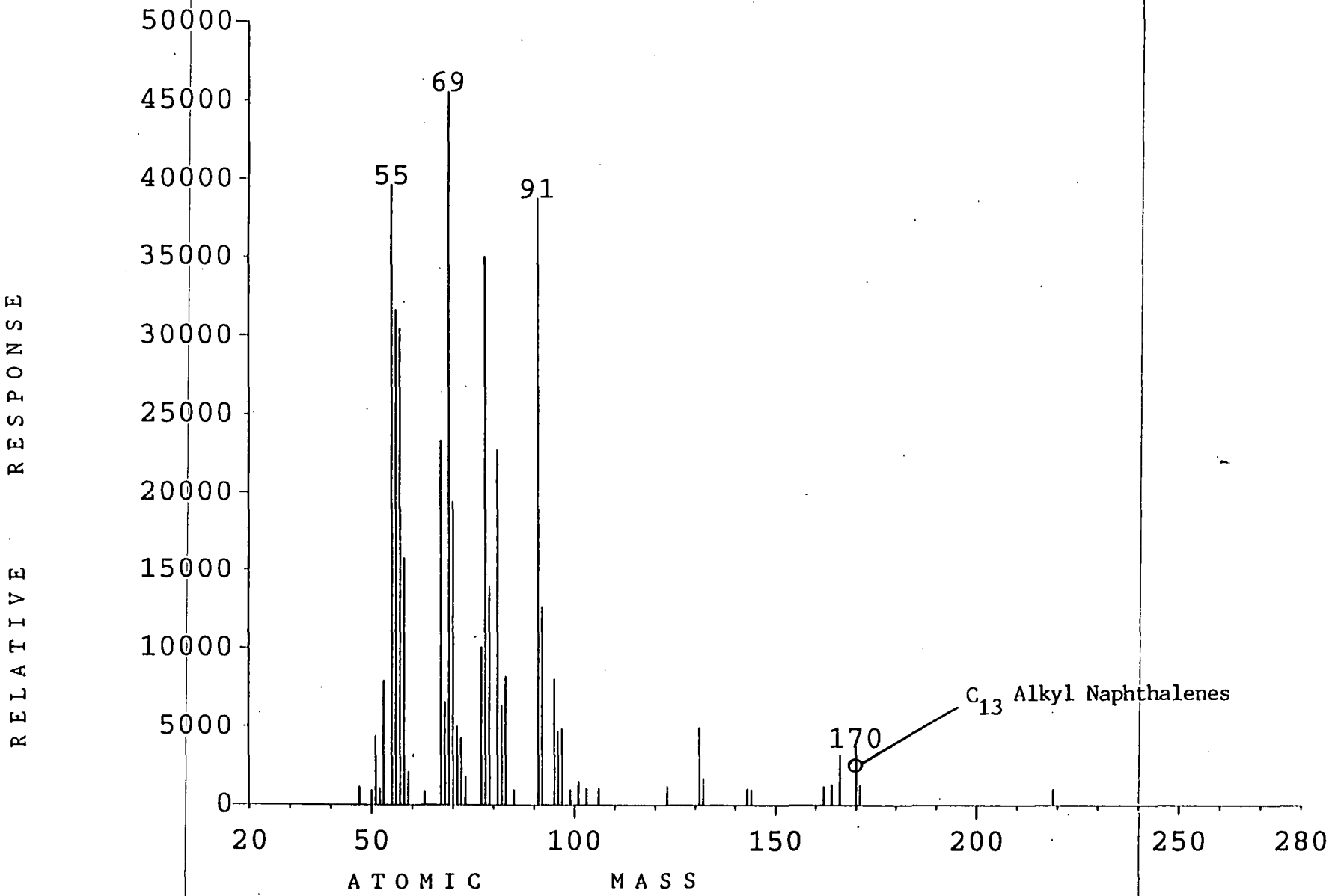
C:\data\2114-4\0098.TKF: Scan Avg 1-20 (0.01 - 0.14 min)



C:\data\2114-4\0101.TKF: Scan Avg 1-20 (0.01 - 0.14 min)

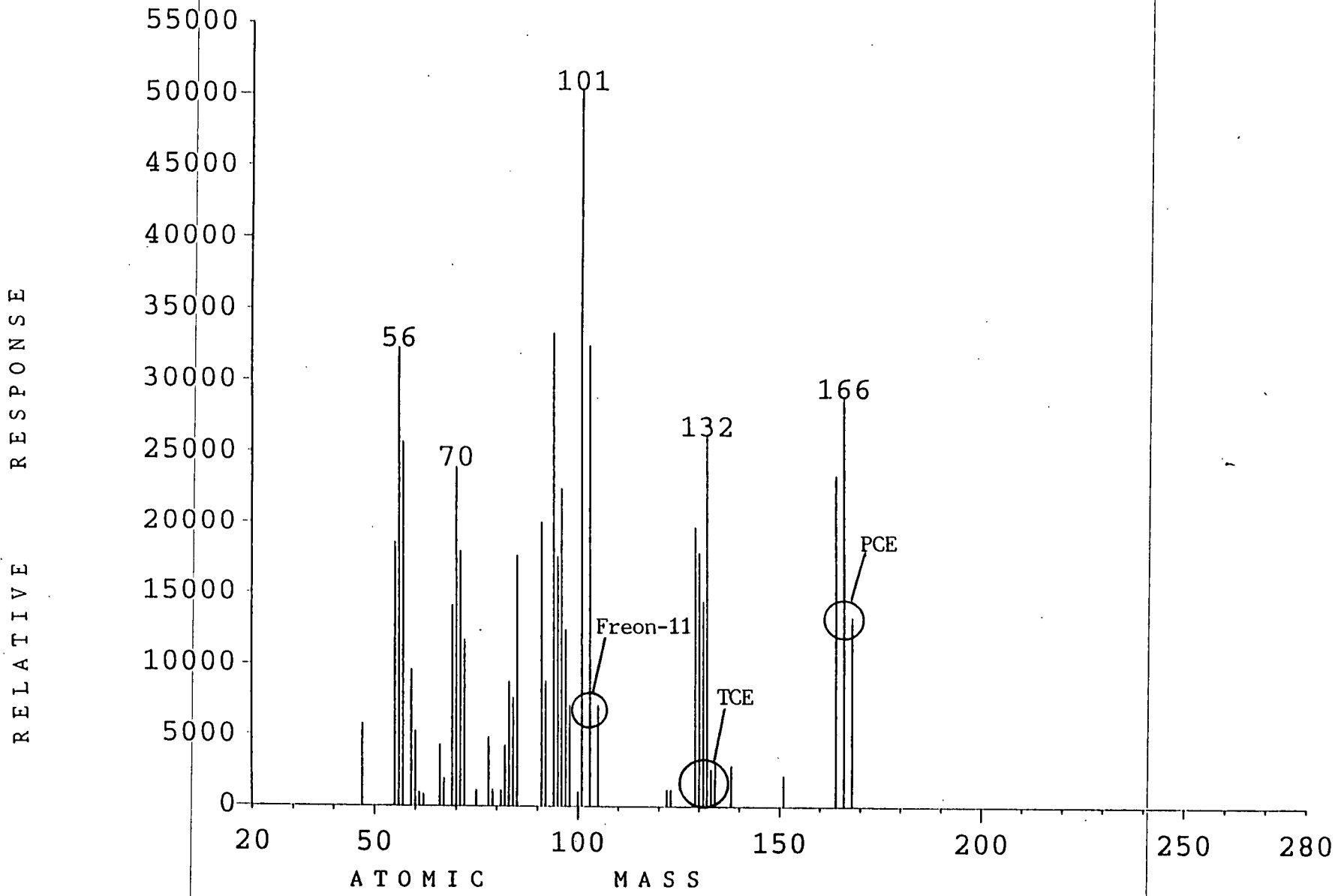


C:\data\2114-4\0110.TKF: Scan Avg 1-20 (0.01 - 0.14 min)

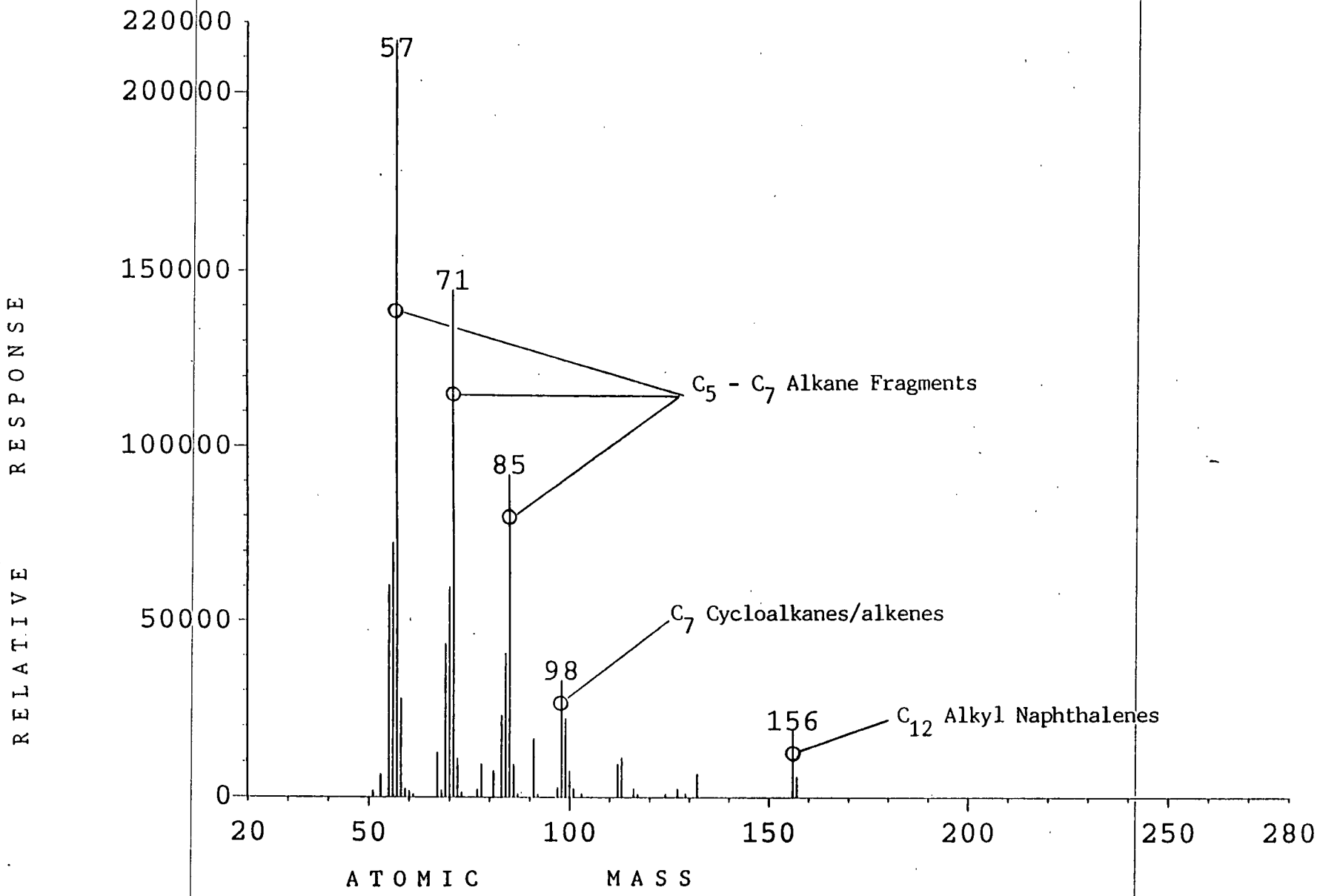


PlotData

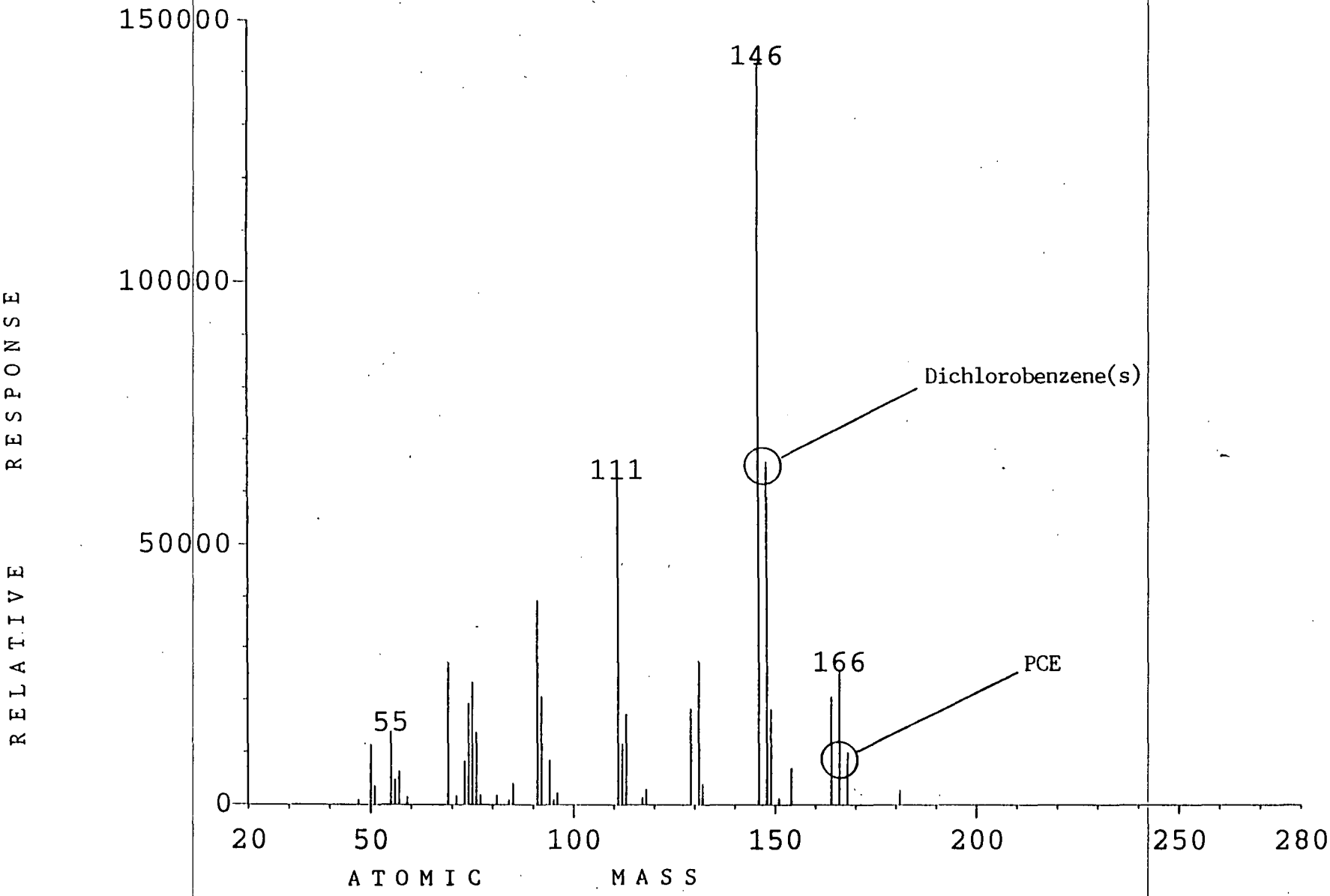
C:\data\2114-4\0130.TKF: Scan Avg 1-20 (0.01 - 0.14 min)



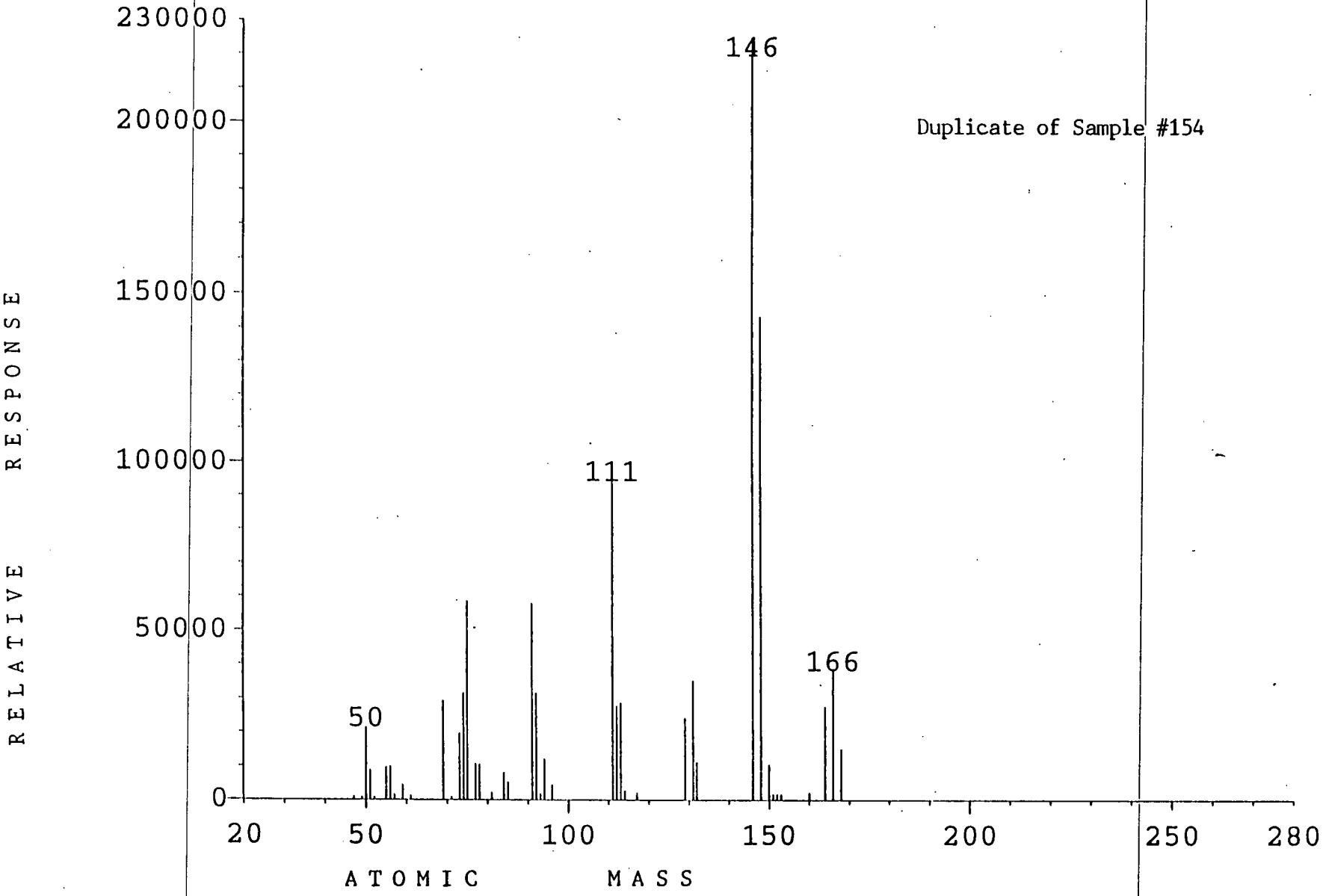
C:\data\2114-4\0152.TKF: Scan Avg 1-20 (0.01 - 0.14 min)



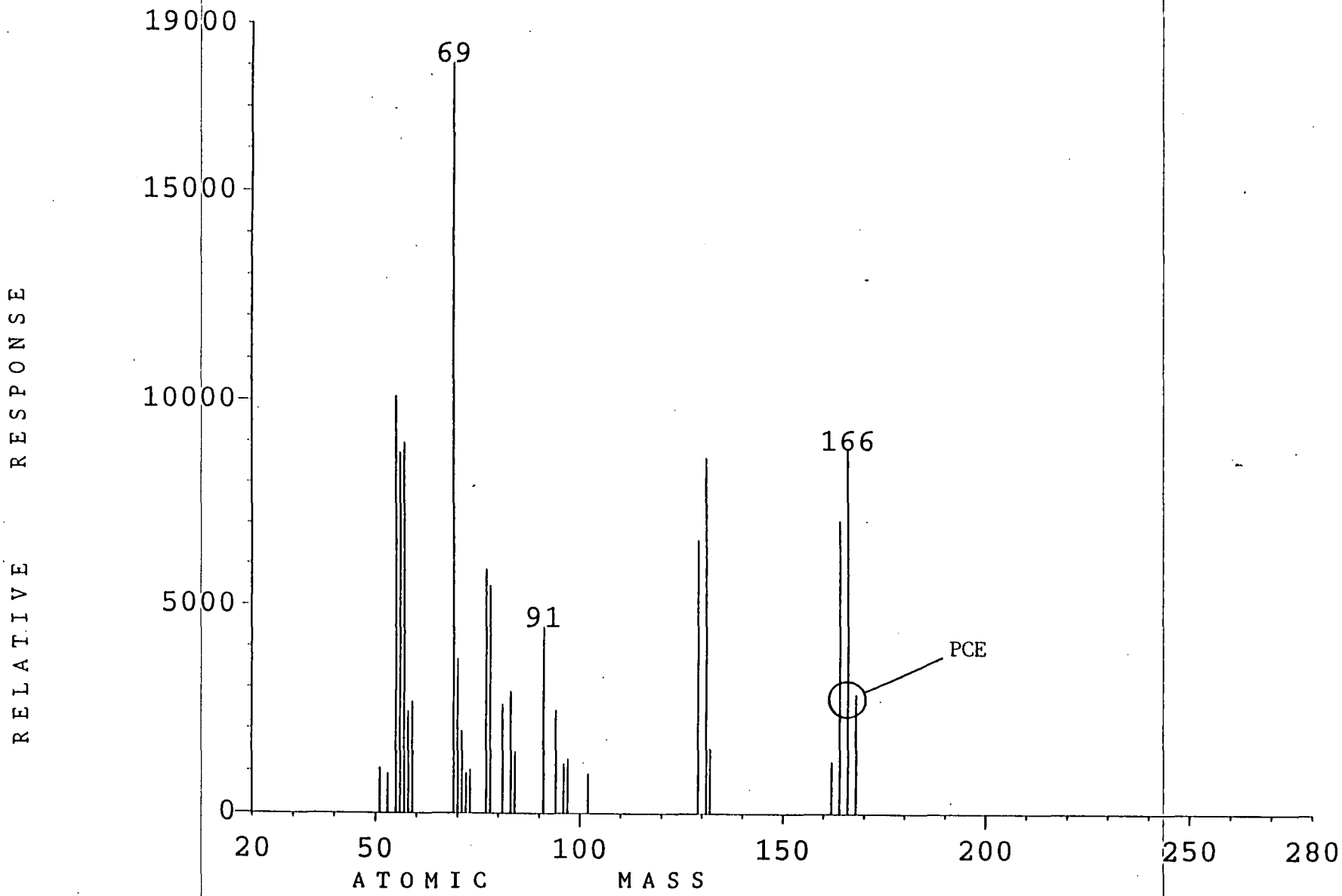
C:\data\2114-4\0154.TKF: Scan Avg 1-20 (0.01 - 0.14 min)



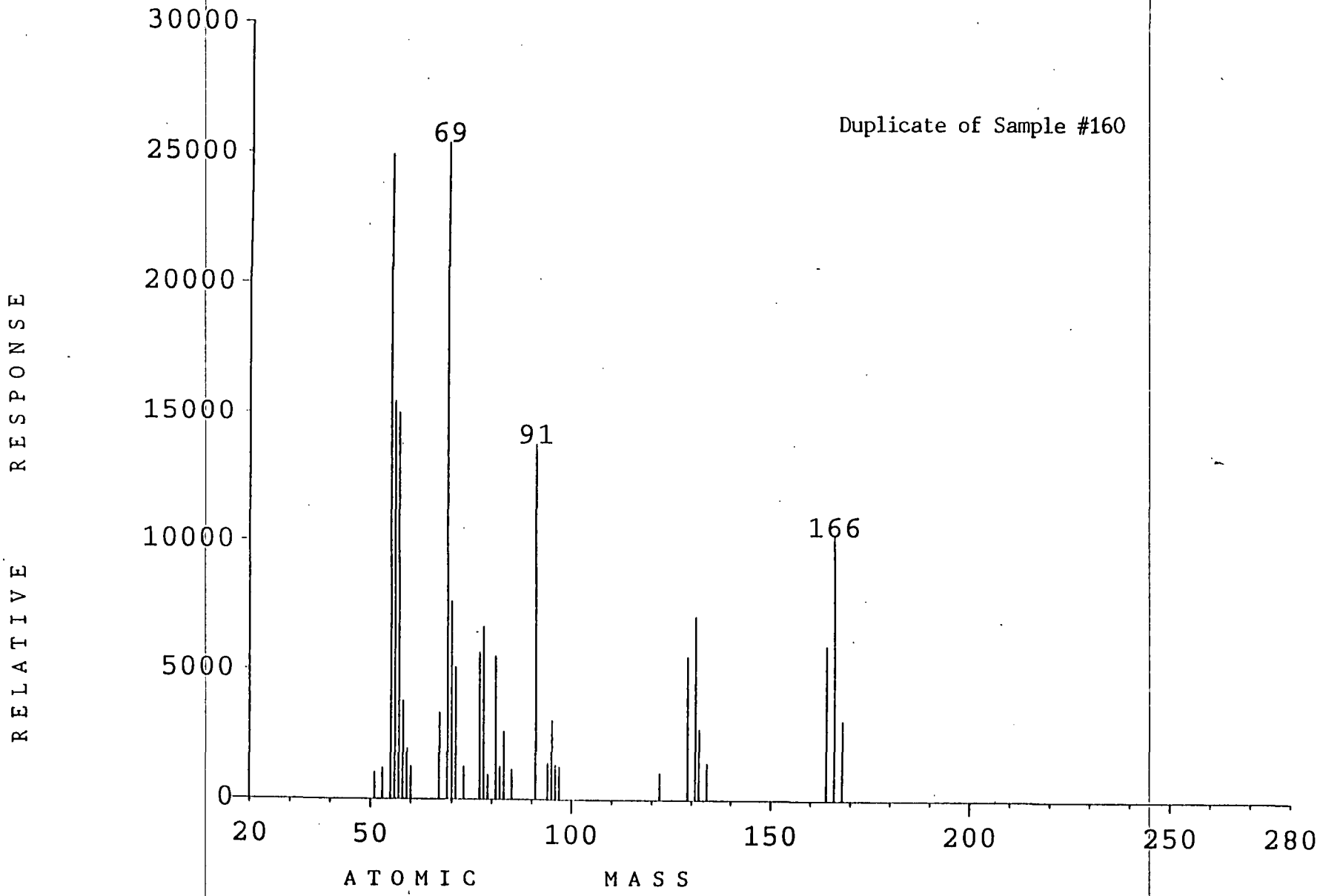
C:\data\2114-4\2154.TKF: Scan Avg 1-20 (0.01 - 0.14 min)



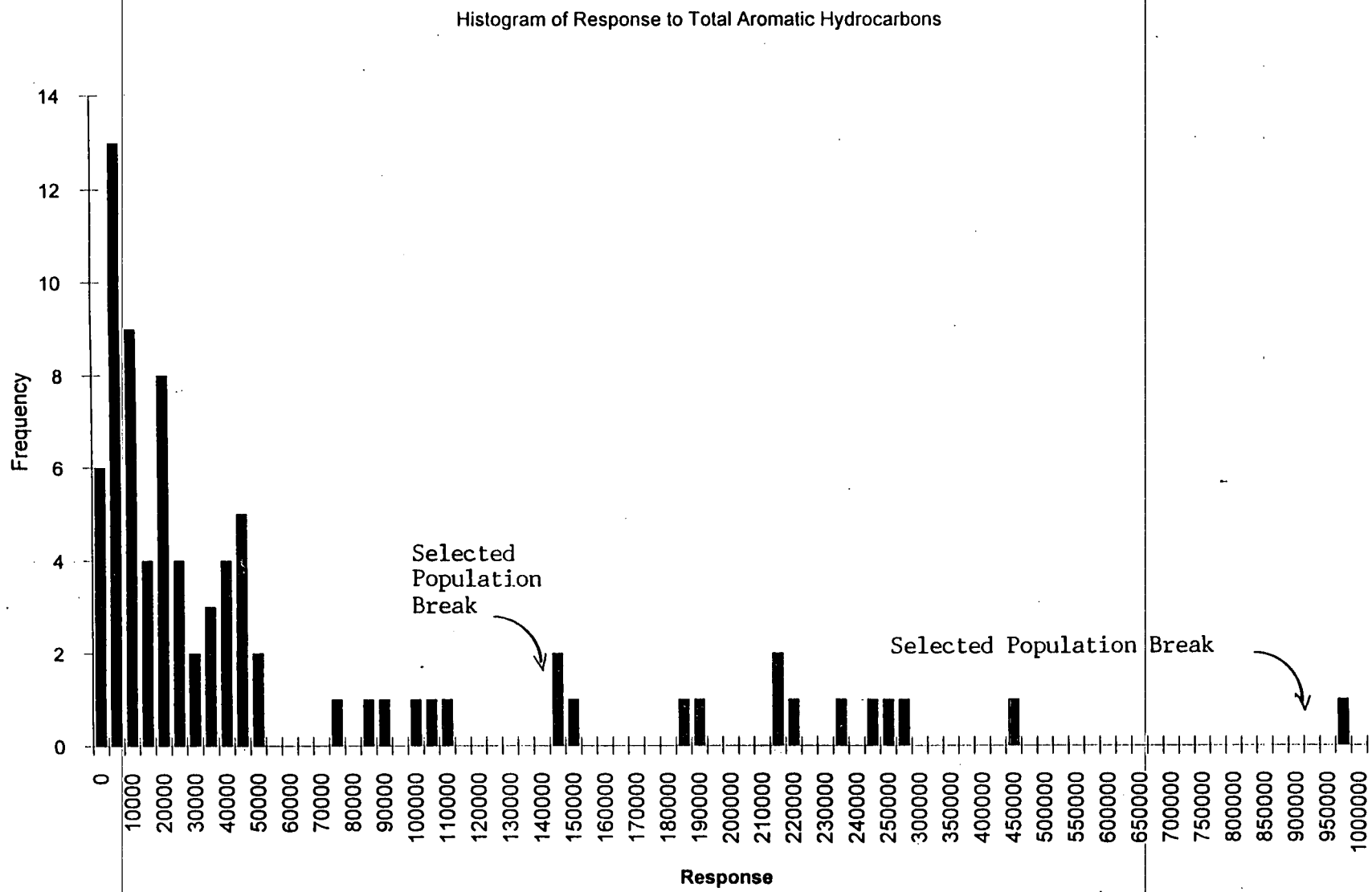
C:\data\2114-4\0160.TKF: Scan Avg 1-20 (0.01 - 0.14 min)

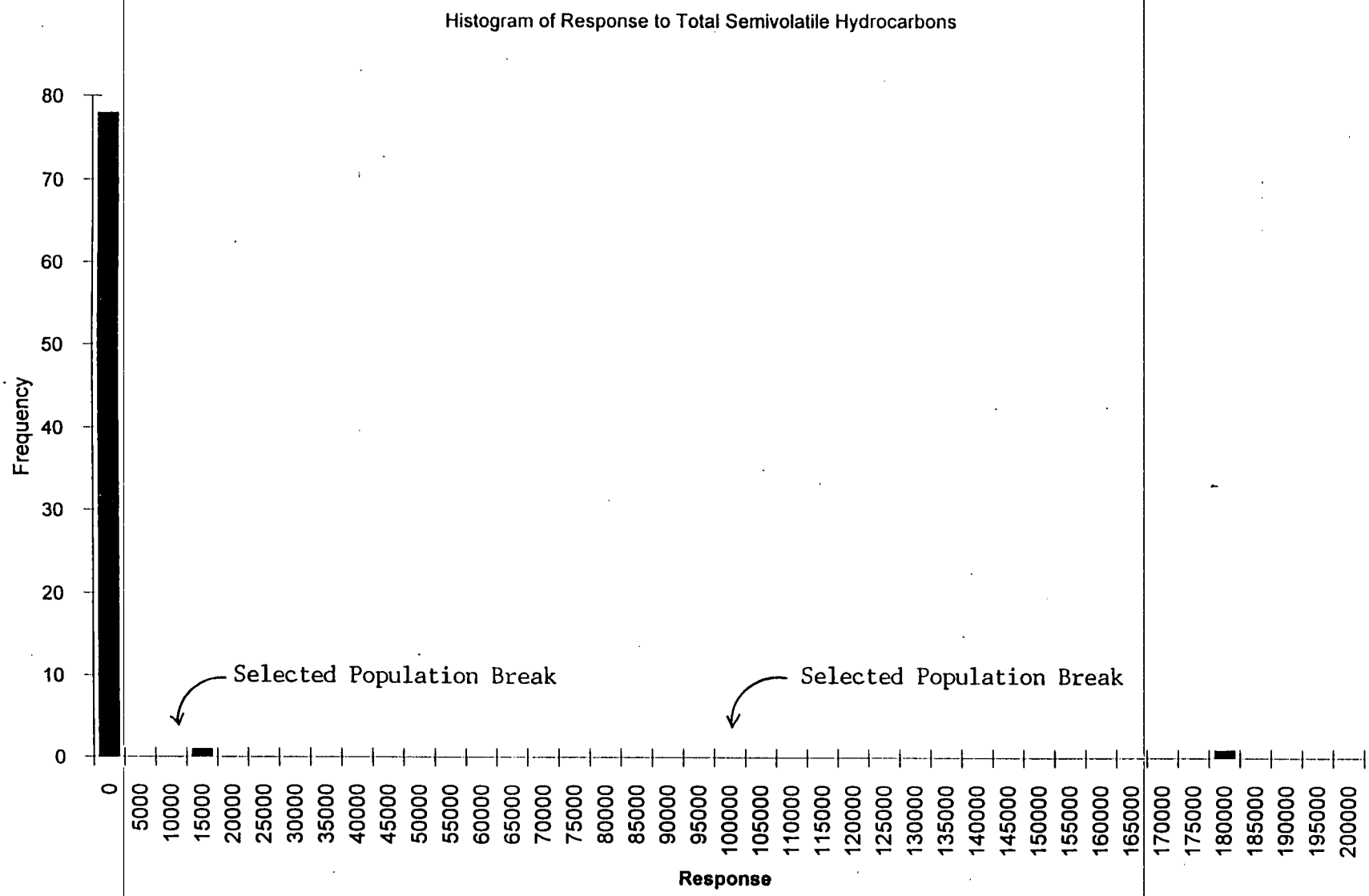


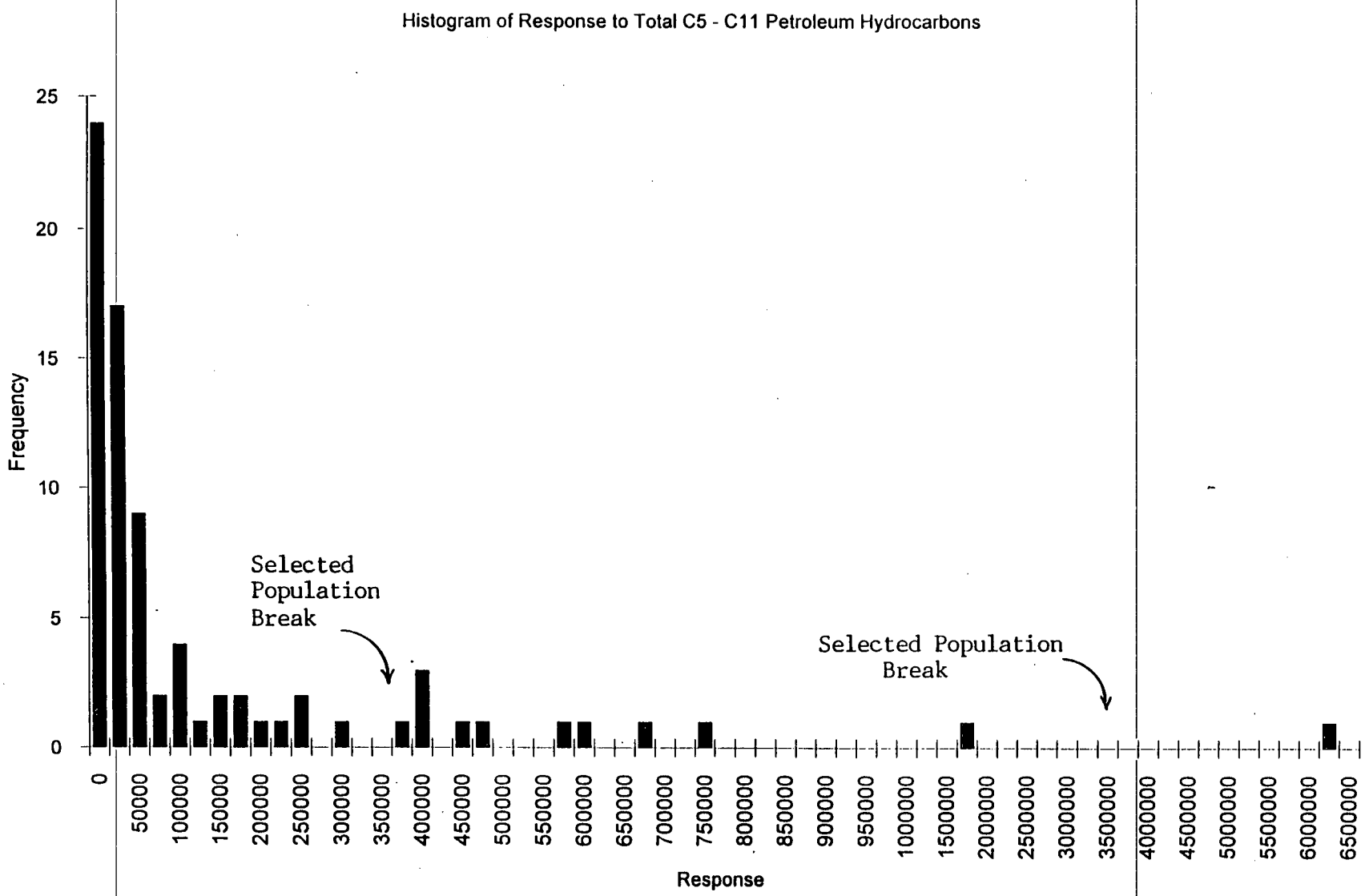
C:\data\2114-4\2160.TKF: Scan Avg 1-20 (0.01 - 0.14 min)

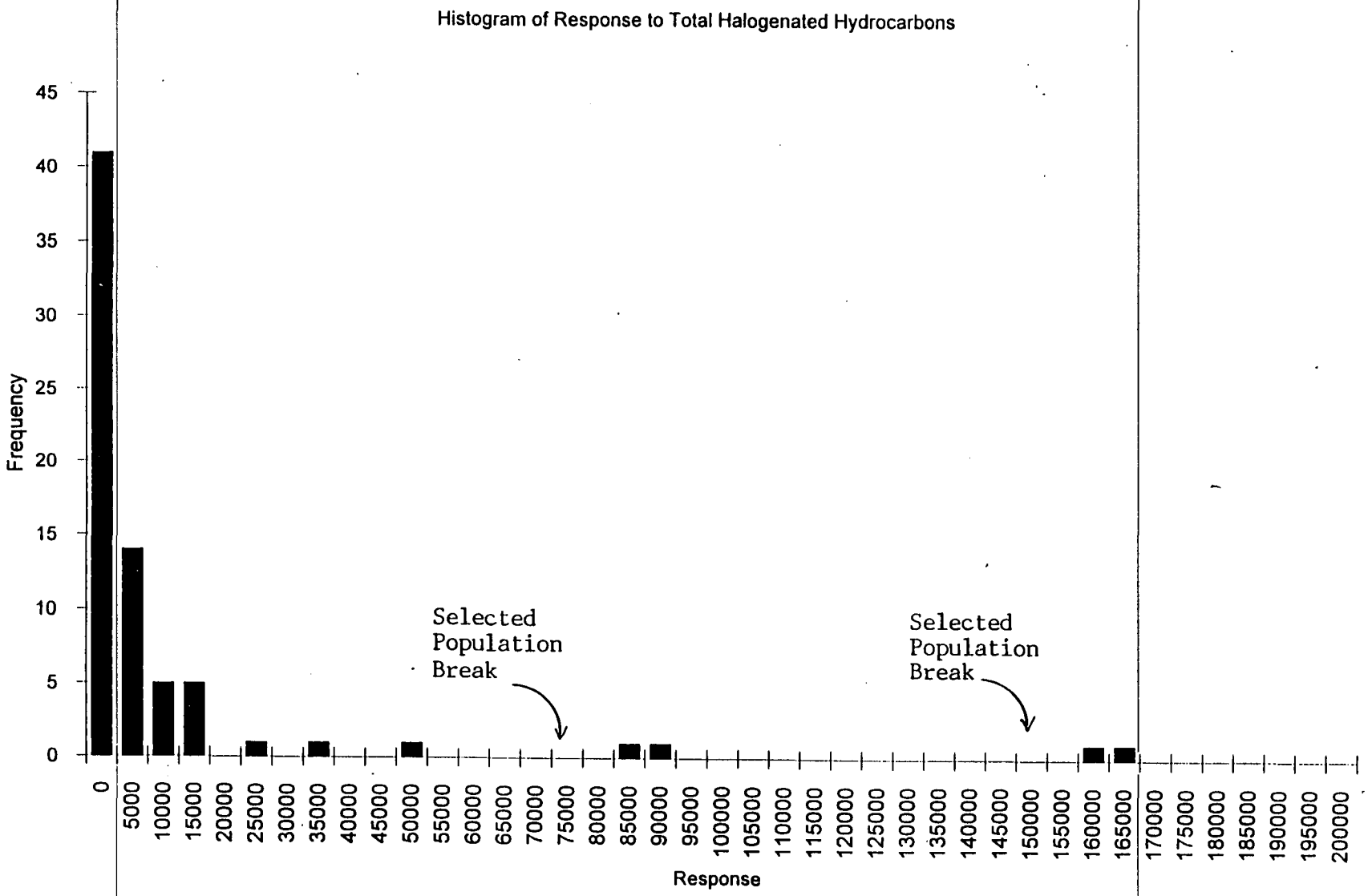


APPENDIX D
HISTOGRAMS OF DATA SETS


Histogram of Response to Total Aromatic Hydrocarbons
Frequency
14
12
10
8
6
4
2
0
Selected Population Break
Selected Population Break
0
10000
20000
30000
40000
50000
60000
70000
80000
90000
100000
110000
120000
130000
140000
150000
160000
170000
180000
190000
200000
210000
220000
230000
240000
250000
300000
350000
400000
450000
500000
550000
600000
650000
700000
750000
800000
850000
900000
950000
1000000
Response


Histogram of Response to Total Semivolatile Hydrocarbons
Frequency
80
70
60
50
40
30
20
10
0
Selected Population Break
Selected Population Break
0
5000
10000
15000
20000
25000
30000
35000
40000
45000
50000
55000
60000
65000
70000
75000
80000
85000
90000
95000
100000
105000
110000
115000
120000
125000
130000
135000
140000
145000
150000
155000
160000
165000
170000
175000
180000
185000
190000
195000
200000
Response


Histogram of Response to Total C5 - C11 Petroleum Hydrocarbons
Frequency
25
20
15
10
5
0
Selected Population Break
Selected Population Break
0
50000
100000
150000
200000
250000
300000
350000
400000
450000
500000
550000
600000
650000
700000
750000
800000
850000
900000
950000
1000000
1500000
2000000
2500000
3000000
3500000
4000000
4500000
5000000
5500000
6000000
6500000
Response


Histogram of Response to Total Halogenated Hydrocarbons
Frequency
45
40
35
30
25
20
15
10
5
0
Selected Population Break
Selected Population Break
0
5000
10000
15000
20000
25000
30000
35000
40000
45000
50000
55000
60000
65000
70000
75000
80000
85000
90000
95000
100000
105000
110000
115000
120000
125000
130000
135000
140000
145000
150000
155000
160000
165000
170000
175000
180000
185000
190000
195000
200000
Response

APPENDIX E
SAMPLE SUBMITTAL & CHAIN OF CUSTODY FORMS

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

PROJECT NUMBER: ~~2114-3~~ 4 2114-4

PROJECT MANAGER: PCB
DATE: 8-8-94

NUMBER OF TUBES SUBMITTED: 75

NUMBER OF CALIBRATION SAMPLES: ~~5~~ 6

LIST: ~~8 (1338)~~, 143 (1143), 98 (1098), 103 (1103), 116 (1116), 132 (1132), 163 (1163)

NUMBER OF OTHER SAMPLES (LAB):

TOTAL NUMBER OF SAMPLES ANALYZED:

GREATEST SAMPLE NUMBER:

~~MODEL~~ True Dup. SAMPLES: 100 (2100), 157 (2157), 128 (2128) 8, 147 (2147), 117 (2117), 141 (2141), 160 (2160), 154 (2154)

DATE SAMPLES RECEIVED IN LAB: 8-8-94

DATE ANALYSIS START/END: 8/22/94

INFORMATION RECEIVED (MAPS, NOTES): CCC no map.

TOTAL NUMBER TRAVEL BLANKS: 3
LIST: ~~1~~ 166, 167, 168 ~~[illegible]~~ Packed one Tube Per Pack

TOTAL NUMBER MISSING SAMPLES:
LIST: ~~123~~ 1-95, 113

SAMPLE PREPARATION & ANALYSIS:

~~Fine Test all have single wires~~
~~479, 480, 481~~

Standard Form 5

166 + 167 for Bag 7+8
168 for Bag 5+6

Project No. 2114E

Science Applications International Corporation
An Employee-Owned Company

Chain of Custody Record

Date 8/2/94 Page 1 of 1

COC No. NERT [redacted]

Name: JOLETTA MINARD
Address: 4031 Colonel Glenn Hwy Beavercreek, OH 45431
Phone Number: (513) 429-2699 FAX (513) 429-9557
Project Manager: Tom Tank
Project Name: EG&G Mound OU5 Operational Area
Job/P.O. No.: 01-2680
Sampler (Signature): Joletta Humpert (Printed Name): Joletta Humpert

Laboratory: [redacted]
Address: [redacted]
Phone: [redacted]
Contact Name: Paul Bedard [redacted]

Requested Parameters: [redacted] # of Samples

Laboratory No.	Matrix	Sample No.	Date	Time	Site / Zone	Temperature	No. of Containers	OBSERVATIONS, COMMENTS, SPECIAL INSTRUCTIONS
	NA	Area 21	8/2/94	NA	NA		69	

Notes: Unable to Retrieve E7 in Area 21 - Wires lost when tube broke. Unable to be found.

* Will fax copy of Area 21 with points numbered

Relinquished by	Date	Received by	Date
Joletta Humpert	8/2/94	[redacted]	
Signature: Joletta Humpert		Signature	
Printed Name	Time 1430	Printed Name	Time
Company: SAIC		Company	
Relinquished by	Date	Received by	Date
Signature		Signature	
Printed Name	Time	Printed Name	Time
Company		Company	

Total Number of Containers: 69

NOTES:
Greatest No. 165
Missing No. Ø-95

INSTRUCTIONS: Shaded area to be completed by lab.

Shipment Method: FEDEX
Airbill Number: 2169356416
8/2/94

APPENDIX F
FIELD LOG SHEETS

22LØ5		10	06/22/94	0948	7/8/94	831	ND	ND		Bag #5 Full
22LØ6		71	06/22/94	0943	7/8/94	1834	ND	ND		Bag #3 Full

SOIL GAS SURVEY (PETREX)

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA, PHASE 1 PG - 265 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
22LØ7		70	06/22/94 0937	7/8/94 Ø838	ND	ND	NA	Bag #3 Full
22LØ8		68	06/22/94 0924	7/11/94 Ø817	ND	ND		Bag #3 Full
22LØ9		69	06/22/94 0928	7/11/94 Ø835	ND	ND		Bag #3 Full; under drums pt. moved 6'N
			JPH 8/18/94					
22MØ1		77	06/22/94 1057	7/8/94 Ø815	ND	ND	NA	Bag #4 Full
22MØ2		78	06/22/94 1111	7/11/94 1243	ND	ND		Bag #4 ~16"
22MØ3		79	06/22/94 1116	7/11/94 1241	ND	ND		Bag #4 Full
22MØ4		80	06/22/94 1123	7/11/94 12:37	ND	ND		Bag #4 ~16"
22MØ5		81	06/22/94 1130	7/11/94 12:46	ND	ND		Bag #4 Full
22MØ6		82	06/22/94 1138	7/11/94 12:53	ND	ND		Bag #4 Full
22MØ7		83	06/22/94 1143	7/11/94 12:56	ND	ND		Bag #4 Full
22MØ8		84	06/22/94 1145	7/11/94 13:15	ND	ND		Bag #4 Full
22MØ9		85	06/22/94 1152	7/11/94 13:30	ND	ND		Bag #4 Full; Pt. moved 5' W b/c of barrels.
			JPH 8/18/94					
21AØ1		130	06/27/94 0752	7/28/94 Ø948	ND	ND	NA	Bag #5 Full

SOIL GAS SURVEY (PETREX)

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA, PHASE 1 PG: 2Ø6 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
21AØ2		129	Ø6/27/94 Ø751	7/28/94 Ø946	ND	ND	NA	Bag #5 Full
21AØ3		128	Ø6/27/94 Ø745	7/28/94 Ø945	ND	ND		Bag #5 Full
21AØ4		127	Ø6/27/94 Ø748	7/28/94 Ø943	ND	ND		Bag #5 Full
21AØ5		126	Ø6/27/94 Ø732	7/28/94 Ø942	ND	ND		Bag #5 Full
21AØ6		125	Ø6/23/94 1211	7/28/94 Ø94Ø	ND	ND		Bag #7 Full
21AØ7		124	Ø6/23/94 12Ø6	7/28/94 Ø938	ND	ND		Bag #7 Full
			JPH 8/18/94					
21BØ1		131	Ø6/27/94 Ø604	7/28/94 Ø951	ND	ND	NA	Bag #5 Full
21BØ2		133 ~~133~~	Ø6/27/94 ~~Ø616~~ Ø816	7/28/94 Ø953	ND	ND		Bag #5 Full
21BØ3		132	Ø6/27/94 ~~Ø616~~ Ø816	7/28/94 Ø956	ND	ND		Bag #5 Full
21BØ4		130	Ø6/27/94 ~~Ø804~~ Ø826	7/28/94 Ø958	ND	ND		Bag #5 ~~Full~~ MR 8/16/94
21BØ5		123	Ø6/23/94 12Ø3	7/28/94 1ØØ1	ND	ND		Bag #7 Full
21BØ6		122	Ø6/23/94 1158	7/28/94 1ØØ3	ND	ND		Bag #7 Full
21BØ7		121	Ø6/23/94 1158	7/28/94 1ØØ4	ND	ND		Bag #7 Full
			JPH 8/18/94					

SOIL GAS SURVEY (PETREX)

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA, PHASE 1 PG. 2Ø7 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
21CØ1		138	06/27/94 0922	7/28/94 1Ø3Ø	ND	ND	NA	Bag #5 Full
21CØ2		137	06/27/94 0916	7/28/94 1Ø27	ND	ND		Bag #5 Full
21CØ3		136	06/27/94 0841	7/28/94 1Ø25	ND	ND		Bag #5 Full
21CØ4		135	06/27/94 0834	7/28/94 1Ø28	ND	ND		Bag #5 Full
21CØ5		12Ø	06/23/94 1153	7/28/94 1Ø21	ND	ND		Bag #7 Full
21CØ6		96	06/28/94 0721	7/28/94 1Ø18	ND	ND		Bag #4 Full
21CØ7		119	06/23/94 1148	7/28/94 1Ø16	ND	ND		Bag #7 Full
21CØ6		96	06/23/94 0723	06/30/94 1213	ND	ND		Timer #1 Full
21CØ6		96	06/23/94 0725	7/7/94 16:49	ND	ND		Timer #2 Full
			JPH 8/18/94					
21DØ1		139	06/27/94 0928	7/28/94 1Ø32	ND	ND	NA	Bag #5 Full
21DØ2		14Ø	06/27/94 0936	7/28/94 1Ø34	ND	ND		Bag #5 Full
21DØ3		141	06/27/94 0943	7/28/94 1Ø36	ND	ND		Bag #5 Full
21DØ4		142	06/27/94 0946	7/28/94 1Ø38	ND	ND		Bag #5 ~16"
21DØ5		118	06/23/94 1141	7/28/94 1Ø4Ø	ND	ND		Bag #7 Full
21DØ6		117	06/23/94 1136	7/28/94 1Ø42	ND	ND		Bag #7 Full
21DØ7		116	06/23/94 1133	7/28/94 1Ø45	ND	ND		Bag #7 Full
				JPH 8/18/94				

SOIL GAS SURVEY (PETREX)

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA, PHASE 1 PG. 208 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 8/18/94					
21EØ1		146	06/27/94 1007	7/28/94 1113	ND	ND	NA	Bag #5 ~16"
21EØ2		145	06/27/94 1002	7/28/94 1110	ND	ND		Bag #5 Full
21EØ3		144	06/27/94 0956	7/28/94 1108	ND	ND		Bag #5 ~16"
21EØ4		143	06/27/94 0952	7/28/94 1105	ND	ND		Bag #5 Full
21EØ5		115	06/23/94 1125	7/28/94 1102	ND	ND		Bag #7 Full
21EØ6		114	06/23/94 1122	7/28/94 1100	ND	ND		Bag #7 Full
21EØ7		113	06/23/94 1118	7/28/94 1100	ND	ND		Bag #7 Full
			JPH 8/18/94					
21FØ1		147	06/27/94 1013	7/28/94 1421	ND	ND	NA	Bag #5 Full
21FØ2		148	06/27/94 1038	7/28/94 1418	ND	ND		Bag #5 ~14"
21FØ3		149	06/27/94 1042	7/28/94 1417	ND	ND		Bag #5 ~13"
21FØ4		150	06/27/94 1050	7/28/94 1415	ND	ND		Bag #5 ~14"
21FØ5		112	06/23/94 0934	7/28/94 1412	ND	ND		Bag #7 Full
21FØ6		111	06/23/94 0928	7/28/94 1410	ND	ND		Bag #7 Full
21FØ7		110	06/23/94 0923	7/28/94 1408	ND	ND		Bag #7 Full
			JPH 8/18/94					

SOIL GAS SURVEY (PETREX)

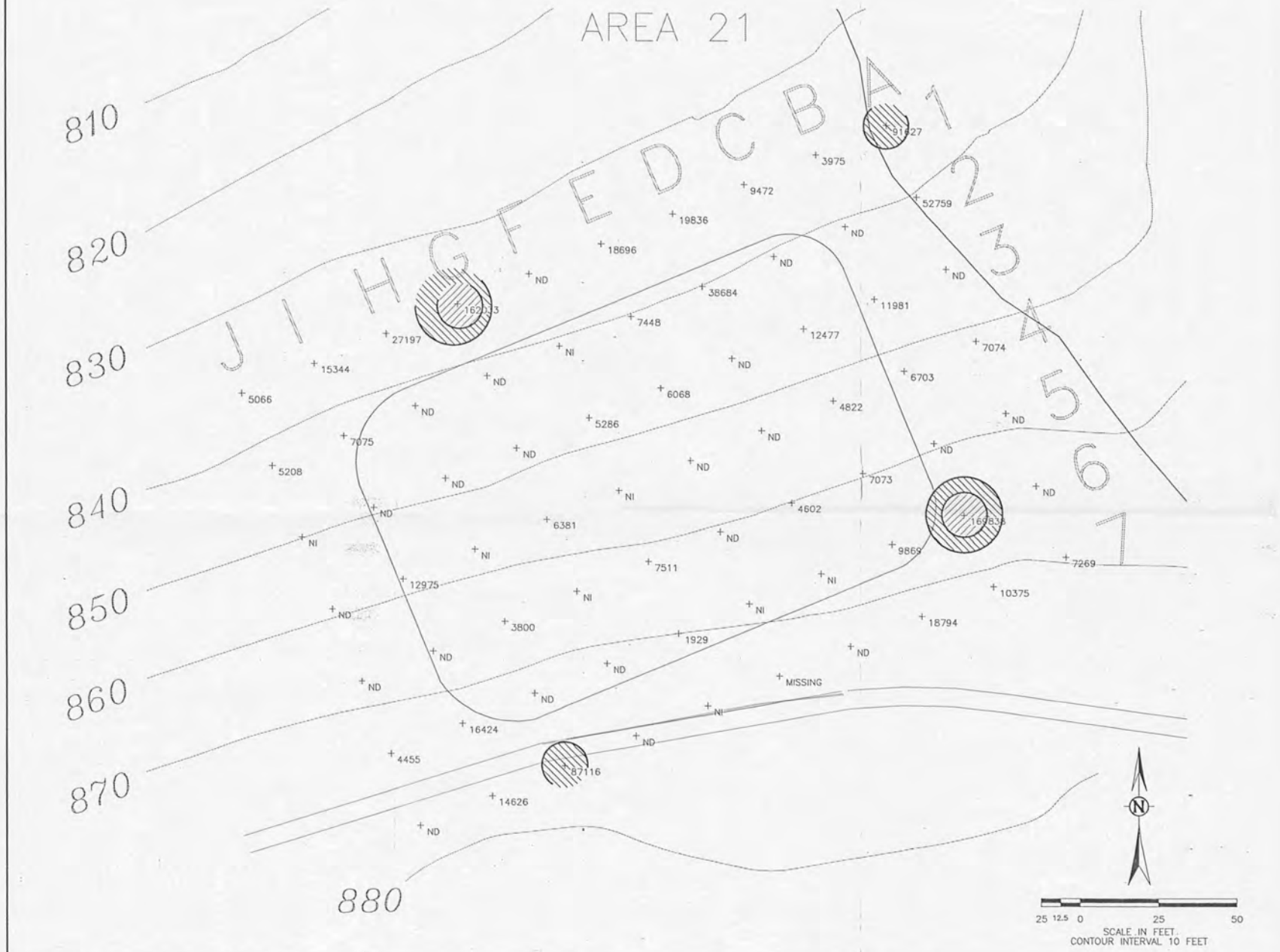
PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA, PHASE 1 PG. 209 PROJECT NO.: 34896

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 8/18/94					
21GØ1		154	06/27/94 1317	7/28/94 1425	ND	ND	NA	Bag #8 Full
21GØ2		153	06/27/94 1311	7/28/94 1428	ND	ND		Bag #8 Full
21GØ3		152	06/27/94 1306	7/28/94 1431	ND	ND		Bag #8 Full
21GØ4		151	06/27/94 1302	7/28/94 1433	ND	ND		Bag # 8 ~~Full~~ ~16"
21GØ5		109	06/23/94 0916	7/28/94 1435	ND	ND		Bag #7 Full
21GØ6		108	06/23/94 0912	7/28/94 1437	ND	ND		Bag #7 Full
21GØ7		107	06/23/94 0906	7/28/94 1443	ND	ND		Bag #7 Full
			JPH 8/18/94					
21HØ1		155	06/27/94 1320	7/28/94 1458	ND	ND	NA	Bag #8 Full
21HØ2		97	06/23/94 0743	7/28/94 1455	ND	ND		Bag #4 Full
21HØ3		156	06/27/94 1328	7/28/94 1454	ND	ND		Bag # 8 ~~Full~~ ~14"
21HØ4		157	06/27/94 1333	7/28/94 1452	ND	ND		Bag #8 Full
21HØ5		106	06/23/94 0859	7/28/94 1449	ND	ND		Bag #7 Full
21HØ6		105	06/23/94 0853	7/28/94 1445	ND	ND		Bag #7 Full
21HØ7		104	06/23/94 0845	7/28/94 1442	ND	ND		Bag #7 Full
21HØ2		97	06/23/94 0745	6/30/94 1216	ND	ND		TIMER #1 Full

SOIL GAS SURVEY (PETREX)

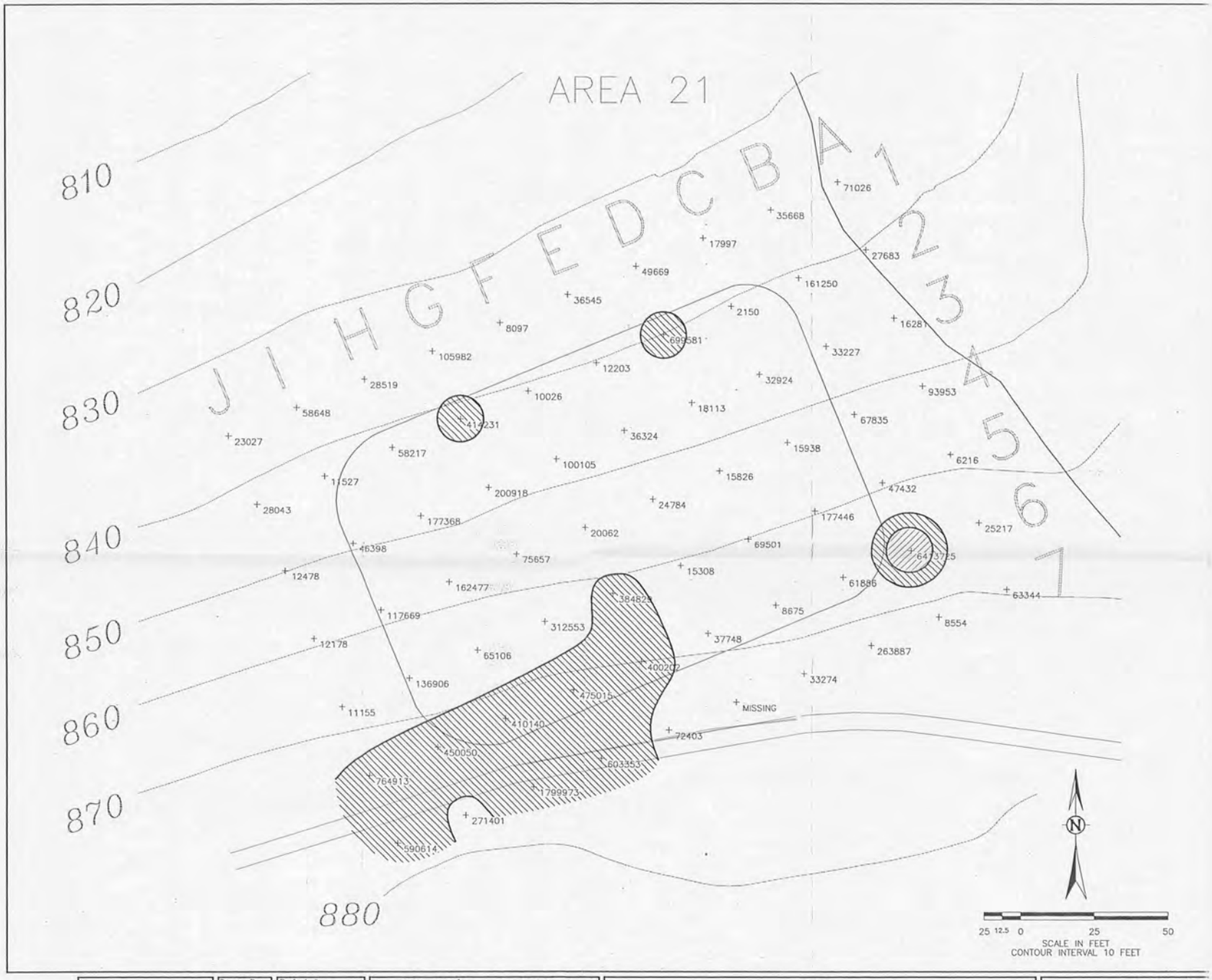
PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA, PHASE 1 PG. 21Ø PROJECT NO.: 34896

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
21H02		97	06/23/94 0747	7/7/94 16:52	ND	ND	NA	TIMER #2 Full
			JPH 8/18/94					
21I01		161	06/27/94 1356	7/28/94 1501	ND	ND	NA	Bag # 8 Full
21I02		160	06/27/94 1347	7/28/94 1503	ND	ND		Bag # 8 Full
21I03		159	06/27/94 1343	7/28/94 1504	ND	ND		Bag # 8 Full
21I04		158	06/27/94 1339	7/28/94 1506	ND	ND		Bag # 8 Full
21I05		103	06/23/94 0839	7/28/94 1508	ND	ND		Bag # 7 Full
21I06		102	06/23/94 0835	7/28/94 1511	ND	ND		Bag # 7 Full
21I07		101	06/23/94 0830	7/28/94 1514	ND	ND		Bag # 7 Full
			JPH 8/18/94					
21J01		165	06/27/94 1439	7/28/94 1535	ND	ND	NA	Bag # 8 Full
21J02		164	06/27/94 1433	7/28/94 1533	ND	ND		Bag # 8 Full
21J03		163	06/27/94 1426	7/28/94 1530	ND	ND		Bag # 8 Full
21J04		162	06/27/94 1422	7/28/94 1528	ND	ND		Bag # 8 Full
21J05		100	06/23/94 0824	7/28/94 1525	ND	ND		Bag # 4 Full
21J06		99	06/23/94 0820	7/28/94 1520	ND	ND		Bag # 4 Full
21J07		98	06/23/94 0809	7/28/94 1516	ND	ND		Bag # 4 Full



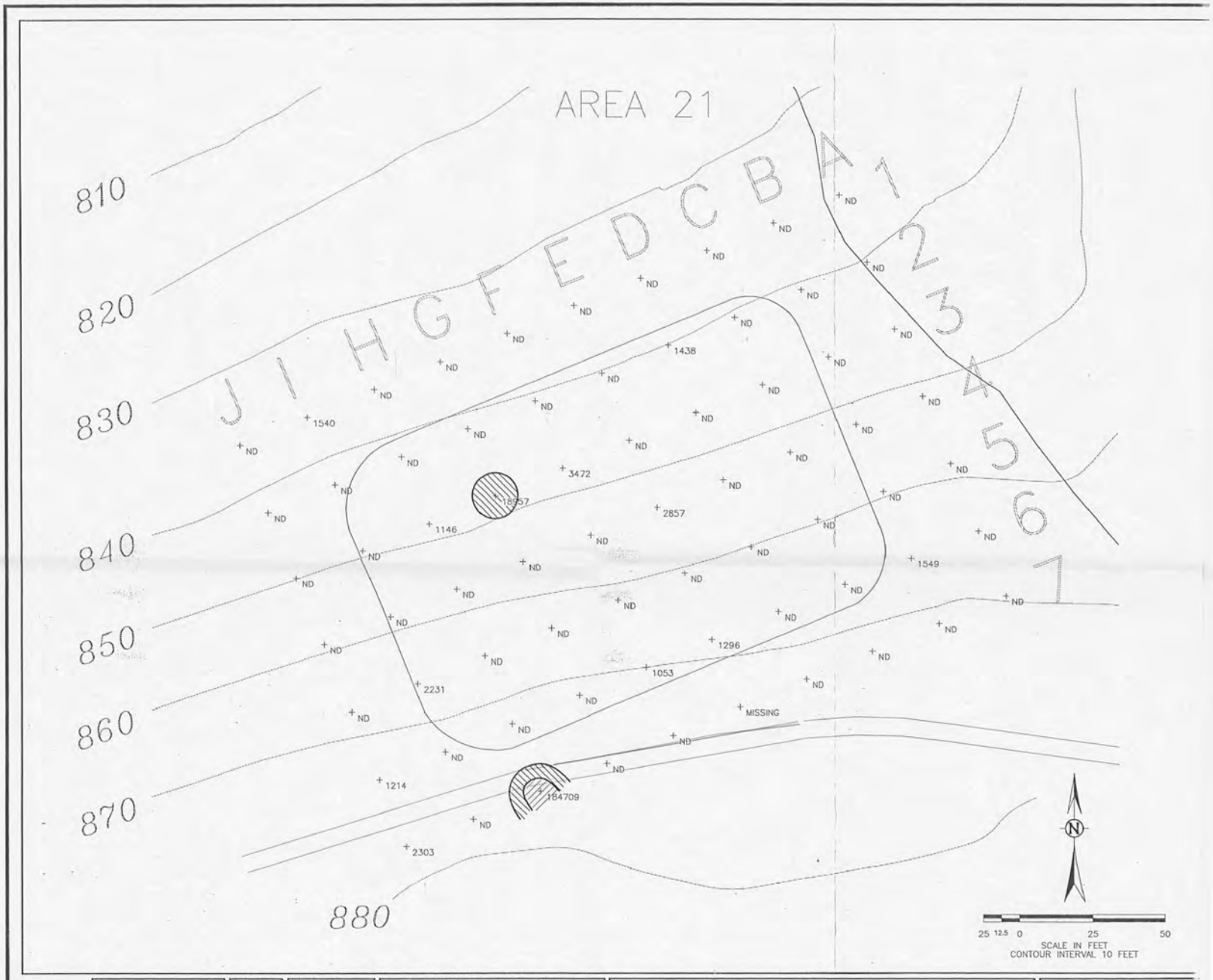
Produced by:	Drawn By: JCS	Project #: 2114E	AOC-21/Operable Unit-5	LEGEND		Relative Response
Northeast Research Institute LLC 605 Parfet Street Suite 100 Lakewood, Colorado 80215 (303) 238-0090	Checked By:	Date: August 31, 1994	U.S.D.O.E. Mound Facility Miamisburg, Ohio	Relative Response Values: ≥ 150,000 75,000 – 149,999	Features: + PETREX Sample Location ND Not Detected NI Not Identified	Total Halogenated Hydrocarbons
	Project Manager: PCB	File Name: AOC21_5.dwg	PETREX FINGERPRINT TECHNOLOGY®			Plate 5

25021002XX-9508170117 Box# 28136 #1



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: August 31, 1994 File Name: AOC21_4.dwg	AOC-21/Operable Unit-5 U.S.D.O.E. Mound Facility Miamisburg, Ohio PETREX FINGERPRINT TECHNOLOGY®	LEGEND Relative Response Values: ≥ 3,500,000 350,000 – 3,499,999 Features: + PETREX Sample Location ND Not Detected	Relative Response Total C5-C11 Petroleum Hydrocarb Plate 4

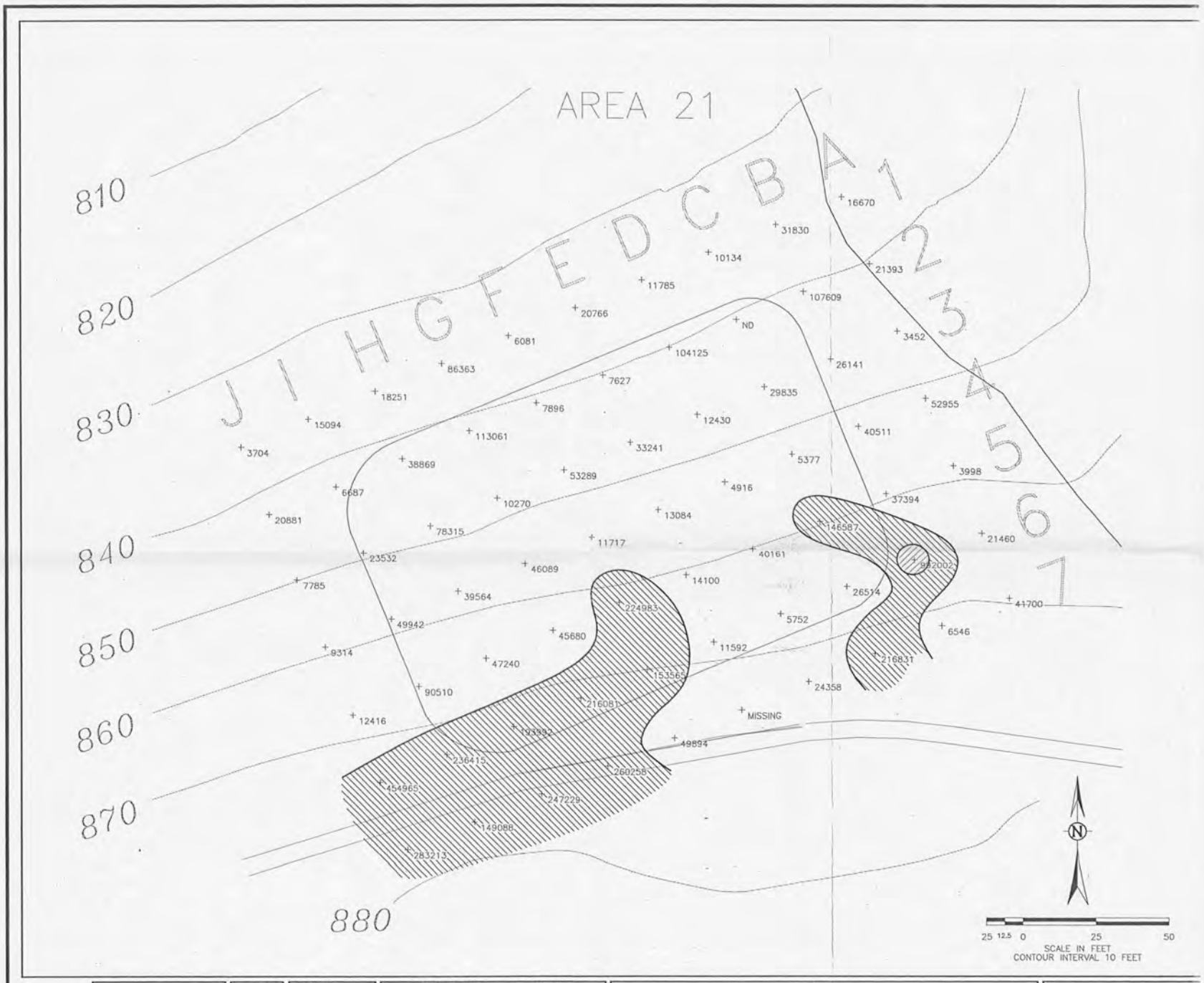
25021002XX-9508170117 Box # 28136 #2



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: August 31, 1994 File Name: AOC21_3.dwg	AOC-21/Operable Unit-5 U.S.D.O.E. Mound Facility Miamisburg, Ohio PETREX FINGERPRINT TECHNOLOGY™	LEGEND Relative Response Values: ≥ 100,000 10,000 – 99,999 Features: + PETREX Sample Location ND Not Detected	Relative Response Total Semivolatil Hydrocarbons Plate 3

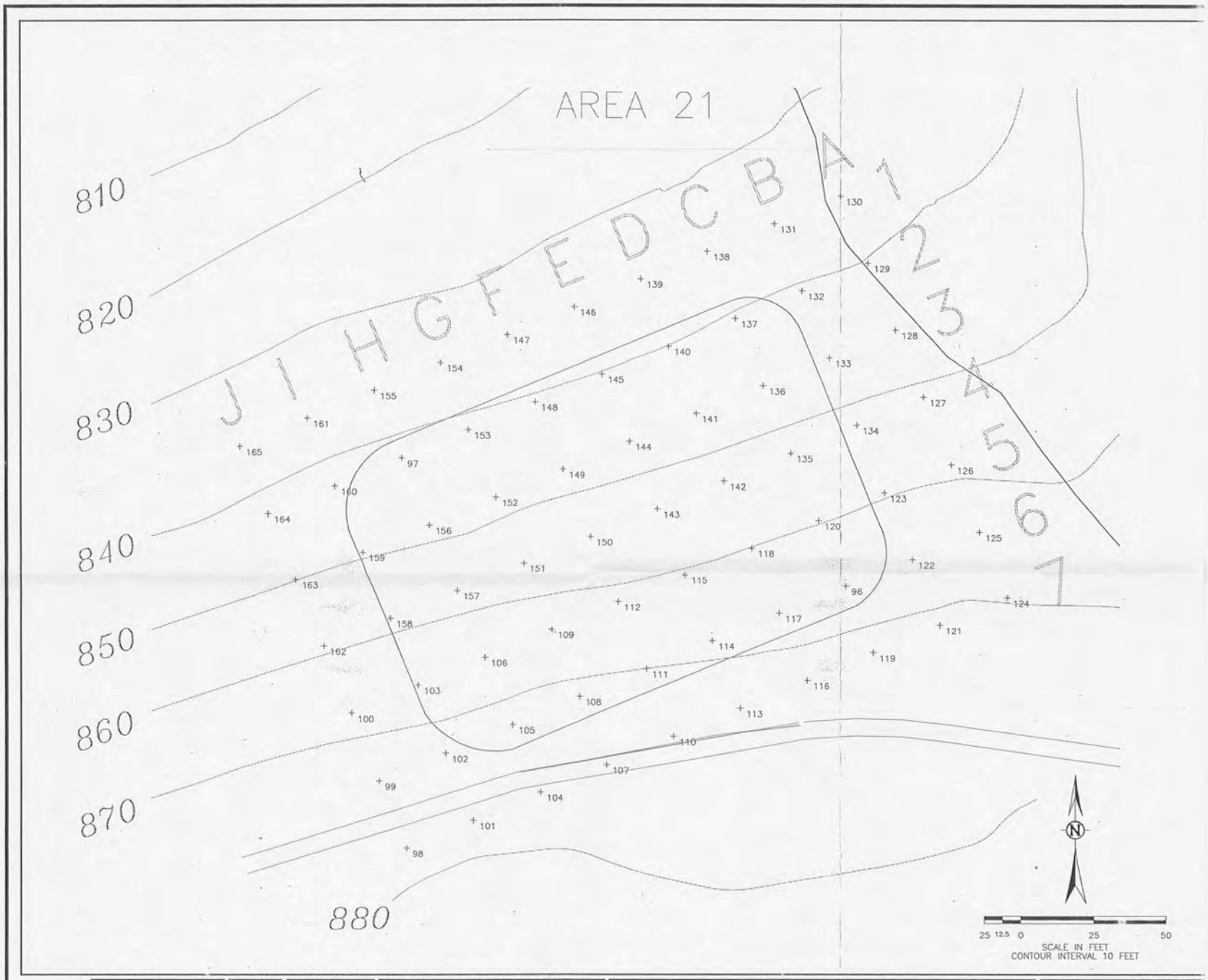
25021002XX-9508170117 Box# 28136

#3



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: August 31, 1994 File Name: AOC21_2.dwg	AOC-21/Operable Unit-5 U.S.D.O.E. Mound Facility Miamisburg, Ohio PETREX FINGERPRINT TECHNOLOGY®	LEGEND Relative Response Values: ≥ 900,000 140,000 – 899,999 Features: + PETREX Sample Location ND Not Detected	Relative Response Total Aromatic Hydrocarbons Plate 2

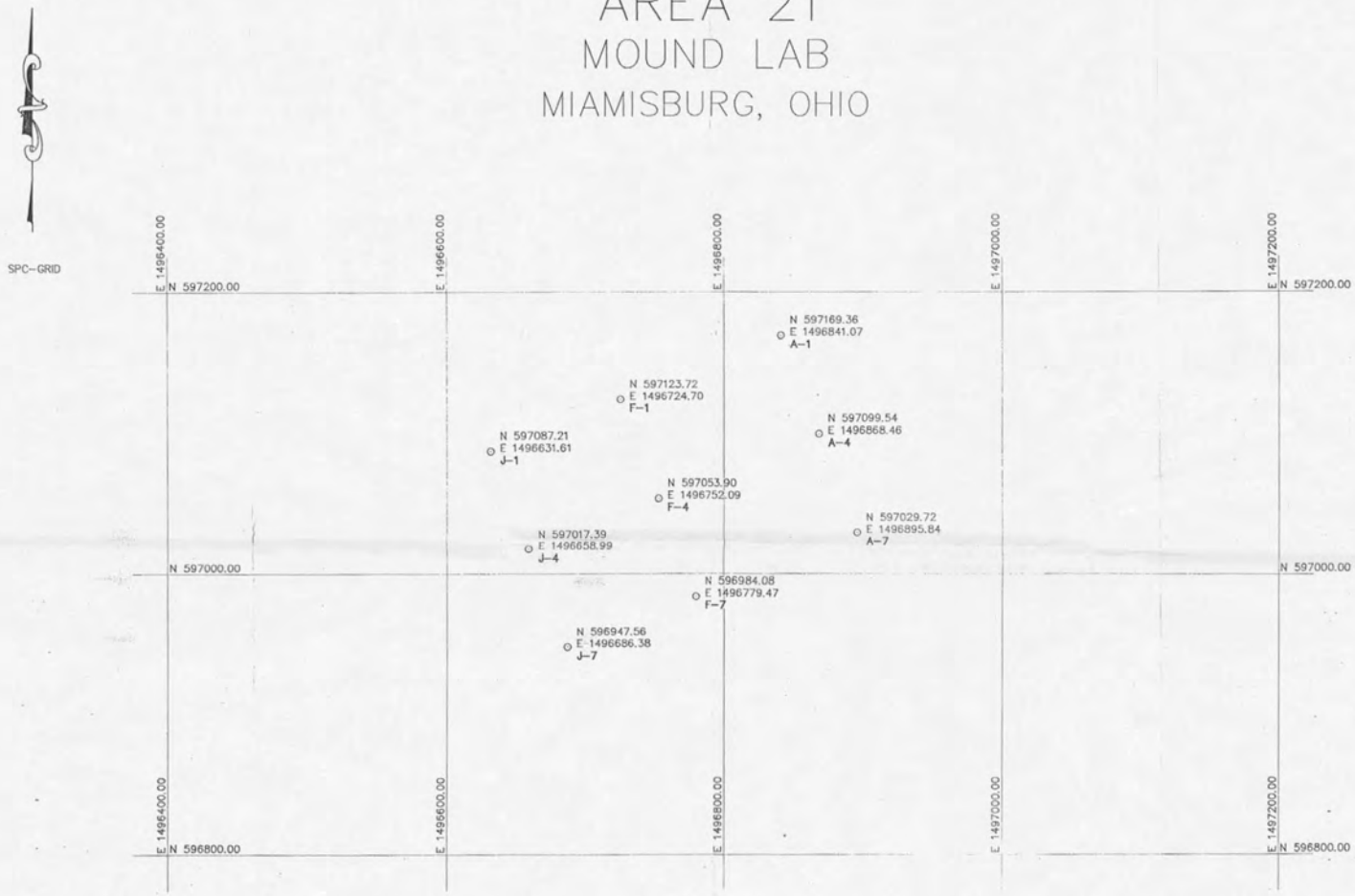
25021002XX-9508170117 Box # 28136 #4



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: August 31, 1994 File Name: AOC21_1.dwg	AOC-21/Operable Unit-5 U.S.D.O.E. Mound Facility Miamisburg, Ohio PETREX FINGERPRINT TECHNOLOGY™	LEGEND Features: + PETREX Sample Location	Sample Locations Plate 1

25021002XX-9508170117 Box # 28136
#5

AREA 21
MOUND LAB
MIAMISBURG, OHIO



GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.

APPENDIX A

PLATE 1 SURVEY MAP
OHIO STATE PLANE COORDINATE SYSTEM

LEGEND

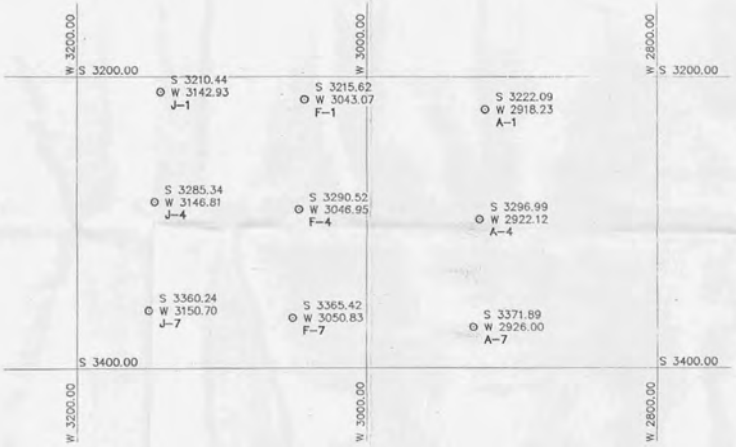
⊙ LOCATED POINT A-1 GRID LOCATION

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

SCALE 1"=50'	DRAWN SBM	CHECKED JPH
DATE 7/11/94	JOB NO. L2952	

3502100 2XX - 9508170117 Box # 28136 #6

AREA 21
MOUND LAB
MIAMISBURG, OHIO



GRAPHIC SCALE

(IN FEET)
1 inch = 50 ft.

APPENDIX A

PLATE 2 SURVEY MAP
MOUND PLANT COORDINATE SYSTEM

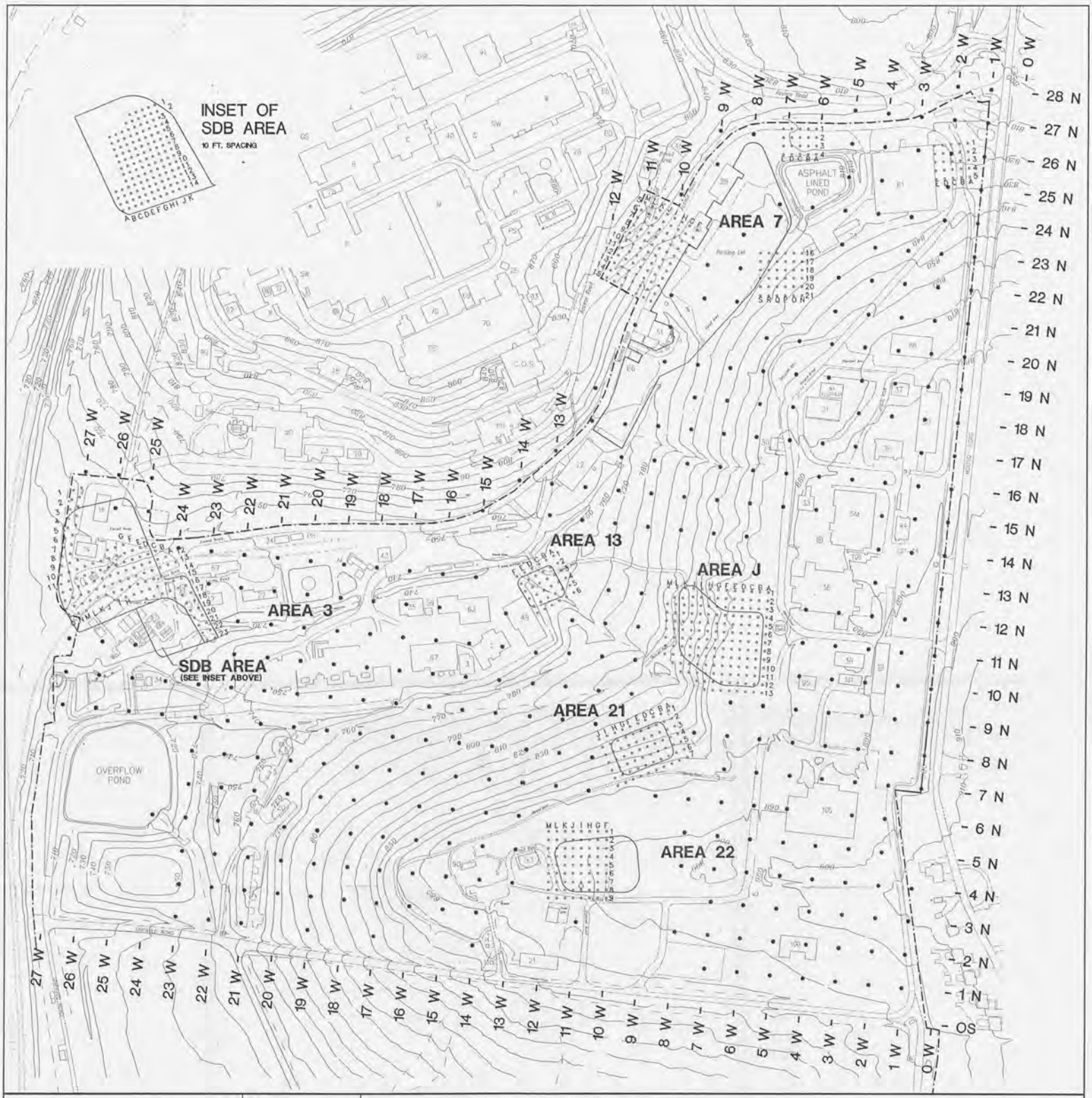
LEGEND

⊙ LOCATED POINT A-1 GRID LOCATION

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

SCALE 1"=50'	DRAWN SBM	CHECKED JPH	
DATE 7/19/94	JOB NO. L2952		

25021002XX-9508170117 Box# 08136
#7



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
- 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

9509-1002XX-9508170117 #8 DOE 28136